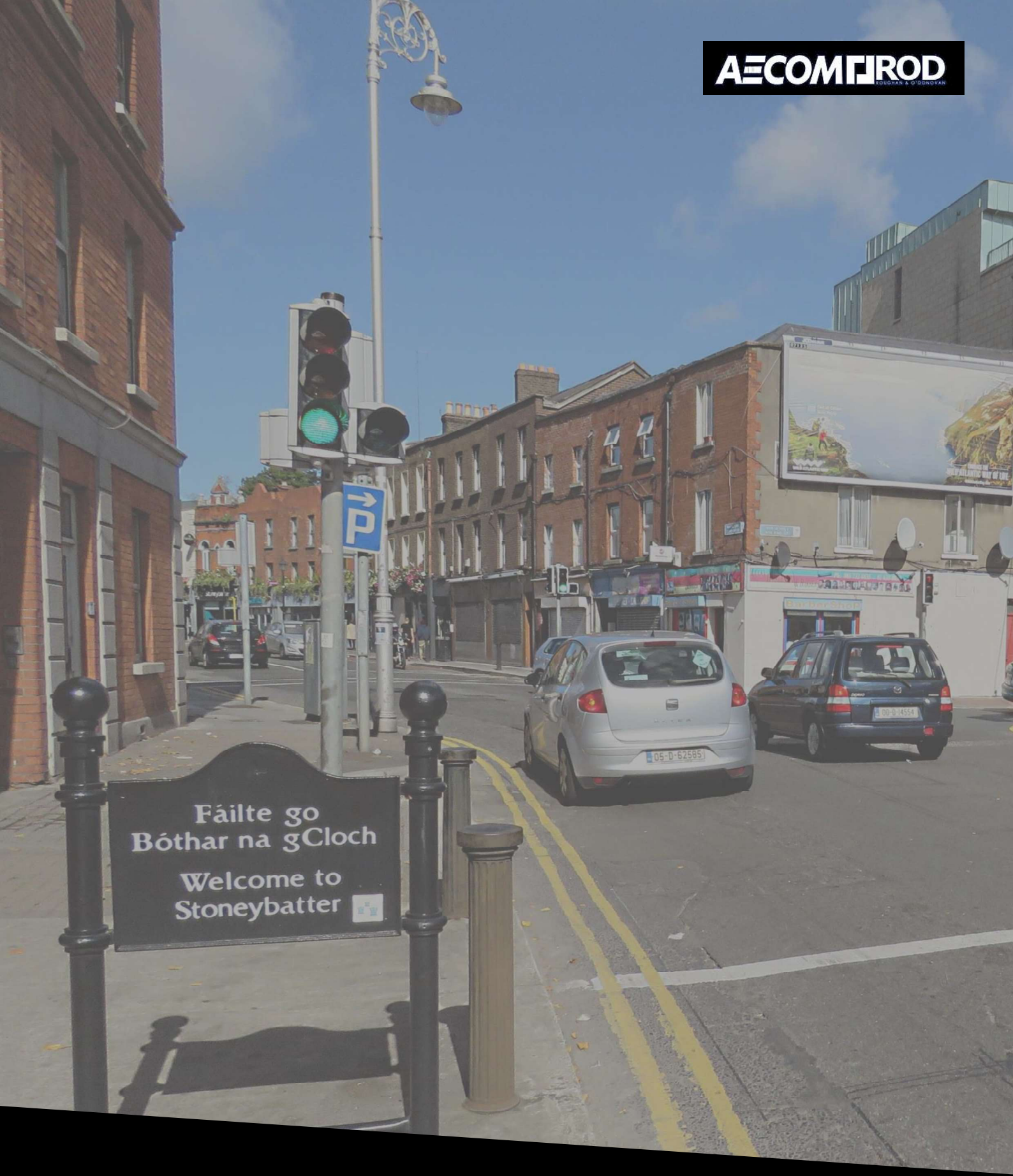
Appendix K

Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment



Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC

Route Options Assessment

March 2018

Údarás Náisiúnta Iompair
National Transport Authority

Quality information

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Glossary of Terms

- **DTTAS**: Department of Transport, Tourism and Sport
- **NTA**: National Transport Authority
- **TII**: Transport Infrastructure Ireland
- **DCC**: Dublin City Council
- **CBC**: Core Bus Corridor
- **BRT**: Bus Rapid Transit
- **EPO**: Emerging Preferred Option
- **GDA**: Greater Dublin Area
- **GIS**: Geographic Information Systems
- **ITS**: Intelligent Transport Systems
- **LAP**: Local Area Plan
- **MCA**: Multi-Criteria Analysis
- **OSi**: Ordnance Survey Ireland
- **RMP**: Record of Monuments and Places
- **ROA**: Route Options Assessment
- **RPA**: Railway Procurement Agency
- **RTPI**: Real Time Passenger Information
- **SAC**: Special Area of Conservation
- **SPA**: Special Protection Area

Definitions

- **Study Area**: The area along the Blanchardstown to Liffey Quays Core Bus Corridor within which route options have been identified and assessed.
- **Study Area Section**: An identifiable extent of the Study Area between two locations.
- **Route Section**: The road(s) along which the Blanchardstown to Liffey Quays CBC may be provided. A route section is generally confined to a single road/street.
- **Route Options**: Various adjacent route sections are combined to form 'end-to-end' route options.
- **Scheme Option**: This refers to the detailed development of a route option in terms of bus and cycle provisions and road configuration along the route.
- **Journey Time**: The time taken to make a journey between two distinct points including dwell times at stops and delays at junctions.
- **CBC Infrastructure**: All physical facilities required to support the CBC system – stops, CBC lanes, public lighting, etc.
- **Route Options Assessment Study**: The assessment process for potentially viable route options carried out in order to identify the nature and extent of the effects, both positive and negative, on the existing and planned transport infrastructure and receiving environment. The outcome of the route options assessment study is a recommendation for a preferred route for the proposed scheme.

Citations

- The background mapping used frequently in figures in the report is based on maps which AECOM holds a licence for. The source is ArcGIS Viewer for Silverlight (ESRI).
- Residential, employment destination and education destination figures in the report are based on the Census 2011 Small Area Population Statistics (SAPS).

1. Introduction

1.1 Preamble

This report presents the findings of the options assessment work undertaken for the Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) Core Bus Corridor (CBC) and a recommendation on the **emerging preferred option** is made.

The work presented in this report concentrates on the bus priority provision developed for the CBC, based on the assumption that a number of high frequency bus services will avail of the CBC infrastructure.

The assessment undertaken of potentially feasible route options, identified within the scheme Study Area, against established Multi-Criteria Analysis (MCA) criteria is discussed in this report. Where a number of design options were considered along the preferred route, these are also discussed and documented. A concept scheme design along the emerging preferred option identified is subsequently presented.

1.2 Report Structure

- **Section 2:** The strategic transport policy context which has led to the identification of a need for the delivery of a CBC on this corridor is discussed in this section.
- **Section 3:** The objectives of the CBC and the proposed scheme are presented in the section. Key constraints and opportunities within the Study Area are identified. Also assessed are the integration of the corridor with the wider public transport network and the compatibility with other road users.
- **Section 4:** The methodology for identifying and assessing the feasibility of the various route options potentially available within the Study Area is discussed in this section including:
  - the identification of a Study Area where practical route options have been considered and presentation of an initial network ("spider's web") of route sections examined;
  - the selection and determination of initial criteria for screening and assessing technically feasible route options, based on distinct, scheme-specific objectives; and
  - the definition of MCA criteria.
- **Sections 5 and 6:** Details the stages of the options assessment for each Study Area.
- **Section 7:** The Emerging Preferred Option is identified and described.
- **Section 8:** Presents a cost estimate for the concept design of the Emerging Preferred Scheme.
- **Section 9:** Discusses the Emerging Scheme Benefits.
- **Section 10:** Discusses the next steps.

2. Transport Context

2.1 Ireland 2040 – Our Plan

The 'National Planning Framework: Ireland 2040 – Our Plan' (Department of Housing Planning and Local Government, September 2017) sets the long-term context for Ireland's physical development and associated progress in economic, social and environmental terms and in an island. The objectives of 'National Planning Framework: Ireland 2040 – Our Plan', in relation to public transport, include:

- *"Expand attractive public transport alternatives to car transport to reduce congestion and emissions and enable the transport sector to cater for the demands associated with longer term population and employment growth in a sustainable manner…"*
- *"The provision of a well-functioning, integrated public transport system, enhancing competitiveness, sustaining economic progress and enabling sustainable mobility choices."*
- *"Deliver the key public transport objectives of the Transport Strategy for the Greater Dublin Area 2016-2035 by investing in projects such as New Metro North, DART Expansion Programme, BusConnects in Dublin and key bus based projects in the other cities and towns."*

2.2 Greater Dublin Area Transport Strategy 2016 – 2035

The 'Greater Dublin Area Transport Strategy 2016 – 2035' (NTA, 2015) identifies a Core Bus Network for the GDA. This core network represents the most important bus routes in the GDA, which are generally characterised by a high frequency of bus services, high passenger volumes and with significant trip attractors located along the route. The 'Greater Dublin Area Transport Strategy 2016 – 2035' includes objectives to develop the Core Bus Network to achieve, as far as practicable, continuous priority for bus movements on the sections of the Core Bus Network within the Metropolitan Area, with the goal of making the overall bus system more efficient and attractive to users including the core principle, which states: *"Development in the GDA shall be directly related to investment in integrated high quality public transport services and focused on compact urban form."*

Section 2.2.1 of the 'Greater Dublin Area Transport Strategy 2016 – 2035' also states, as a Primary Policy: *"The Strategy must therefore, promote, within its legislative remit, transport options which provide for unit reductions in carbon emissions. This can most effectively be done by promoting public transport, walking and cycling, and by actively seeking to reduce car use in circumstances where alternative options are available."*

The identified core network comprises a number of radial, orbital and regional bus corridors.

2.3 BusConnects

'BusConnects' is a programme of priority investment for public transport in the 2018 budget, which plans to fundamentally transform Dublin's bus system. The objective of 'BusConnects' is to develop the radial and orbital bus corridors as identified in the 'Greater Dublin Area Transport Strategy 2016 – 2035', so that each will have continuous bus priority; i.e., a continuous bus lane in each direction.

'BusConnects' seeks the development of a more attractive and convenient bus system with greater scope for interconnection between routes, where connecting passengers don't necessarily have to travel to Dublin City Centre.

A section of the Blanchardstown to UCD corridor, which is identified as a continuous bus priority radial corridor, is proposed to be developed as a CBC between Blanchardstown Town Centre and the Liffey Quays (Ellis Quay), through Ashtown.

This Core Bus Corridor is shown in **Figure 2.1**.

Figure 2.1: Radial Bus Corridors ('BusConnects' Next Generation Bus Corridors Fig. 1)

2.4 Integrated Implementation Plan 2013 – 2018

The NTA published the Integrated Implementation Plan 2013 – 2018 in February 2014. This report sets out the short term infrastructure investment programme for the GDA for a five year period up to 2018, including investment in existing bus services. The proposals in relation to bus investment are encompassed in four investment areas:

1. Bus Fleet Investment;
2. Bus Stop and Shelter Provision;
3. General Bus Network Improvements; and
4. Bus Rapid Transit Schemes.

Investment areas 2 & 3 are of most relevant to this scheme and will be addressed.

More specifically, the Integrated Implementation Plan proposes the following measures in relation to bus network improvements:

- Further development of a Quality Bus Corridor (QBC) appropriate to serve the needs of the GDA;
- Seeking to achieve, as far as practicable, continuous inbound priority and the maximum possible outbound priority on key bus routes into Dublin City Centre;
- Enhancing bus priority at other urban locations in the GDA;
- Improving the level of interchange facilities between services and with other transport modes;
- Seeking enhanced bus prioritisation at signalised traffic junctions in the GDA; and
- Creation of bus hubs or bus focal points in key urban locations in the GDA.

2.5 Greater Dublin Area Cycle Network Plan

The GDA Cycle Network Plan (NTA, 2013) sets out the strategy for the development of an integrated cycle network. It identifies that the Blanchardstown to the Liffey Quays corridor forms part of the primary, secondary and greenway cycle network and thus form a key part of the strategic cycle network – see **Figure 2.2**. It is therefore important that any upgrade to bus priority infrastructure along the corridor should take cognisance of these objectives and, where practical, provide cycle infrastructure to the appropriate level and quality of service required for a primary and secondary cycle route.

Figure 2.2: GDA Cycle Network Plan (extracts)

2.6 Fingal County Council Development Plan 2011 – 2017

The objectives pertinent to the proposed Blanchardstown to Liffey Quays CBC are listed as follows:

- Objective 372: Facilitate the provision of a turning space for public buses.
- Objective 516: Implement the Blanchardstown Town Centre Masterplan.
- Objective 551: Implement the Blanchardstown Village Urban Design Framework Plan.
- Objective 620: Improve facilities for pedestrians and cyclists in the village.

2.7 DCC Development Plan (2016 – 2022)

The DCC Development plan outlines the following objectives:

- To support improvements to the city's bus network and related services to encourage greater usage of public transport in accordance with the objectives of the NTA's strategy and the Government's 'Smarter Travel' document.
- To facilitate and support measures proposed by transport agencies to enhance capacity on existing public transport lines and services, to provide/improve interchange facilities and provide new infrastructure.
- To review future strategic provision of bus depots/garages in the city in consultation with Dublin Bus and the NTA.

3. Corridor Audit and Scheme Objectives

3.1 Physical Constraints and Opportunities

There are a number of constraints and opportunities, both natural (i.e. existing natural environment) and physical (the built environment), which constrain route options for the proposed scheme within the defined Study Area. These include:

- The developing Greater Dublin Primary Cycle Network;
- National Primary Route along the N3;
- M50 and M50/N3 interchange;
- Phoenix Park;
- Luas Red Line and Luas Cross City;
- River Liffey, Tolka River and Royal Canal (including protected structures);
- Existing and committed future development along the route, in particular in the city centre, much of which has heritage value;
- Existing protected monuments along the route;
- Significant street trees and other natural features along the route within the Study Area;
- Existing urban and sub-urban roads and street network;
- Grangegorman campus;
- Availability of land in urban and suburban areas;
- Public parks including Millennium Park, Tolka Valley Park, Phoenix Park;
- Maynooth / Sligo Rail and M3 Parkway Line;
- Phoenix Park Tunnel Rail Line; and
- The need to maintain traffic flow for all modes during construction.

Further details on the engineering and construction issues are contained in the Route Audit Report, within **Appendix D**.

3.2 Interchange with Public Transport

As part of the scheme it is desirable to enhance the proposed scheme is to enhance interchange between the various modes of public transport operating in the city and wider metropolitan area, both existing and proposed. Route options have therefore been developed with this in mind and, in so far as possible seek to provide for improved interchange opportunities with other transport services, including:

- Maynooth/Sligo Rail Line at Clonsilla/Blanchardstown and Castleknock/Navan Road Parkway;
- Luas Cross City at Grangegorman;
- Red Luas Line at Museum/Smithfield;
- Planned Bus Rapid Transit (BRT) routes from Swords to the City Centre and from Clongriffin to Tallaght in the City Centre; and
- Existing Dublin Bus services at numerous locations along the route.

The following report sections outline some of these opportunities in further detail.

3.2.1 Bus Network

The Blanchardstown to the Liffey Quays CBC will form an integral part of the reconfigured bus network. The introduction of the CBC, with the capacity that it provides, will allow for the rationalisation of existing bus services. This will provide for a more efficient network overall and improve the cost effectiveness of the scheme. No reduction in the overall level of public transport service will be made and capacity enhancements will be provided for by CBC along sections of the network.

Figure 3.1 illustrates the BRT Networks proposed within the GDA Transport Strategy. This identifies that the proposed scheme interfaces within the city centre with the following BRT Networks:

- Clongriffin to Tallaght; and
- Swords/Airport to City Centre.

This CBC replaces the BRT service proposed for the Blanchardstown to City Centre section of the Blanchardstown to UCD BRT route.

Figure 3.1: BRT Network (Source: Figure 5.5 Transport Strategy 2016 – 2035)

Figure 3.2 illustrates the Core Regional Bus Network within the Core Bus Network. This identifies that the proposed scheme interfaces with the Core Regional service of M3/ N2, via Navan Road, which serves regional bus routes from Cavan, Navan, Trim, Dunshaughlin, and Kells.

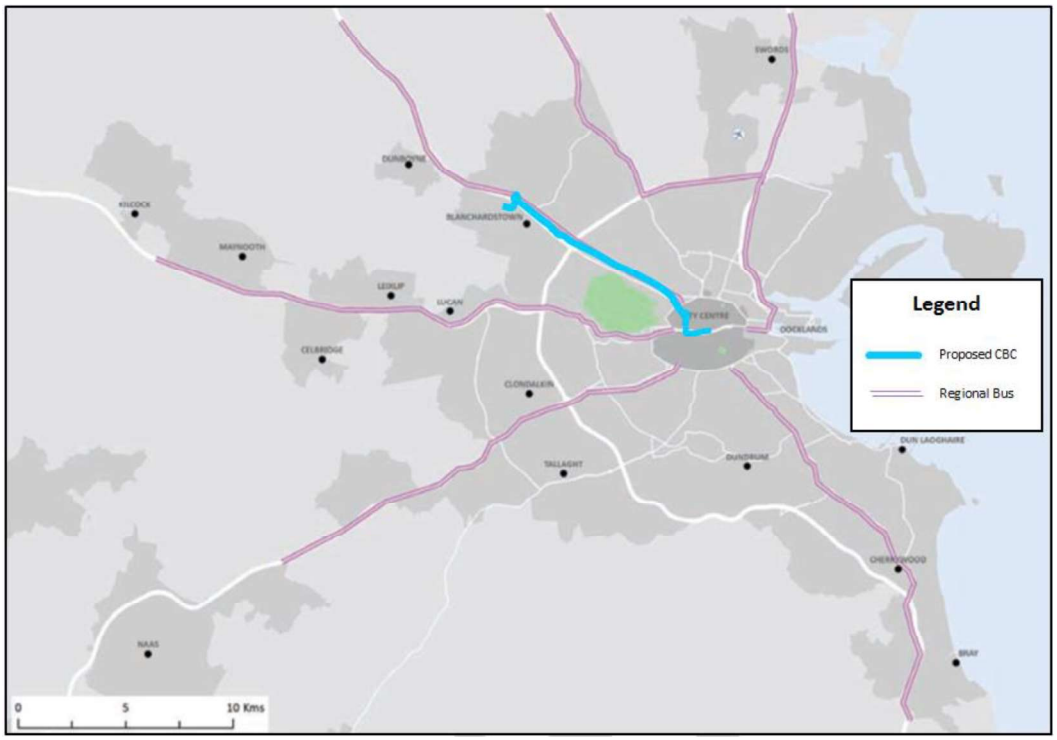

Figure 3.2: Core Regional Bus Network (Source: Transport Strategy 2016 – 2035)

Figure 3.3 illustrates the Orbital Networks within the Core Bus Network. This identifies that the proposed scheme interfaces with the following Orbital Networks: Dundrum – Finglas, Ranelagh – Drumcondra, Tallaght – Blanchardstown, and Blanchardstown – Kilbarrack.

Figure 3.3: Orbital Corridors (Source: Figure 5.5 Transport Strategy 2016 – 2035)

3.2.2 Metropolitan Light Rail

Figure 3.4 illustrates the Light Rail network proposed within the GDA. This identifies that the proposed scheme interfaces with the Red Luas Line at Museum/Smithfield. The proposed scheme also runs close to the Luas Cross City at Grangegorman.

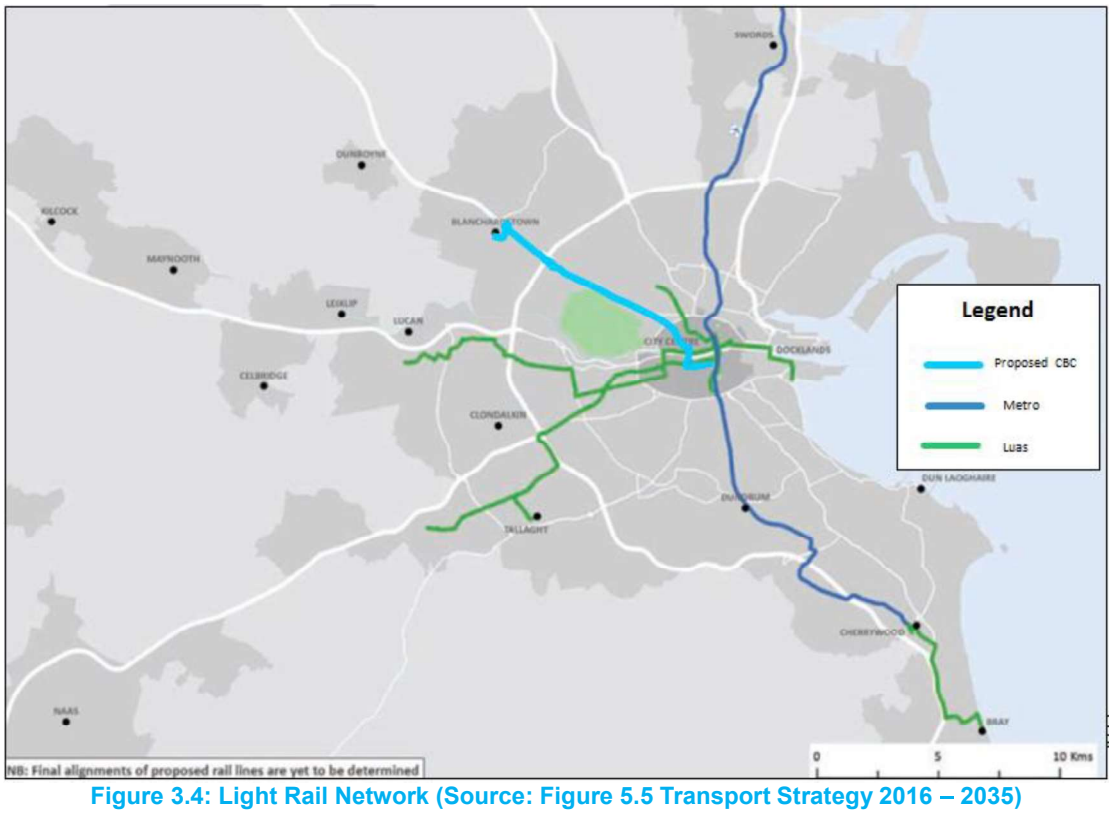

Figure 3.4: Light Rail Network (Source: Figure 5.5 Transport Strategy 2016 – 2035)

3.2.3 Metropolitan Heavy Rail Network

Figure 3.5 illustrates the DART and Commuter Rail proposed within the GDA Transport Strategy. This identifies that the proposed scheme interfaces with the Maynooth/Sligo Rail Line and M3 Parkway Line at Castleknock/Navan Road Parkway. It also commences close to the Clonsilla/Blanchardstown rail station on the Maynooth/Sligo Rail Line and M3 Parkway Line.

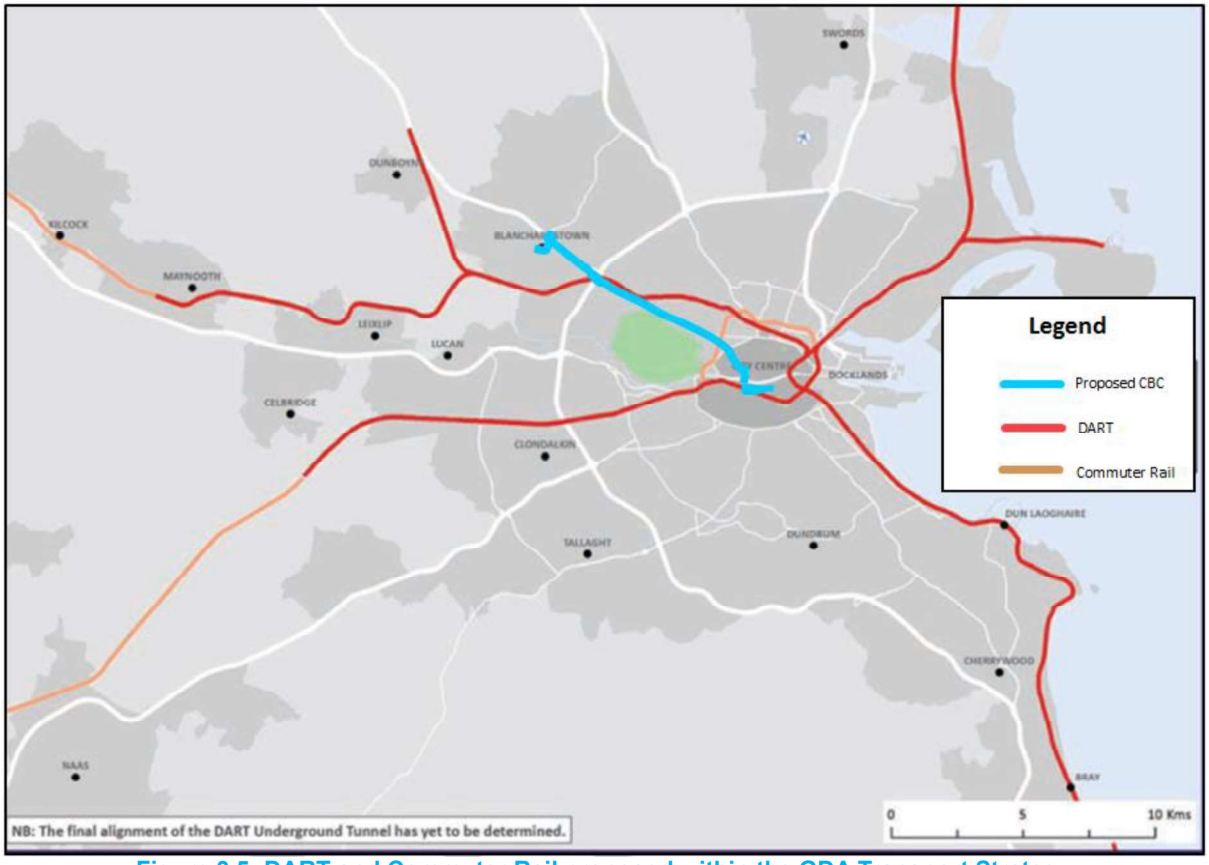

Figure 3.5: DART and Commuter Rail proposed within the GDA Transport Strategy

3.3 Compatibility with other users

A key objective of the proposed scheme is to improve pedestrian and cyclist facilities along the route (in line with the GDA cycle network). In general, suitable level of service should be proposed for these modes.

Where it is considered impractical to construct cycle facilities along a particular section of the CBC route, such facilities would need to be provided along suitable alternative routes and as required by the GDA Cycle Network Plan.

There may be locations where segregated cycle facilities cannot be provided along the CBC route and there is no suitable routing alternative. In this instance, it may be possible for cyclists to share with vehicles in the bus lane. However, such proposals need careful consideration and design to ensure the safety of cyclists, with additional mitigation measures, such as speed restrictions for vehicles in bus lanes being applied.

General traffic flow and local access will generally be maintained along the CBC corridor although it is inevitable that there will be impacts on traffic capacity along the route associated with the reallocation of road space to CBC priority and cycle lanes and the introduction of turning movement restrictions.

Reductions in traffic carrying capacity of the road network need, however, to be considered in the context of the overall significant increase in efficiency and reliability of the bus services that will be achieved.

3.4 Scheme Objectives

Having regard to the findings of the studies and plans set out in **Section 2** of the report, the following objectives were established for the Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC:

- Deliver the on street infrastructure necessary to provide continuous priority for bus movements along this Core Bus Corridor. This will mean enhanced bus lane provision on the corridor, removing current delays in relevant locations and enabling the bus to provide a faster alternative to car traffic along the route, making bus transport a more attractive alternative for road users. It will also make the bus system more efficient, as faster bus journeys means that more people can be moved with the same level of vehicle and driver resources; and
- Provide any cycle facilities along the route that are required under the Greater Dublin Area Cycle Network Plan (published by the NTA, 2013) to the target Quality of Service(s) specified therein and to give consideration to further providing cycle facilities along sections of the route where they may be not expressly required under the Cycle Network Plan.

4. Assessment Methodology

4.1 Introduction

This section of the report presents the methodology used for the assessment of potentially viable route options identified within the Study Area.

A two-stage assessment process was adopted as follows:

- An initial **Stage 1** high-level route sections assessment or 'sifting' process which appraised potentially viable route sections in terms of ability to achieve scheme objectives and whether they could be practically delivered; and
- Routes which passed this initial stage were taken forward to a more detailed **Stage 2** assessment.

4.2 Study Area

Arising from the transport policy context and scheme objectives set for the Blanchardstown to the Liffey Quays CBC, the broad Study Area identified for the proposed scheme is illustrated in red in **Figure 4.1**.

The Study Area is generally bounded to the north by Blanchardstown Town Centre and to the south by the Liffey Quays (Ellis Quay).

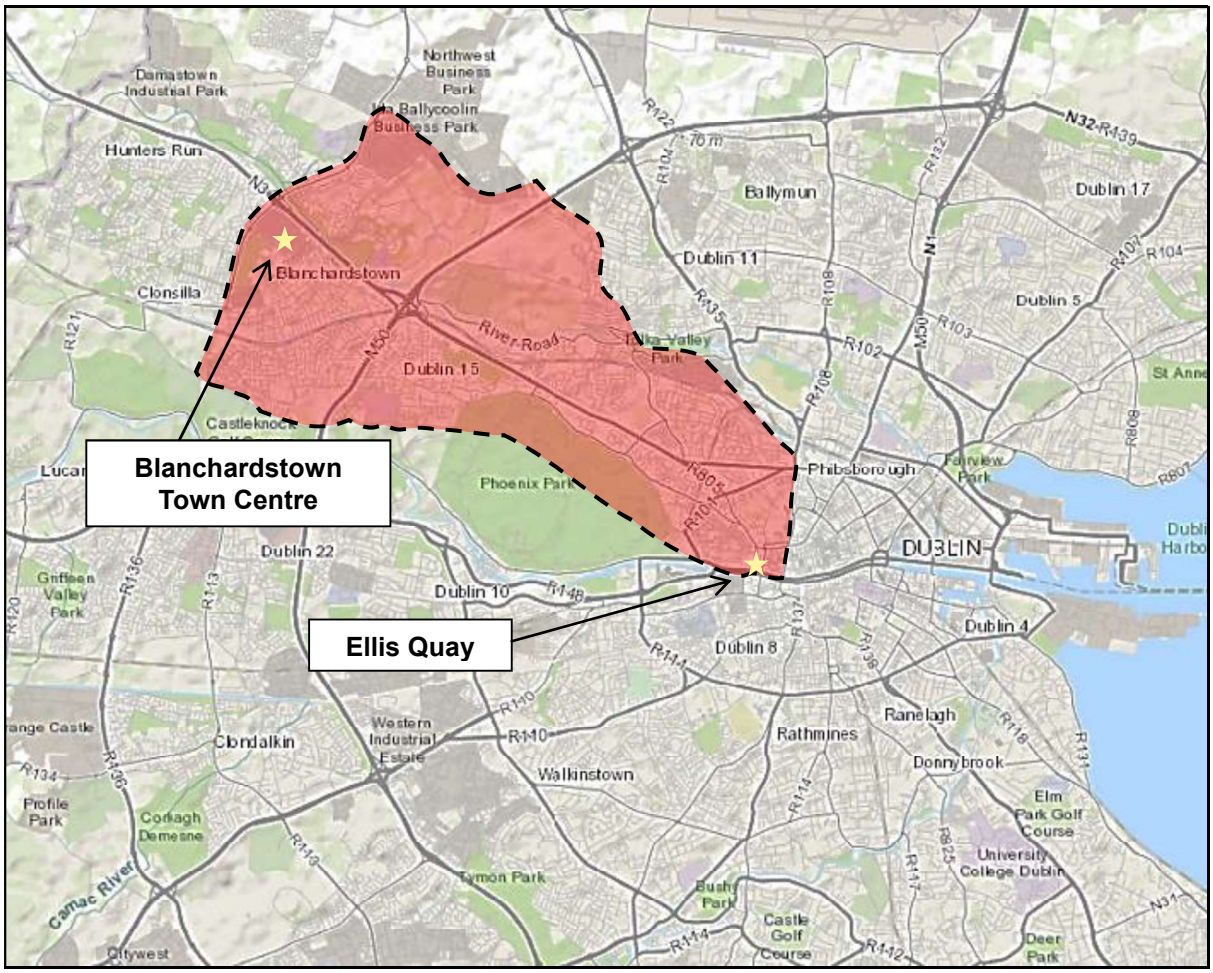

Figure 4.1: Study Area

The Study Area shown in **Figure 4.1** has been divided into three manageable sections to simplify the assessment process:

- Study Area Section (SAS) 1 – Blanchardstown to M50 East;
- Study Area Section (SAS) 2 – M50 East to Cabra; and
- Study Area Section (SAS) 3 – Cabra to River Liffey.

The extent of each of these Study Area Sections is presented in **Figure 4.2**.

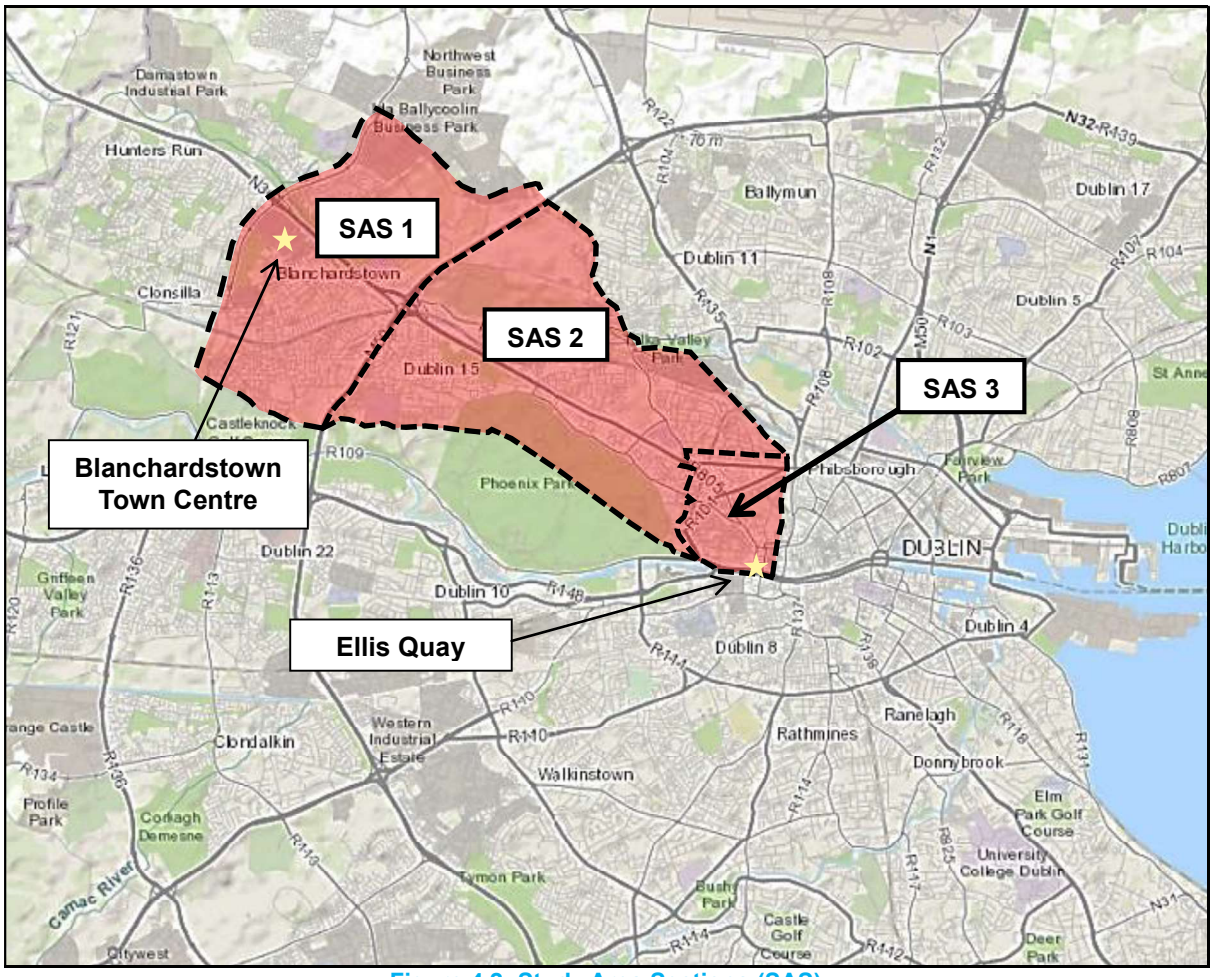

Figure 4.2: Study Area Sections (SAS)

4.3 Stage 1: Route Sections Assessment – Sifting Stage

4.3.1 "Spider's Web"

An initial "spider's web" of potential route sections that could possibly accommodate CBC service was identified for the Study Area.

This "spider's web" of route sections was chosen with reference to the CBC characteristics and in order to meet the scheme objectives as set out in **Section 3.4** of this report.

Initial route sections identified also took cognisance of the physical constraints and opportunities present (**Section 3.1** of this report) and the ability to integrate with other public transport modes and routes (**Section 3.2** of this report).

Of particular relevance in developing the "spider's web" was the potential for the road or route sections to facilitate fast and reliable journey times and thereby be able to practically accommodate CBC lane priority.

The resulting Study Area corridor "spider's web" of route sections identified is presented in **Section 5** of this report.

4.3.2 Sifting Process

At the Stage 1, i.e. sifting stage, the initial "spider's web" of route sections was narrowed down using a high level qualitative method based on professional judgement and a general appreciation for existing physical conditions / constraints within the Study Area from available survey information and site visits.

This exercise identified route sections that would either not achieve the scheme objectives or would be subject to significant cost and/or impact to achieve these objectives (e.g. excessive land-take).

4.4 Stage 2: Route Options Assessment – Detailed Assessment

Following completion of the Stage 1 assessment, the remaining potentially feasible route sections were progressed to Stage 2 of the assessment process.

This stage comprised a more detailed qualitative and quantitative assessment of scheme options identified along each potential route, using criteria established to compare scheme options.

The first step in the Stage 2 assessment was to combine shorter route sections which passed the Stage 1 assessment, to form longer end-to-end potential routes within the Study Area.

After developing routes options, each was explored using different design concepts to identify the degree of facility provision and necessary infrastructure requirements. This process involved the development of typically two scheme options for each route within the Study Area.

The scheme options for each route were then progressed to a multi-criteria analysis.

The 'Common Appraisal Framework for Transport Projects and Programmes' published by the Department of Transport, Tourism and Sport (DTTAS), March 2016, requires schemes to undergo a 'Multi-Criteria Analysis' (MCA) under the following criteria:

- Economy;
- Integration;
- Accessibility and Social Inclusion;
- Safety;
- Environment; and
- Physical Activity.

Physical Activity has been scoped out of the multi-criteria analysis at this stage. This is because all route options are considered to promote physical activity equally and as such it is not considered to be a key differentiator between scheme options.

An appreciation of constraints and opportunities within the Study Area as well as the defined project objectives, led to the establishment of project-specific route options MCA criteria.

These were tailored to have commonality to the Common Appraisal Framework guidelines where practical.

Table 4.1 presents a summary of the MCA criteria and sub-criteria used as part of the Stage 2 detailed route options assessment process.

Table 4.1: MCA criteria

MCA criteria	Assessment Sub-Criteria
Economy	1.a. Capital Cost
	1.b. Transport Reliability and Quality (Journey Time)
Integration	2.a. Land Use Integration
	2.b. Residential Population and Employment Catchments
	2.c. Transport Network Integration
	2.d. Cycle Network Integration
	2.e. Traffic Network Integration
Accessibility & Social Inclusion	3.a. Key Trip Attractors (Education/Health/Commercial/Employment)
	3.b. Deprived Geographic Areas
Safety	4.a. Road User Safety
Environment	5.a. Archaeology and Cultural Heritage
	5.b. Architectural Heritage
	5.c. Flora & Fauna
	5.d. Soils and Geology
	5.e. Hydrology
	5.f. Landscape and Visual
	5.g. Air Quality
	5.h. Noise & Vibration
	5.i. Land Use Character

In applying these criteria to the assessment process, it is clearly recognised that for different sections of the Study Area corridor, greater emphasis may need to be applied to some criterion over others in terms of their significance and influence on the route selection process.

4.4.1 Economy (Criterion 1)

4.4.1.1 Capital Cost (1.a.)

Capital cost estimates consist of both the indicative infrastructure cost estimate and land acquisition costs. This cost estimate was based on a range of per kilometre rates reflecting the extent of construction works required.

The following steps have been followed in order to derive cost estimates for each route option:

- Step 1: Define construction activity levels and assumptions for corridor sections.
- Step 2: Define construction activity levels and assumptions for junctions.
- Step 3: Estimation of cost rates in relation to construction activity levels for corridor sections.
- Step 4: Estimation of cost rates in relation to construction activity levels for junctions.
- Step 5: Estimation of cost rates in relation to construction activity levels for stops.
- Step 6: Apply appropriate cost rates to each route option to derive route option cost estimate.

Criterion 1.a.i. Indicative Infrastructure Cost Estimate

1.a.i.i. Route Sections

As part of the route optioneering process, constraints and associated mitigation measures, which provide improved / full bus lane provision, have been identified, grouped and ranked in levels.

Table 4.2: Construction Works for Corridor Sections

Construction Activity Level	Construction Works Assumption	€/km
Minor – Minor works locally	• Kerbs improvement locally (removal and replacement) • Footpaths improvement locally (breaking out/additional concrete) • Road resurfacing locally (milling/reinstatement or overlay) • Road markings (non-destructive removal of existing road markings, new road markings) • Signage (removal/relocation/replacement of existing and/or installation of new)	€650,000
Moderate – Roadway widening (excluding private land acquisition)	• General site clearance (street furniture removal/relocation, etc.) • Safety barriers/guardrails (removal and new) • Services protection/relocation/diversion (power supply, communications) • Drainage works (removal of and installation of new drainage systems) • Limited earthworks • Pavement full depth reconstruction • Road markings (non-destructive removal of existing road markings, new road markings) • Kerbs footways and paved areas (removal and new) • Road lighting (relocation, cabling, ducting) • Signage (removal/relocation/replacement of existing and/or installation of new) • Street furniture removal/relocation • Landscaping works (top soiling, fence, trees relocation, hedges, road margins re-grading, etc.)	€1,300,000

Construction Activity Level	Construction Works Assumption	€/km
Major – Roadway widening (including private land acquisition):	• General site clearance (street furniture removal/relocation, etc.) • Safety barriers/guardrails (removal and new) • Services protection/relocation/diversion (power supply, communications, water, gas) • Drainage works (removal of and installation of new drainage systems) • Earthworks (embankment treatments, retaining walls, slopes regrading, etc.) • Pavement full depth reconstruction • Kerbs footways and paved areas (removal and new) • Road markings (non-destructive removal of existing road markings, new road markings) • Signage (removal/relocation/replacement of existing and/or installation of new) • Road lighting (replacement, cabling, ducting) • Landscaping works (top soiling, fence, trees relocation, hedges, road margins, re-grading, etc.) • Property boundary reinstatement works (walls, gates, driveways landscaping etc.)	€2,500,000

1.a.i.ii. Junctions

Table 4.3 presents the construction activity levels for junctions, the assumed level of works for each category and the per junction rate.

Table 4.3: Construction Works for Junctions

Construction Activity Level	Construction Works Assumption	€/junction
Minor – Modifications to existing signal controlled junctions to introduce bus priority (i.e. changing method of control, etc.), without significant alteration to their existing geometry and layout	• Road markings (non-destructive removal of existing road markings, new road markings) • Anti-skid surface • Signage (removal/relocation/replacement of existing and/or installation of new) • Dished kerbs and tactile paving • Guardrails/Bollards • Additional signal poles/heads • Additional traffic signals ducting, cabling and chambers • Modifications to the signal controller and associated traffic signal installation works (including electrical) • Additional loop detectors	€70,000

Construction Activity Level	Construction Works Assumption	€/junction
Moderate – Upgrading existing minor/major junctions (including roundabouts) to signal control junctions, without significant alteration to their existing geometry and layout (excluding private land acquisition)	• Kerbs improvement locally (removal and new) • Footpaths improvement locally (breaking out and new) • Road markings (non-destructive removal of existing road markings, new road markings) • Signage (removal/relocation/replacement of existing and/or installation of new) • Anti-skid surface • Dished kerbs and tactile paving • Guardrails/Bollards • New signal poles/heads • New traffic signals ducting, cabling and chambers • New signal controller and associated traffic signal installation works (including electrical) • New loop detectors • Services protection/relocation/diversion (power supply, communications) • Limited earthworks • Pavement reconstruction • New road lighting (relocation, cabling, ducting)	€230,000

Construction Activity Level	Construction Works Assumption	€/junction
Major – Significant modifications to existing signal controlled junctions (including private land acquisition)	• General site clearance (street furniture removal/relocation, etc.) • Safety barriers/guardrails (removal and new) • Services protection/relocation/diversion (power supply, communications, water, gas) • Drainage works (removal of and installation of new drainage systems) • Earthworks (embankment treatments, retaining walls, slopes re-grading, etc.) • Pavement full depth reconstruction • Kerbs footways and paved areas (removal and new) • Road markings (non-destructive removal of existing, new road markings) • Anti-skid surface • Signage (removal/relocation/replacement of existing and/or installation of new) • Dished kerbs and tactile paving • Guardrails/ Bollards • Additional signal poles/heads • Additional traffic signals ducting, cabling and chambers • Modifications to the signal controller and installation works (including electrical) • Additional loop detectors • Road lighting (replacement, cabling, ducting) • Landscaping works (top soiling, fence, trees, hedges, margins re-grading, etc.) • Property boundary reinstatement works (walls, gates, driveways landscaping etc.)	€1,000,000

1.a.i.iii. Bus Stops

For cost estimation purposes only, the bus stops have been assumed to comprise the following items:

- Raised Kerbs;
- Paving;
- Illuminated shelters;
- Identification posts;
- RTPI;
- Lighting;
- Associated ducting (communications and power); and
- Bus Stop Furniture (i.e. passenger guardrails, benches, bollards, etc.).

Based on the above assumptions, outline costs for the bus stops were estimated to be €20,000/stop. These costs exclude VAT, professional fees and re-routing of services.

It should be noted that the above listed bus stop cost estimates are subject to refinement, based on a more detailed analysis at detailed design stage.

Criterion 1.a.ii. Land Acquisition Cost Estimate

Land Acquisition Costs will be accounted for separately @ €1,500/m2

Exclusions from the cost estimation process at this stage are listed below:

- VAT;
- Fees for planning process;
- Statutory Undertakers;
- Professional Fees; and
- Escalation and inflation adjustments.

4.4.1.2 Transport Reliability and Quality of Service (1.b.)

This criterion assesses route options in terms of the degree to which transport reliability and quality of service is likely to be achieved.

The assessment considers the following.

Criterion 1.b.i. Journey Time

the extent to which journey time savings, and associated economic benefits, for public transport services, can be achieved on a route.

This would be practically achieved through the extent to which any or all of the following measures can be implemented;

- Enhancement of existing bus and / or provision of new bus lanes along road links;
- Provision of bus lanes through junctions (preferably through signal controlled junctions);
- Local upgrading of road sections to provide more carriageway space and therefore, additional capacity;
- Use of traffic signals to provide virtual priority e.g. queue relocation;
- Removal of 'pinch points' for bus services and traffic along the route; and
- Rationalisation of existing bus stops in terms of location, indentation (i.e. ability to provide laybys to avoid blockage of bus lanes) and spacing.

Journey times for each route option have been calculated by comparing the time required by a bus to travel between common start and end points on each route.

The following assumptions have been made in calculating the comparative journey times along route options:

- Top operational speed (free-flow) of 50 kph in suburban areas and 30 kph in City Centre areas;
- Dwell time of 15 seconds per stop on average (assumes cashless fares i.e. Leap card. Assumes that on average, buses stop at every second stop i.e. 30 second delay at every second stop); and
- Delay of 15 seconds per junction on average (assumes buses stop at every second junction i.e. 30 second delay at every second junction)

These assumptions assume dedicated bus priority infrastructure or free-flowing traffic conditions along a route section by direction of travel.

Where the indicative scheme determined for a route suggests that this is not practically achievable, modified speeds and delay assumption are applied as appropriate.

These additional delays are estimated based on available queue length information, automatic vehicle location information from Dublin Bus and estimates of the impact of traffic management measures (such as queue relocation).

Criterion 1.b.ii. Number of Major Junctions

The number of major junctions / signalised crossings along each route have been compared. For the purposes of this assessment, major junctions are generally defined as signalised junctions and roundabouts i.e. any junction likely to cause delays to buses.

Regardless of the level of practical or feasible bus priority provided at major junctions, there will always be an element of delay to buses associated with signalised junctions, even with the most efficient signalling system being provided.

While it is impossible to completely avoid major junctions on any route option, this risk of potential delay has been considered when comparing route options. This feeds into the overall journey time calculations as indicated above.

Criterion 1.b.iii. Level of Bus Priority Provision

The level of bus priority achievable along route options has been considered and compared.

The level of priority is predominantly concerned with the degree to which road space can practically be allocated to buses, the amount of protection afforded to this priority, i.e. segregation, and the provision for buses at junctions such as bus lanes at the stop line. This feeds into the overall journey time calculations as indicated above.

4.4.2 Integration (2)

4.4.2.1 Land-Use Integration (2.a.)

This criterion identifies the extent to which a route would encourage or support planned development and provide for economic opportunities; whether particular route options offer synergies with other urban enhancement proposals and whether route options afford the potential to regenerate particular streets or quarters (of most relevance to the City Centre area).

The interaction of routes with Local Area Plans (LAPs), masterplans or specific objectives in the County Development Plans are also considered under this criterion.

4.4.2.2 Residential Population and Employment Catchments (2.b.);

Criterion 2.b.i. Residential Population Catchments

This criterion compares the existing residential populations within 5, 10 and 15 minute walk catchments from bus stops and is representative of the number of potential bus users for a particular route option. The assessment does not include future populations of zoned, but yet undeveloped residential development lands along route options.

The analysis involved extracting 2011 population statistics from the Central Statistics Office (CSO) ‘small areas’ dataset. GeoDirectory was used to assist in calculating the proportional figures for the population within the specific contour bands for each of the routes. This information was subsequently used to calculate the population living within the contours.

Criterion 2.b.ii. Employment Population Catchments

This criterion compares the existing employment populations within a 10 minute walk catchments.

The analysis involved extracting information from the 2011 POWSCAR (Place of Work, School or College - Census of Anonymised Records) data, which contains data on employment and school goers within specific areas. The areas used for the analysis were taken from the NTA’s multi-modal transport model of the Greater Dublin Area and correspond to the zones defined in the model. These zones are effectively modified Central Statistics Office (CSO) boundaries.

GeoDirectory was used to assist in calculating the proportional figures for the employment units within the specific contour bands for each of the routes. This information was subsequently used to calculate the number of people working within the contours.

As with the residential population catchments, the assessment does not quantitatively assess the future populations of zoned, but yet undeveloped commercial development lands along route options.

4.4.2.3 Transport Network Integration (2.c.)

This criterion identifies the extent to which route options would maximise wider public transport usage and reach in terms of facilitating efficient interchange between other transport routes and modes (e.g. other core/feeder bus routes, BRT routes, Luas, DART, suburban rail, future Metro). Linked to this, is the availability of space at potential interchange locations for facilities such as cycle parking areas, covered interchange areas, safe walking areas to and from stops etc.

4.4.2.4 Cycle Network Integration (2.d.)

This criterion considers whether a route option forms part of the GDA Cycle Network Plan, with routes which overlap with designated Cycle Routes given a higher designation in terms of benefits arising where cycle infrastructure can be provided as part of the proposed scheme. In some instances however it may be more appropriate to modify an existing or proposed cycle route as part of the GDA Cycle Network so that bus and cycle network objectives can both be achieved within the broader corridor area. Consideration is also given to cycle routes intersecting with the bus route. The quality of cycle provision practically achievable on route options has been assessed as this is considered to be a proxy for encouraging physical activity along the route. For comparison purposes, the highest level of practical cycle provision achievable on each route has been determined and compared between route options.

4.4.2.5 Traffic Network Integration (2.e.)

A comparative assessment of the expected traffic impact of each route option was undertaken based on professional judgement and understanding of traffic conditions in the Study Area. This represents a high level assessment of the traffic impact of the route options considered in the Stage 2 MCA. The anticipated traffic impact expected to be incurred by motorists using private vehicles As a result, of the different route options will be assessed. The disadvantages experienced by motorists in respect of reduced junction capacity and restricted movements will be considered.

4.4.3 Accessibility and Social Inclusion (3)

4.4.3.1 Key Trip Attractors (3.a.)

This assessment criterion identifies key trip attractors located within approximately 15 minute walk catchments which would generate significant demand for bus services but would not be otherwise picked up by either the employment or residential catchment analysis. For the purposes of this assessment the following land-uses have been considered as key trip attractors:

- Education (schools and universities);
- Commercial centres (shopping centres, town centres etc.);
- Healthcare (hospitals);
- Leisure (sport stadiums, theatres, cinemas etc.); and
- Employment (business parks, large office developments etc.).

4.4.3.2 Deprived Geographic Areas (3.b.)

The possible impact of the route options on deprived geographic areas including RAPID (Revitalising Areas by Planning, Investment and Development) areas and the HP Deprivation Index was investigated.

4.4.4 Safety (4)

4.4.4.1 Road User Safety (4.a.)

Generally, the introduction of CBC will result in a reduction in road collisions due to people switching from private car to public transport. However, the reduction in collisions is unlikely to differ between various route options, particularly over the short sections being investigated as part of this assessment. Therefore, for the purposes of comparing route options, the number of junctions along the route has been used as a proxy for road safety. The number of junctions is effectively a measure of the number of potential conflicts on the route and therefore a measure of the potential for a collision. The type of movement required by the bus at junctions on the route is also considered with routes where turning movements (either left or right) are required being assigned a lower ranking in terms of safety. Road User Safety also refers to cyclist and pedestrian safety such as segregated cycle facilities and safer pedestrian crossing facilities, in line with the National Cycle Manual and the Design Manual for Urban Roads and Streets.

4.4.5 Environmental (5)

The scope and methodology for the environmental assessment was established by considering what environmental aspects are likely to be impacted and are therefore of importance in evaluating the route options. A list of the environmental topics considered is outlined in **Table 4.4** and **Table 4.5**.

Table 4.4: Environmental Aspects Considered – Aspects Scoped out of Environmental Assessment

Aspects Scoped out of Environmental Assessment	Rationale
Agronomy	Given the urban/suburban nature of the proposed scheme and the assumption that the CBC will run on predominantly existing road infrastructure, this aspect is not considered to be relevant to the assessment.
Hydrogeology	Hydrogeology is not considered to be a determining factor in the selection of the preferred route option. Also at this stage of the design process it is not possible to determine the quality, type or duration of these impacts, particularly as the location and type of structures e.g. underpasses, bridges etc. are unknown.
Property/Land Acquisition	This aspect has been considered separately as part of the Economy criterion in the overall MCA commensurate with the information available at the route option assessment stage.
Socio-economics	Elements of socio-economics such as journey times, catchment analysis, transport integration, quality of service for cyclists etc. are assessed under other non-environmental criteria and will be considered as part of the MCA.

Table 4.5: Environmental Aspects Considered – Aspects Included in Environmental Assessment

Aspects Included in Environmental Assessment	Rationale
6.a./6.b.Archaeological, Architectural and Cultural Heritage	The provision of CBC infrastructure has the potential to impact on the archaeological, architectural and cultural heritage environment. At this stage of the assessment process, a conservative approach has been adopted in assessing the potential for impact and this is further described below.
6.c. Flora and Fauna	The provision of CBC infrastructure has the potential to impact on flora and fauna.
6.d. Soils and Geology	The provision of CBC infrastructure has the potential to impact on soil and geology As a result, of land-take and possible ground excavation (including potential to encounter ground contamination).
6.e. Hydrology	The provision of CBC infrastructure has the potential to impact on surface water bodies As a result, of land-take (with particular emphasis on floodplains and flood zones).
6.f. Landscape and Visual	The provision of CBC infrastructure has the potential to impact the townscape/streetscape along the CBC route.
6.g. Air Quality	The provision of CBC infrastructure has the potential to impact the air quality along the CBC route.
6.h. Noise & Vibration	The provision of CBC infrastructure has the potential to impact the noise environment along the CBC route.
6.i. Land Use Character	The provision of CBC infrastructure has the potential to impact on land use character through land-take, severance or reduction of viability which prevents or reduces it from being used for its intended use.

When preparing an Environmental Impact Assessment Report (EIAR) for the preferred route and scheme design, if necessary, the environmental topics that have been scoped out (and others that are not considered relevant for the route options assessment), will have to be reviewed and incorporated into the EIAR as appropriate.

4.4.5.1 Archaeological, Architectural and Cultural Heritage

As discussed above, a conservative approach has initially been adopted in undertaking the route options assessment in relation to the archaeological, architectural and cultural heritage environment. The constraints comprise Recorded Monuments and Protected Structures (RMPs) within 50m of each scheme option, extending to 250 m in greenfield areas.

Sites of archaeological and cultural heritage merit and sites of architectural heritage merit which are directly intersected by the scheme option are also included within the scope of this assessment.

During the detailed design of the proposed scheme, the aim will be to avoid known constraints and/or minimise the number of constraints which may be directly or indirectly impacted by the proposed scheme.

Appropriate mitigation for construction will be included which will seek, where practicable, to ensure preservation in situ of archaeological remains and the avoidance of impacts on archaeological and cultural heritage constraints. A similar approach has been adopted in relation to the route options assessment for architectural heritage. As a result, the assessment effectively evaluates the potential for impact on architectural heritage from façade to façade which provides for a comparative and qualitative evaluation of Protected Structures along route, in particular along heavily developed sections such as those identified within the City Centre. However, it is important to note that the CBC route will primarily travel on existing established road networks.

Other than locations of potential significant widening of the existing road curtilage, it is currently not anticipated that adjacent structures and buildings will be impacted by the proposed scheme (while acknowledging that the designation of, and protection afforded to a Protected Structure is not restricted to the structure itself but to all elements within its curtilage, e.g. coal cellars and boundary elements).

Within the City Centre, the selection of a viable route options will involve the running of the CBC service in the vicinity of numerous Protected Structures irrespective of which route section is preferred (archaeological, architectural and cultural heritage is only one of the criteria being considered as part of the MCA analysis).

The detailed design of the proposed scheme will seek to avoid and minimise impacts on architectural heritage.

4.4.6 Scheme Options Summary Table

A scheme options summary table, in Project Appraisal Balance Sheet, (PABS) format has been prepared which collates and summarises the appraisal of scheme options under each of the assessment criterion.

The scheme options summary table is presented in **Appendix A**.

For each individual assessment criterion considered, routes have been relatively compared against each other based on a five point scale, ranging from having significant advantages to having significant disadvantages over other scheme options.

For illustrative purposes, this five point scale is colour coded as presented in **Table 4.6** with advantageous routes graded to ‘dark green’ and disadvantaged routes graded to ‘dark red’.

Table 4.6: Scheme Options Colour Coded Ranking Scale

Colour	Description
	Significant advantages over the other options
	Some advantages over other options
	Neutral compared to other options
	Some disadvantages compared to other options
	Significant disadvantages compared to other options

At the end of the route options assessment, an overall MCA table is provided, bringing together each of the individual criterion assessments.

A qualitative appraisal of, and conclusions from, the route options assessment is then provided, highlighting the key issues considered in determining recommended scheme options ('preferred' and in some instances, where applicable, 'next preferred').

A balanced approach is taken when assessing the preferred routes. In the case of the city centre section only – i.e. Study Area Section 3, a Stage 3 Refined Scheme Option Assessment is included, exploring the local traffic management options along the preferred route corridor to a greater level of detail.

All criteria are considered in undertaking the assessment and a lower ranking on one criterion, for example, will not necessarily mean that the route is not suitable.

The recommended scheme options are then collated to provide the emerging preferred end-to-end scheme option.

4.4.7 Conclusion

The outcome from the transport analysis and the findings of the MCA are then finally considered in a holistic manner to derive a preferred 'end-to-end' route.

5. Stage 1: Route Sections Assessment

5.1 Introduction

As outlined in **Section 4** of this report, the Study Area has been divided into three sections to simplify the assessment process:

- **Study Area Section (SAS) 1 – Blanchardstown to M50 East;**
- **Study Area Section (SAS) 2 – M50 East to Cabra; and**
- **Study Area Section (SAS) 3 – Cabra to the Liffey Quays (Ellis Quay).**

This section of the report addresses the route sections in each SAS.

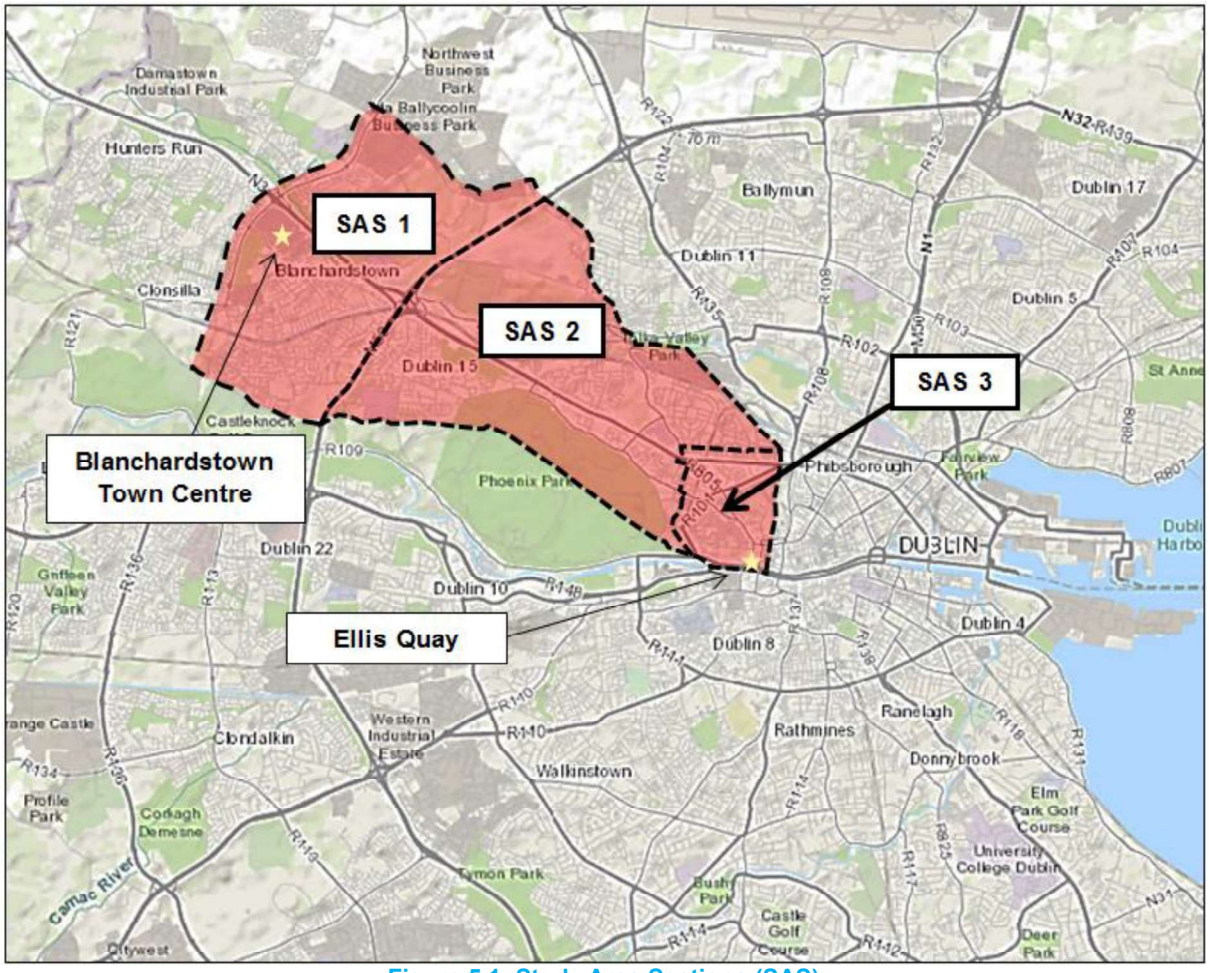

Figure 5.1: Study Area Sections (SAS)

5.2 SAS 1: Blanchardstown to M50 East

Within SAS 1, there are a number of route sections which have been considered. The roads available for CBC routing have been subdivided into shorter sections for the purposes of the Stage 1 route sections sifting process.

Following the route sifting process, remaining routes sections have been combined to form longer route options where possible.

Figure 5.2 presents the initial potential route sections identified.

A summary of the Stage 1 route sections sifting process is presented in **Table 5.1**.

