

# Rochestown Avenue

## ACTIVE TRAVEL IMPROVEMENTS

Phase 2 Concept Development and Options Selection  
Options Report



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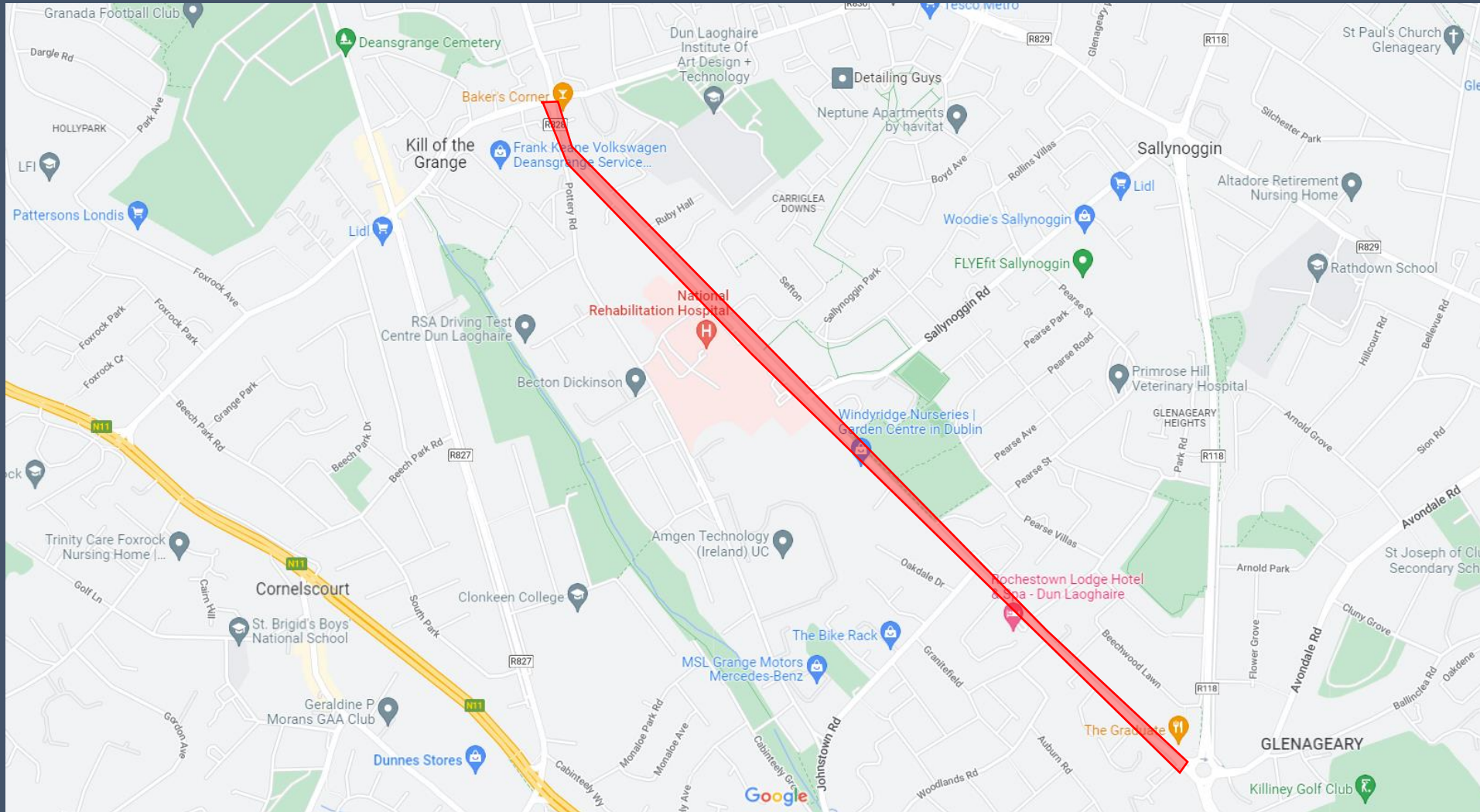
# 1. Project Context, Policy Review and Need for the Scheme

AECOM on behalf of Dun Laoghaire-Rathdown County Council (DLRCC) has been tasked with undertaking an Options Selections Report for the Rochestown Avenue active travel scheme. The length of the study area is 2.2km along Rochestown Avenue from its junction with Kill Avenue 'Bakers Corner' to the Graduate Roundabout.

A Route Audit has been completed by AECOM and appended to this submission (Appendix A). The audit presents an overview of the existing conditions along the carriageway including issues for sustainable modes along the scheme, which has been used to inform the emerging options.

The scheme aims to improve the current facilities to promote cycling and walking route to cater for the increasing demand for sustainable travel. The need for the scheme was identified as part of the DLRCC Development Plan, which aims to promote and provide for the development of cycling and walking as healthy sustainable attractive transport modes in the County for commuting, short utility trips, recreation trips and trips to schools/colleges.

# 1. Project Context, Policy Review and Need for the Scheme



 Scheme Extents

# 1. Project Context, Policy Review and Need for the Scheme

## Existing Infrastructure Overview

- **Pedestrian Facilities** – An existing footpath is located on the north eastern side of Rochestown Avenue. On the south eastern side there are sections where no existing footpath is available.
- **Cycling Facilities** – There is limited existing cycling infrastructure along Rochestown Avenue. A short on road cycle lane is located on Rochestown Avenue from its junction with Pottery Road to Bakers Corner (Kill Avenue).
- **Bus** – There are no existing bus lanes along Rochestown Avenue. There are bus stops on both sides of the carriageway along Rochestown Avenue between the National Rehabilitation hospital and the Graduate Roundabout.
- **Parking** – no existing formal parking or pay and display parking along Rochestown Avenue. Residential parking is evident on the existing footpath on the northern side of Rochestown Avenue
- **Loading** – no formal loading bays along Rochestown Avenue
- **Trees** – a number of existing trees are evident along the northern side of the carriageway. Tree survey will be undertaken to inform the emerging design.



## 2. Project Objectives

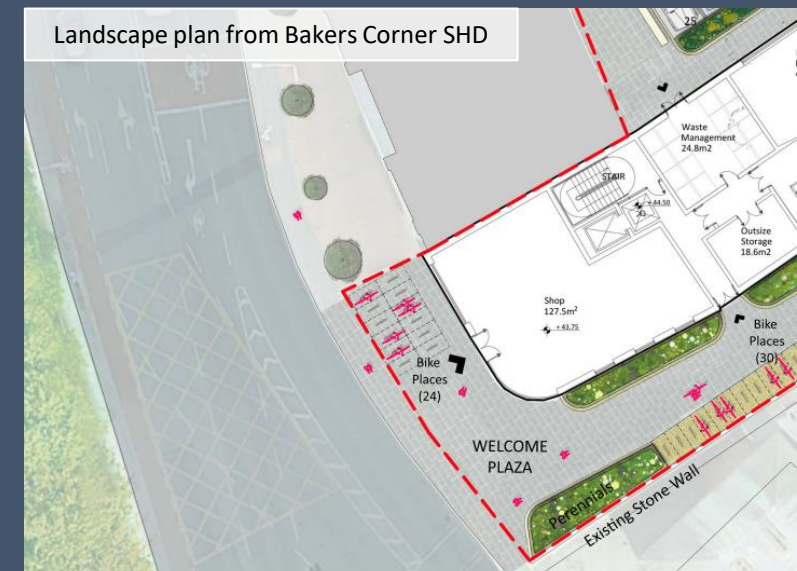
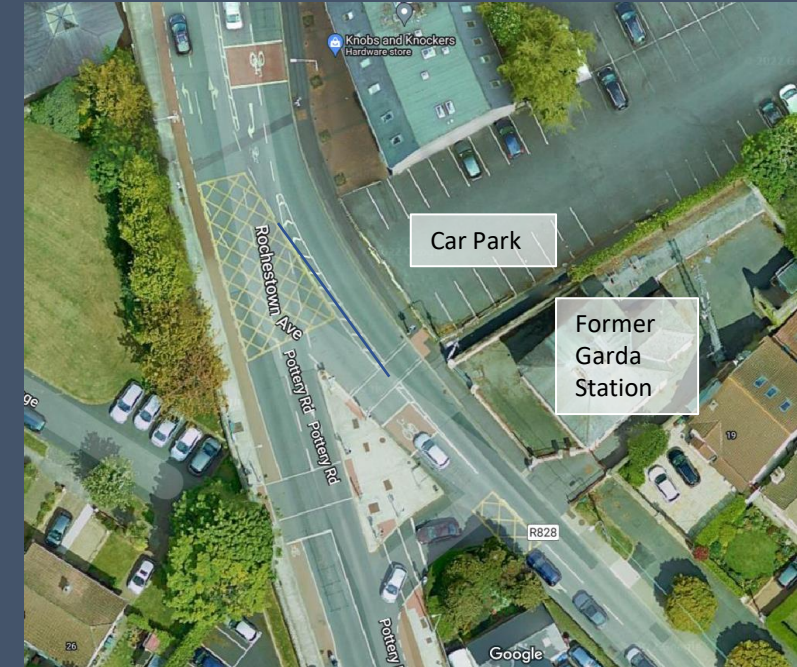
The project objectives for this scheme include:

- Providing continuous, high-quality and consistent cycling and walking facilities;
- Providing improved public realm and improve overall visual quality of public spaces and street layout;
- Promote modal shift from vehicular to more sustainable modes;
- Enhanced permeability for sustainable modes;
- Creating a place for all, which provides infrastructure for all ages and abilities in particular more vulnerable groups including elderly and children;
- Protecting and enhancing sensitive existing landscapes; and
- Improving biodiversity

# 3. Constraints and Opportunities

## a) Bakers Corner Pub Car Park and Former Garda Station

- An existing constraint is along Rochestown Avenue for approximately 40m where the road passes a car park associated with the Bakers Corner Pub and the former Garda Station. At this location the footpath width is reduced to approximately 1.5m;
- An opportunity exists to widen into the existing Bakers Corner car park and the lands at the front of the former garda station to facilitate new cycle track and improved footpath widths. Engagement is required with the owner of the Bakers Corner site who recently received permission for a student residential (SHD) development. The permitted landscape drawing (see insert) indicates that the permitted development footprint is set back from Rochestown Avenue and opportunity exists to relocate proposed cycle parking and planting to facilitate active travel improvements.
- DLRCC acquired the former Garda station, it is therefore envisaged the active travel scheme will utilise area in front of the former garden station.



# 3. Constraints and Opportunities

## b) Rochestown Avenue between the former Garda Station and Applegreen

- An existing constraint is along Rochestown Avenue between the former Garda station and Applegreen, a distance of approximately 50m. At this location, there is no existing footpath on the Applegreen side of the carriageway. On the residential side of the carriageway a large paved area is currently used for car parking, whilst existing trees are also present.
- There is an opportunity to introduce a new footpath on the Applegreen side of the carriageway, to promote sustainable access into the shop. The addition of a new footpath would require the carriageway to be realigned closer to the existing trees on the opposite side of the road. This would likely require the existing footpath to be removed to facilitate the carriageway realignment, with pedestrians and cyclists utilising the space between the existing trees and the residential properties.





# 3. Constraints and Opportunities

## c) Existing Walls / Tress

- Existing constraints exist along Rochestown Avenue, in particular near to the Sallynoggin Road junction, where an existing wall is located between the carriageway and a road reservation. The existing wall reduces the carriageway width creating an unattractive walking and cycling environment;
- There is an opportunity to remove the existing wall and open up the road reservation area, to facilitate new footpath and cycle tracks.
- This would provide opportunities to enhance the public realm and to provide pedestrian and cycle permeability into Pearse Park.



# 3. Constraints and Opportunities

## d) Rochestown Avenue at Windyridge Garden Centre

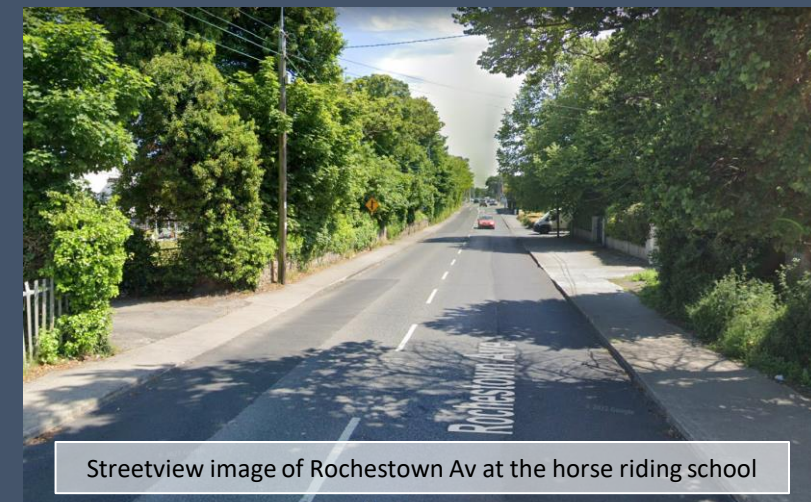
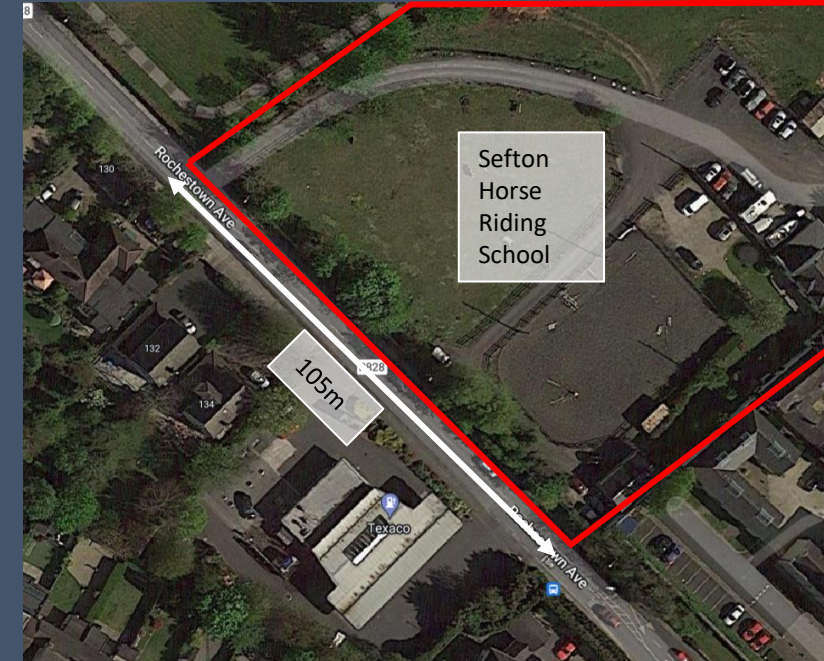
- An existing constraint is along Rochestown Avenue near to the Windyridge Garden Centre. At this location the carriageway is approx. 6.5m-7m wide, with footpaths either side which vary in width c1.5m. Constraints to widening the carriageway to facilitate cycle infrastructure include the existing mature trees in Pearse Park residential properties on the other side of the carriageway;
- There is an opportunity to introduce a new offline cycle route within Pearse Park. An existing path is located in Pearse Park, which could be widened to create a shared cycle and pedestrian path.
- Furthermore there is an opportunity to enhance permeability into Pearse Park from Rochestown Avenue, which is currently restricted due to the boundary wall. Opening up the park will be considered, whilst also exploring a new pedestrian & cycle crossing towards Windyridge Garden Centre.



# 3. Constraints and Opportunities

## e) Sefton Horse Riding School

- An existing constraint is where Rochestown Avenue passes the existing Sefton Horse Riding School. For approximately 105m, the carriageway cross section at this location is approx. 11m (varies in locations). The existing footpath on the northern side is approx. 1.5m and the footpath on the southern side is approx. 2.5m (varies)
- It is envisaged that the road at this location could be reduced from c7m to 6m, which could allow for a wider footpath / cycle facility on both sides of the carriageway. A potential cross section being considered is as follows:
  - 6m wide road;
  - 2.5 shared path on both sides of the carriageway.
- A topo survey is being progressed for the scheme, which will facilitate the design of this pinch point at Preliminary Design Stage.



# 3. Constraints and Opportunities

## f) Rochestown Park / Rochestown Avenue

- Existing signalised junction at Rochestown Park / Rochestown Avenue has existing pedestrian crossings, but crossing widths are narrow, no tactile paving at crossing points and the crossing distances are relatively long due to excessive junction corner radius;
- Opportunity to upgrade existing junction to provide high quality crossing infrastructure for pedestrians and cyclists. The introduction of tactile paving will assist to cater for visually impaired pedestrians wishing to use the junction.



## 3. Constraints and Opportunities

### g) Rochestown Avenue, near Ulster Bank

- An existing constraint on Rochestown Avenue is near the existing Ulster Bank where cars currently park on the wide footpath. Car parking is likely associated with overspill from Killiney Shopping Centre.
- There is an opportunity to remove the existing unofficial car parking area and introduce new cycling infrastructure, whilst also widening the existing footpaths and introducing new planting / public realm improvements.



## 3. Constraints and Opportunities

### h) Rochestown Avenue / Killiney Shopping Centre entrance & egress

- An existing constraint on Rochestown Avenue is at the Killiney Shopping Centre where a separate vehicular access and egress is located into the car park. There is no pedestrian or cyclist crossing facilities across this entrance. It is noted there is a two lane egress from the car park onto Rochestown Avenue, which results in a very car dominant area, reducing the attractiveness for pedestrians. Also there is no footpath into the shopping centre off Rochestown Avenue.
- Also there is an existing cycle track on the southern side of Rochestown Avenue, which terminates abruptly into Rochestown Avenue.
- Opportunity to provide a more pedestrian and cycle friendly environment in this location. By introducing pedestrian and cycle priority across the shopping centre entrance and egress, this will promote sustainable travel to the retail area.



# 4. Consideration of Alternatives and Options

AECOM has appraised four design options for Rochestown Avenue, which are summarised as follows:

1. A two way segregated cycle track along the northern side of Rochestown Avenue, with a short section of shared path at two pinch points;
2. A two way cycle track along Rochestown Avenue adjacent to the roadway from Bakers Corner to Johnstown Road where the two way track splits at a designated crossing into two single direction tracks which then travel on either side of Rochestown Avenue for the remainder of the scheme to the Graduate Roundabout;
3. A single direction cycle tracks on either side of Rochestown Avenue; and
4. A Do Nothing scenario, where existing conditions are retained. Noted that no existing cycle infrastructure is located along Rochestown Avenue.

# 5. Assessment of Available Options

A Multi Criteria Analysis (MCA) has been undertaken to assess the four options. As per the Common Appraisal Framework, the MCA assessed each option using the defined criteria: Environment, Safety, Economy, Accessibility and Social Inclusion, Integration, Physical Activity and Quality of Service . The MCA has assessed sub criteria under each of the main criteria. The detailed MCA has been appended to this report, whilst a summary MCA is provided below.

Rochestown Avenue MCA				
Criteria	Option 1: Two Way Cycle Track on Northern Side	Option 2: A mix of Two Way Cycle Track and Single Lane Cycle Tracks	Option C: Single Cycle Track on both sides of the carriageway	Option 4: Do Nothing
Economy	Yellow	Yellow	Yellow	Yellow
Safety	Green	Light Green	Light Green	Red
Environment	Light Green	Light Green	Orange	Yellow
Accessibility and Social Inclusion	Light Green	Yellow	Yellow	Orange
Integration	Light Green	Light Green	Light Green	Orange
Quality of Service	Green	Light Green	Light Green	Red
Physical Activity	Light Green	Light Green	Light Green	Orange
Overall Score	<b>28</b>	<b>26</b>	<b>25</b>	<b>15</b>
Overall Rank	<b>1st</b>	<b>2nd</b>	<b>3rd</b>	<b>4th</b>

Option 1 scores highest and has therefore identified as the preferred option. A detailed MCA presenting the sub criteria is included in Appendix C.



## 6. Assessment of Financial Affordability

The cost estimate is to be confirmed by AECOM upon identification of the emerging preferred option following feedback from NTA & DLRCC.

# 7. Proposed Approach to Procurement

It is envisaged that a standard procurement process will be undertaken upon completion of the detail design stage i.e. tenders for contract, which will comply with all aspects of the Capital Works Management Framework as they apply to Capital Works and related Consultancy Services.

# 8. Project Evaluation

Below sets out a proposed Project Evaluation approach to the project:

- Weekly Reviews to be undertaken by the Project Team and update to be provided in the Monthly meeting with DLRCC. This will facilitate regular project evaluation by the project team in terms of progress versus the contract;
- For post completion project evaluation it is envisaged that the following will be undertaken to review the success of the project:
  - Multimodal Traffic Surveys, to record the volume of pedestrians and cyclists using Rochestown Avenue, which can be compared against baseline surveys undertaken in 2021;
  - Satisfaction survey could be undertaken to identify the local community response to the infrastructure; and

# 9. Stakeholder Management and Communication and Consultation Plan

The table below contains the details of stakeholders to be consulted.

No.	Stakeholder	Department	Name	Engagement Strategy	Actions / Outcome
1	DLRCC Departments	Urban Design	Bob Hannan	Workshops and meetings with individual departments to discuss their requirements and any concerns to the scheme to ensure this	Meetings, workshops and presentations as required.
		Traffic	Sean McGrath		
		Drainage	Liam O'Dwyer		
		Parks	Bridget Tracey		
		Ligthing	Mary Hegarty		
		Heritage	Sinead O'Hara		
Julie Craig					
2	NTA	Active Travel Department	TBC	Regular reporting and meetings	Regular reporting and meetings
3	DCC	ITS / Traffic Signals Department	TBC	Workshops / Meet Individual Department to discuss their requirements and any concerns	Meetings, workshops and presentations as required.
4	DLRCC Councillors	Dun Laoghaire Electoral Area	Mary Fayne	As the scheme progresses through Part 8 - Presentations will be given to the respective Councillors	Preparation of presentations and reports as required
			Lorraine Hall		
			Melisa Halpin		
			Tom Kivehand		
			Justin Moylan		
			Juliet O'Connell		
Dave Quinn					
5	Public Consultation	Residents and Businesses	TBC	As part of the Part 8 application - formal public consultaiton will be undertaken	Publication of Drawings and Accompanying reports to be made available on DLRCC Website or bespoke website for the scheme - tbc

# 10. Next Steps

The following is envisaged as our next steps on the Rochestown Avenue project:

- Obtain Gateway Approval from NTA & DLR for the Options Stage to proceed to Preliminary Design Stage;
- Receive Topographical survey and review – topographical survey expected week commencing 4<sup>th</sup> April 2022;
- Commission tree survey – quote received 5<sup>th</sup> April 2022, proposal being reviewed with a view of appointing this week;
- Subject to receiving NTA approval to progress into Preliminary Design stage, AECOM to progress with General Arrangement design of the preferred option.

# Appendix A: Route Audit

# DLR CENTRAL

## Rochestown Avenue

### Route Audit

08/11/2021



# Contents

- Introduction
- Brief Requirements
- Route Description
- Route Audit



# Introduction

## Overview

To inform the emerging Rochestown Avenue project, AECOM undertook a site audit in October 2021 of the study area. Any deficiencies or issues in the network were noted and photographs of particularly problematic or safety issues were accurately recorded and have been captured within this Route Audit.

## Audit Team

- Shaun Grima (Associate Director); and
- David Farrelly (Engineer)

## Methodology

Reference was made to current industry design standards and guidelines including National Cycle Manual, Design Manual for Urban Roads and Streets, Traffic Management Guidelines, Smarter Travel and the DLRCC Development Plan.

# Brief Requirements

*Route Audit of existing street / route furniture and road/ route infrastructure shall be conducted by the Consultant. The Consultant shall investigate, survey and assess, as appropriate, the range of existing infrastructure along the route, and identify areas where possible problems may arise in the development of the proposed route options. The audit is to take into account, but not limited to the following:*

- *drainage problems;*
- *pinch points/narrow sections;*
- *wheelchair accessibility;*
- *provision of public lighting and security/CCTV infrastructure;*
- *provision of signage,*
- *information boards;*
- *existing and proposed footpath condition, hard and soft landscaping, security issues/anti-social behaviour; existing and proposed boundary treatments; existing and proposed access points, etc*

# Route Description

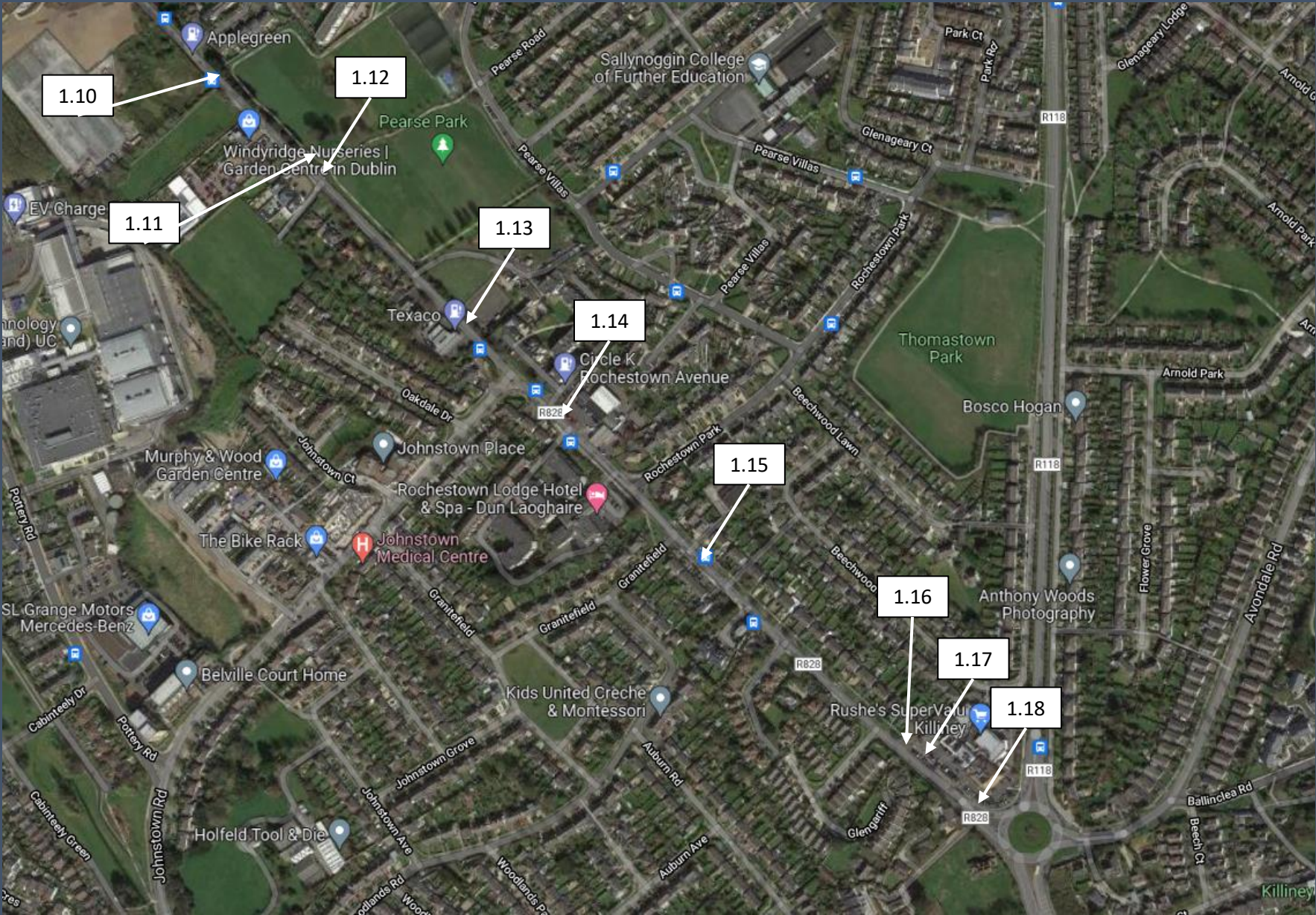
The Study Area comprises of:

- **Rochestown Avenue**, from Bakers Corner Junction to Graduate Roundabout

# Rochestown Avenue Route Audit: Issues Map





# Rochestown Avenue Route Audit: Issues Map



# Rochestown Avenue: Route Audit





Imagine it.  
Delivered.

No.	Location	Issue	Recommendation	Image
1.1	Rochestown Avenue / Bakers Corner junction	Existing demand for cycle crossing infrastructure at junction.	Consideration of adding cycle crossing facilities at junction i.e. toucan crossing.	
1.2	Rochestown Avenue / Pottery Road Junction	Land constraint at the former Garda Building & BC Car Park		

# Rochestown Avenue: Route Audit





Imagine it.  
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No.	Location	Issue	Recommendation	Image
1.3	Rochestown Avenue / Applegreen	Poor pedestrian entrance to the garage with narrow path and shared with vehicle entrance	Opportunity to provide separate pedestrian and cycle entrance	
1.4	Rochestown Avenue	Lack of Cycle Infrastructure	Introduce cycle tracks	

# Rochestown Avenue: Route Audit



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No.	Location	Issue	Recommendation	Image
1.5	Rochestown Avenue	Existing Utility Poles and Lighting in middle of footpath.	Potentially replace. separate poles required for power and lighting. Potential additional costs to the project and also programme would need to consider liaison with ESB.	
1.6	Rochestown Avenue	Potential levels / tree RPZ, existing wall & landscaping		



# Rochestown Avenue: Route Audit





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No.	Location	Issue	Recommendation	Image
1.7	Rochestown Avenue / Sefton	Long pedestrian crossing on side arm	Introduce a more compact pedestrian crossing on Adelaide Road and any side arms. Consideration of raised pedestrian priority	
1.8	Laneway off Rochestown Avenue leading to Sallynoggin Park	Existing bollards restricting access for wheelchair users and cargo bikes	1) Removal of barriers to encourage access for all. 2) Design to ensure alternative safety measures to ensure pedestrians and cyclists don't walk or cycle directly onto carriageway	

# Rochestown Avenue: Route Audit





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No.	Location	Issue	Recommendation	Image
1.9	Rochestown Avenue	Existing Wall blocking potential cycleway route	Potentially punch through	
1.10	Rochestown Avenue	Existing Wall blocking potential cycleway route	punch through onto Pearse Park. Existing Tree RPZs	

# Rochestown Avenue: Route Audit





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No.	Location	Issue	Recommendation	Image
1.11	Rochestown Avenue / Pearse Park	Narrow road width, limited space for cycleway	Upgrade existing path to facilitate offline link through park – adjacent pitch and trees	
1.12	Rochestown Avenue	Usable footpath width reduced due to utility pole	Widen footpath	

# Rochestown Avenue: Route Audit





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No.	Location	Issue	Recommendation	Image
1.13	Rochestown Avenue	Narrow footpath, no cycle infrastructure	Widen footpath, introduce cycle infrastructure. Widening will require land take / CPO from Sefton Riding School	
1.14	Rochestown Avenue	Usable footpath width reduced due to utility pole	Widen footpath	

# Rochestown Avenue: Route Audit





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No.	Location	Issue	Recommendation	Image
1.15	Rochestown Avenue	Existing guard railing along Rochestown Avenue and footpath width reduced due to bus shelter.	Potential to review guard rail requirements and remove to reduce street clutter. Widen footpath and remove pinch point	
1.16	Rochestown Avenue	Existing communication box in location of potential cycleway	Relocation of communication box	

# Rochestown Avenue: Route Audit



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No.	Location	Issue	Recommendation	Image
1.17	Rochestown Avenue (Eastern Side), near Killiney Shopping Centre	Cars parking on footpaths	Design to discourage parking on footpaths i.e. Introduction of cycle track on northern side of Rochestown Avenue	
1.18	Rochestown Avenue	Existing demand for cycle crossing infrastructure at junction.	Consideration of adding cycle crossing facilities at junction i.e. toucan crossing.	

# Appendix B: Detailed Consideration of Alternatives and Options

# Appendix B: Detailed Consideration of Alternatives and Options

AECOM has assessed 3no. Different options for Rochestown Avenue.

The options can be summarised as follows:

1. A two way segregated cycle track along Rochestown Avenue for the majority of the length of the scheme to the Graduate Roundabout.
2. A two way cycle track along Rochestown Avenue adjacent to the roadway until the Johnstown Road Junction where the two way track splits at a designated crossing into two single direction tracks which then travel on either side of Rochestown Avenue for the remainder of the scheme to the Graduate Roundabout.
3. This is the DLRCC proposal whereby two single direction cycle tracks travel on either side of Rochestown Avenue from the Pottery Road Junction to the Graduate Roundabout.