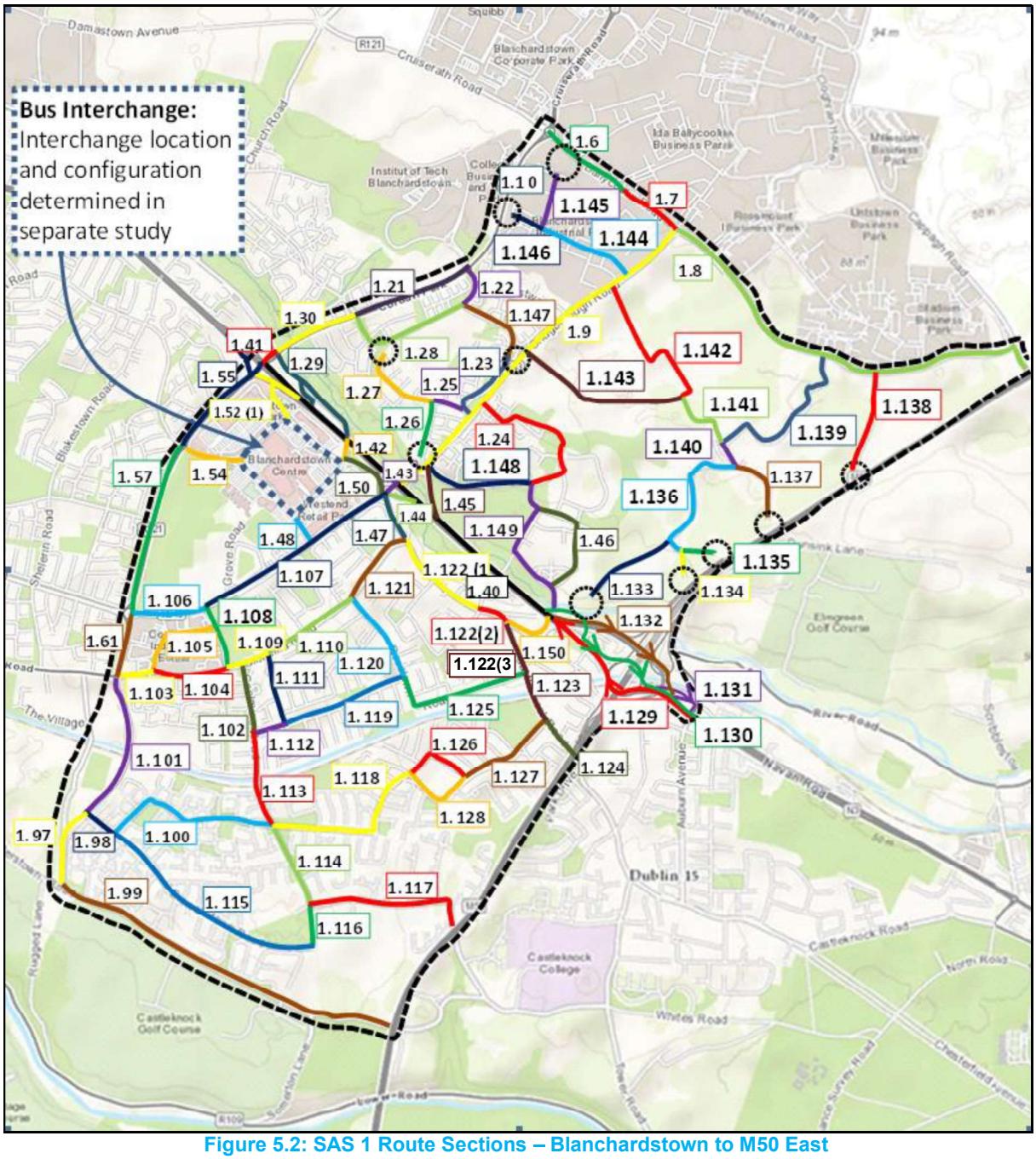

Figure 5.2: SAS 1 Route Sections – Blanchardstown to M50 East

Table 5.1: SAS 1 Route Sections Sifting (Stage 1) Summary

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.6	Ballycoolin Road from Snugborough Road (1.9) to Blanchardstown North (1.10)	Industrial Park – Wide single carriageway. No cycle lanes. Wide grass verges on both sides.	This route section has been identified as a Secondary route on the GDA National Cycle Network Plan. This route section may link Blanchardstown Town Centre with Dublin City Centre. Off-road cycle lanes are currently provided at the top western section of the existing Carriageway. There would be capacity to widen the existing carriageway due to the wide grass verges. As a result, this is a viable route.	Pass
1.7	Ballycoolin Road from Snugborough Road (1.9) to Blanchardstown Road North (1.10)	Industrial Park – Wide single carriageway. Cycle lanes are provided. Wide grass verges on both sides. Off-road cycle lanes at top western section of carriageway.	This route section has been identified as a Secondary route on the GDA Cycle Network Plan. There would be some capacity to widen the existing carriageway due to the wide grass verges. This route section may link Blanchardstown Town Centre with Dublin City. As a result, this is a viable route.	Pass
1.8	Ballycoolin Road from Snugborough Road (1.9)to Ballycoolin (1.7)	Industrial Park - Wide carriageway with four lanes. Cycle lanes in both directions segregated from road by a grass verge and trees.	This route section has been identified as a Secondary route on the GDA Cycle Network Plan. This route section would provide a link from Blanchardstown Centre to Dublin City Centre. There is scope to widen the existing carriageway to provide bus and cyclist facilities. As a result, this is a viable route.	Pass
1.9	Snugborough Road from Ballycoolin Road (1.7, 1.8) to Snugborough Road Extension (1.143)	Suburban/Industrial - Wide four way carriageway with bus lane in both directions and stops. Cycle lanes in both directions. The cycle lane changes to off-road just after the GAA Club heading north.	This route section has been identified as a Secondary route on the GDA Cycle Network Plan. Optimum bus and cycle facilities may be provided within the existing carriageway. There is also scope to widen to facilitate further facilities due to green space running along the whole route on both sides. May provide a link from Blanchardstown Centre to Dublin City Centre. As a result, this is a viable route.	Pass
1.10	Blanchardstown Road North from Ballycoolin Road (1.6) to Blanchardstown Road North junction (1.21)	Industrial Park - Community Infrastructure: Institute of Technology Blanchardstown. Single carriageway with Segregated cycle lanes in both directions separated by a grass verge lined with trees.	This route section has been identified as a Secondary route on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway along the entirety of the route section. This route section may provide a link from Blanchardstown Centre to Dublin City Centre. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.21	Blanchardstown Road North from Blanchardstown Road North junctions (1.10, 1.30)	Suburban -Community Infrastructure: Institute of Technology Blanchardstown, Community College, small community centre and a place of worship. Existing bus facilities. Segregated cycle lanes.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway but this would not be necessary as the adequate facilities are present along the route. This route section would provide a link from Blanchardstown Town Centre to the City Centre. As a result, this is a viable route.	Pass
1.22	Blackcourt Road from ITB Main Campus Avenue (1.11) to Corduff junction (1.23)	Suburban - Single carriageway with traffic calming measures in place. Existing bus stops. Grass verge separating footpath on both sides. Capacity to widen. No cycle facilities.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway due to the open space that runs along the route section. This has the potential to facilitate optimum bus and cycle facilities. This route section would provide a link from Blanchardstown Centre to the City Centre. As a result, this is a viable route.	Pass
1.23	Corduff from Snugborough Road junction (1.9) to Blackcourt Road junction (1.22)	Suburban – Community Infrastructure and Local Centre. Residential route. Existing bus stops in both directions. No cycle facilities.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway to provide the optimum bus and cycle facilities. However, this route section does not provide a link from Blanchardstown Centre to the City Centre. As a result, this is not a viable route.	Fail
1.24	Waterville Road from Snugborough Road (1.9) to Connolly Hospital (1.46) to M3 Slip Road Merge (1.45)	Suburban - Single carriageway. Footpaths are separated from the road by grass verges lined with trees on both sides. No cycle facilities.	This route section has been identified as a feeder route on the GDA National Cycle Network Plan. This route section does not provide a reasonably direct link from Blanchardstown Centre to the City Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.25	Ashling Heights from Snugborough Road (1.9) to Corduff (1.23) to Waterville Road junction to Old Corduff Road junction (1.26)	Suburban – No bus or cycle facilities. Grass verge lined with trees.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. This route section does not provide a reasonably direct link from Blanchardstown Centre to the City Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.26	Old Corduff Road from Ashling Heights (1.25) to Edgewood Lawns (1.27)	Suburban - Residential estate. Narrow carriageway. No capacity to widen. Connection needs to be created. Footpath separated from the route by a grass verge.	This route section has not been included on the GDA National Cycle Network Plan. In order for this route to be considered, a link to connect the route with Snugborough Road (1.9) would have to be created. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. This route section does not provide a reasonably direct link with Blanchardstown Centre to Dublin City Centre. As a result, this is not a viable route.	Fail
1.27	Edgewood Lawns from Ashling Heights (1.25) to Old Corduff Road (1.26)	Suburban -Residential estate. On-street parking. Connection needs to be created. Standard carriageway through a residential estate. Footpath is separated from the road by a grass verge lined with trees.	This route section has been identified as a Secondary route on the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities although this would be dependent on unfeasible 3rd party land take. Connection to Blackcourt Road would require construction of a new link road. This route section does not provide a reasonably direct link with Blanchardstown Centre to Dublin City Centre. As a result, this is not a viable route.	Fail
1.28	Blackcourt Road from Blackcourt Road junction (1.22) to Castlecurragh Junction (1.31)	Suburban – Community Infrastructure. Standard width carriageway with traffic calming measures in place. Existing bus stops. Footpath on one side of the road is separated by a grass verge.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. This route section would provide a link from Blanchardstown Centre to the City Centre. As a result, this is a viable route.	Pass
1.29	Old Navan Road from to Old Navan Road junction (1.33) to Navan Road junction (1.42)	Motorway - On/off-street cycle facilities. Tolka Valley Park is adjacent to road. Existing bus stops. Wide carriageway with on street cycle lanes at the mid-section of the route.	This route section has been identified as a Secondary route on the GDA National Cycle Network Plan. This route section provides a link from Blanchardstown Centre to the City Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.30	Blanchardstown Road North from Blanchardstown Road North junction (1.21) Blanchardstown Road junction (1.41)	Suburban - Tolka Valley Park. Segregated on-street cycle lanes. Limited scope to widen. Four lane carriageway with existing bus lanes. Segregated cycle lanes in both directions.	This route section has been identified as a Secondary route on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway but this would not be necessary as the adequate facilities are present along the route. This route section provides a potential link from Blanchardstown Centre to the City Centre. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.40	Blanchardstown Roundabout to M3 Slip Road Merge (1.130)	National Primary Route. Dual carriageway separated by a grass verge. The N3 links Navan with Dublin while continuing to the M50 junction at Blanchardstown.	This route section has not been included on the GDA National Cycle Network Plan. There is some capacity to widen on both sides of the existing carriageway in order to facilitate the provision of optimum bus facilities. This route section provides a link from Blanchardstown Centre to the City Centre. As a result, this is a viable route.	Pass
1.41	Blanchardstown Road from Blanchardstown Road North junction (1.30) to N3 (1.40)	Overpass. Two separate overpass carriageways. Both are three lanes with an on-road cycle lane and footpath. The centre of the overpass is not connected. Traffic flow is separated by guard rails.	This route section has been identified as a Secondary route on the GDA National Cycle Network Plan. There is limited scope to widen the carriageway although existing conditions would facilitate the provision of full bus and cycle facilities. As a result, this is a viable route.	Pass
1.42	Navan Road from Old Navan Road (1.29) to Blanchardstown Centre (1.49)	Overpass. Connection to Major Town Centre. N3 overpass. Single carriageway connecting to Blanchardstown centre.	This route section has been identified as a Secondary route on the GDA National Cycle Network Plan. There is limited scope to widen the carriageway although existing conditions would facilitate the provision of one way bus and cycle facilities. As a result, this is a viable route.	Pass
1.43	Snugborough Road Extension from Snugborough Road (1.9) to Main Street (1.47)	Overpass with footpath on either side. Two lanes towards Blanchardstown centre with one towards the National Aquatic Centre.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. There is limited scope to widen the carriageway although existing conditions would facilitate the provision of bus and cycle facilities. As a result, this is a viable route.	Pass
1.44	M3 Slip Road (Exit) from Main Street junction (1.47)	M3 Exit. Towards Blanchardstown town centre and village. Two lane (one way) carriageway that becomes three lanes at junction.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway although existing conditions would facilitate the provision of one way bus. As a result, this is a viable route.	Pass
1.45	M3 Slip Road (Merge) from Waterville Road (1.24) to N3 (1.40)	M3 Merge. Two lane (one way) carriageway onto N3. One lane is dedicated for buses.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the carriageway although existing conditions would facilitate the provision of one way bus and cycle facilities. As a result, this is a viable route.	Pass
1.46	Connolly Hospital from Waterville Road (1.24) to N3 (1.40)	Blanchardstown Hospital. Land is zoned as Community Infrastructure. Narrow carriageway.	This route section has been identified as a greenway route on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.47	Main Street from Old Navan Road (1.50) to Main Street (1.122)	Town and District Centre. Main Street. Single carriageway. On road cycle lane towards Blanchardstown centre. Off road cycle lane in opposite direction that begins at the mid-section of the route. Limited capacity to widen due to residential properties, gas station and car dealership. Land on either side is zoned as town and district centre.	This route section has been identified as a Primary route on the GDA National Cycle Network Plan. This route section provides a link from Blanchardstown Centre to Dublin City Centre. Widening would be required to provide optimum full bus and cycle facilities. While landtake is required, this section provides direct access to trip attractors and benefits from existing and new bus operations along the route. As a result, this is a viable route section.	Pass
1.48	Blanchardstown Centre from Blanchardstown Centre junction (1.51) to Snugborough Road Extension junction (1.107)	Major Town Centre. Segregated cycle lanes. Three roundabouts. Entrance to Blanchardstown centre. Very busy vehicular traffic as it is an access route to the car parking facilities. Segregated cycle lanes separated by a grass verge lined with a small wooden fence.	This route section has been identified as a feeder route on the GDA National Cycle Network Plan. This route section may provide a link from Blanchardstown Centre to Dublin City Centre. This route is lined with existing two-way cycleways and has been identified as a 'Tree Lined Street' in the Blanchardstown Town Centre Development Framework / Masterplan (April 2009). Widening would be required to provide optimum bus facilities. However, there is limited scope to widening. As a result, this is not a viable route.	Fail
1.50	Old Navan Road from M3 Slip Road Exit junction (1.44) to Blanchardstown Centre junction (1.52)	Major Town Centre. Three lane carriageway. Existing bus stops. Capacity to widen.	This route section has been identified as a primary route on the GDA National Cycle Network Plan for Dublin North-West. This route may provide a direct link from Blanchardstown Centre towards Dublin City Centre. There is scope to widen the existing carriageway to provide full bus and cycle facilities. As a result, this is a viable route.	Pass
1.52 (1)	Blanchardstown Centre from Blanchardstown Centre junction(1.52) to Blanchardstown Road South junction (1.55)	Major Town Centre. Existing single bus lane. Slip road exit off the M3.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway although existing conditions would facilitate the provision of one way bus and cycle facilities. This route section may provide a direct link from Blanchardstown Centre to Dublin City Centre. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.55	Blanchardstown Road South from Blanchardstown Centre(1.52 (1)) to Blanchardstown Road South (1.57)	Suburban - Existing bus lanes. Wide four lane carriage way with bus lanes in both directions. Off-road cycle lanes. Footpath is separated by a grass verge.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway although existing conditions would facilitate the provision of optimum bus and cycle facilities. This route may provide a direct link from Blanchardstown Centre towards Dublin City Centre. As a result, this is a viable route.	Pass
1.57	Blanchardstown Road South from Blanchardstown Road South junction (1.55) to Blanchardstown Road South junction (1.61)	Suburban –. Wide carriageway with two lanes in each direction. In both directions there is a dedicated bus lane and stops. Existing bus and cycle facilities.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. There is direct access to and from Blanchardstown centre. There is scope to widen the existing carriageway although existing conditions would facilitate the provision of optimum bus and cycle facilities. This route section may provide a direct link from Blanchardstown Centre towards Dublin City Centre. As a result, this is a viable route.	Pass
1.61	Blanchardstown Road South from Blanchardstown Road South junction(1.57) to Clonsilla Road junction (1.101)	Suburban - Local Centre. Bus lane heading south. Coolmine. Industrial Estate to the east. Wide three lane carriageway with existing bus lane heading south. Bus stops in both directions.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan There is scope to widen the existing carriageway although existing conditions would facilitate the provision of optimum bus and cycle facilities. This route may provide a direct link from Blanchardstown Centre towards Dublin City Centre. As a result, this is a viable route.	Pass
1.97	Porterstown Road from Luttrellstown Road (1.99) to Clonsilla Road Junction (1.101)	Suburban – Standard carriageway. Community Infrastructure located along carriageway. Off-road cycle lanes and footpaths on both sides.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. There is scope to widen the existing carriageway although existing conditions would facilitate the provision of optimum bus and cycle facilities. This route may provide a direct link from Blanchardstown Centre towards Dublin City Centre. As a result, this is a viable route.	Pass
1.98	Diswellstown Road from Porterstown Road Junction (1.96) to Diswellstown Road Junction (1.115)	Suburban – Standard carriageway. Off-road cycle lanes on both sides separated by a grass verge. No bus facilities.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. This route may provide a direct link from Blanchardstown Centre towards Dublin City Centre. There is scope to widen the existing carriageway to provide the optimum bus and cycle facilities. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.99	Luttrellstown Road/Porterstown Road	Suburban – Single narrow carriageway. No cycle lanes. Footpath on one side at sections. Traffic calming measures Community Infrastructure.	This route section has not been included on the GDA National Cycle Network Plan. This route section does not provide a direct link with Blanchardstown Centre to Dublin City Centre. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route.	Fail
1.100	Riverwood Dale from Diswellstown Road Junction (1.98) to Carpenterstown Avenue Junction (1.118)	Suburban – Standard carriageway. Off-road cycle lanes on both sides separated by a tree lined grass verge on both sides. Traffic calming measures. On-street parking. Footpaths both sides. Lined grass verge.	This route section has not been included on the GDA National Cycle Network Plan. This route does not provide a direct link with Blanchardstown Centre to Dublin City Centre. There is scope to widen the existing carriageway to provide full bus and cycle facilities. As a result, this is a viable route	Pass
1.101	Clonsilla Road from Blanchardstown Road South Junction (1.61) to Porterstown Road Junction (1.97)	Suburban – Standard single carriageway. Existing bus stops but no bus lanes. Off-road cycle lanes in both directions. Overpass across canal and railway line.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway to provide the optimum bus and cycle facilities. As a section of the carriageway is an overpass, widening would require unfeasible works which would entail possible closure of rail services. As a result, this is not a viable route.	Fail
1.102	Coolmine Road from Clonsilla Road (1.109) to Carpenterstown Road (1.113)	Suburban – Standard carriageway. No cycle lanes. Footpaths on both sides, footpath on west side is located through wide grass verge for much of the route. Coolmine Industrial Estate to the north-west, Coolmine train station to south. Wide grass verge. No cycle lanes. Capacity to widen.	This route section has been identified as a primary route on the GDA National Cycle Network Plan for Dublin North-West. This route section does not provide a direct link with Blanchardstown Centre to Dublin City Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.103	Clonsilla Road from Clonsilla Road Junction (1.95) to Clonsilla Road Junction (1.104)	Suburban – Standard carriageway. Local Centre & General Employment. No cycle lanes. Footpaths on both sides.	This route section has been identified as a feeder route on the GDA National Cycle Network Plan for Dublin North-West. This route does not provide a direct link with Blanchardstown Centre to Dublin City Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.104	Clonsilla Road from Clonsilla Road Junction (1.103) to Clonsilla Road Junction (1.109)	Suburban – Standard carriageway. No cycle lanes. Footpaths on both sides.	This route section has been identified as a feeder route on the GDA National Cycle Network Plan for Dublin North-West. This route section does not provide a direct link with Blanchardstown Centre to Dublin City Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.105	Porters Road from Clonsilla Road Junction (1.103) to L7061 (1.108)	Industrial Estate – Standard carriageway through Coolmine Industrial Estate. No bus or cycle facilities. On-street parking provided.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities although this would require unfeasible commercial land take and the removal of a number of commercial parking spaces. This route does not provide a direct link with Blanchardstown Centre to Dublin City Centre. As a result, this is not a viable route	Fail
1.106	Snugborough Road Extension from Ongar Distributor Road Junction (1.60) to Snugborough Road Extension Junction (1.107)	Suburban/ Industrial Estate - Three lane carriageway, two lanes heading east with one being a bus lane (bus stops only in the east direction) and one heading west. Off-road cycle lanes on both sides. Footpaths on both sides.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. This route section may provide a direct link to and from Blanchardstown Centre. There is scope to widen the existing carriageway to provide the optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.107	Snugborough Road Extension from Snugborough Road Extension Junction (1.43) to Snugborough Road Extension Junction (1.106)	Suburban - Standard single carriageway. Footpaths on both sides. Cycle lanes are separated by a narrow grass verge lined with low fencing. No bus facilities.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. This route section may provide a direct link to and from Blanchardstown Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.108	L7061 from Clonsilla Road Junction (1.104) to Snugborough Road Extension Junction (1.106)	Suburban – Wide carriageway. Bus stops are present but no bus lanes. No bus lanes or cycle lanes. Wide grass verge lined with trees on east side of the route	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. This route may provide a direct link to and from Blanchardstown Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.109	Clonsilla Road from Clonsilla Road Junction (1.104) to Clonsilla Road Junction (1.110)	Suburban – Standard Bus stops in both directions. Wide grass verge at west end of route. No cycle facilities. Footpaths both sides.	The western section of this route has been identified as a secondary route while the east section of this route have been identified as feeder routes on the GDA National Cycle Network Plan for Dublin North-West. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. This route does not provide a direct link with Blanchardstown Centre to Dublin City Centre. As a result, this is not a viable route.	Fail
1.110	Clonsilla Road from Clonsilla Road Junction (1.109) to Clonsilla Road Junction (1.121)	Suburban – Standard carriageway. No cyclist facilities. No bus lanes. Bus stops in both directions. Grass verges and footpaths on both sides	This route section has been identified as a feeder route on the GDA National Cycle Network Plan for Dublin North-West. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. This route does not provide a direct link with Blanchardstown Centre to Dublin City Centre. As a result, this is not a viable route.	Fail
1.111	Glenville Drive from Clonsilla Road Junction (1.109) to Delwood Road Junction (1.112)	Suburban – Local access. Footpaths and grass verges lined with trees. No cycle facilities. Traffic calming measures. On-street parking. Tree lined.	This route section has not been included on the GDA National Cycle Network Plan. This route does not provide a direct link with Blanchardstown Centre to Dublin City Centre. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route.	Fail
1.112	Delwood Road from Carpenterstown Road Junction (1.113) to Delwood Road Junction (1.119)	Suburban – Quiet local access road. Grass verges lined with trees and footpaths on both sides. Traffic calming measures. On-street parking.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. This route does not provide a direct link with Blanchardstown Centre to Dublin City Centre. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.113	Carpenterstown Road from Clonsilla Road (1.104) to Delwood Road (1.112)	Suburban - No cycle lanes or bus facilities. Footpaths on both sides separated by wide grass verges in parts. Standard carriageway. Coolmine Train Station is adjacent to the route.	This route section has been identified as a primary route on the GDA National Cycle Network Plan for Dublin North-West. This route does not provide a direct link with Blanchardstown Centre to Dublin City Centre. There is limited scope to widen the existing carriageway to provide optimum bus and cycle facilities along the entirety of the route section due to bridge across canal. As a result, this is not a viable route.	Fail
1.114	Carpenterstown Road from Carpenterstown Road Junction (1.113) to Diswellstown Road (1.116)	Suburban – Three lane carriageway. Two lanes heading north (one is a bus lane). One standard traffic lane heading south. Local Centre and Community Infrastructure south-west end of route. Bus stops in both directions. Footpaths both sides. Grass verge lined with trees on both sides.	This route section has been identified as a primary route on the GDA National Cycle Network Plan for Dublin North-West. This route may provide a direct link to and from Blanchardstown Town Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.115	Diswellstown Road from Diswellstown Road Junction (1.98) to Diswellstown Road (1.116)	Suburban - Single carriageway. Off-road cycle lanes on both sides throughout the route. Grass verge lined with trees. Traffic calming measures. Footpaths on both sides.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. This route may provide a direct link to and from Blanchardstown Town Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.116	Diswellstown Road from Carpenterstown Road Junction (1.114) to (1.115) Diswellstown Road	Suburban – Standard carriageway. Bus lane heading north. Grass verge on the west side. Castleknock GAA pitches located to the west. No cycle facilities. Traffic calming measures.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. This route does not provide a direct link to and from Blanchardstown Centre to Dublin City Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.117	Carpenterstown Road from Carpenterstown Road (1.114) to Diswellstown Road (1.116)	Suburban – Standard carriageway. Wide tree lined grass verge on both sides. No cycle or bus facilities.	This route section has been identified as a primary route on the GDA National Cycle Network Plan for Dublin North-West. This route does not provide a direct link from Blanchardstown Centre to Dublin City Centre. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.118	Carpenterstown Avenue from Riverwood Dale Junction (1.100) to Castleknock Vale Junction (1.126)	Suburban – Standard carriageway. Bus stops in both directions. Bus lane along whole route heading east. Tree lined grass verge. Off-road cycle lane heading west.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. This route does not provide a direct link from Blanchardstown Centre to Dublin City Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.119	Delwood Road from Glenville Drive Junction (1.112) to Roselawn Road Junction(1.125)	Suburban – Standard carriageway. Grass verges lined with trees and footpaths on both sides Traffic calming measures. No cycle lanes.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route.	Fail
1.120	Roselawn Road from Clonsilla Road Junction (1.121) to Delwood Road Junction (1.119)	Suburban – Standard carriageway. Grass verge lined with trees. On-street carriageway. Local Centre. Community Infrastructure. Limited scope to widen.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan This route does not provide a direct link from Blanchardstown Centre to Dublin City Centre. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route	Fail
1.121	Clonsilla Road from Roselawn Road Junction (1.120) to Main Street Junction (1.122)	Suburban - Standard carriageway. Bus stops in both directions. No cycle lanes. Footpaths are lined with trees. Land zoned residential on both sides.	This route section has been identified as a feeder route on the GDA National Cycle Network Plan for Dublin North-West. This route does not provide a direct link to/from Blanchardstown Centre to Dublin City Centre. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route	Fail
1.122 (1)	Main Street from Main Street (1.47) to Mill Road/Church Ave Junction	Suburban – On-street parking. Tree-lined. Castleknock Train Station is within walking distance. Potential to widen in parts. Three lane carriageway with dedicated bus lane heading north at the northern end of the carriageway towards Blanchardstown Centre and existing bus stops along route. No cycle facilities. Footpaths on both sides along carriageway.	This route section has been identified as a primary route on the GDA National Cycle Network Plan for Dublin North-West. The route has been identified as a primary route on the GDA cycle network for Dublin North-West. This route may provide a direct link to/from Blanchardstown Centre. Scope to widen carriageway to provide full bus and cycle facilities although widening would require the removal of on-street parking and trees in parts. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.122 (2)	Main Street from Church Ave/Mill Road junction to Castleknock Road junction	Urban - Standard Carriageway. No cycle facilities. Wide footpaths.	The route has been identified as a primary route on the GDA cycle network for Dublin North-West. While there is a pinch point within this route section, an allowance has been made as it is a localised pinch point and a normal part of a village structure. Villages typically forming key catchment areas and arteries within an effective bus network. As a result, this is a viable route.	Pass
1.122 (3)	Castleknock Road from Main Street Junction (1.122 (2))	Suburban - Standard carriageway. No cycle facilities. Existing bus route.	The route has been identified as a primary route on the GDA cycle network for Dublin North-West. Scope to widen carriageway to provide full bus and cycle facilities although widening would require the removal of on-street parking and trees in parts. As a result, this is a viable route.	Pass
1.123	Castleknock Road from Main Street Junction (1.122) to Park Lodge (1.127)	Suburban – Standard carriageway. That widens towards the southern end. Overpass at the Royal Canal and train tracks at Castleknock station Existing lay-by bus stop heading north. No cycle lanes. Existing footpaths	This route section has been identified as a primary route on the GDA National Cycle Network Plan for Dublin North-West. There is limited scope for widening of the existing carriageway for the entirety of the route section as this major construction works would be required to widen the existing overpass to facilitate the optimum bus and cycle facilities. This route does not provide a direct link to/from Blanchardstown Centre to Dublin City Centre. As a result, this is not a viable route	Fail
1.124	Castleknock Road from Park Lodge Road (1.127) to Park Drive Roundabout	Suburban – Standard carriageway. Dedicated bus lane and a bus stop heading south at the southern end of the carriageway. On-street parking. Grass verge in parts. Tree lined in sections. Within walking distance of Castleknock train station.	This route section has been identified as a primary route on the GDA National Cycle Network Plan for Dublin North-West. There is limited scope to widen the existing carriageway as this would require 3rd party land take from residential properties and also major construction works would be required to widen the existing overpass to facilitate the optimum bus and cycle facilities. As a result, this is not a viable route.	Fail
1.125	Roselawn Road from Castleknock Road (1.123) to Roselawn Road (1.120)	Suburban – Traffic calming measures. Grass verges lined with trees on both sides. Standard local access carriageway. No cycle or bus facilities.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. This route does not provide a direct link to/from Blanchardstown Centre to Dublin City Centre. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.126	Castleknock Vale from Park Lodge Road (1.127) to Carpenterstown Avenue (1.118)	Suburban – On-street parking. Grass verges lined with trees. West end of carriageway is wide. East end is standard width with on-street parking.	This route section has not been included on the GDA National Cycle Network Plan. This route does not provide a direct link to/from Blanchardstown Centre to Dublin City Centre. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route.	Fail
1.127	Park Lodge Road from Castleknock Road (1.124) to Laurel Lodge Road (1.128)	Suburban – Three lane carriageway. Bus lane and stops. Scope to widen in parts. Dedicated bus lane heading east and bus stops. Wide grass verges lined with trees on both sides. No cycle lanes. Scope to widen due to grass verges on both sides.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. This route does not provide a direct link from Blanchardstown Centre to Dublin City Centre. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.128	Laurel Lodge Road from Carpenterstown Avenue (1.118) to Park Lodge Road (1.127)	Suburban – Three lane carriageway. No cycle lanes. Existing bus lanes. Grass verge on both sides, wide in parts.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan for Dublin North-West. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.129	N3 from Navan Road (2.11) to N3 (1.40)	N3 Junction Overpass – Wide carriageway. Slip road. Three lane carriageway. Footpaths on both sides in parts. No cycle lanes. No bus facilities.	This route section has not been included on the GDA National Cycle Network Plan. Direct link from Dublin City Centre to Blanchardstown. One way bus and cyclist facilities would be provided within the existing carriageway. As a result, this is a viable route.	Pass
1.130	N3 from Navan Road (2.11) to N3 (1.40)	N3 Junction Overpass – Wide carriageway. Slip road. Footpaths in parts. Island and central hatching in sections. Existing bus stop.	This route section has not been included on the GDA National Cycle Network Plan. This route section would provide a direct link from Blanchardstown to Dublin City Centre. One way bus and cyclist facilities would be provided within the existing carriageway. As a result, this is a viable route.	Pass
1.131	N3 from N3 (1.131) to Dunsink Lane (2.10)	N3 slip road. Single lane (heading east) with hard shoulder. No cycle or bus facilities.	This route section has not been included on the GDA National Cycle Network Plan. There is scope for widening on both sides of the existing carriageway. This route section is currently a slip road for local access to the Travel Lodge and Elmgreen Golf Club. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.132	N3 from N3 (1.40) to Navan Road (2.11)	Three/four lane wide carriageway over M50 heading east. Two lane slip road exiting Navan Road (2.11). Footpaths in parts. No cycle or bus facilities.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway. This route section would provide a direct link from Blanchardstown to Dublin City Centre. As a result, this is a viable route.	Pass
1.133	Proposed Route 1 from Proposed Route 4 (1.136) to N3 (1.132)	Route runs parallel to Connolly Hospital Blanchardstown and St. Francis Hospice. No existing bus or cycle lanes.	This route section has not been included on the GDA National Cycle Network Plan. This route section is currently a pedestrian track through a park. Major construction works would be required to convert footpath into a carriageway. A link at the southern end would have to be formed to connect the route to the N3. This route section does not provide a direct link from Blanchardstown to Dublin City Centre. As a result, this is not a viable route.	Fail
1.134	Proposed Route 2 from Proposed Route 3 (1.135) to M50	Route is currently a dirt track in land zoned open space. No bus or cycle facilities. Through tree lined route. Not a vehicular route. No footpaths.	This route section has not been included on the GDA National Cycle Network Plan. A link at the southern end would have to be created to connect with the M50 and major construction works would have to be carried out to provide the necessary bus and cyclist facilities. This route section would not provide a direct route from Blanchardstown to Dublin City Centre. As a result, this is not a viable route.	Fail
1.135	Proposed Route 3 from Proposed Route 2 (1.134) to M50	Route is currently a dirt track in land zoned open space. No bus or cycle facilities. Through tree lined route. Not a vehicular route. No footpaths.	This route section has not been included on the GDA National Cycle Network Plan. A link at the southern end would have to be created to connect with the M50 and works would have to be carried out to provide the necessary bus and cyclist facilities. This route section does not provide a direct route from Blanchardstown to Dublin City Centre. As a result, this is not a viable route.	Fail
1.136	Proposed Route 4	Narrow track used for local access for grounds keeping. No bus or cycle facilities. Not a vehicular route. Social infrastructure. No footpaths.	This route section has not been included on the GDA National Cycle Network Plan. This route section does not provide a direct link from Blanchardstown Centre to Dublin City Centre. Extensive construction works would be required to provide the optimum bus and cyclist facilities. As a result, this is not a viable route.	Fail
1.137	Proposed Route 5 from Proposed Route 4 Junction (1.136) to M50	Narrow road used for grounds keeping and walkway. No cycle or bus facilities. No footpaths.	This route section has not been included on the GDA National Cycle Network Plan. This route section does not provide a direct link from Blanchardstown Centre to Dublin City Centre. A connection would have to be constructed at the southern end of the route to connect with the M50. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.138	Proposed Route 6 from Ballycoolin Road (1.8) to M50	Local access road to 'A PLUS Skip Hire' and a number of residential properties. No cycle or bus facilities. Footpaths in parts.	This route section has not been included on the GDA National Cycle Network Plan. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. As a result, this is not a viable route.	Fail
1.139	Sheephill Road from Ballycoolin Road (1.8) to Junction (1.140)	Narrow carriageway. No cycle or bus facilities. Used for local access.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway on both sides. This route does not provide a direct link from Blanchardstown Centre to Dublin City Centre. Route section is currently used as an access to Special Olympics Ireland and to the National Modern Pentathlon Centre. The entrance at the Ballycoolin Road is gated. Access would have to be granted by the necessary land owners. As a result, this is not a viable route.	Fail
1.140	National Diving Centre Road from Proposed Route 5 Junction (1.137) to FAI Road (1.41)	National Sports Campus - Narrow road. Local access only. No cycle or bus facilities. No footpaths.	This route section has not been included on the GDA National Cycle Network Plan. There is limited scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would require unfeasible 3rd party land take from residential properties. This route does not provide a direct link from Blanchardstown Centre to Dublin City Centre. As a result, this is not a viable route.	Fail
1.141	FAI Road from National Diving Centre Road Junction (1.140) to National Indoor Arena Road (1.142)	National Sports Campus - Narrow carriageway. Footpaths in parts. Grass verge on one side. No cycle or bus facilities. No bus facilities.	This route section has not been included on the GDA National Cycle Network Plan. This route section does not provide a direct link from Blanchardstown Centre to Dublin City Centre. Although there is scope to widen the existing carriageway this route section currently acts as an access to the FAI, Badminton Ireland etc. As a result, this is not a viable route.	Fail
1.142	National Indoor Arena Road from Snugborough Road (1.9) to FAI Road Junction (1.41)	National Sports Campus -Standard carriageway. Existing lay-by at southern half. Northern half becomes a narrow carriageway lined with trees.	This route section has not been included on the GDA National Cycle Network Plan. This route is gated at the Snugborough Road (1.9) entrance. Access would have to be granted by the land owners if this were to become a viable option. There is scope to widen the existing carriageway on both sides although this would require major construction works in order to provide the optimum bus and cyclist facilities. This route section does not provide a direct link from Blanchardstown Centre to Dublin City Centre. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.143	National Aquatic Centre Road from Snugborough Road (1.9) to FAI Road Junction (1.41)	National Sports Campus – Wide carriageway. Traffic calming measures in place. Wide footpath on one side. Two/three lane. Off-road cycle lane.	This route section has not been included on the GDA National Cycle Network Plan. Main entrance to the National Sports Campus. Access would have to be granted by the National Sports Campus. Does not provide a direct link from Blanchardstown Centre to Dublin City Centre. As a result, this is not a viable route.	Fail
1.144	Blanchardstown Industrial Park Route 1 from Snugborough (1.9) to Blanchardstown Industrial Park Junction (1.146)	Industrial Park – Standard carriageway. Traffic calming measures in place. No cycle or bus facilities. Footpaths are separated by a grass verge.	This route section has not been included on the GDA National Cycle Network Plan. It does not provide a direct link from Blanchardstown Centre to Dublin City Centre. There is scope to widen the existing carriageway due to grass verges along the route section. Access would have to be granted as there is a security office located at the main entrance. Major construction works would be needed to form a link onto Blanchardstown Road North. As a result, this is not a viable route.	Fail
1.145	Blanchardstown Industrial Park Route 2 from Blanchardstown Industrial Park (1.146) to Ballycoolin Road (1.6)	Industrial Park – Standard carriageway. Traffic calming in place. No cycle lanes. Footpaths separated by a grass verge on both sides.	This route section has not been included on the GDA National Cycle Network Plan. It does not provide a direct link from Blanchardstown Centre to Dublin City Centre. In order to make this route section a viable option, a link which would require major construction works, would have to be created at the northern end of the route section to connect with Ballycoolin Road. As a result, this is not a viable route	Fail
1.146	Blanchardstown Industrial Park Route 3 from Blanchardstown Road North (1.10) to Blanchardstown Industrial Park Route (1.44)	Industrial Park – Standard carriageway. No existing cycle or bus facilities. Footpath separated from the road by a wide grass verge on both sides.	This route section has not been included on the GDA National Cycle Network Plan. This route section does not provide a direct link from Blanchardstown Centre to Dublin City Centre. A connection between the western sections of the route onto Blanchardstown Road North, which would require major construction works, would have to be created in order to make this a possible route. As a result, this is not a viable route.	Fail
1.147	Corduff from Blackcourt Road Junction (1.22) to Corduff Junction (1.23)	Suburban - Standard carriageway. Social infrastructure and local centre located along route. Footpaths on both sides. Wide grass verges in sections. Grass verges along majority of route. Existing bus stops in both directions. No bus lanes. Tree lined in parts.	This route section has not been included on the GDA National Cycle Network Plan. There is scope to widen the existing carriageway to provide the optimum bus and cycle facilities. A link requiring major construction works must be formed with Snugborough Road (1.9) in order to make this a viable option. As a result, this is not a viable option.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
1.148	Waterville Row from Snugborough Road (1.9) to Connolly Hospital Junction (1.149)	Suburban - Single carriageway. Footpaths are separated from the road by grass verges lined with trees on both sides. No cycle facilities. Central hatching in parts. Existing bus stops.	This route section has been identified as a feeder route on the GDA National Cycle Network Plan for Dublin North-West. There is scope to widen the existing carriageway to provide the optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.149	Connolly Hospital from Waterville Row (1.148) to N3 Junction (1.130)	Connolly Hospital Grounds – Narrow carriageway used for access around the hospital grounds. Traffic calming measures in place. Existing bus stops. No cycle facilities.	This route section has been identified as a feeder route on the GDA National Cycle Network Plan for Dublin North-West. There is scope to widen the existing carriageway to provide the optimum bus and cycle facilities. As a result, this is a viable route.	Pass
1.150	Navan Road from Main Street Junction (1.122) to N3 (1.40)	Suburban – Standard carriageway. Access on to N3. Existing bus stop and bus lane. Grass verges at sections. Road hatching in parts. Route provides access onto the N3 to head back towards Blanchardstown Centre or towards Dublin City Centre. Town and District Centre along route.	A part of this route has been identified as a primary route on the GDA National Cycle Network Plan. This route offers a direct link from Blanchardstown Centre and also towards Dublin City Centre. This route section would have potential capacity to widen the existing carriageway due to grass verges. As a result, this is a viable route.	Pass

Following the Stage 1 sift, 49 of the 90 route sections assessed passed the initial sifting stage and were progressed to the next assessment stage.

These route sections are presented in **Figure 5.3**.

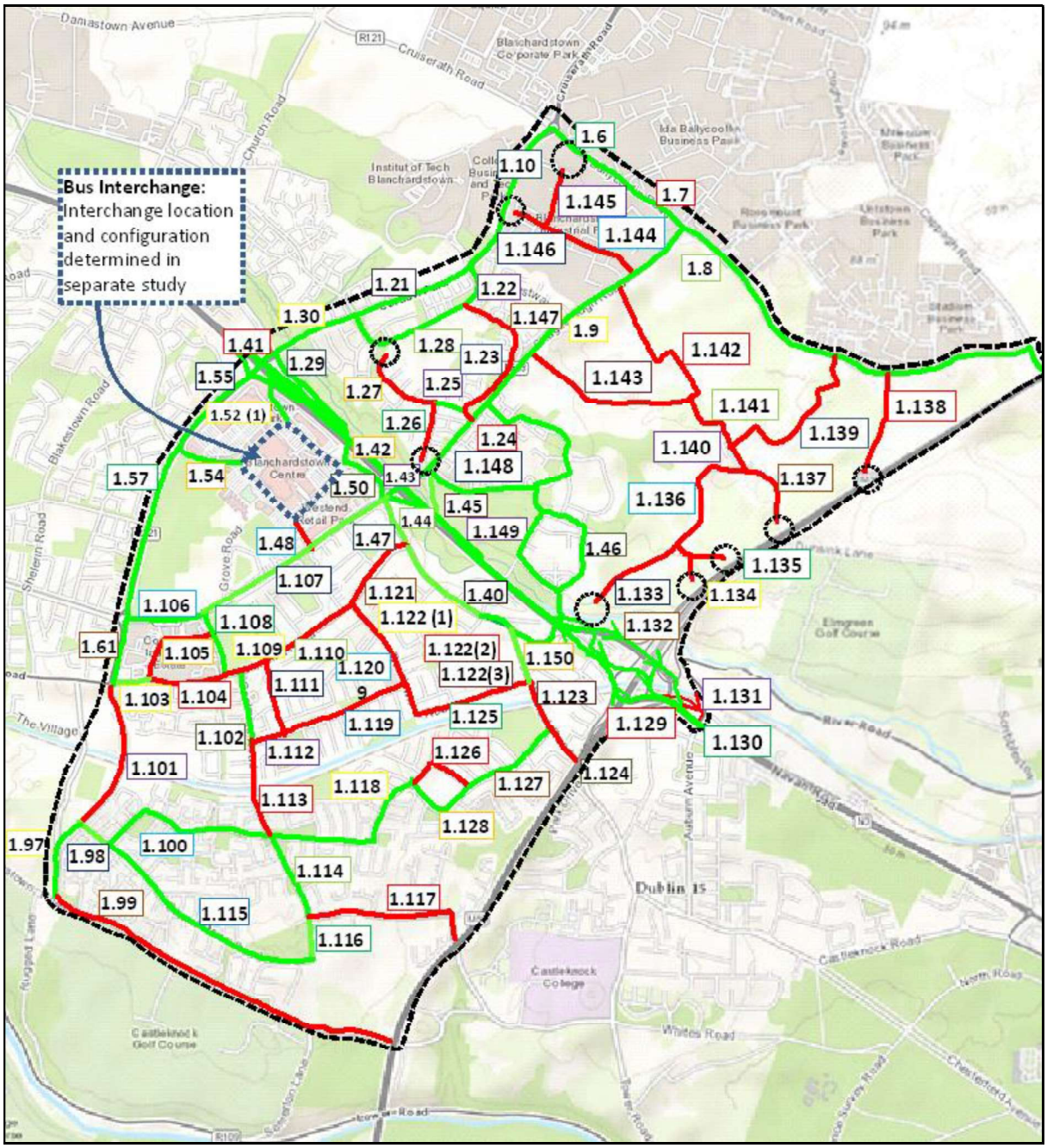

Figure 5.3: Route Sections passing Stage 1 Sift in SAS 1

5.3 SAS 2: M50 East to Cabra

Within SAS 2, there are a number of route sections which have been considered.

The roads available for CBC routing have been subdivided into shorter sections for the purposes of the Stage 1 route sections sifting process.

Following the route sifting process, remaining routes sections have been combined to form longer route options where possible.

Figure 5.4 presents the initial potential route sections identified.

A summary of the Stage 1 route sections sifting process is presented in **Figure 5.2**.

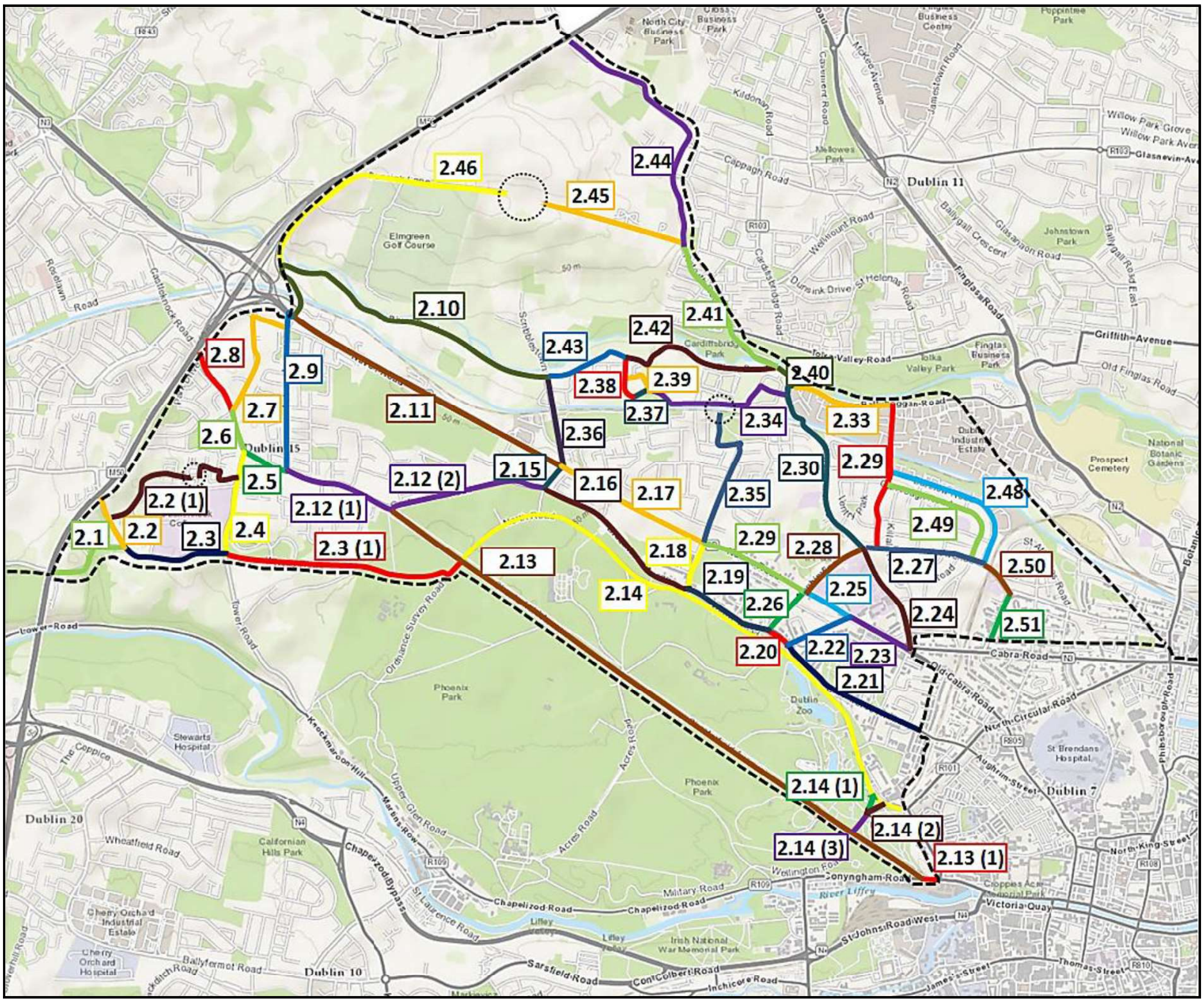

Figure 5.4: SAS 2 Route Sections – M50 East to Cabra

Table 5.2: SAS 2 Route Sections Sifting (Stage 1) Summary

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.1	Porterstown Road (M50 underpass to Carpenters Road junction)	Rural - Narrow carriageway.	This route section is not linked to the GDA National Cycle Network Plan. The route section does not link Blanchardstown Town Centre with Dublin City. There is small scope to widen due to significant retaining walls and major variation of levels on Southern side of road approaching Carpenters Road, involving high construction safety risks. As a result, this is not a viable route	Fail
2.2	Carpenterstown Road (M50 underpass to Porterstown Road Junction (2.1)	Rural – Narrow carriageway, with some scope for widening road.	This route section has been identified as a Primary route in the GDA National Cycle Network Plan. There is limited scope to widen carriageway as unfeasible 3rd party residential land take would be required at "The Sand Holes" residential estate. There is no direct link between Blanchardstown and Dublin City Centre. As a result, this is not a viable route.	Fail
2.2 (1)	College Wood/College Grove from Carpenterstown Road (2.2) to College Road (2.4)	Suburban - Standard carriageway (wide in parts). Traffic calming measures in place. On street parking in parts. No cycle lanes. Grass verge lined with trees. No bus facilities.	This route section has not been included in the GDA National Cycle Network Plan. This route section currently provides access for pedestrians only. There would be scope for widening, due to grass verge and land zoned as open space along the route. However, the route does not provide a direct link from Blanchardstown to Dublin City Centre. Also, a new road link would need to be constructed where College Road and College Grove meet but are separated by a perimeter wall. As a result, this is not a viable route.	Fail
2.3	Carpenterstown Road (Porterstown Road Junction (2.1) to Tower road/College Road Junction	Rural – Tree lined, narrow carriageway with concrete footway.	This route section has been identified as a Primary route in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway as substantial 3rd party agricultural land take would be required. There is no direct link between Blanchardstown and Dublin City Centre. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.3 (1)	White's Road from Carpenterstown Road Junction (2.3) to North Road Junction (2.14)	Suburban – Narrow carriageway. On road cycle lane heading east. For a small section at Carpenterstown Junction (2.3) Narrow footpath on one side. Gated entrance at the Phoenix Park.	This route section has been identified as a primary route in the GDA National Cycle Network Plan. A new access arrangement would be needed at the entrance of the Phoenix Park as it is gated. Unfeasible 3rd party land take would be required from Farmleigh Park, which is zoned as high amenity. Also, significant land take areas would be required from residential properties at Farmleigh Woods to provide optimum bus and cycle facilities. As a result, this is not a viable route.	Fail
2.4	College Road from Carpenterstown Road Junction (2.3) to Castleknock Road Junction (2.5)	Suburban – Standard carriageway width, footways on both sides. Wide verges along majority of the route. At present, there are no bus stops on this route.	This route section is not included in the GDA National Cycle Network Plan. There is small scope to widen at several locations along the route due to 3rd party land take requirements to facilitate the proposed works. There are also pinch points at several locations along the route. As a result, this is not a viable route.	Fail
2.5	Castleknock Road from College Road (2.4) to Auburn Avenue (2.9)	Suburban – Standard carriageway width, bus lane accommodated on southern carriageway, wide footways on both sides.	This route section has been identified as a primary route in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway to provide optimum bus and cycle facilities as this would require extensive and unfeasible 3rd party land take from residential and commercial properties in an area zoned as town centre (protected) in the Fingal Development Plan 2017-2023. As a result, this is not a viable route	Fail
2.6	Castleknock Road from College Road Junction (2.4) to Beechpark Avenue Junction (2.7)	Suburban – Narrow carriageway, No Bus Lanes or cyclist facilities. Existing bus stop. Pinch point at St. Brigid's graveyard. Town/district centre and social infrastructure.	This route section has been identified as a primary route in the GDA National Cycle Network Plan. There is small scope to widen due to the continuous and close proximity of residential and local businesses to the carriageway. Optimum bus and cycle facilities cannot be provided due to pinch points particularly at St. Brigid's graveyard, which would not be feasible to be removed. As a result, this is not a viable route.	Fail
2.7	Beechpark Avenue from Castleknock Road Junction (2.8) along The Old Navan Road (2.7) to Auburn Avenue (2.9)	Suburban - Narrow carriageway narrowing further to single lane approximately 55m North of Castleknock Road junction. Footways both sides, No existing cyclist facilities.	This route section has been identified as a feeder route in the GDA National Cycle Network Plan. Provision of the optimum bus and cycle facilities along this route would require extensive and, thus, not feasible residential land take along Beechpark Avenue. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.8	Castleknock Road from Beechpark Avenue Junction (2.7) to Castleknock Road Roundabout (1.124)	Suburban – Standard carriageway, wide in parts. Town/District Centre and social infrastructure is located immediately south of route. Footways on both sides. Bus lane provided on northern carriageway for 70m exiting Park Drive roundabout. Grass verges on both sides. Strip of green space along majority of route.	This route section has been identified as a primary route in the GDA National Cycle Network Plan. Widening the carriageway to provide optimum bus and cycle facilities would require extensive and, thus, unfeasible 3rd party land take from residential properties at Oak Lawn and Beechpark Crescent. As a result, this is not a viable route.	Fail
2.9	Auburn Avenue from Castleknock Road Junction (2.5) to Old Navan Road Roundabout (2.7)	Suburban - Tree lined avenue, standard carriageway, footways both sides, wide verges	This route section has been identified as a feeder route in the GDA National Cycle Network Plan. There is scope to widen carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
2.10	Dunsink lane (from Old Navan road Roundabout to River Road Junction (2.10)/River Road (to Ashtown Road Junction (2.15)	Rural – Standard Carriageway along Dunsink Lane, narrowing along River Road. No pedestrian facilities. No cyclist facilities.	This route section has been identified as secondary feeder route in the GDA National Cycle Network Plan. There is scope to widen carriageway to provide optimum bus and cycle facilities. As a result, this is a viable route.	Pass
2.11	Navan Road (R147) from Dunsink Lane Junction (2.10) to Halfway House Pub	National Road - Wide carriageways (with scope to widen further),designated bus lane along majority of this section, cycle facilities provided along southern carriageway	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. This route section is part of the primary road linking Blanchardstown, which is a major population centre, to Dublin City Centre. Provision of optimum bus and cycle facilities along this route section is feasible without land take. As a result, this is a viable route.	Pass
2.12 (1)	Castleknock Road (Auburn Avenue (2.9) to Chesterfield Avenue	Suburban – Standard carriageway width narrowing alongside Phoenix Park, Bus Lane provided along southern carriageway from Phoenix Park gates. Footways on both sides throughout. Grass verge separating footpath from the carriageway along parts of the route. Central hatching at sections. Social infrastructure and town/district centre located within 200m of the western end of route.	This route section has been identified as a primary route in the GDA National Cycle Network Plan at the western end and as a feeder route at the eastern end. However, it is not an existing major bus corridor. and does not serve a large catchment area. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.12 (2)		Standard carriageway width narrowing alongside Phoenix Park.	This route section has been identified as a primary route in the GDA National Cycle Network Plan at the western end and as a feeder route at the east end. This route section may provide a link from Blanchardstown to the Liffey Quays. However, there is a small scope to widen the carriageway at certain locations due to unfeasible 3rd party residential land take required in an area zoned as Residential Conservation area in the Fingal Development Plan 2017-2023. As a result, this is not a viable route.	Fail
2.13	Chesterfield Avenue from Castleknock Road (2.12) to Conyngham Road (2.13 (1))	Route through the Phoenix Park – Cycle lanes are separated by a grass verge on both sides. Footpaths are separated from the cycle paths by grass verges on both sides. On-street parking along the whole of the route. On-street parking and tree lined grass verges along eastern end of route.	This route section has been identified as a primary route in the GDA National Cycle Network Plan. However, it is not an existing major bus corridor. and does not serve a large catchment area. As a result, this is not a viable route.	Fail
2.13 (1)	Conyngham Road from Chesterfield Avenue (2.13) to Conyngham Road	Wide carriageway. Three lanes heading west, two lanes heading east (towards city centre). The Criminal Courts of Justice (CCJ) fronts on to the route. Wide footpaths in front of the CCJ. Cyclist boundary box at traffic lights located at the west end of route.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan However, it is not an existing major bus corridor. and does not serve a large catchment area. As a result, this is not a viable route.	Fail
2.14	North Road from Chesterfield Avenue (2.13) to Infirmary Road	Route through the Phoenix Park – Standard carriageway. Traffic calming measures in place. Footpaths in sections. Cycle lane in sections. Central hatching at parts. Grass verge on both sides along a majority of the route.	This route section has been identified (from west to east) as a minor greenway, greenway and secondary route in the GDA National Cycle Network Plan. However, it is not an existing major bus corridor. and does not serve a large catchment area. As a result, this is not a viable route.	Fail
2.14 (1)	Fountain Road North from North Road Junction (2.14) to Chesterfield Avenue (2.13)	Route through eastern end of Phoenix Park. One-way street. Single lane heading north. Central hatching Traffic calming measures in place. Footpaths on both sides. No bus or cycle facilities. Coach access lane that leads to a depot for 50m of route on the west side.	This route section is not included in the in the GDA National Cycle Network Plan. It is not an existing major bus corridor. Furthermore, this route section does not serve a large catchment area. As a result, this is not a viable route.	Fail
2.14 (2)	Fountain Road South from North Road Junction (2.14) to Chesterfield Avenue Junction (2.13)	Route through eastern end of Phoenix Park. One-way street. Single lane heading south. On-street parking. No bus or cycle facilities. Footpaths on both sides. Wide footpath on south side of route.	This route section is not included in the in the GDA National Cycle Network Plan. It is not an existing major bus corridor. Furthermore, this route section does not serve a large catchment area. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.14 (3)	Fountain Road from Chesterfield Avenue (2.13) t Fountain Road South (2.14 (2)) and Fountain Road North (2.14 (3))	Routh through eastern end of Phoenix Park. Standard two-way carriageway. Central hatching. Traffic calming measures in place. Footpaths on both sides. No cycle or bus facilities. Grass verge in section at northern end.	This route section is not included in the in the GDA National Cycle Network Plan. It is not an existing major bus corridor. Furthermore, this route section does not serve a large catchment area. As a result, this is not a viable route.	Fail
2.15	Ashtown Road from Blackhorse Avenue Junction (2.16) to Halfway House Pub Roundabout on Navan Road (2.16)	Suburban – Narrow carriageway width, No footways or cyclist facilities. Not an existing bus route.	This route section has been identified as a feeder route in the GDA National Cycle Network Plan. No link from Blanchardstown to City centre. There is scope to widen the existing road to accommodate optimum bus and cycle facilities. However, it is noted that this would require removal of a number of trees along the route. As a result, this is not a viable route.	Fail
2.16	Blackhorse Avenue from Castleknock Road Junction (2.12) to Baggot Road Junction (2.18)	Suburban – Narrow carriageway width through mainly residential area, footways both sides, no cyclist facilities. Traffic calming measures in place. No existing bus service along this route.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. Optimum bus and cycle facilities could not be provided due to the close proximity of residencies to existing carriageway at various locations along the route. There is no link from Blanchardstown town Centre to Dublin City Centre. As a result, this is not a viable route.	Fail
2.17	Navan Road from Halfway House Pub Roundabout to Kinvara Avenue (2.35)	Suburban – Wide carriageway, Bus lane on northern carriageway for majority of this section, cyclist facilities along majority of section.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. There is a link between Blanchardstown Town Centre and Dublin City Centre. There is scope to widen the existing carriageway. As a result, this is a viable route.	Pass
2.18	Baggot Road from Kinvara Avenue (2.35) to Blackhorse Avenue (2.16)	Suburban – Narrow carriageway width through mainly residential area, footways both sides, no cyclist facilities.	This route section has been identified as a feeder route in the GDA National Cycle Network Plan. There is no link to Blanchardstown or Dublin City Centre. There is limited scope to widen the existing carriageway in certain locations although land take may be purchased from Belvedere Sports Ground. As a result, this is a viable route.	Pass
2.19	Blackhorse Avenue from Baggot Road Junction (2.18) to Nephin Road Junction (2.28)	Suburban - Narrow carriageway width through residential area, footways on northern carriageway, and no cyclist facilities along this section.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. There is no link to Blanchardstown or Dublin City Centre. Optimum bus and cycle facilities cannot be provided due to the close proximity of residencies to the existing carriageway at various locations along the route. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.20	Blackhorse Avenue from Nephin Road Junction (2.28) to Skreen Road (2.22)	Suburban – Standard carriageway width, Footways both sides, no cyclist facilities. No bus services on this section at present.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. There is no link to Blanchardstown or Dublin City Centre. There is scope to widen carriageway to provide optimum bus and cyclist facilities. As a result, this is a viable route.	Pass
2.21	Blackhorse Avenue from Skreen Road Junction (2.22) to Dunard Road Junction	Suburban – Standard carriageway width, Footways both sides, no cyclist facilities.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway in certain locations due to unfeasible 3rd party residential land take required. As a result, this is not a viable route.	Fail
2.22	Skreen Road from Blackhorse Avenue (2.21) to Navan Road (2.23)	Suburban – Narrow carriageway width through mainly residential area, footways both sides, no cyclist facilities. Tree lined road. Existing Bus Route.	This route section is not included in the GDA National Cycle Network Plan. Road widening would be problematic due to the close proximity of residencies to the existing carriageway at various locations along the route. There is no direct link to Blanchardstown or Dublin City Centre. As a result, this is not a viable route.	Fail
2.23	Navan Road from Skreen Road Junction (2.22) to Cabra Road Junction	Suburban – Wide carriageway, footpath facilities in both directions. Bus lane on northern carriageway. Tree lined route.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. There is scope to widen the existing carriageway to provide optimum bus and cycle facilities. Also, this route section links Blanchardstown Town Centre to Dublin City Centre. As a result, this is a viable route.	Pass
2.24	Ratoath Road (R805) from Navan Road Junction (2.23) to Nephin road Junction (2.28)	Suburban - Narrow carriageway width through mainly residential area, footways both sides, no cyclist facilities. Tree lined road.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway as the road width required for optimum bus and cycle facilities would be dependent on unfeasible 3rd party residential land take. No direct link to Blanchardstown or Dublin City Centre. As a result, this is not a viable route.	Fail
2.25	Navan Road from Nephin Road Junction (2.28) to Skreen Road Junction (2.22)	Suburban – Wide carriageway, footpath facilities in both directions. Bus lane on northern carriageway. Tree lined route.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. This route section links Blanchardstown town Centre to Dublin City Centre. There is scope to provide full bus and cycle facilities within the existing carriageway. As a result, this is a viable route.	Pass

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.26	Nephin Road from Navan Road Junction (2.29) to Blackhorse Avenue (2.20)	Suburban – Narrow carriageway, footpath facilities in both directions. Tree lined section. Not an existing bus route.	This route section has been identified as a feeder route in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would be dependent on unfeasible 3rd party land take. As a result, this is not a viable route.	Fail
2.27	Fassaugh Avenue from Nephin Road Roundabout (2.26) to Quarry Road Roundabout (2.51)	Suburban – Narrow carriageway, wide footpath facilities in both directions. On street parking provided. Existing bus route. Section passes through area with commercial shops.	This route section has been identified as a feeder route in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would be dependent on unfeasible 3rd party land take. There is a pinch point, approximately 16m in width, at the narrow bridge over a railway line. As a result, this is not a viable route.	Fail
2.28	Nephin Road from Ratoath Road Junction (2.30) to Navan Road (2.25)	Suburban – Narrow carriageway, footpath facilities in both directions. Existing bus route. Tree lined road.	This route section is not included in the GDA National Cycle Network Plan. There is no direct link to Blanchardstown or Dublin City Centre. There is small scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would be dependent on unfeasible 3rd party land take at various locations. As a result, this is not a viable route.	Fail
2.29	Broombridge Road from Ballyboggan Road Junction (2.31) to Fassaugh Avenue (2.27)	Suburban – Residential and Industrial section. Narrow carriageway along majority of the route. Tree lined avenue. On street parking. Not existing bus route.	This route section has been identified as a feeder route in the GDA National Cycle network plan. There is no direct link to Blanchardstown or Dublin City Centre. Major works would be required to widen bridge over Maynooth railway line and Royal Canal to accommodate the optimum bus and cycle facilities. There is small scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would be dependent on unfeasible 3rd party land take along the first half of the route section. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.30	Ratoath Road from Nephin Road Junction (2.28) to Ballyboggan Road Junction (2.33)	Suburban/Commercial – Wide carriageway along the majority of section (road narrows at bridge crossing the Royal Canal), on-street parking. Some trees along route.	This route section has been identified as a secondary route in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would be dependent on unfeasible 3rd party land take at various locations. There is no direct link to Blanchardstown or Dublin City Centre. As a result, this is not a viable route.	Fail
2.33	Ballyboggan Road from Broombridge Road Junction (2.29) to Ratoath Road Junction (2.41)	Link Road – Wide carriageway through industrial estate. No on-street parking. Bus lane along southern carriageway for majority of route. No bus stops.	This route section is not included in the GDA National Cycle Network Plan. Wide carriageway therefore minimal adverse impact on the built environment. Due to the location of the route section, existing transport demand is minimal. There is no direct link to Blanchardstown or Dublin City Centre. As a result, this is not a viable route.	Fail
2.34	Crescent Park/Bridge Avenue/Royal Canal Avenue from Ratoath Road (2.30) to Crescent Park (2.37)	Suburban – Narrow Carriageway through residential area. Footpath facilities on northern side. Formal on-street parking. No cycle facilities	This route section is adjacent to the Royal Canal Greenway. There is no direct link to Blanchardstown or Dublin City Centre. There is scope to widen the existing carriageway along the majority of this route section. As a result, this is a viable route.	Pass
2.35	Kinvara Avenue/Ashington Avenue/Ashington Park/Ashington Dale from Baggot Road Junction (2.18)	Suburban – Standard Carriageway through residential area. Footpath facilities on northern side. No cycle facilities. Tree lined section.	This route section is not included in the GDA National Cycle Network Plan. There is scope to widen the existing carriageway along the majority of the section although works would include removal of trees along the route. Direct link to Blanchardstown or Dublin City Centre could be established through the provision of a new bridge crossing the Sligo/Maynooth railway line. However, this is deemed unfeasible at this stage. As a result, this is not a viable route.	Fail
2.36	Ashtown Road from River Road Junction (2.10) to Navan Road Junction (2.11)	Industrial/Suburban/Rural/Urban – Narrow Carriageway. Footpath facilities on eastern side only for significant parts of this section. No cycle facilities. Section includes crossing across Sligo/Maynooth railway line and narrow bridge across Royal Canal. On street parking in Ashtown village.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway through Ashtown village although there is some scope in other areas. There is minimal transport demand at present along this route section. Significant construction works would be required to bridges at the railway and canal crossings to provide optimum bus and cycle facilities. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.37	Crescent Park from Court View Junction (2.39) Rathborne Drive (2.38)	Suburban – Standard carriageway, Tree lined route with formal on-street parking and two way segregated cyclist facilities. Existing bus route.	This route section has been identified in the GDA National Cycle Network Plan (Royal Canal Greenway). There is no direct link to Blanchardstown or Dublin City Centre. There is scope to widen the existing carriageway to provide the optimum bus and cycle facilities. As a result, this is a viable route.	Pass
2.38	Rathborne Drive from Crescent Park (2.37) to River Road (2.42)	Suburban – Wide Carriageway. Footpath and Cyclist facilities on both sides of carriageway. Bus route along section until Rathborne Avenue.	This route section is not included in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway as the road width required to provide the optimum bus and cycle facilities would be dependent on unfeasible 3rd party land take at various locations which will negatively affect residential parking along the route section. There is no direct link to Blanchardstown or Dublin City Centre. As a result, this is not a viable route.	Fail
2.39	Court View from Rathborne Drive (2.38) to Crescent Park (2.34)	Suburban – Narrow carriageway. Footpath facilities on both sides. No cyclist facilities. Adjacent parking at various locations. Not existing bus route.	This route section has been identified as a secondary route on the GDA National Cycle Network Plan. There is small scope to provide the optimum bus and cycle facilities due to the proximity of buildings especially at the pinch point on approach to the Rathborne Drive junction. There is no direct link to Blanchardstown or Dublin City Centre. As a result, this is not a viable route.	Fail
2.40/2.41	Ratoath Road from Ballyboggan Road (2.33) Junction to Dunsink Lane Junction (2.45)	Rural/Suburban – Wide carriageway. Wide footpaths. No cyclist facilities. Existing bus route.	This route section has been identified as a Secondary route on the GDA National Cycle Network Plan. There is no direct link to Blanchardstown or Dublin City Centre. There is scope to widen the existing carriageway to accommodate the optimum bus and cycle facilities. As a result, this is a viable route.	Pass
2.42	River Road from Ratoath Road (2.41) to Rathborne Drive (2.38)	Rural – Narrow Carriageway width. No footpaths for majority of section. No cyclist facilities. No existing bus route.	This route section is not included in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway as to provide full bus and cycle facilities width; unfeasible 3rd party land take would be required. There is no direct link to Blanchardstown or Dublin City Centre. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.44	River Road from Junction of Rathborne Drive (2.38) to Ashtown Road Junction (2.36)	Suburban – Narrow carriageway width. Footpath on southern side of carriageway. On-street parking on southern carriageway. Tree-lined route. No cyclist facilities provided.	This route section is not included in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway to accommodate the optimum bus and cycle facilities as this would require land take from land to the North of the route section which has been zoned Amenity/Open Space/Green Network. There is no direct link to Blanchardstown or Dublin City Centre. As a result, this is not a viable route.	Fail
2.44	Ratoath Road from Dunsink Lane junction and Cappagh Road from Ratoath Road junction to M50 bridge.	Rural/Suburban – Narrow carriageway from Dunsink Lane to Ratoath Avenue junction. From here to Cappagh Road bridge, Standard carriageway, footpaths both sides. Wide verges with trees planted. From New Cross College cycle facilities along Northern carriageway. Existing bus route.	This route section has been identified as a secondary route on the GDA Cycle Network Plan. There is no direct link to Blanchardstown Town Centre or Dublin City Centre. There is scope to widen the existing carriageway to accommodate the optimum bus and cycle facilities. As a result, this is a viable route.	Pass
2.45/2.46	Dunsink Lane from River Road (2.10) to Ratoath Road (2.41)	Rural – Narrow carriageway along entirety of this section. Road blocked 1.16 km from junction with Ratoath Road. No footpaths. Not bus route. No cyclist facilities.	This route section is not included in the GDA National Cycle Network Plan. This route section runs through land zoned for open space and recreational activities by Fingal County Council therefore there is reduced scope to widen the existing carriageway to accommodate optimum bus and cycle facilities. There is no direct link to Blanchardstown Town Centre or Dublin City Centre. As a result, this is not a viable route.	Fail
2.48	Bannow Road from Broombridge Road (2.29) to Fassaugh Avenue Junction (2.27)	Industrial Estate/Suburban – Traffic calming measures in place. Footpaths on both sides, tree lined in parts. Industrial estate on the north side and residential properties on the south side. No existing bus or cycle facilities. On-street parking.	This route section is not included in the GDA National Cycle Network Plan. This route section does not provide a direct link to Dublin City Centre. There is small scope to widen the existing carriageway to provide the optimum bus and cyclist facilities as this would require unfeasible 3rd party residential land take. As a result, this is not a viable route.	Fail
2.49	Carnlough Road from Broombridge Road Junction (2.29) to Fassaugh Road Avenue Junction (2.27)	Suburban – Standard carriageway. On-street parking. Traffic calming measures in place. Footpaths on both sides with tree lining in parts. No cycle lanes. Existing bus stops.	This route section is not included in the GDA National Cycle Network Plan. There is small scope to widen the existing carriageway to provide the optimum bus and cyclist facilities as this would require unfeasible 3rd party residential land take. This route section does not provide a direct link from Blanchardstown to Dublin City Centre. As a result, this is not a viable route.	Fail

Section No.	Description	Area Characteristics	Comment	Pass/ Fail
2.50	Fassaugh Avenue to Bannow Road Junction (2.48) to Fassaugh Road Junction (2.52)	Suburban – Overpass at railway tracks. Footpaths on both sides. Wide grass verge in section. Standard carriageway. Local centre located along route. Central hatching. Existing bus stops. Local centre on north side of route. Social infrastructure on southern side of route.	This route section has been identified as a feeder route on the GDA National Cycle Network Plan. This route section does not provide a direct link from Blanchardstown to Dublin City Centre. There is capacity to widen the existing carriageway to facilitate the optimum bus and cycle facilities along the northern side of the route. As a result, this is a viable route.	Pass
2.51	Quarry Road from Fassaugh Avenue Junction (2.50) to Cabra Road Junction	Suburban – Standard carriageway. On-street parking. Footpaths on both sides. Footpaths, wide in parts. Tree lined in sections. Local centre towards the southern end of route. No existing bus facilities.	This route section is not included in the GDA National Cycle Network Plan. This route section does not provide a direct link from Blanchardstown to Dublin City Centre. There is small scope to widen the existing carriageway to provide the optimum bus and cyclist facilities as this would require unfeasible 3rd party residential land take and demolition works due to residential properties within close proximity to the road. As a result, this is not a viable route.	Fail

Following the Stage 1 sift, 13 of the 53 route sections assessed passed the initial sifting stage and were progressed to the next assessment stage.

These route sections are presented in **Figure 5.5**.

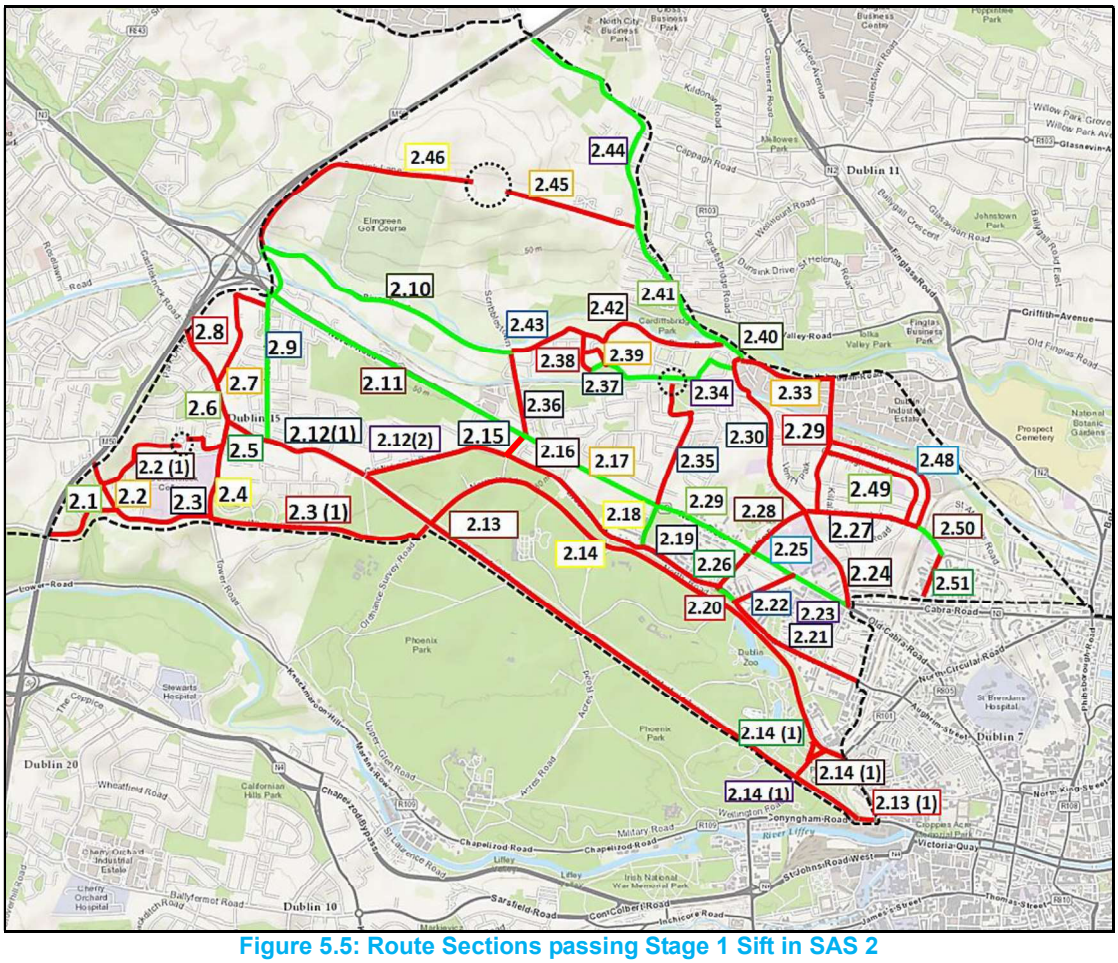

Figure 5.5: Route Sections passing Stage 1 Sift in SAS 2

5.4 SAS 3: Cabra to the Liffey Quays (Ellis Quay)

Within SAS 3, there are a number of route sections which have been considered.

The roads available for CBC routing have been subdivided into shorter sections for the purposes of the Stage 1 route sections sifting process.

Following the route sifting process, the remaining routes sections have been combined to form longer route options where possible.

Figure 5.4 presents the initial potential route sections identified.

A summary of the Stage 1 route sections sifting process is presented in **Table 5.3**.

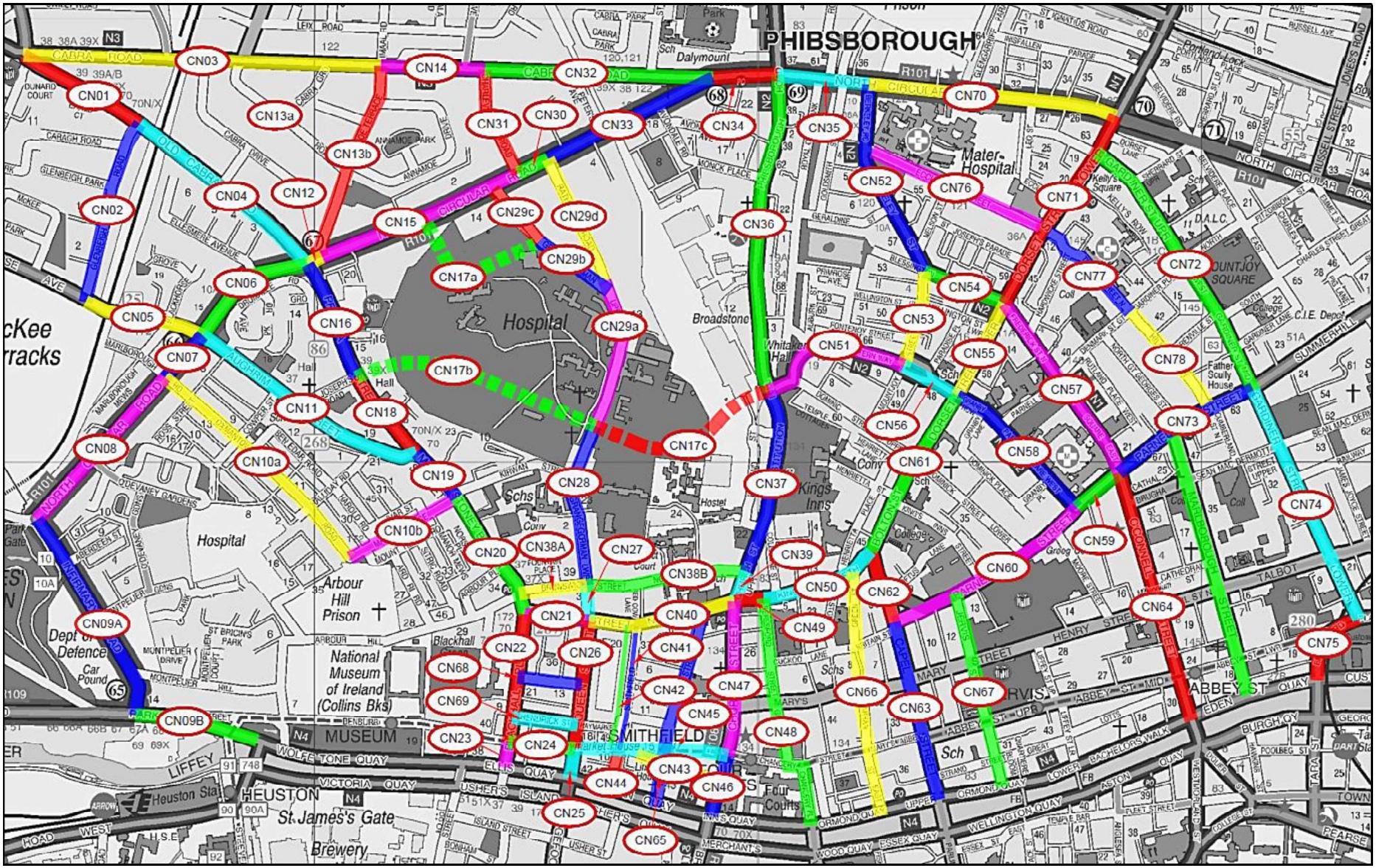

Figure 5.6: SAS 3 Route Sections –Cabra to the Liffey Quays

Table 5.3: SAS 3 Route Sections Sifting (Stage 1) Summary

Section number	Description	Comments	Pass/Fail
CN01	Old Cabra Road (Dunard Road to Glenbeigh Road)	Old Cabra Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link between Stoneybatter and the Navan Road if one or more modes were rerouted or accommodated one-way only.	Pass
CN02	Glenbeigh Road	Glenbeigh Road is a narrow traffic calmed street with some on-street parking on both sides of the road. It would not be practicable to remove traffic from this street to provide an adequate degree of bus priority due to the residential developments either side of the road.	Fail
CN03	Cabra Road (Dunard Road to Annamoe Terrace)	Cabra Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link between Phibsborough and the Navan Road if one or more modes were rerouted or accommodated one-way only.	Pass
CN04	Old Cabra Road (Glenbeigh Road to North Circular Road)	Old Cabra Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link between Stoneybatter and the Navan Road if one or more modes were rerouted or accommodated one-way only.	Pass
CN05	St. David's Terrace (Glenbeigh Road to North Circular Road)	St. David's Terrace crosses the Phoenix Park Railway link between Heuston and Connolly stations via a constrained bridge with a footpath only on the southern side. If the Bridge were replaced, there would be scope to provide passive bus priority along this relatively quietly trafficked route, in conjunction with restrictions on through general traffic.	Pass
CN06	North Circular Road (St. David's Terrace to Old Cabra Road)	North Circular Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a route between the Navan Road and the city centre if one or more modes were rerouted or accommodated one-way only.	Pass
CN07	North Circular Road (St. David's Terrace to Oxmantown Road)	North Circular Road is currently a principal route around the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a route between the Navan Road and the city centre if one or more modes were rerouted or accommodated one-way only.	Pass

Section number	Description	Comments	Pass/Fail
CN08	North Circular Road (Oxmantown Road to Infirmary Road)	This section of North Circular Road is more constrained and there is on street parking on one side of the road. It is insufficiently wide to accommodate two traffic lanes, two bus lanes and two cycle lanes, and there are no suitable options for rerouting of one or more modes. It would not therefore be possible to provide bus priority on this section.	Fail
CN09a	Infirmary Road	Infirmary Road is a busy constrained road where buses and prison vans regularly park on the side of the road. On street parking is also present along this road. It is insufficiently wide to accommodate two traffic lanes, two bus lanes and two cycle lanes, and there are no suitable options for rerouting of one or more modes. It would not therefore be possible to provide bus priority on this section.	Fail
CN09b	Parkgate Street	Parkgate Street is a wide street with sufficient space to provide bus and cycle facilities, as well as catering for general traffic.	Pass
CN10a	Oxmanstown Road	Oxmanstown Road is a local distributor road that caters for its surrounding residential population. On street parking is provided along the length of this road due to a lack of off street alternatives. It would not be practicable to provide bus priority through this route due to the residential developments and the reliance on street parking on either side of the road and the tight bend where it meets Manor Place at the southern end.	Fail
CN10b	Manor Place (Oxmanstown Road to Stoneybatter)	Manor Place is a local distributor road that caters for its surrounding residential population. On street parking is provided along the length of this road due to a lack of off street alternatives. It would not be practicable to provide bus priority through this route due to the residential developments and the reliance on street parking on either side of the road and the tight bend at the southern end.	Fail
CN11	Aughrim Street	Aughrim Street caters for its surrounding residential population as well as a certain degree of through traffic from St. David's Terrace and North Circular Road. It is insufficiently wide to accommodate two traffic lanes, two bus lanes and two cycle lanes, and there is on street parking provided due to a lack of off street alternatives. It would not therefore be possible to reroute traffic away from this Street to provide bus priority on this section.	Fail
CN12	North Circular Road (Old Cabra Road to Annamoe Terrace)	There are complex interactions between the Annamoe Road and Old Cabra Road junctions. Were the CBC to be routed through here, it is	Pass

Section number	Description	Comments	Pass/Fail
		likely that extensive local traffic management revisions would be required. However, a through route on North Circular Road could possibly be accommodated.	
CN13 (CN13a & CN13b)	Annamoe Road / Annamoe Terrace	Annamoe Road and Annamoe Terrace are traffic calmed local distributor roads, which experience some degree of rat-running. There is a complex junction with North Circular Road, at which it would be extremely challenging to achieve bus priority from the side street.	Fail
CN14	Cabra Road (Annamoe Terrace to Charleville Road)	Cabra Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link between Phibsborough and the Navan Road if one or more modes were rerouted or accommodated one-way only.	Pass
CN15	North Circular Road (Annamoe Terrace to Charleville Road)	North Circular Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a route between the Navan Road and the city centre if one or more modes were rerouted or accommodated one-way only.	Pass
CN16	Prussia Street (North Circular Road to St. Joseph's Road)	Prussia Street is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link between Stoneybatter and the Navan Road if one or more modes were rerouted or accommodated one-way only.	Pass
CN17 (incl. 17a, 17b & 17c)	Grangegorman Internal Links	The Grangegorman campus is currently under construction and includes several internal roads that will cater for relatively small traffic volumes. There would be potential to cater for passive bus priority through this campus, which would also afford the potential to directly serve DIT.	Pass
CN18	Prussia Street / Manor Street (St. Joseph's Road to Aughrim Street)	Prussia Street is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link between Stoneybatter and the Navan Road if one or more modes were rerouted or accommodated one-way only.	Pass
CN19	Manor Street (Aughrim Street to Stoneybatter)	Manor Street has sufficient width on this section to accommodate all modes.	Pass
CN20	Manor Street (Oxmanstown Road to North Brunswick Street)	Manor Street is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and	Pass

Section number	Description	Comments	Pass/Fail
		two cycle lanes. However, it could form part of a direct link through Stoneybatter if one or more modes were rerouted or accommodated one-way only.	
CN21	North King Street (Blackhall Place to George's Lane)	North King Street is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link through Stoneybatter if one or more modes were rerouted or accommodated one-way only.	Pass
CN22	Blackhall Place (North King Street to Benburb Street)	Blackhall Place is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link from Stoneybatter to the Liffey Quays if one or more modes were rerouted or accommodated one-way only.	Pass
CN23	Blackhall place (Benburb Street to Liffey Quays)	Blackhall Place is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link from Stoneybatter to the Liffey Quays if one or more modes were rerouted or accommodated one-way only.	Pass
CN24	Arran Quay Terrace	Shared running might be possible with the Luas line, however the downstream pinchpoint at Smithfield Luas stop renders this option unviable.	Fail
CN25	Queen Street (Arran Quay Terrace to Liffey Quays)	Queen Street is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link from Stoneybatter to the Liffey Quays if one or more modes were rerouted or accommodated one-way only.	Pass
CN26	Queen Street (North King Street to Arran Quay Terrace)	Queen Street is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link from Stoneybatter to the Liffey Quays if one or more modes were rerouted or accommodated one-way only.	Pass
CN27	George's Lane	George's Lane could be realigned in the wide space between buildings to accommodate a CBC route, possibly with restrictions on certain modes or one-way routing of certain modes.	Pass
CN28	Lower Grangegorman Road South	The southern section of Lower Grangegorman Road is constrained at its junction with North Brunswick Street. However, the buildings on the	Pass

Section number	Description	Comments	Pass/Fail
		west side are of minor importance and could be acquired and knocked to widen the street.	
CN29a	Lower Grangegorman Road North	Lower Grangegorman Road North is a residential road which is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, they could form part of CBC if one or more modes were rerouted or accommodated one-way only.	Pass
CN29b	Upper Grangegorman Road (to Rathdown Road)	Where Upper Grangegorman Road traverses alongside the Grangegorman campus from the junction with Rathdown Road, the road is sufficiently wide to accommodate a CBC if one or more modes were rerouted or accommodated one-way only.	Pass
CN29c	Upper Grangegorman Road (to North Circular Road)	This section of Upper Grangorman Road is too narrow and constrained by buildings and on street parking, for which there is no off-street alternative, to accommodate bus priority.	Fail
CN29d	Rathdown Road	Rathdown Road is a residential road with significant on-street parking, which is necessary due to a lack of off -street alternatives. It would not be possible to provide adequate CBC priority due to the significant residential dependence on this road.	Fail
CN30	North Circular Road (Charleville Road to Rathdown Road)	North Circular Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a route between the Navan Road and the city centre if one or more modes were rerouted or accommodated one-way only.	Pass
CN31	Charleville Road	Charleville Road is a traffic calmed local distributor road, which experiences some degree of rat-running. There is a constrained junction with North Circular Road, at which it would be extremely challenging to achieve bus priority from the side street..	Fail
CN32	Cabra Road (Charleville Road to North Circular Road)	Cabra Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link between Phibsborough and the Navan Road if one or more modes were rerouted or accommodated one-way only. The Bridge over the Broadstone Cutting may need to be widened to achieve adequate bus priority.	Pass
CN33	North Circular Road (Rathdown Road to Cabra Road)	North Circular Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and	Pass

Section number	Description	Comments	Pass/Fail
		two cycle lanes. However, it could form part of a route between the Navan Road and the city centre if one or more modes were rerouted or accommodated one-way only.	
CN34	North Circular Road (Cabra Road to Phibsborough Road)	This section of North Circular Road is more constrained with no suitable options for rerouting of one or more modes. It would not therefore be possible to provide bus priority on this section.	Fail
CN35	North Circular Road (Phibsborough Road to Berkeley Road)	This section of North Circular Road is more constrained with no suitable options for rerouting of one or more modes. It would not therefore be possible to provide bus priority on this section.	Fail
CN36	Phibsborough Road (North Circular Road to Western Way)	Phibsborough Road is currently a principal access route to the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a route between the Navan Road and the city centre if one or more modes were rerouted or accommodated one-way only.	Pass
CN37	Constitution Hill (Western Way to North Brunswick Street)	Constitution Hill has sufficient width to accommodate all modes.	Pass
CN38a	North Brunswick Street West	North Brunswick Street West between Stable Lane and Stoneybatter, is two-way locally for access and egress between Stable Lane. East of Stable Lane, North Brunswick Street is currently configured as one-way eastbound. Given the local access required on the two-way section of North Brunswick Street, and the constrained junction between Manor Street, it is not possible to provide bus priority on this section.	Fail
CN38b	North Brunswick Street East	North Brunswick Street East is currently configured as one-way eastbound. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link from Stoneybatter if one or more modes were rerouted or accommodated one-way only.	Pass
CN39	Constitution Hill (North Brunswick Street to North King Street)	Constitution Hill has sufficient width to accommodate all modes.	Pass
CN40	North King Street (Constitution Hill to George's Lane)	North King Street is currently a principal access route from the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link to Stoneybatter if one or more modes were rerouted or accommodated one-way only.	Pass
CN41	Smithfield Square East	Smithfield Square East is insufficiently wide to accommodate two bus lanes, two traffic lanes and	Pass

Section number	Description	Comments	Pass/Fail
		two cycle lanes. However, it carries very little traffic and could potentially take a one-way route for CBC.	
CN42	Smithfield Square West	Smithfield Square West has restricted access and is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. It could potentially, however take a one-way route for CBC. Revised pavement materials would be required to achieve an adequate level of ride comfort for passengers, and access restrictions implemented for general traffic that may use this new route to access the existing car parking areas in the vicinity.	Pass
CN43	Hammond Lane	Hammond Lane is too narrow to accommodate two-way CBC.	Fail
CN44	Arran Quay	Between the Luas Line and Arran Quay (East-West), this section of the street has two 90 degree bends less than 20m apart which would preclude turning of buses.	Fail
CN45	Luas Line / Phoenix Street	The Luas stop at Smithfield is too constrained to allow the passage of buses through. Phoenix Street is too narrow to accommodate two-way CBC running.	Fail
CN46	Church Street (Luas Line to Liffey Quays)	This section of Church Street has sufficient width to accommodate all modes.	Pass
CN47	Church Lane (Luas Line to North King Street)	Church Street is currently a principal access route from the city centre. It is insufficiently wide to accommodate two bus lanes, two traffic lanes and two cycle lanes. However, it could form part of a direct link from Constitution Hill to the Quays if one or more modes were rerouted or accommodated one-way only.	Pass
CN48	Chancery Place / Greek Street / Beresford Street	Chancery Place, Greek Street and Beresford Street are too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes This route caters for its surrounding residential population. It would not be practicable to provide bus priority through this route due to the residential developments either side of the road.	Fail
CN49	North King Street (Church Street to Greek Street)	This section of North King Street has sufficient width to accommodate all modes.	Pass
CN50	North King Street / Bolton Street (Greek Street to Capel Street)	This section of North King Street has sufficient width to accommodate all modes but may require narrowing of footpaths between Green Street and Capel Street.	Pass
CN51	Western Way	Western Way has sufficient width to cater for bus lanes but may require rerouting of cyclists or a	Pass

Section number	Description	Comments	Pass/Fail
		one-way general traffic restriction.	
CN52	Berkeley Street / Berkeley Road	Berkeley Street and Berkeley Road is too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes. However, this route could form part of a CBC if one or more modes were rerouted or accommodated one-way only.	Pass
CN53	Mountjoy Street	Mountjoy Street is too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes. However, this route could form part of a CBC if one or more modes were rerouted or accommodated one-way only.	Pass
CN54	Blessington Street	Blessington Street is too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes. However, this route could form part of a CBC if one or more modes were rerouted or accommodated one-way only.	Pass
CN55	Dorset Street Upper (Granby Row to North Frederick Street)	This section of Dorset Street is too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes. This route could form part of a CBC if one or more modes were rerouted or accommodated one-way only.	Pass
CN56	St. Mary's Place	St. Mary's Place is too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes. However, this route could form part of CBC if one or more modes were rerouted or accommodated one-way only.	Pass
CN57	North Frederick Street / Cavendish Row / Parnell Square East	North Frederick Street is too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes. However, this route could form part of a CBC if one or more modes were rerouted or accommodated one-way only.	Pass
CN58	Parnell Square West / Granby Row	Parnell Square West and Granby Row are too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes. However, this route could form part of a CBC if one or more modes were rerouted or accommodated one-way only.	Pass
CN59	Parnell Street (O'Connell Street to Parnell Square West)	The Luas line will leave too little residual space on this street to accommodate other modes.	Fail
CN60	Parnell Street (Parnell Square West to Capel Street)	Parnell Street has sufficient width to cater for all modes.	Pass
CN61	Dorset Street / Bolton Street (Capel Street to Granby Row)	This section of Dorset Street is too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes. This route could form part of a CBC if one or more modes were rerouted or accommodated one-way only.	Pass

Section number	Description	Comments	Pass/Fail
CN62	Capel Street (Bolton Street to Parnell Street)	Capel Street is a busy street with high pedestrian and service vehicle movements, Local access requirements would limit the potential to provide adequate priority for the CBC.	Fail
CN63	Capel Street (Parnell Street to Quays)	Capel Street is a busy street with high pedestrian and service vehicle movements, Local access requirements would limit the potential to provide adequate priority for the CBC.	Fail
CN64	O'Connell Street	O'Connell Street is the city's main thoroughfare. It currently conveys high levels of public transport activity, including Dublin Bus and the future Luas Cross City. Adding another principal bus route onto O Connell Street would place an over-reliance on this street for the city's public transport network, introducing conflicts and vulnerabilities. It is therefore considered inappropriate to route the Blanchardstown to UCD CBC scheme along this street.	Fail
CN65	Bow Street / Lincoln Lane	Bow Street is cobbled and narrow, with Lincoln Lane at the southern end particularly constrained. This route is unsuitable for a CBC.	Fail
CN66	Green Street / Little Green Street / Arran Street East	Green Street, Little Green Street and Arran Street East are residential in nature and are too narrow to comfortably accommodate large vehicles. They are therefore unsuitable for a CBC.	Fail
CN67	Jervis Street	Jervis Street is an important access route for several car parks and is too narrow and constrained to accommodate bus lanes. Therefore, bus priority could not be achieved on this street and it is unsuitable for a CBC.	Fail
CN68	Blackhall Street	Blackhall Street has sufficient width to cater for all modes.	Pass
CN69	Hendrick Street	Hendrick Street is a single lane one-way street with on street parking. There may be scope to provide passive bus priority along this relatively quietly trafficked route, in conjunction with restrictions on through general traffic.	Pass
CN70	North Circular Road (Berkeley Road to Dorset Street Lower)	This section of North Circular Road is constrained with no suitable options for rerouting of one or more modes. It would not therefore be possible to provide bus priority on this section.	Fail
CN71	Dorset Street Lower (North Circular Road to Frederick Street North)	This section of Dorset Street has sufficient width to accommodate all modes.	Pass
CN72	Gardiner Street Upper / Gardiner Street Middle	Gardiner Street Upper and Gardiner Street Middle is too narrow to accommodate two-way bus lanes, traffic lanes and cycle lanes. This route caters for its surrounding residential population. It would not	Fail

Section number	Description	Comments	Pass/Fail
		be practicable to provide bus priority through this route due to the residential developments either side of the road.	
CN73	Parnell Street (Gardiner Street Upper to Cavendish Row)	Parnell Street is too constrained to accommodate two-way CBC between Cavendish Row and Marlborough Street alongside the Luas Cross City tracks. Luas will have maximum priority on this section of Parnell Street and will have to negotiate a difficult corner to Marlborough Street. Parnell Street will continue to carry heavy westbound traffic towards Parnell Street West and it will not be possible to achieve adequate CBC priority.	Fail
CN74	Gardiner Street Lower (Parnell Street to Beresford Place)	Gardiner Street Lower could be amended to accommodate some further degree of bus priority provided traffic restrictions were put in place.	Pass
CN75	Beresford Place	Beresford Place has four lanes one-way northbound that could potentially accommodate one-way CBC routing as part of a one-way system.	Pass
CN76	Eccles Street	Eccles Street is a busy street with high pedestrian, parking and emergency service activities associated with the Mater Hospital. It would not be possible to provide adequate bus priority along this street.	Fail
CN77	Temple Street North	Temple Street North has sufficient width to accommodate all modes.	Pass
CN78	Hill Street	Hill Street caters for its surrounding residential population and has on-street parking associated with Temple Street Children's Hospital. While the hospital may ultimately be relocated, the residential and loading activity will remain. The street is therefore not considered suitable for a CBC.	Fail
CN79	Marlborough Street	Marlborough Street is a two-lane one-way southbound route of which one of the lanes has been allocated for Luas Cross City once operational. The street currently experiences high public transport use, in addition to general traffic use. It would not be possible to provide a sufficient level of CBC priority along this route as a result.	Fail

Following the Stage 1 sift, 54 of the 85 route sections assessed passed the initial sifting stage and were progressed to the next assessment stage.

These route sections are presented in **Figure 5.7**.

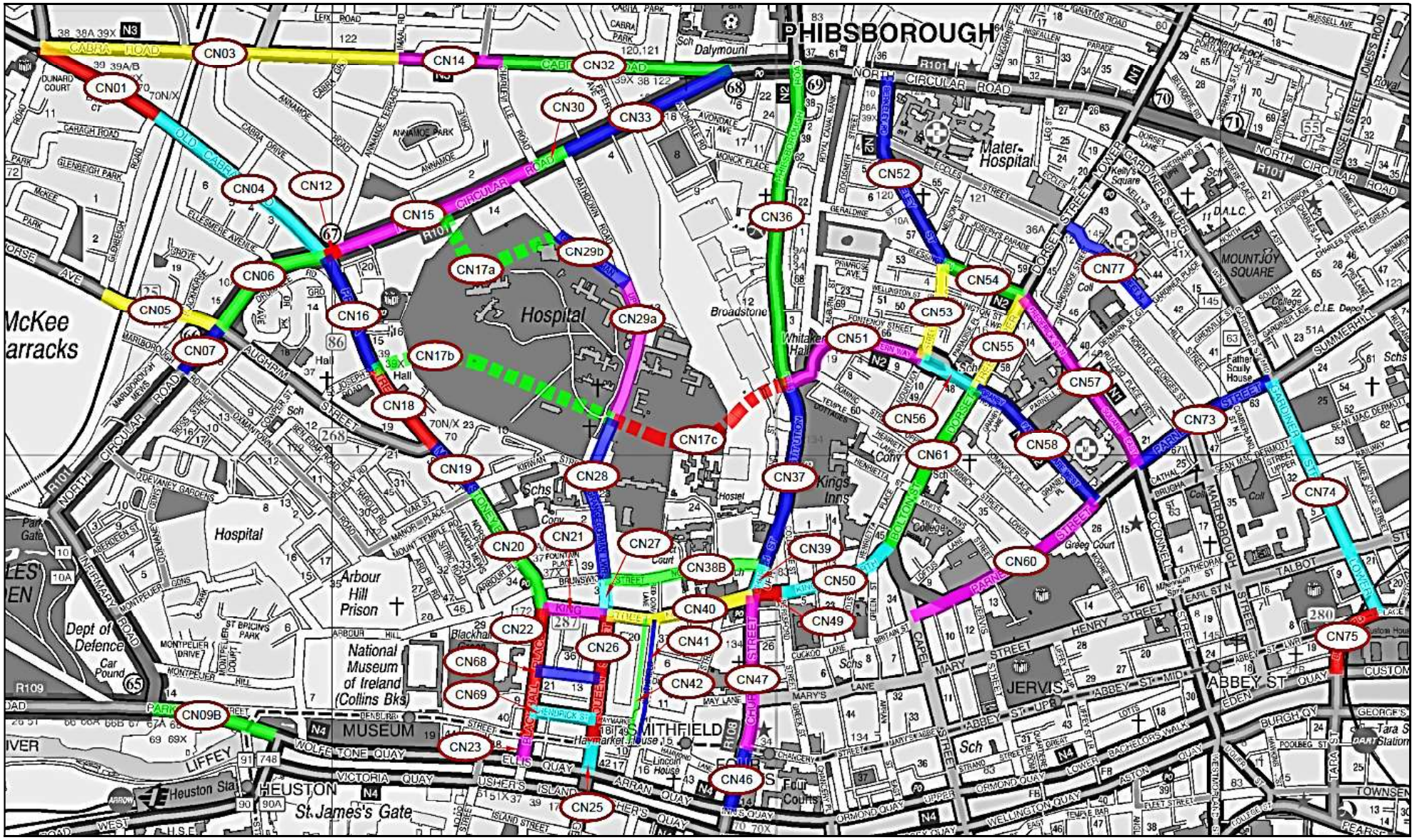

Figure 5.7: Route Sections passing Stage 1 Sift in SAS 2

6. Stage 2: Scheme Options Assessment

6.1 Introduction

The first step in the Stage 2 assessment involves combining shorter route sections which passed the Stage 1 assessment, to form longer end-to-end potential routes within each SAS.

6.2 SAS1: Blanchardstown to M50 East

Following the Stage 1 Sift for the SAS1, the remaining route sections were combined to form possible 9 continuous route options between Blanchardstown Town Centre and M50 East.

In line with the scheme objectives (refer to **Section 3.4** of the report), all options commenced at Blanchardstown Town Centre (Shopping Centre).

These preliminary route options are listed below and shown in **Figure 6.1**.

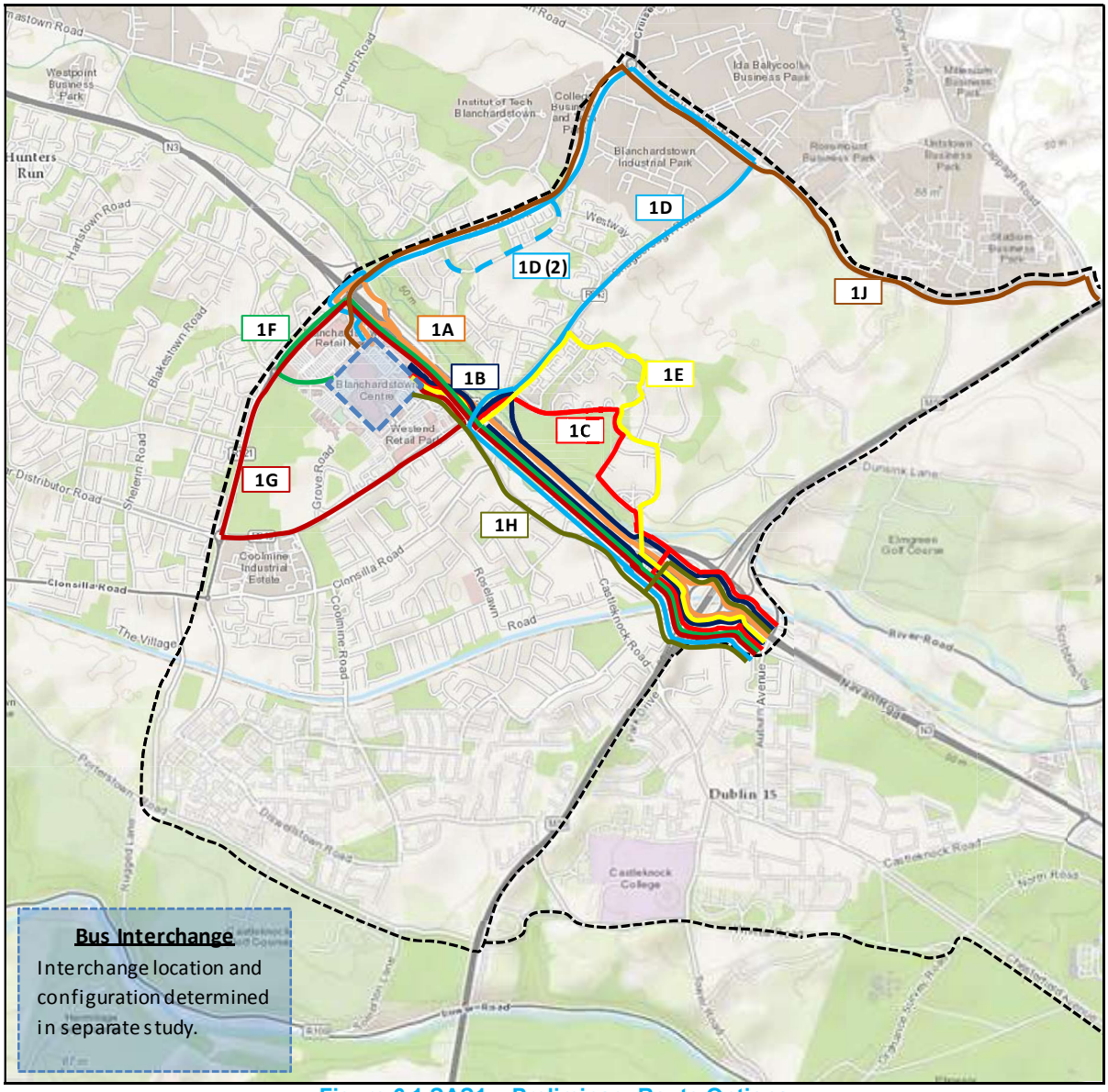

Figure 6.1 SAS1 – Preliminary Route Options

The preliminary route options for Blanchardstown to M50 East are:

- 1A – N3 with connection via R121;
- 1B – N3 with connection via Snugborough Road;
- 1C - Waterville Park with connection via Snugborough Road;
- 1D/1D(2) - Blanchardstown Industrial Park with connection via R121;
- 1E - Waterville Road (north) with connection via Snugborough Road;
- 1F – Blanchardstown Road South with connection via R121;
- 1G - Millennium Park with connection via R121;
- 1H - Ballycoolin Road with connection via R121; and
- 1J - Blanchardstown Village option with connection via Navan Road/Blanchardstown Village.

6.2.1 Final Route Options

6.2.1.1 Route Linearity

Directness (i.e. linearity), is considered central to network planning as indicated in the Dublin Area Bus Network Redesign Choices Report (2017) which states: "*Where a bus can reach major destinations by running in straight lines (rather than weaving in and out of neighbourhoods), bus service is faster, and less expensive to operate, and less frustrating for customers".*

Bus infrastructure should therefore aim to be as direct as reasonably possible, minimising delays and detours. The purpose of this sift is to assess each route option's directness, to avoid circuitous patterns thus improving the reliability and effectiveness of the proposed network. Optimising the route in this manner confers an advantage in terms of attractiveness and comfort to passengers when compared with indirect or circuitous patterns. This is particular important for the retention of bus users and attracting new users.

6.2.1.2 Scheme Objectives

Some of the main scheme objectives include:

- providing a direct route from Blanchardstown Town (Shopping) Centre to Ellis Quay; and
- along the route, servicing the catchments for Ashtown and Stoneybatter.

6.2.1.3 Route Option(s) carried forward for assessment

The preliminary route options in SAS1 can be categorised by the three primary junctions, which facilitate the connection to Blanchardstown Town Centre.

These junctions are R121 (Crowne Plaza), Snughborough Road and Navan Road (Blanchardstown Village).

The route option, which best met the project and linearity objectives at each of these junctions, was carried forward to create scheme options to be assessed through the MCA.

6.2.1.4 Final Route Options

The confirmed Route Options are listed below and shown in **Figure 6.2**:

- 1A (Junction - R121/Crowne Plaza)
- 1B (Junction - Snugborough Road)
- 1H (Junction - Navan Road/Blanchardstown Village)

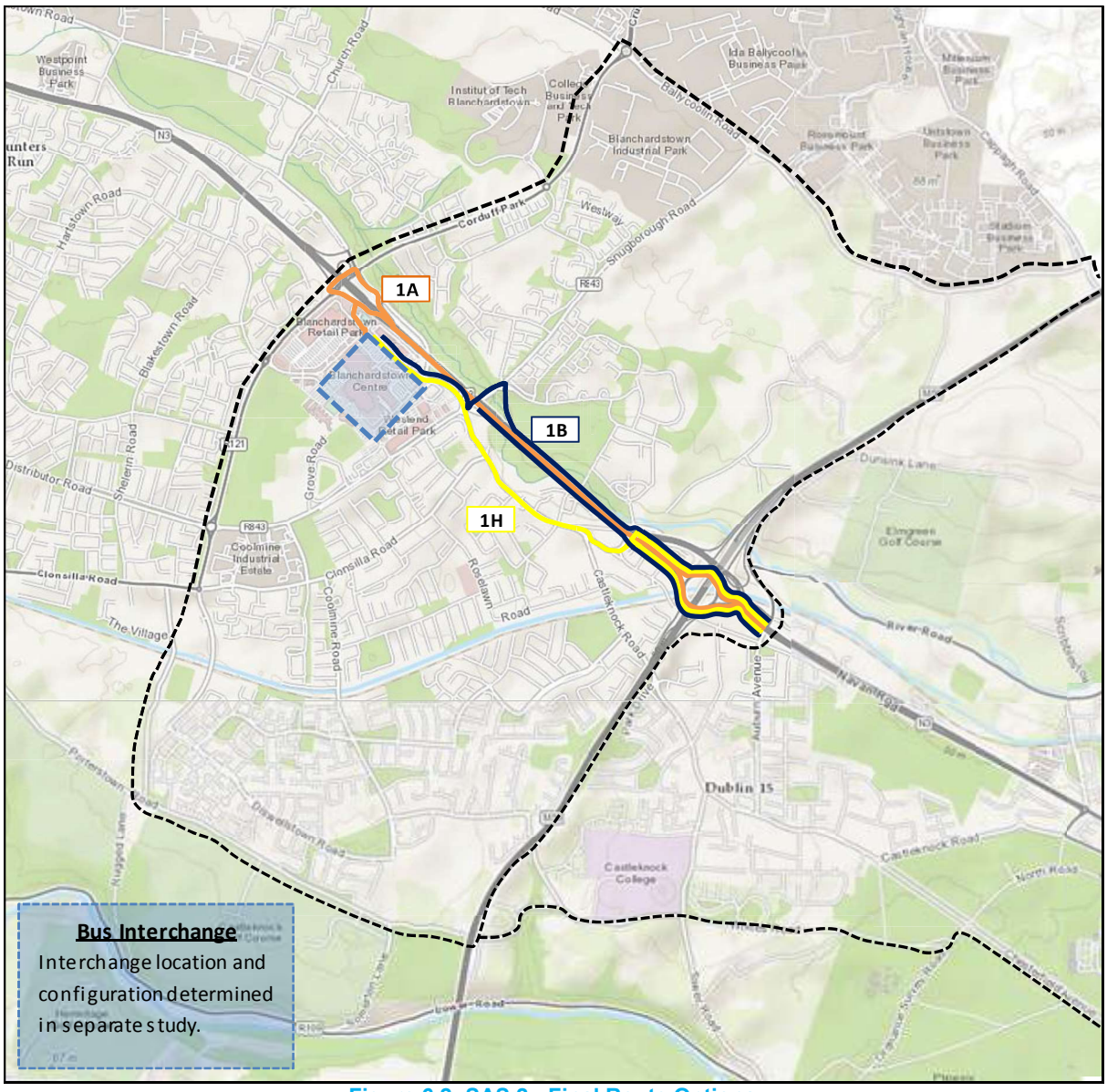

Figure 6.2: SAS 2 - Final Route Options

6.2.2 Route Options Description – Route 1A

6.2.2.1 Inbound

Route 1A would connect R121 junction to the N3/M50 roundabout (junction 6) via the N3/Navan Road. The route is approximately 3.5km in the inbound direction.

6.2.2.2 Outbound

Northbound, buses would travel the same route as taken by outbound vehicles. The route is approximately 3.06km in the outbound direction.

6.2.2.3 Stops

2 inbound bus stops and 3 outbound bus stops would be provided along this route (see **Figure 6.3**).

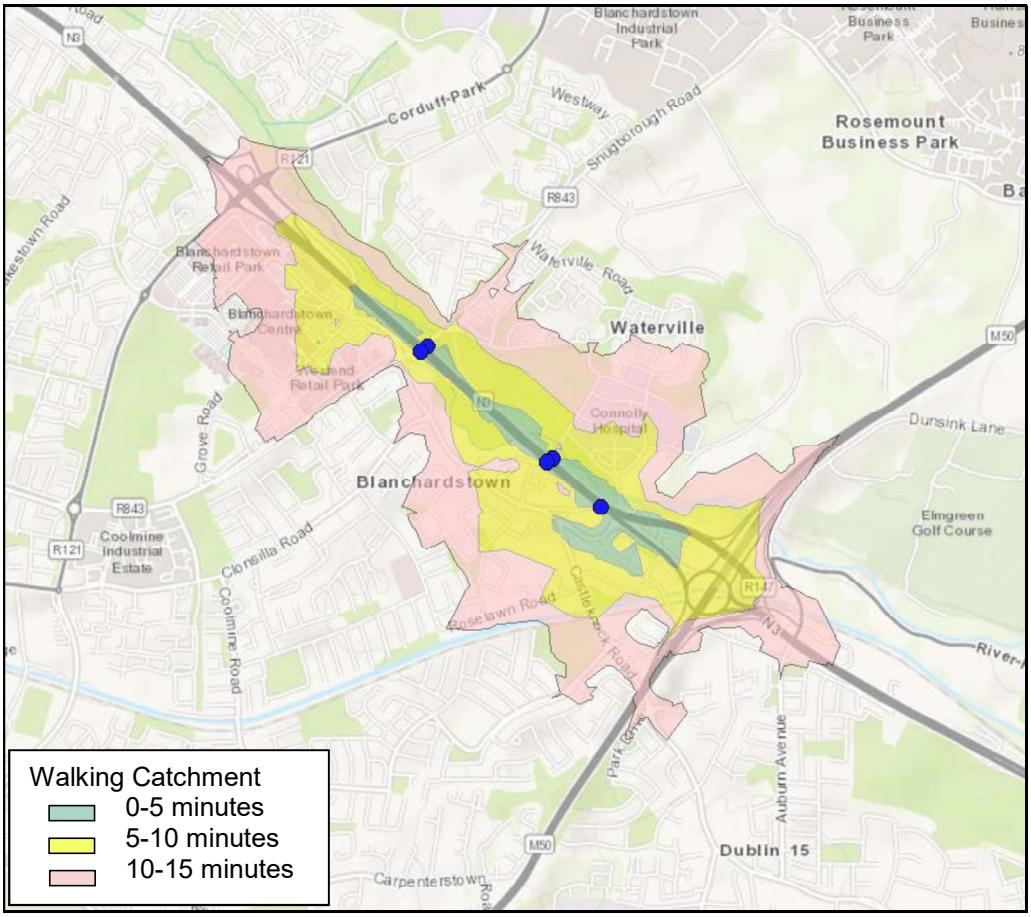

Figure 6.3: Route 1A bus stops and catchment areas

6.2.2.4 Catchment

Figure 6.3 illustrates the population residing within the 5, 10 and 15 minute catchment zones of the existing and proposed bus stops along Route 1A. The outermost isochrone contour defines the perimeter within which the Route 1A nearest bus stop can be reached by pedestrians in 15 minutes or less at a typical walking pace. The population residing within each of the isochrone contour areas is summarised below (to the nearest 500 residents):

- 0-5 minutes walking distance – 500 residents
- 5-10 minutes walking distance – 1,000 residents
- 10-15 minutes walking distance – 3,000 residents
- Total catchment within 15 minutes walking distance – 4,500 residents

These figures are based on the Census 2011 Small Area Population Statistics (SAPS).

6.2.2.5 Junctions

Currently, there are a total of 5 signalised junctions and one roundabout along Route 1A in each direction. ITS measures may be required to deliver the level of bus priority required for additional bus services.

6.2.2.6 Constraints

The following constraints would need to be considered if Route 1A is progressed:

- Crossing the M50 using existing infrastructure;
- Structures along the route (e.g. Mill Road underpass and R121 bridge); and
- Widening, if required, would require embankments or retaining structures in areas, with potential impact on trees.

6.2.2.7 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.2.3 Route 1A Scheme Options

6.2.3.1 Existing facilities

For approximately 680m travelling inbound to Dublin City from the junction of the Blanchardstown Road North (R121) on-ramp with the N3, a bus lane is provided along the N3.

In addition, a dedicated bus only egress slip is provided at the Crown Plaza travelling towards the Blanchardstown Road North overpass. There are no other exclusive bus lanes, inbound or outbound along this route.

Cyclist facilities are provided on Blanchardstown Road North overpass and the adjoining junctions. Primary and secondary routes on the proposed GDA cycle network are located in close proximity to this route, namely along the Old Navan Road and through Blanchardstown Village.

In addition, a Greenway is proposed in close proximity to this route through the Tolka Valley Park. No parking was found along this section. Route 1A was explored using different design concepts to identify potential scheme options.

The two resulting scheme options (1A1 and 1A2) are detailed below.

6.2.3.2 Scheme Option 1A1

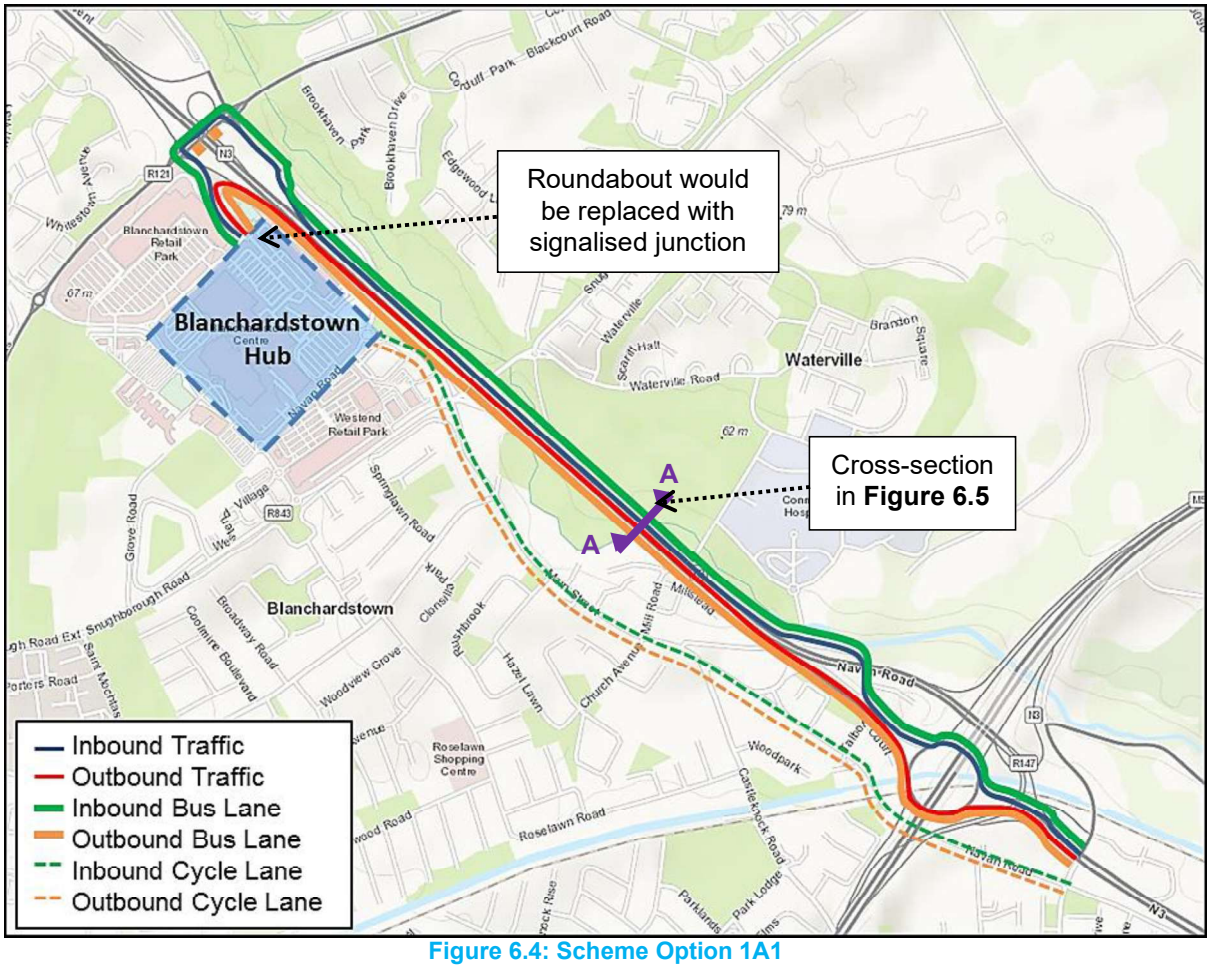

Figure 6.4: Scheme Option 1A1

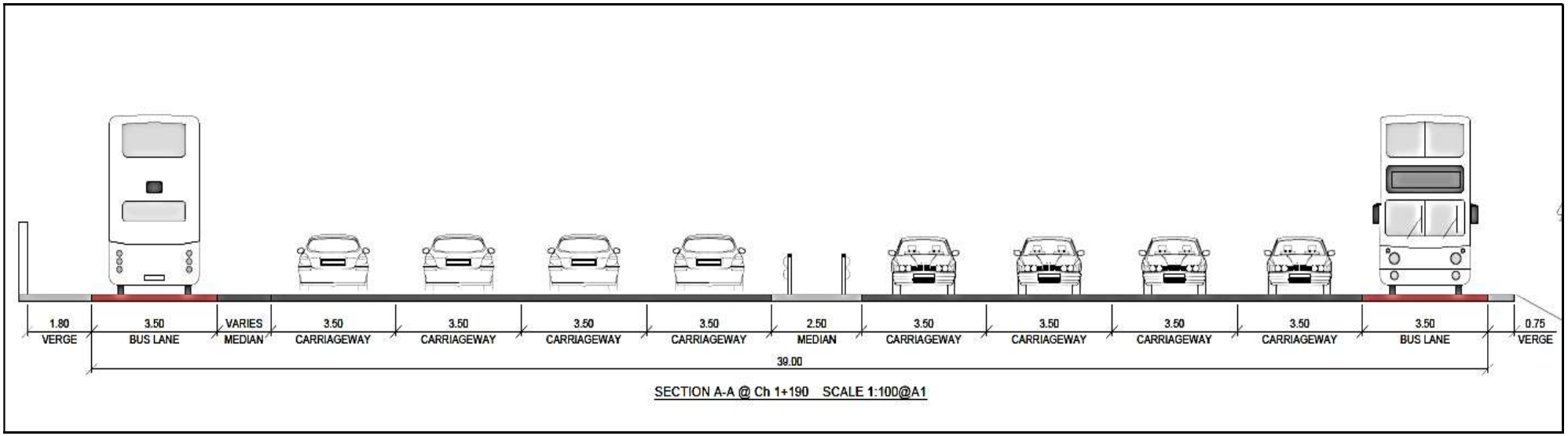

Figure 6.5: Scheme Option 1A1 Cross-Section (A-A)

- Scheme Option 1A1 proposals would incorporate exclusive bus and traffic facilities on both the inbound and outbound carriageways for the entirety of the section.
- The scheme option would also future proof to incorporate three lanes along this section of the N3.
- Widening would be required to provide these facilities, including the provision of new structures and embankment construction.
- To facilitate a bus lane through the N3/M50 roundabout and on Connolly Hospital access road, the conversion of a traffic lane to a bus lane would also be required.
- Segregated cyclist facilities would be provided through Blanchardstown Village (Main Street and Old Navan Road) as per the GDA Cycle Network Plan (see primary cycle route 5 and secondary cycle route 4a in **Section 2.5** of the report, **Figure 2.2**).
- Land take would be required to facilitate the works in this section.

Refer to **Appendix H** for concept drawings.

6.2.3.3 Scheme Option 1A2

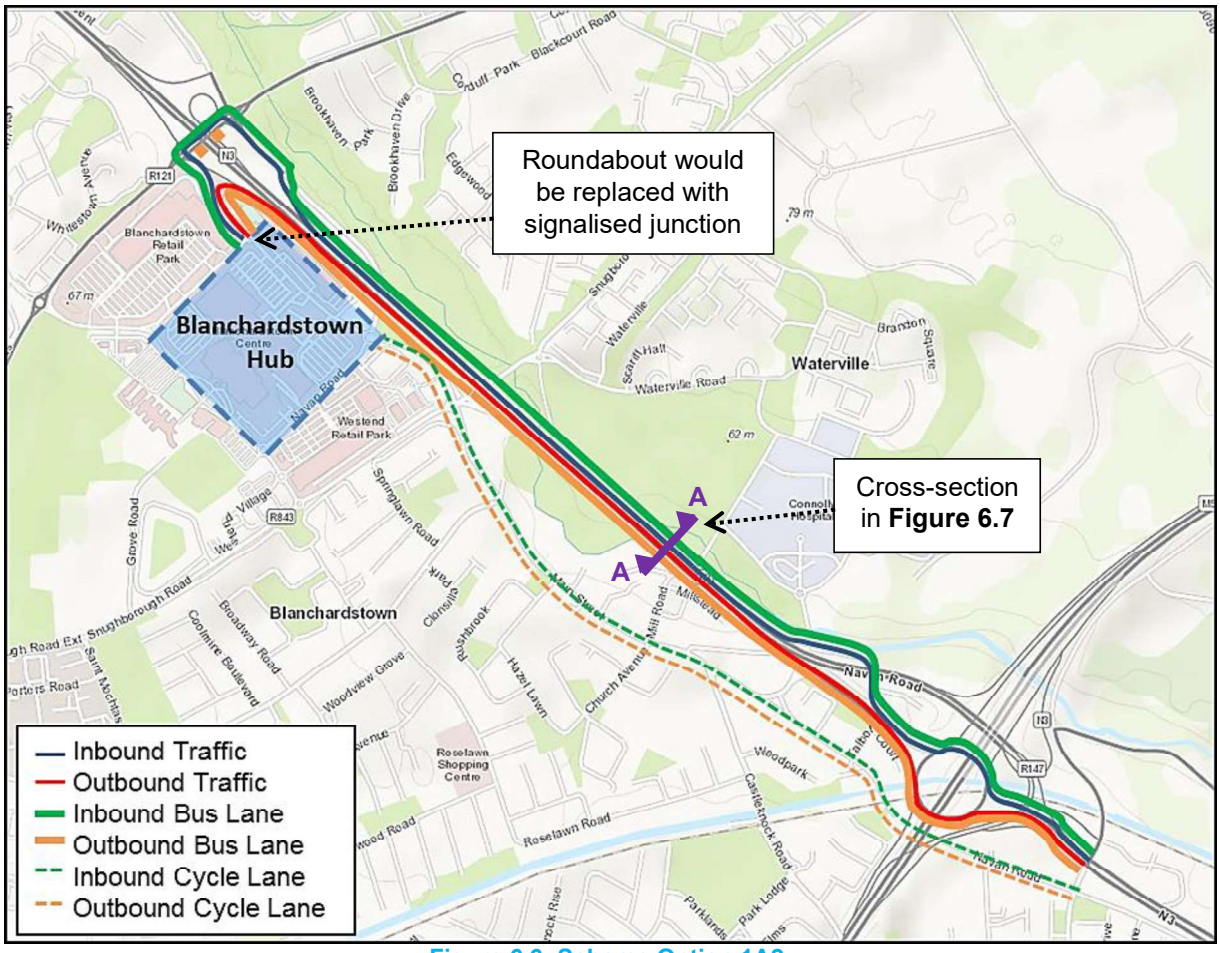

Figure 6.6: Scheme Option 1A2

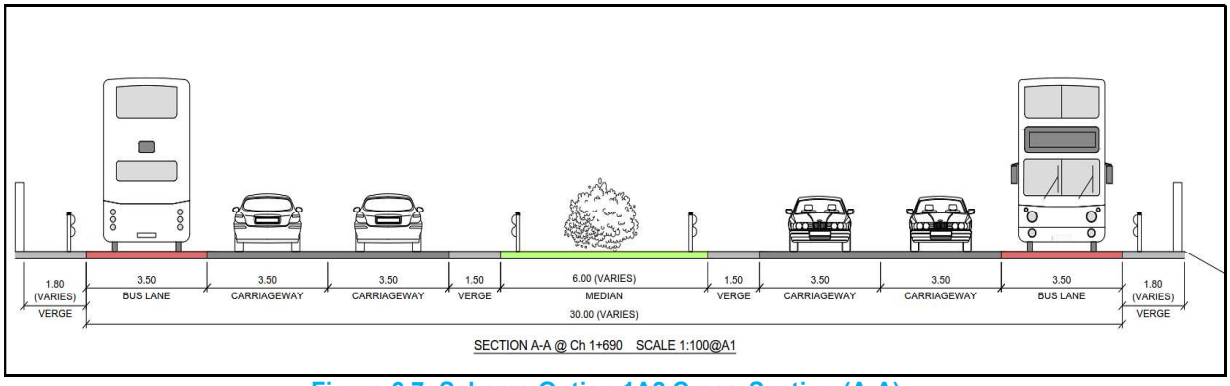

Figure 6.7: Scheme Option 1A2 Cross-Section (A-A)

Scheme Option 1A2 proposals would incorporate a slight variation to Scheme Option 1A1.

Continuous bus facilities would be provided on both inbound and outbound carriageways although this would be primarily facilitated by reducing the number of traffic lanes, with exception to where the current bus lane is present on the inbound.

No private land take would be required to facilitate the works along the section, but widening in the verge and hard shoulder would be required in places.

Segregated cyclist facilities would be provided through Blanchardstown Village (Main Street and Old Navan Road) as per the GDA Cycle Network Plan (see primary cycle route 5 and secondary cycle route 4a in **Section 2.5** of the report, **Figure 2.2**).

Refer to **Appendix H** for concept drawings.

6.2.4 Route Options Description - Route 1B

6.2.4.1 Inbound

Route 1B would connect Blanchardstown Town Centre to the N3/M50 roundabout (junction 6) via the N3/Navan Road. The route is approximately 2.55km in the inbound direction.

6.2.4.2 Outbound

Northbound, buses would travel the same route as taken by inbound vehicles. The route is approximately 2.35km in the outbound direction.

6.2.4.3 Stops

2 inbound bus stops and 3 outbound bus stops would be provided along this route (see **Figure 6.4**).

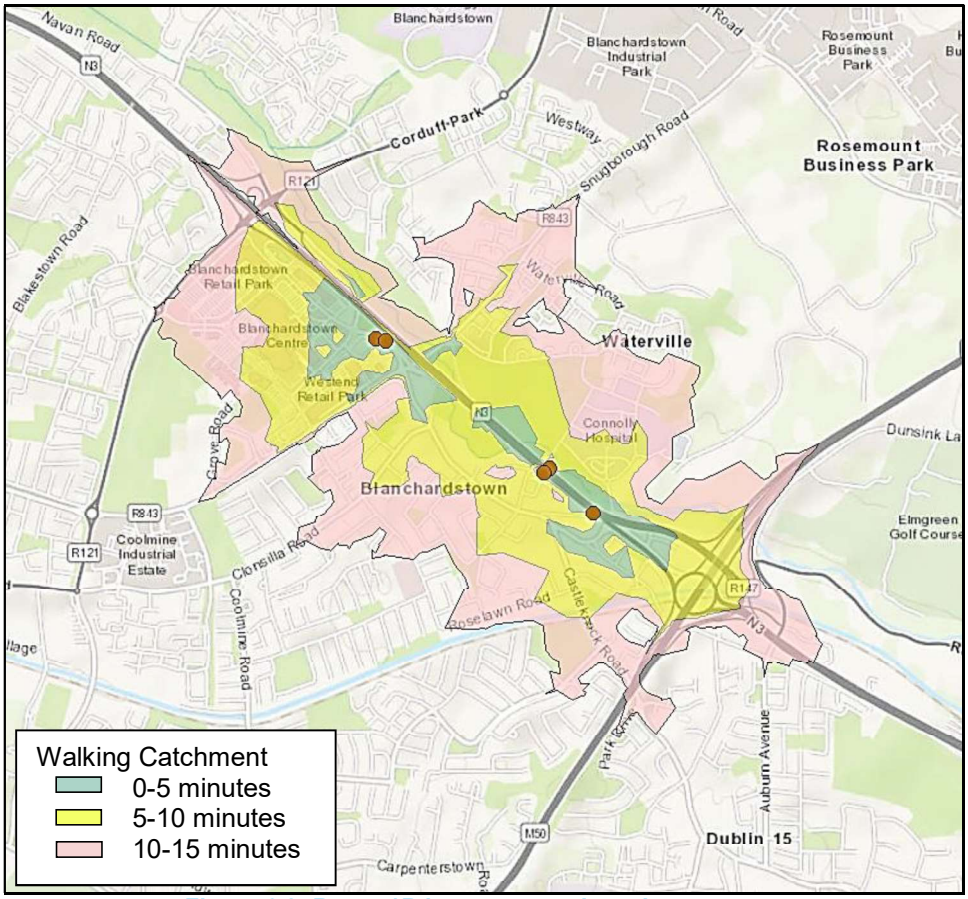

Figure 6.8: Route 1B bus stops and catchment areas

6.2.4.4 Catchment

Figure 6.8 illustrates the population residing within the 5, 10 and 15 minute catchment zones of the existing and proposed bus stops along Route 1B. The outermost isochrone contour defines the perimeter within which the Route 1B nearest bus stop can be reached by pedestrians in 15 minutes or less at a typical walking pace. The population residing within each of the isochrone contour areas is summarised below (to the nearest 1,000 residents):

- 5 minutes walking distance – 500 residents
- 5-10 minutes walking distance – 2,000 residents
- 10-15 minutes walking distance – 5,500 residents
- Total catchment within 15 minutes walking distance – 8,000 residents

These figures are based on the Census 2011 Small Area Population Statistics (SAPS).

6.2.4.5 Junctions

There are a total of 4 signalised junctions Route 1B in each direction, as well as three roundabouts in the inbound direction, and two roundabouts in the outbound direction. ITS measures may be required to deliver the level of bus priority required for additional bus services.

6.2.4.6 Constraints

The following constraints would need to be considered if Route 1B is progressed:

- Crossing M50 using existing infrastructure;
- Structures along the route (e.g. Mill Road underpass and Snugborough); and
- Widening, if required, would require embankments or retaining structures in areas, with potential impact on trees

6.2.4.7 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.2.5 Route 1B Scheme Options

6.2.5.1 Existing facilities

Existing bus stops are located along the L3020 between Blanchardstown and the Snugborough Road overpass.

A bus lane is also provided along the access slip road from the Snugborough/Waterville Road roundabout to the N3/Navan Road. The existing inbound bus lane on the N3/Navan Road terminates at the interface of this access slip road. There are no other exclusive bus lanes, inbound or outbound in this section. Primary and secondary routes on the proposed GDA cycle network are located in close proximity to this route, namely along the Old Navan Road and through Blanchardstown Village.

In addition, a Greenway is proposed in close proximity to this route through the Tolka Valley Park. No parking was found along this section.

Route 1B was explored using different design concepts to identify potential scheme options. The two resulting scheme options (1B1 and 1B2) are detailed below.

6.2.5.2 Scheme Option 1B1

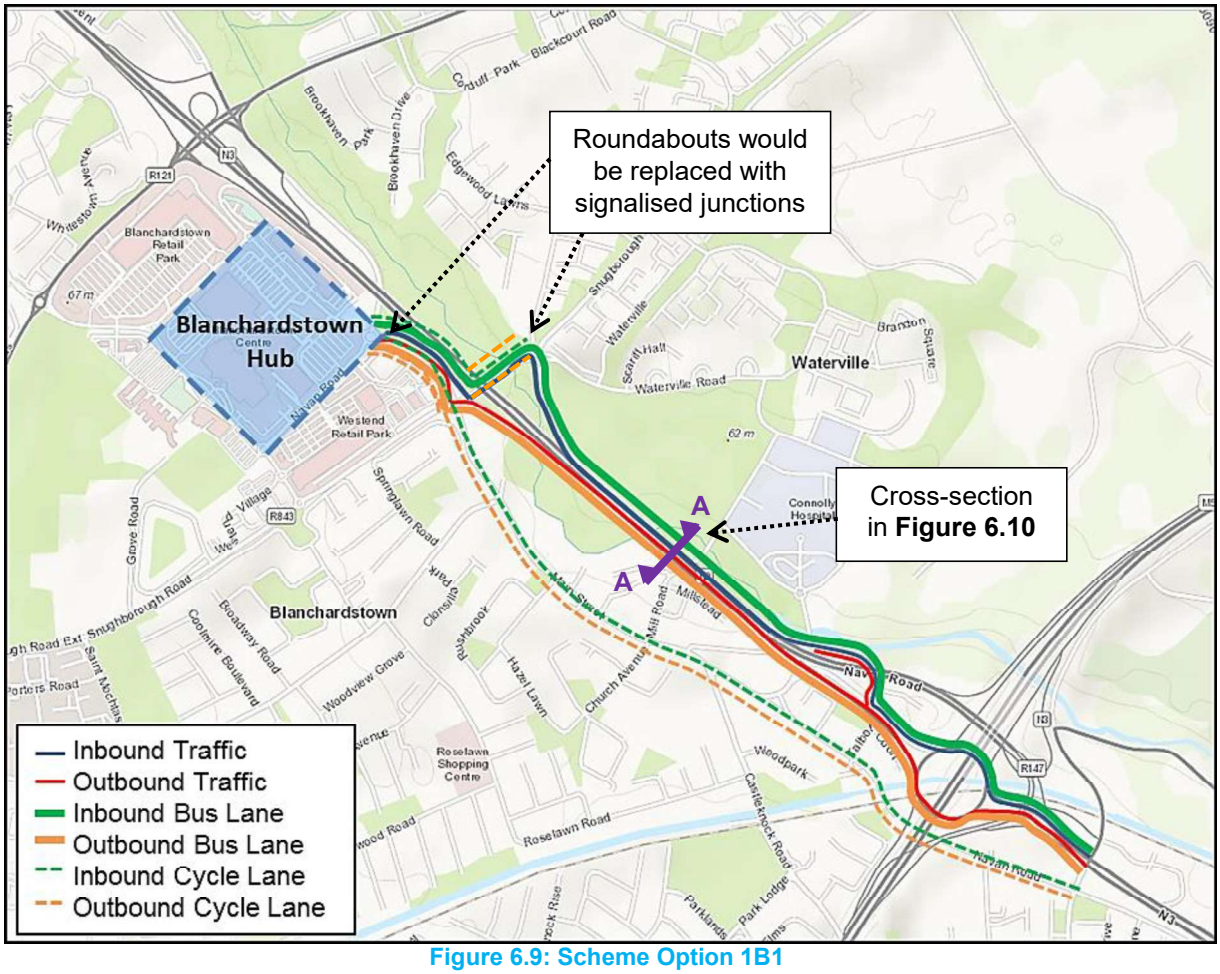

Figure 6.9: Scheme Option 1B1

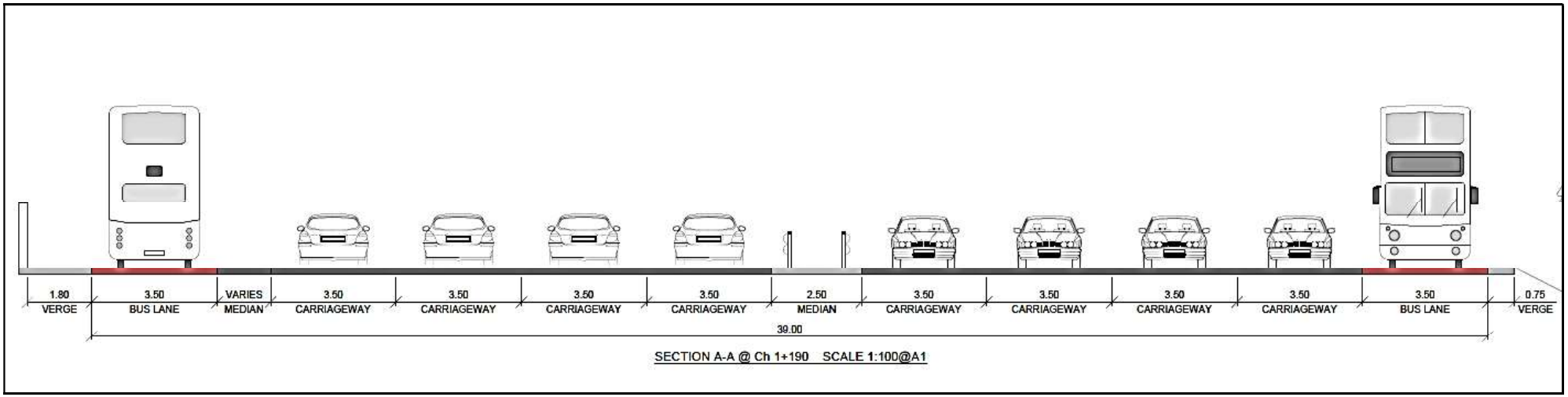

Figure 6.10: Scheme Option 1B1 Cross-Section (A-A)

- Scheme Option 1B1 proposals would incorporate exclusive bus and traffic facilities on both the inbound and outbound carriageways for the entirety of the section.
- The scheme option would also future proof to incorporate three lanes along this section of the N3.
- Widening would be required to provide these facilities, including the provision of new structures and embankment construction.
- To facilitate a bus lane through the N3/M50 roundabout and on Connolly Hospital access road, the conversion of a traffic lane to a bus lane would also be required.
- A two-way cyclist facility eastbound and one-way cycle lane westbound would be provided on the Snugborough overpass.
- Segregated cyclist facilities would be provided through Blanchardstown Village (Main Street and Old Navan Road) as per the GDA Cycle Network Plan (see primary cycle route 5 and secondary cycle route 4a in **Section 2.5** of the report, **Figure 2.2**).
- Land take would be required to facilitate the works in this section.

Refer to **Appendix H** for concept drawings.

6.2.5.3 Scheme Option 1B2

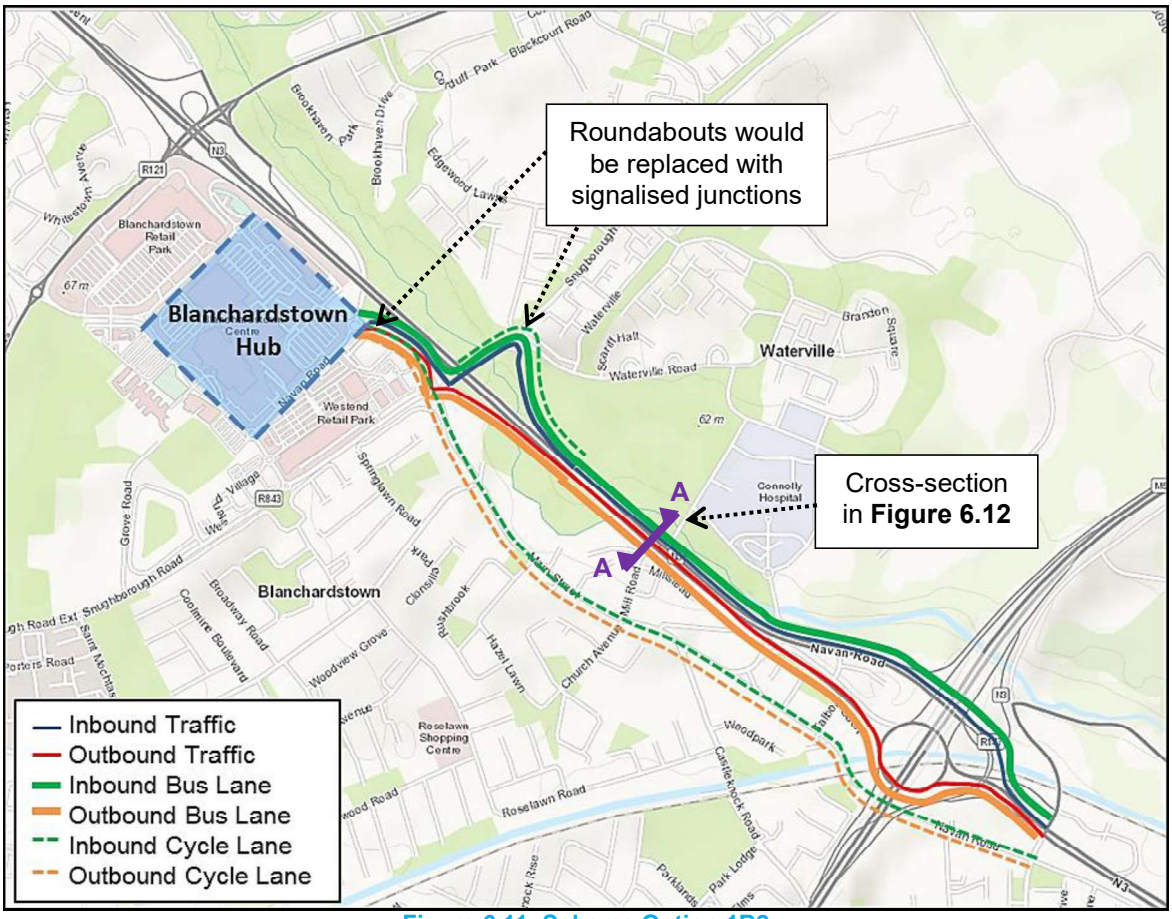

Figure 6.11: Scheme Option 1B2

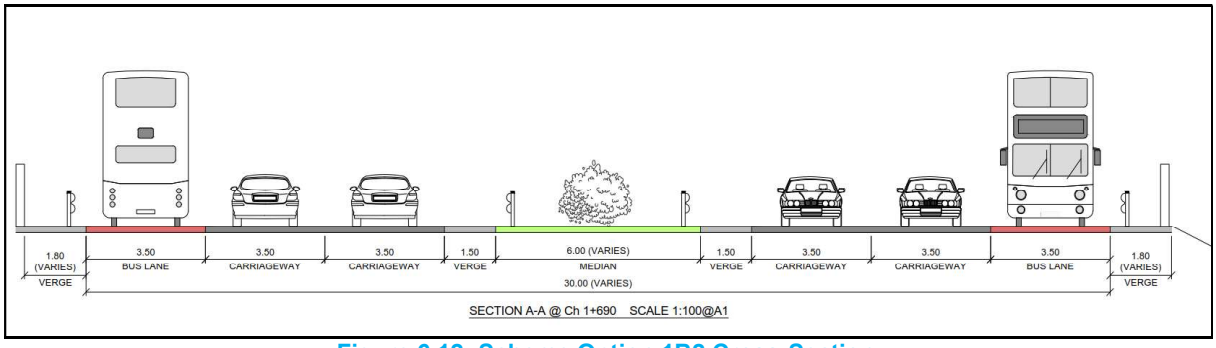

Figure 6.12: Scheme Option 1B2 Cross-Section

Scheme Option 1B2 proposals would incorporate a slight variation to Scheme Option 1B1.

Continuous bus facilities would be provided on both inbound and outbound carriageways although this would be primarily facilitated by reducing the number of traffic lanes.

No private land take would be required to facilitate the works along the section.

Some widening in the verge and hard shoulder would be required in places.

Segregated cyclist facilities would also be provided through Blanchardstown Village (Main Street and Old Navan Road) as per the GDA Cycle Network Plan (see primary cycle route 5 and secondary cycle route 4a in **Section 2.5** of the report, **Figure 2.2**).

Refer to **Appendix H** for concept drawings.

6.2.6 Route Options Description - Route 1H

6.2.6.1 Inbound

Route 1H would connect Blanchardstown Town Centre to the N3/M50 roundabout (junction 6) via the N3/Navan Road and Main Street (Blanchardstown Village).

6.2.6.2 Outbound

Northbound, buses would travel the same route as taken by inbound vehicles. The route is approximately 2.5km in each direction.

6.2.6.3 Stops

4 inbound bus stops and 3 outbound bus stops would be provided along this route – see **Figure 6.9**. Bus stop locations closely align with the existing bus stops along the route.

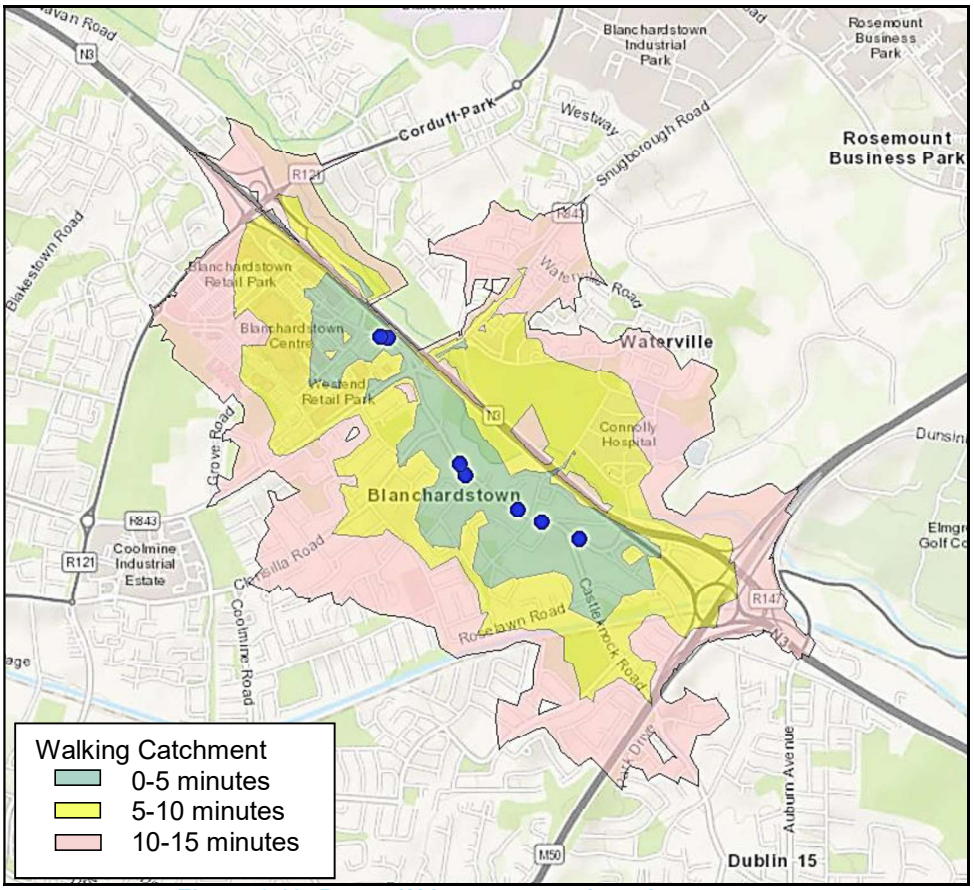

Figure 6.13: Route 1H bus stops and catchment areas

6.2.6.4 Catchment

Figure 6.13 illustrates the population residing within the 5, 10 and 15 minute catchment zones of the existing and proposed bus stops along Route 1H. The outermost isochrone contour defines the perimeter within which the Route 1H nearest bus stop can be reached by pedestrians in 15 minutes or less at a typical walking pace. The population residing within each of the isochrone contour areas is summarised below (to the nearest 500 residents):

- 5 minutes walking distance – 1,500 residents
- 5-10 minutes walking distance – 3,000 residents
- 10-15 minutes walking distance – 6.000 residents
- Total catchment within 15 minutes walking distance – 10,500 residents

These figures are based on the Census 2011 Small Area Population Statistics (SAPS).

6.2.6.5 Junctions

There are a total of 8 signalised junctions and one roundabout along Route 1H in each direction, as well as 1 pedestrian crossing. ITS measures may be required to deliver the level of bus priority required for additional bus services.

6.2.6.6 Constraints

The following constraints would need to be considered if Route 1B is progressed:

- Crossing M50 using existing infrastructure;
- The presence of numerous entrances to existing residential properties and commercial establishments along the route option;
- The replacement of parallel parking along the route option; and
- Widening, if required, would have a potential impact on trees.

6.2.6.7 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.2.7 Route 1H Scheme Options

Several bus routes operate inbound and outbound along the L3020 between Blanchardstown Town Centre and the Snugborough Road junction, along the Main Street of Blanchardstown Village and along Navan Road, to and from the City via the N3 / Navan Road.

Exclusive bus lanes are provided on the outbound carriageway on Main Street for approximately 140 metres and on the City bound carriageway of the Navan Road between the Old River Road junction and the Old Navan Road junction. An approximate 120 metre long on-road cycle lane is located between the Clonsilla Road junction and the L3020/Snugborough junction. There are several trees lining the route at various locations.

Parking Spaces are found at various locations along this route. The parking facilities are listed as follows:

L3020/Main Street to Clonsilla Road

- No Formal Parking
- 15 adjacent spaces located at "The Garden House"

Main Street to Castleknock Road junction

- 38 Formal Parking Spaces (including 3 Disabled Parking Spaces)
- No Informal Parking Spaces
- 43 Adjacent Spaces at several locations
- 2 Loading Bay spaces
- 2 Taxi Rank Spaces

Navan Road from Castleknock Road junction to the N3

- No Parking

Route 1H was explored using different design concepts to identify potential scheme options. The two resulting scheme options (1H1 and 1H2) are detailed below.

6.2.7.1 Scheme Option 1H1

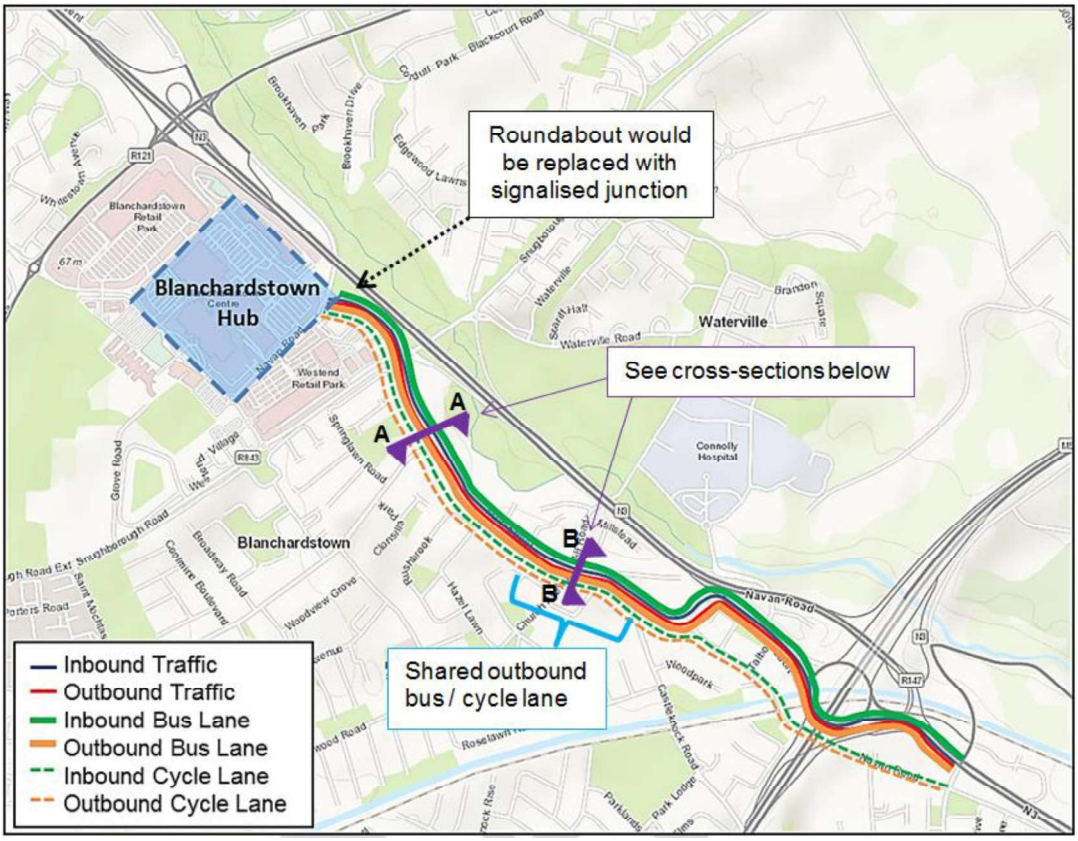

Figure 6.14: Scheme Option 1H1

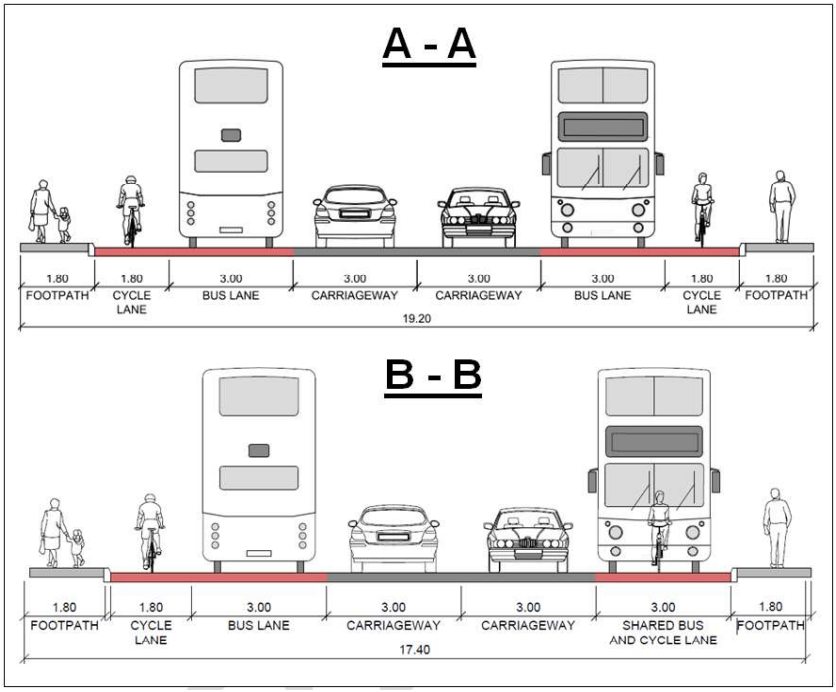

Figure 6.15: Scheme Option 1H1 Cross-Section

Scheme Option 1H1 proposals would incorporate exclusive bus facilities for the majority of both the inbound and outbound carriageways from Blanchardstown Town Centre to the Dunsink Lane/Auburn Avenue junction via Blanchardstown Village. Segregated facilities are provided for buses and cyclists with the exception of approximately 370m of shared outbound bus and cycle facilities within Blanchardstown Village. To facilitate a bus lane through the N3/M50 roundabout would require the conversion of a traffic lane to a bus lane. Segregated cyclist facilities would also be provided along Old Navan Road as per the GDA Cycle Network Plan, to provide a means of crossing the M50 (see primary cycle route 5 and secondary cycle route 4a in **Section 2.5** of the report, **Figure 2.2**). Land take would be required to facilitate the works along the section. Refer to **Appendix H** for concept drawings.