# Sections



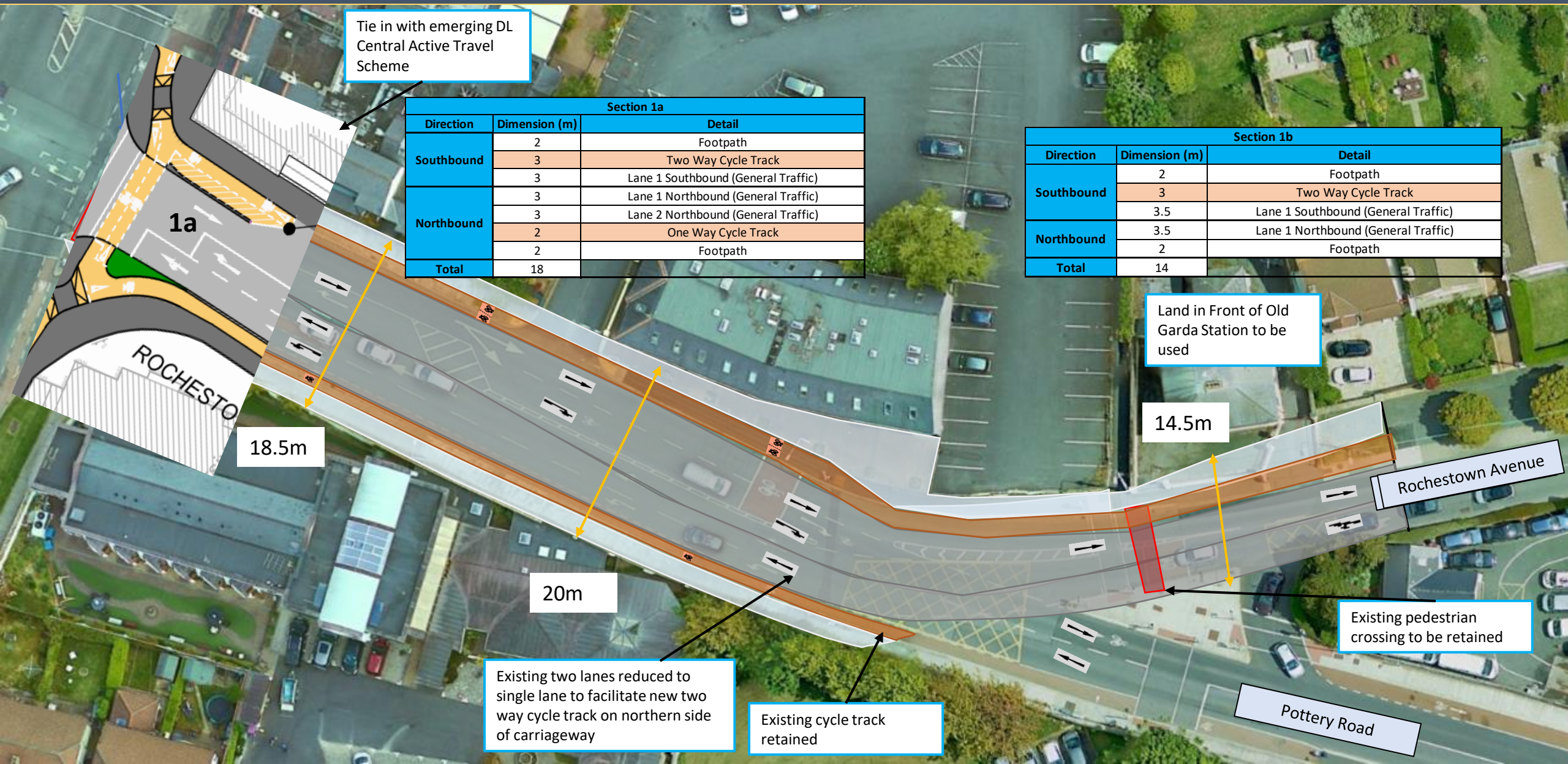
## Option 1

**This option proposes a two way cycle track running on northern side of Rochestown Avenue. At two pinch points, a shared path is considered including:**

- **Approx. 30m along the frontage of Sefton Riding School**
- **Approx. 40m along the frontage Garda Station**

**A road re-alignment is proposed at the National Rehabilitation Hospital in order to move the cycle track adjacent to the roadway at this section. A Compulsory Purchase Order is proposed as sub-option 1a and a shared surface as sub-option 1b for the pinch point at the Horse Riding School**

# Rochestown Avenue Section 1 – Option 1



Tie in with emerging DL Central Active Travel Scheme

Section 1a		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track
	3	Lane 1 Southbound (General Traffic)
Northbound	3	Lane 1 Northbound (General Traffic)
	3	Lane 2 Northbound (General Traffic)
	2	One Way Cycle Track
<b>Total</b>	18	Footpath

Section 1b		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track
	3.5	Lane 1 Southbound (General Traffic)
Northbound	3.5	Lane 1 Northbound (General Traffic)
	2	Footpath
<b>Total</b>	14	

Land in Front of Old Garda Station to be used

18.5m

14.5m

20m

Existing two lanes reduced to single lane to facilitate new two way cycle track on northern side of carriageway

Existing cycle track retained

Existing pedestrian crossing to be retained

Rochestown Avenue

Pottery Road

ROCHESTOWN AVENUE

1a

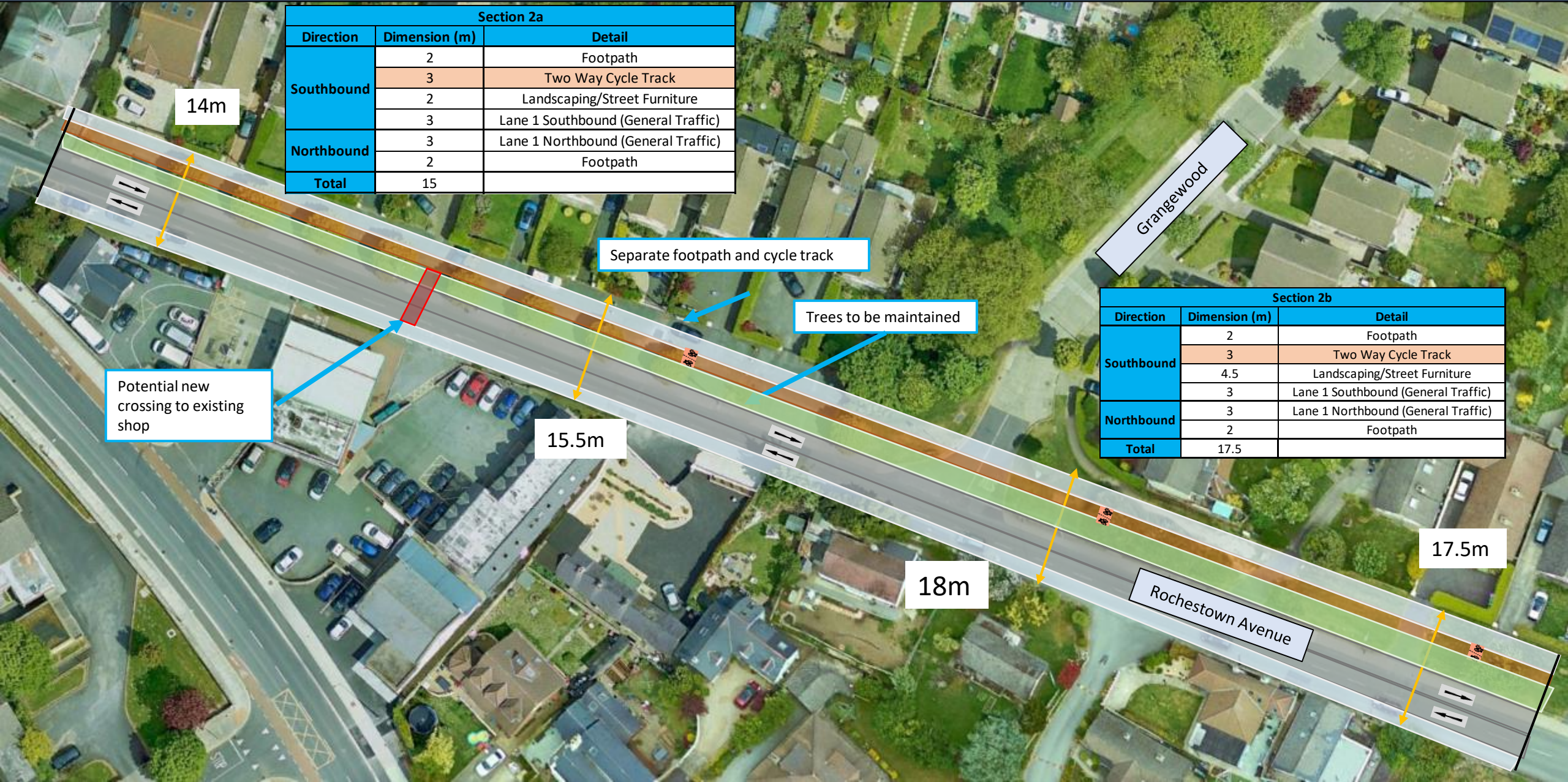
# Rochestown Avenue Section 2 – Option 1



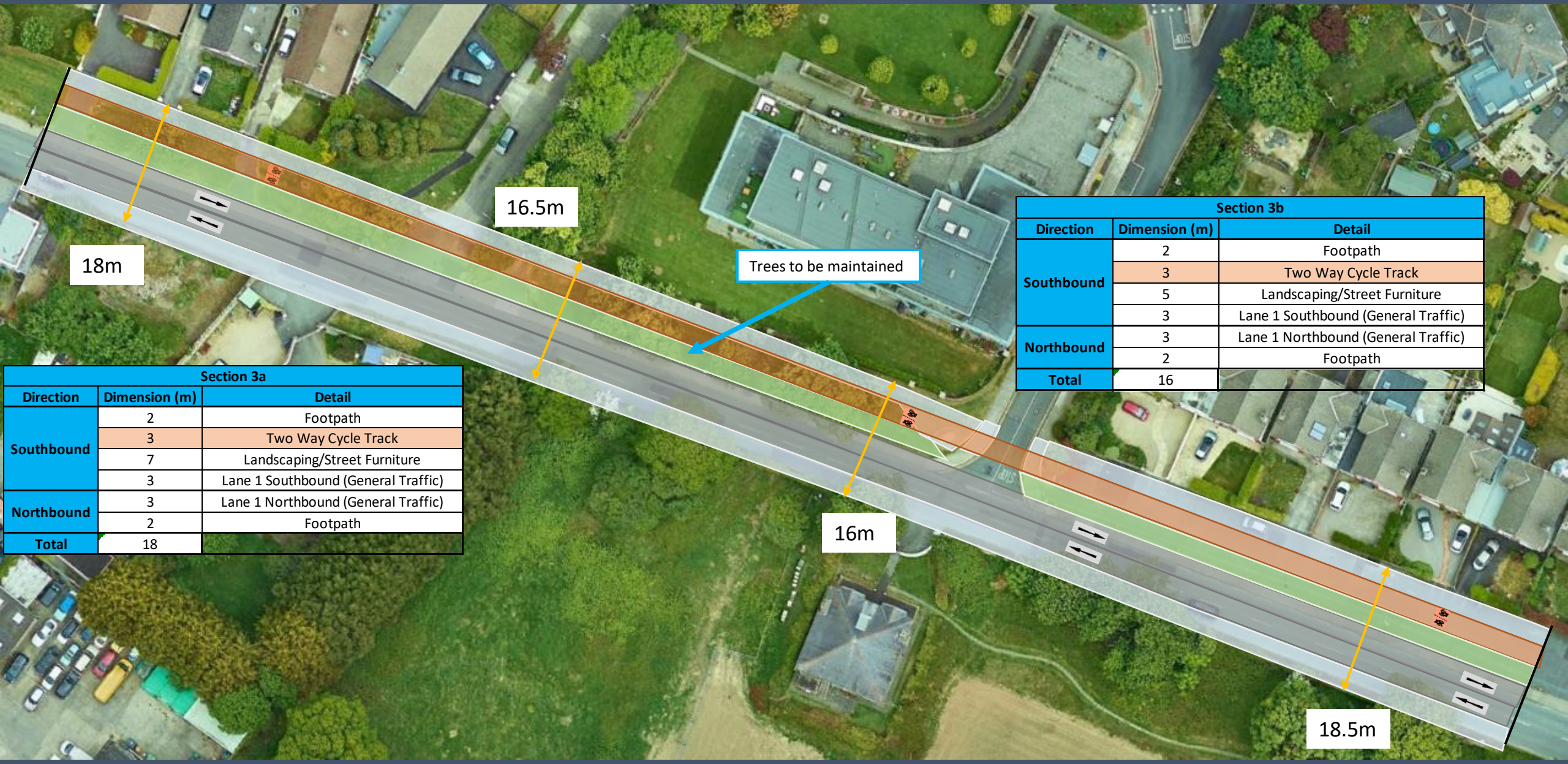
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Section 2a		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track
	2	Landscaping/Street Furniture
Northbound	3	Lane 1 Southbound (General Traffic)
	3	Lane 1 Northbound (General Traffic)
<b>Total</b>	15	

Section 2b		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track
	4.5	Landscaping/Street Furniture
Northbound	3	Lane 1 Southbound (General Traffic)
	3	Lane 1 Northbound (General Traffic)
<b>Total</b>	17.5	



# Rochestown Avenue Section 3 – Option 1 **AECOM** Imagine it. Delivered.



18m

16.5m

Trees to be maintained

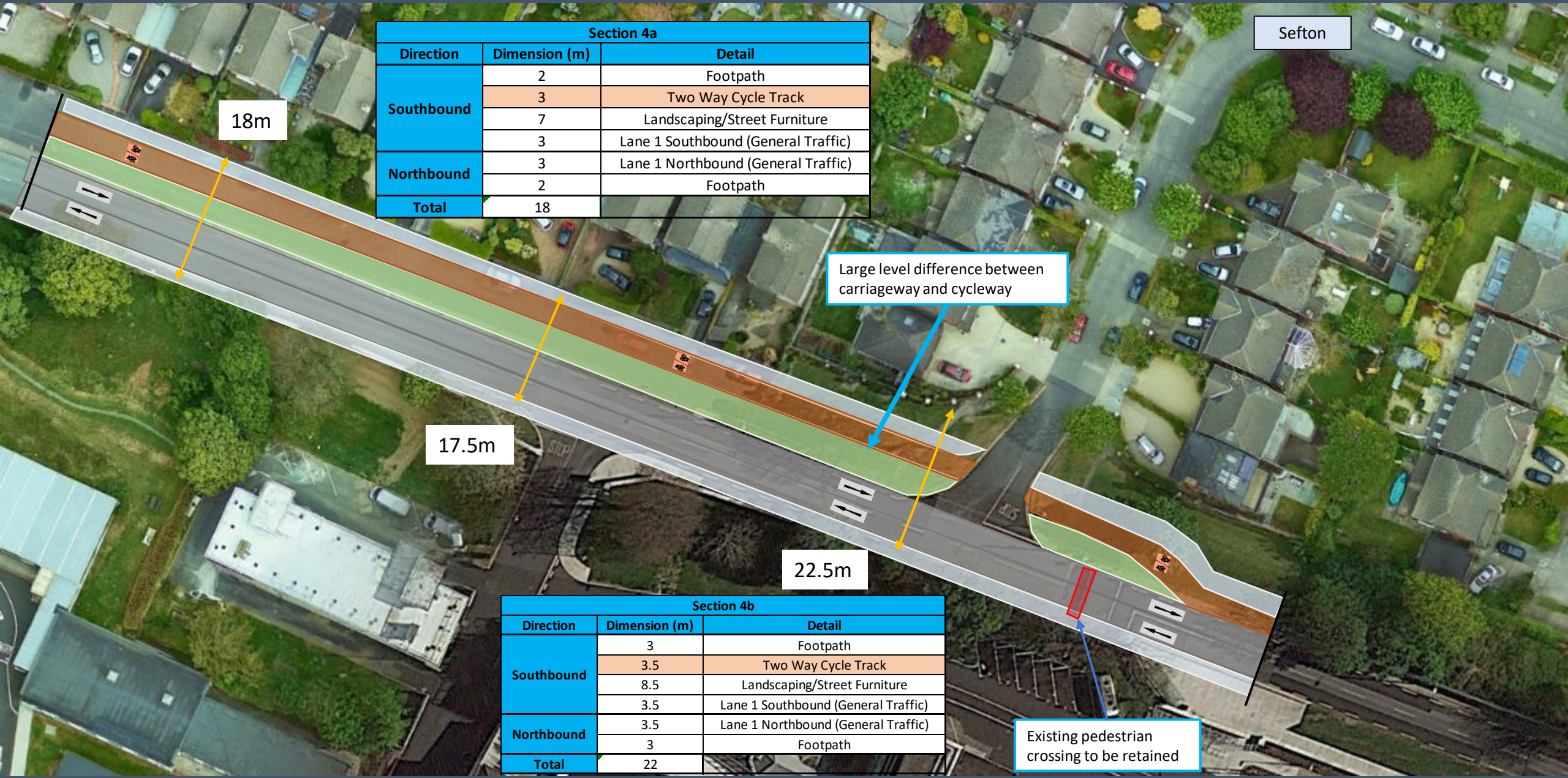
16m

18.5m

Section 3a		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track
	7	Landscaping/Street Furniture
	3	Lane 1 Southbound (General Traffic)
Northbound	3	Lane 1 Northbound (General Traffic)
	2	Footpath
<b>Total</b>	<b>18</b>	

Section 3b		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track
	5	Landscaping/Street Furniture
	3	Lane 1 Southbound (General Traffic)
Northbound	3	Lane 1 Northbound (General Traffic)
	2	Footpath
<b>Total</b>	<b>16</b>	

# Rochestown Avenue Section 4 – Option 1



Section 4a		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track
	7	Landscaping/Street Furniture
Northbound	3	Lane 1 Southbound (General Traffic)
	3	Lane 1 Northbound (General Traffic)
<b>Total</b>	18	

Section 4b		
Direction	Dimension (m)	Detail
Southbound	3	Footpath
	3.5	Two Way Cycle Track
	8.5	Landscaping/Street Furniture
Northbound	3.5	Lane 1 Southbound (General Traffic)
	3.5	Lane 1 Northbound (General Traffic)
<b>Total</b>	22	