6.2.7.2 Scheme Option 1H2

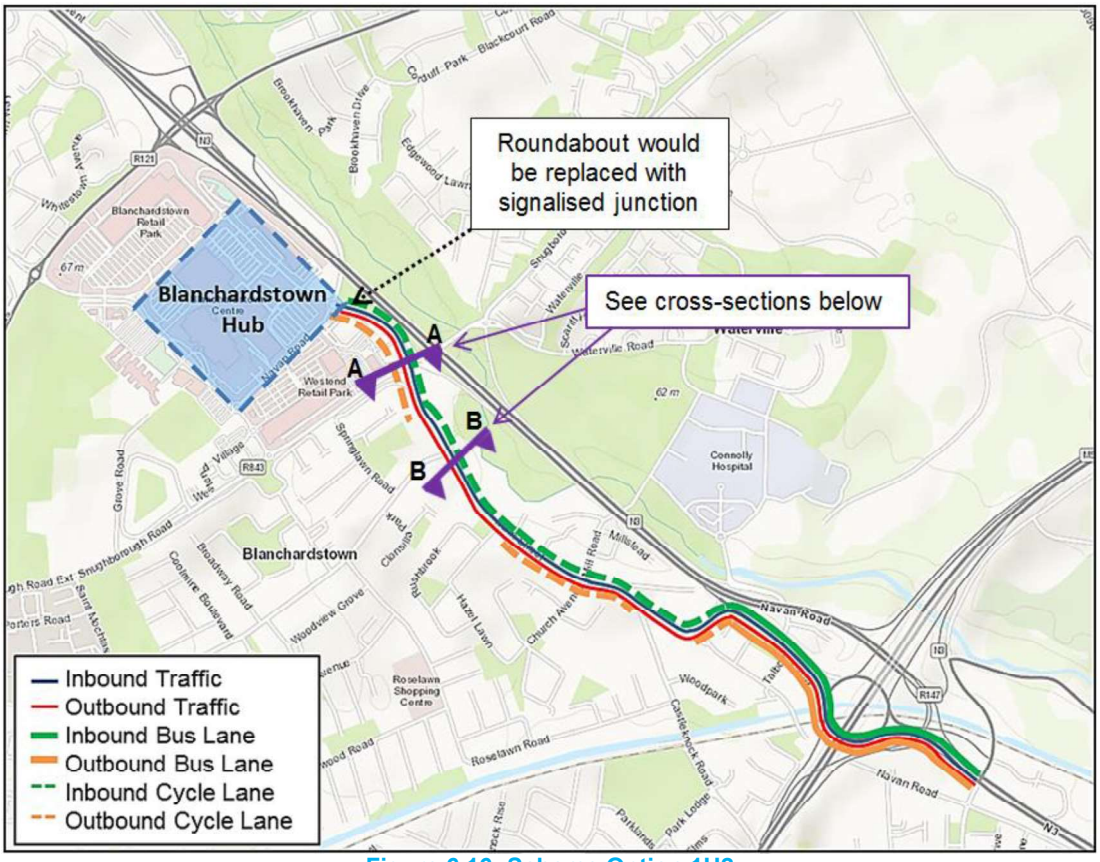

Figure 6.16: Scheme Option 1H2

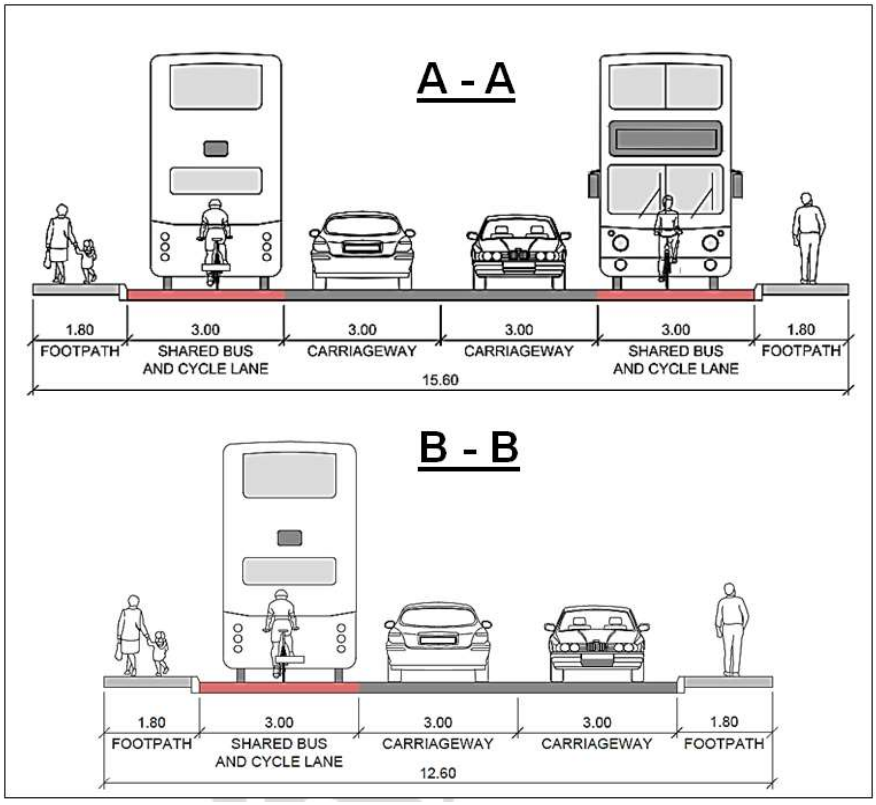

Figure 6.17: Scheme Option 1H2 Typical Cross-Section

Scheme Option 1H2 proposals would incorporate a variation to the 1H1. Segregated bus lanes would be provided in both directions along the N3 section of the route. Between the Navan Road / N3 junction and Blanchardstown Shopping Centre, a shared bus and cycle lane would be provided in the inbound direction. In the outbound direction, a shared bus and cycle lane would be provided where possible to avoid lane take – see **Figure 6.16**. Refer to **Appendix H** for concept drawings.

6.2.8 Summary

Scheme Options 1A1, 1A2, 1B1, 1B2, 1H1 and 1H2 were brought forward to MCA to identify the most appropriate design for SAS 1. A summary of the MCA results is presented in **Table 6.1**.

Table 6.1: Route 1 MCA

Assessment Sub-Criteria	1A1	1A2	1B1	1B2	1H1	1H2
1.a. Capital Cost						
1.b. Transport Reliability and Quality (Journey Time)						
2.a. Land Use Integration						
2.b. Residential Population and Employment Catchments						
2.e. Traffic Network Integration						
3.a. Key Trip Attractors						
4.a. Road Safety						
6.c. Flora & Fauna						
6.e. Hydrology						
6.f. Landscape and Visual						
6.g. Air Quality						
6.h. Noise and Vibration						
6.i. Land Use Character						

Neutral scoring sub-criteria are omitted from the summary table i.e. where scheme options score neutrally to other options. The full MCA table including a justification for the sub-criteria scoring awarded to each scheme option is presented in **Appendix A**.

Overall, Scheme Option 1A1 would be most expensive, primarily due to infrastructural works required. Scheme Option 1H2 would be the least expensive option.

Scheme Option 1B1 and 1B2 would offer the shortest **Journey Time** due to the combination of the route length and number of signalised intersections.

Snugborough overpass has gone through Part 8 planning process for permission to widen the bridge which includes for a dedicated bus lane. Route Option 1B1 would integrate with the proposed development and hence scores highest under **Lane Use Integration**. Route Option 1H would impact on the planned development for Blanchardstown Village as per Blanchardstown Town Centre Development Framework/Masterplan(2009), which states; "Remodel and traffic manage the Main Street roadway into a streetscape, designed to be a place for living and enjoyment.". Both Scheme Option 1H1 and 1H2 would reconfigure the streets with a focus primarily on transportation through the village rather than the land use objective as per the Masterplan, hence, Scheme Option 1H1 and 1H2 score lowest.

All route options serve Blanchardstown Town Centre but Route Option 1H also serves Blanchardstown Village and hence, Scheme Options 1H1 and 1H2 scores highest under **Key Trip Attractors.**

Route Options 1B and 1H serve a larger catchment area than route 1A, in terms of the number of people living within 15 minute walk to the nearest bus stop along the route.

Scheme Options 1A1 and 1B1 score highest under **Traffic Network Integration** as they have the least potential to impact on the existing number of traffic lanes. Scheme options 1A2 and 1B2 score lowest as they would have the greatest impact on traffic.

Scheme Options 1H1 and 1H2 score lowest under **Road Safety.**

Scheme Options 1A2 and 1B2 score highest under **Flora and Fauna** as they have the least potential to impact on trees and land zoned as 'high amenity' grassland.

Scheme Options 1A1 and 1B1 score lowest under **Hydrology** due to the proposed widening of the bridge over the River Tolka.

However, 1A1 and 1B1 score highest under **Air Quality** and **Noise and Vibration** as they include proposals which would have less adverse impacts.

Scheme Options 1H1 and 1H2 score lowest under **Landscape and Visual** and **Land Use Character** as they would significantly impact the streetscape within Blanchardstown Village by removing trees, reducing footpath widths, acquiring land (e.g. front gardens) and removing on-street parking.

Overall, Scheme Option 1B1 scores highest and hence will form part of Route 1.

6.3 SAS2: M50 East to Cabra

Following the Stage 1 Sift for the SAS2, the remaining route sections (see Figure 6.18) were combined to form one possible continuous route option between the M50 East and Cabra junction along Navan Road. The emerging route option is illustrated in Figure 6.19.

The concept of re-routing cyclists along Blackhorse Avenue was considered to provide more space for buses and traffic along Navan Road. However, Navan Road is recognised as a Primary route in the GDA Cycle Network Plan and therefore provision for cyclists must be provided. As a result, the option of re-routing cyclists via Blackhorse Avenue was not considered a suitable option and not taken forward.

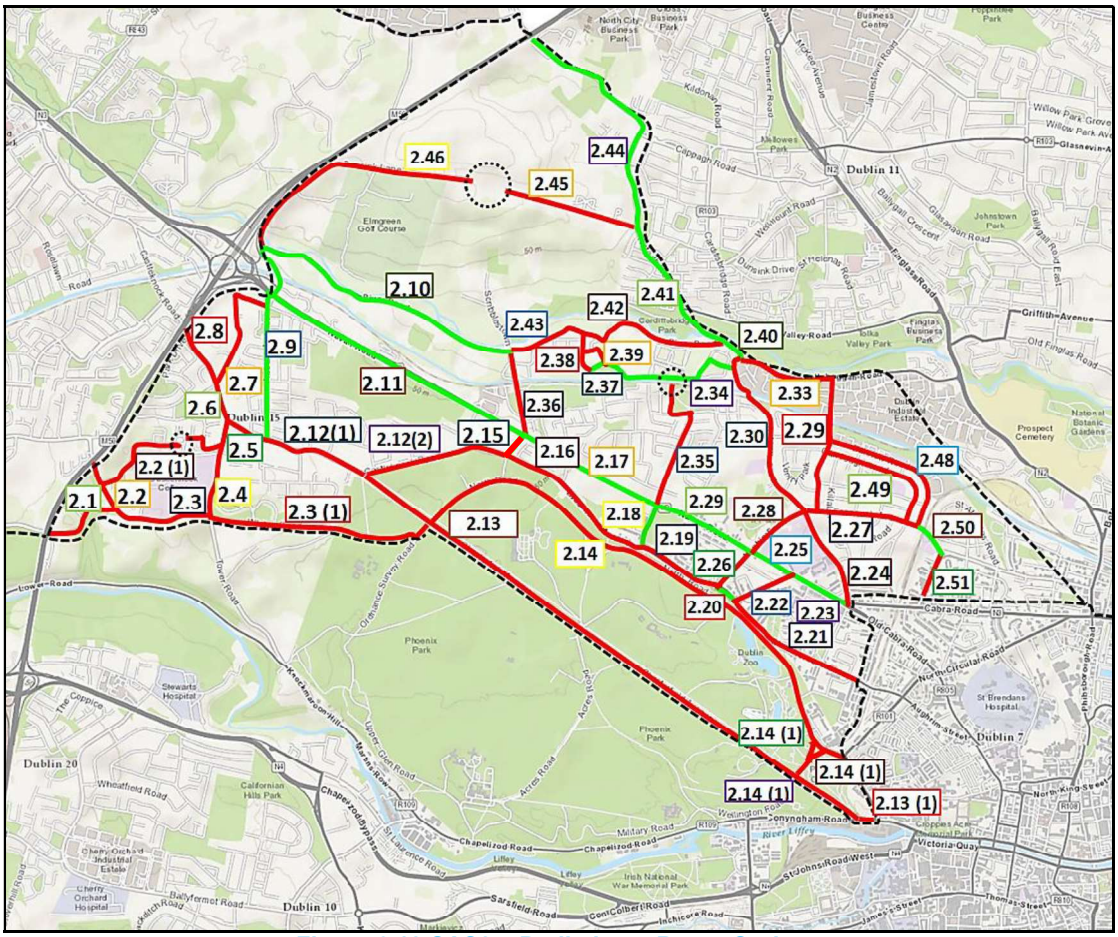

Figure 6.18 SAS2 – Preliminary Route Options

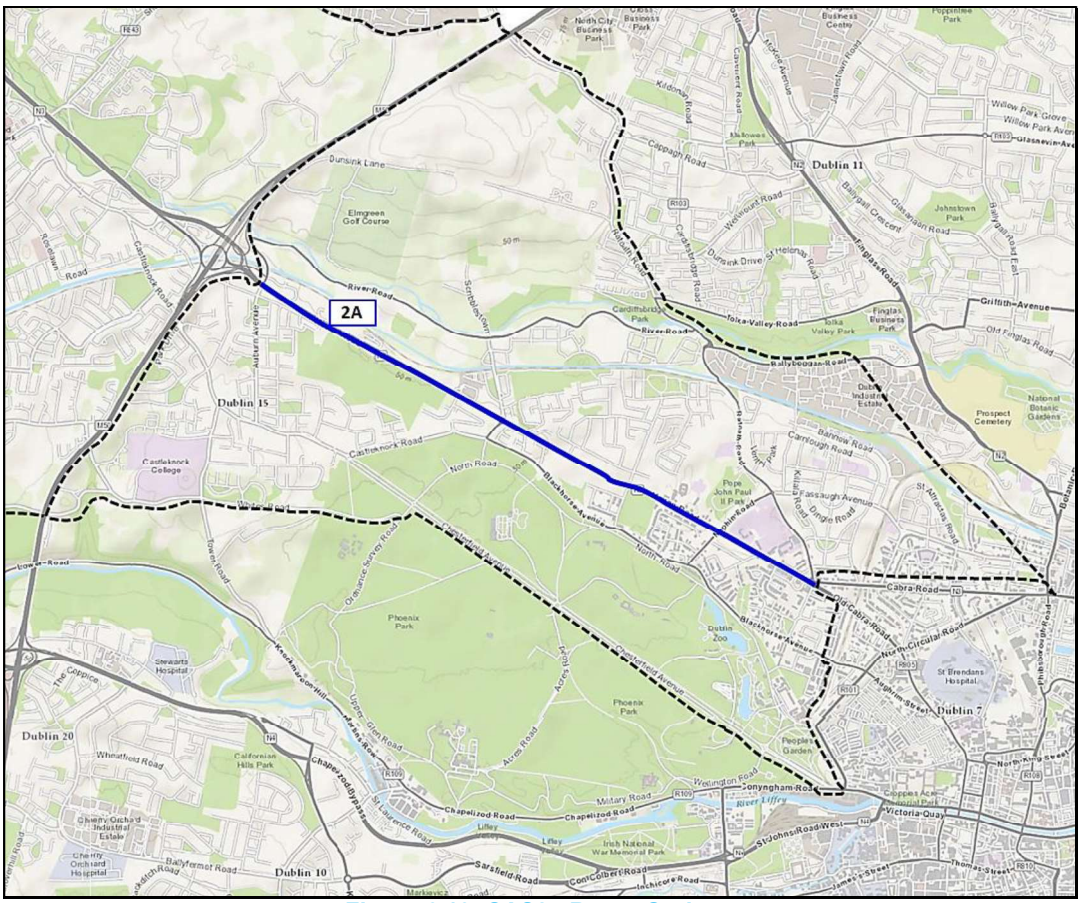

Figure 6.19: SAS2 –Route Options

6.3.1 Route Option Description – Route 2A

6.3.1.1 Inbound

Route 2A would connect Blanchardstown to Cabra via Navan Road.

6.3.1.2 Outbound

Northbound, buses would travel the same route as taken by inbound vehicles. The route is approximately 4.5km in each direction.

6.3.1.3 Stops

9 bus stops would be provided in each direction along this route (see **Figure 6.20**). Bus stop locations closely align with the existing bus stops along the route and where appropriate, have been reconfigured to facilitate the route geometry.

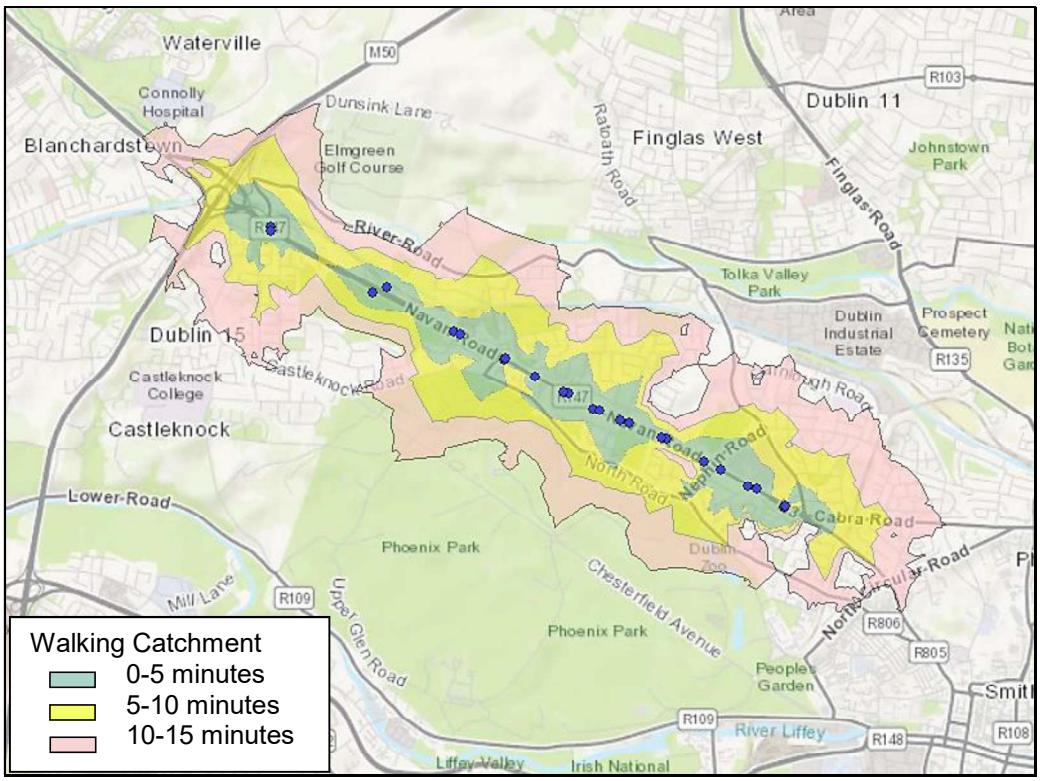

Figure 6.20: Route 2A bus stops and catchment areas

6.3.1.4 Catchment

Figure 6.20 illustrates the population residing within the 5, 10 and 15 minute catchment zones of the existing and proposed bus stops along Route 2A. The outermost isochrone contour defines the perimeter within which the Route 2A nearest bus stop can be reached by pedestrians in 15 minutes or less at a typical walking pace. The population residing within each of the isochrone contour areas is summarised below (to the nearest 1,000 residents):

- 5 minutes walking distance – 5,000 residents
- 5-10 minutes walking distance – 9,000 residents
- 10-15 minutes walking distance –10,000 residents
- Total catchment within 15 minutes walking distance – 24,000 residents

These figures are based on the Census 2011 Small Area Population Statistics (SAPS).

6.3.1.5 Junctions

There are a total of 9 signalised junctions, 2 pedestrian crossings and one roundabout along Route 2A in each direction. Although there are existing bus facilities along parts of Route 2A (both inbound and outbound), ITS measures may be required to deliver the level of bus priority required for additional bus services.

6.3.1.6 Constraints

The following constraints would need to be considered if Route 2A is progressed:

The presence of numerous entrances to existing residential properties and commercial establishments along the route option;

The removal of parallel parking along Navan Road; and

The presence of trees along Navan Road.

6.3.1.7 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.3.2 Route 2A Scheme Options

6.3.2.1 Existing facilities

Inbound bus facilities are along the majority of the route between the Navan Road Parkway junction and the Cabra Road junction**,** except for approaches to junctions such as Halfway House Roundabout, Ashtown Grove, Kinvara Avenue, Nephin Road and Old Cabra Road.

There are short sections of exclusive bus lanes on the outbound carriageway on approach to Halfway House Roundabout and along Navan Road adjacent to Navan Road Parkway.

Two-way cyclist facilities are provided between the Castleknock Manor cycle and pedestrian access (next to the Ashtown 'Topaz' Service Station) and Kempton Avenue on the southern carriageway.

On-road cyclist facilities are provided between Kempton Avenue and Cabra Road travelling on both the inbound and outbound carriageways.

There are numerous trees located adjacent to both carriageways along this section. The breakdown of the car parking facilities along Route 2A is as follows:

- No Formal Parking
- 4 Informal Parking spaces behind footpath outside "The Brophy" Medical Practise on the North side of the Navan Road.
- 5 Informal Parking Spaces behind footpath outside Our Lady Help of Christians Church on the North side of the Navan Road
- 9 Informal Parking Spaces from 106 Navan Road to 90 Navan Road. 80m total length of Informal Parking. This distance is inclusive of 8 car entrances to adjacent properties.
- No Taxi Ranks
- No Loading Bays

Route 2A was explored using different design concepts to identify potential scheme options. The three resulting scheme options (2A1, 2A2 and 2A3) are detailed below.

6.3.2.2 Scheme Option 2A1

Scheme Option 2A1 proposals would incorporate traffic and segregated bus / cyclist facilities on both the inbound and outbound carriageways for the entirety of Navan Road. To facilitate this, widening of the existing carriageway would be required along the majority of the route between Halfway House Roundabout and Cabra Road junction, with land take required in places. Removal of on-street parking and existing trees adjacent to the carriageway would also be required to facilitate carriageway widening. Refer to **Appendix H** for concept drawings.

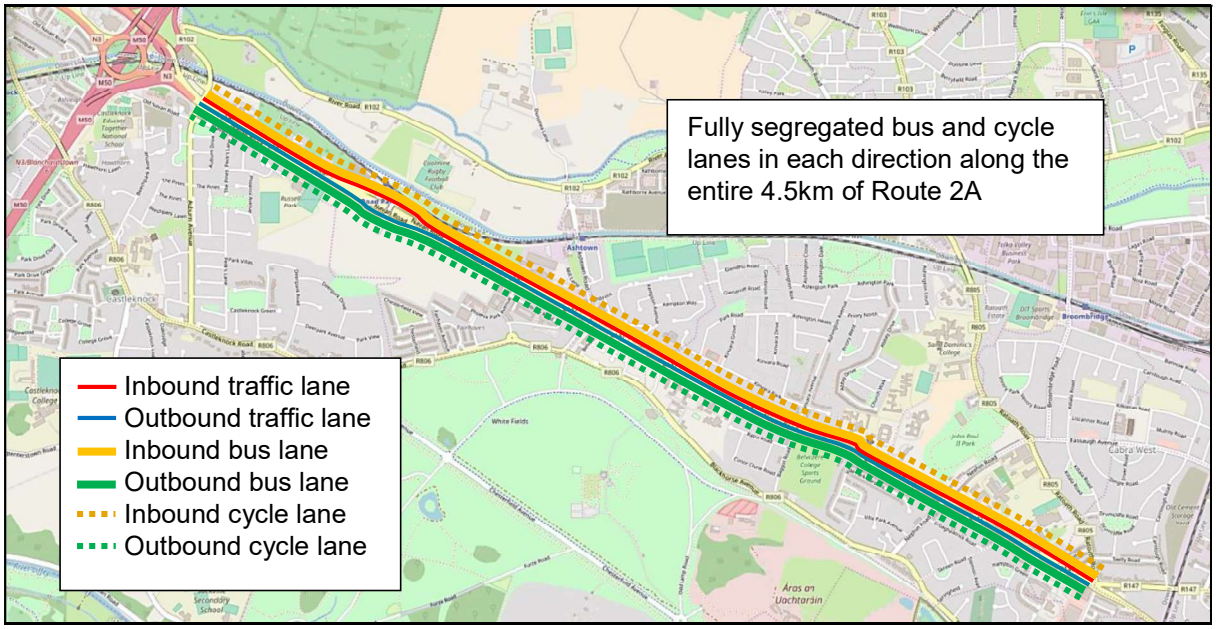

Figure 6.21: Scheme Option 2A1 bus and cycle facilities

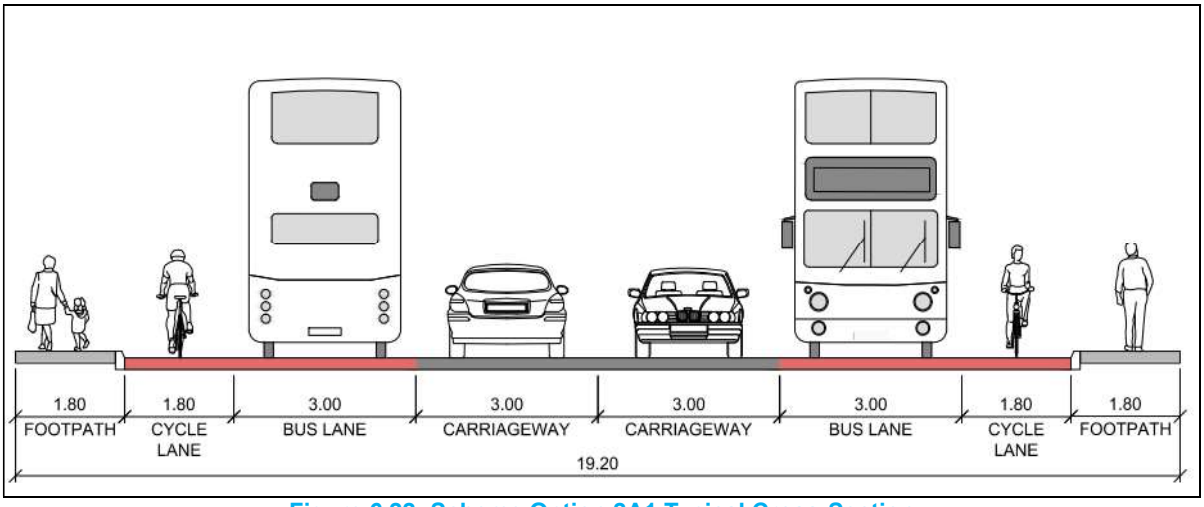

Figure 6.22: Scheme Option 2A1 Typical Cross-Section

6.3.2.3 Scheme Option 2A2

Scheme Option 2A2 proposals would incorporate a variation to 2A1. Segregated bus and cycle lanes would be provided along the majority of the 4.5km route; however, buses would mix with cyclists for a total 250m in the inbound direction and 630m in the outbound direction. The three cross-sections illustrated in **Figure 6.24** would be incorporated throughout various sections of Navan Road, as illustrated in **Figure 6.23**. These cross sections include:

- A - A: Shared bus and cycle lane in both directions
- B - B: Segregated bus and cycle lanes in both directions
- C - C: Segregated bus and cycle lanes inbound and shared bus and cycle lane outbound

Refer to **Appendix H** for concept drawings.

Carriageway widening would be required between Halfway House Roundabout and Cabra Road junction, but no land take would be required. Removal of on-street parking and existing trees adjacent to the carriageway would also be required to facilitate carriageway widening.

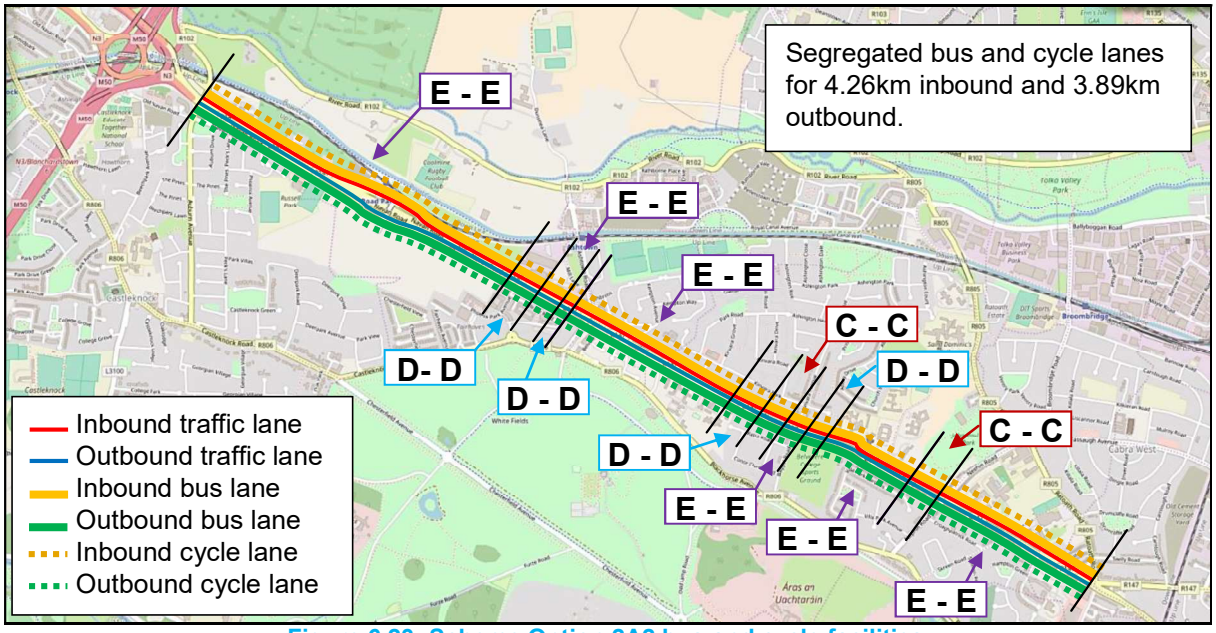

Figure 6.23: Scheme Option 2A2 bus and cycle facilities

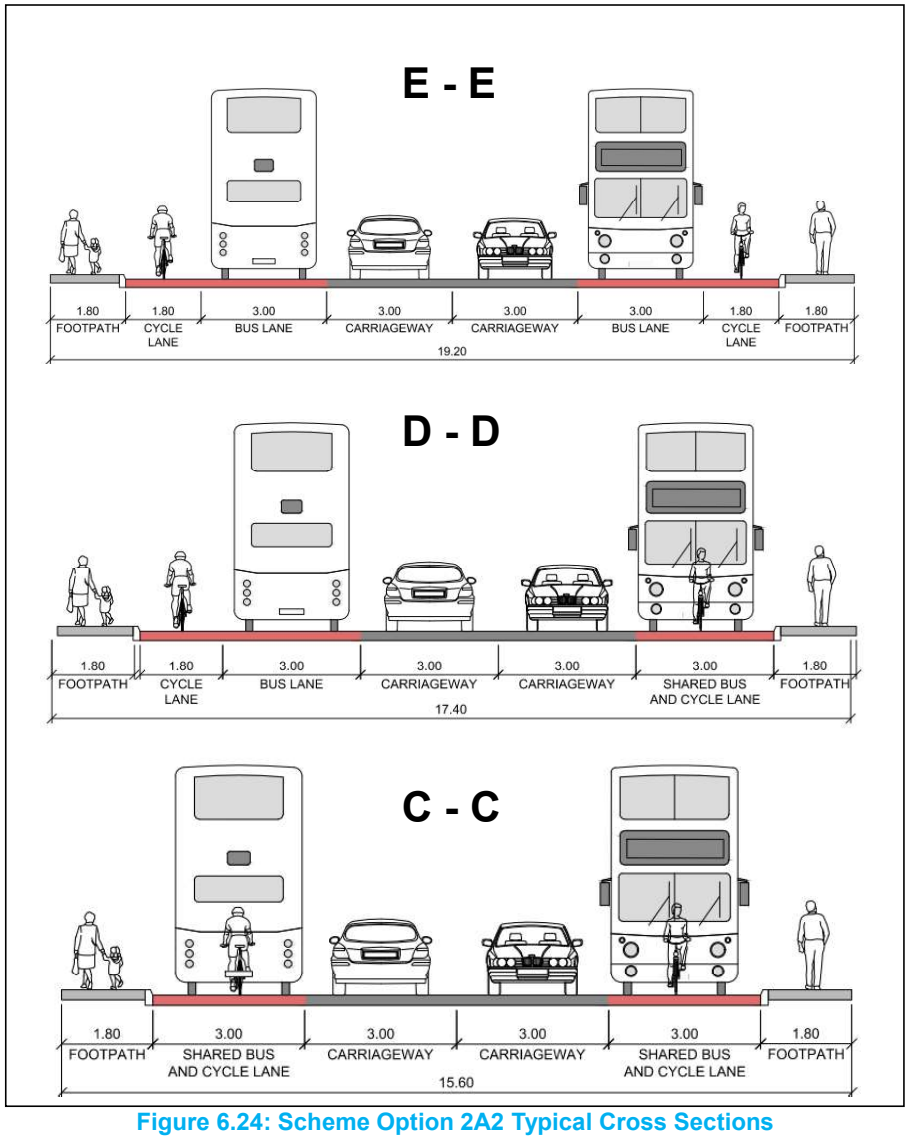

Figure 6.24: Scheme Option 2A2 Typical Cross Sections

6.3.2.4 Scheme Option 2A3

Scheme Option 2A3 proposals would be akin to Scheme Option 2A1 in terms of traffic and bus infrastructure; the difference being that 2A3 proposes a two-way cycle track on one side of the road rather than inbound/outbound lanes either side of the road (as per 2A1). To facilitate continuous segregated bus lanes and a two-way cycle track, widening of the existing carriageway would be required along the majority of the route between Halfway House Roundabout and Cabra Road junction, with land take required in places. Removal of on-street parking and existing trees adjacent to the carriageway would also be required to facilitate carriageway widening. Refer to **Appendix H** for concept drawings.

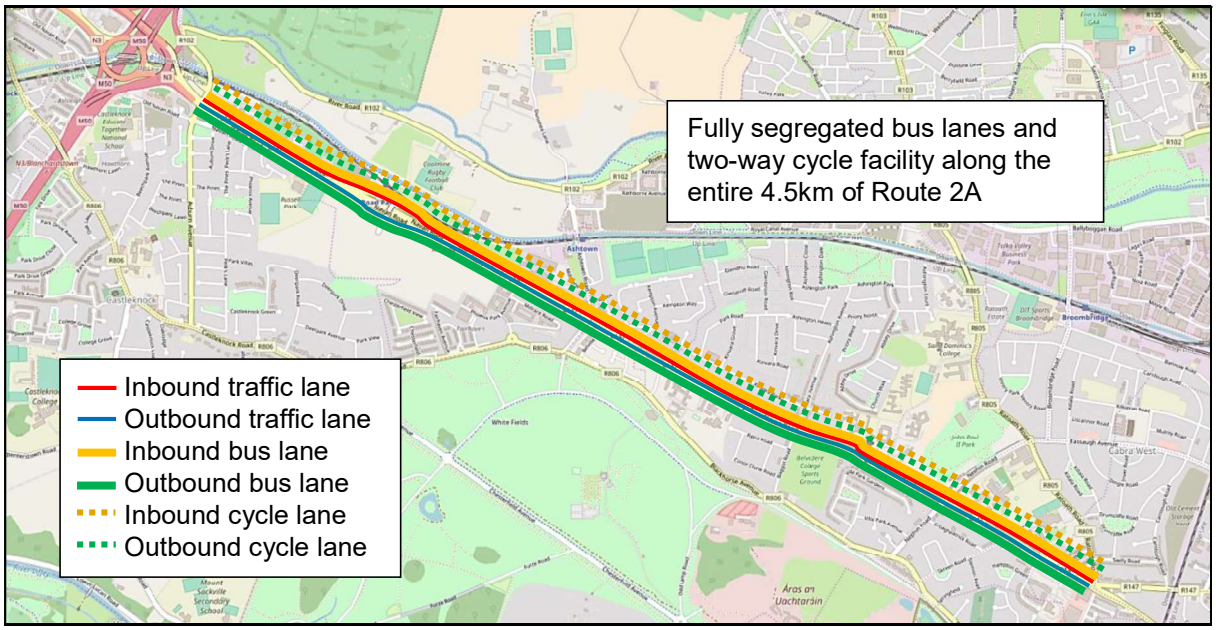

Figure 6.25: Scheme Option 2A2 bus and cycle facilities

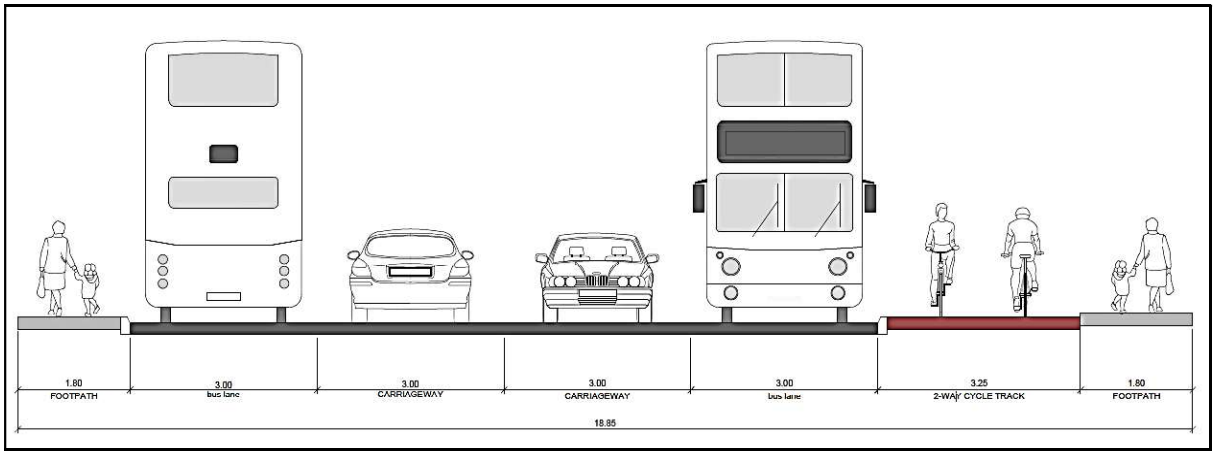

Figure 6.26: Scheme Option 2A2 Typical Cross Sections

6.3.3 Summary

Scheme Options 2A1, 2A2 and 2A3 were brought forward to MCA to identify the most appropriate design for Route 2A. A summary of the MCA results is presented in **Table 6.2**.

Table 6.2: Route 2 MCA

Assessment Sub-Criteria	2A1	2A2	2A3
1.a. Capital Cost			
1.b. Transport Reliability and Quality (Journey Time)			
2.d. Cycle Network Integration			
4.a. Road Safety			
6.c. Flora and Fauna			

Neutral scoring sub-criteria are omitted from the summary table i.e. where scheme options score neutrally to other options. The full MCA table including a justification for the sub-criteria scoring awarded to each scheme option is presented in **Appendix A**.

The three scheme options scored neutrally for the majority of the sub-criteria assessed.

In terms of **Capital Cost**, Scheme Option 2A1 would be more expensive due to the land-acquisition required for the provision of fully segregated inbound and outbound bus and cycle lanes along the entire route.

The proposed fully segregated bus lanes would allow for a faster and more reliable journey time. Hence, Scheme Option 2A2 scores lowest under **Transport Reliability and Quality** as it proposes shared bus and cycle lanes for 250m in the inbound direction and 630m in the outbound direction.

Due to the proposed segregation of bus and cycle lanes (inbound and outbound), Scheme Option 2A1 scores highest under **Road Safety** and **Cycle Network Integration**.

Scheme Option 2A1 and 2A3 have greater potential to impact existing trees along the route and hence score lower under **Flora and Fauna**.

Overall, Scheme Option 2A1 scores highest and hence will form Route 2.

6.4 SAS 3: Cabra to Ellis Quay

Following the Stage 1 sift for SAS 3, the remaining route options were combined to form 7 possible continuous route options between the R147 and the bridge crossings across the Liffey. These preliminary routes options are listed below and shown in **Figure 6.27**.

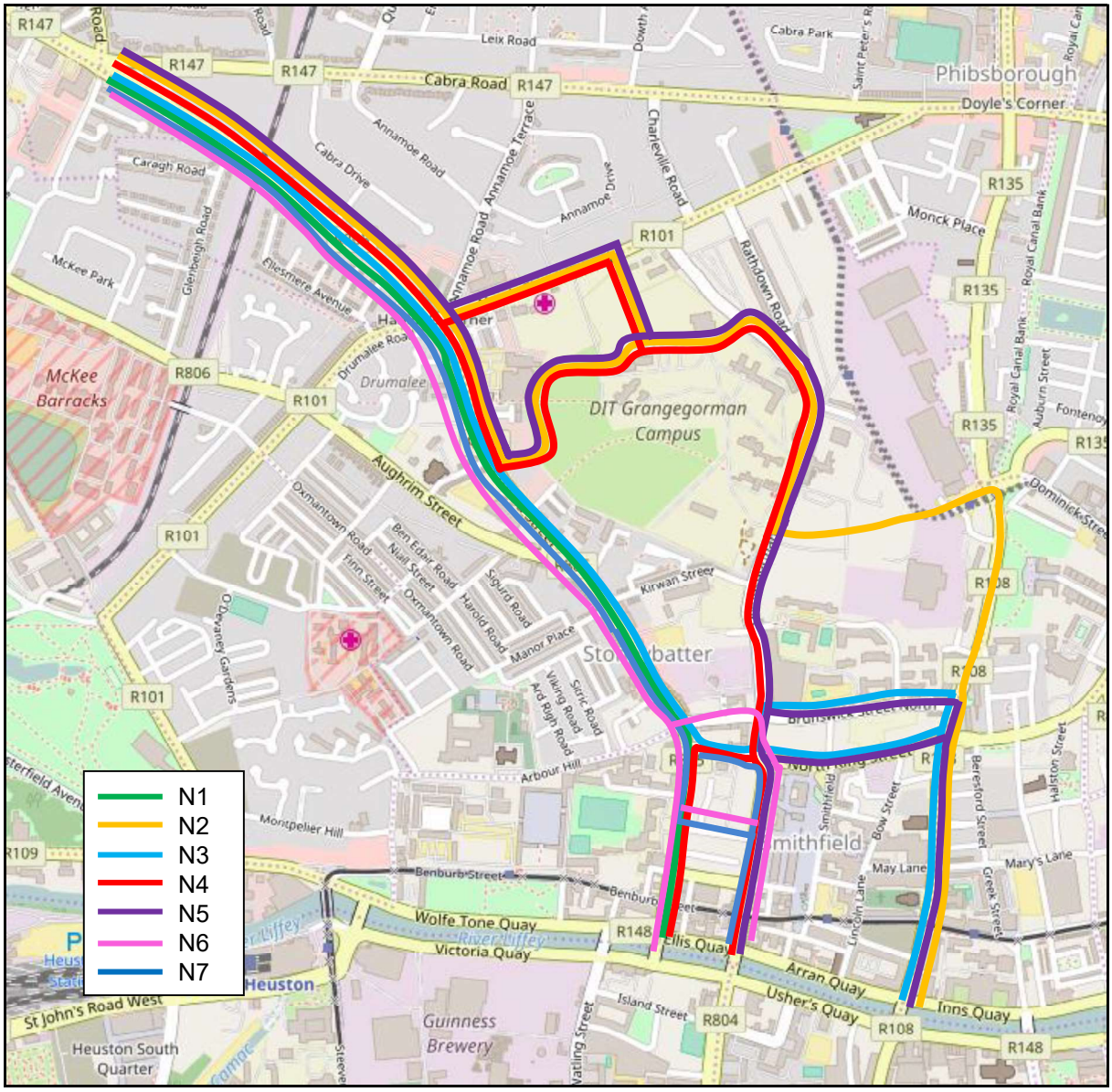

Figure 6.27: SAS3 - Preliminary Route Options

The preliminary route options for Cabra to Ellis Quay are:

- N1) Old Cabra Road – Prussia Street – Stoneybatter – Blackhall Place (two-way or northbound only) – North King Street or Blackhall Street – Queen Street (southbound only);
- N2) Old Cabra Road – Prussia Street – Grangegorman Internal Link West – Grangegorman Internal Link East – Constitution Hill – Church Street;
- N3) Old Cabra Road – Prussia Street – Manor Street – North Brunswick Street / North King Street – Church Street;
- N4) Old Cabra Road – Prussia Street / North Circular Road – Grangegorman Internal Link West – [Grangegorman Road Upper] - Grangegorman Road Lower – Blackhall Place (two-way or northbound only) – North King Street or Blackhall Street – Queen Street (southbound only); and
- N5) Old Cabra Road – Prussia Street / North Circular Road – Grangegorman Internal Link West – [Grangegorman Road Upper] - Grangegorman Road Lower – North Brunswick Street / North King Street – Church Street;

The routes to Blackhall Place / Queen Street have a variety of options for the local one-way loop system in close proximity to each other. Similarly, routes through the Grangegorman Campus may access from the north or the west of the campus, through to Grangegorman Road Upper or Lower. For this reason, they have been considered as a single option whereby the variation in these streets will be considered in Sift 2 for multi-criteria assessment.

6.4.1 Route Option Description – Route N1

Route Option N1 via Prussia Street / Stoneybatter is presented below.

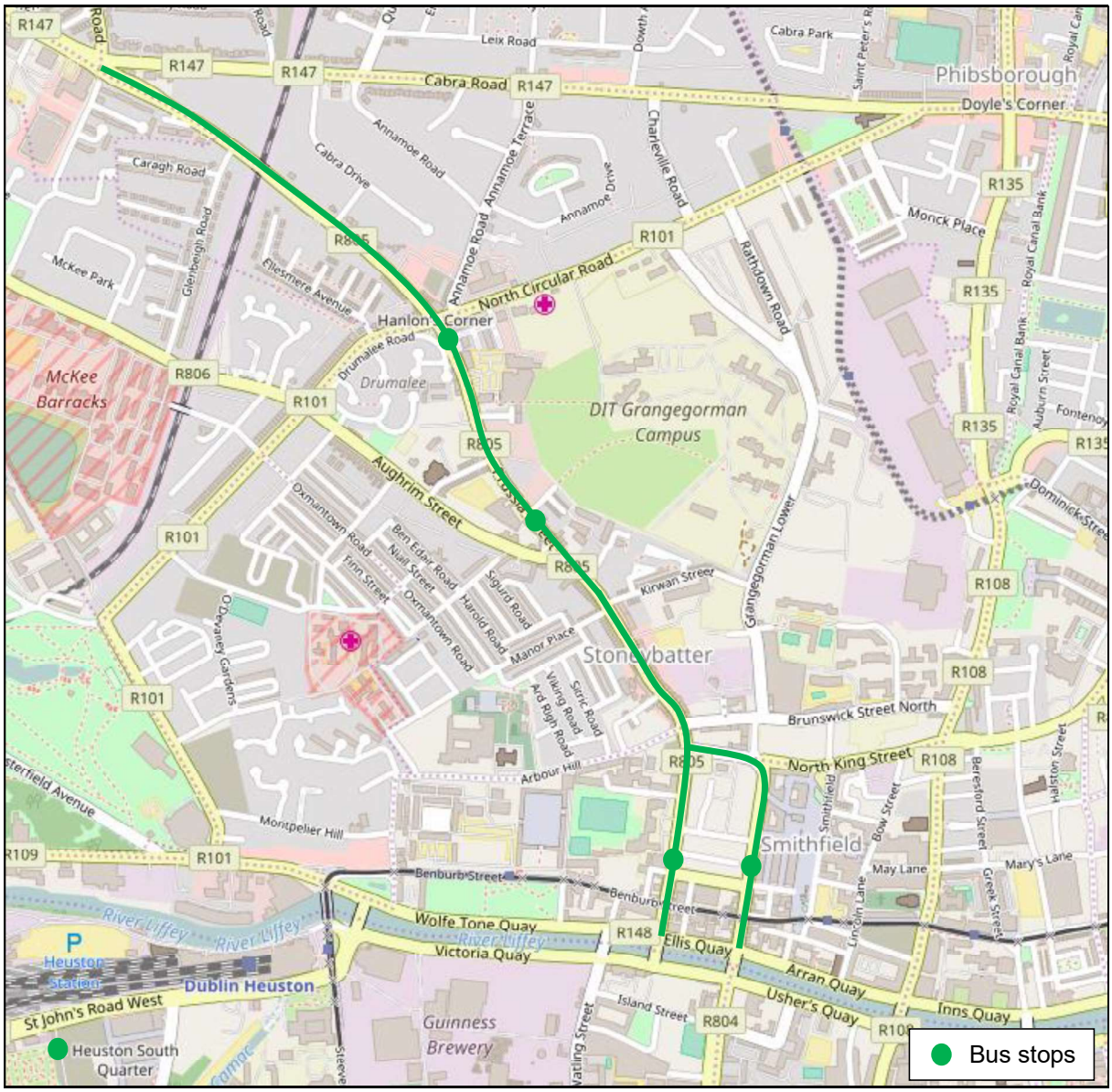

Figure 6.28: Route Option N1

Route Option N1 would commence at Old Cabra Road at the junction with the Navan Road, running straight along Prussia Street and through Stoneybatter. Beyond Stoneybatter the route will follow a one-way system between Queen Street and Blackhall Place via King Street.

6.4.1.1 Stops

Three stops per direction would be provided under this route option, at;

- Prussia Street;
- Manor Street; and
- Blackhall Place / Queen Street.

See **Figure 6.28**.

This route option is approximately 2.2km in each direction and the journey time would be approximately 8 minutes.

Cycle facilities along this route are generally available to varying levels of segregation.

There are on-road cycle lanes along the length of the Old Cabra Road however the red surface and line marking is generally worn.

Elsewhere, between Prussia Street and Stoneybatter, cyclists may share with buses, or advisory lanes are available. Closer to the River Liffey there is minimal cycle provision.

There is frontage residential access on the Old Cabra Road. Permit parking is provided for the residential units on Manor Street.

There is significant commercial and retail activity in Stoneybatter, including associated loading and parking facilities.

6.4.1.2 Constraints

The following constraints would need to be considered if this route option is progressed;

- Considerable reconfiguration of street cross-sections to achieve continuous high-quality provision for CBC and cyclists;
- The need to maintain access, residential parking, some commercial parking and essential loading facilities;
- Interaction with Red Line Luas service on Benburb Street;
- The need to reconfigure / rationalise existing bus service and stopping patterns.

6.4.1.3 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.4.2 Route Option Description – Route N2

Route Option N2 via Grangegorman DIT Campus / Constitution Hill is presented below.

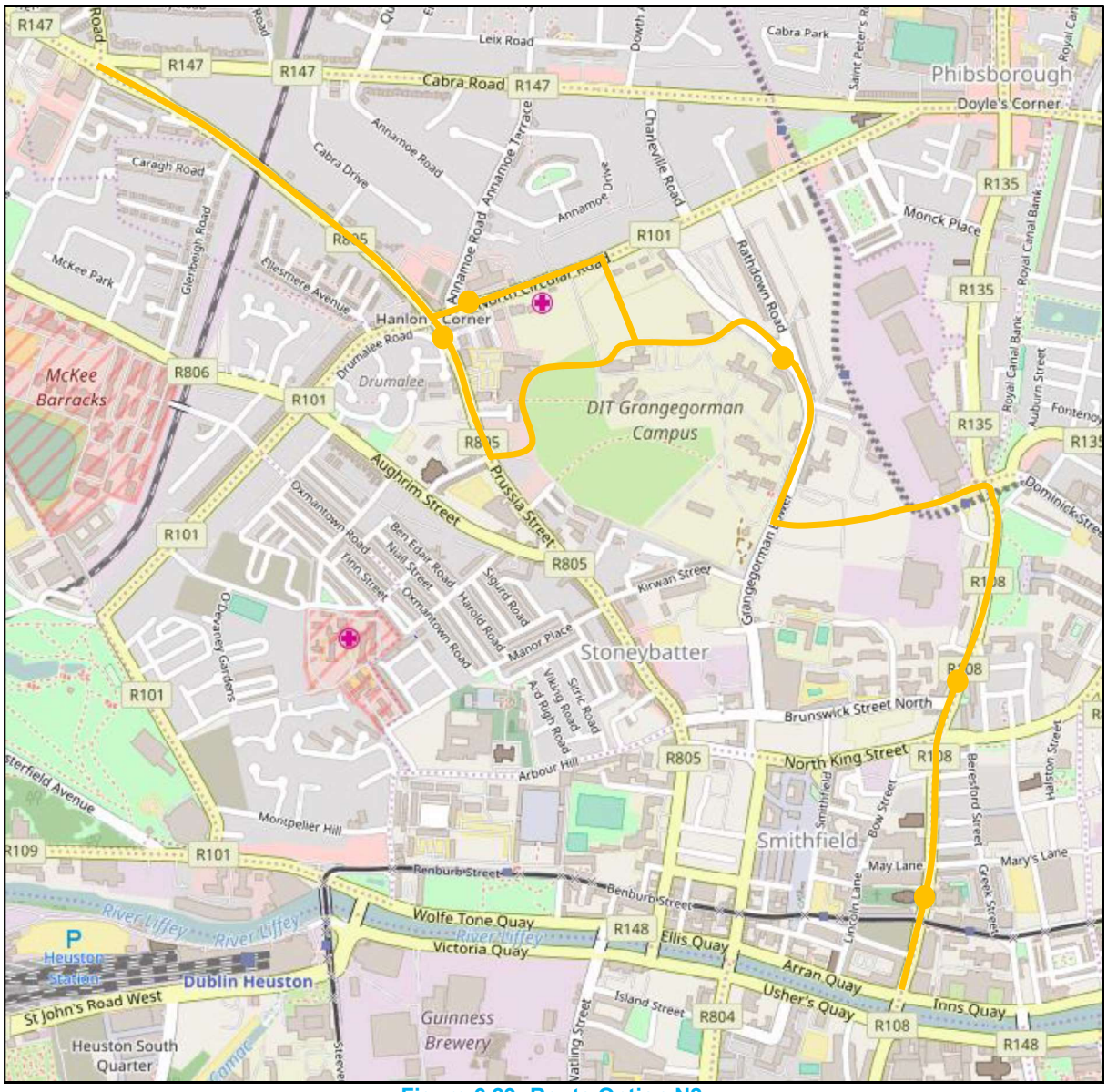

Figure 6.29: Route Option N2

Route option N2 would commence at the Old Cabra Road to the junction with North Circular Road. At this point the CBC route can pass through the Grangegorman campus from the north via North Circular Road or from the west via Prussia Street.

Both route join the existing service route through the campus and exit to Grangegorman Lower where it meets Rathdown Road / Grangegorman Upper.

The route continues along Grangegorman Road Lower, through the proposed service route to interface with the Broadstone Luas Depot. The route will then continue southbound to the Liffey via Constitution Hill and Church Street.

6.4.2.1 Stops

Four stops would be provided under this route option, at;

- Prussia Street or North Circular Road;
- Grangegorman Road Lower;
- Constitution Hill;
- Church Street.

This route option is approximately 3.3km and as such the journey time would be approximately 12 minutes.

Cycle facilities along this route are generally available to varying levels of segregation.

There are on-road cycle lanes along the length of the Old Cabra Road however the red surface and line marking is generally worn.

Westbound and northbound advisory cycle lanes are provided on North Circular Road and Prussia Street respectively.

The Grangegorman Campus masterplan includes segregated cycle provision through the campus.

There is full cycle provision along almost all of Constitution Hill and Church Street.

There is frontage residential access only along the Old Cabra Road and the section of North Circular Road. There is some parking provision on Church Street associated with the Bridewell Garda Station.

6.4.2.2 Constraints

The following constraints would need to be considered if this route option is selected;

- Considerable reconfiguration of street cross-sections to achieve continuous CBC and cycleway provision;
- Interaction with Red Line Luas on Church Street;
- The need to maintain access, residential parking, some commercial parking and essential loading facilities;
- The need to reconfigure / rationalise existing bus service and stopping patterns.

6.4.2.3 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.4.3 Route Option Description – Route N3

Route Option N3 via Stoneybatter / Church Street is presented below.

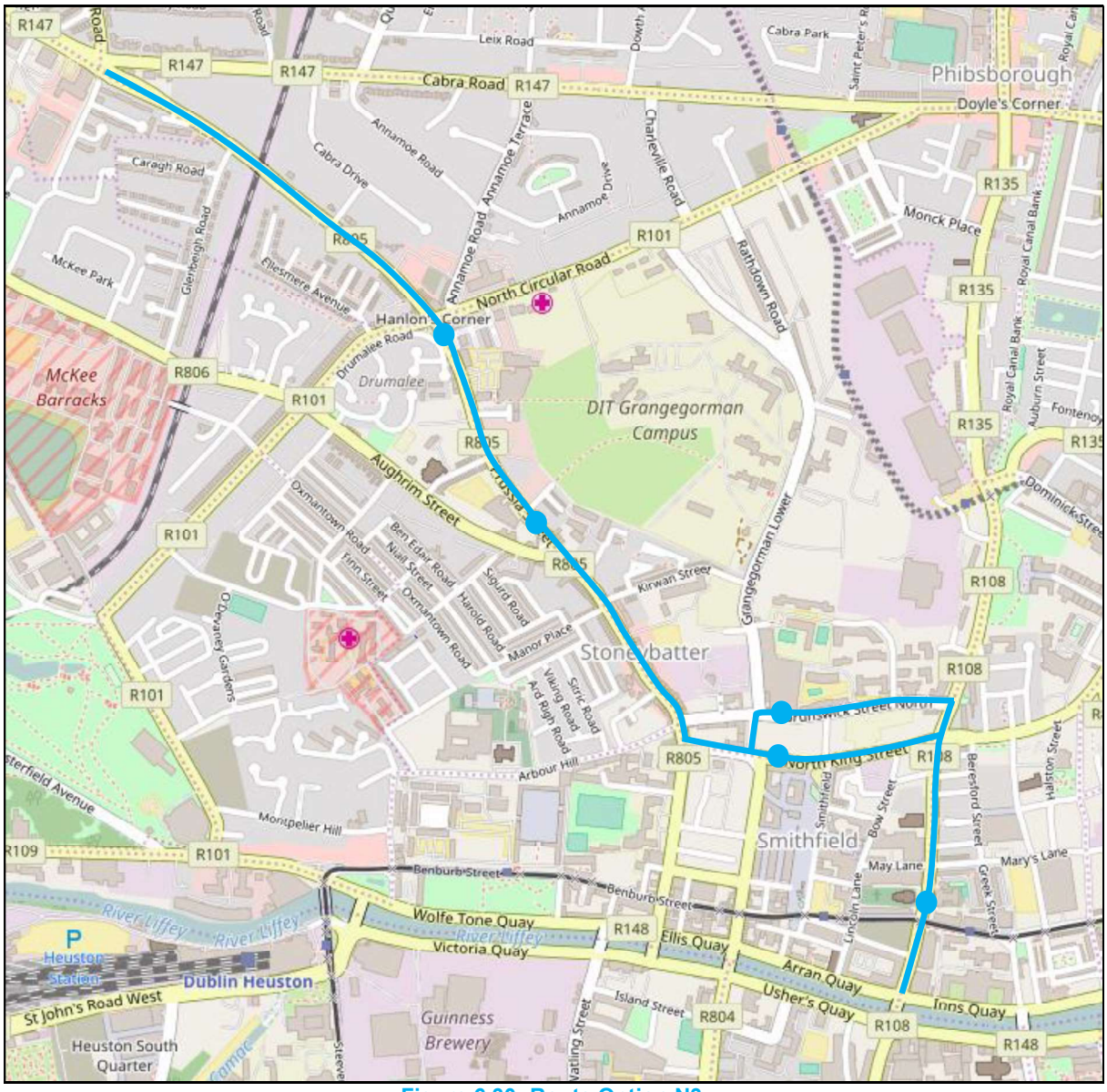

Figure 6.30: Route Option N3

Route Option N3 would commence at the Old Cabra Road / Navan Road junction, along Prussia Street and through Stoneybatter.

At Blackhall Place the route turns east, diverging into a one-way gyratory system between Brunswick Street North and King Street before merging on Church Street to the Quays.

6.4.3.1 Stops

Four stops would be provided under this route option, indicatively at;

- Prussia Street
- Top of Manor Street
- North Brunswick Street / North King Street
- Church Street

This route option is approximately 2.6km and the journey time approximately 10 minutes.

Cycle facilities along this route are generally available to varying levels of segregation.

There are on-road cycle lanes along the length of the Old Cabra Road however the red surface and line marking is generally worn.

Elsewhere, between Prussia Street and Stoneybatter, cyclists may share with buses, or advisory lanes are available. Within the proposed one-way gyratory system there currently is only a westbound cycle lane on North King Street between Church Street and Queen Street.

Church Street to the River Liffey has full cycle provision.

There is frontage residential access on the Old Cabra Road. Permit parking is provided for the residential units on Manor Street.

There is significant commercial and retail activity in Stoneybatter, including associated loading and parking facilities.

6.4.3.2 Constraints

The following constraints would need to be considered if this route option is selected;

- Considerable reconfiguration of street cross-sections to achieve continuous high-quality provision for CBC and cyclists;
- The need to maintain access, residential parking, some commercial parking and essential loading facilities;
- Interaction with Red Line Luas service;
- The need to reconfigure / rationalise existing bus service and stopping patterns.

6.4.3.3 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.4.4 Route Option Description – Route N4

Route option N4 via Grangegorman / Blackhall Place is presented below.

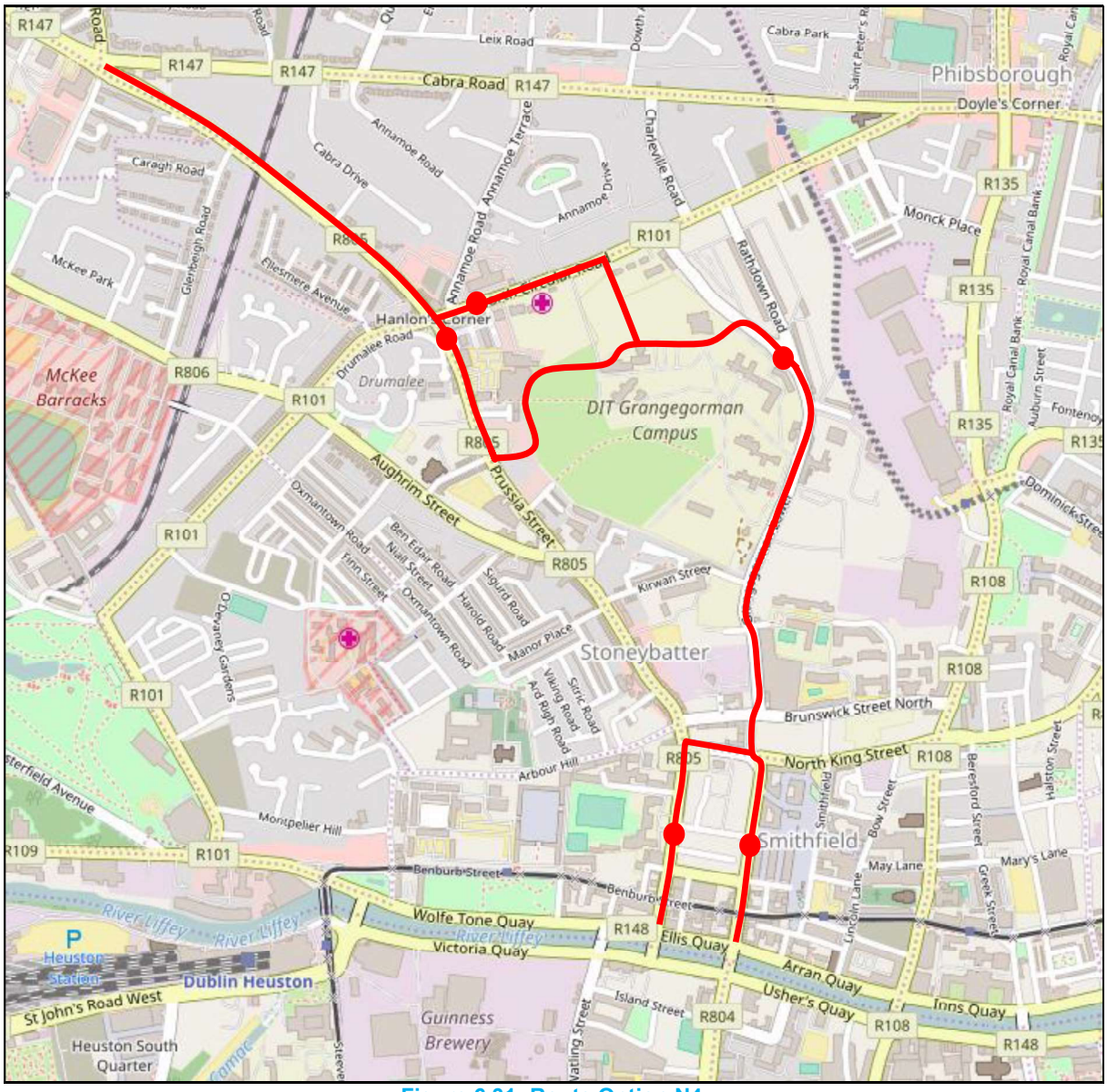

Figure 6.31: Route Option N4

Route option N4 would commence at the Old Cabra Road to the junction with North Circular Road.

At this point the CBC route can pass through the Grangegorman campus from the north via North Circular Road or from the west via Prussia Street.

Both route join the existing service route through the campus and exit to Grangegorman Lower where it meets Rathdown Road / Grangegorman Upper.

Beyond George's Lane, the route can either continue two-way along Blackhall Place, or follow a one-way system between Queen Street and Blackhall Place via King Street.

6.4.4.1 Stops

Three stops would be provided under this route option, at;

- Prussia Street or North Circular Road;
- Grangegorman Road Lower;
- Blackhall Place / Queen Street.

This route option is approximately 3.2km and the journey time would be between 11 and 12 minutes.

Cycle facilities along this route are generally available to varying levels of segregation.

There are on-road cycle lanes along the length of the Old Cabra Road however the red surface and line marking is generally worn.

Westbound and northbound advisory cycle lanes are provided on North Circular Road and Prussia Street respectively.

The Grangegorman Campus masterplan includes segregated cycle provision through the campus.

Closer to the River Liffey there is minimal cycle provision.

There is frontage residential access only along the Old Cabra Road and the section of North Circular Road.

There is significant commercial and retail activity associated with Stoneybatter, including associated loading and parking facilities, along Blackhall Place.

6.4.4.2 Constraints

The following constraints would need to be considered if this route option is selected;

- Considerable reconfiguration of street cross-sections to achieve continuous CBC and cycleway provision;
- Interaction with Red Line Luas;
- The need to maintain access, residential parking, some commercial parking and essential loading facilities;
- The need to reconfigure / rationalise existing bus service and stopping patterns.

6.4.4.3 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.4.5 Route Option Description – Route N5

Route option N5 via; Grangegorman / Constitution Hill / Church Street is presented below.

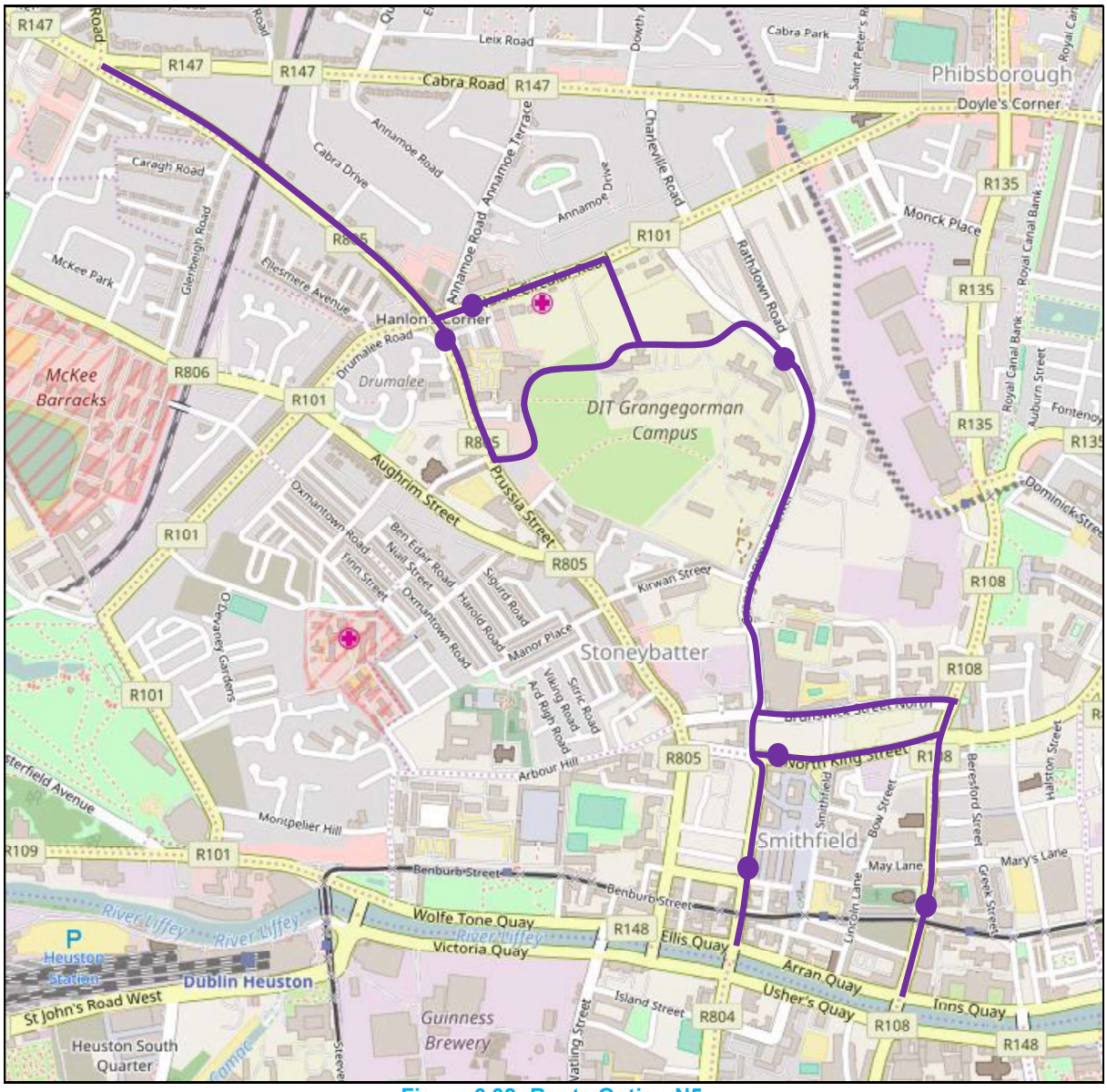

Figure 6.32: Route Option N5

Route option N5 would commence at the Old Cabra Road to the junction with North Circular Road.

At this point the route passes through the Grangegorman campus from the north via North Circular Road or from the west via Prussia Street.

Both routes join the existing service route through the campus and exit to Grangegorman Lower where it meets Rathdown Road / Grangegorman Upper.

The route continues along Grangegorman Road Lower and forms a one-way system between North Brunswick Street and North King Street to Queen Street or Church Street.

6.4.5.1 Stops

Four stops would be provided under this route option, at;

- Prussia Street or North Circular Road;
- Grangegorman Road Lower;
- North Brunswick Street or North King Street
- Church Street / Queen Street;

This route option is approximately 3.2km and the journey time approximately 12 minutes.

Cycle facilities along this route are generally available to varying levels of segregation.

There are on-road cycle lanes along the length of the Old Cabra Road however the red surface and line marking is generally worn.

Westbound and northbound advisory cycle lanes are provided on North Circular Road and Prussia Street respectively.

The Grangegorman Campus masterplan includes segregated cycle provision through the campus.

Closer to the River Liffey there is minimal cycle provision except on Church Street.

There is frontage residential access only along the Old Cabra Road and the section of North Circular Road. There is some parking provision on Church Street associated with the Bridewell Garda Station.