Sefton

18m

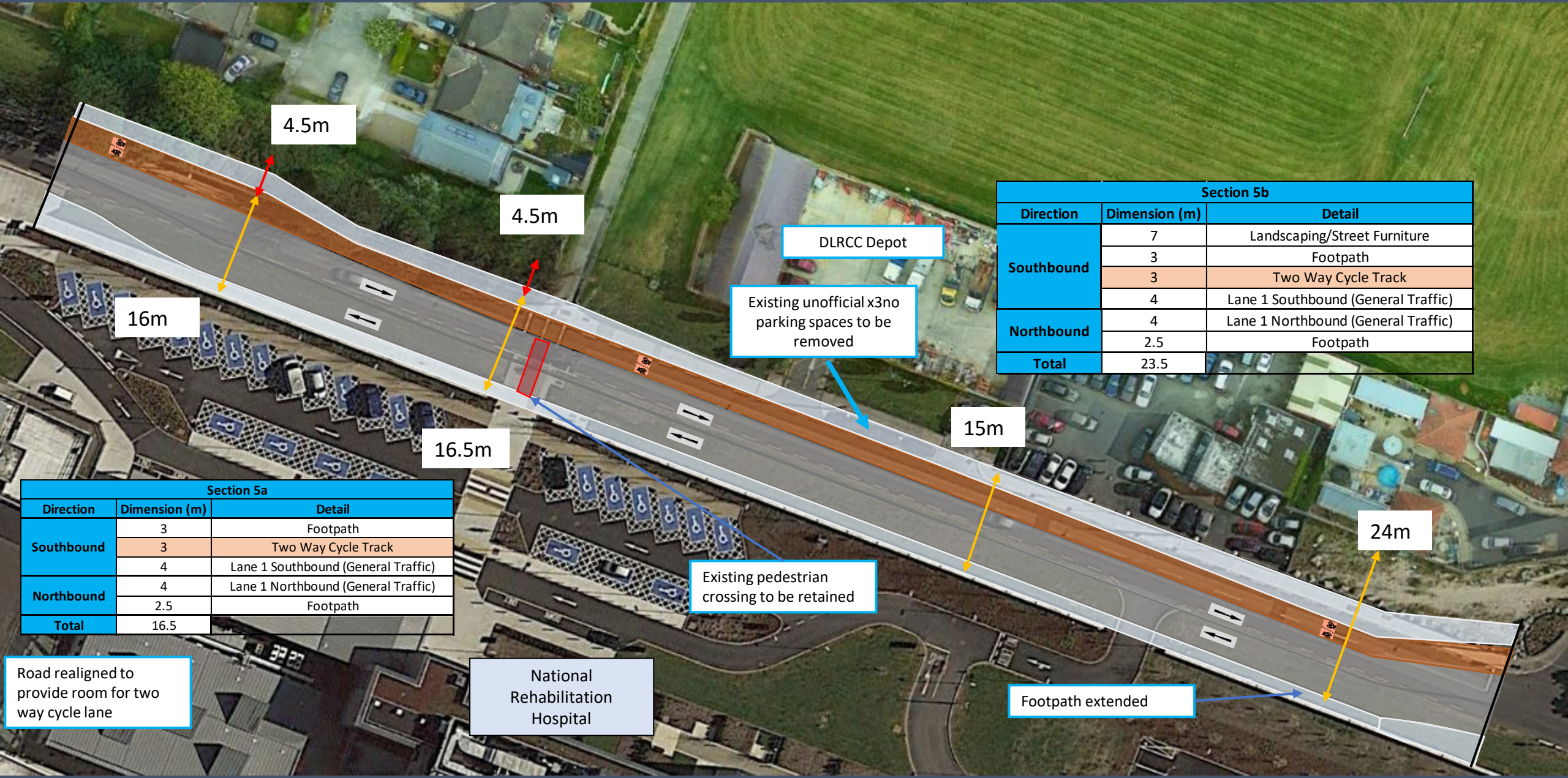
17.5m

22.5m

Large level difference between carriageway and cycleway

Existing pedestrian crossing to be retained

# Rochestown Avenue Section 5 – Option 1 **AECOM** Imagine it. Delivered.



Section 5b		
Direction	Dimension (m)	Detail
Southbound	7	Landscaping/Street Furniture
	3	Footpath
	3	Two Way Cycle Track
Northbound	4	Lane 1 Southbound (General Traffic)
	4	Lane 1 Northbound (General Traffic)
<b>Total</b>	23.5	Footpath

Section 5a		
Direction	Dimension (m)	Detail
Southbound	3	Footpath
	3	Two Way Cycle Track
Northbound	4	Lane 1 Southbound (General Traffic)
	4	Lane 1 Northbound (General Traffic)
<b>Total</b>	16.5	Footpath

Road realigned to provide room for two way cycle lane

National Rehabilitation Hospital

DLRCC Depot

Existing unofficial x3no parking spaces to be removed

Existing pedestrian crossing to be retained

Footpath extended

4.5m

4.5m

16m

16.5m

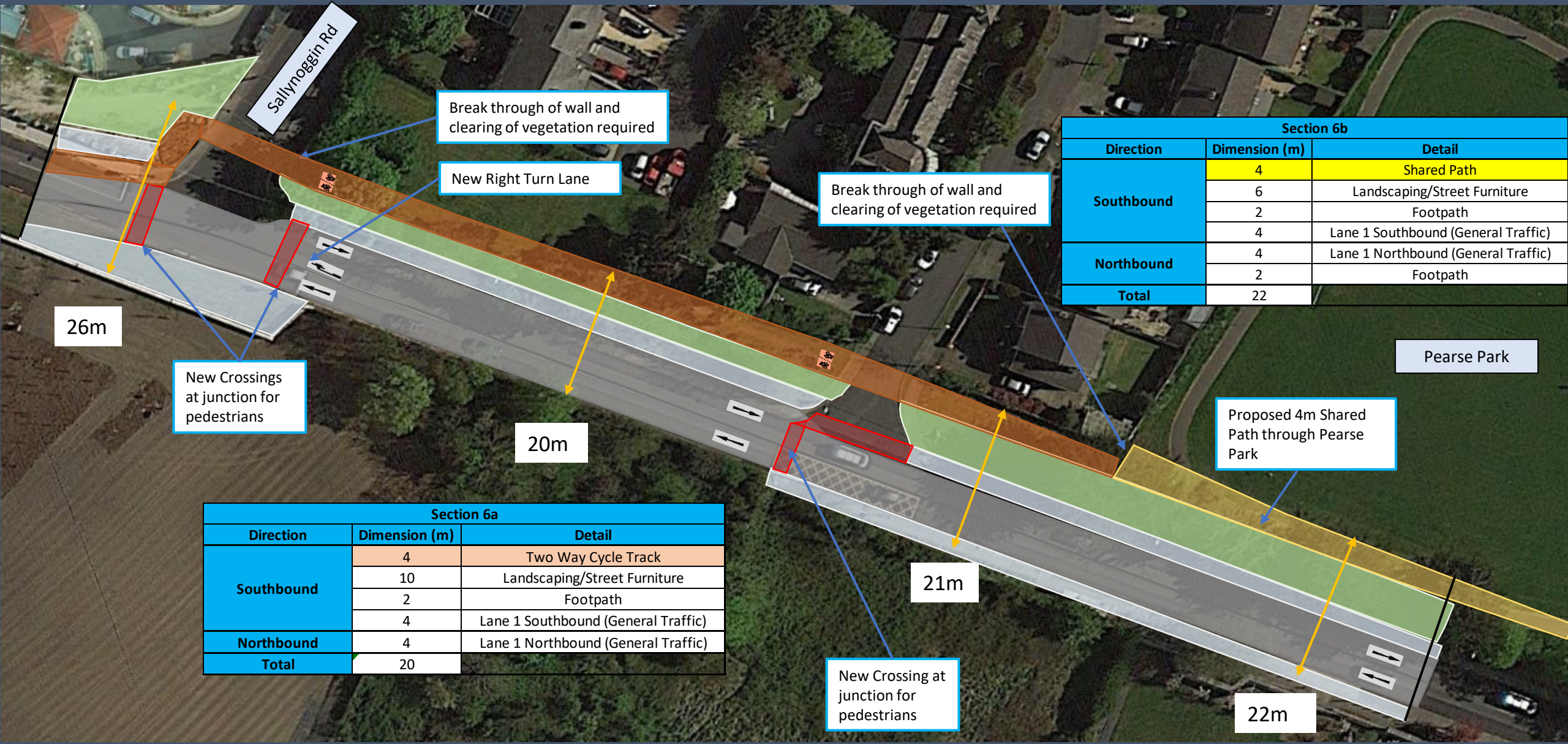
15m

24m

# Rochestown Avenue Section 6 – Option 1



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Section 6b		
Direction	Dimension (m)	Detail
Southbound	4	Shared Path
	6	Landscaping/Street Furniture
	2	Footpath
Northbound	4	Lane 1 Southbound (General Traffic)
	4	Lane 1 Northbound (General Traffic)
Total	2	Footpath
	22	

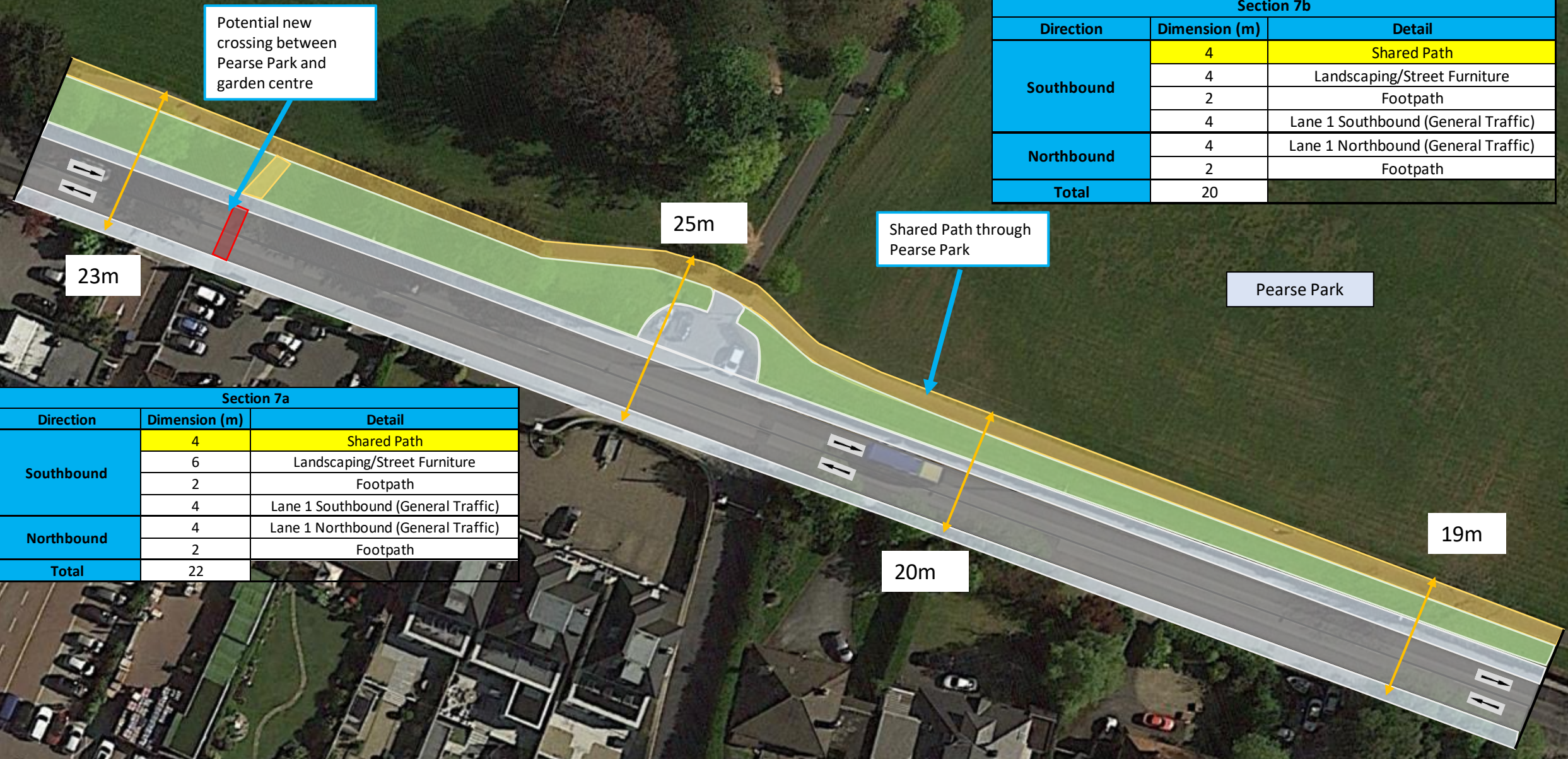
Section 6a		
Direction	Dimension (m)	Detail
Southbound	4	Two Way Cycle Track
	10	Landscaping/Street Furniture
	2	Footpath
Northbound	4	Lane 1 Southbound (General Traffic)
	4	Lane 1 Northbound (General Traffic)
Total	20	



# Rochestown Avenue Section 7 – Option 1



Imagine it.  
Delivered.



Section 7b		
Direction	Dimension (m)	Detail
Southbound	4	Shared Path
	4	Landscaping/Street Furniture
	2	Footpath
Northbound	4	Lane 1 Southbound (General Traffic)
	4	Lane 1 Northbound (General Traffic)
Total	2	Footpath
	20	

Section 7a		
Direction	Dimension (m)	Detail
Southbound	4	Shared Path
	6	Landscaping/Street Furniture
	2	Footpath
Northbound	4	Lane 1 Southbound (General Traffic)
	4	Lane 1 Northbound (General Traffic)
Total	2	Footpath
	22	

# Rochestown Avenue Section 8 – Option 1a

Due to carriageway width constraints, anticipated the pedestrian and cycle track will require localised narrowing to avoid cpo of 3<sup>rd</sup> party lands

Sefton Horse Riding School

Section 8b		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track/Footpath
	3	Lane 1 Southbound (General Traffic)
Northbound	3.5	Lane 1 Northbound (General Traffic)
	3.5	Footpath
<b>Total</b>	15	

12m

12m

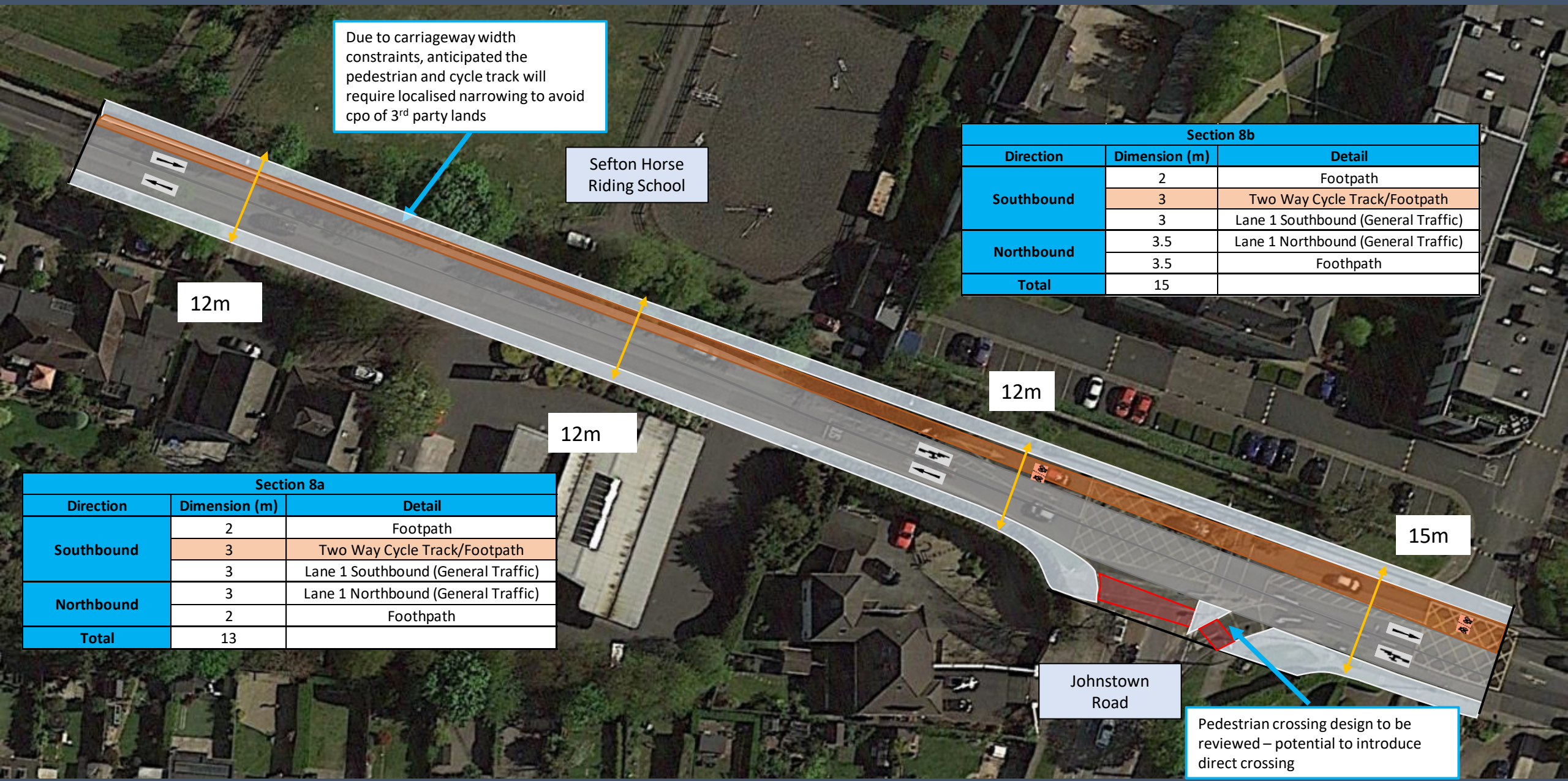
12m

15m

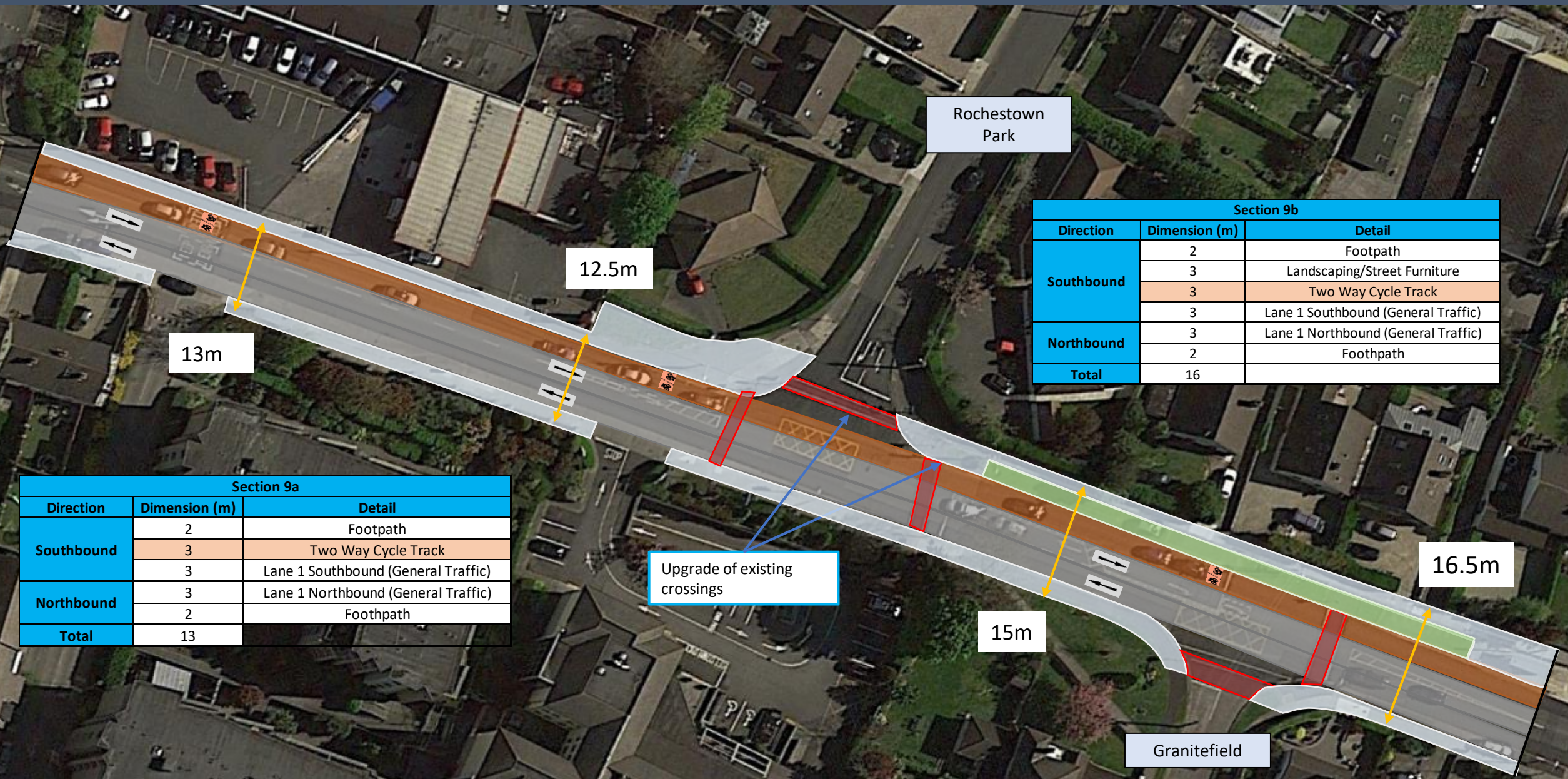
Section 8a		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track/Footpath
	3	Lane 1 Southbound (General Traffic)
Northbound	3	Lane 1 Northbound (General Traffic)
	2	Footpath
<b>Total</b>	13	

Johnstown Road

Pedestrian crossing design to be reviewed – potential to introduce direct crossing



# Rochestown Avenue Section 9 – Option 1 **AECOM** Imagine it. Delivered.



13m

12.5m

15m

16.5m

Rochestown Park

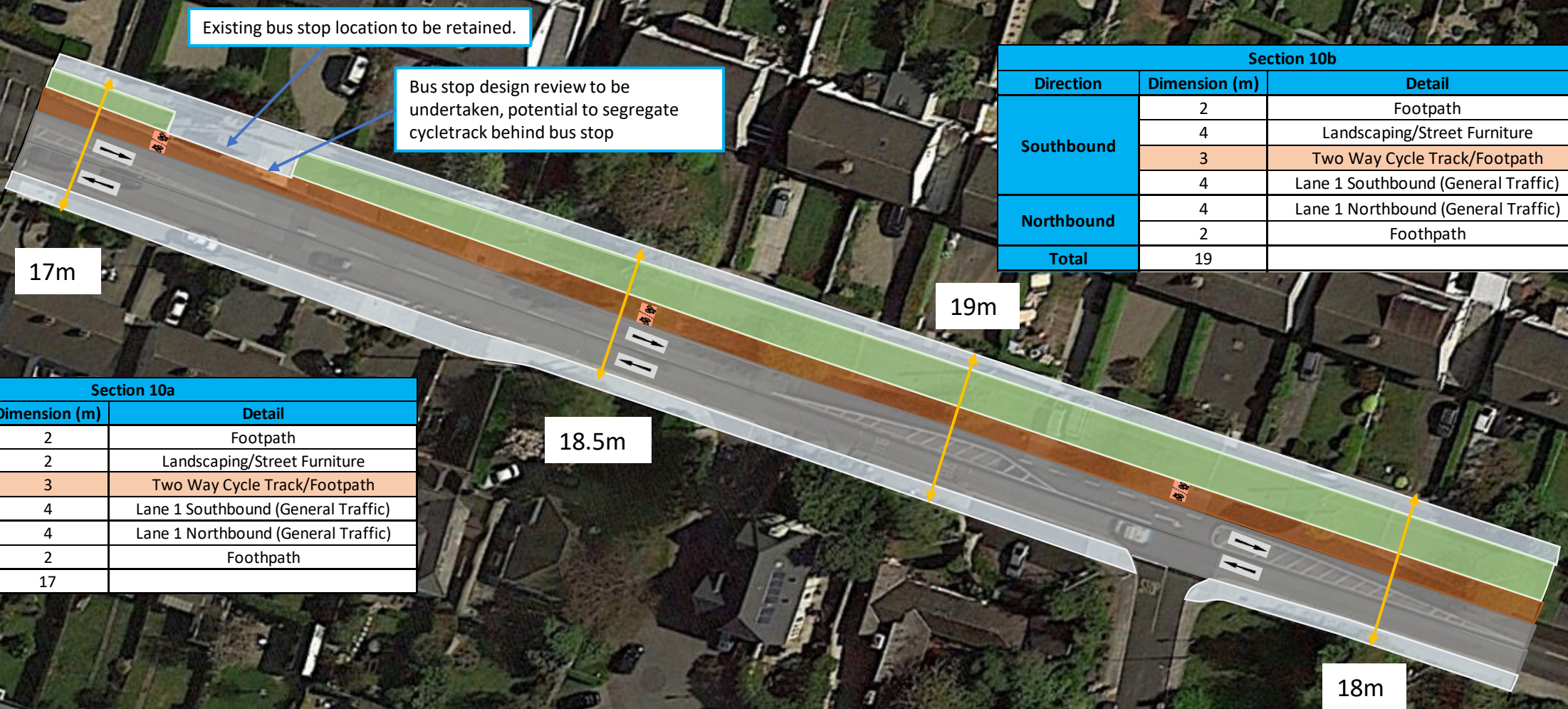
Granitefield

Upgrade of existing crossings

Section 9a		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Two Way Cycle Track
Northbound	3	Lane 1 Southbound (General Traffic)
	2	Footpath
<b>Total</b>	<b>13</b>	

Section 9b		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	3	Landscaping/Street Furniture
	3	Two Way Cycle Track
Northbound	3	Lane 1 Southbound (General Traffic)
	2	Footpath
<b>Total</b>	<b>16</b>	

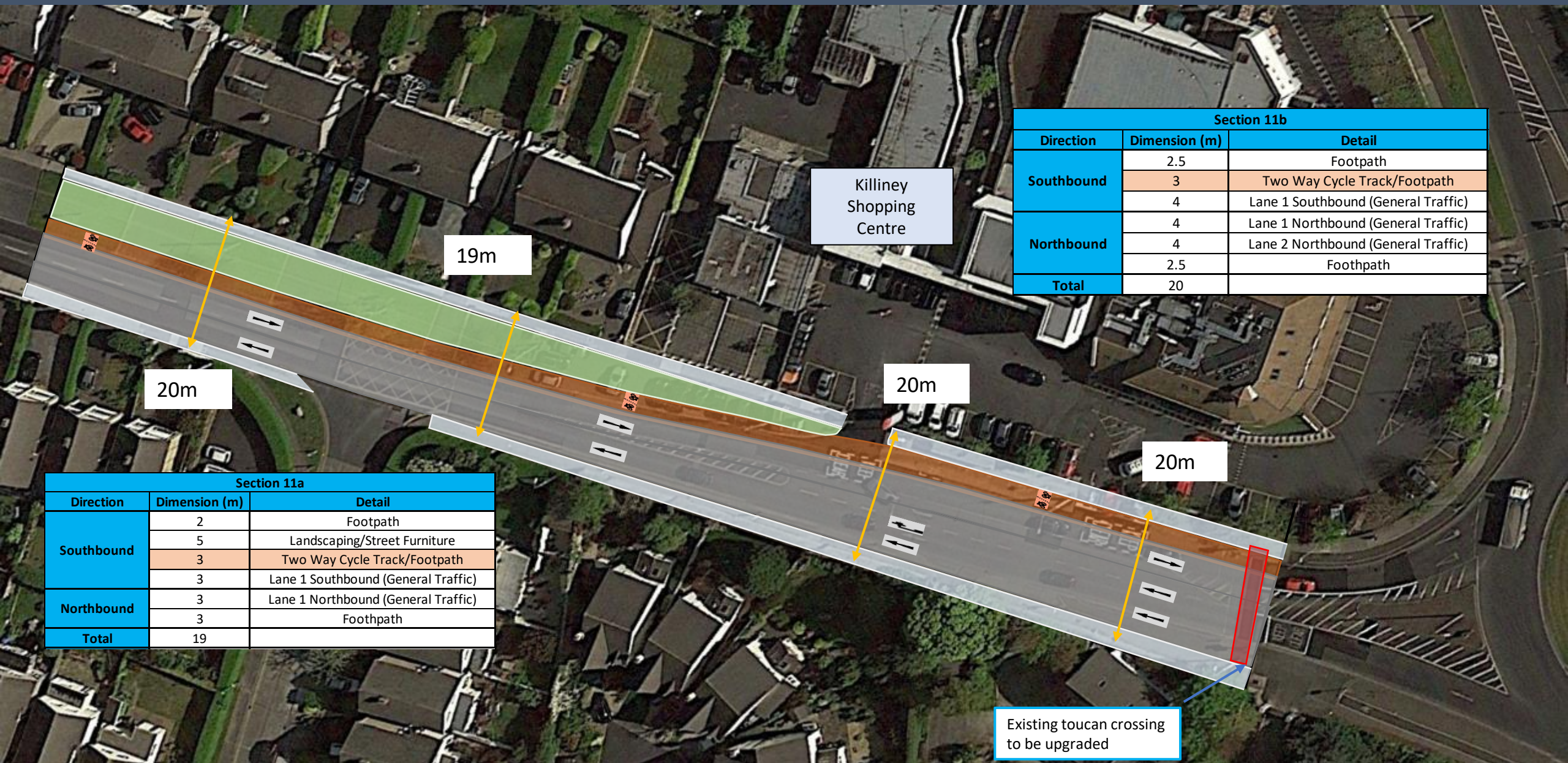
# Rochestown Avenue Section 10 – Option 1 **AECOM** Imagine it. Delivered.



Section 10a		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	2	Landscaping/Street Furniture
	3	Two Way Cycle Track/Footpath
Northbound	4	Lane 1 Southbound (General Traffic)
	4	Lane 1 Northbound (General Traffic)
<b>Total</b>	17	

Section 10b		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	4	Landscaping/Street Furniture
	3	Two Way Cycle Track/Footpath
Northbound	4	Lane 1 Southbound (General Traffic)
	4	Lane 1 Northbound (General Traffic)
<b>Total</b>	19	

# Rochestown Avenue Section 11 – Option 1 **AECOM** Imagine it. Delivered.



Section 11b		
Direction	Dimension (m)	Detail
Southbound	2.5	Footpath
	3	Two Way Cycle Track/Footpath
	4	Lane 1 Southbound (General Traffic)
Northbound	4	Lane 1 Northbound (General Traffic)
	4	Lane 2 Northbound (General Traffic)
Total	20	Footpath

Section 11a		
Direction	Dimension (m)	Detail
Southbound	2	Footpath
	5	Landscaping/Street Furniture
	3	Two Way Cycle Track/Footpath
Northbound	3	Lane 1 Southbound (General Traffic)
	3	Lane 1 Northbound (General Traffic)
Total	19	Footpath

Killiney Shopping Centre

Existing toucan crossing to be upgraded

## Option 2

**This option proposes a two way cycle track running for the majority of northern side of Rochestown Avenue until the junction with Johnstown Road. The cycle track will be adjacent to the roadway for the majority of the route.**

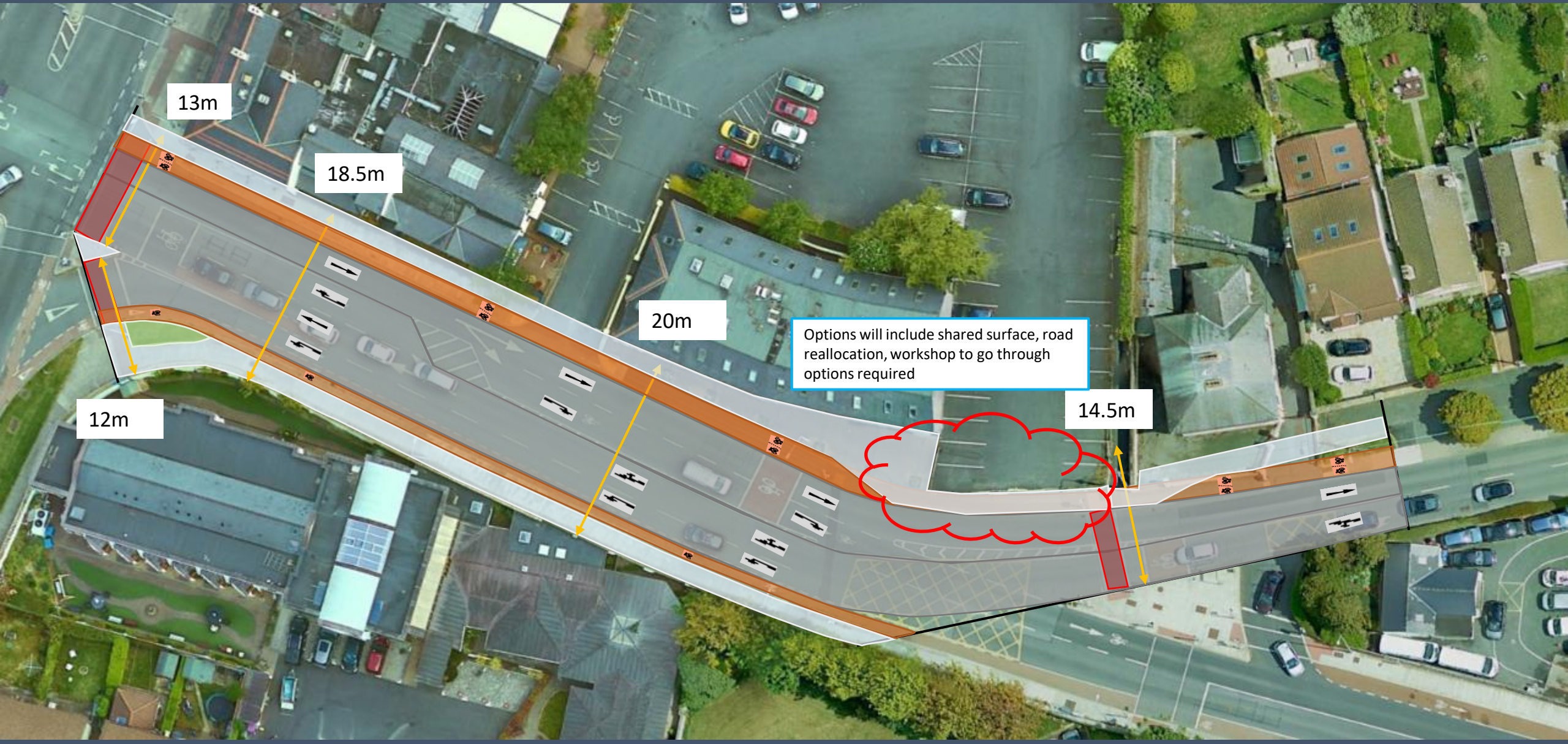
**A road re-alignment is not proposed at the National Rehabilitation Hospital in Option 2 and the cycle track crosses over the roadway at a new designated crossing and runs on the southern side of the Avenue until crossing back to the northern side at Pearse Park at a crossing.**

**Similarly to Option 1 it is proposed that Compulsory Purchase Order be carried out at the Horse Riding School in order to avoid a shared surface between cyclists and pedestrians. After this junction with Johnstown Road the two way cycle track splits and becomes two single direction cycle tracks on either side of Rochestown Avenue for the remainder of the route to the Graduate Roundabout**

# Rochestown Avenue Section 1 – Option 2



Imagine it.  
Delivered.