6.4.5.2 Constraints

The following constraints would need to be considered if this route option is selected;

- Considerable reconfiguration of street cross-sections to achieve continuous CBC and cycleway provision;
- Interaction with Red Line Luas;
- The need to maintain access, residential parking, some commercial parking and essential loading facilities;
- The need to reconfigure / rationalise existing bus service and stopping patterns.

6.4.5.3 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.4.6 Route Option Description – Route N6

Route option N6 via Stoneybatter / Blackhall Place is presented below.

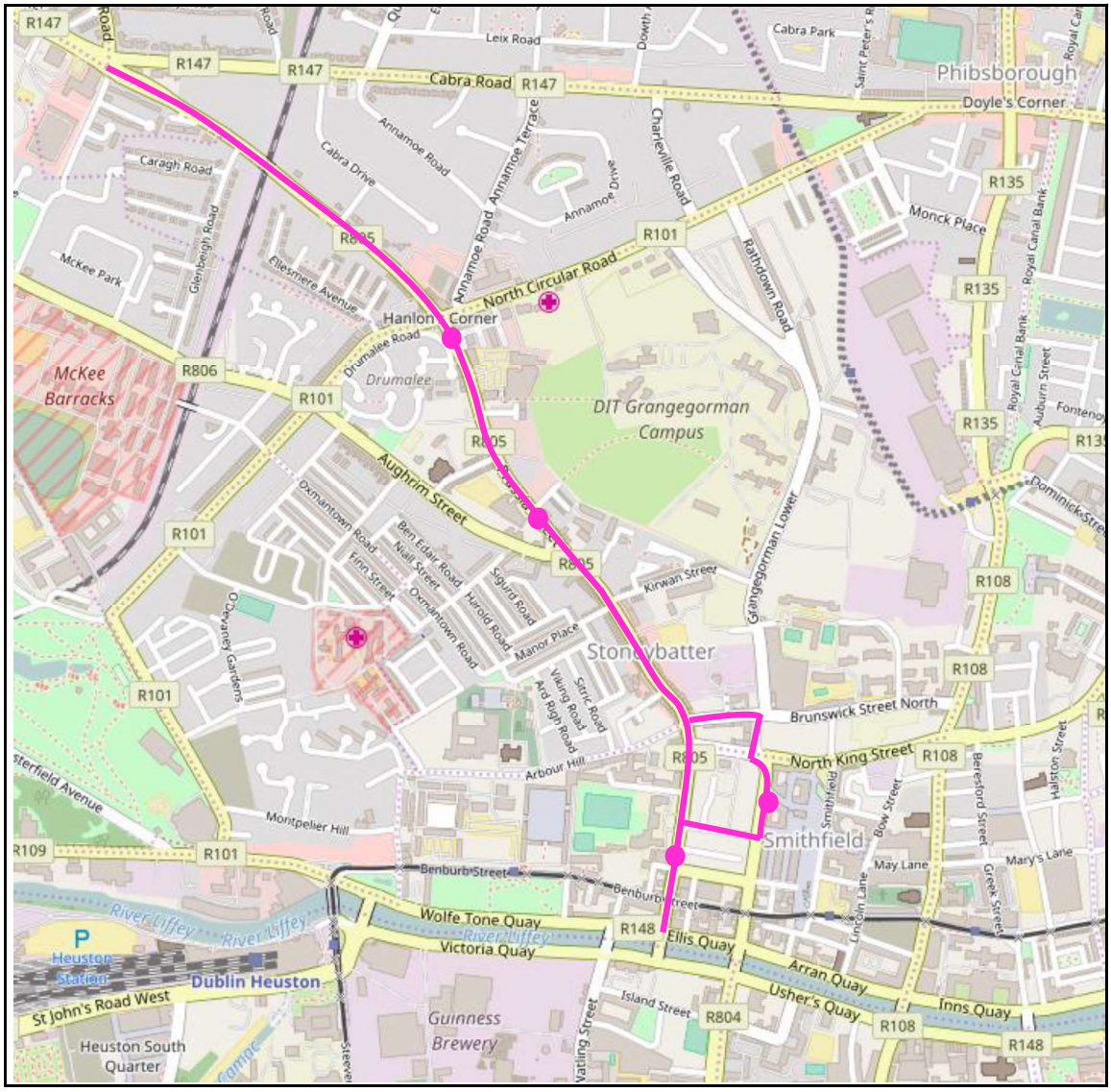

Figure 6.33: Route Option N6

Route option N6 would commence at Old Cabra Road at the junction with the Navan Road, running straight along Prussia Street and through Stoneybatter. Beyond Stoneybatter the southbound route will follow a short one-way system between Queen Street and Blackhall Street via Brunswick Street North before joining back with Blackhall Place towards the Quays. Northbound will continue straight along Blackhall Place to Stoneybatter.

6.4.6.1 Stops

Three stops would be provided under this route option, at;

- Prussia Street;
- Manor Street;
- Blackhall Place / Queen Street.

This route option is approximately 2.6km and the journey time approximately 9 minutes.

Cycle facilities along this route are generally available to varying levels of segregation.

There are on-road cycle lanes along the length of the Old Cabra Road however the red surface and line marking is generally worn.

Elsewhere, between Prussia Street and Stoneybatter, cyclists may share with buses, or advisory lanes are available. Closer to the River Liffey there is minimal cycle provision.

There is frontage residential access on the Old Cabra Road. Permit parking is provided for the residential units on Manor Street. There is significant commercial and retail activity in Stoneybatter, including associated loading and parking facilities

6.4.6.2 Constraints

The following constraints would need to be considered if this route option is selected;

- Considerable reconfiguration of street cross-sections to achieve continuous CBC and cycleway provision;
- The need to maintain access, residential parking, some commercial parking and essential loading facilities;
- Interaction with Red Line Luas service on Benburb Street; and
- The need to reconfigure / rationalise existing bus service and stopping patterns.

6.4.6.3 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.4.7 Route Option Description – Route N7

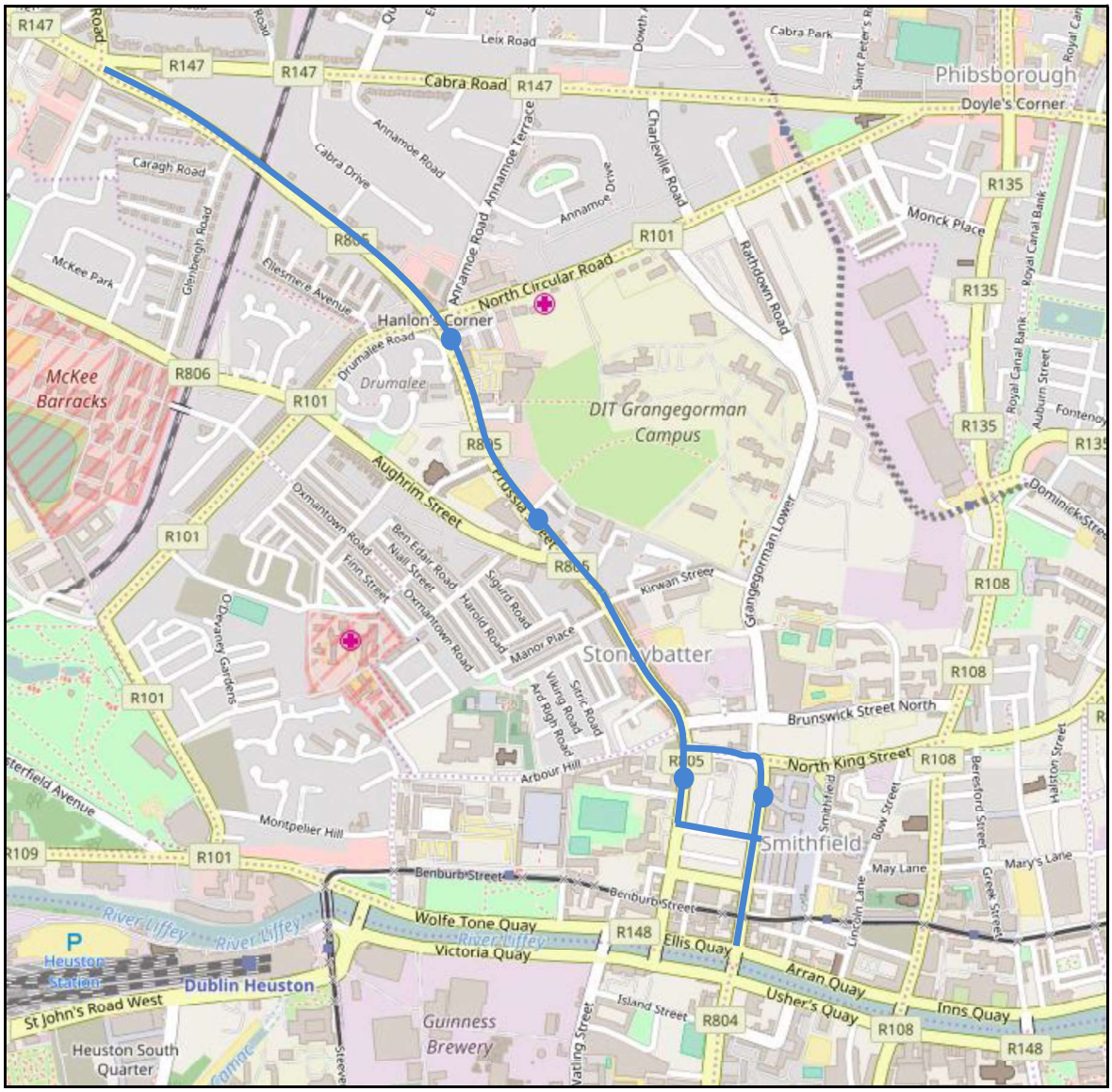

Figure 6.334: Route Option N6

Route option N7 would commence at Old Cabra Road at the junction with the Navan Road, running straight along Prussia Street and through Stoneybatter. Beyond Stoneybatter the route will follow Queen Street to the Quays. The northbound route will follow a short one-way diversion to Blackhall Place via Blackhall Street towards Stoneybatter.

6.4.7.1 Stops

Three stops would be provided under this route option, at;

- Prussia Street;
- Manor Street;
- Blackhall Place / Queen Street.

This route option is approximately 2.6km and the journey time approximately 9 minutes.

Cycle facilities along this route are generally available to varying levels of segregation. There are on-road cycle lanes along the length of the Old Cabra Road however the red surface and line marking is generally worn. Elsewhere, between Prussia Street and Stoneybatter, cyclists may share with buses, or advisory lanes are available. Closer to the River Liffey there is minimal cycle provision.

There is frontage residential access on the Old Cabra Road. Permit parking is provided for the residential units on Manor Street. There is significant commercial and retail activity in Stoneybatter, including associated loading and parking facilities.

6.4.7.2 Constraints

The following constraints would need to be considered if this route option is selected;

- Considerable reconfiguration of street cross-sections to achieve continuous CBC and cycleway provision;
- The need to maintain access, residential parking, some commercial parking and essential loading facilities;
- Interaction with Red Line Luas service on Benburb Street; and
- The need to reconfigure / rationalise existing bus service and stopping patterns.

6.4.7.3 Environmental Impact

The impacts are summarised in the MCA table in **Appendix A**.

6.4.8 Stage 2 Scheme Options Assessment

A scheme option has been designed along each of the 7 route options to prioritise bus and cycle infrastructure where possible.

A detailed drawing of each scheme option illustrating the bus and cycle infrastructure is presented in **Appendix H**.

The 7 scheme options were brought forward to MCA to identify the most appropriate design for SAS 3.

The relative ranking of route options against the scheme assessment sub-criteria is summarised in **Table 6.3**. Neutral scoring sub-criteria are omitted from the summary table i.e. where scheme options score neutrally to other options. The full MCA table including a justification for the sub-criteria scoring awarded to each scheme option is presented in **Appendix A**.

In terms of 'Economy', route option N1 has the lowest capital cost compared to the other options and lower associated operation and maintenance costs. Similarly, the transport reliability and quality is considered higher, by virtue of this route passing through the least amount of signalised junctions where delays due to acceleration and deceleration are present.

In terms of 'Integration' routes N2, and N5 would have some disadvantages in comparison to the other routes, particularly in terms of cycle integration, and land-use.

Under 'Accessibility & Social Inclusion' route N3 directly serves all areas within the Dublin North West Inner City RAPID area while the others serve select areas only. Routes N1, N6 and N7 serve the highest number of trip attractors.

Under 'Safety' route N4 is considered to be ranked highest as it makes most use of lightly trafficked roads. Route N5 follows along Church Street which is currently heavily congested.

In terms of Physical Activity all routes were considered to have a neutrally positive effect.

Under 'Environment' the overriding criterion is Archaeology and Cultural Heritage, where the routes through Stoneybatter traverse through a higher percentage of zones of archaeological potential. The impact of the routes as a result of Landscape and Visual intrusion is considered to be less through Grangegorman due to the current Masterplan development of the Campus and the changes to the surrounding landscape that are currently being implemented. However the Land Use Character criterion considers the routes through Stoneybatter as more favourable to the Environment as no change of use to the land is required.

Overall, Route Option N1 scores best, whether following a one-way loop at Blackhall Place / Queen Street.

Table 6.3: Route 2A – North City Centre Route Options Assessment Summary (Sub-Criteria)

Assessment Criterion	Assessment Sub-Criterion	N1 (Stoneybatter / King Street / Queen Street)	N2 (DIT Grangegorman / Constitution Hill)	N3 (Stoneybatter / Church Street)	N4 (DIT Grangegorman / King Street / Queen Street	N5 (DIT Grangegorman / Church Street	N6 (Stoneybatter / Blackhall Place)	N7 (Stoneybatter / Queen Street)
Economy	Capital Cost							
	Operation & Maintenance Cost							
	Transport Reliability & Quality (Journey Time)							
Integration	Land Use Integration							
	Residential Population and Employment Catchments							
	Transport Network Integration							
	Cycle Network Integration							
	Traffic Network Integration							
Accessibility & Social Inclusion	Key Trip Attractors							
	Deprived Geographical Areas							
Safety	Road User Safety							
	Pedestrian Safety							
Environment	Archaeology & Cultural Heritage							
	Landscape & Visual							
	Land Use Character							

6.4.9 Stage 3 Scheme Options Assessment

The more complex city centre environment requires a more refined examination of the cross sectional requirements along the preferred route. It is not possible to achieve 100% bus priority in both directions on all links, due to the increased competition for space in the denser central environment. It is therefore essential to ensure that an optimal balance is achieved between the discouragement of through traffic where required to achieve bus priority, and the maintenance of local access. Several scheme design variants have been identified along Route N1, which are assessed using the same methodology as Stage 2 above, to determine the best cross sectional configuration along each link:

6.4.9.1 Old Cabra Road

The Old Cabra Road between the Navan Road and North Circular Road is constrained by frontage residential development on both sides. There is a pocket of commercial development at the southeastern end of the road, including a supermarket and a public house. The route currently carries commuter traffic and radial bus routes. It is desirable that the bus priority along the route should be enhanced as part of the Bus Connects project. Three variant scheme options have been explored for the enhancement of public transport priority along the Old Cabra Road. These are:

1) Construct within existing road boundaries;

2) CPO for full bus priority in both directions;

3) Limited CPO for bus priority on approaches to junctions.

Scheme Variant 1 would involve the implementation of traffic restrictions along the route, blocking general traffic access from both the north and south, and providing access onto the Old Cabra Road from Glenbeigh Road only. Only public transport would be allowed to access the road from the Navan Road or Prussia Street. A two-way cycle track would be provided along the eastern side of the road. This scheme is as included in the earlier Blanchardstown to UCD BRT scheme.

Scheme Variant 2 would maintain traffic access onto the Old Cabra Road and would involve the acquisition of gardens along the route to provide bus lanes. The levels of the road would have to be raised in order to compensate for the shortening of the steep driveways. It is unlikely that the acquisition and demolition of the commercial premises at the southern end of the route would prove viable, and it is therefore assumed that the bus priority would terminate north of the supermarket premises, with a bus gate provided to achieve bus priority southbound. A two-way cycle track would be provided along the eastern side of the road.

Scheme Variant 3 is a hybrid of the above. It involves limited land acquisition to achieve bus priority on the approaches to the junctions at either end of the scheme. In addition, there would be a restriction on general traffic access from the Navan Road, so local traffic access from the north would be via Blackhorse Avenue and Glenbeigh Road. Local access would be permitted from the southern end as far as Cabra Drive only.

Table 6.4: Stage 3 Scheme Options Assessment – Old Cabra Road

Assessment Criterion	Assessment Sub-Criterion	1) Construct within existing road boundaries	2) CPO for full bus priority in both directions	3) Limited CPO for bus priority on approaches to junctions
Economy	Capital Cost			
	Operation & Maintenance Cost			
	Transport Reliability & Quality (Journey Time)			
Integration	Land Use Integration			
	Residential Population and Employment Catchments			
	Transport Network Integration			
	Cycle Network Integration			
	Traffic Network Integration			
Accessibility & Social Inclusion	Key Trip Attractors			
	Deprived Geographical Areas			
Safety	Road User Safety			
	Pedestrian Safety			
Environment	Archaeology & Cultural Heritage			
	Landscape & Visual			
	Land Use Character			

The scheme variants score equally under most headings, except for the following:

- The variants requiring land acquisition have a higher capital cost;
- The variants where land acquisition is proposed will provide better transport reliability;
- The variants where land acquisition is proposed will have less impact on local access, and hence land use;
- The variants providing additional lanes through CPO will provide better traffic network integration, since there will be a lower impact on current general traffic circulation patterns;
- The options involving CPO will have a greater landscape and visual impact;
- The options involving CPO will have a greater impact on land use character.

Overall, Scheme Variant 3, with a selective and limited CPO to achieve bus priority with reduced impacts on frontage properties has fewest negative impacts and has emerged as the best solution for this subsection.

6.4.9.2 Prussia Street and Mayor Street

Prussia Street is quite narrow and has frontage development – a mixture of commercial and residential – along both sides. There is a shopping centre with car park near the northern end. Mayor Street is wide, with four lanes of traffic / parking currently along most of the street. The street narrows at its southern end.

Measures proposed at the Navan Road / Old Cabra Road will restrict general traffic access to Prussia Street from the north. This will effect bus priority in the southbound direction without requiring land acquisition, and will maintain local access. Northbound, it is proposed to prevent general traffic accessing Prussia Street directly from Mayor Street. However, access will be provided via Aughrim Street and St. Joseph's Road for those requiring local access. This will discourage general traffic from using the traditional Mayor Street – Prussia Street – Old Cabra Road – Navan Road traffic route, thereby improving priority for public transport along the route. It is further proposed to ban the straight ahead traffic movement from Prussia Street to the Old Cabra Road except for buses and cyclists. This will complement the proposed measures at Mayor Street. Local access will remain available via alternative routes in each instance.

While Prussia Street and Mayor Street are identified on the Greater Dublin Area Cycle Network Plan as a primary route, the competition for road space is such that Quality of Service A appears to be unachievable. It is therefore recommended that the primary route be instead routed via the DIT Grangegorman Campus to Grangegorman Road Lower to continue onto Queen Street.

Parking and loading facilities will be rationalised through Prussia Street, Mayor Street and Aughrim Street in order to facilitate the above public transport priority enhancements. No variant scheme options were identified along this subsection of the route.

6.4.9.3 Stoneybatter to Ellis Quay

Route N1 continues to the River Liffey at Ellis Quay via Stoneybatter, Blackhall Place and Queen Street. There are a number of potential routing variants encompassing the grid of available north-south and east-west streets. The following are considered to be possible options:

1) Two-way on Blackhall Place;
2) Two-way on Queen Street;
3) One-way northbound on Blackhall Place and one-way southbound on Queen Street;
4) Hybrid of 1) and 3).

Scheme Variant 1 would involve the retention of the existing arrangement at the southern end of Stoneybatter. However, there is insufficient road space available to accommodate a northbound bus lane, a northbound traffic lane, a right turning traffic lane [which is required for access to North Brunswick Street / Constitution Hill area and Smithfield car park], and a southbound bus lane. Therefore, as existing, the northbound bus movement would have to share with traffic on approach to the junction. This variant would achieve only limited bus priority in either direction through Stoneybatter, due to the turning circle required for larger vehicles at the North Brunswick Street and North King Street junctions.

Scheme Variant 2 would involve introducing two-way bus movements on Queen Street and displacement of southbound traffic to Blackhall Place. Buses would access Queen Street from Stoneybatter via North Brunswick Street and North King Street. However, Queen Street must also accommodate a two way cycle route to provide cycling access to the DIT Grangegorman Campus. The available cross section can only accommodate three traffic lanes total, and so general traffic access could not be retained.

Scheme Variant 3 would involve a local one-way system for public transport to allow improved bus priority through Stoneybatter. Southbound buses would access Queen Street via either North Brunswick Street or North King Street. This would obviate the need for a southbound bus lane on Blackhall Place, and would therefore allow the separate provision of a northbound bus lane, a northbound traffic lane and a right turn from Blackhall Place to North King Street. The two-way cycle route would be accommodated on Queen Street, This would require the reduction in general traffic provision on Queen Street from three southbound lanes to one.

Scheme Variant 4 is as per Variant 3 but southbound buses would return to Blackhall Place via Blackhall Street, therefore allowing the retention of a second southbound traffic lane on Queen Street on approach to the river.

Table 6.5: Stage 3 Scheme Options Assessment – Stoneybatter

Assessment Criterion	Assessment Sub-Criterion	1) Existing Layout	2) Two-way on Queen Street	3) One-way public transport loop	4) Partial one-way public transport loop
Economy	Capital Cost				
	Operation & Maintenance Cost				
	Transport Reliability & Quality (Journey Time)				
Integration	Land Use Integration				
	Residential Population and Employment Catchments				
	Transport Network Integration				
	Cycle Network Integration				
	Traffic Network Integration				
Accessibility & Social Inclusion	Key Trip Attractors				
	Deprived Geographical Areas				
Safety	Road User Safety				
	Pedestrian Safety				
Environment	Archaeology & Cultural Heritage				
	Landscape & Visual				
	Land Use Character				

The scheme variants score equally under most headings, except for the following:

- The variants requiring extensive alterations to existing traffic circulation have a higher capital cost;
- Variants 1 (existing with limited bus priority) and Variant 2 (requiring a complex one-way arrangement for buses along North Brunswick Street and North King Street) score poorer in terms of journey time reliability;
- The variants where local access and circulation is maintained similar to the status quo score better in terms of integration;
- Option 2 scores poorly in terms of traffic network integration since it would block access to Bridgefoot Street from Queen Street.

Overall, Scheme Variant 4, with a limited rerouting of traffic to maximise bus priority with reduced impacts on frontage properties has fewest negative impacts and has emerged as the best solution for this subsection.

The scheme variants score equally under most headings, except for the following:

- The variants requiring changes to existing circulation have a higher capital cost;
- The variants where changes to existing circulation is proposed will provide better transport reliability;
- Variant 2 will have a greater impact on local access, hence land use.
- The variants providing improved transport reliability through enhanced public transport will provide better transport and traffic network integration, since there will be a lower impact on current circulation patterns;.

Overall, Scheme Variant 3, with a selective and limited CPO to achieve bus priority with reduced impacts on frontage properties has fewest negative impacts and has emerged as the best solution for this subsection.

7. Emerging Preferred Route

7.1 Introduction

This section of the report presents:

- the final conclusions from the assessment process, for the end-to-end route / scheme options considered; and
- recommends an emerging preferred scheme option, including a description of the scheme proposals, which include ancillary measures on other streets, if required.

7.2 Route Options Assessment Conclusions

Within each Study Area Section, where potential route options were considered to be available, they have been assessed in accordance with the methodology set out in **Section 4** of the report including a 'Multi-Criteria Analysis' under the headings of Economy, Integration, Accessibility and Social Inclusion, Safety, Physical Activity and Environment.

7.3 Scheme Description

Based on the conclusions from the route options assessment process, the recommended preferred route for the proposed scheme comprise of the Scheme Option described below.

For concept drawings refer to **Appendix H**.

7.3.1 SAS1 - Scheme Option 1B1

Scheme Option 1B1 proposals will incorporate exclusive bus and traffic facilities on both the inbound and outbound carriageways for the entirety of the section.

The scheme option will also future-proof to incorporate three lanes along this section of the N3.

Widening will be required to provide these facilities, including the provision of new structures and embankment construction.

To facilitate a bus lane through the N3/M50 roundabout and on Connolly Hospital access road, the conversion of a traffic lane to a bus lane will also be required.

A two-way cyclist facility eastbound and one-way cycle lane westbound will be provided on the Snugborough overpass.

Segregated cyclist facilities will be provided through Blanchardstown Village (Main Street and Old Navan Road) as per the GDA Cycle Network Plan (see primary cycle route 5 and secondary cycle route 4a in **Section 2.5** of the report, **Figure 2.2**).

Land take will be required to facilitate the works in this section.

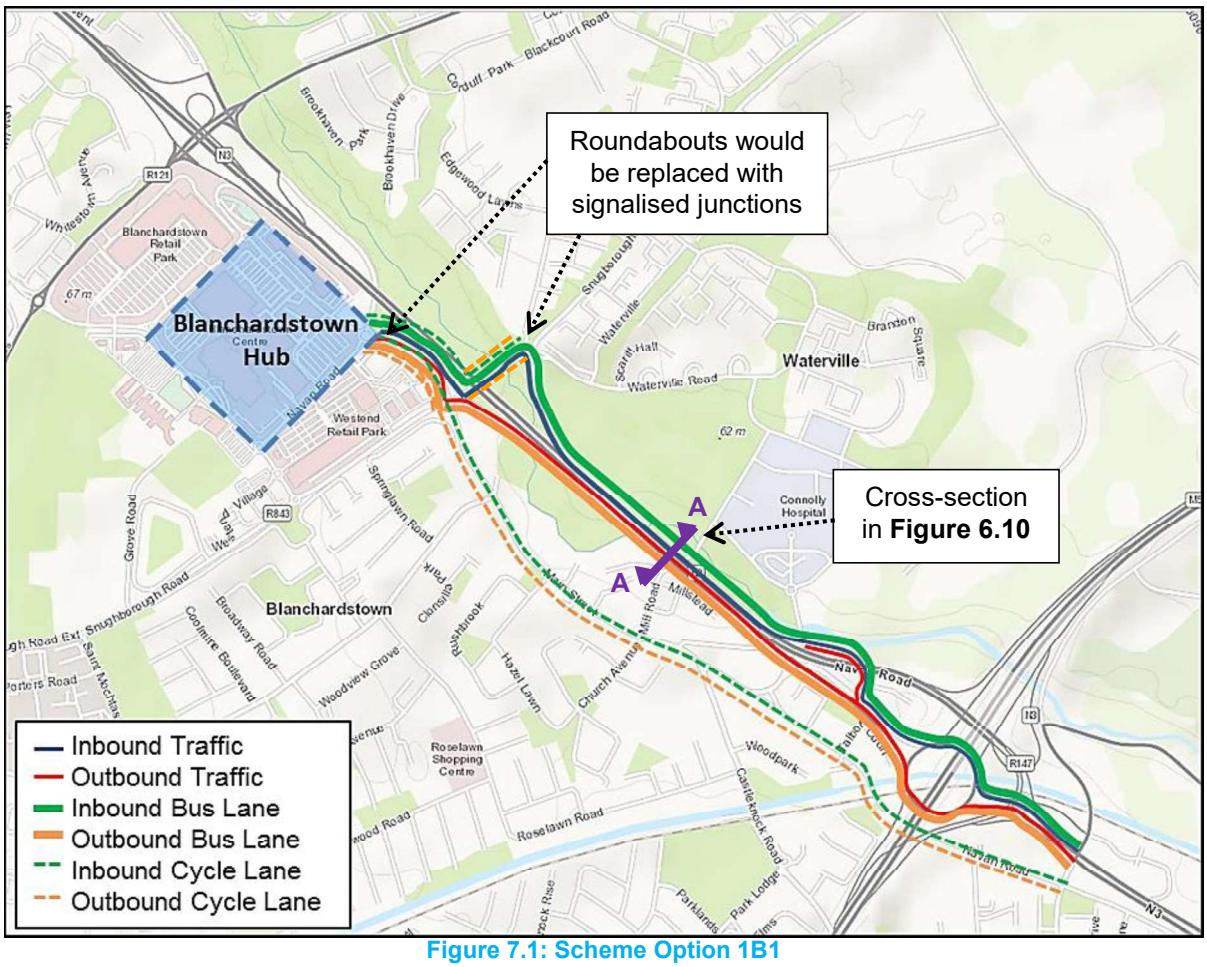

Figure 7.1: Scheme Option 1B1

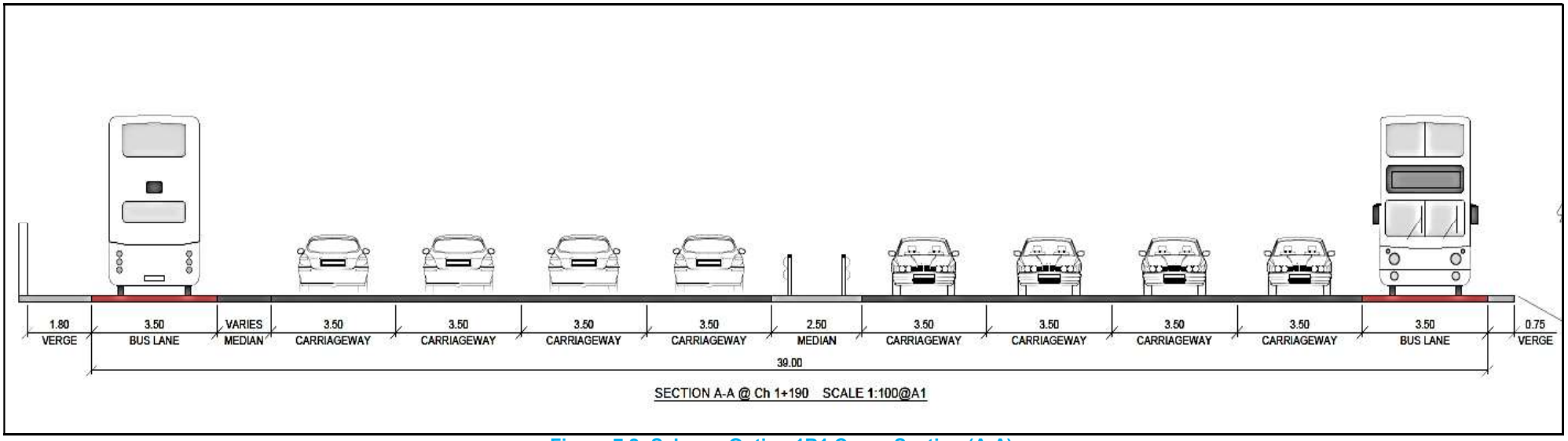

Figure 7.2: Scheme Option 1B1 Cross-Section (A-A)

7.3.2 SAS2 - Scheme Option 2A1

Scheme Option 2A1 proposals will incorporate traffic and segregated bus / cyclist facilities on both the inbound and outbound carriageways for the entirety of the section.

To facilitate this, widening of the existing carriageway is required along the majority of the route between Halfway House Roundabout and Cabra Road junction, with land take required in place. Removal of on-street parking and existing trees adjacent to the carriageway will also be required to facilitate carriageway widening.

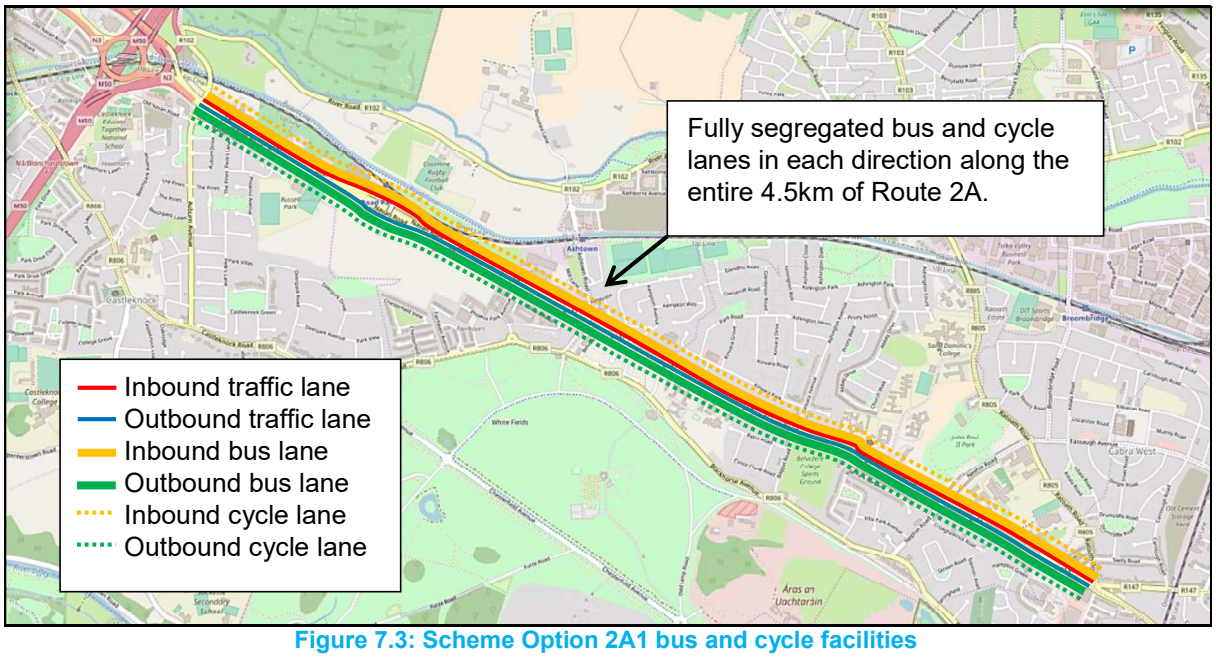

Figure 7.3: Scheme Option 2A1 bus and cycle facilities

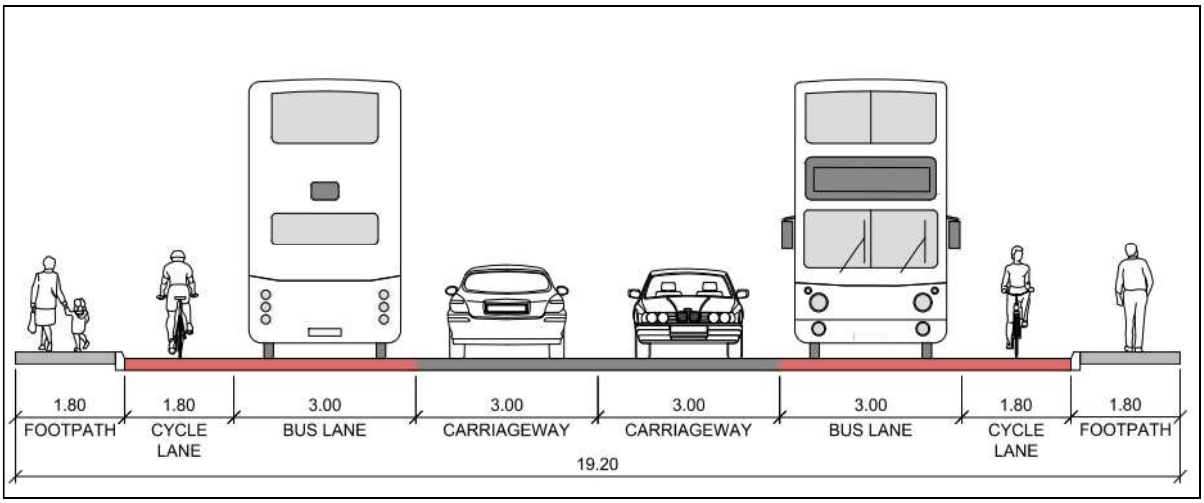

Figure 7.4: Scheme Option 2A1 Typical Cross-Section

7.3.3 SAS3 - Scheme Option N1

Scheme Option N1 via Prussia Street / Stoneybatter is presented below.

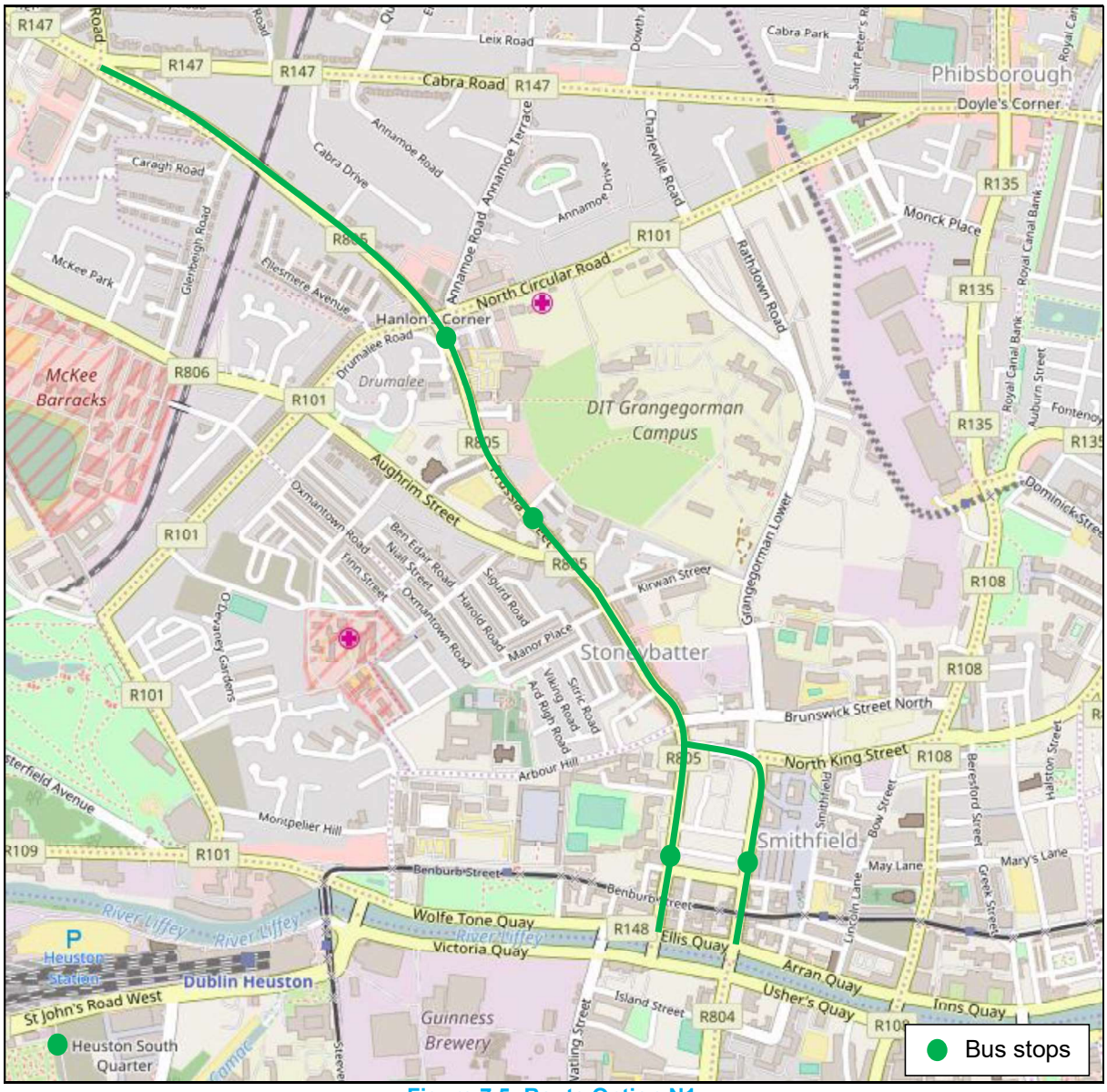

Figure 7.5: Route Option N1

Route Option N1 would commence at Old Cabra Road at the junction with the Navan Road, running straight along Prussia Street and through Stoneybatter. Beyond Stoneybatter the route will follow a one-way system between Queen Street and Blackhall Place via King Street.Three stops per direction would be provided under this route option, at;

- Prussia Street;
- Manor Street; and
- Blackhall Place / Queen Street.

This route option is approximately 2.2km in each direction and the journey time would be approximately 8 minutes.

Cycle facilities along this route are generally available to varying levels of segregation.

7.3.4 Traffic Staging Diagrams

The junctions along the scheme route will be designed to prioritise bus infrastructure. Proposals for the two main junctions along the route are illustrated in Figure 7.5 and 7.6.

Figure 7.6 illustrates the proposed design for the Navan Road / Auburn Avenue junction. This design will prioritise bus movements through a dedicated bus lane and bus gate on the inbound and outbound approach to the junction i.e. see lane **A** and **B** below. The bus gates will enable a seperate stage for buses to clear the junction ahead of vehicular traffic.

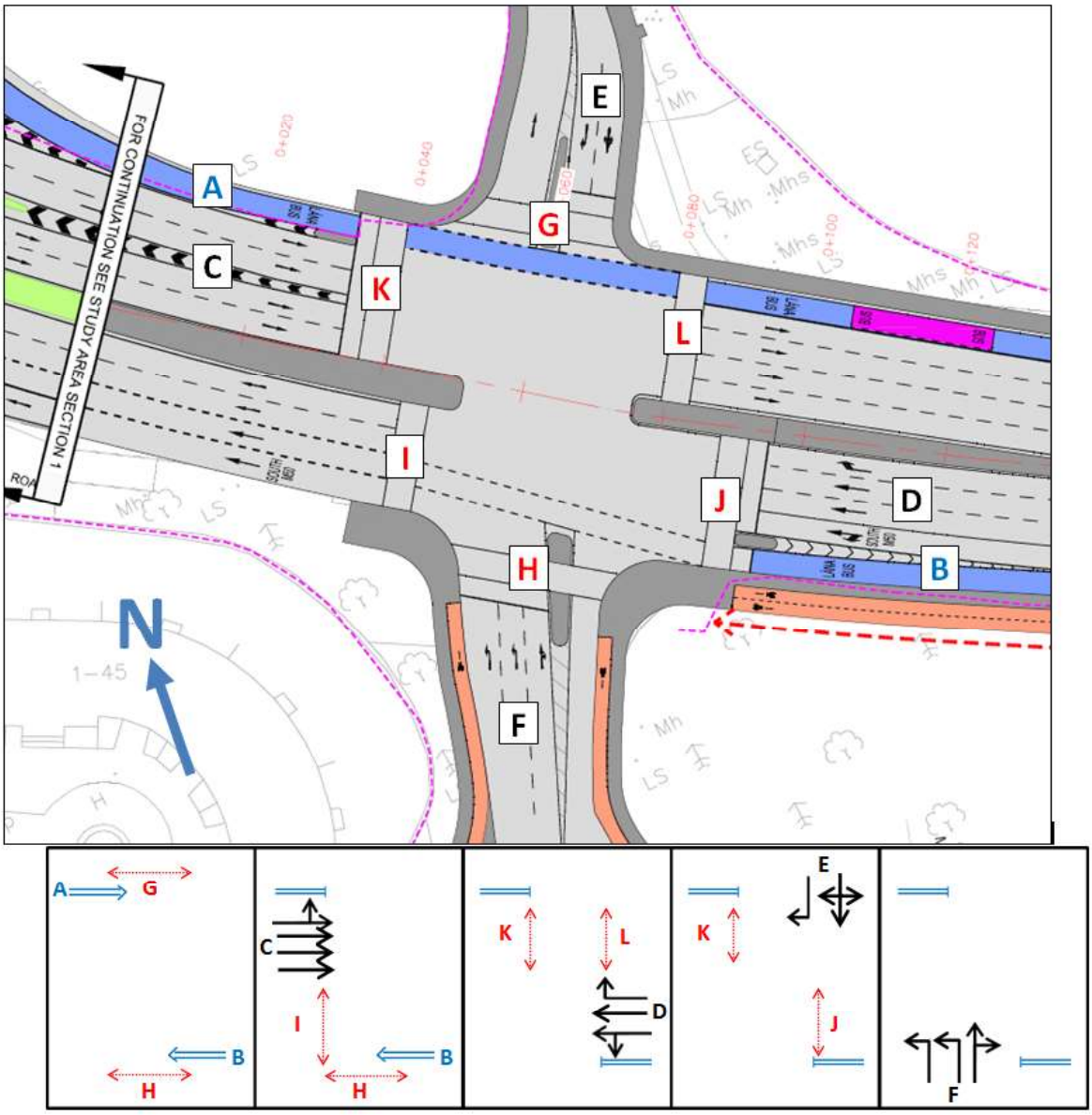

Figure 7.6: Navan Road / Auburn Avenue / New Dunsink Lane Junction Staging Diagram

Figure 7.7 illustrates the proposed design for the Navan Road / Halfway House unction. This design will prioritise bus movements through adedicated bus lane and bus gate on the inbound and outbound approach to the junction i.e. see lane **A** and **B** below. The bus gates will enable a seperate stage for buses to clear the junction ahead of vehicular traffic.

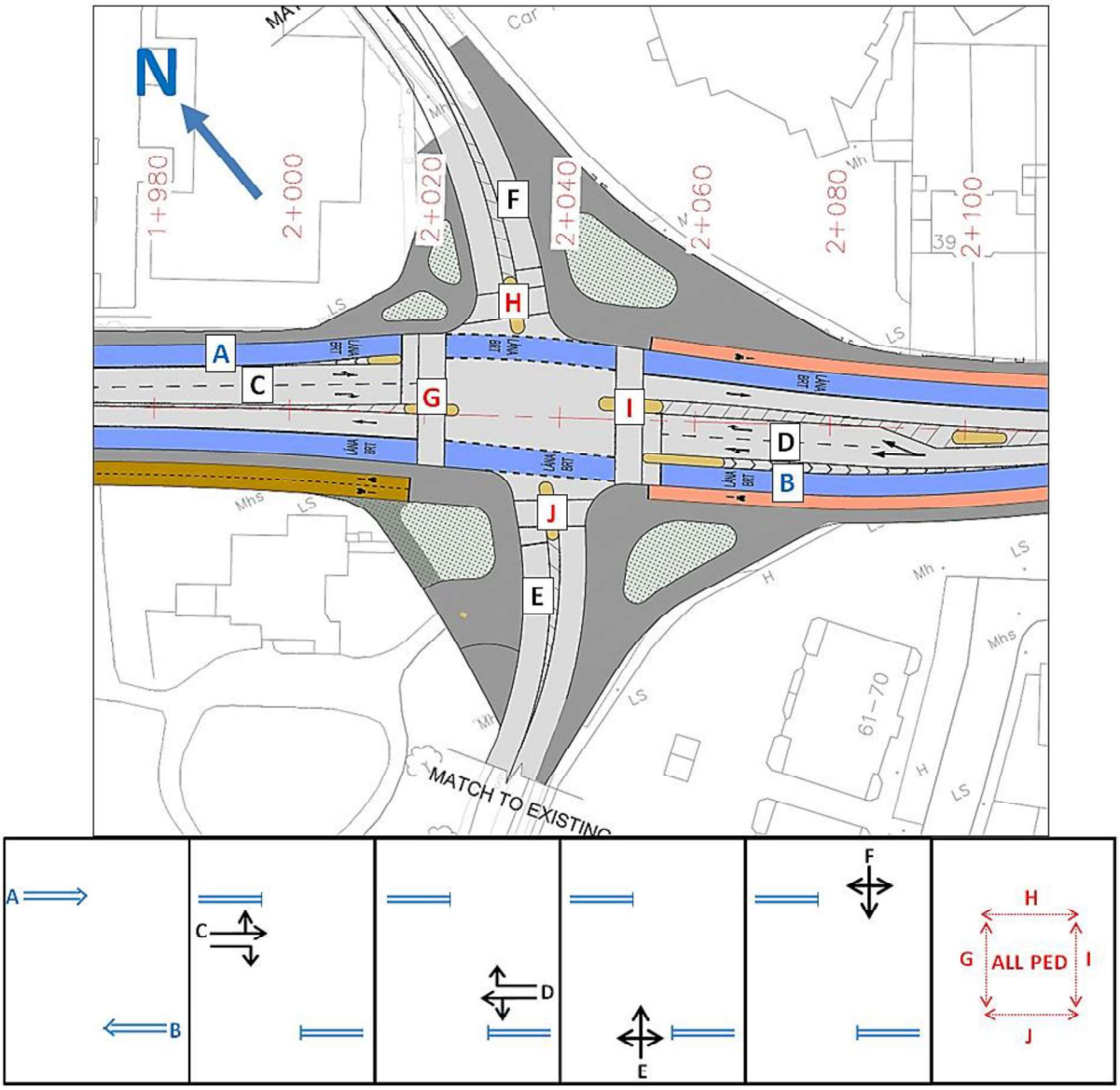

Figure 7.7: Navan Road / Halfway House Junction Staging Diagram

8. Feasibility Working Cost Estimate

8.1 High Level Cost Estimate

A cost estimate for the Emerging Preferred Option has been developed for the scheme and is indicated in **Table 8.1** below.

It was developed primarily based on standard rates that AECOM-ROD have available from similar types of projects in Dublin and includes high level information on the typical urban streetscape construction including:

- Preliminaries;
- Site Clearance;
- Earthworks;
- Pavement;
- Kerbs and Footways;
- Traffic Signs and Markings;
- Other Items (Ramps, Traffic Signals, Pedestrian Crossings, Street Lights, Landscaping, Boundary); and
- High Level Land Acquisition Costs.

A detailed cost estimate and significant further work would be required to provide a more accurate cost at the subsequent stage of development.

This detailed estimate would need to allow for Risk, Contingencies and future inflation etc.

Table 8.1: Feasibility Working Cost Estimate for Emerging Preferred Scheme Option

Cost Type	Total Capital Cost Estimate
Infrastructural	€33.24M
Land Acquisition	€4.94M
Total	**€38.18M**

8.2 Exclusions

The high-level cost estimate for the emerging preferred route option does not consider:

- Professional fees;
- Planning costs;
- Marketing;
- Capital contributions;
- Inflation;
- VAT;
- Costs associated with neighbouring proposed projects;
- Potential city centre cellar works and acquisition of private landings;
- Administration and management costs; and
- Maintenance costs.

9. Emerging Preferred Scheme Benefits

The emerging preferred scheme option will deliver on-street infrastructure necessary to achieve practical continuous bus priority along the majority of the Blanchardstown Town Centre to the Liffey Quays CBC, though the provision of enhanced bus lanes.

This way, delays that currently occur along specific sections and at constrained locations will be removed/minimised enabling the bus to become a faster and more attractive alternative to car traffic along the route.

The bus system is envisaged to become more efficient and faster bus journeys mean that more people will be moved with the same level of vehicle and driver resources.

The emerging preferred scheme option will provide significantly enhanced cycle facilities with high Quality of Service along the route, as also required under the Greater Dublin Area Cycle Network Plan.

The emerging preferred scheme option design integrates with existing and future planned development and transport infrastructure schemes in the vicinity of the Study Area.

The emerging preferred scheme design incorporates traffic management techniques to maximise level of services for all road users, following the principles included in the Design Manual of Urban Streets and Roads and taking into account issues such as permeability, personal security, traffic conditions, mobility impaired access, and safe crossing of roads.

In summary, the emerging preferred scheme option will have the following benefits:

- Increased reliability and faster journey times due to bus priority in the vast majority of locations;
- Reduction of commuting time for public transport;
- Reduction of car congestion and enhancement of attractiveness of urban centres;
- Provision of safe cycling facilities and the opportunity for more people to cycle along the Blanchardstown Town Centre to the Liffey Quays CBC
- Reconfiguration of existing junctions, which will provide considerable benefits for pedestrian accessibility and bus priority, making the bus routes more attractive;
- Interchange with neighbouring public transport route i.e. Blanchardstown Town Centre bus interchange hub; and
- Serving important trip attractors.

10. Next Steps

This report has identified an emerging preferred scheme option for the bus infrastructure along this Blanchardstown Town Centre to the Liffey Quays CBC which a concept design has been developed.

The next project stage (The development of a Preliminary Design) will further refine and update the initial concept design along the route.

Further account will be taken of likely public transport service levels, particularly the bus service patterns and any changes to the overall bus network which may arise from the BusConnects Plan proposals.

The proposal will be amended, if and as required, to integrate any resultant changes.

The Preliminary Design will define the final practically achievable scheme for the bus corridor, taking into account more detailed studies of constraints, impacts and environmental assessment required at a local level.

Prior to finalisation of the Blanchardstown Town Centre to the Liffey Quays CBC scheme design, a public consultation process will be undertaken, with inputs and feedback received incorporated where practical and appropriate to do so.

The Preliminary Design will form the basis of the planning consent process for the scheme, which will require a development consent application to be made directly to An Bord Pleanála, due to the nature and extent of the proposed works.

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Appendix A – Multi Criteria Analysis Tables

Table 1: SAS 1 MCA Table

MCA criteria	Assessment Sub-Criteria	Scheme Option 1A1	Scheme Option 1A2	Scheme Option 1B1	Scheme Option 1B2	Scheme Option 1H1	Scheme Option 1H2
Economy	1.a. Capital Cost	Capital Cost: €14.3M Length: 3.5km Cost/Km: 4.1M ***Indicative Scheme Infrastructure* Works Cost** - €13.65M ***Land Acquisition Cost*** - €0.67M	Capital Cost: €4.7M Length: 3.5km Cost/Km: 1.3M ***Indicative Scheme Infrastructure* Works Cost** - €4.67M ***Land Acquisition Cost*** - € 0	Capital Cost: €9.7M Length: 2.55km Cost/Km: 3.8M ***Indicative Scheme Infrastructure* Works Cost** - €9.10M ***Land Acquisition Cost*** - €0.67M The cost excludes the permitted Part 8 scheme for Snugborough overpass.	Capital Cost: €2.3M Length: 2.55km Cost/Km: 0.9M ***Indicative Scheme Infrastructure* Works Cost** - €2.3M ***Land Acquisition Cost*** - € 0	Capital Cost: €5.6M Length: 2.5km Cost/Km: 2.2M ***Indicative Scheme Infrastructure* Works Cost** - € 3.30M ***Land Acquisition Cost*** - € 2.29M	Capital Cost: €1.76M Length: 2.5km Cost/Km: 0.70M ***Indicative Scheme Infrastructure* Works Cost** - €1.76M ***Land Acquisition Cost*** - € 0
	Rank						
	1.b. Transport Reliability and Quality (Journey Time)	Journey Time: 9 mins inbound and 8 mins outbound Length:3.5km inbound and 3.06km outbound No. of signalised intersections: 6 inbound and 4 outbound	Journey Time: 9 mins inbound and 8 mins outbound Length:3.5km inbound and 3.06km outbound No. of signalised intersections: 6 inbound and 4 outbound	Journey Time: 7 mins inbound and outbound Length:2.55km inbound and 2.35km outbound No. of signalised intersections: 6 inbound and 5 outbound	Journey Time: 7 mins inbound and outbound Length:2.55km inbound and 2.35km outbound No. of signalised intersections: 6 inbound and 5 outbound	Journey Time: 9 mins inbound and 8 mins outbound Length:2.5km inbound and outbound No. of signalised intersections: 9 inbound and outbound	Journey Time: 9 mins inbound and 8 mins outbound Length:2.5km inbound and outbound No. of signalised intersections: 9 inbound and outbound
	Rank						
Integration	2.a. Land Use Integration	Small areas of land zoned as high amenity will be required for construction. Potential for minor impacts. However, integrates with existing / planned residential, educational, medical and leisure uses in this established area.	Integrates with existing / planned residential, educational, medical and leisure uses in this established area. No change in land use character.	Small areas of land zoned as high amenity will be required for construction. Potential for minor impacts. However, integrates with existing / planned residential, educational, medical and leisure uses in this established area. Snugborough overpass has gone through Part 8 planning process for permission to widen the bridge which includes for a dedicated bus lane. Route Option 1B1 would integrate with this proposed development.	Integrates with existing / planned residential, educational, medical and leisure uses in this established area. No change in land use character.	Route Option 1H would impact on the planned development for Blanchardstown Village as per Blanchardstown Town Centre Development Framework/Masterplan, which states - "Remodel and traffic manage the Main Street roadway into a streetscape, designed to be a place for living and enjoyment.". Both Scheme Option 1H1 and 1H2 would reconfigure the streets with a focus primarily on transportation through the village rather than the land use objective as per the Masterplan. Scheme Option 1H1 would have the greatest impact based on the scale of redevelopment. In addition, small areas of land zoned as 'high amenity' would be taken for the construction of bus lanes. Landtake for 1H1 will also require acquisition of sections of gardens along the main street.	Route Option 1H would impact on the planned development for Blanchardstown Village as per Blanchardstown Town Centre Development Framework/Masterplan, which states - "Remodel and traffic manage the Main Street roadway into a streetscape, designed to be a place for living and enjoyment." . Both Scheme Option 1H1 and 1H2 would reconfigure the streets with a focus primarily on transportation through the village rather than the land use objective as per the Masterplan. In addition, small areas of land zoned as 'high amenity' would be taken for the construction of bus lanes.
	Rank						

	2.b. Residential Population and Employment Catchments	***Residential Population Catchments*** - 5 minute walk catchment of approximately 500 - 10 minute walk catchment of approximately 1,500 - 15 minute walk catchment of approximately 4,500 ***Employment catchments*** 15 minute walk catchment of approximately 4,500 ***Education catchments*** 15 minute walk catchment of approximately 1,000	***Residential Population Catchments*** - 5 minute walk catchment of approximately 500 - 10 minute walk catchment of approximately 1,500 - 15 minute walk catchment of approximately 4,500 ***Employment catchments*** 15 minute walk catchment of approximately 4,500 ***Education catchments*** 15 minute walk catchment of approximately 1,000	***Residential Population Catchments*** - 5 minute walk catchment of approximately 500 - 10 minute walk catchment of approximately 2,500 - 15 minute walk catchment of approximately 8,000 ***Employment catchments*** 15 minute walk catchment of approximately 5,500 ***Education catchments*** 15 minute walk catchment of approximately 1,500	***Residential Population Catchments*** - 5 minute walk catchment of approximately 500 - 10 minute walk catchment of approximately 2,500 - 15 minute walk catchment of approximately 8,000 ***Employment catchments*** 15 minute walk catchment of approximately 5,500 ***Education catchments*** 15 minute walk catchment of approximately 1,500	***Residential Population Catchments*** - 5 minute walk catchment of approximately 1,500 - 10 minute walk catchment of approximately 4,500 - 15 minute walk catchment of approximately 10,500 ***Employment catchments*** 15 minute walk catchment of approximately 6,000 ***Education catchments*** 15 minute walk catchment of approximately 2,000	***Residential Population Catchments*** - 5 minute walk catchment of approximately 1,500 - 10 minute walk catchment of approximately 4,500 - 15 minute walk catchment of approximately 10,500 ***Employment catchments*** 15 minute walk catchment of approximately 6,000 ***Education catchments*** 15 minute walk catchment of approximately 2,000
	Rank	🟥	🟥	🟩	🟩	🟩	🟩
	2.c. Transport Network Integration	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨
	2.d. Cycle Network Integration	Both directions of Route 1A align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1A align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1B align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1B align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1H align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1H align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨
	2.e. Traffic Network Integration	No impact on existing number of vehicular traffic lanes. The scheme option would also future proof to incorporate three lanes along this section of the N3.	Reduced number of traffic lanes to provide bus lanes.	No impact on existing number of vehicular traffic lanes. The scheme option would also future proof to incorporate three lanes along this section of the N3.	Reduced number of traffic lanes to provide bus lanes.	No impact on existing number of vehicular traffic lanes.	No impact on existing number of vehicular traffic lanes.
	Rank	🟩	🟥	🟩	🟥	🟩	🟩
Accessibility & Social Inclusion	3.a. Key Trip Attractors (Education/Health/Commercial/Employment)	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.
	Rank	🟧	🟧	🟧	🟧	🟩	🟩
	3.b. Deprived Geographic Areas	This option primarily serves areas considered **marginally above** and **marginally below average,** as well as a small area considered **affluent** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **marginally above** and **marginally below average,** as well as a small area considered **affluent** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **marginally above** and **marginally below average,** as well as a small area considered **affluent** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **marginally above** and **marginally below average,** as well as a small area considered **affluent** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **marginally above** and **marginally below average,** as well as a small area considered **affluent** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **marginally above** and **marginally below average,** as well as a small area considered **affluent** as identified in the Pobal Deprivation Index.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨

Safety	4.a. Road Safety	No. of Junctions: 6 inbound and 4 outbound Turning movements: Inbound: 3 turning movements required Outbound: No turning movements required	No. of Junctions: 6 inbound and 4 outbound Turning movements: Inbound: 3 turning movements required Outbound: No turning movements required	No. of Junctions: 6 inbound and 5 outbound Turning movements: Inbound: 2 turning movements required Outbound: No turning movements required	No. of Junctions: 6 inbound and 5 outbound Turning movements: Inbound: 2 turning movements required Outbound: No turning movements required	No. of Junctions: 9 inbound and outbound Turning movements: Inbound: No turning movements required Outbound: No turning movements required	No. of Junctions: 9 inbound and outbound Turning movements: Inbound: 1 turning movement required Outbound: No turning movements required
	Rank	🟩	🟩	🟩	🟩	🟧	🟧
Physical Activity	5.a Physical Activity	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨
Environment	6.a. Archaeology and Cultural Heritage	30m from a Mill (DU013-035). Due to extent of works, no likely significant impacts are predicted.	30m from a Mill (DU013-035). Due to extent of works, no likely significant impacts are predicted.	30m from a Mill (DU013-035). Due to extent of works, no likely significant impacts are predicted.	30m from a Mill (DU013-035). Due to the extent of the works, no likely significant impacts are predicted.	No likely significant impact.	No likely significant impact
	Rank	🟨	🟨	🟨	🟨	🟨	🟨
	6.b. Architectural Heritage	30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Due to extent of works, no likely significant impacts are predicted.	30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Due to extent of works, no likely significant impacts are predicted.	30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Due to extent of works, no likely significant impacts are predicted.	30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Due to extent of works, no likely significant impacts are predicted.	100m from St Brigid's Church (Reg. No. 11354001), 30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Significant impacts are not likely due to the extent of the works.	100m from St Brigid's Church (Reg. No. 11354001), 30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Significant impacts are not likely due to the extent of the works.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨
	6.c. Flora & Fauna	Small areas of land zoned as 'high amenity' grassland would be lost due to construction. Removal of areas of mature trees which were planted as part of the Blanchardstown Bypass. Mammal surveys will be required along the proposed route. Potential impacts on the river Tolka if widening of the roadbridge is required.	No likely significant impact on flora and fauna.	Small areas of land zones as 'high amenity area' would be lost due to road widening. Removal of mature trees planted as part of the Blanchardstown Bypass to facilitate road and bridge widening. Mammal surveys will be required along the proposed route. Potential impacts on the river Tolka due to widening of the roadbridge.	No likely significant impact on Biodiversity.	Small amounts of zoned 'high amenity' land would be lost due to junction and road widening. 11 trees along the Main Street would also be removed. Mammal surveys will be required along the preferred route.	11 trees along the Main Street would be removed due to road widening.
	Rank	🟧	🟩	🟧	🟩	🟧	🟧
	6.d. Soils and Geology	The majority of the area would be within the existing road extent. Additional lands will be needed to facilitate the works.	The proposed route would be within the existing road extent.	The majority of the area would be within the existing road extent. Additional lands will be needed for junction update. No likely significant impacts.	The proposed route would be within the existing road extent.	Landtake would be required for road widening along this section.	No land take would be required.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨

	6.e. Hydrology	Minor impacts on the River Tolka likely if the roadbridge is to be widened (additional shadowing etc.). Potential for minor impacts during construction.	No likely significant impact.	Potential impacts to the River Tolka if roadbridge is to be widened or if works are to be carried out on embankments.	No likely significant impact.	No likely significant impact.	No likely significant impact.
	Rank						
	6.f. Landscape and Visual	No protected views will be affected.	No protected views will be affected.	No protected views will be affected.	No protected views will be affected.	Existing trees within Blanchardstown Village will be remove, which would impact the streetscape.	Existing trees within Blanchardstown Village will be remove, which would impact the streetscape.
	Rank						
	6.g. Air Quality	No likely significant impact.	Potential for negative impacts on air quality if increased congestion occurs as a result of reducing the number of traffic lanes throughout the section.	No likely significant impact. Widening of the Snugborough Rd Bridge (R843) may have a significant impact during construction.	Potential negative impacts on air quality if increased congestion occurs as a result of reducing the number of traffic lanes throughout the section.	The route travels through residential and town centre land zones however buses already service this route. Closer proximity of residential properties to carriageway due to carriageway widening and the addition of bus lanes in both directions.	The route travels through residential and town centre land zones however buses already service this route. Closer proximity of residential properties to carriageway due to carriageway widening and the addition of bus lanes in both directions.
	Rank						
	6.h. Noise & Vibration	No likely significant impact.	Potential for negative impacts on air quality if increased congestion occurs as a result of reducing the number of traffic lanes throughout the section.	No likely significant impact. Widening of the Snugborough Rd Bridge (R843) may have a significant impact during construction.	Potential negative impacts on air quality if increased congestion occurs as a result of reducing the number of traffic lanes throughout the section.	The route travels through residential and town centre land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.	The route travels through residential and town centre land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.
	Rank						
	6.i. Land Use Character	No impact on parking.	No impact on parking.	No impact on parking.	No impact on parking.	On-street parking would be removed in Blanchardstown Village to facilitate the works.	On-street parking would be removed in Blanchardstown Village to facilitate the works.
	Rank						

Table 2: SAS 2 MCA Table

MCA criteria	Assessment Sub-Criteria	Scheme Option 2A1	Scheme Option 2A2	Scheme Option 2A3
Economy	1.a. Capital Cost	Capital Cost: €11.9M Length: 4.5km Cost/Km: 2.64M ***Indicative Scheme Infrastructure* Works Cost** - € 7.64M ***Land Acquisition Cost*** - € 4.27M	Capital Cost: €5.48M Length: 4.5km Cost/Km: 1.22M ***Indicative Scheme Infrastructure* Works Cost** - € 5.48M ***Land Acquisition Cost*** - € 0	Capital Cost: €11.1M Length: 4.5km Cost/Km: 2.47M ***Indicative Scheme Infrastructure* Works Cost** - € 6.39M ***Land Acquisition Cost*** - € 3.45M
	Rank			
	1.b. Transport Reliability and Quality (Journey Time)	Journey Time: 14 mins both directions Length: 4.5km No. of signalised intersections: 8	Journey Time: 15 mins inbound and 17 mins outbound Length: 4.5km No. of signalised intersections: 8	Journey Time: 14 mins both directions Length: 4.5km No. of signalised intersections: 8
	Rank			
Integration	2.a. Land Use Integration	Integrates with existing / planned residential, educational, medical and leisure uses in this established area.	Integrates with existing / planned residential, educational, medical and leisure uses in this established area.	Integrates with existing / planned residential, educational, medical and leisure uses in this established area.
	Rank			
	2.b. Residential Population and Employment Catchments	Both scheme options use the same bus stops, hence the residential and employment catchments are the same.	Both scheme options use the same bus stops, hence the residential and employment catchments are the same.	Both scheme options use the same bus stops, hence the residential and employment catchments are the same.
	Rank			
	2.c. Transport Network Integration	Integrates with existing bus services along route 2A and potential for integration with train.	Integrates with existing bus services along route 2A and potential for integration with train.	Integrates with existing bus services along route 2A and potential for integration with train.
	Rank			
	2.d. Cycle Network Integration	Both directions of Route 2A align with secondary cycle route 4a as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2. Scheme Option 2A1 scores higher than 2A2 and 2A3 due to the proposed segregated cycle lanes in both directions along the entire length 4.5km of Route 2A.	Both directions of Route 2A align with secondary cycle route 4a as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2 Scheme Option 2A2 scores lower than 2A1 as it does not propose to provide segregated cycle lanes along the entire 4.5km of route 2A. Scheme Option 2A2 would provide 4.25km of inbound segregated cycle lanes and 3.87km of outbound segregated cycle lanes.	Both directions of Route 2A align with secondary cycle route 4a as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2. Scheme Option 2A3 scores higher than 2A2 due to the proposed segregated two-way facility along the entire 4.5km of the route. Scheme option 2A3 would requrie toucan crossings for cyclists to access the facility (in one direction); thereby reducing ease of access. Scheme Option 2A1 would be more practical in terms of cyclist manoeuvrability along the route and thus scores higher.
	Rank			
	2.e. Traffic Network Integration	Scheme Option 2A1 proposals would incorporate traffic and segregated bus / cyclist facilities on both the inbound and outbound carriageways for the entirety of the section. To facilitate this, widening of the existing carriageway is required along the majority of the route between Halfway House Roundabout and Cabra Road junction, with landtake required in place. Removal of the existing trees adjacent to the carriageway and on-street parking would also be required to facilitate carriageway widening.	Scheme Option 2A2 proposals would incorporate a variation to the 2A1. Segregated bus and cycle lanes would be provided along the majority of the 4.5km route, however, buses would mix with cyclists for a total 250m in the inbound direction and 630m in the outbound direction. Carriageway widening would be required between Halfway House Roundabout and Cabra Road junction, but no land take would be required. Removal of the existing trees adjacent to the carriageway and on-street parking	Scheme Option 2A3 proposals would be akin to Scheme Option 2A1 in terms of traffic and bus infrastructure; the difference being that 2A3 proposes a two-way cycle track on one side of the road rather than inbound/outbound lanes either side of the road (as per 2A1). To facilitate continuous segregated bus lanes and a two-way cycle track, widening of the existing carriageway would be required along the majority of the route between Halfway House Roundabout and Cabra Road junction, with land take required in places. Removal of on-street parking and

			would also be required to facilitate carriageway widening.	existing trees adjacent to the carriageway would also be required to facilitate carriageway widening. Refer to **Appendix H** for concept drawings.
	Rank			
Accessibility & Social Inclusion	3.a. Key Trip Attractors (Education/Health/Commercial/Employment)	Both scheme options follow the same route and hence, serve the same trip attractors.	Both scheme options follow the same route and hence, serve the same trip attractors.	Both scheme options follow the same route and hence, serve the same trip attractors.
	Rank			
	3.b. Deprived Geographic Areas	This option serves areas considered **very affluent, affluent**, **marginally above** and **marginally below,** as identified in the Pobal Deprivation Index.	This option serves areas considered **very affluent, affluent**, **marginally above** and **marginally below,** as identified in the Pobal Deprivation Index.	This option serves areas considered **very affluent, affluent**, **marginally above** and **marginally below,** as identified in the Pobal Deprivation Index.
	Rank			
Safety	4.a. Road Safety	No. of Junctions: 9 <u>Turning movements:</u> Inbound: No turning movements required Outbound: No turning movements required Due to proposed segregation of buses and cyclists, Scheme Option 2A1 scores higher than 2A2.	No. of Junctions: 9 <u>Turning movements:</u> Inbound: No turning movements required Outbound: No turning movements required Scheme Option 2A2 does not propose the same level of segregation of buses and cyclists as 2A1. Buses would mix with cyclists for 250m in the inbound direction and 630m in the outbound direction.	No. of Junctions: 9 <u>Turning movements:</u> Inbound: No turning movements required Outbound: No turning movements required Due to proposed segregation of buses and cyclists, Scheme Option 2A3 scores higher than 2A2. However, due to one cyclist lane (within the two-way facility) travelling contraflow to traffic, there is potential for conflicts at numerous dirveways / property accesses. As a result, this scores lower than 2A1.
	Rank			
Physical Activity	5.a Physical Activity	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.
	Rank			
Environment	6.a. Archaeology and Cultural Heritage	No likely significant impact.	No likely significant impact.	No likely significant impact.
	Rank			
	6.b. Architectural Heritage	St Vincent's Centre Gate Lodge is located just outside the proposed road boundary. St Vincent's Centre Church/Chapel and Workhouse are also located in the same grounds, within 50m of the proposed road extent. Short term minor impacts may occur.	St Vincent's Centre Gate Lodge is located just outside the proposed road boundary. St Vincent's Centre Church/Chapel and Workhouse are also located in the same grounds, within 50m of the proposed road extent. Short term minor impacts may occur.	St Vincent's Centre Gate Lodge is located just outside the proposed road boundary. St Vincent's Centre Church/Chapel and Workhouse are also located in the same grounds, within 50m of the proposed road extent. Short term minor impacts may occur.
	Rank			
	6.c. Flora & Fauna	The installation of bus and cycle lanes would require the removal of existing trees within the road boundary, approximately 160 trees. Also, a number of trees behind the road boundary would require removal where widening is shown. Mammal surveys will be required along the preferred route.	The installation of bus and cycle lanes would require the removal of existing trees within the road boundary, approximately 160 trees. Mammal surveys will be required along the preferred route.	The installation of bus and cycle lanes would require the removal of existing trees within the road boundary, approximately 160 trees. Also, a number of trees behind the road boundary would require removal where widening is shown. Mammal surveys will be required along the preferred route.
	Rank			
	6.d. Soils and Geology	No likely significant impact.	No likely significant impact.	No likely significant impact.
	Rank			

	6.e. Hydrology	No likely significant impact.	No likely significant impact.	No likely significant impact.
	Rank			
	6.f. Landscape and Visual	Trees which lined the side of Navan Rd will be removed. No protected views will be affected.	Trees which lined the side of Navan Rd will be removed. No protected views will be affected.	Trees which lined the side of Navan Rd will be removed. No protected views will be affected.
	Rank			
	6.g. Air Quality	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.
	Rank			
	6.h. Noise & Vibration	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.
	Rank			
	6.i. Land Use Character	This scheme option would remove all on-street parking.	This scheme option would remove all on-street parking.	This scheme option would remove all on-street parking.
	Rank			

Table 3: SAS 3 MCA Table

Assessment Criterion	Assessment Sub-Criterion	Route Option N1 (Stoneybatter / Blackhall Place / Queen Street)	Route Option N2 (Grangegorman / Constitution Hill)	Route Option N3 (Stoneybatter / Church Street)	Route Option N4 (Grangegorman / King Street / Queen Street)	Route Option N5 (Grangegorman / Church Street)	Route Option N6 (Stoneybatter / Blackhall Place)	Route Option 7 (Stoneybatter / Queen Street)
Economy	Capital Cost	***Indicative Scheme Infrastructure* Works Cost** €16.5m - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to Aughrim street; - Signalise and reconfigure Prussia Street/Aughrim Street junction to provide Bus priority and Bus stop provision; - Rearrange, realign and remove some parking/loading provision on Manor Street to provide continuous bus lanes to Stoneybatter; - Reconfigure Stoneybatter and relocate bus stops to cater for Bus passage; - Bus gate required at Stoneybatter/North Brunswick Street junction to implement Bus priority southbound; - Reconfigure and implement any necessary traffic	***Indicative Scheme Infrastructure* Works Cost** €22.4m - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to St. Joseph's Road; **OR** - Reconfigure North Circular Road between Old Cabra Road and the new Grangegorman Bus access to provide a Bus priority or virtual priority along the extent of this route option. - Realign existing Grangegorman service access on North Circular Road to accommodate Bus; **OR** - Reconfigure and signalise junction at Prussia Street/St. Joseph's Road to allow through Bus access. Implement any necessary turning restrictions to ensure priority; - Reconfigure existing	***Indicative Scheme Infrastructure* Works Cost** €20.8m - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to Aughrim street; - Signalise and reconfigure Prussia Street/Aughrim Street junction to provide Bus priority and Bus stop provision; - Rearrange, realign and remove some parking/loading provision on Manor Street to provide continuous Bus/bus lanes to Stoneybatter; - Reconfigure Stoneybatter and relocate bus stops to cater for Bus passage; - Bus gate required at Stoneybatter/North Brunswick Street junction to implement Bus priority southbound;	***Indicative Scheme Infrastructure* Works Cost** €22.1m - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to St. Joseph's Road; **OR** - Reconfigure North Circular Road between Old Cabra Road and the new Grangegorman Bus access to provide a Bus priority or virtual priority along the extent of this route option. - Realign existing Grangegorman service access on North Circular Road to accommodate Bus; **OR** - Reconfigure and signalise junction at Prussia Street/St. Joseph's Road to allow through Bus	***Indicative Scheme Infrastructure* Works Cost** €22.4m - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to St. Joseph's Road; **OR** - Reconfigure North Circular Road between Old Cabra Road and the new Grangegorman Bus access to provide a Bus priority or virtual priority along the extent of this route option. - Realign existing Grangegorman service access on North Circular Road to accommodate Bus; **OR** - Reconfigure and	***Indicative Scheme Infrastructure* Works Cost** €19.5m - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to Aughrim street; - Signalise and reconfigure Prussia Street/Aughrim Street junction to provide Bus priority and Bus stop provision; - Rearrange, realign and remove some parking/loading provision on Manor Street to provide continuous bus lanes to Stoneybatter; - Reconfigure Stoneybatter and relocate bus stops to cater for Bus passage;	***Indicative Scheme Infrastructure* Works Cost** €19.5m - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to Aughrim street; - Signalise and reconfigure Prussia Street/Aughrim Street junction to provide Bus priority and Bus stop provision; - Rearrange, realign and remove some parking/loading provision on Manor Street to provide continuous bus lanes to Stoneybatter; - Reconfigure Stoneybatter and relocate bus stops to cater for Bus passage;

		restrictions on Blackhall Place between North Brunswick Street and King Street North to ensure Bus priority or virtual priority; - Reconfigure and Signalise Blackhall Place/King Street North junction to provide Bus priority; - Remove one traffic lane on King Street North to reconfigure for virtual Bus priority. - Reconfigure and upgrade King Street North/Queen Street junction to facilitate Bus priority provision; - Reconfigure Queen Street by removing one traffic lane to provide full Bus priority and 2-way segregated cycle provision to the Liffey; - Reconfigure Blackhall Place to provide full Bus priority from the Liffey to King Street North; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. ***Land Acquisition Cost*** - n/a	Grangegorman carriageways to cater for full Bus priority across the extent of this route option; through the Grangegorman campus to Grangegorman lower. - Reconfigure existing access from Grangegorman service route on Grangegorman Lower to provide virtual Bus priority. Limit access from Rathdown Road; - Upgrade Grangegorman Lower to provide virtual Bus priority for the extent of this route option; - Reconfigure new junction to the proposed new service link road on Grangegorman Lower to accommodate Bus priority; - Reconfigure existing Grangegorman carriageways to cater for full Bus priority across the extent of this route option to Constitution Hill; - Signalise and implement any necessary turning restrictions at Broadstone/Constitution Hill junction to facilitate Bus priority or virtual priority; - Reconfigure Constitution Hill to provide continuous bus priority along the extent of this route option up to Church Street; - Reconfigure and implement necessary turning restrictions to ensure virtual Bus priority at Church Street/King Street North junction; - Reconfigure Church Street to provide virtual Bus priority for the extent of this route option to May's Lane; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Reconfigure Church Street to provide Bus priority between May Lane and Inns Quay; - Provision of cycle tracks and improved pedestrian facilities along route or along	- Reconfigure and implement any necessary traffic restrictions on Blackhall Place between North Brunswick Street and King Street North to ensure Bus priority or virtual priority; - Reconfigure and Signalise Blackhall Place/King Street North junction to provide Bus priority; - Remove one traffic lane and reconfigure King Street North to provide Bus priority to George's Lane; - Reconfigure and implement any necessary turning restrictions at King Street North/George's Lane junction to facilitate Bus priority or virtual priority; - Remove one traffic lane and reconfigure George's Lane to provide Bus priority or virtual priority and two-way segregated cycle provision; - Reconfigure and implement any necessary turning restrictions at George's Lane/Brunswick Street junction to provide Bus priority or virtual priority; - Remove one traffic lane and reconfigure Brunswick Street North to provide Bus priority inbound from George's Lane to Church Street and virtual priority outbound to Blackhall Place. Implement any necessary traffic restrictions; - Remove one traffic lane and reconfigure King Street North to provide outbound Bus priority from Church Street to George's Lane. Implement any necessary traffic restrictions; - Reconfigure King Street North/Church Street Upper junction and implement any necessary turning restrictions to ensure	access. Implement any necessary turning restrictions to ensure priority; - Reconfigure existing Grangegorman carriageways to cater for full Bus priority across the extent of this route option; through the Grangegorman campus to Grangegorman lower. - Reconfigure existing access from Grangegorman service route on Grangegorman Lower to provide virtual Bus priority. Limit access from Rathdown Road ; - Upgrade Grangegorman Lower to provide virtual Bus priority for the extent of this route option; - Reconfigure and implement any necessary turning restrictions at Grangegorman Lower / North Brunswick Street junction to provide virtual Bus priority; - Reconfigure Grangegorman Lower / North Brunswick Street junction to facilitate 2-way virtual Bus priority onto George's Lane; - Reconfigure George's Lane to provide two-way Bus priority or virtual priority and cycle provision; - Reconfigure George's Lane / King Street North to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Remove one traffic lane and reconfigure King Street North to provide outbound Bus priority; - Reconfigure Blackhall Place to provide full Bus priority from the Liffey to King Street North; - Reconfigure Queen Street to provide full Bus priority and 2-way segregated cycling provision for the extent of this route option;	signalise junction at Prussia Street/St. Joseph's Road to allow through Bus access. Implement any necessary turning restrictions to ensure priority; - Reconfigure existing Grangegorman carriageways to cater for full Bus priority across the extent of this route option; through the Grangegorman campus to Grangegorman lower. - Reconfigure existing access from Grangegorman service route on Grangegorman Lower to provide virtual Bus priority. Limit access from Rathdown Road ; - Upgrade Grangegorman Lower to provide virtual Bus priority for the extent of this route option; - Reconfigure and implement any necessary turning restrictions at Grangegorman Lower / North Brunswick Street junction to facilitate virtual Bus priority; - Reconfigure George's Lane to provide outbound Bus priority and 2-way segregated cycle provision; - Reconfigure and implement any necessary turning restrictions at George's Lane / King Street North junction to facilitate virtual Bus priority; - Remove one traffic lane and reconfigure King Street North to provide Bus priority for the extent of this route option to Church Street; - Remove one traffic lane and reconfigure North Brunswick Street to provide Bus priority for the extent of this route option to Church Street; - Reconfigure and	- Bus gate required at Stoneybatter/North Brunswick Street junction to implement Bus priority southbound to North Brunswick Street / Queen Street; - Reconfigure and implement any necessary traffic restrictions on Blackhall Place between North Brunswick Street and King Street North to ensure Bus priority or virtual priority; - Remove one traffic lane on North Brunswick Street to reconfigure for virtual Bus priority. - Reconfigure and upgrade North Brunswick Street/George's Lane/Queen Street junction to facilitate Bus priority provision; - Reconfigure King Street North to provide 2-way segregated cycle provision; - Reconfigure Queen Street by removing one traffic lane to provide full Bus priority and 2-way segregated cycle provision to Blackhall Street; - Reconfigure Blackhall Street by removing one traffic lane to provide full Bus priority; - Reconfigure Blackhall Place by removing one traffic lane to provide full bus priority northbound between Blackhall Street and King Street North; - Reconfigure Blackhall Place to provide full Bus priority from the Liffey to Blackhall Street; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Provision of cycle tracks and improved pedestrian facilities along route or	- Bus gate required at Stoneybatter/North Brunswick Street junction to implement Bus priority southbound to King Street North; - Bus gate required at Blackhall Place / Blackhall Street junction to implement Bus priority northbound to King Street North; - Reconfigure and implement any necessary traffic restrictions on Blackhall Place between North King Street North and Blackhall Street to ensure Bus priority or virtual priority; - Remove one traffic lane on Blackhall Street Street to reconfigure for virtual Bus priority. - Reconfigure King Street North by removing one lane of traffic and providing cycle facilities; - Reconfigure and upgrade King Street North/Queen Street junction to facilitate Bus priority provision; - Reconfigure Queen Street by removing one traffic lane to provide full Bus priority and 2-way segregated cycle provision to Blackhall Street; - Reconfigure Queen Street by removing two southbound traffic lanes and allowing northbound traffic circulation between the Liffey and Blackhall Street; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. ***Land Acquisition Cost***

			suitable parallel routes as per GDA Cycle Network Plan. ***Land Acquisition Cost*** - n/a	virtual Bus priority; - Reconfigure North Brunswick Street / Church Street Upper junction and implement any necessary turning restrictions to ensure virtual Bus priority; - Reconfigure Church Street to provide virtual Bus priority for the extent of this route option to May's Lane - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Reconfigure Church Street to provide Bus priority between May Lane and Inns Quay; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. ***Land Acquisition Cost*** - n/a	- Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. ***Land Acquisition Cost*** - n/a	implement any necessary turning restrictions at North Brunswick Street / Church Street junction to facilitate virtual Bus priority; - Reconfigure and implement any necessary turning restrictions at King Street North / Church Street junction to facilitate virtual Bus priority; - Reconfigure Church Street to provide virtual Bus priority for the extent of this route option to May's Lane; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Reconfigure Church Street to provide Bus priority between May Lane and Inns Quay; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. ***Land Acquisition Cost*** - n/a	along suitable parallel routes as per GDA Cycle Network Plan. ***Land Acquisition Cost*** n/a	n/a
	Rank							
	Operation & Maintenance Cost	€2.5m	€3.4m	€3.15m	€3.35m	€3.4m	€2.5m	€2.5m
	Rank							
	Transport Reliability and Quality of Service	Journey Time: 7 - 8 mins Length: 2.2km No. of Signalised Junctions: 7 Major junctions to be negotiated at: • Navan Road / Old Cabra Road; • Old Cabra Road / North Circular; • Prussia /Aughrim Street; • Stoneybatter / King Street North; • King Street North/ Queen Street; • Luas Crossing;	Journey Time: 11-12 mins Length: 3.4km No. Of Signalised Junctions: 9 Major junctions to be negotiated at: • Navan Road /Old Cabra Road; • Old Cabra Road / North Circular Road; • North Circular Road or Prussia Street / Grangegorman Service Road; • Broadstone / Constitution Hill; • North Brunswick Street / Church Street;	Journey Time 9-10 mins Length: 2.8km No. Of Signalised Junctions: 10 Major junctions to be negotiated at: • Navan Road /Old Cabra Road; • Old Cabra Road / North Circular Road; • Prussia / Aughrim Street; • Stoneybatter / King Street North; • King Street North / Queen Street ; • George's Place /	Journey Time: 11-12 mins Length: 3km No. Of Signalised Junctions: 8 Major junctions to be negotiated at: • Navan Road /Old Cabra Road; • Old Cabra Road / North Circular Road; • North Circular Road or Prussia Street / Grangegorman Service Road; • Grangegorman Road Lower / North Brunswick Street; • George's Place / King	Journey Time: 11-12 mins Length: 3.4km No. Of Signalised Junctions: 10 Major junctions to be negotiated at: • Navan Road /Old Cabra Road; • Old Cabra Road / North Circular Road; • North Circular Road or Prussia Street / Grangegorman Service Road; • Grangegorman Lower / North	Journey Time: 8-9 mins Length: 2.6km No. of Signalised Junctions: 9 Major junctions to be negotiated at: • Navan Road / Old Cabra Road; • Old Cabra Road / North Circular; • Prussia /Aughrim Street; • Stoneybatter / North Brunswick Street; • North Brunswick Street/George's Lane;	Journey Time: 8-9 mins Length: 2.4km No. of Signalised Junctions: 10 Major junctions to be negotiated at: • Navan Road / Old Cabra Road; • Old Cabra Road / North Circular; • Prussia /Aughrim Street; • Stoneybatter / North Brunswick Street; • Blackhall Place/King Street North;

		• Quays Crossing.	• King Street North / Church Street; • Red Line Luas Crossing; • Church Street / Arran Quay.	North Brunswick Street; • North Brunswick Street / Church Street; • King Street North / Church Street; • Luas Crossing; • Church Street / Arran Quay.	Street North; • King Street North / Blackhall Place; • Luas Crossing; • Quays Crossing.	Brunswick Street; • George's Place / King Street North; • North Brunswick Street/ Church Street; • King Street North / Church Street; • Luas Crossing; • Quays Crossing.	• George's Lane/ Queen Street; • Blackhall Street/Backhall Place • Luas Crossing; • Quays Crossing.	• King Street North/ Queen Street; • Queen Street/Blackhall Street; • Blackhall Street/Backhall Place • Luas Crossing; • Quays Crossing.
	Rank							
	Land Use Integration	Could consolidate and enhance the inner city by linking the critical mass clusters of Grangegorman, Stoneybatter and Smithfield, enhancing and complimenting current regeneration in said areas, in compliance with SC1 of the Dublin City Development Plan. Could improve the physical integration and regeneration of Manor Street/Stoneybatter as important street/radial routes in the redevelopment of the SDRA 11 area, as per Dublin City Development Plan.	As per the Public Realm Strategy: *Grangegorman – Connections with the City*, this project could integrate the Grangegorman development into the surrounding districts and the city centre. However the conversion of the internal service road to accommodate a CBC will create a sense of segregation between the campus lands north and south of the service road due to the significant volumes of bus traffic redirected from Stoneybatter. Redirecting all buses away from the centre of Stoneybatter will negatively impact the integration of the village with the surrounding areas.	Could consolidate and enhance the inner city by linking the critical mass clusters of Grangegorman, Stoneybatter and Smithfield, enhancing and complimenting current regeneration in said areas, in compliance with SC1 of the Dublin City Development Plan. Could improve the physical integration and regeneration of Manor Street/Stoneybatter as important street/radial routes in the redevelopment of the SDRA 11 area, as per Dublin City Development Plan.	As per the Public Realm Strategy: *Grangegorman – Connections with the City*, this project could integrate the Grangegorman development into the surrounding districts and the city centre. However the conversion of the internal service road to accommodate a CBC will create a sense of segregation between the campus lands north and south of the service road due to the significant volumes of bus traffic redirected from Stoneybatter. Redirecting all buses away from the centre of Stoneybatter will negatively impact the integration of the village with the surrounding areas..	As per the Public Realm Strategy: *Grangegorman – Connections with the City*, this project could integrate the Grangegorman development into the surrounding districts and the city centre. However the conversion of the internal service road to accommodate a CBC will create a sense of segregation between the campus lands north and south of the service road due to the significant volumes of bus traffic redirected from Stoneybatter. Redirecting all buses away from the centre of Stoneybatter will negatively impact the integration of the village with the surrounding areas.	Could consolidate and enhance the inner city by linking the critical mass clusters of Grangegorman, Stoneybatter and Smithfield, enhancing and complimenting current regeneration in said areas, in compliance with SC1 of the Dublin City Development Plan. Could improve the physical integration and regeneration of Manor Street/Stoneybatter as important street/radial routes in the redevelopment of the SDRA 11 area, as per Dublin City Development Plan.	Could consolidate and enhance the inner city by linking the critical mass clusters of Grangegorman, Stoneybatter and Smithfield, enhancing and complimenting current regeneration in said areas, in compliance with SC1 of the Dublin City Development Plan. Could improve the physical integration and regeneration of Manor Street/Stoneybatter as important street/radial routes in the redevelopment of the SDRA 11 area, as per Dublin City Development Plan.
	Rank							
Integration	Residential Population and Employment Catchments	***Residential Population Catchments*** - 5 minute walk catchment of approximately 8,482 - 10 minute walk catchment of approximately 20,800 - 15 minute walk catchment of approximately 43,215 ***Employment catchments*** 15 minute walk catchment of approximately 28,074	***Residential Population Catchments*** - 5 minute walk catchment of approximately 7,593 - 10 minute walk catchment of approximately 27,730 - 15 minute walk catchment of approximately 52,924 ***Employment catchments*** 15 minute walk catchment of approximately 44,207	***Residential Population Catchments*** - 5 minute walk catchment of approximately 9,696 - 10 minute walk catchment of approximately 25,088 - 15 minute walk catchment of approximately 48,965 ***Employment catchments*** 15 minute walk catchment of approximately 41,591	***Residential Population Catchments*** - 5 minute walk catchment of approximately 7,161 - 10 minute walk catchment of approximately 21,375 - 15 minute walk catchment of approximately 44,694 ***Employment catchments*** 15 minute walk catchment of approximately 27,875	***Residential Population Catchments*** - 5 minute walk catchment of approximately 10,198 - 10 minute walk catchment of approximately 26,244 - 15 minute walk catchment of approximately 52,477 ***Employment catchments*** 15 minute walk catchment of approximately 42,785	***Residential Population Catchments*** - 5 minute walk catchment of approximately 8,482 - 10 minute walk catchment of approximately 20,800 - 15 minute walk catchment of approximately 43,215 ***Employment catchments*** 15 minute walk catchment of approximately 28,074	***Residential Population Catchments*** - 5 minute walk catchment of approximately 8,482 - 10 minute walk catchment of approximately 20,800 - 15 minute walk catchment of approximately 43,215 ***Employment catchments*** 15 minute walk catchment of approximately 28,074
	Rank							
	Transport Network Integration	Integration with Luas Red Line at Smithfield / Collins Barracks; Almost directly serves existing Blanchardstown QBC corridor.	Integration with Luas Red Line at the Four Courts; Provides opportunity for integration with the Luas Cross City at Grangegorman / Broadstone; Directly serves existing	Integration with Luas Red Line at the Four Courts; Almost directly serves existing Blanchardstown QBC corridor.	Integration with Luas Red Line at Smithfield / Collins Barracks; Provides opportunity for integration with the Luas Cross City at Grangegorman; Almost directly serves existing Blanchardstown QBC corridor	Integration with Luas Red Line at the Four Courts; Provides opportunity for integration with the Luas Cross City at Grangegorman; Almost directly serves existing Blanchardstown	Integration with Luas Red Line at Smithfield / Collins Barracks; Almost directly serves existing Blanchardstown QBC corridor.	Integration with Luas Red Line at Smithfield / Collins Barracks; Almost directly serves existing Blanchardstown QBC corridor.

			Blanchardstown QBC corridor.		apart from Grangegorman section.	QBC corridor apart from Grangegorman section.		
	Rank							
	Cycling integration	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along the full extent of the route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along 51% of this route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along 64% of this route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along 50% of this route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along 52% of this route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along the full extent of the route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along the full extent of the route.
	Rank							
	Traffic Network Integration	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on Manor Street and the Old Cabra Road (R147); Bus priority through Stoneybatter would have an adverse impact on through traffic and local traffic; New bus lanes could conflict with the inner orbital traffic route at Blackhall Place and Queen Street.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on the Old Cabra Road (R147), Prussia Street or North Circular Road; New bus lanes could conflict with the major north – south traffic route on Church Street (N1) and Constitution Hill (R108); Bus priority through Church Street would have an adverse impact on through traffic and local traffic.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on Manor Street and the Old Cabra Road (R147); New bus lanes could conflict with the major east-west outer orbital traffic route on North Circular Road; Bus priority through Stoneybatter would have an adverse impact on through traffic and local traffic. New bus lanes could conflict with the major north – south traffic route on Church Street (N1); Bus priority through Church Street would have an adverse impact on through traffic and local traffic.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on the Old Cabra Road (R147), Prussia Street or North Circular Road; New bus lanes could conflict with inner orbital traffic route at Blackhall Place and Queen Street.	The introduction of some turning movement restrictions for general traffic may be required to increase bus and along the route. New bus lanes could conflict with the major north – south traffic route on the Old Cabra Road (R147), Prussia Street or North Circular Road; New bus lanes could conflict with the major north – south traffic route on Church Street (N1); Bus priority through Church Street would have an adverse impact on through traffic and local traffic.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on Manor Street and the Old Cabra Road (R147); Bus priority through Stoneybatter would have an adverse impact on through traffic and local traffic; New bus lanes could conflict with the inner orbital traffic route at Blackhall Place and Queen Street.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on Manor Street and the Old Cabra Road (R147); Bus priority through Stoneybatter would have an adverse impact on through traffic and local traffic; New bus lanes could conflict with the inner orbital traffic route at Blackhall Place and Queen Street.
	Rank							
Accessibility and Social Inclusion	Key Trip Attractors (Education/Health/Commercial/Employment)	***Hospitals*** - n/a ***Education*** - DIT Grangegorman; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School; - Law Society of Ireland; - St Paul's CBS Brunswick Street North. ***Retail / Leisure*** - Food Outlets / Restaurants / Pubs / Shops on Prussia Street / Manor Street / Stoneybatter; - Park Shopping Centre Prussia Street;	***Hospitals*** - n/a ***Education*** - DIT Grangegorman; - King's Inn; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School. ***Retail / Leisure*** - Food Outlets / Restaurants / Shops on Prussia Street; - Park Shopping Centre Prussia Street; - St. Michan's Church; - Jameson Distillery Smithfield. ***Employment***	***Hospitals*** - n/a ***Education*** - DIT Grangegorman; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School; - St Paul's CBS Brunswick Street North. ***Retail / Leisure*** - Food Outlets / Restaurants / Pubs / Shops on Prussia Street / Manor Street / Stoneybatter; - Jameson Distillery Smithfield; - St. Michan's Church.	***Hospitals*** - n/a ***Education*** - DIT Grangegorman; - Dublin 7 Educate Together National School; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Law Society of Ireland; - St Paul's CBS Brunswick Street North. ***Retail / Leisure*** - Food Outlets / Restaurants / Shops on Prussia Street; - Jameson Distillery Smithfield; - Park Shopping Centre Prussia Street;	***Hospitals*** - n/a ***Education*** - DIT Grangegorman; - Dublin 7 Educate Together National School; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - St Paul's CBS Brunswick Street North. ***Retail / Leisure*** - Food Outlets / Restaurants / Shops on Prussia Street; - Park Shopping Centre Prussia Street; - Jameson Distillery	***Hospitals*** - n/a ***Education*** - DIT Grangegorman; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School; - Law Society of Ireland; - St Paul's CBS Brunswick Street North. ***Retail / Leisure*** - Food Outlets / Restaurants / Pubs / Shops on Prussia Street / Manor Street / Stoneybatter;	***Hospitals*** - n/a ***Education*** - DIT Grangegorman; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School; - Law Society of Ireland; - St Paul's CBS Brunswick Street North. ***Retail / Leisure*** - Food Outlets / Restaurants / Pubs / Shops on Prussia Street / Manor Street / Stoneybatter;

		- National Museum of Ireland; Decorative Arts & History; - Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - Generator Hostel Smithfield; - Jameson Distillery Smithfield. ***Employment*** - City Centre generally; - DIT Grangegorman.	- City Centre generally; - DIT Grangegorman.	***Employment*** - City Centre generally; - DIT Grangegorman.	- Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - National Museum of Ireland; Decorative Arts & History; - Generator Hostel Smithfield. ***Employment*** - City Centre generally; - DIT Grangegorman.	Smithfield; - St. Michan's Church; - Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - Generator Hostel Smithfield. ***Employment*** - City Centre generally; - DIT Grangegorman.	- Park Shopping Centre Prussia Street; - National Museum of Ireland; Decorative Arts & History; - Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - Generator Hostel Smithfield; - Jameson Distillery Smithfield. ***Employment*** - City Centre generally; - DIT Grangegorman.	- Park Shopping Centre Prussia Street; - National Museum of Ireland; Decorative Arts & History; - Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - Generator Hostel Smithfield; - Jameson Distillery Smithfield. ***Employment*** - City Centre generally; - DIT Grangegorman.
	Rank	🟩	🟧	🟧	🟧	🟧	🟩	🟩
	Deprived Geographic Areas	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and Blackhall Place.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and east of Church Street.	This route option directly serves all areas within the Dublin North West Inner City RAPID Area.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and Blackhall Place.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and east of Church Street.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and Blackhall Place.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and Blackhall Place.
	Rank	🟧	🟧	🟢	🟧	🟧	🟧	🟧
Safety	Road User Safety	No. of Junctions: 7 1 left turn movement and 1 right turn movement inbound; 0 turn movements outbound. This route follows heavily trafficked roads along its entire length, with significant volumes of cyclists as per the GDA Cycle Network Plan.	No. of Junctions: 10 2 right turn movements and 2 left turn movement inbound; 1 right turn movements and 2 left turn movements outbound. Approximately 38% of this route option makes use of lightly trafficked roads.	No. of Junctions: 10 2 left turn movements and 2 right turn movements inbound; 1 left turn movement and 1 right turn movement outbound. This route follows heavily trafficked roads along its entire length.	No. of Junctions: 7 1 left turn movement and 1 right turn movements inbound; 2 left turn movements and 2 right turn movements outbound; Approximately 47% of this route option makes use of lightly trafficked roads.	No. of Junctions: 7 2 left turn movement and 2 right turn movements inbound; 2 right turn movement and 2 left turn movements outbound; Approximately 41% of this route option makes use of lightly trafficked roads.	No. of Junctions: 9 2 left turn movement and 2 right turn movement inbound; 0 turn movements outbound. This route follows heavily trafficked roads along its entire length, with significant volumes of cyclists as per the GDA Cycle Network Plan.	No. of Junctions: 9 2 left turn movement and 2 right turn movement inbound; 0 turn movements outbound. This route follows heavily trafficked roads along its entire length, with significant volumes of cyclists as per the GDA Cycle Network Plan.
	Rank	🟧	🟢	🟥	🟩	🟧	🟥	🟥
	Pedestrian Safety	Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road. There is some increased potential for conflict with pedestrians through Stoneybatter due to the nature as an urban village centre.	Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road. There is significant increased potential for conflict with pedestrians through the Grangegorman Campus due to the open nature of the campus.	Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road. There is some increased potential for conflict with pedestrians through Stoneybatter due to the nature as an urban village centre.	Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road. There is significant increased potential for conflict with pedestrians through the Grangegorman Campus due to the open nature of the campus.	Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road. There is significant increased potential for conflict with pedestrians through the Grangegorman Campus due to the open nature of the campus.	Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road. There is some increased potential for conflict with pedestrians through Stoneybatter due to the nature as an urban village centre.	Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road. There is some increased potential for conflict with pedestrians through Stoneybatter due to the nature as an urban village centre.
	Rank	🟢	🟧	🟢	🟧	🟧	🟢	🟢
Physical Activity	Physical Activity	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨	🟨

Environment	Archaeology and Cultural Heritage	Approximately 60% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are three recorded sub-constraints located along the path or immediately adjacent to the route option.	Approximately 50% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are 6 recorded sub-constraints located along the path or immediately adjacent to the route option. Part of the route option will run through greenfield associated with the former hospital at Grangegorman, which increases the potential for archaeological remains to be present beneath the ground level with no surface expression.	Approximately 70% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are 8 recorded sub-constraints located along the path or immediately adjacent to the route option.	Approximately 40% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are 2 recorded sub-constraints located along the path or immediately adjacent to the route option. Part of the route option will run through greenfield associated with the former hospital at Grangegorman, which increases the potential for archaeological remains to be present beneath the ground level with no surface expression.	Approximately 40% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are 9 recorded sub-constraints located along the path or immediately adjacent to the route option. Part of the route option will run through greenfield associated with the former hospital at Grangegorman, which increases the potential for archaeological remains to be present beneath the ground level with no surface expression.	Approximately 60% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are three recorded sub-constraints located along the path or immediately adjacent to the route option.	Approximately 60% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are three recorded sub-constraints located along the path or immediately adjacent to the route option.
	Rank	🟧	🟧	🟥	🟩	🟩	🟧	🟧
	Architectural Heritage	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨	🟨
	Flora & Fauna	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨	🟨
	Soils and Geology	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨	🟨
	Hydrology	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨	🟨
	Landscape and Visual	This route option passes through Stoneybatter, an original Dublin inner-city urban village. The town is lined with historic Georgian and red bricked buildings. There are several existing bus routes traversing through Stoneybatter that it is considered a CBC through the village will have a neutral impact on the Landscape and Visual	This route options avoids travelling through Stoneybatter and instead routes through the Grangegorman Campus and Grangegorman Road Lower which is currently being redeveloped in its entirety as part of the Grangegorman Masterplan. It is considered that the construction of a CBC and rerouting all bus services	This route option passes through Stoneybatter, an original Dublin inner-city urban village. The town is lined with historic Georgian and red bricked buildings. There are several existing bus routes traversing through Stoneybatter that it is considered a CBC through the village will have a neutral	This route options avoids travelling through Stoneybatter and instead routes through the Grangegorman Campus and Grangegorman Road Lower which is currently being redeveloped in its entirety as part of the Grangegorman Masterplan. It is considered that the construction of a CBC and rerouting all bus services	This route options avoids travelling through Stoneybatter and instead routes through the Grangegorman Campus and Grangegorman Road Lower which is currently being redeveloped in its entirety as part of the Grangegorman Masterplan. It is considered that the construction of a	This route option passes through Stoneybatter, an original Dublin inner-city urban village. The town is lined with historic Georgian and red bricked buildings. There are several existing bus routes traversing through Stoneybatter that it is considered a CBC through the village will have a neutral	This route option passes through Stoneybatter, an original Dublin inner-city urban village. The town is lined with historic Georgian and red bricked buildings. There are several existing bus routes traversing through Stoneybatter that it is considered a CBC through the village will have a neutral

		through Stoneybatter.	through the campus will have a slightly negative impact on the landscape and visual along the route.	impact on the Landscape and Visual through Stoneybatter..	through the campus will have a slightly negative impact on the landscape and visual along the route.	CBC and rerouting all bus services through the campus will have a slightly negative impact on the landscape and visual along the route.	impact on the Landscape and Visual through Stoneybatter.	impact on the Landscape and Visual through Stoneybatter.
	Rank	🟩	🟧	🟩	🟧	🟧	🟩	🟩
	Air Quality	The proposed bus corridors in this route option have the potential to minimise emissions by allowing buses to move more freely. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operation phase.	This route option would require road widening and hence there is increased potential for dust impacts during construction. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operational phases.	The proposed bus corridors in this route option have the potential to minimise emissions by allowing buses to move more freely. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operation phase.	This route option would require road widening and hence there is increased potential for dust impacts during construction. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operational phases.	This route option would require road widening and hence there is increased potential for dust impacts during construction. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operational phases.	The proposed bus corridors in this route option have the potential to minimise emissions by allowing buses to move more freely. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operation phase.	The proposed bus corridors in this route option have the potential to minimise emissions by allowing buses to move more freely. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operation phase.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨	🟨
	Noise & Vibration	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.
	Rank	🟨	🟨	🟨	🟨	🟨	🟨	🟨
	Land Use Character	This route option will not require land-take, severance or reduction of viability of the existing land-use along its proposed alignment. It is considered that this route option will have a neutral impact on the Land Use Character.	This route option will require land-take to create a route through the Grangegorman Campus via Prussia Street. It will also require widening the internal service road through the campus and severance of the proposed Plaza area on Grangegorman Road Lower. All existing bus services through Stoneybatter will also be diverted through the Grangegorman Campus thereby significantly increasing the vehicular volumes above that originally intended for the internal service road . It is considered that this route will have a slightly negative impact on the Land-Use Character.	This route option will not require land-take, severance or reduction of viability of the existing land-use along its proposed alignment. It is considered that this route option will have a neutral impact on the Land Use Character.	This route option will require land-take to create a route through the Grangegorman Campus via Prussia Street. It will also require widening the internal service road through the campus and severance of the proposed Plaza area on Grangegorman Road Lower. All existing bus services through Stoneybatter will also be diverted through the Grangegorman Campus thereby significantly increasing the vehicular volumes above that originally intended for the internal service road. It is considered that this route will have a slightly negative impact on the Land-Use Character.	This route option will require land-take to create a route through the Grangegorman Campus via Prussia Street. It will also require widening the internal service road through the campus and severance of the proposed Plaza area on Grangegorman Road Lower. All existing bus services through Stoneybatter will also be diverted through the Grangegorman Campus thereby significantly increasing the vehicular volumes above that originally intended for the internal service road. It is considered that this route will have a slightly negative impact on the Land-Use Character.	This route option will not require land-take, severance or reduction of viability of the existing land-use along its proposed alignment. It is considered that this route option will have a neutral impact on the Land Use Character.	This route option will not require land-take, severance or reduction of viability of the existing land-use along its proposed alignment. It is considered that this route option will have a neutral impact on the Land Use Character.
	Rank	🟩	🟧	🟩	🟧	🟧	🟩	🟩

Appendix B – Data Collection

1. Study area visit

Each of the route sections were visited / driven and audited to identify any constraints which may not have been evident from maps and drawings. The site visits enabled a comprehensive evaluation of the route options in terms of their capacity to accommodate of a core bus corridor.

2. Land Use and Planning

The land use assessment was carried out using GIS and examined private and public land along the different route options. This information was used for developing cost estimates for each of the route options, based on the area and nature (public or private) of the land acquisition required. The land use assessment results are presented in the MCA tables in Appendix A.

3. Existing Bus Lanes

A map indicating the existing bus lanes throughout the CBC study area was produced to highlight sections of the corridor already capable of accommodating segregated facilities. Blue routes indicate inbound bus lanes while red routes indicated outbound bus lanes.

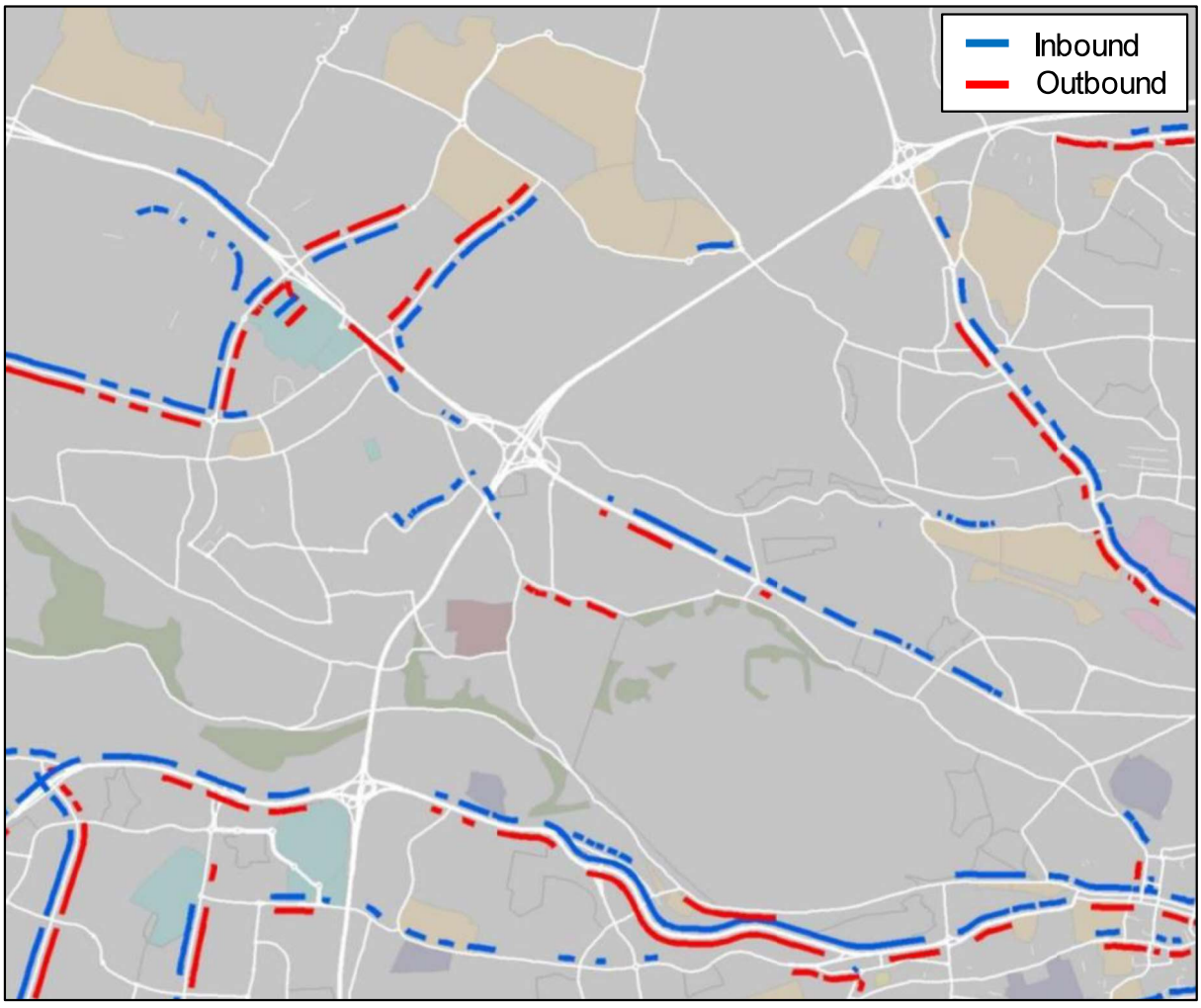


Figure 1: Existing bus lanes within the study area (Source: NTA Core Bus Network Report - Figure 4.4. Existing Bus Infrastructure – North West Dublin)

4. Bus Journey Times

The bus travel times for each scheme option were estimated based on a number of criteria, including;

- Length of segregated bus lane;
- Length of shared bus / traffic lane;
- Number of signalised junctions;
- Number of pedestrian crossings; and
- Number of bus stops.

Due to the large number of route options and calculations, the results of the bus journey time estimates are presented in Appendix C.

5. Road Collision History

The Road Safety Authority database of personal injury accidents was examined to establish if there are any existing safety issues along the route options that were not evident from the site visits. The database provides accident records for the period 2005 to 2013; in terms of location, year, road user type involved (pedestrian, car, cyclist, motorcyclist, bus etc.), circumstances and severity of collision (minor, serious or fatal). The following bus collision history maps indicate the location of incidents along the route options identified within each Study Area Section.

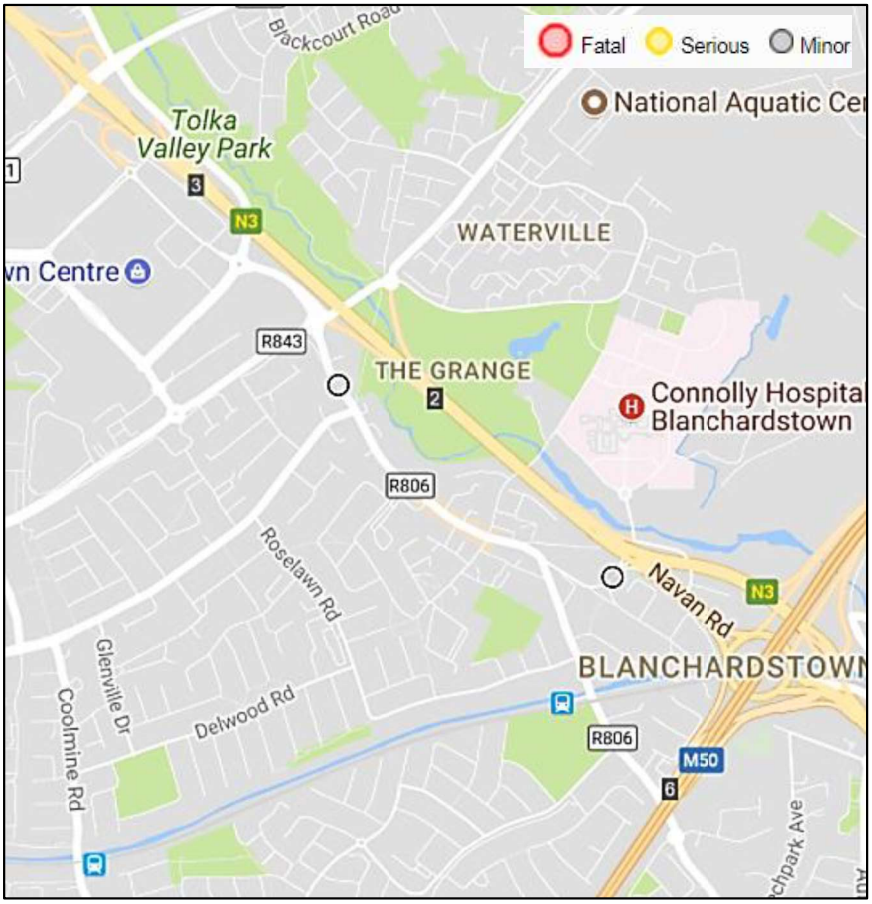


Figure 2: Bus collision history in Study Area Section 1

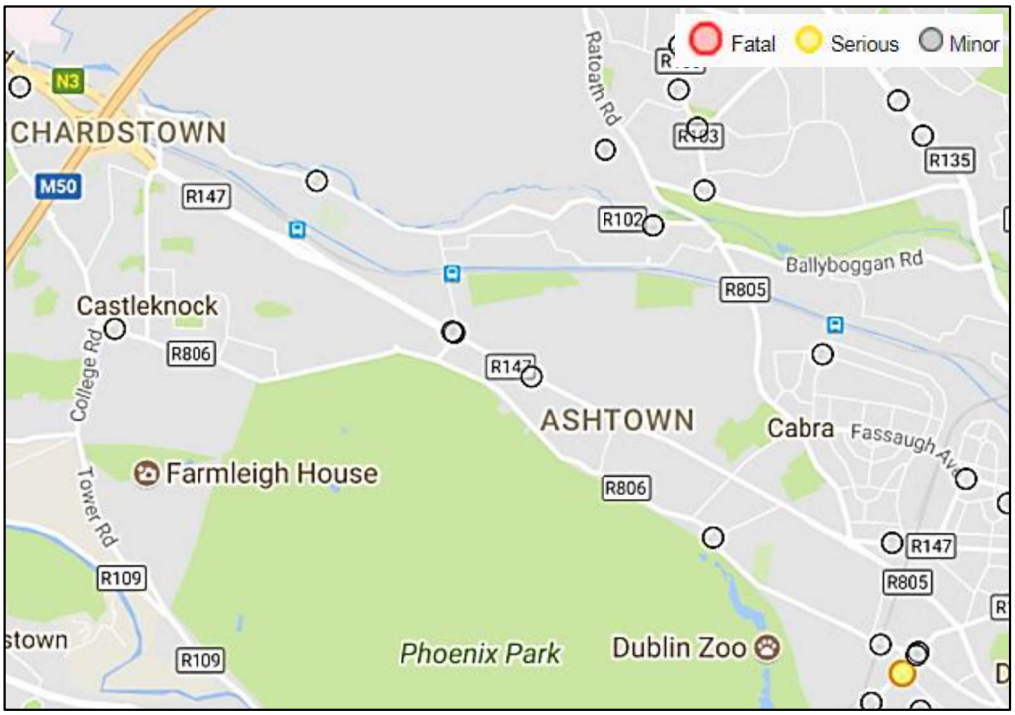


Figure 3: Bus collision history in Study Area Section 2

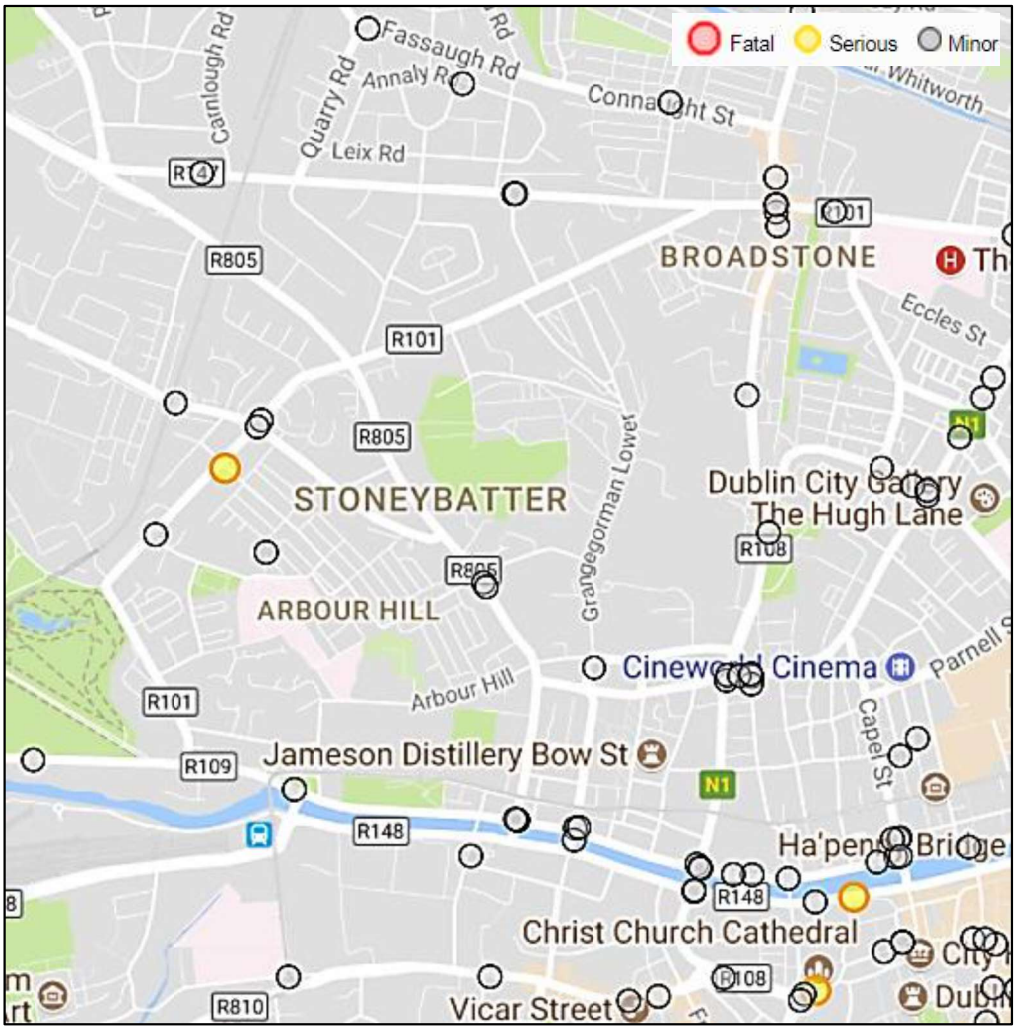


Figure 4: Bus collision history in Study Area Section 3

6. Tree surveys

A visual inspection of existing trees along each route option was carried out to identify tree locations and potential route option impacts. The results of these site observations are discussed within the Mutli Criteria Analysis in Appendix A. Some of the routes options were also surveyed by Dr Phillip Blackstock. Dr. Blackstock's tree survey drawings are contained in a separate stand alone document.

7. Architectural and Archaeological information

Irish Archaeological Consultancy (IAC) and Roughan & O' Donovan (ROD) provided an environmental assessment of the different route options under the following criteria:

- Archaeology and Cultural Heritage
- Architectural Heritage
- Flora & Fauna
- Soils and Geology
- Hydrology
- Landscape and Visual
- Air Quality
- Noise & Vibration
- Land Use Character

The architectural and archaeological assessment results are presented in the MCA tables in Appendix A

8. Route Audit

An assessment along the emerging preferred route option was carried out to identify existing facilities and constraints. The results of this assessment are contained in a report in Appendix D.

9. Parking survey

A parking survey study was carried out to identify the parking conditions in the existing road network. Each route was assessed under the following criteria:

- *Formal Parking:* On-street parking in which marked spaces has been provided. These are spaces in which the Local Authority charges an hourly rate to use.
- *Informal Parking:* On-street parking in which spaces may or may not be marked and in which the Local Authority does not charge for use.
- *Adjacent Parking:* Parking which is accessible to the general public and is located in close proximity to the street. These are spaces in which the Local Authority charges an hourly rate to use.

The results of the parking survey assessment are contained in a report in Appendix E.

10. Cost estimates

A breakdown of the cost estimation process is presented in Appendix F.

Appendix C – Bus Journey Times

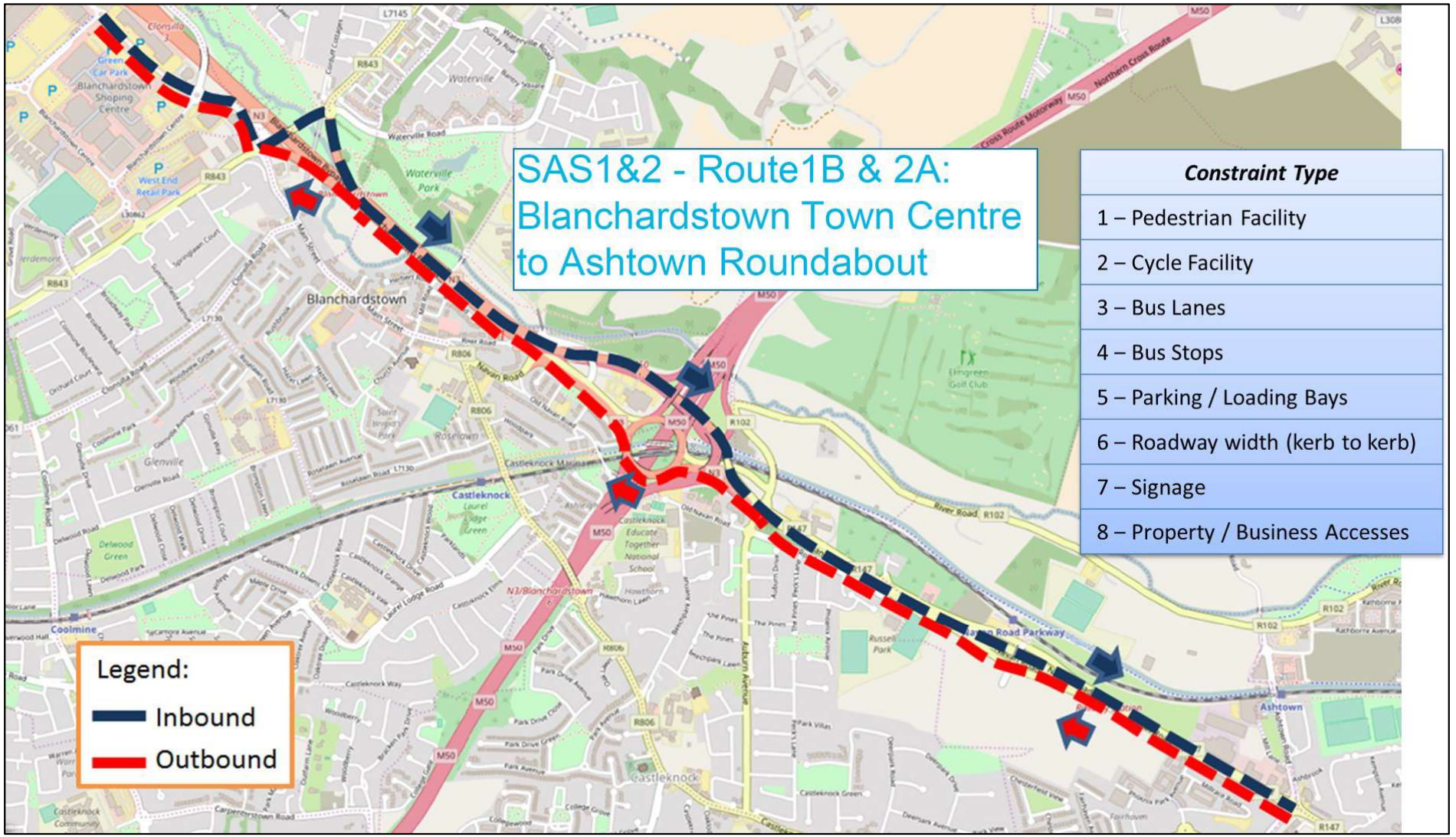
1. SAS 1 Journey Time

Route 1			Scheme Options					
			1A1 and 1A2 inbound	1A1 and 1A2 outbound	1B1 and 1B2 inbound	1B1 and 1B2 outbound	1H1 and 1H2 inbound	1H1 and 1H2 outbound
	KM per Hour	*Average Delay (Minute)*	*Length (KM)/Nr Stops or Junctions*	*Length (KM)/Nr Stops or Junctions*	*Length (KM)/Nr Stops or Junctions*	*Length (KM)/Nr Stops or Junctions*	*Length (KM)/Nr Stops or Junctions*	*Length (KM)/Nr Stops or Junctions*
Total Length			3.50	3.06	2.55	2.35	2.50	2.50
Fully Segregated Bus Lane (50kph top operational speed, travelling at average speed of 30kph)	30		3.50	3.06	2.55	2.35	2.50	2.50
Shared Bus/Cycle Lane	10							
Signalised Junction (Dwell time of 15 seconds per stop on average)		0.25	6	4	6	5	9	9
Pedestrian Crossing (15 second average)		0.25	0	0	0	0	1	1
Bus Stop Dwell Time (15 seconds average)		0.25	2	3	2	3	4	3
Scheme Option Journey Time (Nearest Minutes)			9	8	7	7	9	8

2. SAS 2 Journey Time

Route 2A			Scheme Options		
			2A1 and 2A3 inbound / outbound	2A2 inbound	2A2 outbound
	KM per Hour	*Average Delay (Minute)*	*Length (KM)/Nr Stops or Junctions*	*Length (KM)/Nr Stops or Junctions*	*Length (KM)/Nr Stops or Junctions*
Total Length			4.50	4.50	4.50
Fully Segregated Bus Lane (50kph top operational speed, travelling at average speed of 30kph)	30		4.50	4.25	3.88
Shared Bus/Cycle Lane	10			0.25	0.62
Signalised Junction (Dwell time of 15 seconds per stop on average)		0.25	9	9	9
Pedestrian Crossing (15 second average)		0.25	2	2	2
Bus Stop Dwell Time (15 seconds average)		0.25	9	9	9
Scheme Option Journey Time (Nearest Minutes)			14	15	17

Appendix D – Route Audit


SAS1&2 - Route1B & 2A:
Blanchardstown Town Centre
to Ashtown Roundabout
Constraint Type
1 – Pedestrian Facility
2 – Cycle Facility
3 – Bus Lanes
4 – Bus Stops
5 – Parking / Loading Bays
6 – Roadway width (kerb to kerb)
7 – Signage
8 – Property / Business Accesses
Legend:
Inbound
Outbound
Blanchardstown
Castleknock
Ashtown
Coolmine
Glenville
Waterville
Waterville Park
Elmgreen Golf Club
Russell Park
Castleknock Community
Northern Cross Route
Cross Route Motorway
N3
N1/Blanchardstown
M50
R102
R147
R843
R806
River Road
Navan Road Parkway

Crown Plaza RA– Navan Road

		Ch.5690	Ch.5930	Ch.6170	Ch.6345	Ch.6550	Ch.6700
Section 2: West/Eastbound	1	Footpath facilities				No footpath	
	2	No cycle lane					
	3	No Bus lane					Bus Lane
	4	No Bus Stops	Bus stop	No Bus Stops	Bus stops	No Bus Stops	
	5	No designated parking					
	6	+3m wide carriageway including pedestrian crossing at various locations			+3m wide carriageway		
	7	Some signage on approach to roundabouts and at entrances to car parks					
	8	Accesses to DFS Blanchardstown at various locations			No commercial or residential accesses		

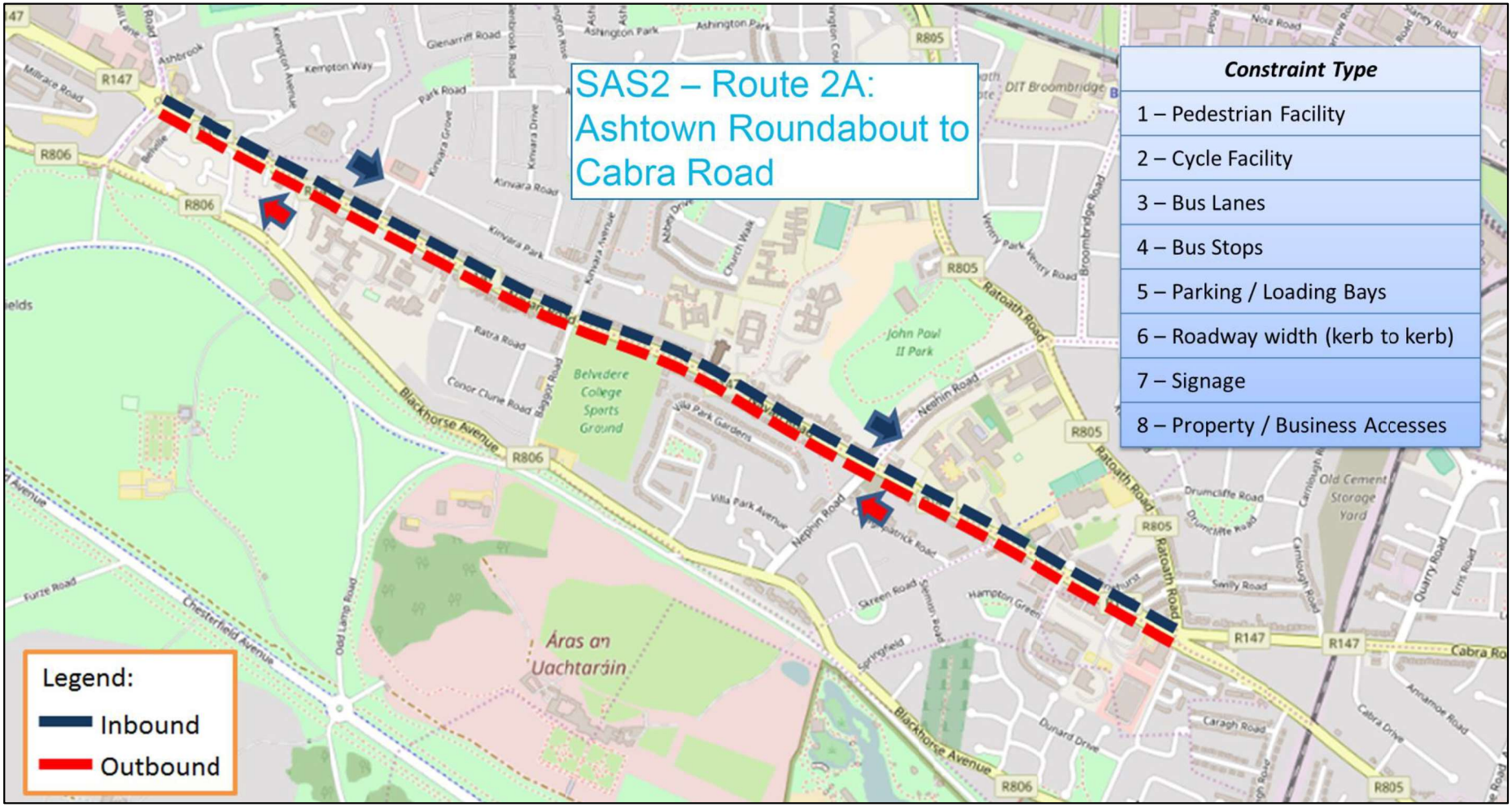
Crown Plaza RA– Navan Road

		Ch.5690	Ch.5930	Ch.6170	Ch.6345	Ch.6550	Ch.6700
Section 2: West/Eastbound	1	Footpath facilities				No footpath	
	2	No cycle lane					
	3	No Bus lane					Bus Lane
	4	No Bus Stops	Bus stop	No Bus Stops	Bus stops	No Bus Stops	
	5	No designated parking					
	6	+3m wide carriageway including pedestrian crossing at various locations		+3m wide carriageway			
	7	Some signage on approach to roundabouts and at entrances to car parks					
	8	Accesses to DFS Blanchardstown at various locations		No commercial or residential accesses			

Dunsink Lane – Halfway House

Ch.8400 | Ch.8800 | Ch.9250 | Ch.9600 | Ch10,000 | Ch.10350

Section 2: West/Eastbound	1	Footpath facilities along majority of route apart from 500m section along westbound carriageway approaching Dunsink Lane and through road at Navan Parkway junction									
	2	No Cycle lane facilities apart from provision of 2-way facilities heading westbound at Navan Parkway junction									
	3	Bus lane									
	4	No Bus Stops	Bus Stop	No Bus Stops	Bus Stops		Bus Stops				
	5	No designated parking along this section of route									
	6	+3m wide carriageway									
	7	Main signage at several locations along this section. Overhead gantries at various locations along westbound carriageway									
	8	Commercial accesses at various locations along this section									


SAS2 – Route 2A: Ashtown Roundabout to Cabra Road
Constraint Type
1 – Pedestrian Facility
2 – Cycle Facility
3 – Bus Lanes
4 – Bus Stops
5 – Parking / Loading Bays
6 – Roadway width (kerb to kerb)
7 – Signage
8 – Property / Business Accesses
Legend:
Inbound
Outbound
R147
R806
R805
Blackhorse Avenue
Ratoath Road
Áras an Uachtaráin
Belvedere College Sports Ground
John Paul II Park
Old Cement Storage Yard
DIT Broombridge
Ashington Park
Kenrpton Way
Park Road
Kinvara Road
Kinvara Park
Ratra Road
Conor Clune Road
Baggot Road
Villa Park Gardens
Villa Park Avenue
Nephin Road
Broombridge Road
Ventry Park
Ventry Road
Drumcliffe Road
Swilly Road
Quarry Road
Erris Road
Cabra Drive
Annamoe Road
Caragh Road
Dunard Drive
Hampton Green
Skreen Road
Springfield
Furze Road
Chesterfield Avenue
Old Lamp Road
Millrace Road
Ashbrook
Glenarriff Road
Kinvara Drive
Kinvara Avenue
Church Walk
Nore Road
Slaney Road

Ashtown RA – Kinvara Avenue

		Ch.10350	Ch.10550	Ch.10750	Ch.10950	Ch.11200	Ch.11400
Section 2: West/Eastbound	1	Footpath facilities westbound and east bound. Trees planted at various locations					
	2	Segregated cycle lane on westbound approach to Halfway house junction . On-road cycle facilities both directions from Kempton Avenue to Kinvara Avenue					
	3	Bus lane in Eastbound lane from Ashtown RA to Kinvara Avenue (apart from approaches to junctions with Ashtown Grove and Kinvara Avenue)					
	4	No Bus Stops	Bus stops	No Bus Stops			
	5	No designated parking					
	6	+3m wide carriageway including pedestrian crossing at various locations					
	7	Some signage at entrances to school and at various locations					
	8	Accesses to Residential estates at various locations along this route					

Kinvara Avenue – Cabra Road

Ch.11400 — Ch.11700 — Ch.12000 — Ch. 12300 — Ch.12600 — Ch.12900

Section 2: West/Eastbound	1	Footpath facilities in both directions					
	2	On road Cycle lane facilities for majority of section					
	3	Inbound Bus Lane along majority of section. No Outbound bus lane					
	4	No Bus Stops	Bus Stop	No Bus Stops		Bus Stop	
	5	No designated parking along this section of route					
	6	+3m wide carriageway					
	7	Main Signage and overhead gantries at several locations along this section of route					
	8	No accesses					

Appendix E – Parking Survey

1. Introduction

AECOM-ROD has been tasked by the National Transport Authority (NTA) to prepare the necessary designs plus planning approval for the Blanchardstown to UCD CBC scheme. This report shall seek to quantify the parking circumstances in the existing road network along the scheme. Parking has been categorised as follows:

- **Formal Parking**: On-street parking in which marked spaces has been provided. These are spaces in which the Local Authority charges an hourly rate to use.
- **Informal Parking:** On-street parking in which spaces may or may not be marked and in which the Local Authority does not charge for use.
- **Adjacent Parking:** Parking which is accessible to the general public and is located in close proximity to the street. These are spaces in which the Local Authority charges an hourly rate to use.
- **Taxi Rank**: On-street parking for taxi cars only.
- **Loading Bay:** On-street bay for loading vehicles only.

2. Legend

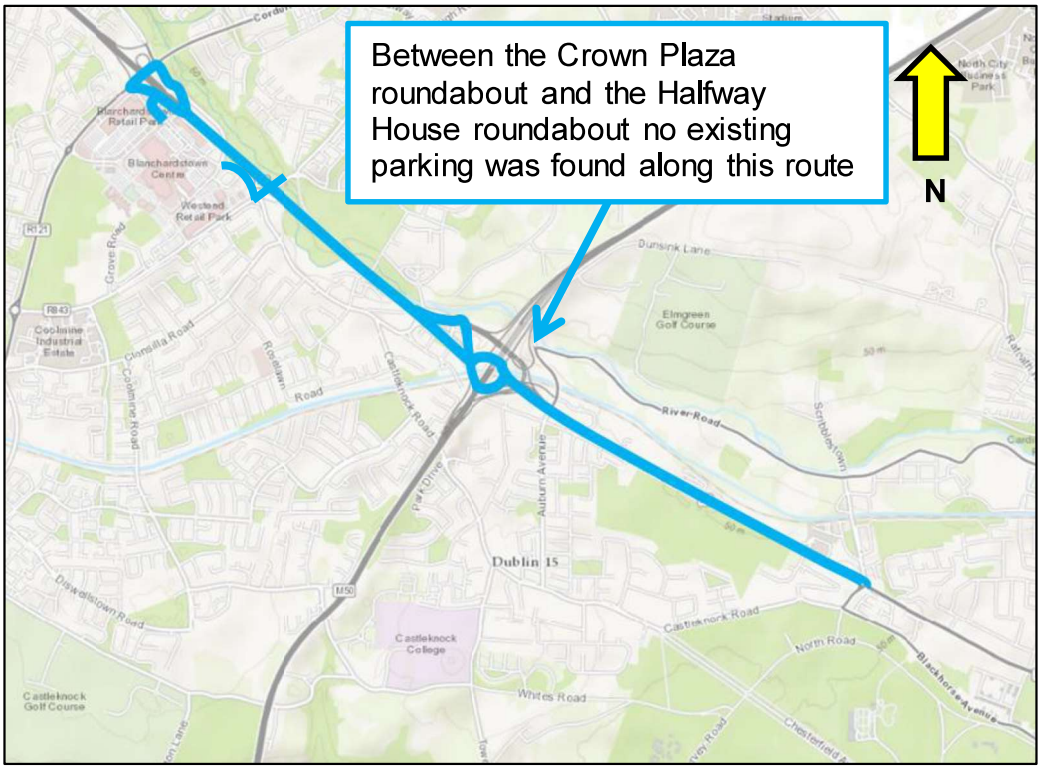
Parking facilities along the scheme are identified using the following colours:

Colour Code	Facility
	No Parking
	Formal Parking
	Informal Parking
	Adjacent Parking
	Taxi Rank
	Loading bay

3. Exclusions and Assumptions

The parking and loading assessment for Sections 4 and 5 will be complete following route selection.

4. SAS1&2 - Route 1A, 1B & 2A: Blanchardstown Town Centre/Crown Plaza Roundabout to Ashtown Roundabout



Blanchardstown Town Centre/Crown Plaza roundabout to upper access/egress from N3 on/off ramp

- No Parking

Upper access/egress from N3 on/off ramp to R121 on ramp taper end

- No Parking

R121 on ramp taper end to Connolly Hospital off-ramp taper

- No Parking

Connolly Hospital off-ramp taper to M50 Roundabout Interchange

- No Parking

M50 Roundabout Interchange

- No Parking

M50 Roundabout Interchange to R102 Interchange

- No Parking

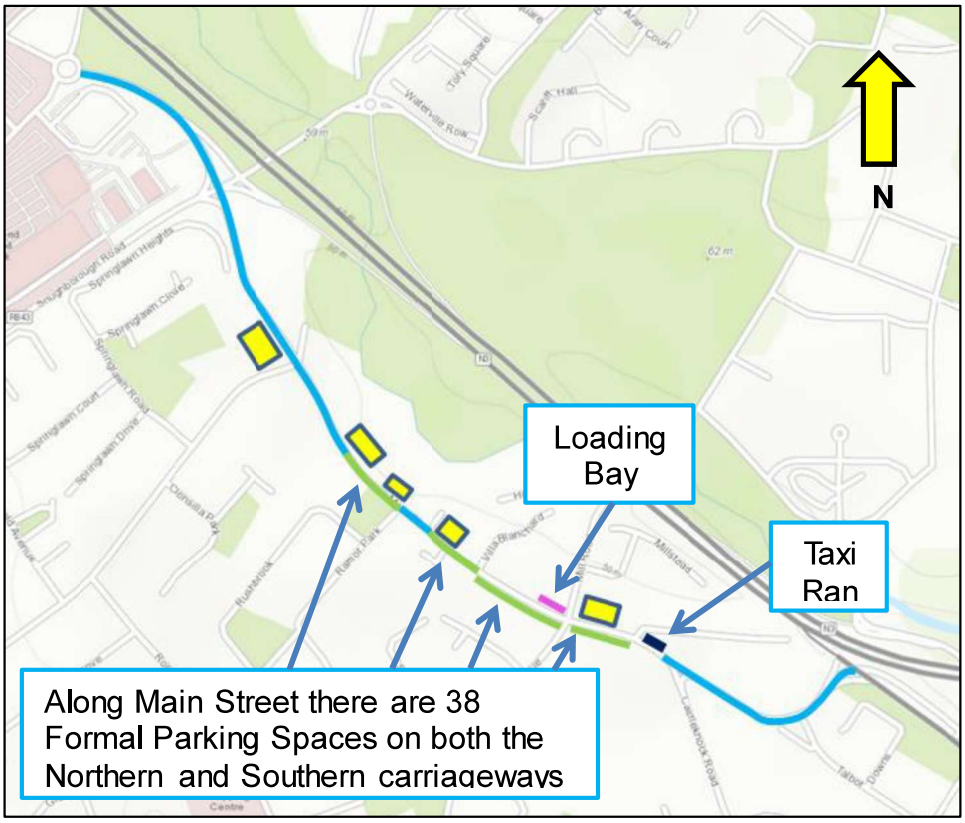
L3020

- No Parking

Snugborough overpass

- No Parking

5. SAS1 – Route 1H: Blanchardstown Town Centre to Dunsink Lane/Auburn Avenue junction



The survey has shown parking facilities at various locations along the length of Main Street and the Navan Road. There are formal, adjacent, taxi rank parking spaces and loading bays as shown on the Figure above. The parking facilities are listed as follows:

L3020/Main Street to Clonsilla Road

- No Formal Parking
- 15 adjacent spaces located at "The Garden House"

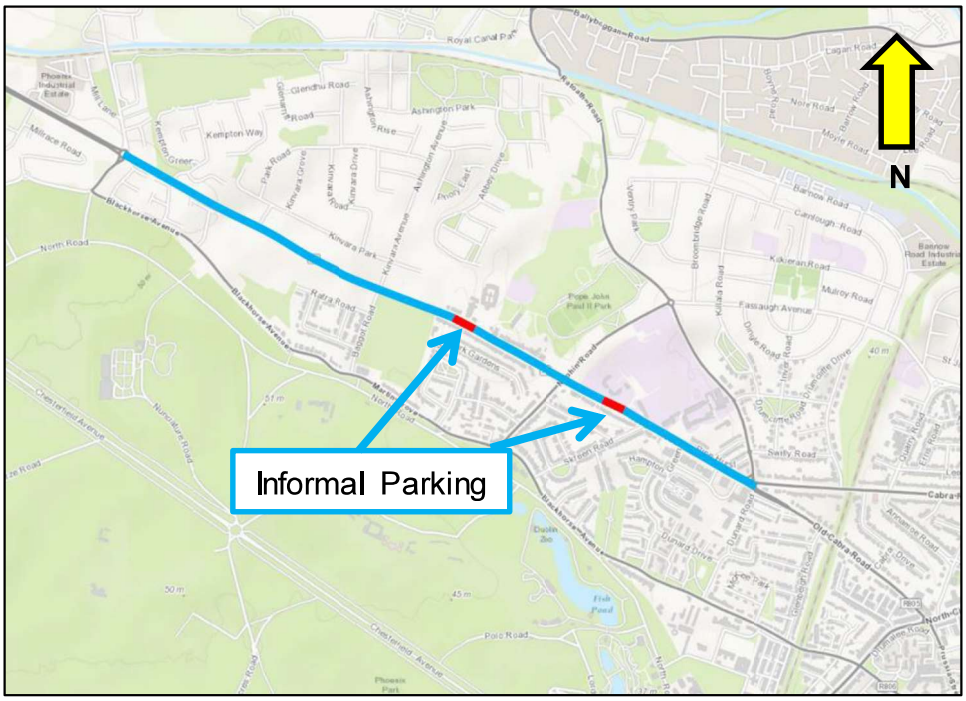
Main Street to Castleknock Road junction

- 38 Formal Parking Spaces (Including 3 Disabled Parking Spaces)
- No Informal Parking Spaces
- 43 Adjacent Spaces at several locations
- 2 Loading Bay spaces
- 2 Taxi Rank Spaces

Navan road from Castleknock Road junction to the N3

- No Parking

6. SAS2 – Route 2A: Ashtown Roundabout to Cabra Road



Ashtown Road Roundabout to Kinvara Avenue/Baggot Junction

- No Parking

Kinvara Avenue/Baggot Junction to Cabra Road

- No Formal Parking
- 4 Informal Parking spaces behind footpath outside "The Brophy" Medical Practise on the North side of the Navan Road.
- 5 Informal Parking Spaces behind footpath outside Our Lady Help of Christians Church on the North side of the Navan Road
- 9 Informal Parking Spaces from 106 Navan Rd to 90 Navan Rd. 80m total length of Informal Parking. This distance is inclusive of 8 car entrances to adjacent properties.
- No Taxi Ranks
- No Loading Bays

Appendix F – Cost Estimate

SAS 1 Scheme Option 1A1					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)	0.670			€ 435,500
2			0.110		€ 143,000
3			0.050		€ 65,000
4				0.100	€ 250,000
5				0.175	€ 437,500
6				1.525	€ 3,812,500
7			0.045		€ 58,500
8		0.090			€ 58,500
9				1.565	€ 3,912,500
10				0.175	€ 437,500
11				0.100	€ 250,000
12			0.040		€ 52,000
13			0.160		€ 208,000
14		0.640			€ 416,000
				Total of Route Sections Cost	**€ 10,536,500**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1				€ 0
No of CL2		7		€ 1,610,000
No of CL3				€ 0
			Total of Junctions Lower Costs	**€ 1,610,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).	445	667,500 €
Sum of Commercial along Route (sq.m).		0 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).		0 €
		Total of Route Junctions Cost	**€ 667,500**

Structural Works Number	Construction costs (EUR / sq.m)	Structural Cost
	€3,500	
1	775	1,162,500 €
2	225	337,500 €
		Total of Structural Works Cost	**€ 1,500,000**
SAS 1 Scheme Option 1A1	**Total Cost =**	**€ 14,314,000**

SAS 1 Scheme Option 1A2					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)	0.670			€ 435,500
2		0.110			€ 71,500
3		1.850			€ 1,202,500
4		0.045			€ 29,250
5		0.090			€ 58,500
6		1.880			€ 1,222,000
7		0.160			€ 104,000
8		0.640			€ 416,000

Total of Route Sections Cost	**€ 3,539,250**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	3			€ 210,000
No of CL2		4		€ 920,000
No of CL3				€ 0

Total of Junctions Lower Costs	**€ 1,130,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).		0 €
Sum of Commercial along Route (sq.m).		0 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).		0 €

Total of Route Junctions Cost	**€ 0**
SAS 1 Scheme Option 1A2 **Total Cost =**	**€ 4,669,250**

SAS1 Scheme Option 1B1					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)	0.670			€ 435,500
2			0.110		€ 143,000
3			0.050		€ 65,000
4				0.100	€ 250,000
5				0.175	€ 437,500
6				0.730	€ 1,825,000
7				0.235	€ 587,500
8				0.680	€ 1,700,000
9				0.175	€ 437,500
10				0.100	€ 250,000
11			0.040		€ 52,000
12			0.160		€ 208,000
13		0.640			€ 416,000
				Total of Route Sections Cost	**€ 6,807,000**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1				€ 0
No of CL2		7		€ 1,610,000
No of CL3				€ 0
			Total of Junctions Lower Costs	**€ 1,610,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).	445	667,500 €
Sum of Commercial along Route (sq.m).		0 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).		0 €
		Total of Route Junctions Cost	**€ 667,500**

Structural Works Number	Construction costs (EUR / sq.m)	Structural Cost
	€3,500	
1	775	600,625 €
2	225	50,625 €
		Total of Structural Works Cost	**€ 651,250**
SAS1 Scheme Option 1B1	**Total Cost =**	**€ 9,735,750**

SAS1 Scheme Option 1B2					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)	0.670			€ 435,500
2		0.110			€ 71,500
3		1.055			€ 685,750
4			0.235		€ 305,500
5		0.140			€ 91,000
6		0.995			€ 646,750
7		0.160			€ 104,000
8		0.640			€ 416,000

Total of Route Sections Cost	**€ 1,166,750**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	3			€ 210,000
No of CL2		4		€ 920,000
No of CL3				€ 0

Total of Junctions Lower Costs	**€ 1,130,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).		0 €
Sum of Commercial along Route (sq.m).		0 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).		0 €

Total of Route Junctions Cost	**€ 0**

SAS1 Scheme Option 1B2	**Total Cost =**	**€ 2,296,750**

SAS1 Scheme Option 1H1					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)	0.670			€ 435,500
2			0.110		€ 143,000
3			0.130		€ 169,000
4				0.065	€ 162,500
5			0.200		€ 260,000
6				0.090	€ 225,000
7			0.155		€ 201,500
8				0.250	€ 625,000
9				0.100	€ 250,000
10			0.125		€ 162,500
11				0.235	€ 587,500
12			0.110		€ 143,000
13		0.640			€ 416,000

Total of Route Sections Cost	**€ 1,146,500**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	4			€ 280,000
No of CL2		2		€ 460,000
No of CL3				€ 0

Total of Junctions Lower Costs	**€ 2,150,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).	1525	2,287,500 €
Sum of Commercial along Route (sq.m).		0 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).		0 €

Total of Route Junctions Cost	**€ 2,287,500**

Structural Works Number	Construction costs (EUR / sq.m)	Structural Cost
	€3,500	
1		0 €

Total of Structural Works Cost	**€ 0**

SAS1 Scheme Option 1H1	**Total Cost =**	**€ 5,584,000**

SAS1 Scheme Option 1H2					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)	0.670			€ 435,500
2		0.110			€ 71,500
3			0.195		€ 253,500
4			0.695		€ 903,500
5			0.110		€ 143,000
6		0.125			€ 81,250
7		0.235	0.235		€ 305,500
8		0.110			€ 71,500
9		0.640			€ 416,000

Total of Route Sections Cost	**€ 1,017,250**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	4			€ 280,000
No of CL2		2		€ 460,000
No of CL3				€ 0

Total of Junctions Lower Costs	**€ 740,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).		0 €
Sum of Commercial along Route (sq.m).		0 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).		0 €

Total of Route Junctions Cost	**€ 0**

SAS1 Scheme Option 1H2	**Total Cost =**	**€ 1,757,250**

SAS2 Scheme Option 2A1					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)		0.690		€ 897,000
2				0.145	€ 362,500
3			0.215		€ 279,500
4				0.610	€ 1,525,000
5			0.675		€ 877,500
6			0.205		€ 266,500
7			0.365		€ 474,500
8			0.545		€ 708,500
9			0.690		€ 897,000
10				0.145	€ 362,500

Total of Route Sections Cost	**€ 6,650,000**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	1			€ 70,000
No of CL2		4		€ 920,000
No of CL3				€ 0

Total of Junctions Lower Costs	**€ 990,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).	1942	2,912,355 €
Sum of Commercial along Route (sq.m).	788	1,182,161 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).	119	178,725 €

Total of Route Junctions Cost	**€ 4,273,241**

SAS2 Scheme Option 2A1	**Total Cost =**	**€ 11,913,741**

SAS2 Scheme Option 2A2					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)		2.325		€ 3,022,500
2			0.210		€ 273,000
3			0.365		€ 474,500
4			0.550		€ 715,000

Total of Route Sections Cost	**€ 4,485,000**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	1			€ 70,000
No of CL2		4		€ 920,000
No of CL3				€ 0

Total of Junctions Lower Costs	**€ 990,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).		0 €
Sum of Commercial along Route (sq.m).		0 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).		0 €

Total of Route Junctions Cost	**€ 0**

SAS2 Scheme Option 2A2	**Total Cost =**	**€ 5,475,000**

SAS2 Scheme Option 2A1					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)		0.690		€ 897,000
2				0.145	€ 362,500
3			0.215		€ 279,500
4				0.610	€ 1,525,000
5			0.675		€ 877,500
6			0.205		€ 266,500
7			0.365		€ 474,500
8			0.545		€ 708,500
9			0.690		€ 897,000
10				0.145	€ 362,500

Total of Route Sections Cost	**€ 6,650,000**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	1			€ 70,000
No of CL2		4		€ 920,000
No of CL3				€ 0

Total of Junctions Lower Costs	**€ 990,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).	1518	2,277,000 €
Sum of Commercial along Route (sq.m).	664	995,250 €
Sum of Agricultural along Route (sq.m).		
Sum of Industrial along Route (sq.m).	119	178,725 €

Total of Route Junctions Cost	**€ 3,450,975**

SAS2 Scheme Option 2A1	**Total Cost =**	**€ 11,091,475**

Appendix G – Infrastructural Cost Estimate

See separate report

1. Scheme Option 1A1

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section would involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section would involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital access/egress junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 160m along the Connolly Hospital access/egress ramp, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 50m on the south-west N3 carriageway from the Talbot Downs residential estate entrance junction, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For approximately 40m along the access ramp from the N3 north-east carriageway to Connolly hospital, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 100m approximately, on both carriageways of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing would be needed along parts of the route.