13m

18.5m

20m

Options will include shared surface, road reallocation, workshop to go through options required

14.5m

12m

# Rochestown Avenue Section 2 – Option 2



Imagine it.  
Delivered.





# Rochestown Avenue Section 3 – Option 2



Imagine it.  
Delivered.



18m

Removal of trees required

Footpath realigned

16.5m

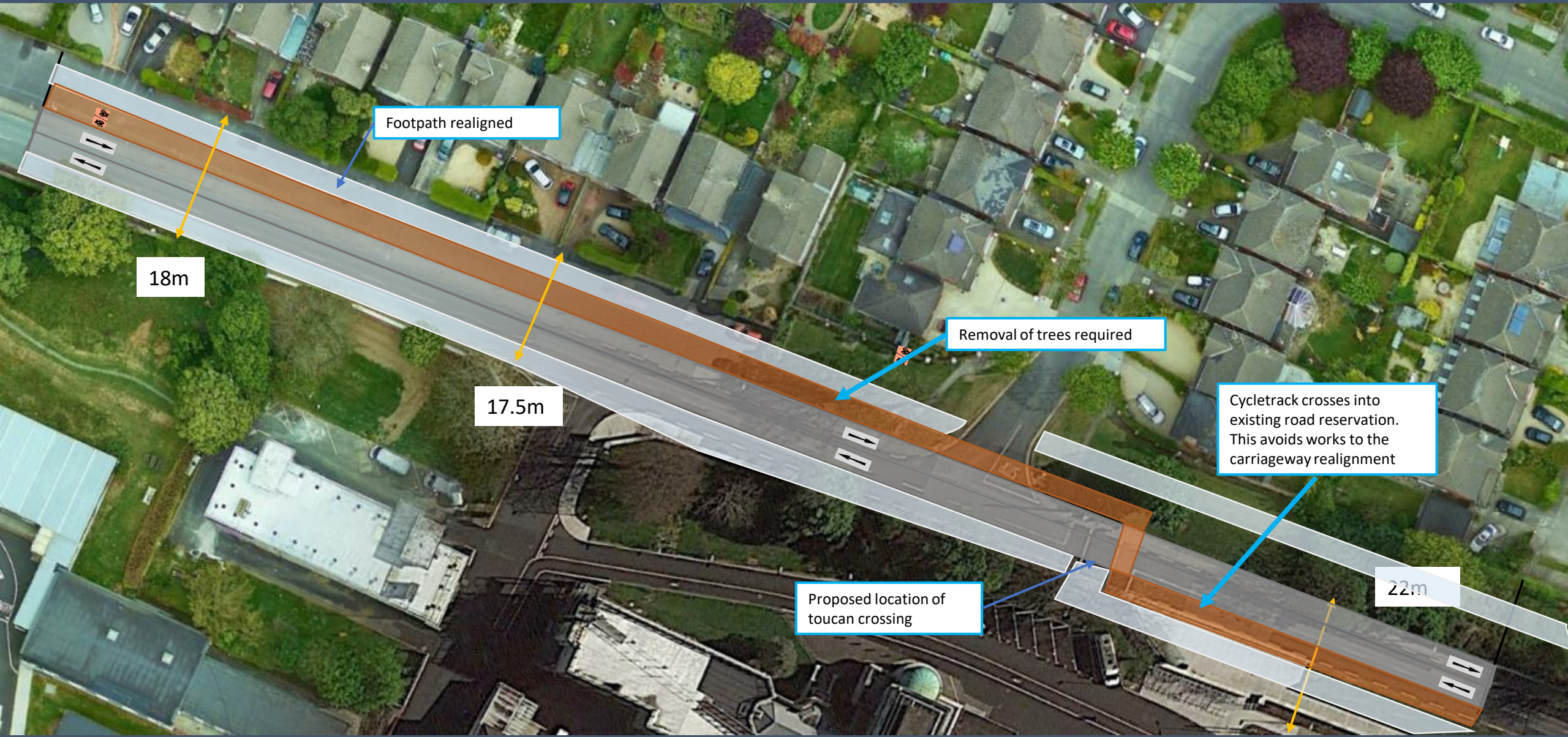
16m

18.5m

# Rochestown Avenue Section 4 – Option 2



Imagine it.  
Delivered.



Footpath realigned

18m

17.5m

Removal of trees required

Cycletrack crosses into existing road reservation. This avoids works to the carriageway realignment

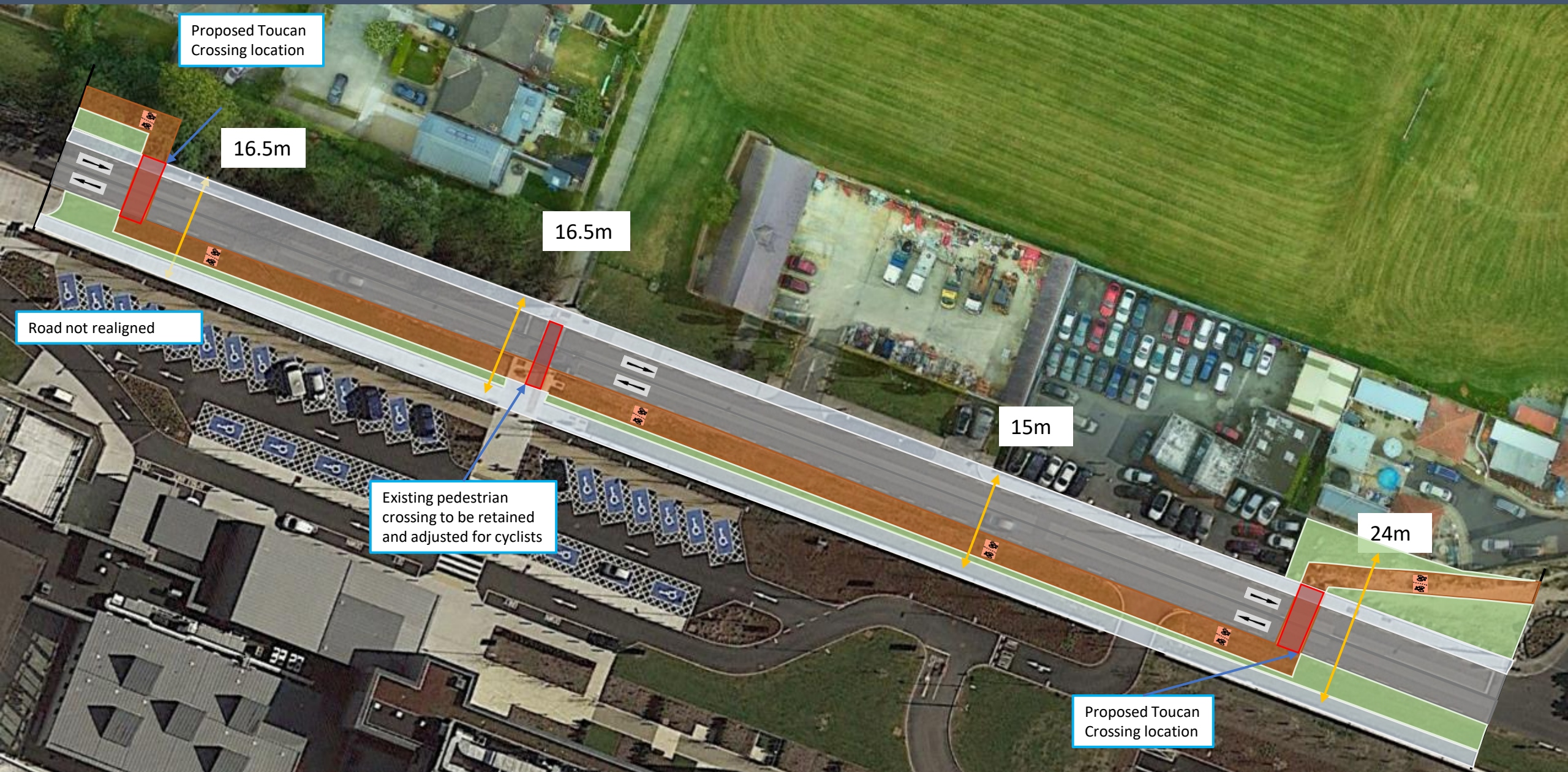
Proposed location of toucan crossing

22m

# Rochestown Avenue Section 5 – Option 2



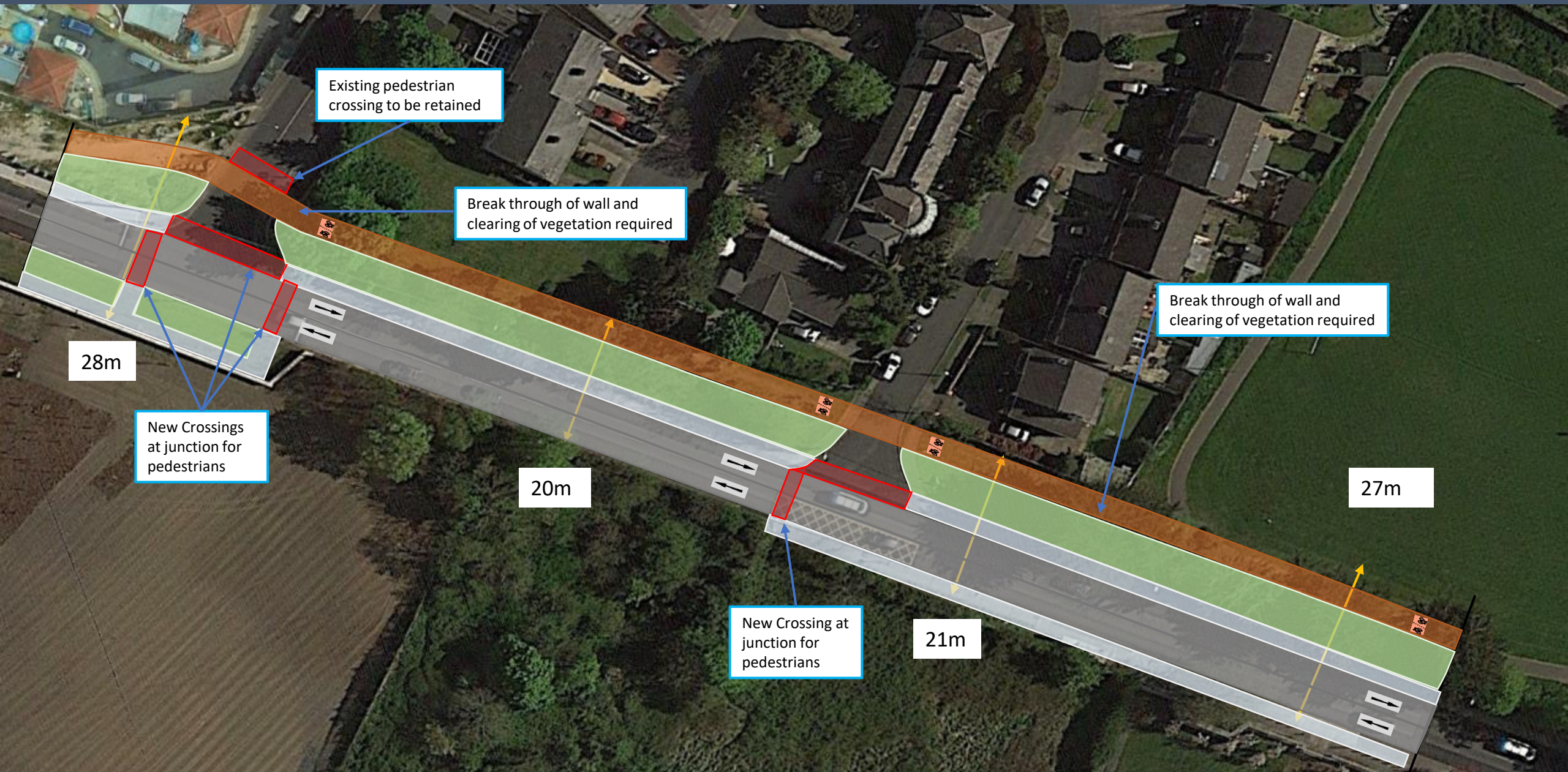
Imagine it.  
Delivered.



# Rochestown Avenue Section 6 – Option 2



Imagine it.  
Delivered.



Existing pedestrian crossing to be retained

Break through of wall and clearing of vegetation required

Break through of wall and clearing of vegetation required

28m

New Crossings at junction for pedestrians

20m

New Crossing at junction for pedestrians

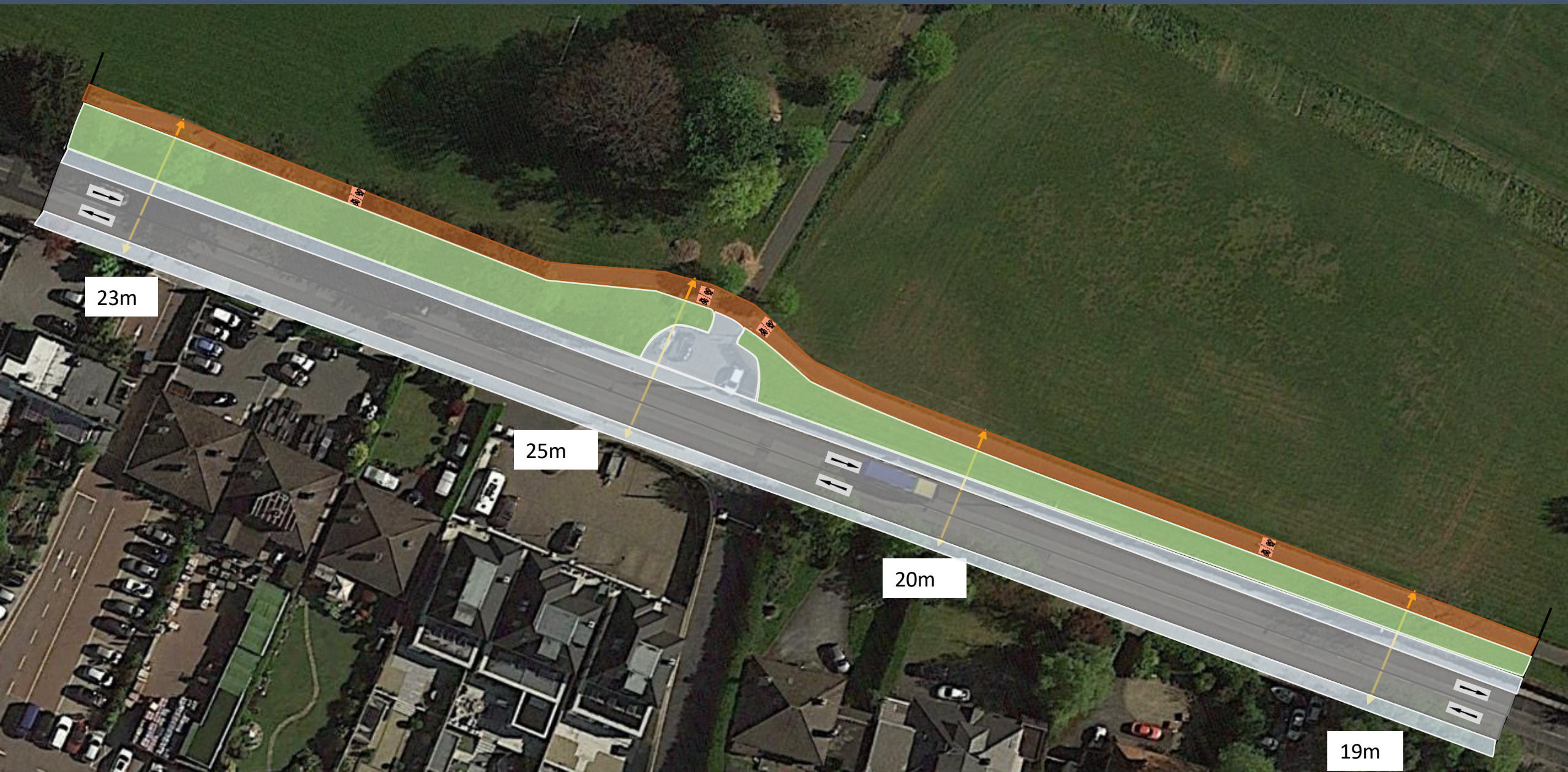
21m

27m

# Rochestown Avenue Section 7 – Option 2



Imagine it.  
Delivered.