For the next 175m approximately, on both carriageways of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To

accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For approximately 1.525km on the south-western carriageway of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route. Works also include the widening of existing structures including the Mill Road overpass and the River Tolka culvert. Some third party landtake would be required to facilitate the provision of a retaining wall to the rear of properties on Mill Road.

For approximately 1.565km on the north-eastern carriageway of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route. Works also include the widening of existing structures including the Mill Road overpass and the River Tolka culvert.

Moderate upgrade modifications would be required at the N3 off ramp/Blanchardstown access/egress/Blanchardstown Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 90m on the Blanchardstown Road overpass, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at both Blanchardstown Road/Old Navan Road/N3 access/egress junctions i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 45m between the N3 off ramp/Blanchardstown access/egress/Blanchardstown Road junction and the Crowne Plaza roundabout, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Crowne Plaza roundabout i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

2. Scheme Option 1A2

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital access/egress ramp junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 160m along the Connolly Hospital access/egress ramp, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital entrance junction, i.e. the works associated with this categorization includes: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 1.85km from the Talbot Downs residential estate entrance junction along the N3 north-western carriageway and off ramp at Blanchardstown Town Centre, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 1.88km along the N3 access ramp at Blanchardstown Town Centre and the N3 south-western carriageway, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the N3 off ramp/Blanchardstown access/egress/Blanchardstown Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 90m on the Blanchardstown Road overpass, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at both Blanchardstown Road/N3 access/egress ramp junctions, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 45m between N3 off ramp/Blanchardstown access/egress/Blanchardstown Road junction and the Crowne Plaza roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Crowne Plaza roundabout, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

3. Scheme Option 1B1

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital access/egress junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 160m, along the Connolly Hospital access/egress ramp works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, the proposed works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 50m, travelling north-west along the N3 from the Talbot Downs residential estate entrance junction works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For approximately 40m along the access ramp from the N3 north-east carriageway to Connolly hospital, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 100m approximately, on both carriageways of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing would be needed along parts of the route.

For the next 175m approximately, on both carriageways of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To

accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For approximately 730m, on the south-western carriageway of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route. Works also include the widening of existing structures including the Mill Road overpass and the River Tolka culvert. Some 3rd party land take would be required to facilitate the provision of a retaining wall to the rear of properties on Mill Road.

For 680m approximately, on the north-eastern carriageway of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route. Works also include the widening of existing structures including the Mill Road overpass and the River Tolka culvert.

Moderate upgrade modifications would be required at the Snugborough Road/Waterville Road junction overpass, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

Moderate upgrade modifications would be required at the Snugborough Road overpass/N3 access junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services

(i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

Moderate upgrade modifications would be required at the L3020/Snugborough road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For the next 235m approximately, along the L3020, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (central median, walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

Moderate upgrade modifications would be required at the L3020/Blanchardstown Town Centre road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

4. Scheme Option 1B2

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital access/egress ramp junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 160m, the proposed works along the Connolly Hospital access/egress ramp have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital entrance junction, i.e. the works associated with this categorization includes: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 1.055km along the south-western carriageway of the N3 and the off ramp towards the Snugborough overpass, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 995m along the north-eastern carriageway of the N3, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Snugborough Road/Waterville Row junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the

provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

Moderate upgrade modifications would be required at the Snugborough Road/N3 access junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 140m across the Snugborough overpass, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the L3020/Snugborough road junction, the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 235m along the L3020, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the L3020/Blanchardstown Town Centre road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

5. Scheme Option 1H1

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital access/egress junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 110m on both the turning lane into Connolly Hospital on approach from the N3 and on egress from the M50 roundabout, adjacent to the Talbot Downs residential estate works, have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 130m adjacent to the Woods End residential estate, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 65m approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

Major modifications would be required at the Castleknock Road/Old Navan Road junction, i.e. the works associated with this categorization include: removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. Extensive works including road re-alignment would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 200m on approach to the Church Avenue junction, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 90m approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For the next 155m approximately on Main Street, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be

protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 250m, approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

Moderate upgrade modifications would be required at the Main Street/Clonsilla road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For the next 100m, approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For the next 125m, approximately, on approach to the Snugborough Road/L3020 junction, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road

signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the L3020/Snugborough road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For the next 235m approximately, along the L3020, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (central median, walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

Moderate upgrade modifications would be required at the L3020/Blanchardstown Town Centre road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

6. Scheme Option 1H2

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital access/egress ramp junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, on both the turning lane into Connolly Hospital on approach from the N3 and on egress from the M50 roundabout, works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 195m adjacent to the Woods End residential estate, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Castleknock Road junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For the next 695m approximately on Main Street, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Main Street/Clonsilla road junction, the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For the next 110m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For approximately 125m on approach to the Snugborough Road/L3020 junction, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Snugborough Road/L3020 junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 235m along the L3020, works have been categorized as **minor** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the L3020/Blanchardstown Town Centre road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

7 Scheme Option 2A1

Moderate upgrade modifications would be required at the Cabra Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 690m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 145m approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water and gas) to be protected/relocated/diverted. To accommodate the road widening, a number of trees to be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For approximately 215m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 610m approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications,

water and gas) to be protected/relocated/diverted. To accommodate the road widening, a number of trees to be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For 675m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Castleknock Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 205m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Phoenix Park Avenue/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For 365m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be

protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Navan Road/Navan Road Parkway Train Station Slip Road junction, i.e. the works associated with this categorization include: laying of Anti-skid surface where necessary, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For 545m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the R102/Auburn Avenue/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

8 Scheme Option 2A2

Moderate upgrade modifications would be required at the Cabra Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 2.33km, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Castleknock Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 210m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Phoenix Park Avenue/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 365m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Navan Road/Navan Road Parkway Train Station Slip Road junction, i.e. the works associated with this categorization include: laying of Anti-skid surface where necessary, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For 545m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Auburn Avenue/R102/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

9 Scheme Option 2A3

Moderate upgrade modifications would be required at the Cabra Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 2.33km, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Castleknock Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 210m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Phoenix Park Avenue/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 365m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Navan Road/Navan Road Parkway Train Station Slip Road junction, i.e. the works associated with this categorization include: laying of Anti-skid surface where necessary, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For 545m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

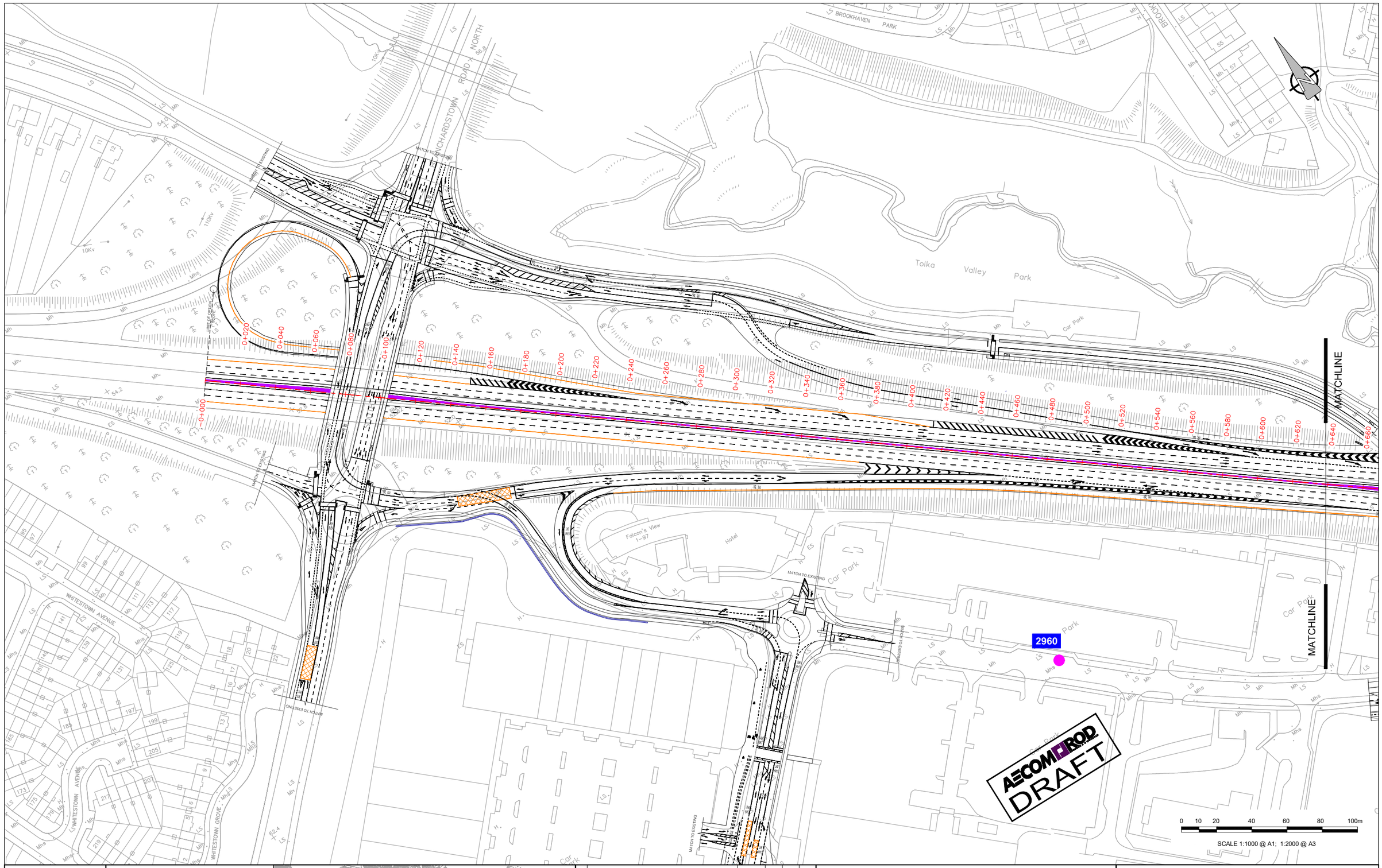
Moderate upgrade modifications would be required at the Auburn Avenue/R102/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

Appendix H – Concept Design Drawings and Staging Diagrams

1. MCA Scheme Options

2. Emerging Preferred Scheme Option

1. MCA Scheme Options



Údarás Náisiúnta Iompair
National Transport Authority

KEY PLAN
N.T.S.

No.	Revision	Date	By	Chk'd	App'd
Stage			Date		App'd
PRELIMINARY					
APPROVAL					
TENDER					
CONSTRUCTION					

AECOM - Roughan & O'Donovan

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Designed:	Checked:	Approved:	Status:
SC	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1A1
SHEET 1 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_1.1	A

Scale: 1:1000 @A1 | Date: NOV. 2017

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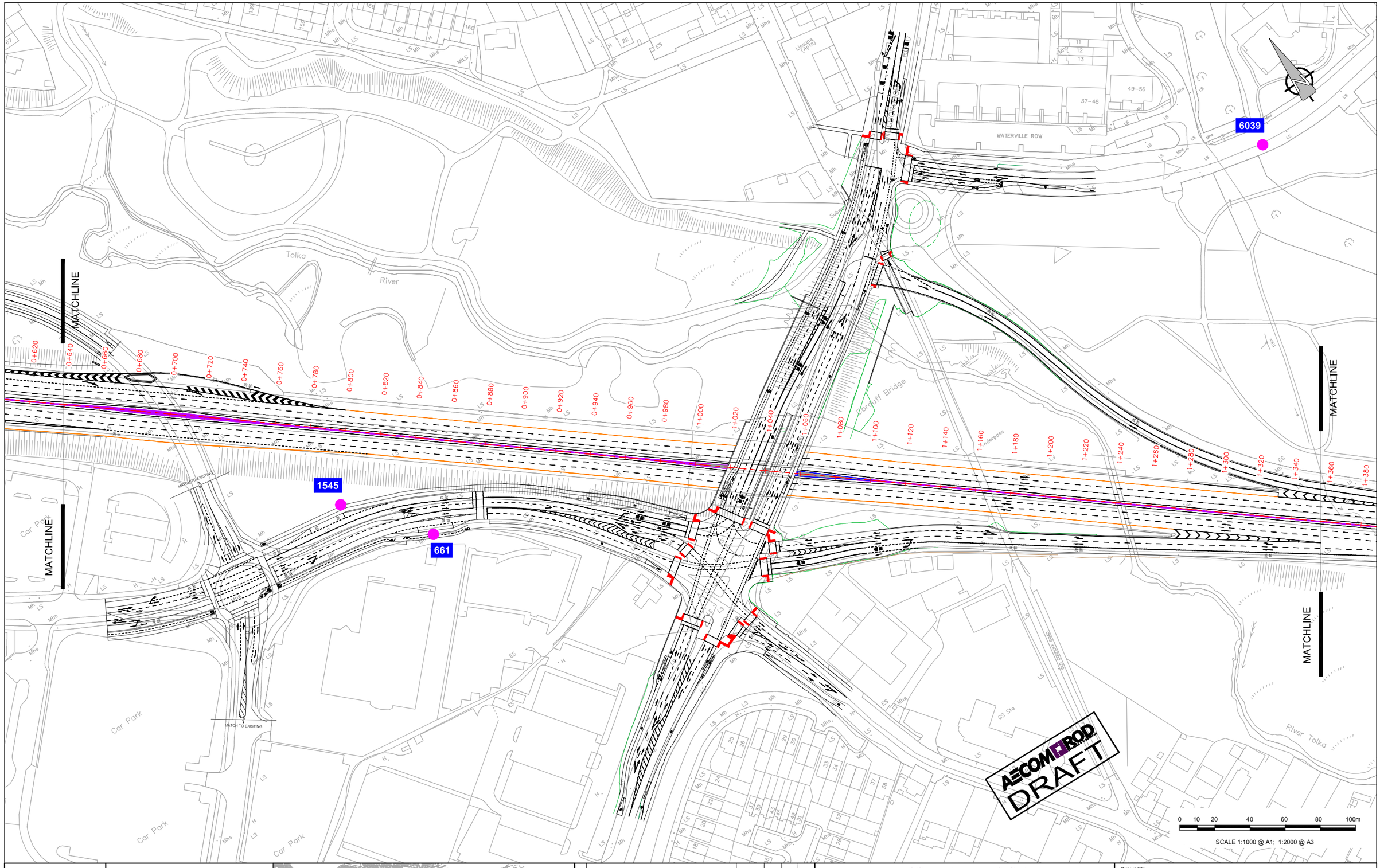

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SC	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1A1 SHEET 2 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_1.2	A

Scale: 1:1000 @A1 Date: NOV. 2017

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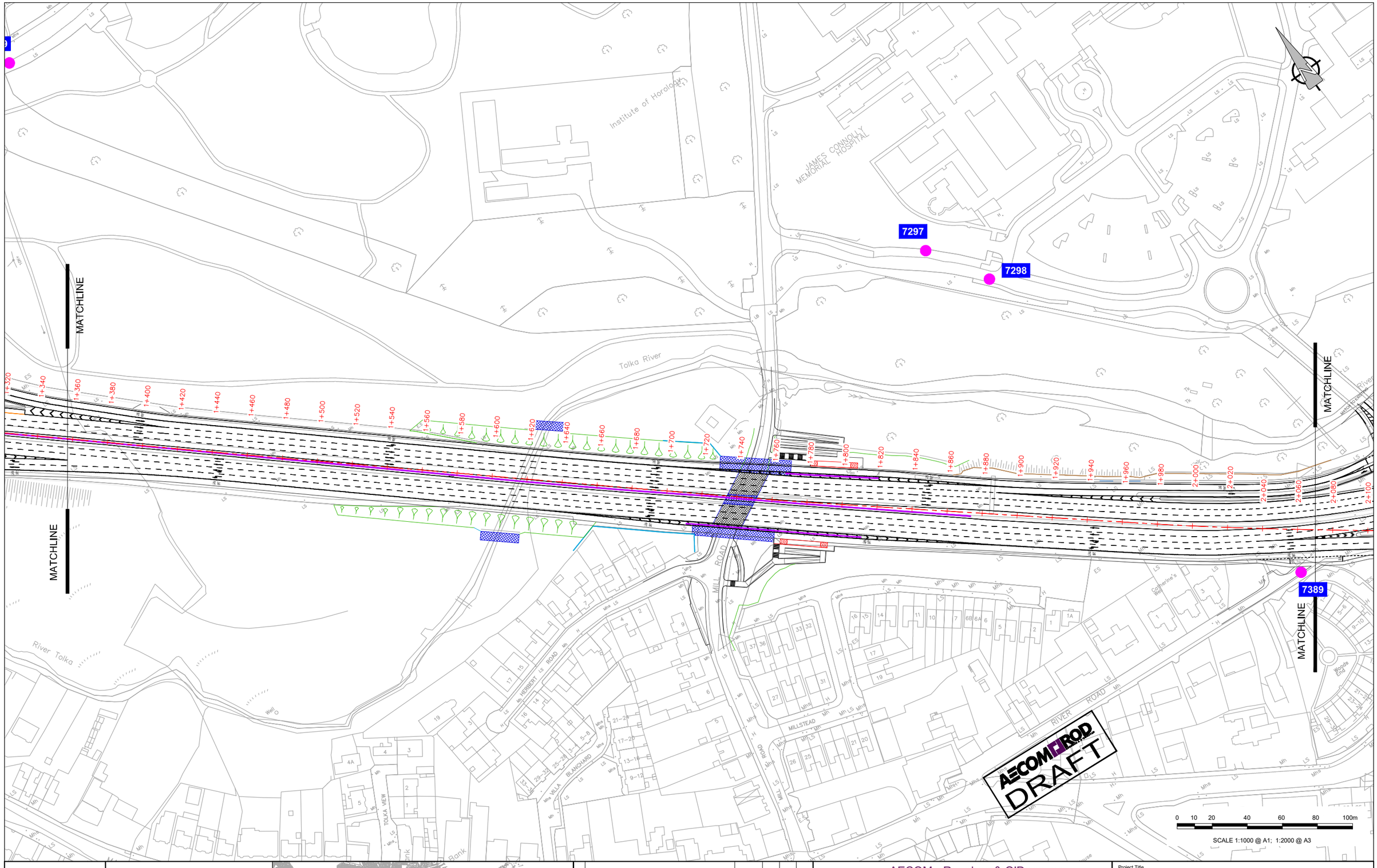

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1A1
SHEET 3 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_1.3	A

Scale: 1:1000 @A1 | Date: NOV. 2017

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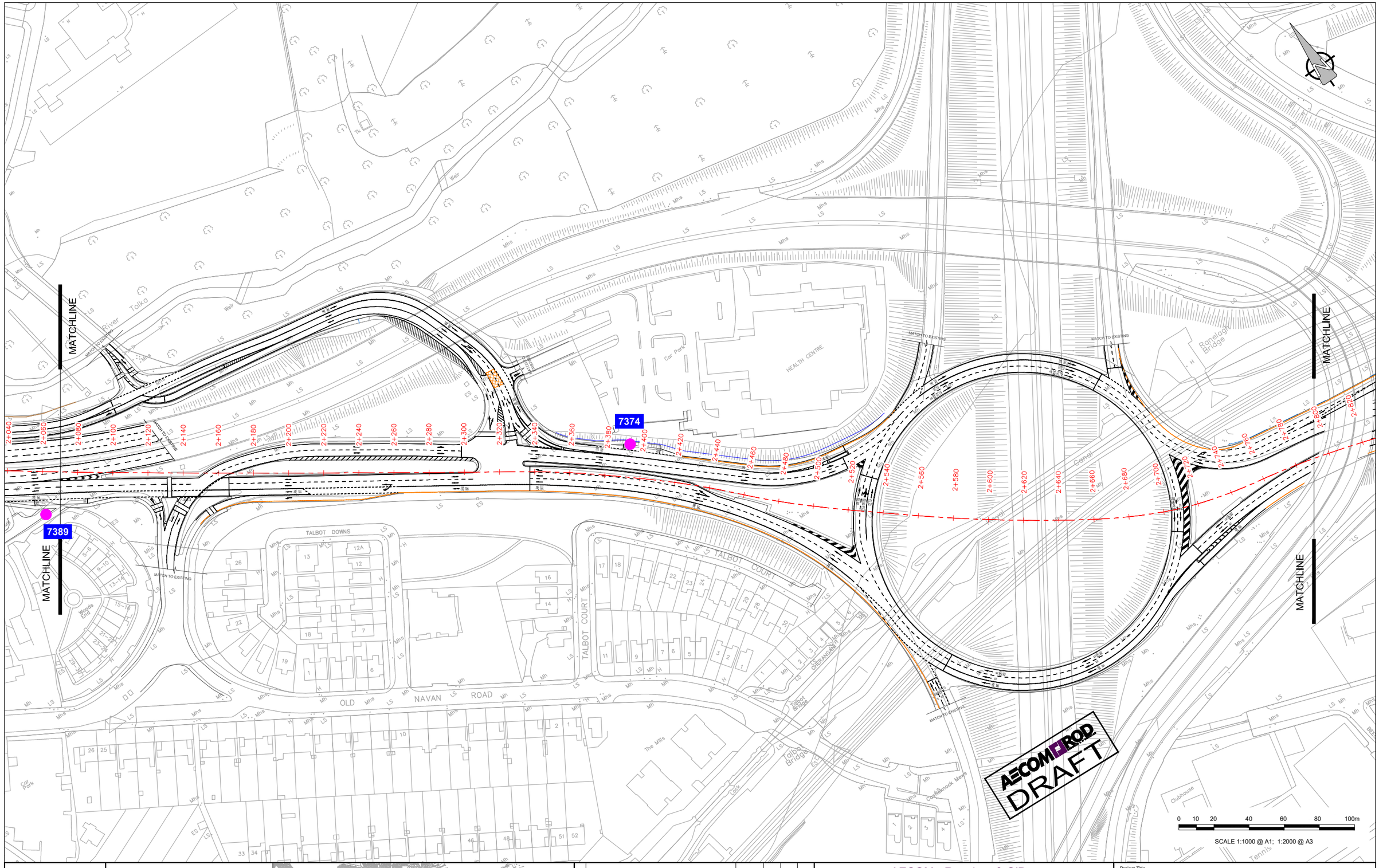

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1A1 SHEET 4 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_1.4	A

Scale: 1:1000 @A1 Date: NOV. 2017

Jan 08, 2018 - 12:10pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_5632\60540050_SHT_20_CT_S1_1A_1.1.dwg

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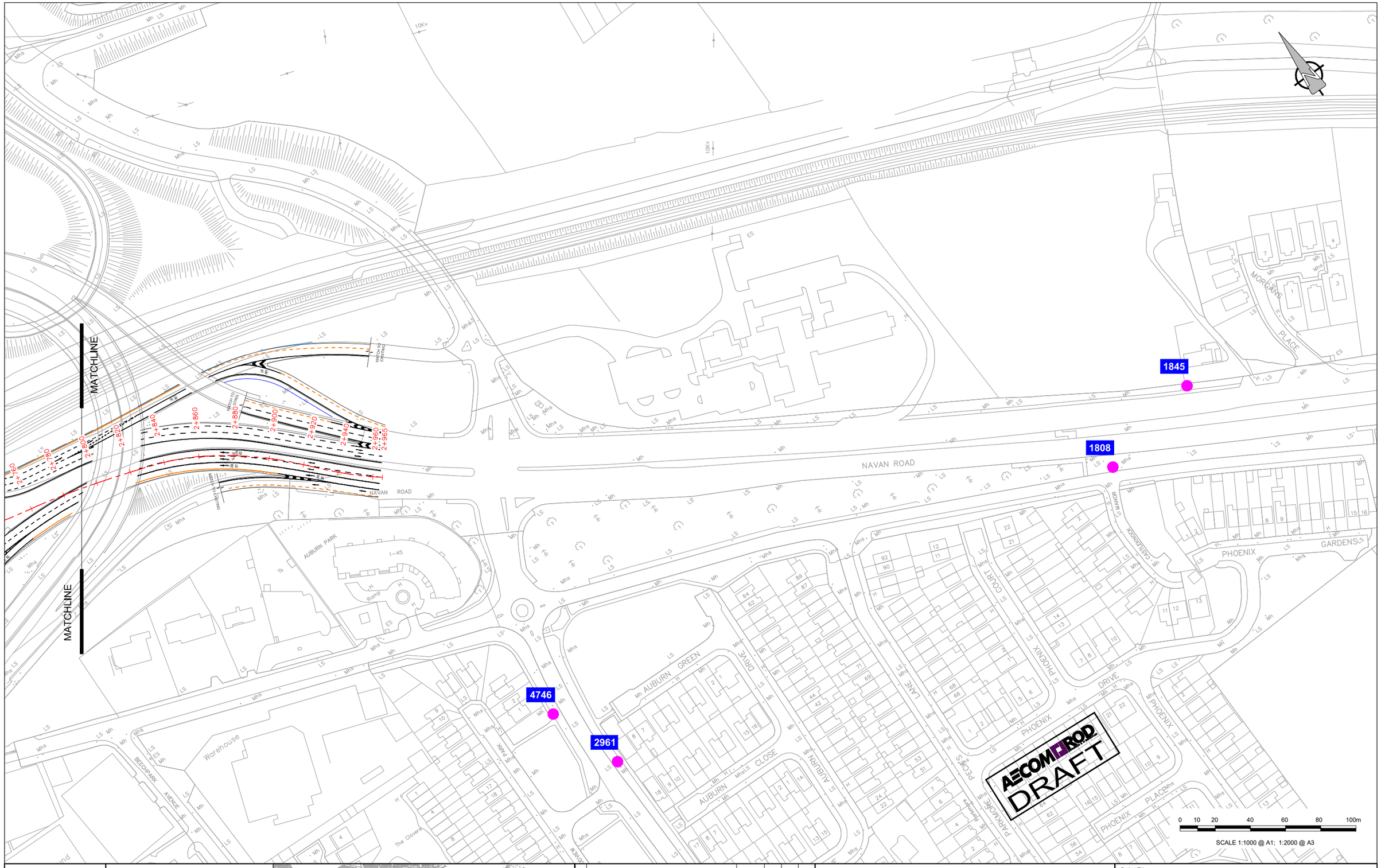

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SC	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1A1 SHEET 5 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_1.5	A

Scale: 1:1000 @A1 | Date: NOV. 2017

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LANE TO BE TAKEN AND UTILISED FOR BUS LANE

HARD SHOULDER LANE OR VERGE TO BE TAKEN AND UTILISED FOR BUS LANE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

HARD SHOULDER LANE TO BE TAKEN AND UTILISED FOR BUS LANE

MATCHLINE

MATCHLINE

2960

DRAFT

0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1A2 SHEET 1 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_2.1	A

Scale: 1:1000 @A1 | Date: NOV. 2017

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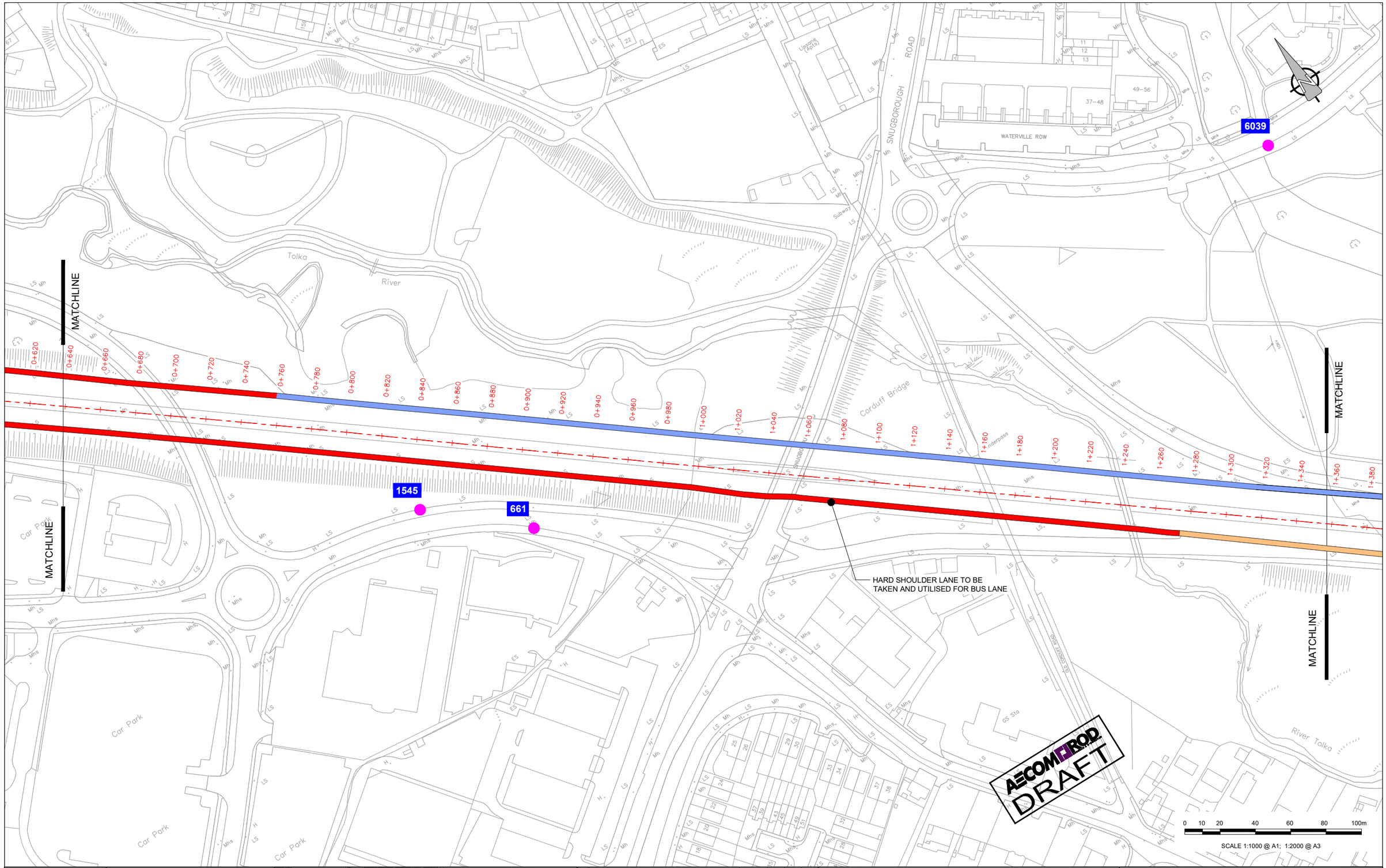

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1A2
SHEET 2 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_2.2	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 19, 2017 - 8:43am Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1A_2.1.dwg

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MATCHLINE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

MATCHLINE

MATCHLINE

7297

7298

7389

Institute of Horology

JAMES CONNOLLY MEMORIAL HOSPITAL

Tolka River

River Tolka

MILL ROAD

HERBERT ROAD

BLANCHARD

MILLA

TOLKA VIEW

MILLSTEAD

RIVER ROAD

AECOM ROD DRAFT

0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1A2
SHEET 3 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_2.3	A

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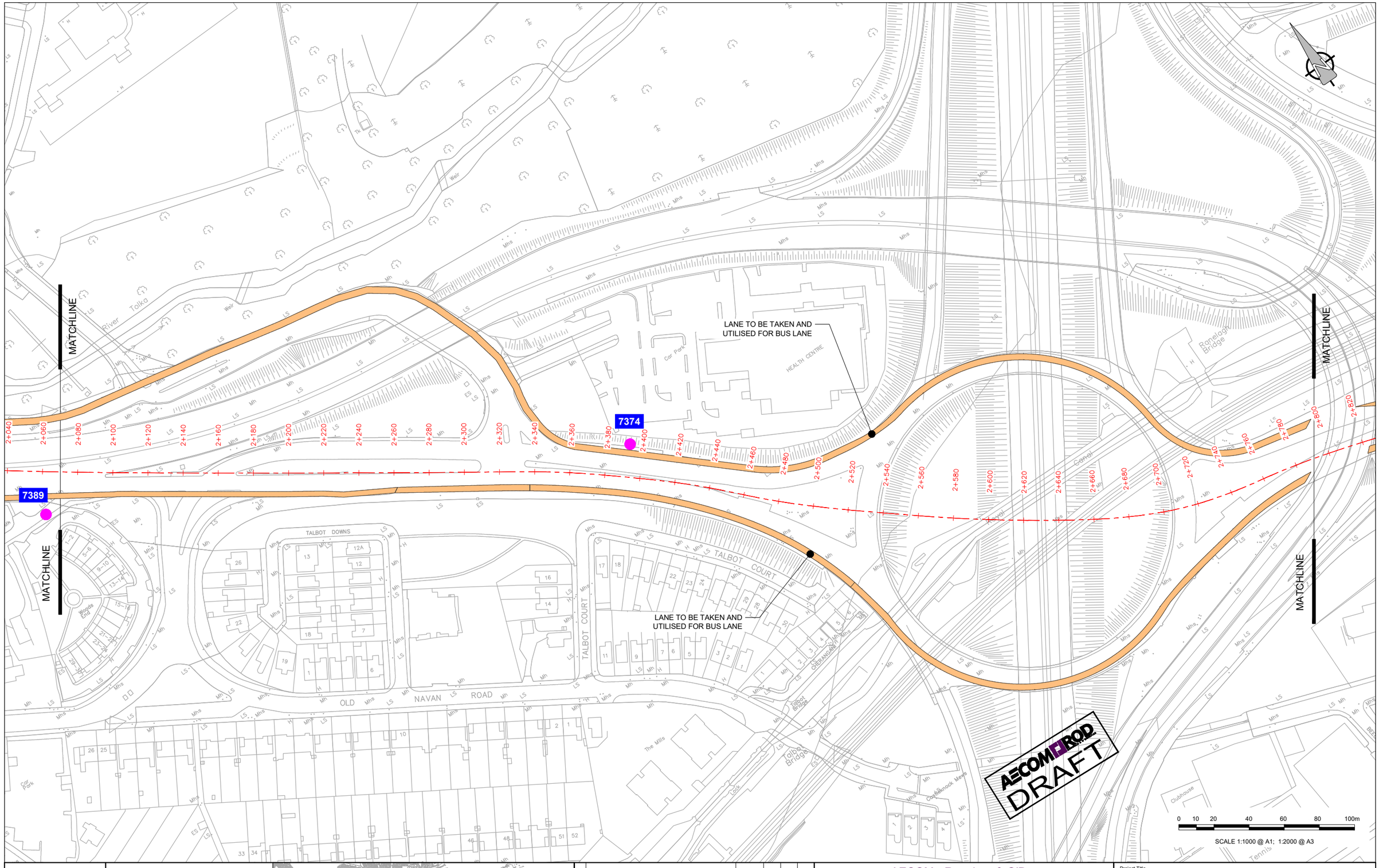

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1A2 SHEET 4 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_2.4	A
Scale: 1:1000 @A1	Date: NOV. 2017		

Dec 19, 2017 - 8:45am Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1A_2.1.dwg

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MATCHLINE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

MATCHLINE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

1845

1808

4746

2961

NAVAN ROAD

AUBURN PARK

AUBURN GREEN

AUBURN CLOSE

AUBURN DRIVE

PHOENIX GARDENS

PHOENIX COURT

PHOENIX DRIVE

PHOENIX PLACE

MORGANS PLACE

PARKMORE

PEOPLES

Warehouse

BEECHPARK AVENUE

DRAFT

0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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KEY PLAN
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No.	Revision	Date	By	Chk'd	App'd
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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1A2
SHEET 5 OF 5

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1A_2.5	A

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Dec 19, 2017 - 8:47am Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1A_2.1.dwg

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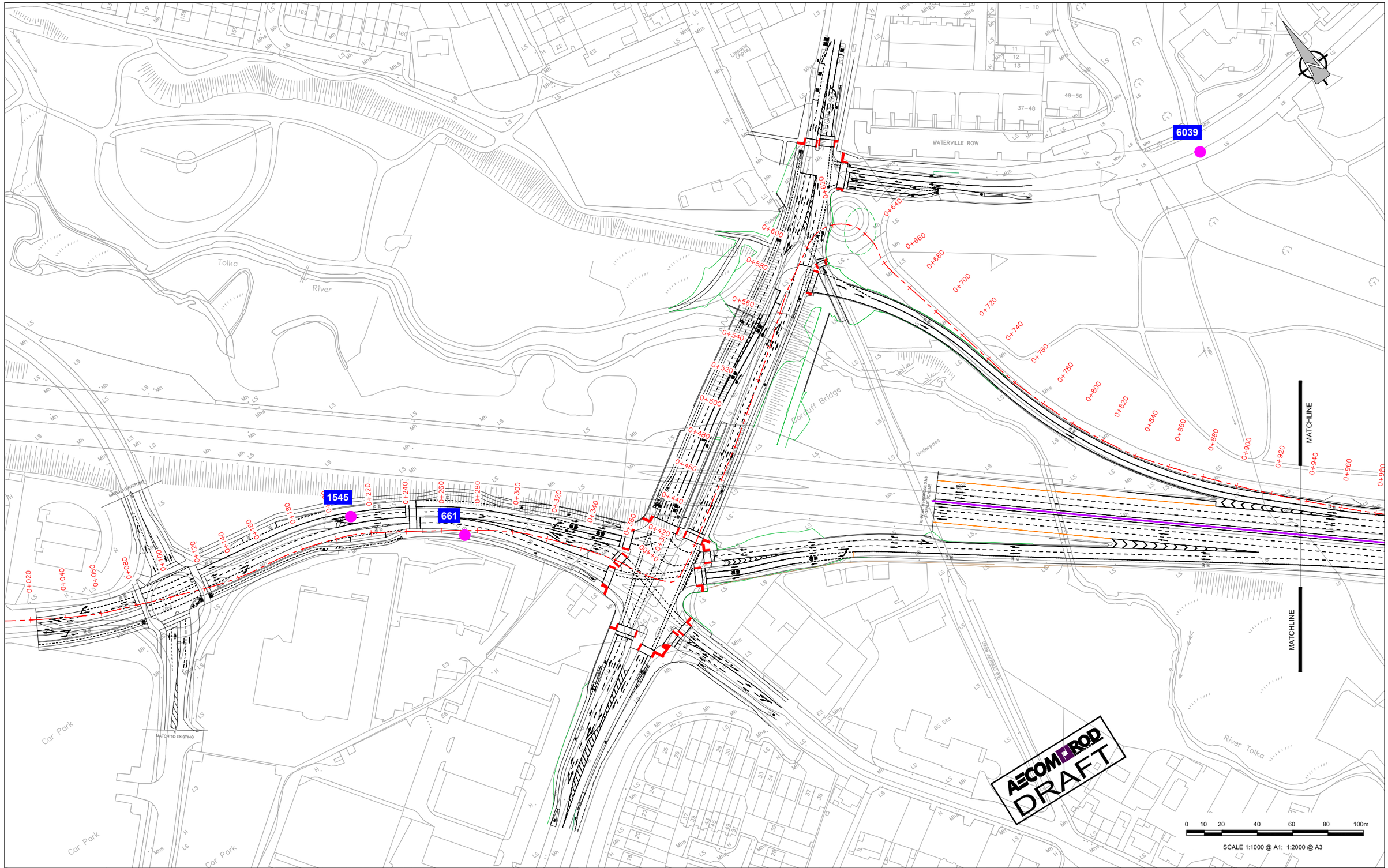

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1B1 SHEET 1 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_1.1	A

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Dec 18, 2017 - 6:46pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_1.1.dwg

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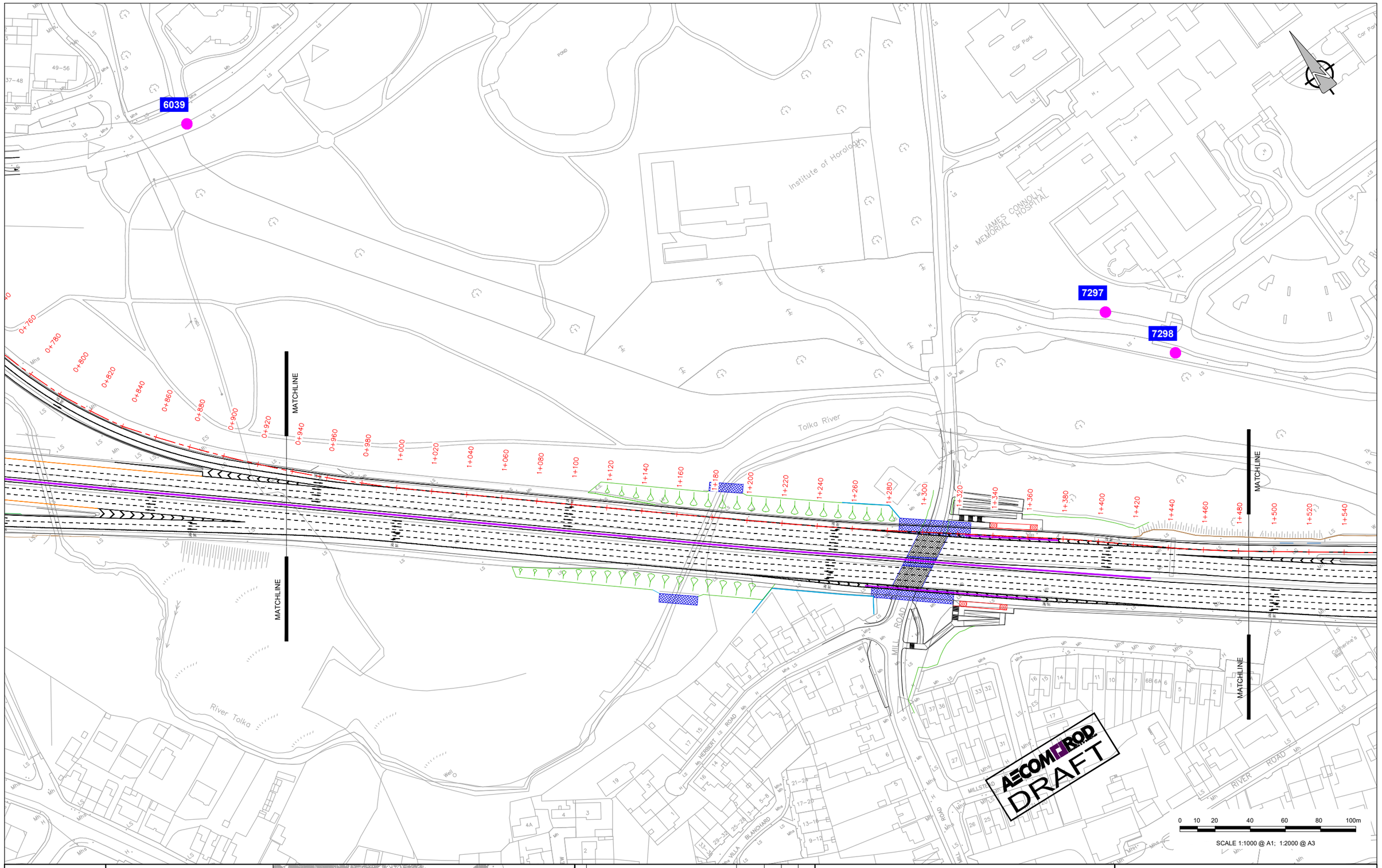

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1B1 SHEET 2 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_1.2	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 6:46pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_1.1.dwg

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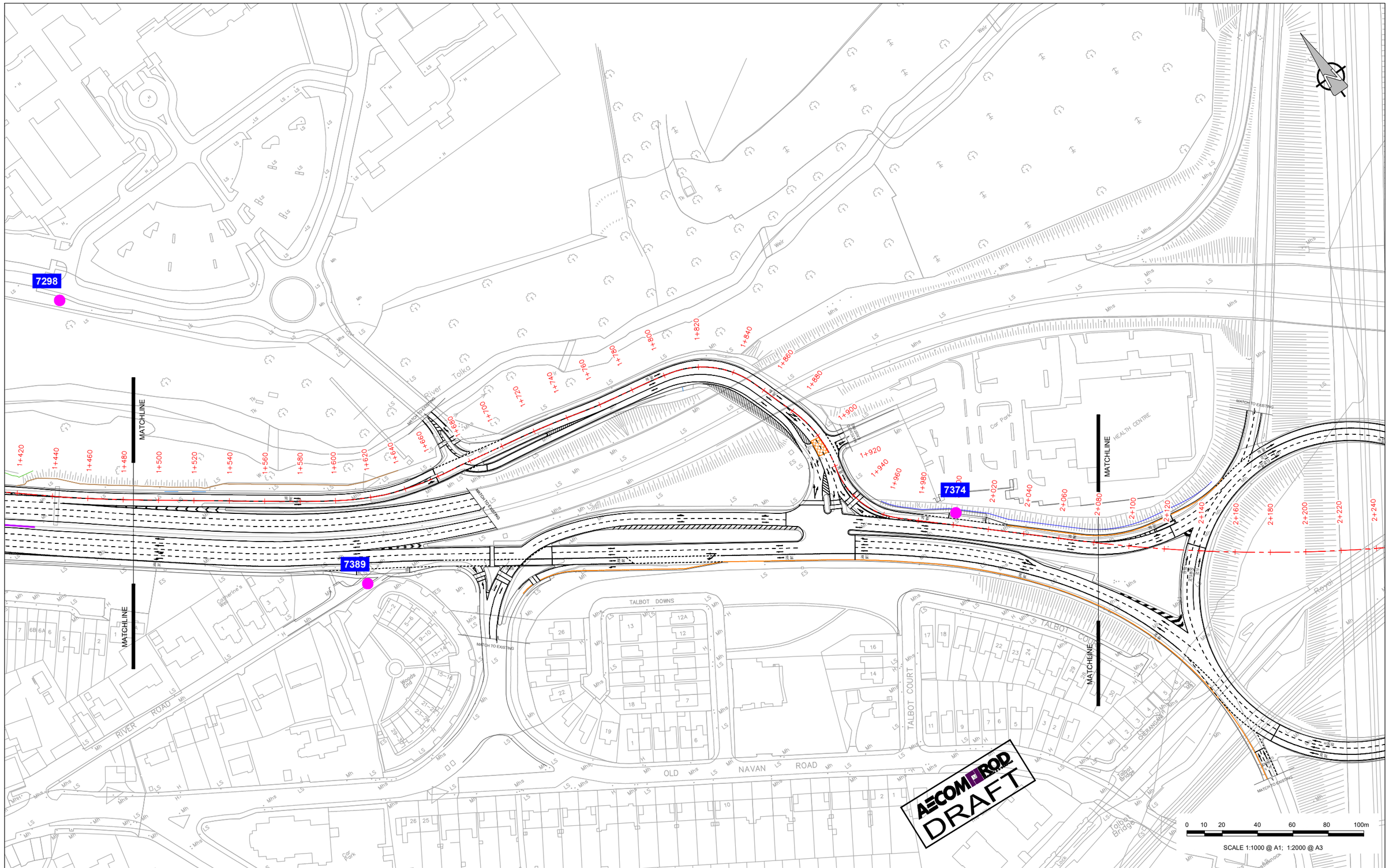

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1B1
SHEET 3 OF 4

Drawn:	Job No:	Drawing No:	Rev:
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Dec 18, 2017 - 6:47pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_1.1.dwg

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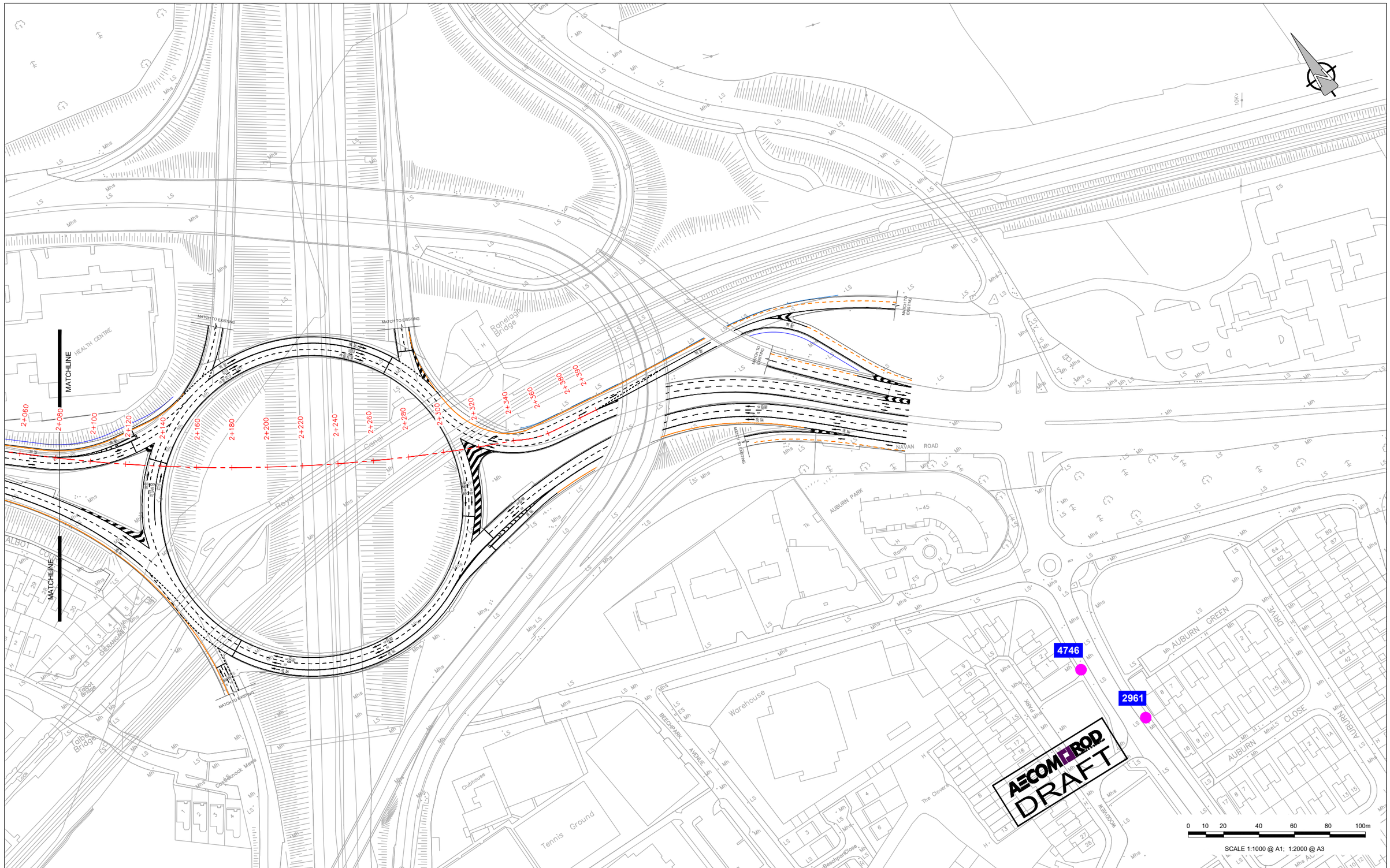

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

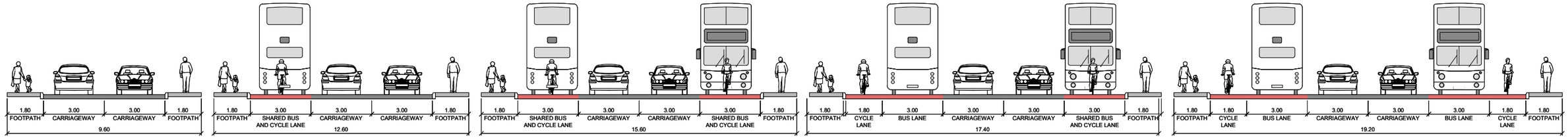
Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1B1
SHEET 4 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_1.4	A

Scale: 1:1000 @A1 | Date: NOV. 2017

Dec 18, 2017 - 6:47pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_1.1.dwg

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



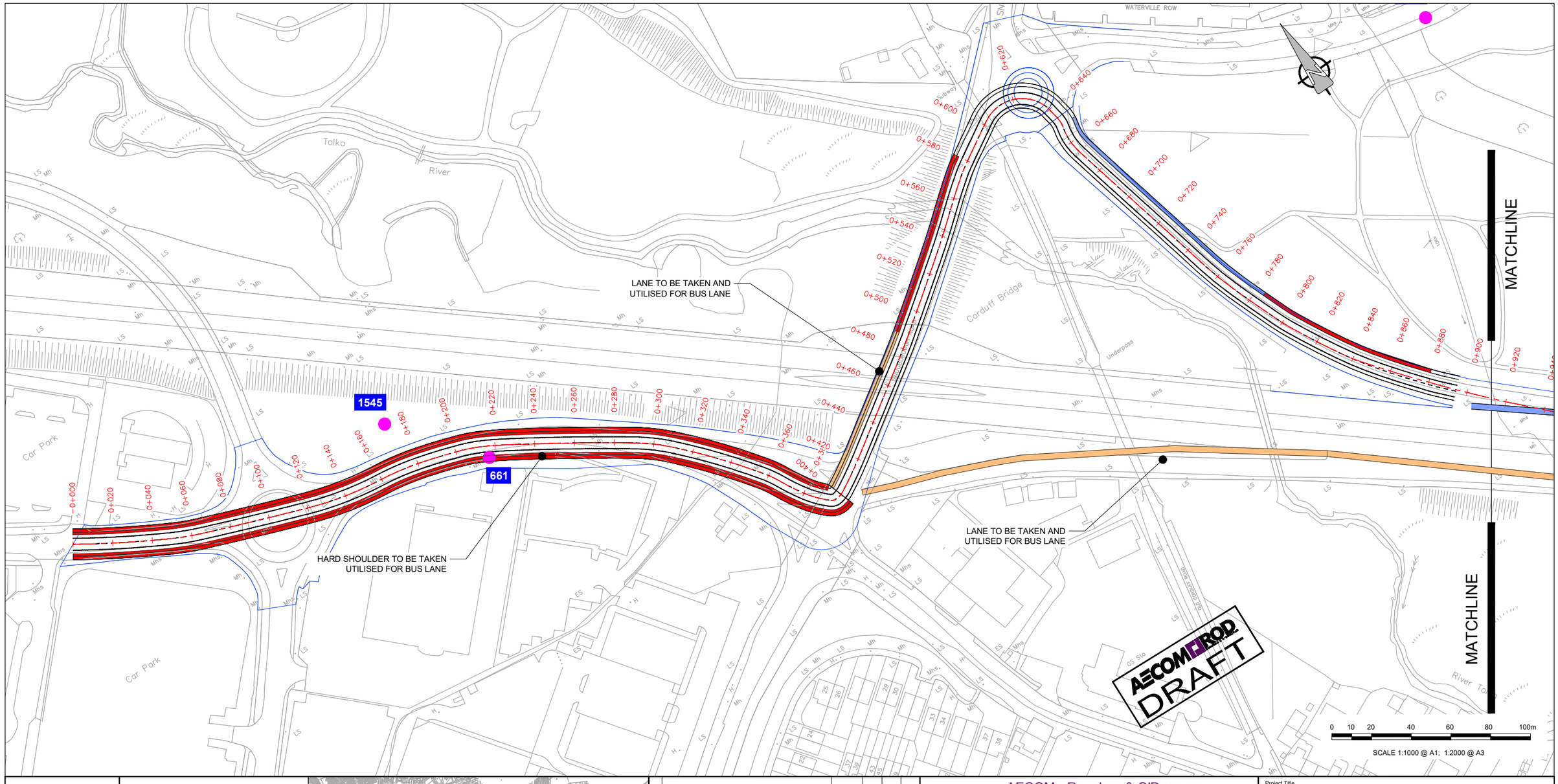
TYPICAL CROSS SECTION A-A SCALE 1:100@A1

TYPICAL CROSS SECTION B-B SCALE 1:100@A1

TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1



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National Transport Authority

KEY PLAN N.T.S.

No.	Revision	Date	By	Chk'd	App'd
	Stage		Date		App'd
	PRELIMINARY				
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	CONSTRUCTION				

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Fax:+353(0)1 2383199
www.aecom.com

Designed:	Checked:	Approved:	Status:
SC	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1B2 SHEET 1 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_2.1	A

Scale: 1:1000 @A1 Date: NOV. 2017

Jan 05, 2018 - 12:02pm Drawing Location: \\Iedbl2fp001\iedbl2fp001-v1tp\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_2.1.dwg

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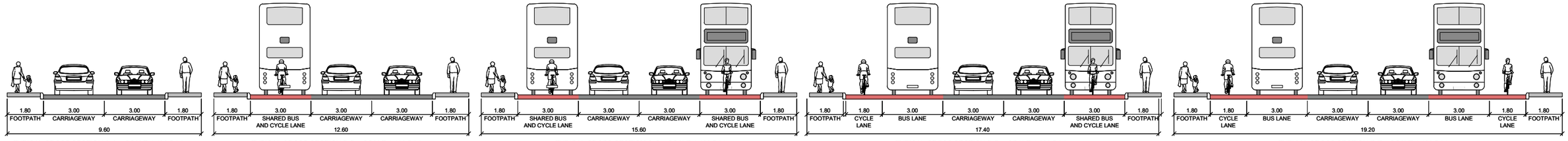

TYPICAL CROSS SECTION A-A SCALE 1:100@A1

TYPICAL CROSS SECTION B-B SCALE 1:100@A1

TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-400	SECTION C-C
CH-400 TO CH-580	SECTION B-B
CH-580 TO CH-1400	SECTION C-C
CH-1400 TO CH-2300	SECTION A-A

MATCHLINE

MATCHLINE

MATCHLINE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

7297

7298

7389

Tolka River

JAMES CONNOLLY MEMORIAL HOSPITAL

MILL ROAD

HERBERT ROAD

BLANCHARD VILLA

MILLSTEAD

DRIVE

0+880 0+900 0+920 0+940 0+960 0+980 1+000 1+020 1+040 1+060 1+080 1+100 1+120 1+140 1+160 1+180 1+200 1+220 1+240 1+260 1+280 1+300 1+320 1+340 1+360 1+380 1+400 1+420 1+440 1+460 1+480 1+500 1+520 1+540 1+560 1+580 1+600 1+620 1+640 1+660

DRAFT

0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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KEY PLAN N.T.S.

No.	Revision	Date	By	Chk'd	App'd
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SC	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1B2 SHEET 2 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_2.2	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 19, 2017 - 8:49am Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_2.1.dwg

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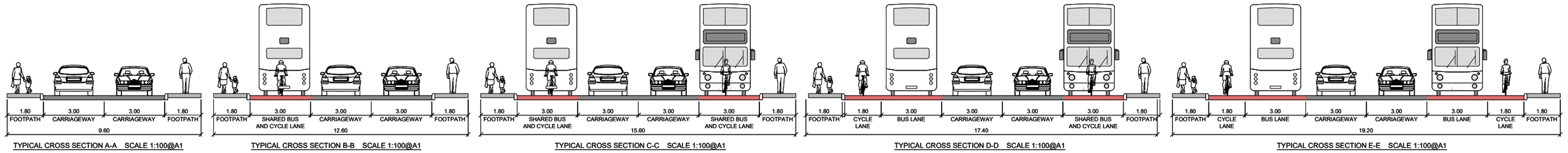
Filename: F:\PROJECTS\TRAFFIC - BXU BRT\03 EXECUTION\09 CAD\02 - SHEETS (DRAWINGS)\ROUTE OPTIONS\60540050_SHT_20_CT_S1_1B_2.1.DWG



TYPICAL CROSS SECTION A-A SCALE 1:100@A1

TYPICAL CROSS SECTION B-B SCALE 1:100@A1

TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-400	SECTION C-C
CH-400 TO CH-580	SECTION B-B
CH-580 TO CH-1400	SECTION C-C
CH-1400 TO CH-2300	SECTION A-A

MATCHLINE

MATCHLINE

MATCHLINE

MATCHLINE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

7374

7389

River Tolka

TALBOT DOWNS

TALBOT COURT

OLD NAVAN ROAD

HEALTH CENTRE

Car Park

Weir

Ranelagh Bridge

Talbot Bridge

Lock

The Mills

Royal Canal

DRAFT

0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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National Transport Authority

KEY PLAN
N.T.S.

No.	Revision	Date	By	Chk'd	App'd
	Stage		Date		App'd
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Designed:	Checked:	Approved:	Status:
SC	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1B2 SHEET 3 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_2.3	A

Scale: 1:1000 @A1 Date: NOV. 2017

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

Dec 19, 2017 - 8:49am Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_2.1.dwg

Last saved by: STEPHEN CURRAN(2017-12-18) Last Plotted: 2017-12-19
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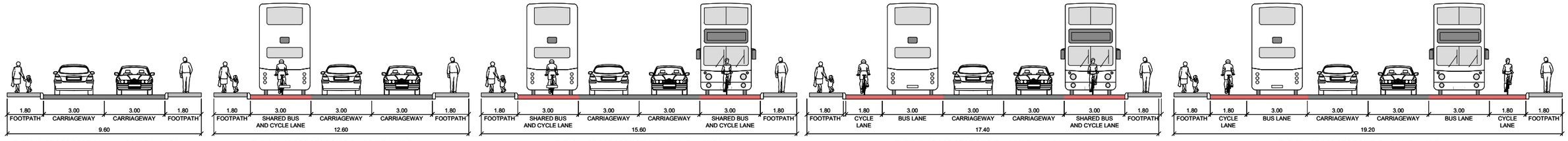

TYPICAL CROSS SECTION A-A SCALE 1:100@A1

TYPICAL CROSS SECTION B-B SCALE 1:100@A1

TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-400	SECTION C-C
CH-400 TO CH-580	SECTION B-B
CH-580 TO CH-1400	SECTION C-C
CH-1400 TO CH-2300	SECTION A-A

MATCHLINE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

LANE TO BE TAKEN AND UTILISED FOR BUS LANE

MATCHLINE

1845

1808

4746

2961

NAVAN ROAD

JOHNSTOWN PARK

AUBURN GREEN

AUBURN CLOSE

AUBURN DRIVE

MORGANS PLACE

PHOENIX GARDENS

PHOENIX COURT

PHOENIX LANE

PHOENIX MANOR

CASTLEBROOK

Warehouse

BEECHPARK AVENUE

DRAFT

0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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KEY PLAN
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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1B2
SHEET 4 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_2.4	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 19, 2017 - 8:49am Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_2.1.dwg

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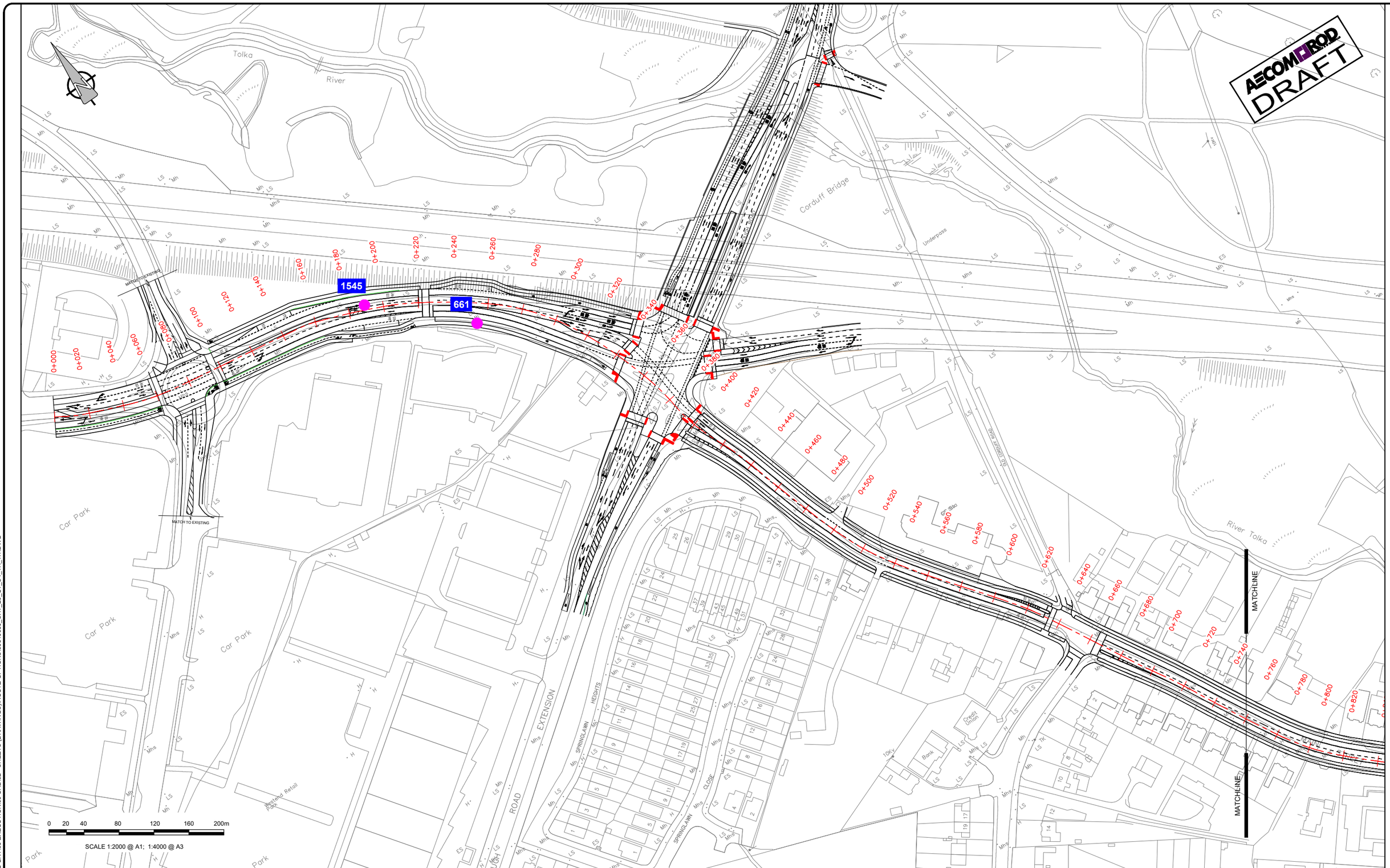

DRAFT

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KEY PLAN
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION S1_1H1
SHEET 1 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1H_1.1	A

Scale: 1:1000 @A1 | Date: NOV. 2017

Dec 18, 2017 - 7:03pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1H_1.1.dwg

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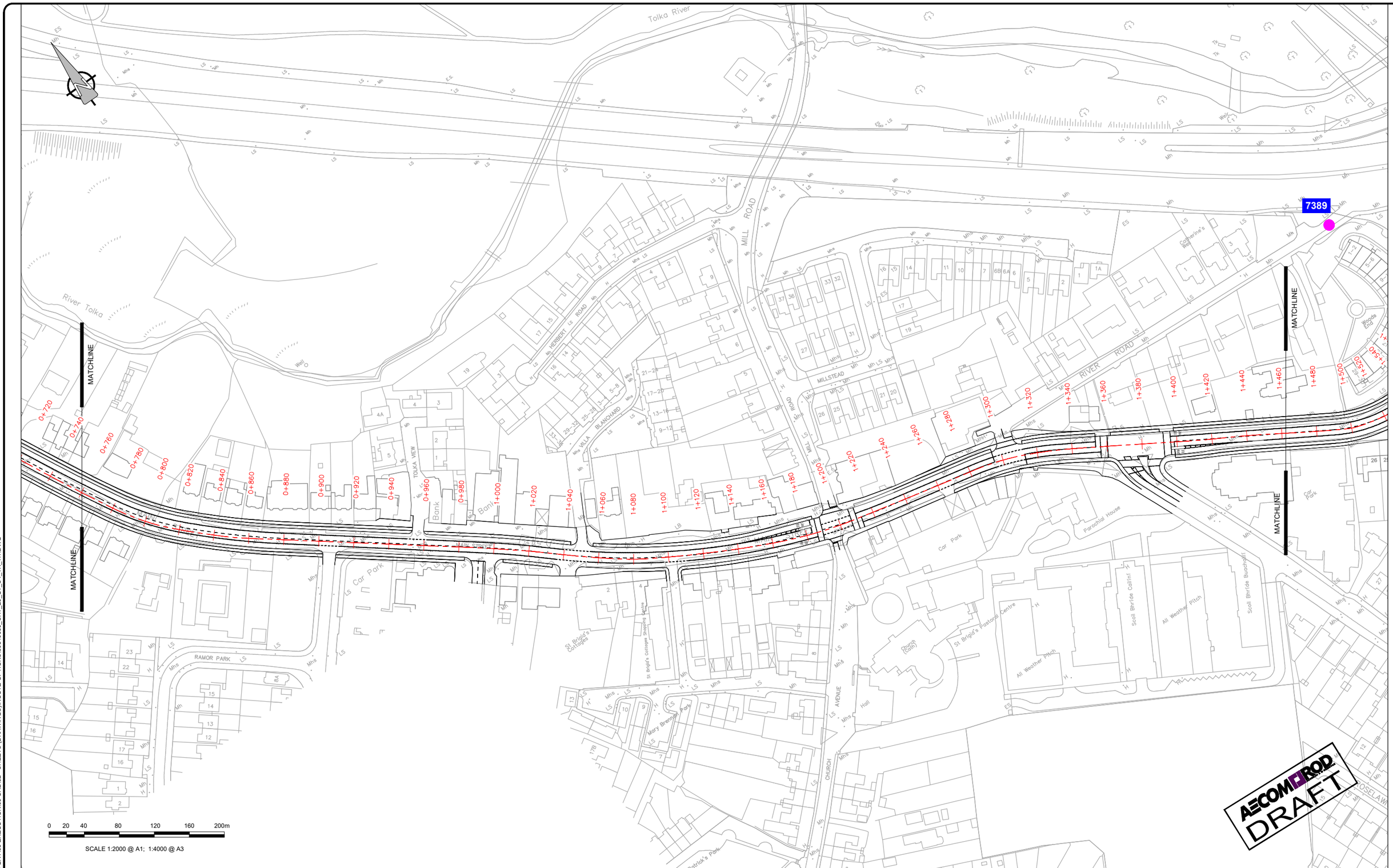

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KEY PLAN
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION S1_1H1
SHEET 2 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1H_1.2	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 7:03pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1H_1.1.dwg

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DRAFT

7298

7389

7374

MATCHLINE

River Tolka

RIVER ROAD

OLD NAVAN ROAD

TALBOT DOWNS

TALBOT COURT

WOODPARK

HEALTH CENTRE

Car Park

Talbot Bridge

0 20 40 80 120 160 200m

SCALE 1:2000 @ A1; 1:4000 @ A3

KEY PLAN
N.T.S.