23m

25m

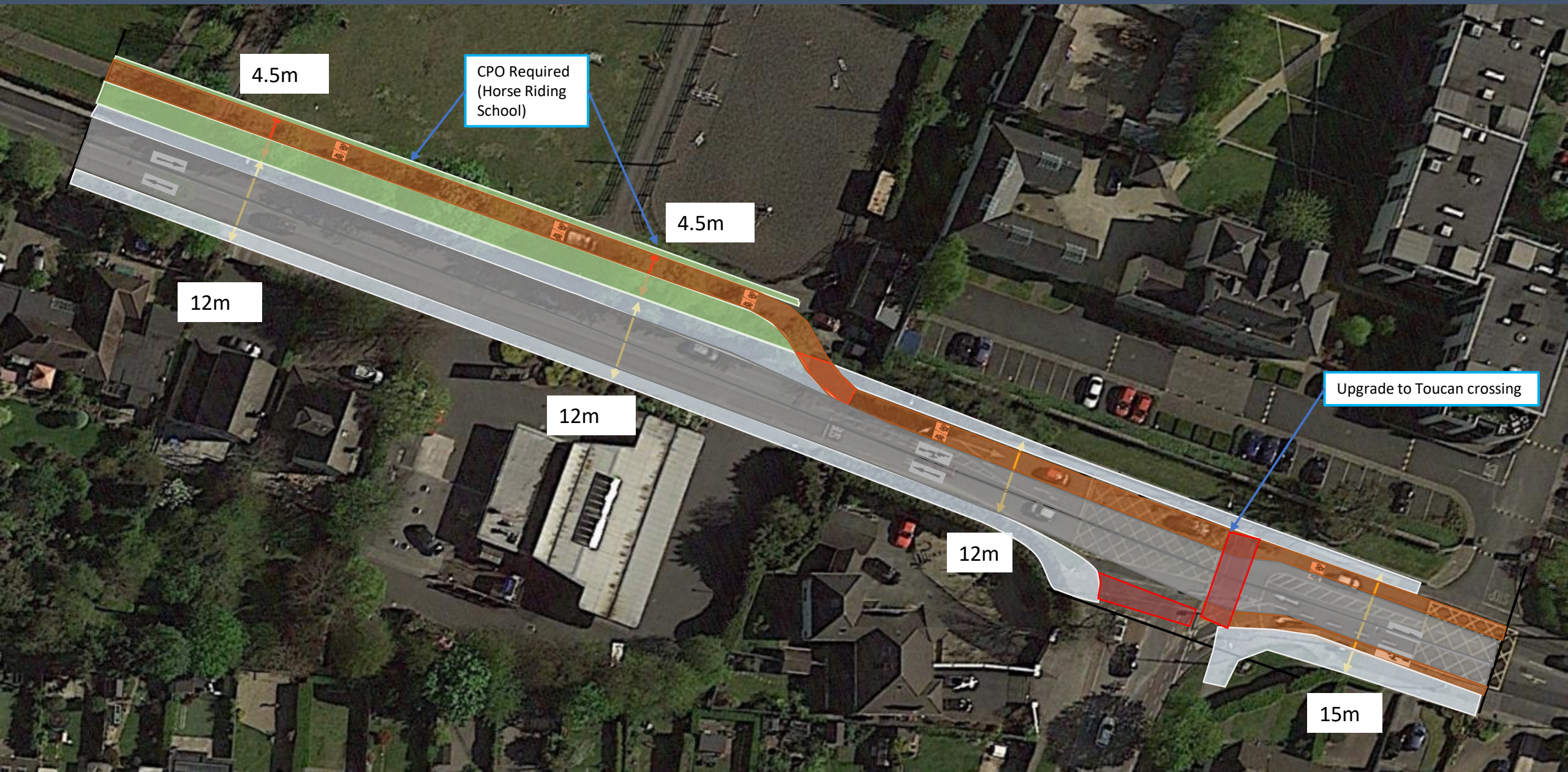
20m

19m

# Rochestown Avenue Section 8 – Option 2



Imagine it.  
Delivered.



4.5m

CPO Required  
(Horse Riding  
School)

4.5m

12m

12m

12m

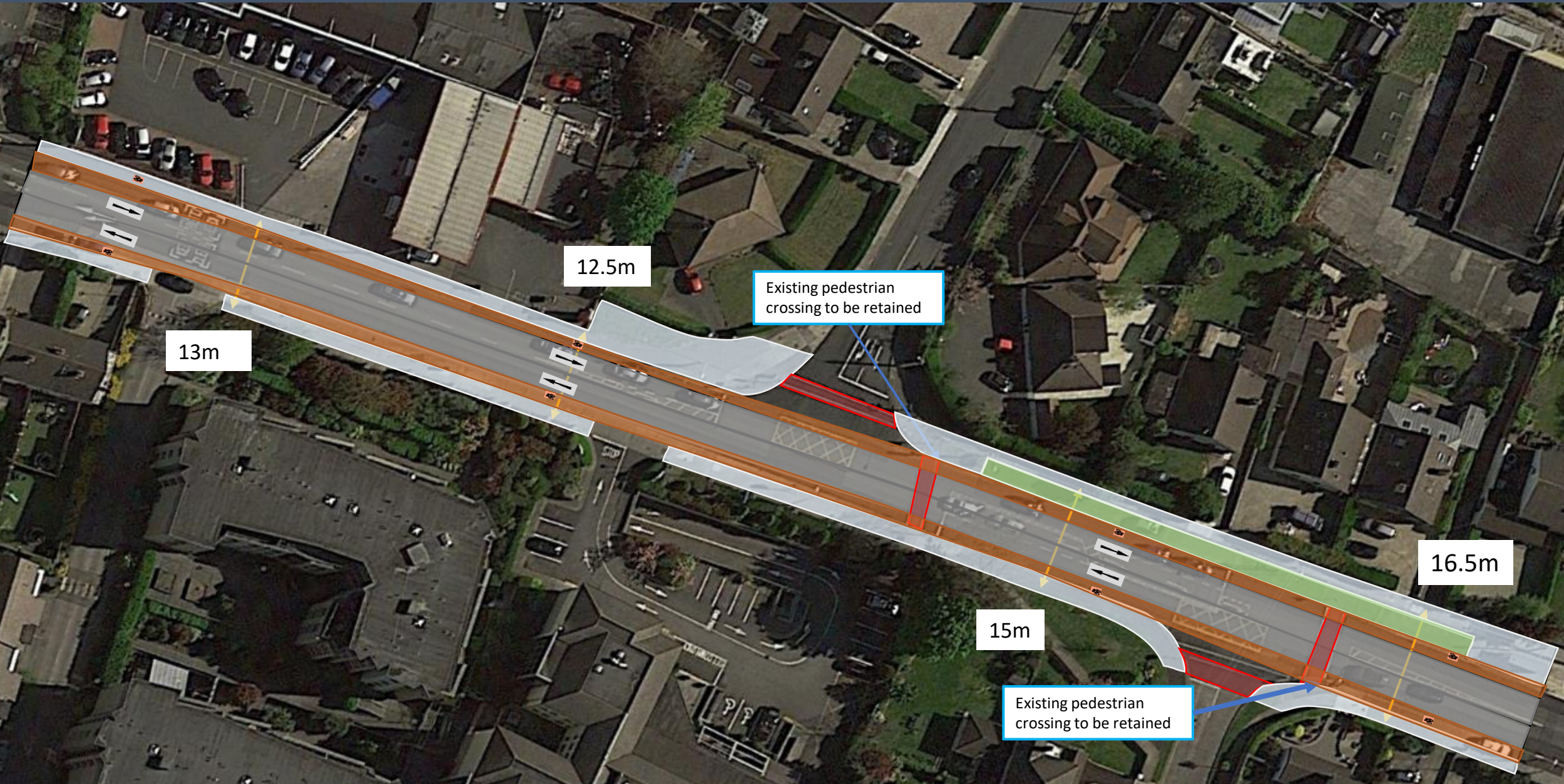
Upgrade to Toucan crossing

15m

# Rochestown Avenue Section 9 – Option 2



Imagine it.  
Delivered.



# Rochestown Avenue Section 10 – Option 2



Imagine it.  
Delivered.



Existing bus stop location to be retained.

17m

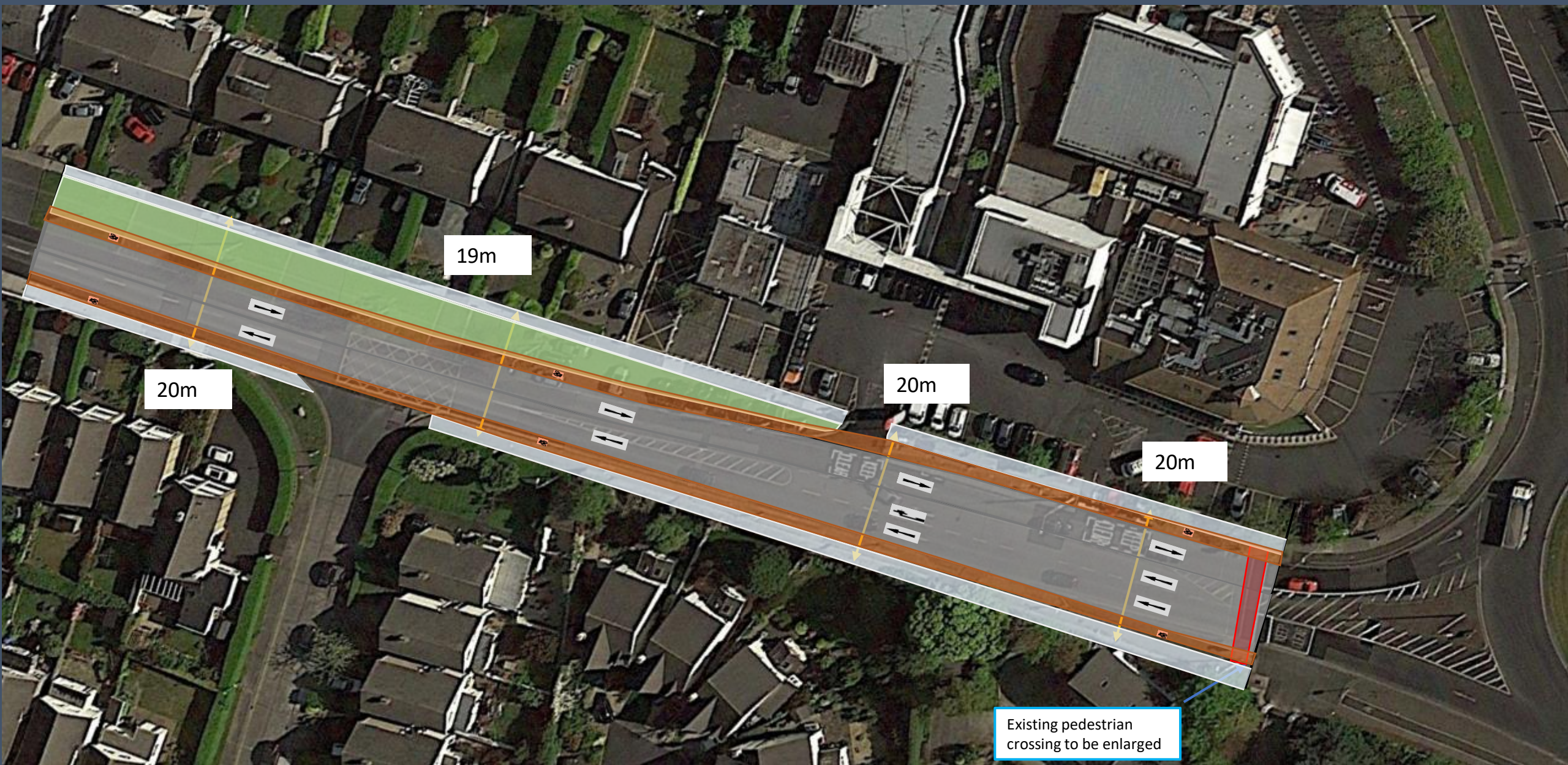
18.5m

19m

18m



# Rochestown Avenue Section 11 – Option 2 **AECOM** Imagine it. Delivered.



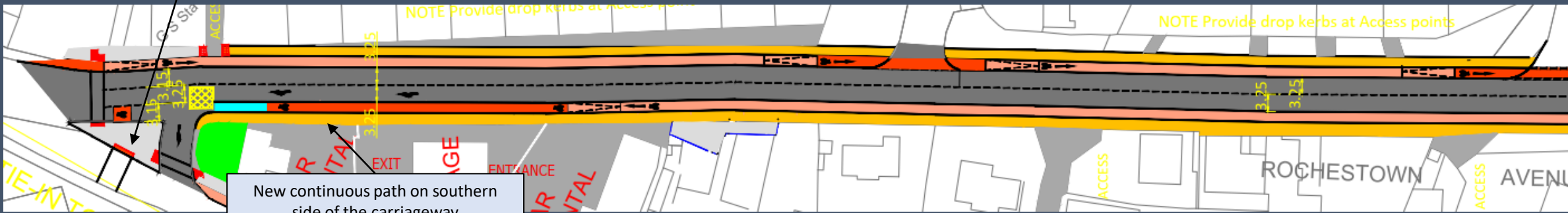
### **Option 3**

**This option proposes single cycle tracks on either side of the carriageway along Rochestown Avenue. Where possible trees will be maintained along the route however, there will be some tree loss. Similarly to Option 1, a road re-alignment is proposed at the National Rehabilitation Hospital in order to accommodate the two new cycle tracks.**

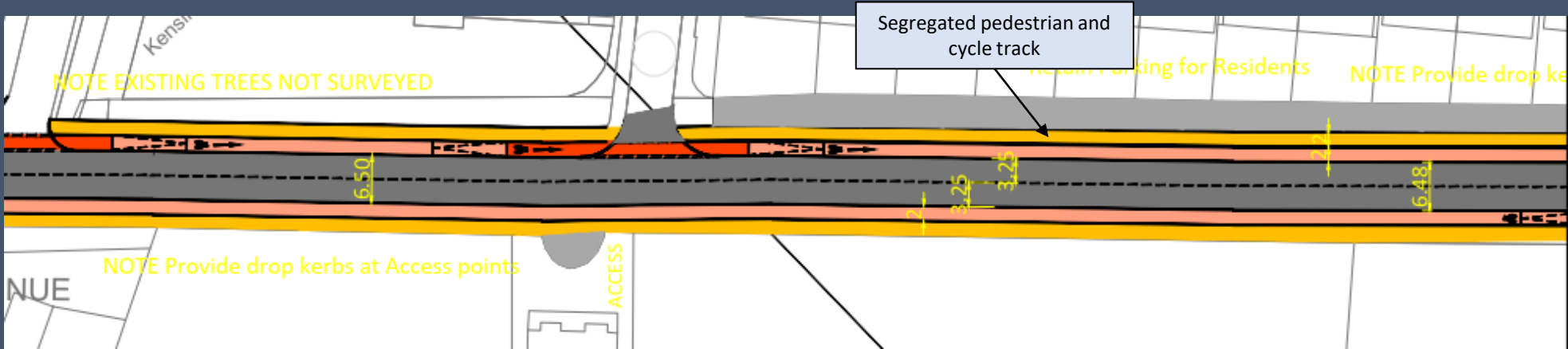
**This option does require land take from 3<sup>rd</sup> party lands to achieve the design objective.**

# Rochestown Avenue – Option 3

Rochestown Avenue / Pottery Road Junction



New continuous path on southern side of the carriageway

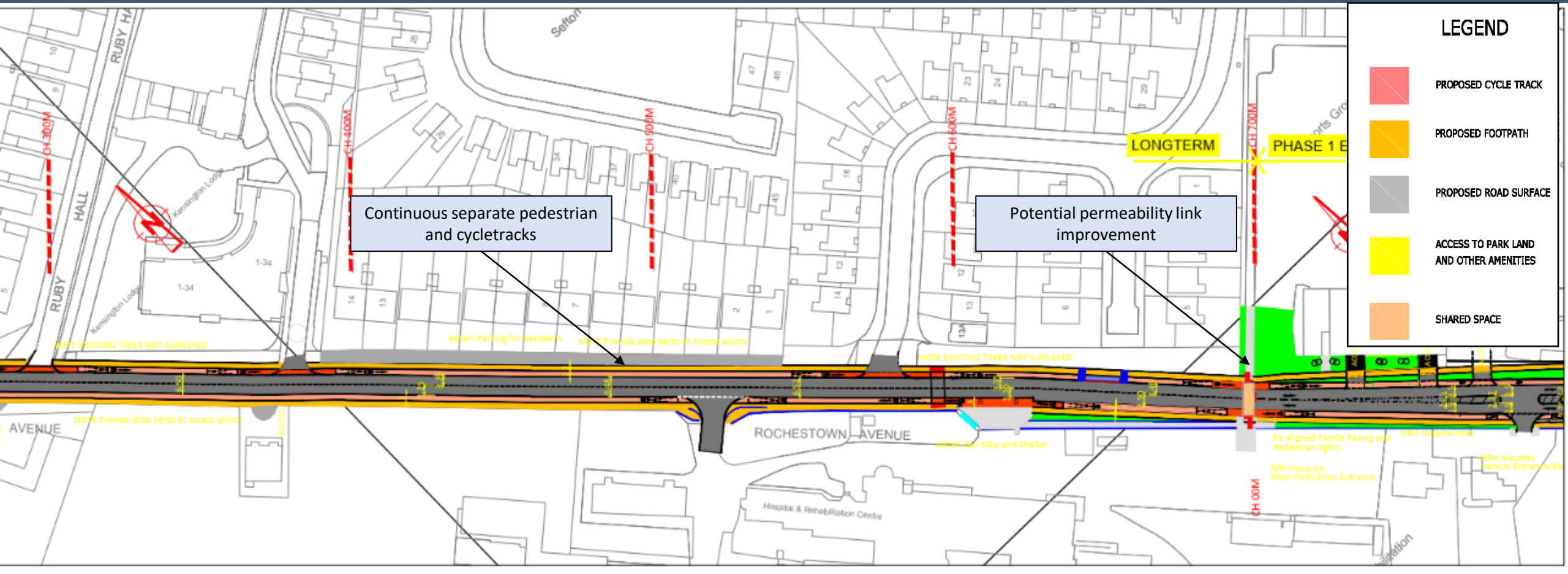


Segregated pedestrian and cycle track

### LEGEND

- PROPOSED CYCLE TRACK
- PROPOSED FOOTPATH
- PROPOSED ROAD SURFACE
- ACCESS TO PARK LAND AND OTHER AMENITIES
- SHARED SPACE

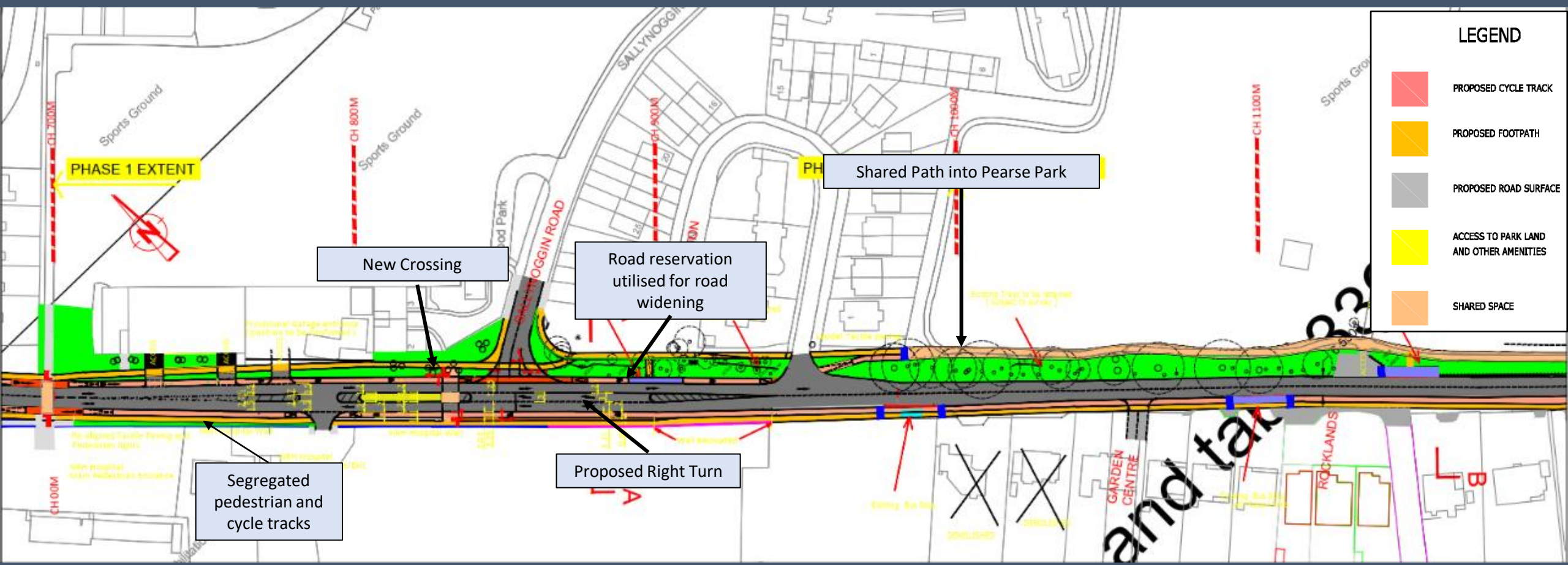
# Rochestown Avenue – Option 3



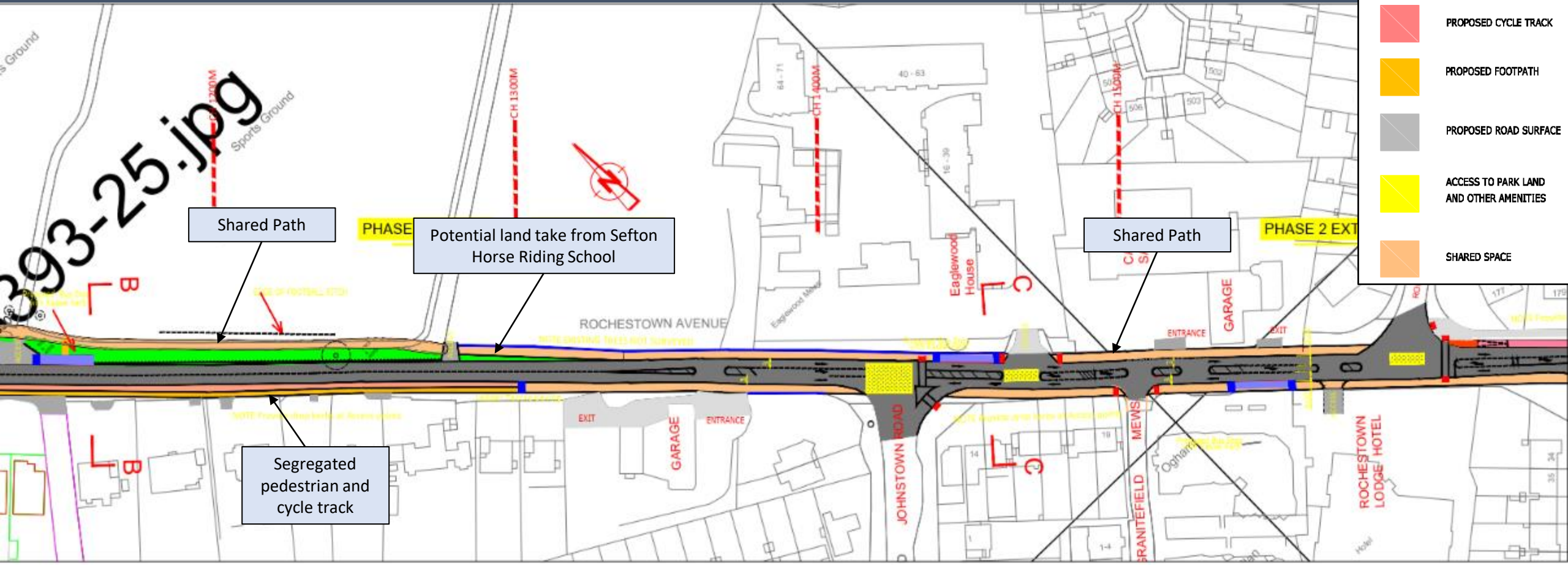
## LEGEND

-  PROPOSED CYCLE TRACK
-  PROPOSED FOOTPATH
-  PROPOSED ROAD SURFACE
-  ACCESS TO PARK LAND AND OTHER AMENITIES
-  SHARED SPACE


# Rochestown Avenue – Option 3



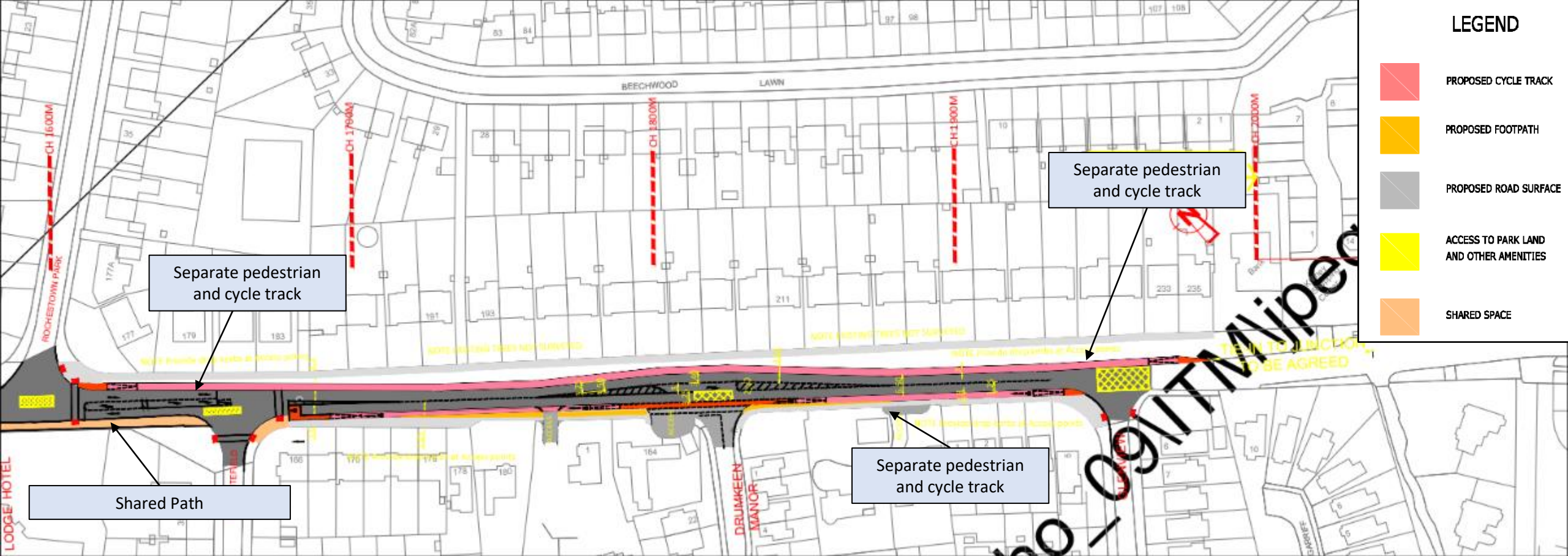
# Rochestown Avenue – Option 3



## LEGEND

-  PROPOSED CYCLE TRACK
-  PROPOSED FOOTPATH
-  PROPOSED ROAD SURFACE
-  ACCESS TO PARK LAND AND OTHER AMENITIES
-  SHARED SPACE

# Rochestown Avenue – Option 3



LEGEND	
	PROPOSED CYCLE TRACK
	PROPOSED FOOTPATH
	PROPOSED ROAD SURFACE
	ACCESS TO PARK LAND AND OTHER AMENITIES
	SHARED SPACE

# Appendix C: Detailed Multi Criteria Assessment



Criteria/Impacts	Option 1: Two Way Cycle Track on Northern Side	Option 2: A Mix of Two Way Cycle Track and Single Lane Cycle Tracks	Option 3: Single Cycle Track on both sides of the carriageway	Option 4: Do Nothing
Economy	2	3	3	2
Safety	4	4	4	2
Environment	4	4	2	3
Accessibility and Social Inclusion	4	4	4	2
Integration	4	4	4	2
Quality of Service	4	4	4	2
Physical Activity	4	4	4	2
TOTAL	28	26	25	15
Overall Rank	1st	2nd	3rd	4th

Economy	Overall Economy	2	3	3	2
	Capital Cost	2	2	3	2
	Comments	This option requires road realignment adjacent to the National Rehabilitation Hospital, therefore this option will be more costly than Option 2. However this option can be done within the existing carriageway and therefore does not incur 3rd party costs in comparison to option 3.	This Option crosses the two way cycle track at the National Rehabilitation Hospital. Therefore retaining the existing road realignment thus minimising costs.	Single cycle track requires 2m either side, which therefore has a larger footprint than a two way cycle track of 3m. This option potential requires land take and associated 3rd party costs to achieve option	Do Nothing, maintenance of existing conditions.
Safety	Transport Reliability and Quality (Journey Time)	4	4	4	1
	Comments	This option provides the most continuous design for cyclists, minimizing the number of crossings and delay for cyclists.	This option requires the two way cycle track to cross the road at the National Rehabilitation Hospital. This therefore adds additional crossing points for cyclists and thus enhances delay.	This option proposes continuous cycle tracks on both sides of the carriageway. This option does not score as highly as Option 1, due to the two way cycle track providing a wider facility 3m, which gives space for overtaking and thus enhance journey time.	Poor reliability for cyclists who are required to cycle on road road with no cycle infrastructure.
	Overall Safety	5	4	4	1
Environment	Overall Environment	4	4	2	3
	Air Quality	5	4	2	1
	Comments	This option is more efficient in terms of space (2m wide) in comparison to the single cycle track on both sides, thus Option 1 can accommodate 1m length of planting to improve air quality.	Similar to Option 1, this will be efficient in terms of space requirements (2m two way for the majority) and therefore will facilitate planting where feasible. However this option does include a section of single cycle tracks on both sides and therefore does not score as highly as option 1	This option requires removal of existing trees including mature trees and therefore has been scored appropriately due to the negative impacts this will have on Air Quality	This option provides no new infrastructure for pedestrians and cyclists, therefore minimises the opportunity to promote modal shift from car to walking and cycling.
Accessibility and Social Inclusion	Land Use	4	4	2	3
	Comments	This option is more efficient in terms of space (2m wide) in comparison to the single cycle track on both sides, thus Option 1 can accommodate 1m length of planting and urban realm improvements to enhance visual quality.	Similar to Option 1, this will be efficient in terms of space requirements (2m two way for the majority) and therefore will facilitate planting and urban realm improvements where feasible. However this option does include a section of single cycle tracks on both sides.	This option requires removal of existing trees including mature trees and therefore has been scored appropriately due to the negative impacts this will have on landscape	This option provides no new landscape or urban realm improvements, maintains existing arrangement. No loss in landscape in comparison to other options.
	Overall Accessibility and Social Inclusion	4	3	3	2
Integration	Overall Accessibility and Social Inclusion	4	3	3	2
	Vulnerable Groups	5	2	3	1
	Comments	This option will significantly improve pedestrian and cycle infrastructure to cater for vulnerable road users. A 4m shared path is proposed within Peane Park, but segregated cycle and pedestrian facilities are primary proposed	This option will significantly improve pedestrian and cycle infrastructure to cater for vulnerable road users. However this option includes sections of shared path for pedestrians and cyclists along Rochestown Avenue.	This option will significantly improve pedestrian and cycle infrastructure to cater for vulnerable road users. However this option includes sections of shared path for pedestrians and cyclists along Rochestown Avenue.	This option scores poorly due to the lack of high quality pedestrian infrastructure and no existing cycle infrastructure
Quality of Service	Overall Quality of Service	5	4	4	1
	Number of adjacent cyclists	5	4	4	1
	Comments	This option provides 3m corridor for cyclists which will provide ample space for adjacent cyclists	This option provides 3m corridor for cyclists which will provide ample space for adjacent cyclists. When the scheme becomes single cycle track on both sides, this reduces the capacity for adjacent cyclists.	Single sided cycle track on both sides. Adjacent cycling is feasible with this option, but not as beneficial as Option 1, two way either side.	No existing cycle infrastructure
Physical Activity	Number of conflicts	5	4	3	1
	Comments	This option proposes a protected two way cycle track on one side of the carriageway, which will provide a continuous cycle track on side of the road. Central crossing infrastructure is proposed to manage crossing points.	This option is predominately two way but becomes one way on both sides after Johnstown Road. Potential for additional number of conflicts in comparison to a two way cycle track on one side of the road.	Single lane cycle track on both sides of the road. Scheme will provide significantly enhanced protection for cyclists in comparison to the existing, but does not score as highly as option 1, which will offer significantly reduced conflicts.	No existing cycle infrastructure
	Journey time-delay	4	4	3	1
Physical Activity	Journey time-delay	4	4	3	1
	Comments	This option proposes continuous cycle infrastructure on the northern side of Rochestown Avenue, which will enhance journey time for sustainable modes.	This option proposes continuous cycle infrastructure on the northern side of Rochestown Avenue, which will enhance journey time for sustainable modes.	This option proposes continuous cycle infrastructure on both sides of Rochestown Avenue, which will enhance journey time for sustainable modes.	no benefits to cyclists journey times
	Overall Physical Activity	4	4	4	2

Assessment Ranking	Description
5	Positive
4	Slightly Positive
3	Neutral
2	Slightly Negative
1	Negative