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No.	Revision	Date	By	Chk'd	App'd
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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION S1_1H1
SHEET 3 OF 4

Drawn: RH | Job No: 60540050 | Drawing No: SHT_20_CT_S1_1H_1.3 | Rev: A

Scale: 1:1000 @A1 | Date: NOV. 2017

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Dec 18, 2017 - 7:03pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1H_1.1.dwg

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DRAFT

7374

4746

MATCHLINE

MATCHLINE

SCALE 1:2000 @ A1; 1:4000 @ A3

0 20 40 80 120 160 200m

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N.T.S.

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION S1_1H1
SHEET 4 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1H_1.4	A

Scale: 1:1000 @A1 Date: NOV. 2017

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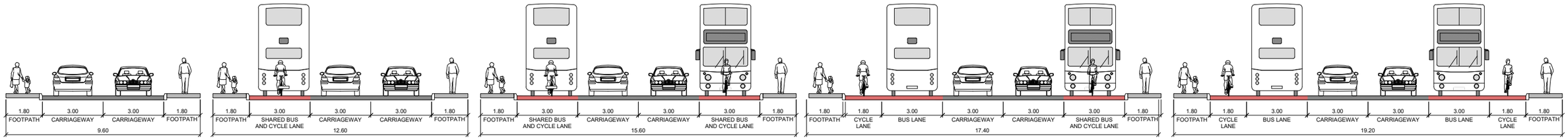


TYPICAL CROSS SECTION A-A SCALE 1:100@A1

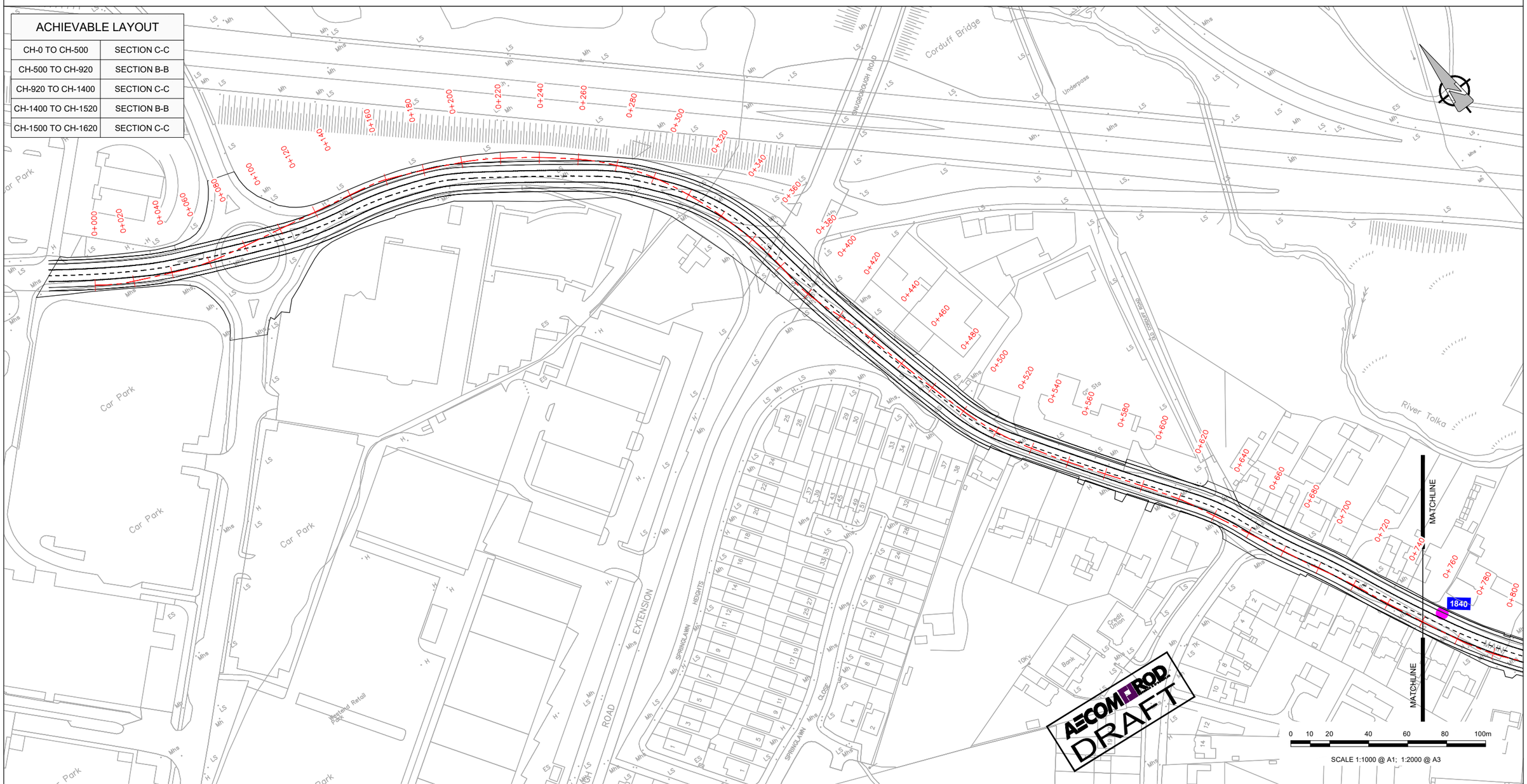
TYPICAL CROSS SECTION B-B SCALE 1:100@A1

TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-500	SECTION C-C
CH-500 TO CH-920	SECTION B-B
CH-920 TO CH-1400	SECTION C-C
CH-1400 TO CH-1520	SECTION B-B
CH-1500 TO CH-1620	SECTION C-C



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Project Title: UCD TO St. STEPHENS GREEN

Drawing Title: ROUTE OPTION 1H2 SHEET 1 OF 4

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1H_2.1	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 7:28pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1H_2.1.dwg

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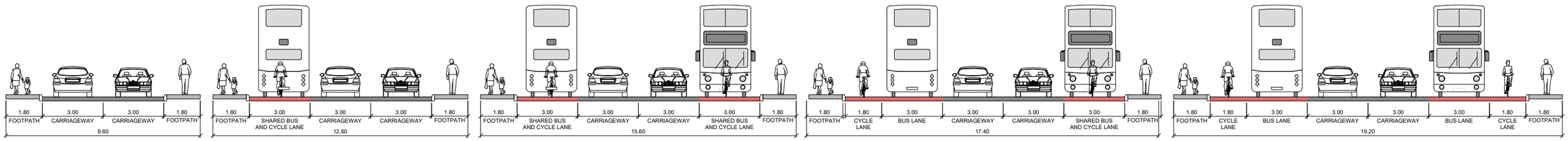


TYPICAL CROSS SECTION A-A SCALE 1:100@A1

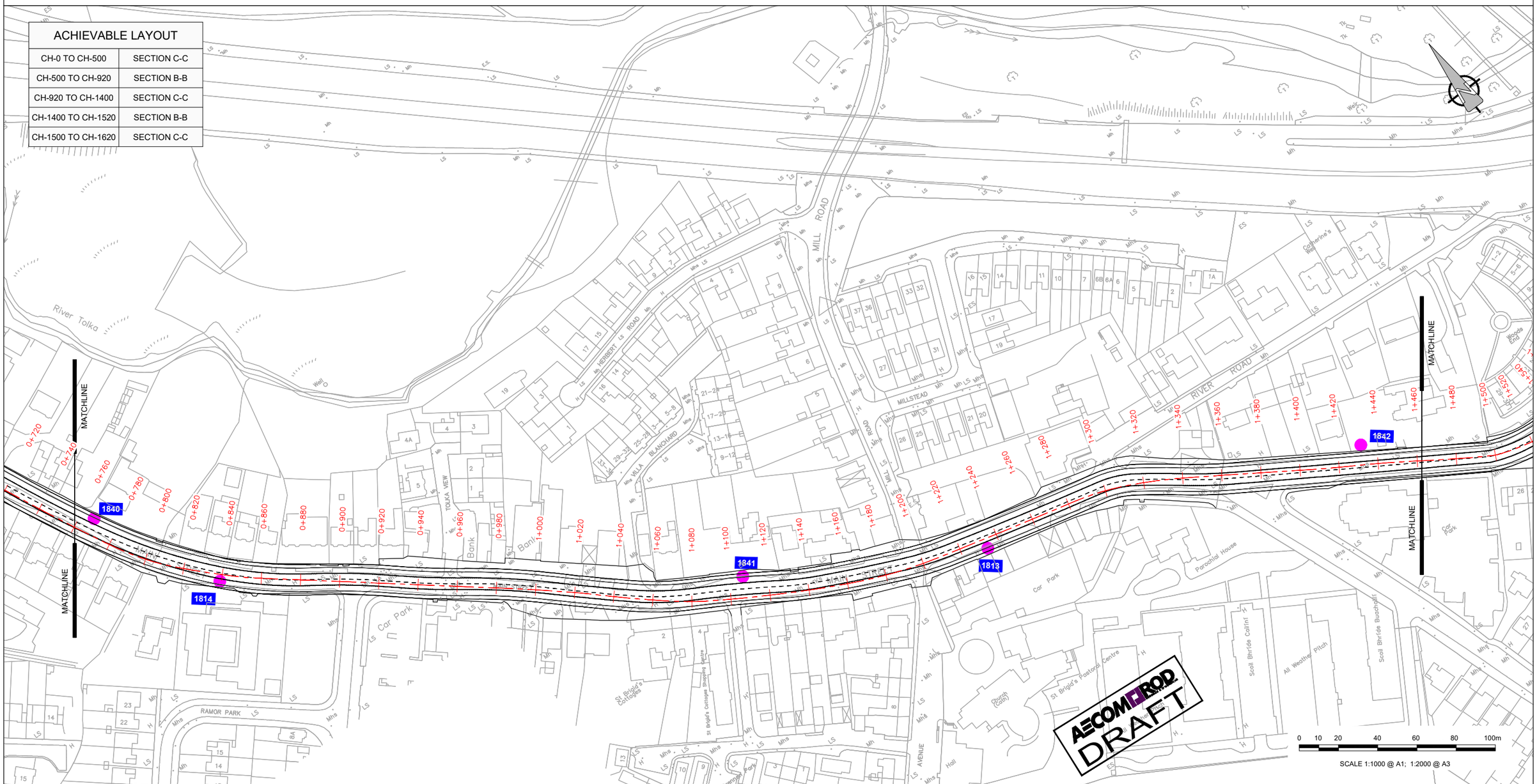
TYPICAL CROSS SECTION B-B SCALE 1:100@A1

TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-500	SECTION C-C
CH-500 TO CH-920	SECTION B-B
CH-920 TO CH-1400	SECTION C-C
CH-1400 TO CH-1520	SECTION B-B
CH-1500 TO CH-1620	SECTION C-C



0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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National Transport Authority

KEY PLAN
N.T.S.

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Designed:	Checked:	Approved:	Status:
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Project Title: UCD TO St. STEPHENS GREEN

Drawing Title: ROUTE OPTION 1H2 SHEET 2 OF 4

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1H_2.2	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 7:29pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1H_2.1.dwg

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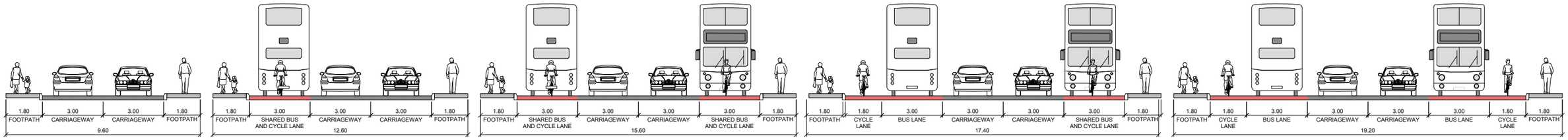


TYPICAL CROSS SECTION A-A SCALE 1:100@A1

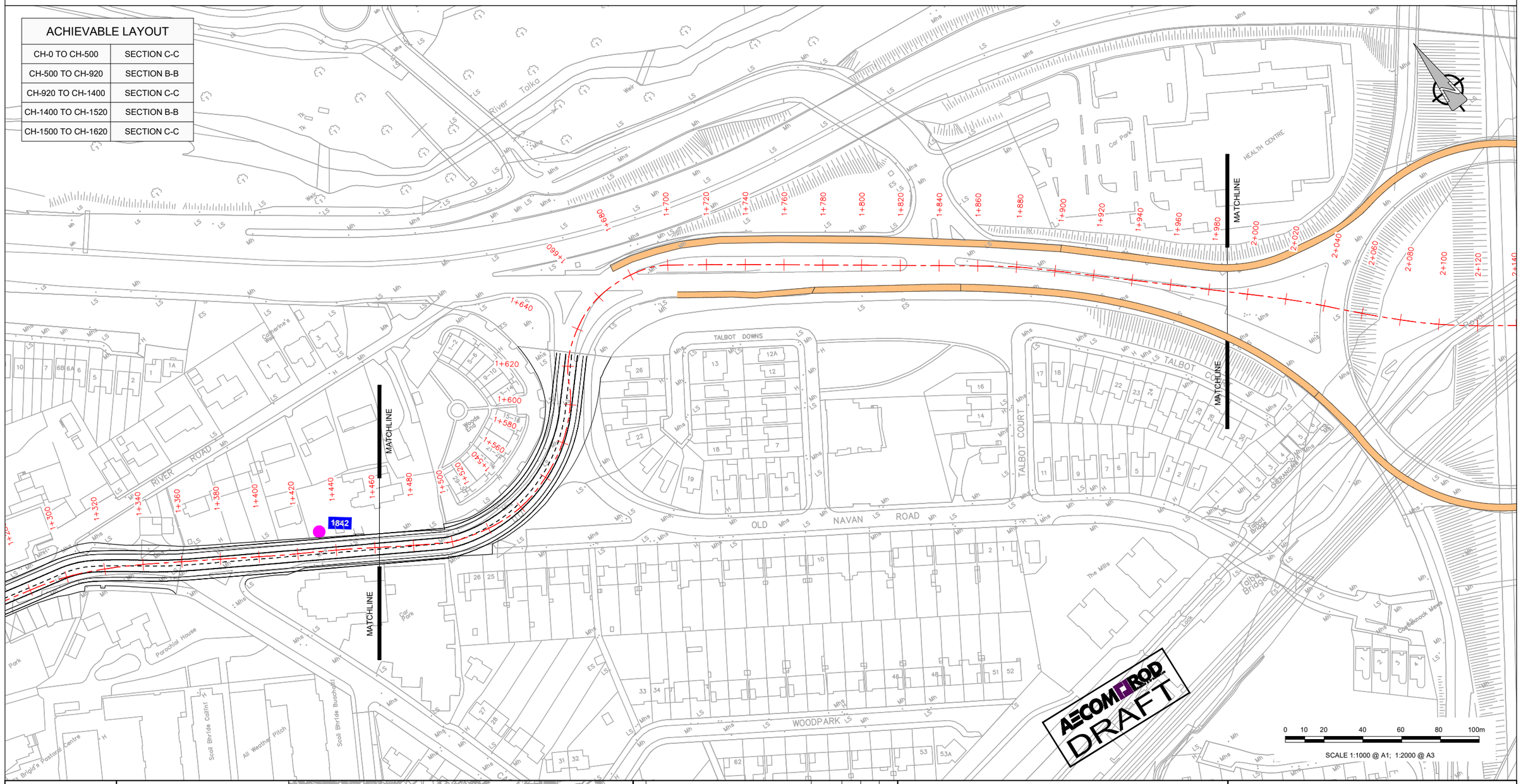
TYPICAL CROSS SECTION B-B SCALE 1:100@A1

TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-500	SECTION C-C
CH-500 TO CH-920	SECTION B-B
CH-920 TO CH-1400	SECTION C-C
CH-1400 TO CH-1520	SECTION B-B
CH-1500 TO CH-1620	SECTION C-C



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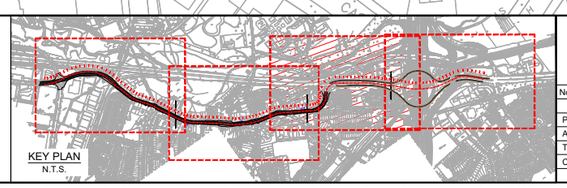

No.	Revision	Date	By	Chk'd	App'd
Stage			Date		App'd
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APPROVAL					
TENDER					
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

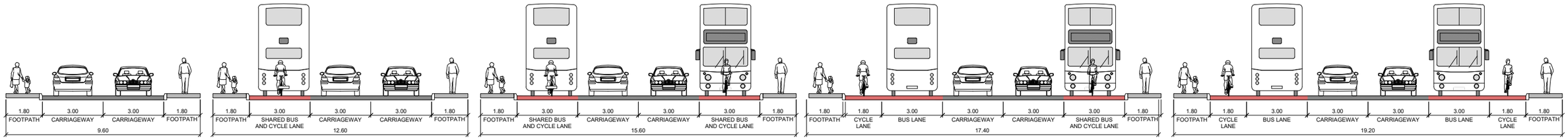
Project Title: UCD TO St. STEPHENS GREEN

Drawing Title: ROUTE OPTION 1H2 SHEET 3 OF 4

Drawn:	Job No:	Drawing No:	Rev:
SC	60540050	SHT_20_CT_S1_1H_2.3	A
Scale: 1:1000 @A1	Date: NOV. 2017		

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

Dec 18, 2017 - 7:29pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1H_2.1.dwg



TYPICAL CROSS SECTION A-A SCALE 1:100@A1

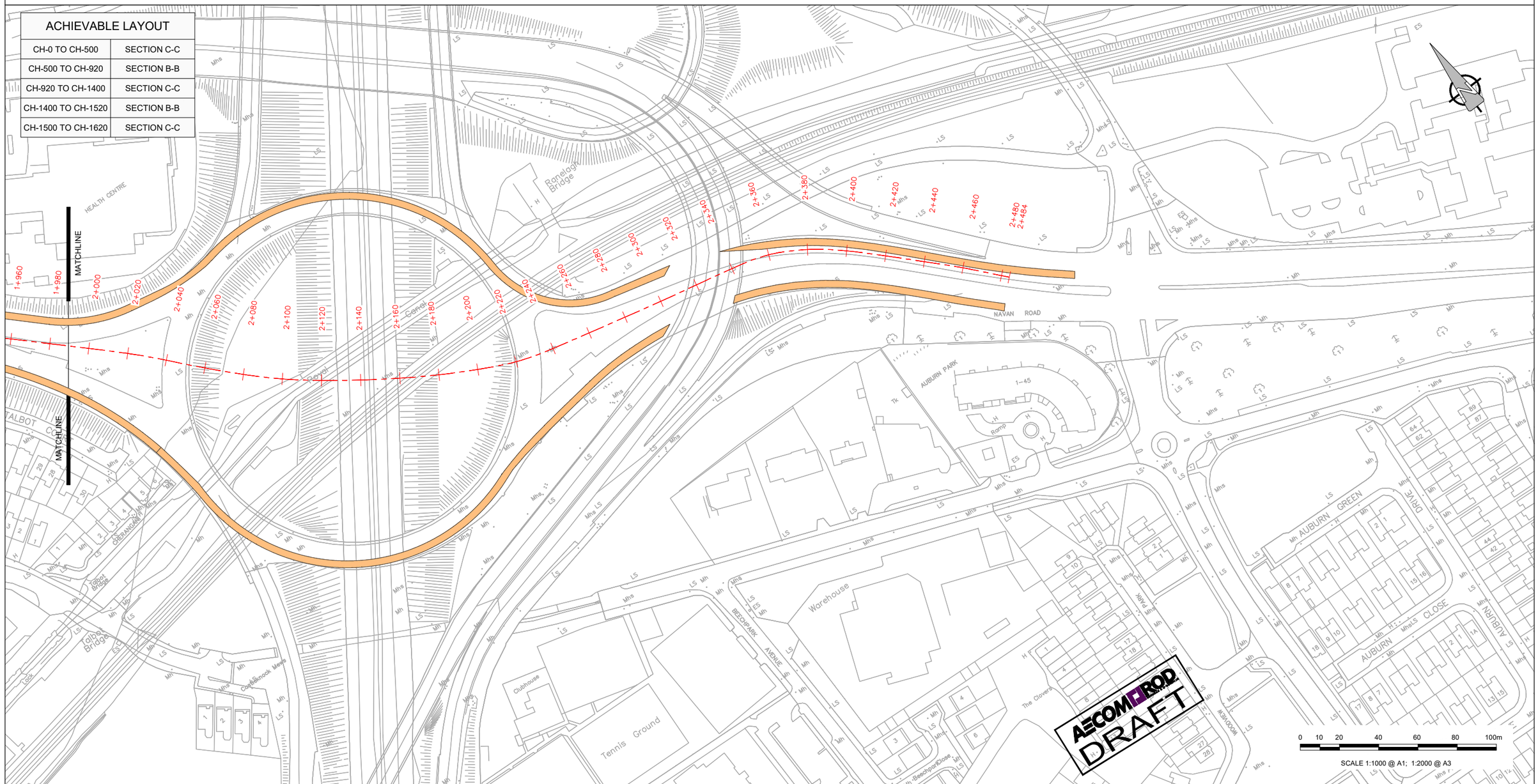
TYPICAL CROSS SECTION B-B SCALE 1:100@A1

TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-500	SECTION C-C
CH-500 TO CH-920	SECTION B-B
CH-920 TO CH-1400	SECTION C-C
CH-1400 TO CH-1520	SECTION B-B
CH-1500 TO CH-1620	SECTION C-C



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KEY PLAN
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No.	Revision	Date	By	Chk'd	App'd
	Stage		Date		App'd
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Project Title: UCD TO St. STEPHENS GREEN

Drawing Title: ROUTE OPTION 1H2
SHEET 4 OF 4

Designed:	Checked:	Approved:	Status:	Drawn:	Job No:	Drawing No:	Rev:
RH	--	--	CONCEPT	SC	60540050	SHT_20_CT_S1_1H_2.4	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 7:29pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1H_2.1.dwg

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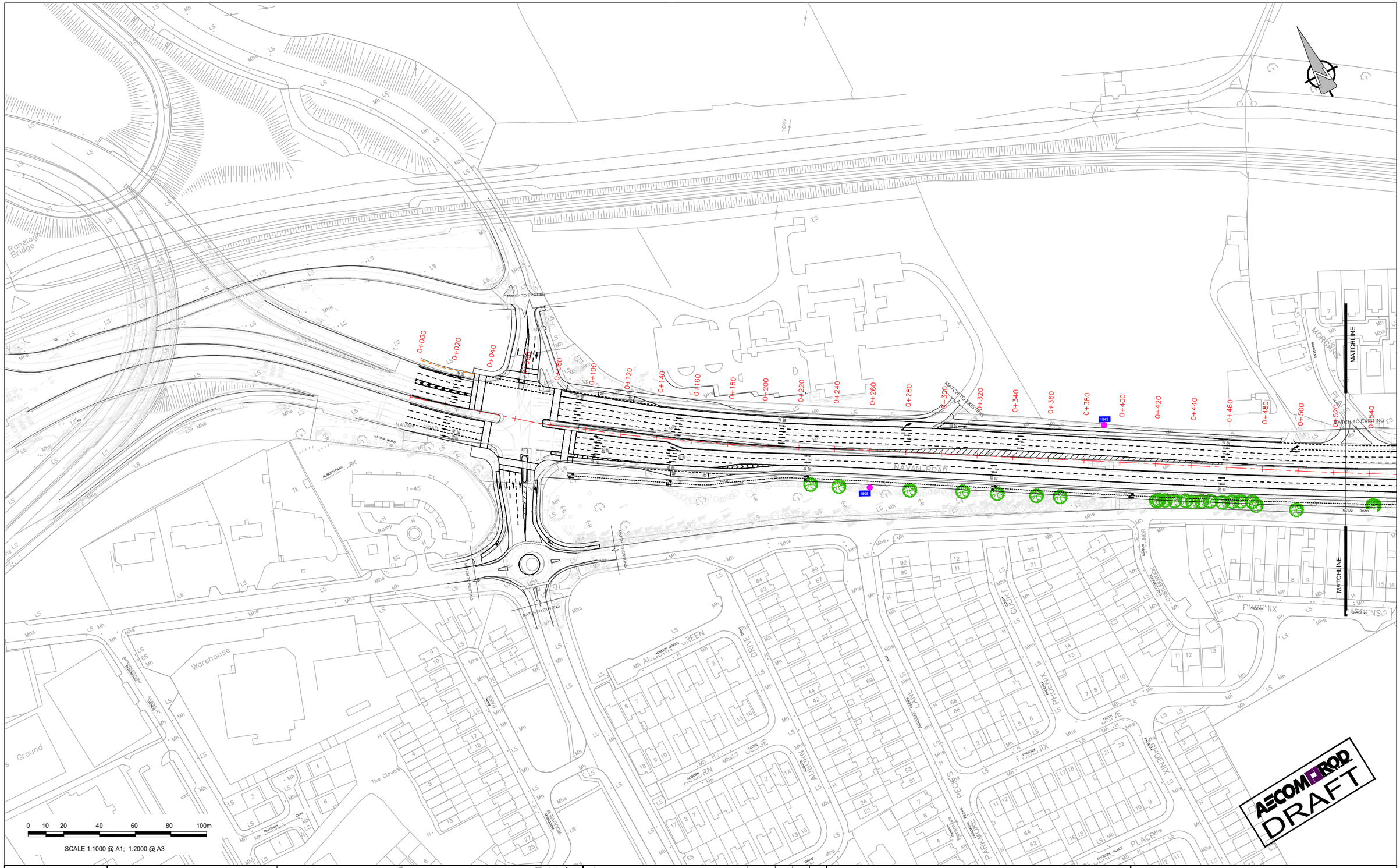

0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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KEY PLAN
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No.	Revision	Date	By	Chk'd	App'd
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 1 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.1	A

Scale: 1:1000 @A1 | Date: NOV. 2017

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Dec 18, 2017 - 9:01pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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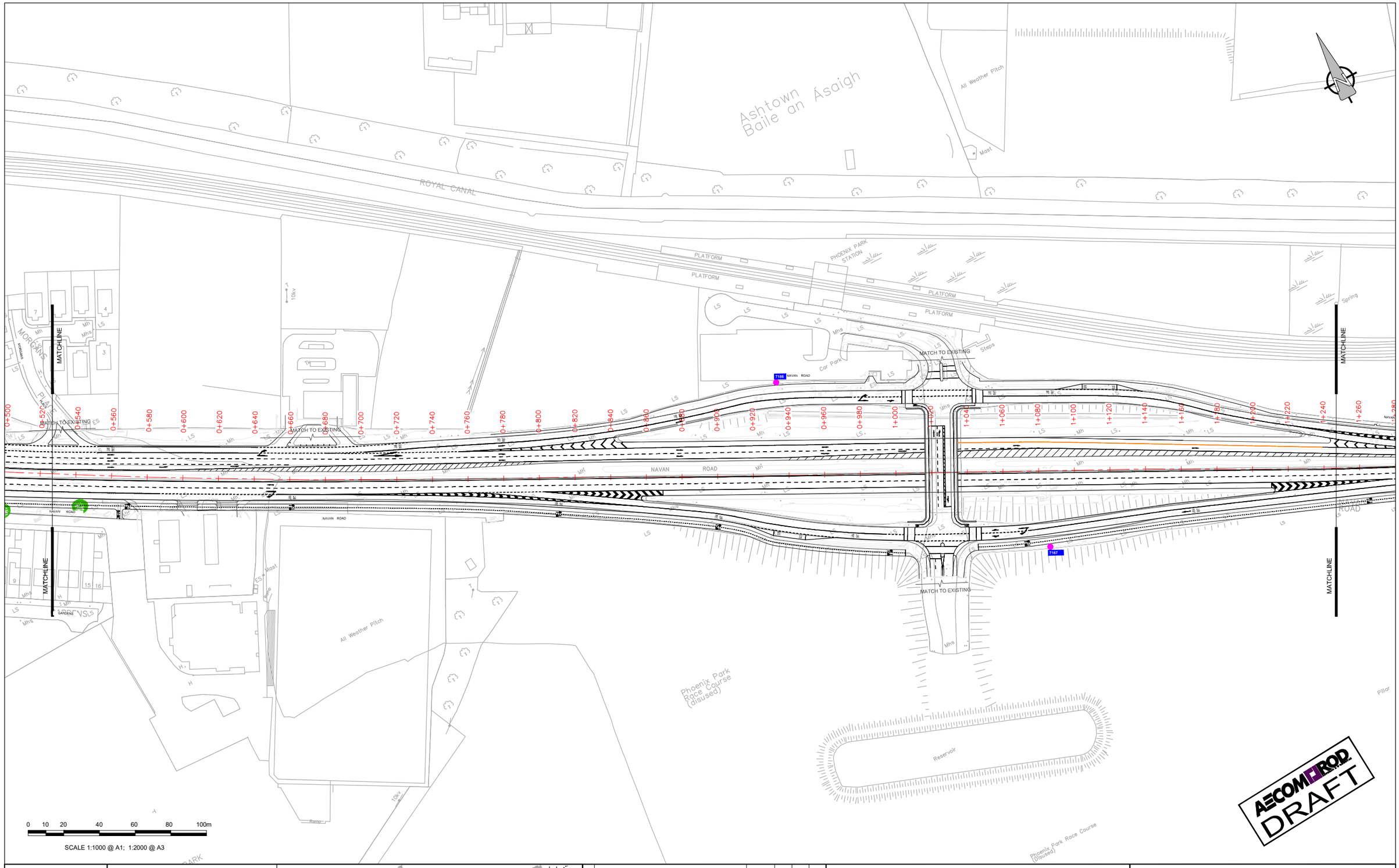

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KEY PLAN
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No.	Revision	Date	By	Chk'd	App'd
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Designed: RH | Checked: -- | Approved: -- | Status: CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 2 OF 7

Drawn: RH | Job No: 60540050 | Drawing No: SHT_20_CT_S1_2A1.2 | Rev: A

Scale: 1:1000 @A1 | Date: NOV. 2017

Dec 18, 2017 - 9:02pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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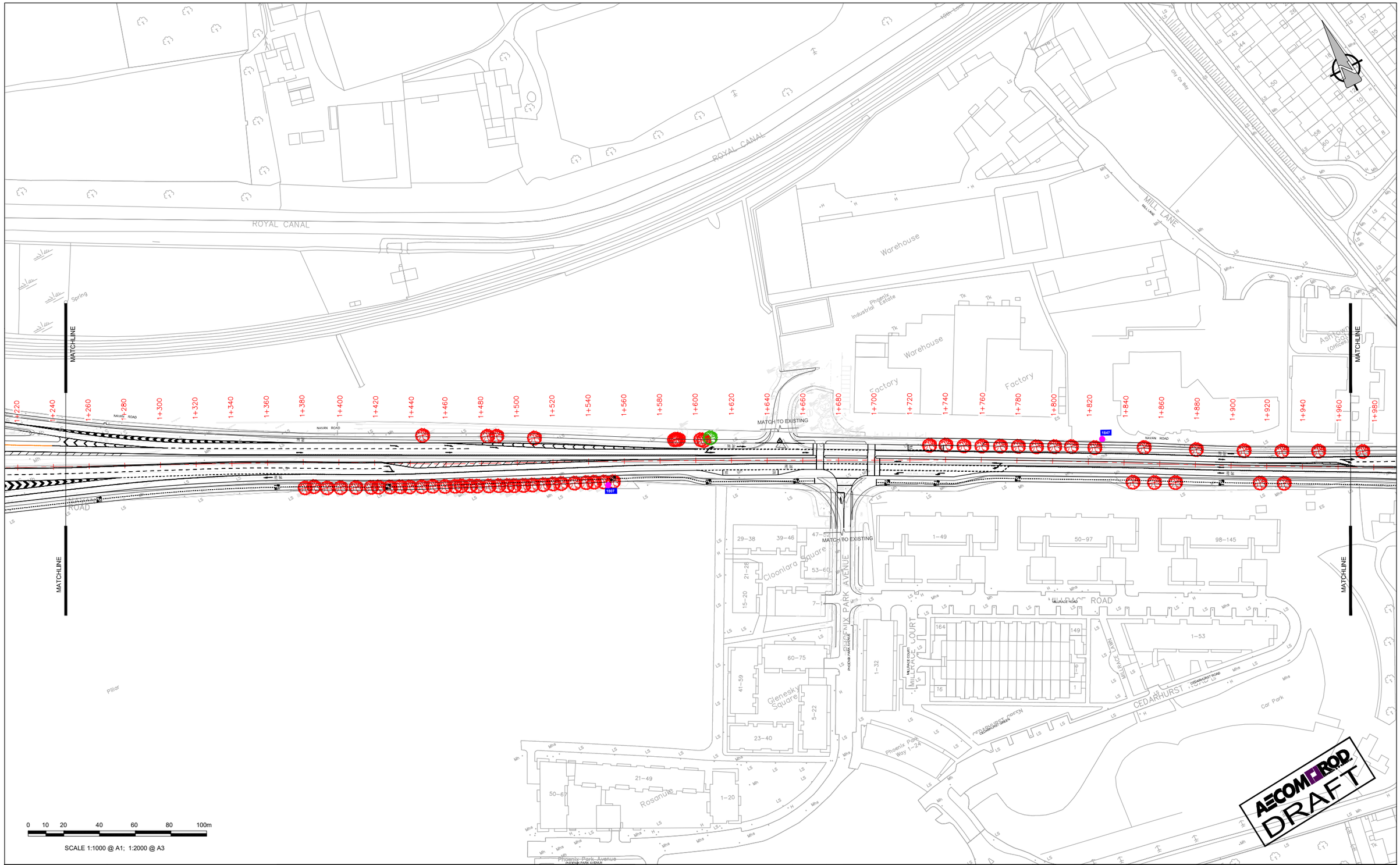

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Stage			Date		App'd
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RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 3 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.3	A

Scale: 1:1000 @A1 Date: NOV. 2017

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Dec 18, 2017 - 9:02pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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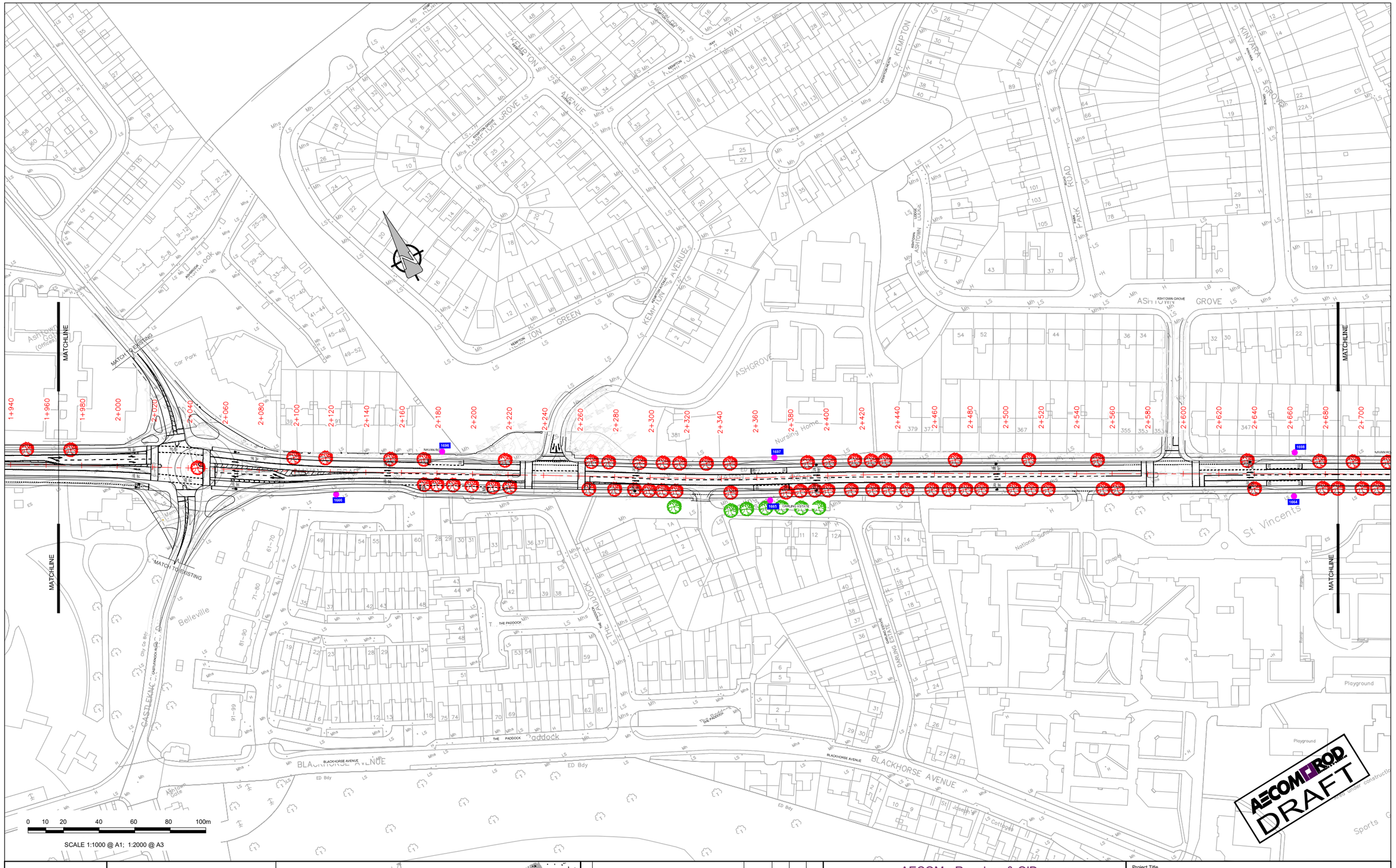

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No.	Revision	Date	By	Chk'd	App'd
	Stage		Date		App'd
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 4 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.4	A

Scale: 1:1000 @A1 | Date: NOV. 2017

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Dec 18, 2017 - 9:03pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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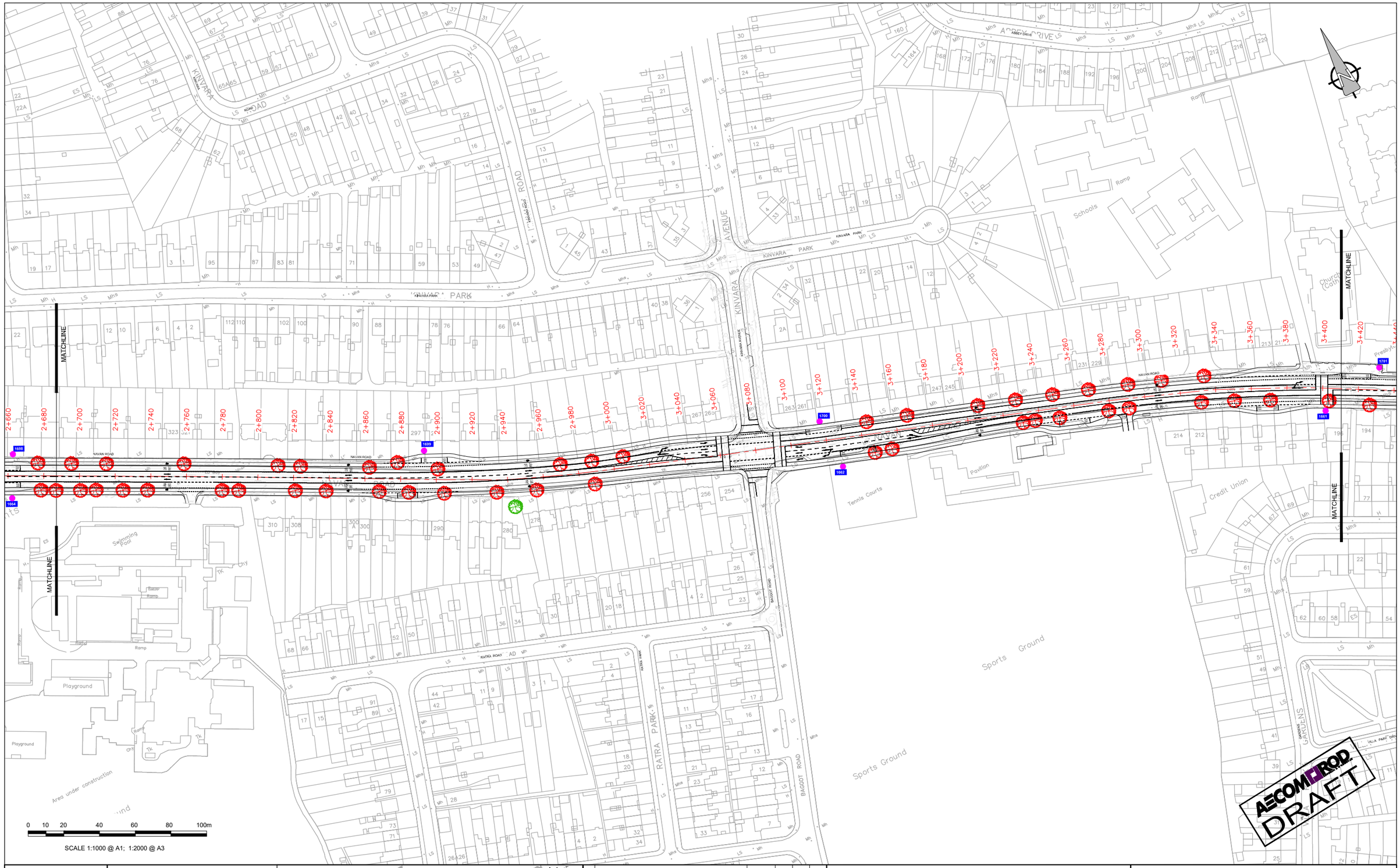

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No.	Revision	Date	By	Chk'd	App'd
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 5 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.5	A
Scale: 1:1000 @A1	Date: NOV. 2017		

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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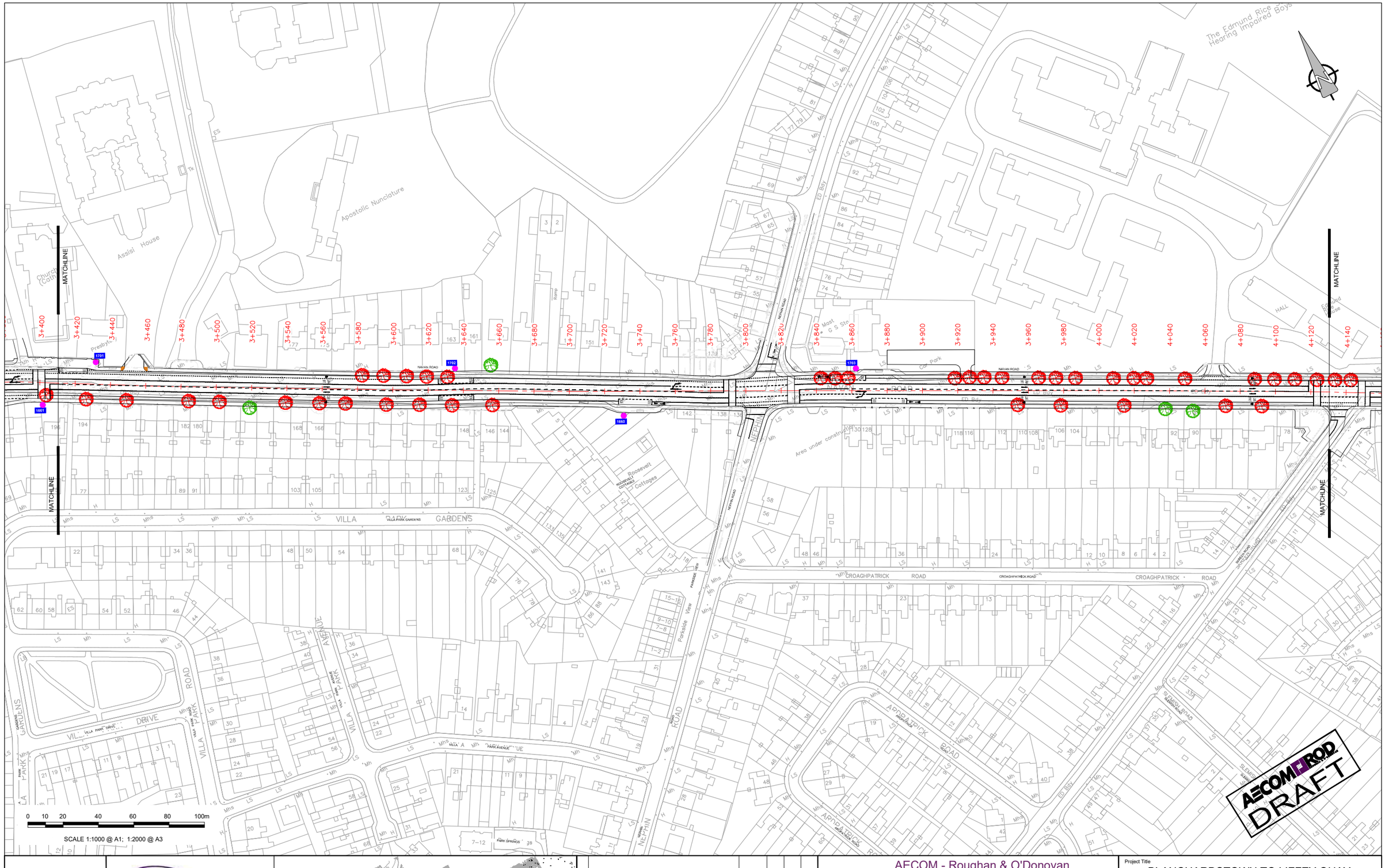

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KEY PLAN
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No.	Revision	Date	By	Chk'd	App'd
	Stage		Date		App'd
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RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 6 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.6	A
Scale: 1:1000 @A1	Date: NOV. 2017		

Dec 18, 2017 - 9:05pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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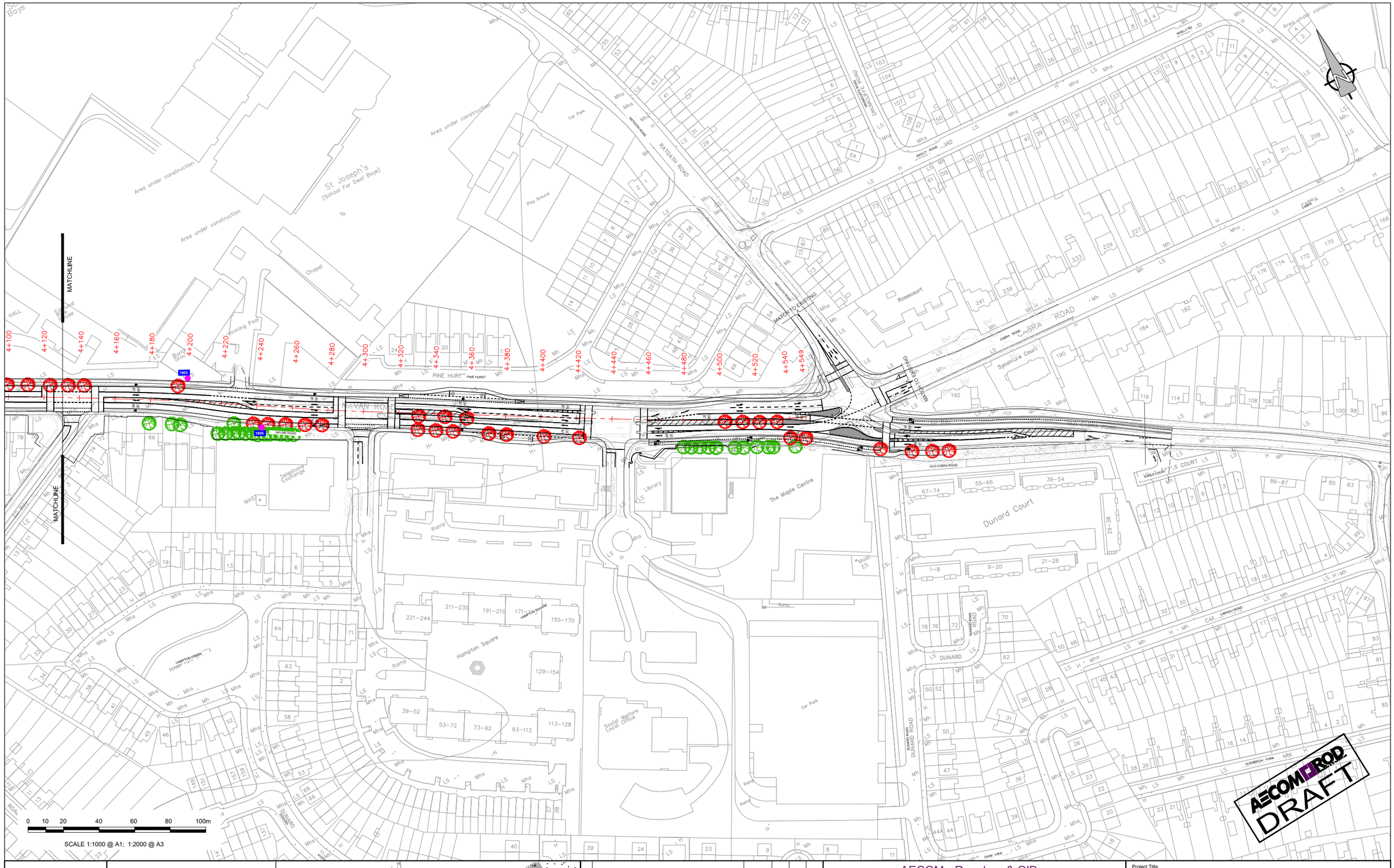

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KEY PLAN
N.T.S.

No.	Revision	Date	By	Chk'd	App'd
	Stage		Date		App'd
	PRELIMINARY				
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 7 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.7	A
Scale: 1:1000 @A1	Date: NOV. 2017		

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Dec 18, 2017 - 9:06pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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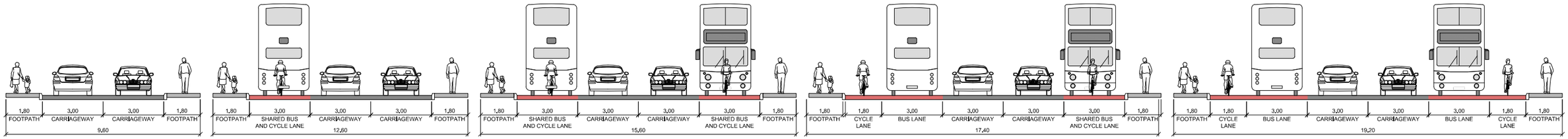


TYPICAL CROSS SECTION A-A SCALE 1:100@A1

TYPICAL CROSS SECTION B-B SCALE 1:100@A1

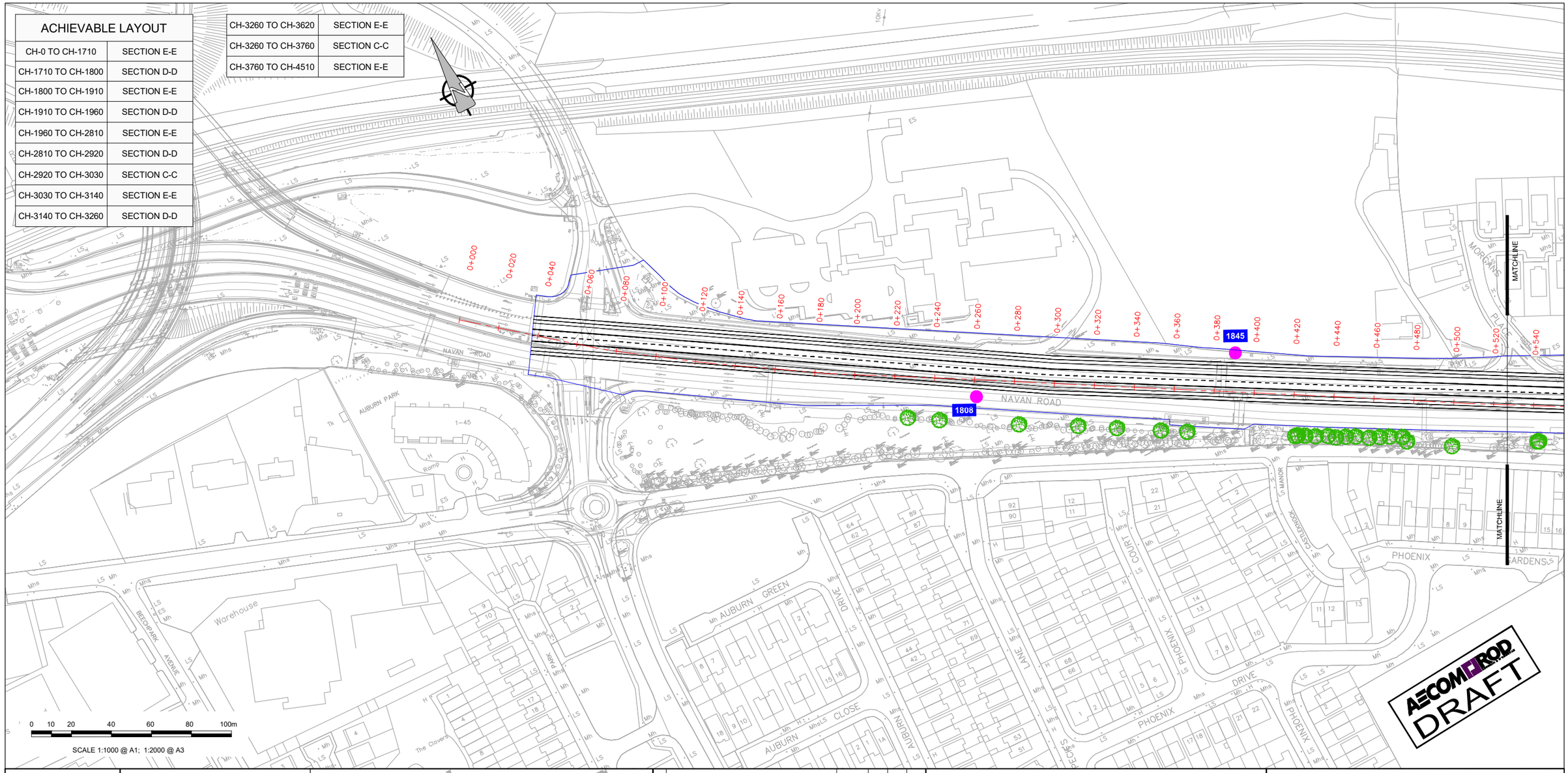
TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-1710	SECTION E-E
CH-1710 TO CH-1800	SECTION D-D
CH-1800 TO CH-1910	SECTION E-E
CH-1910 TO CH-1960	SECTION D-D
CH-1960 TO CH-2810	SECTION E-E
CH-2810 TO CH-2920	SECTION D-D
CH-2920 TO CH-3030	SECTION C-C
CH-3030 TO CH-3140	SECTION E-E
CH-3140 TO CH-3260	SECTION D-D

CH-3260 TO CH-3620	SECTION E-E
CH-3260 TO CH-3760	SECTION C-C
CH-3760 TO CH-4510	SECTION E-E



AECOM DRAFT

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KEY PLAN
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No.	Revision	Date	By	Chk'd	App'd
Stage			Date		App'd
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A2
SHEET 1 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A2.1	A
Scale: 1:1000 @A1	Date: NOV. 2017		

Dec 18, 2017 - 6:25pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_2.1.dwg

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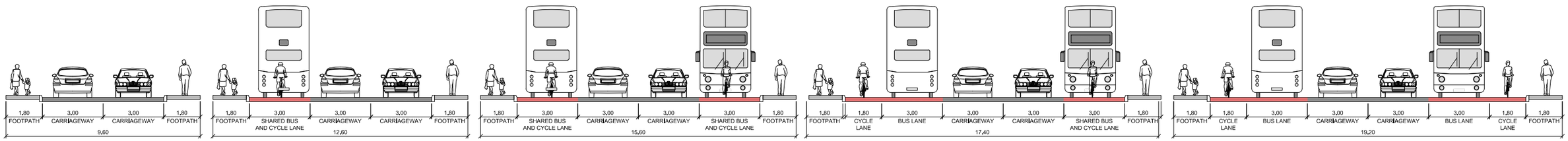


TYPICAL CROSS SECTION A-A SCALE 1:100@A1

TYPICAL CROSS SECTION B-B SCALE 1:100@A1

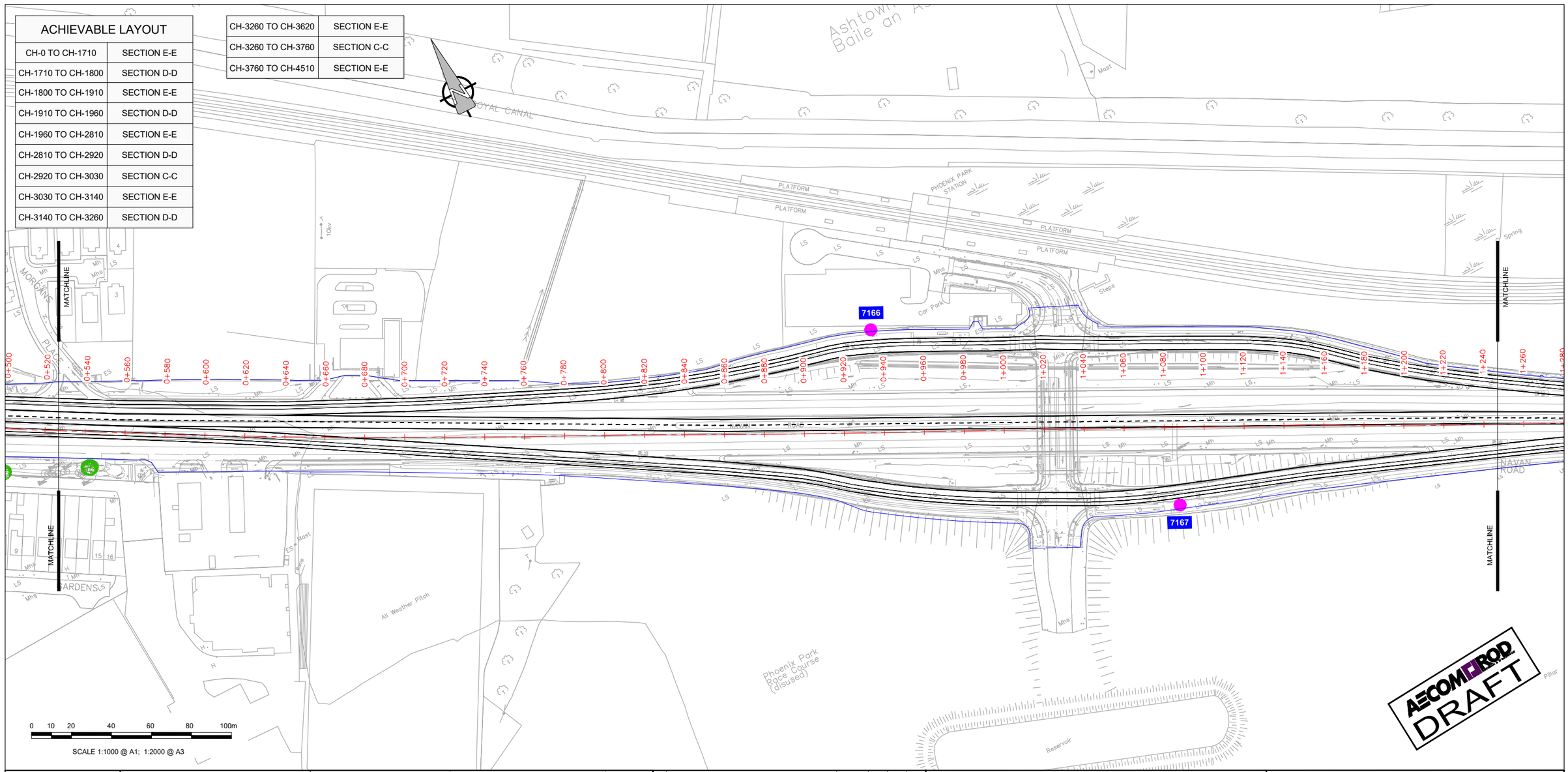
TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-1710	SECTION E-E
CH-1710 TO CH-1800	SECTION D-D
CH-1800 TO CH-1910	SECTION E-E
CH-1910 TO CH-1960	SECTION D-D
CH-1960 TO CH-2810	SECTION E-E
CH-2810 TO CH-2920	SECTION D-D
CH-2920 TO CH-3030	SECTION C-C
CH-3030 TO CH-3140	SECTION E-E
CH-3140 TO CH-3260	SECTION D-D

CH-3260 TO CH-3620	SECTION E-E
CH-3260 TO CH-3760	SECTION C-C
CH-3760 TO CH-4510	SECTION E-E



0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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KEY PLAN
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No.	Revision	Date	By	Chk'd	App'd
	Stage		Date		App'd
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 2A2 SHEET 2 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A2.2	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 6:25pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_2.1.dwg

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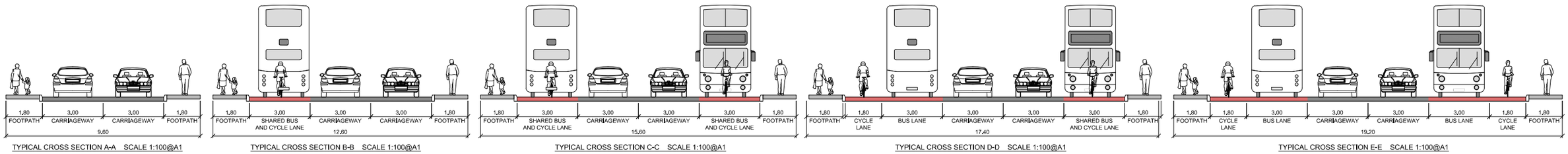

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TYPICAL CROSS SECTION B-B SCALE 1:100@A1

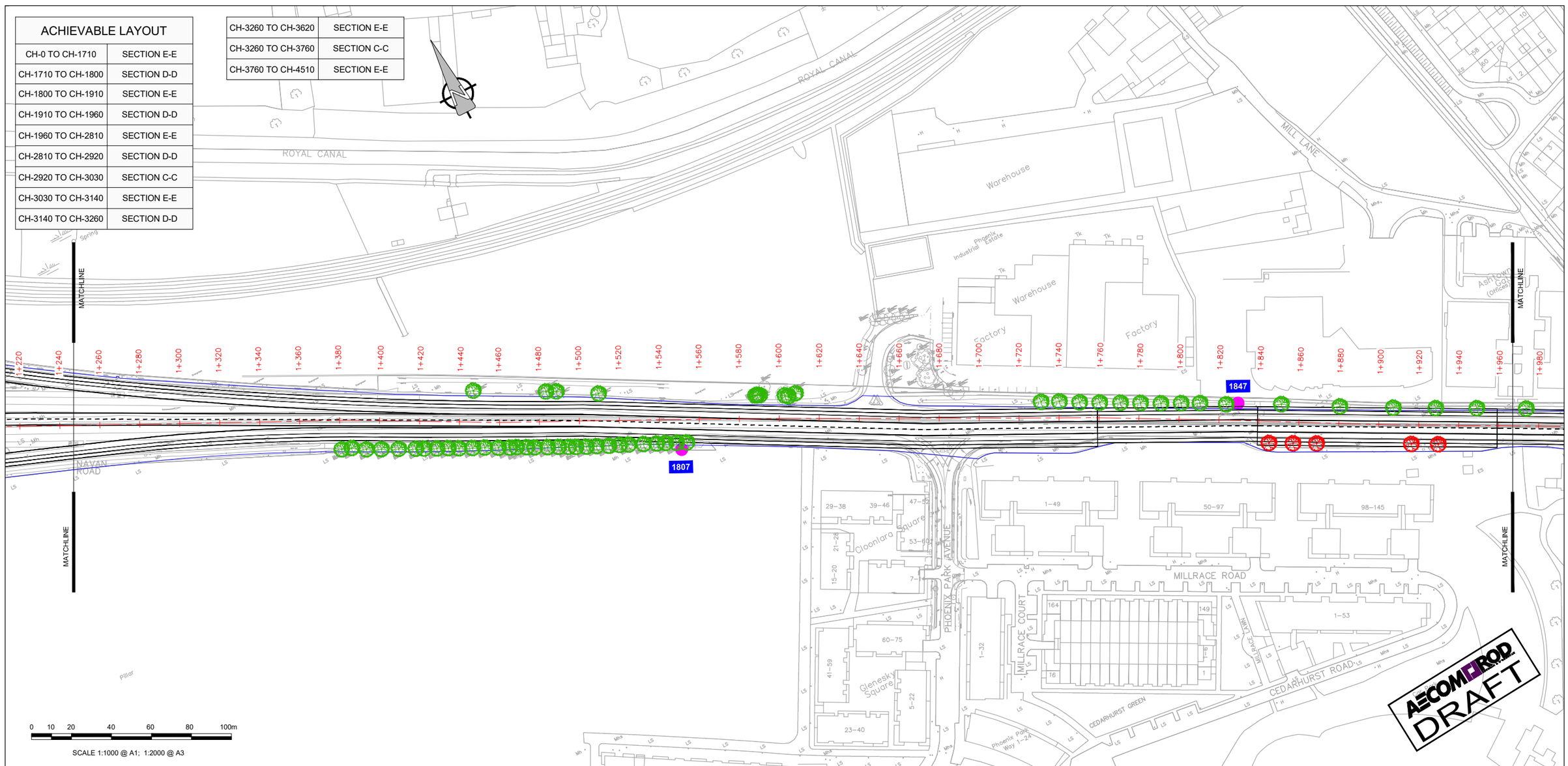
TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-1710	SECTION E-E
CH-1710 TO CH-1800	SECTION D-D
CH-1800 TO CH-1910	SECTION E-E
CH-1910 TO CH-1960	SECTION D-D
CH-1960 TO CH-2810	SECTION E-E
CH-2810 TO CH-2920	SECTION D-D
CH-2920 TO CH-3030	SECTION C-C
CH-3030 TO CH-3140	SECTION E-E
CH-3140 TO CH-3260	SECTION D-D

CH-3260 TO CH-3620	SECTION E-E
CH-3260 TO CH-3760	SECTION C-C
CH-3760 TO CH-4510	SECTION E-E



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National Transport Authority

KEY PLAN
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No.	Revision	Date	By	Chk'd	App'd
	Stage		Date		App'd
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	CONSTRUCTION				

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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 2A2 SHEET 3 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A2.3	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 6:26pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_2.1.dwg

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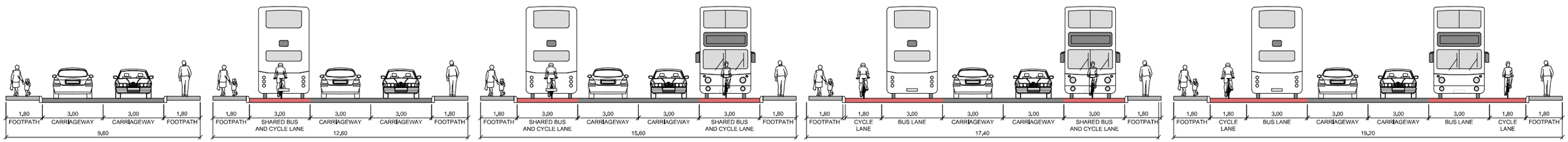

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TYPICAL CROSS SECTION B-B SCALE 1:100@A1

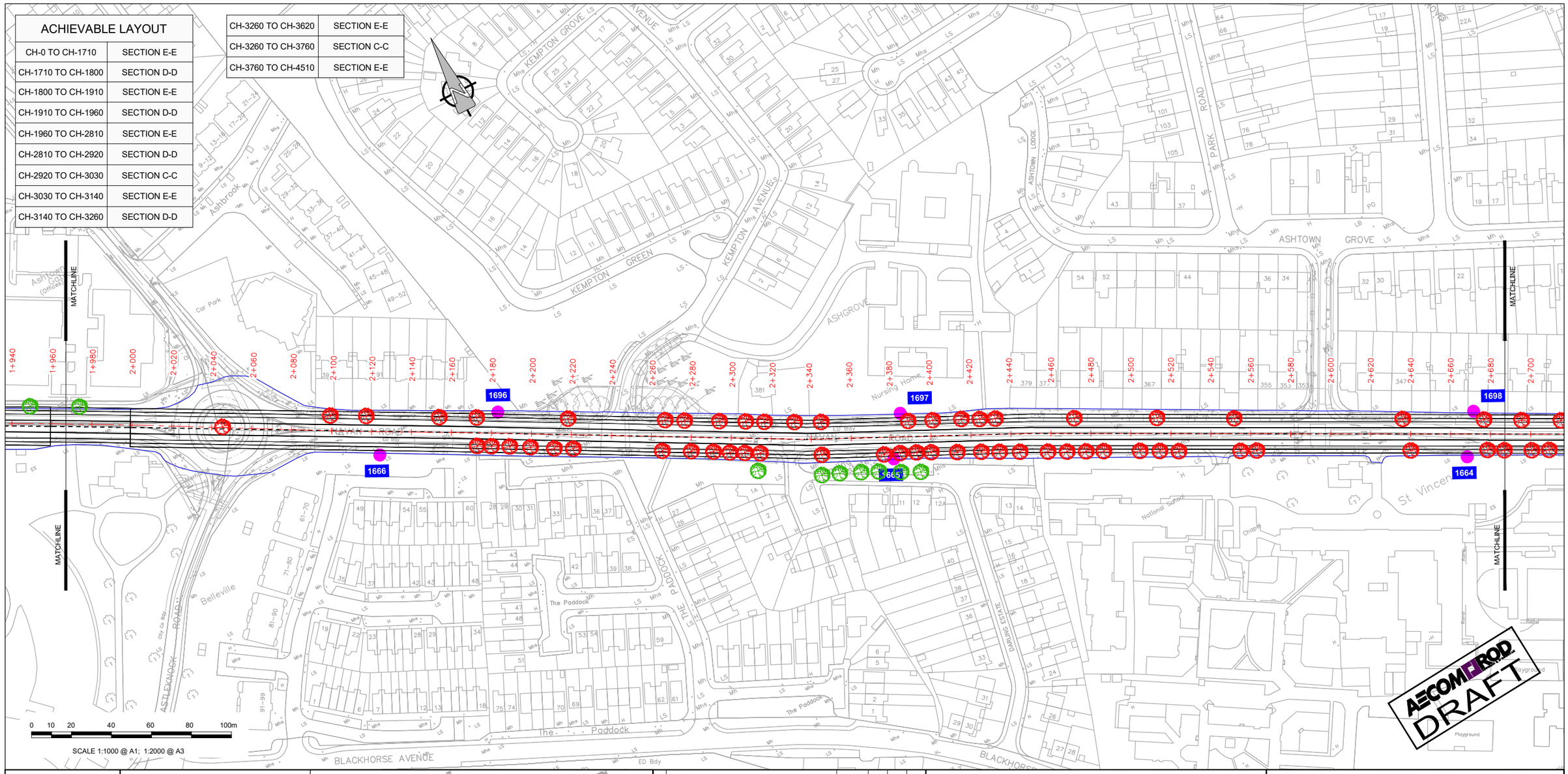
TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-1710	SECTION E-E
CH-1710 TO CH-1800	SECTION D-D
CH-1800 TO CH-1910	SECTION E-E
CH-1910 TO CH-1960	SECTION D-D
CH-1960 TO CH-2810	SECTION E-E
CH-2810 TO CH-2920	SECTION D-D
CH-2920 TO CH-3030	SECTION C-C
CH-3030 TO CH-3140	SECTION E-E
CH-3140 TO CH-3260	SECTION D-D

CH-3260 TO CH-3620	SECTION E-E
CH-3260 TO CH-3760	SECTION C-C
CH-3760 TO CH-4510	SECTION E-E



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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A2
SHEET 4 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A2.4	A

Scale: 1:1000 @A1 Date: NOV. 2017

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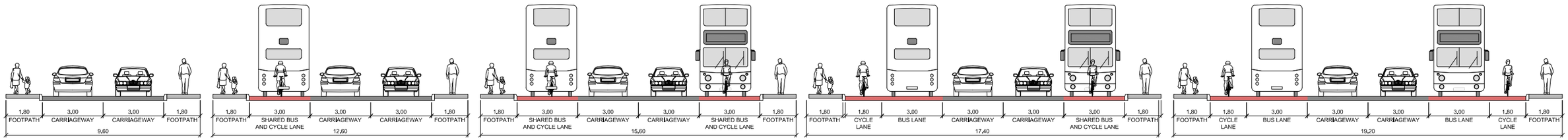

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TYPICAL CROSS SECTION B-B SCALE 1:100@A1

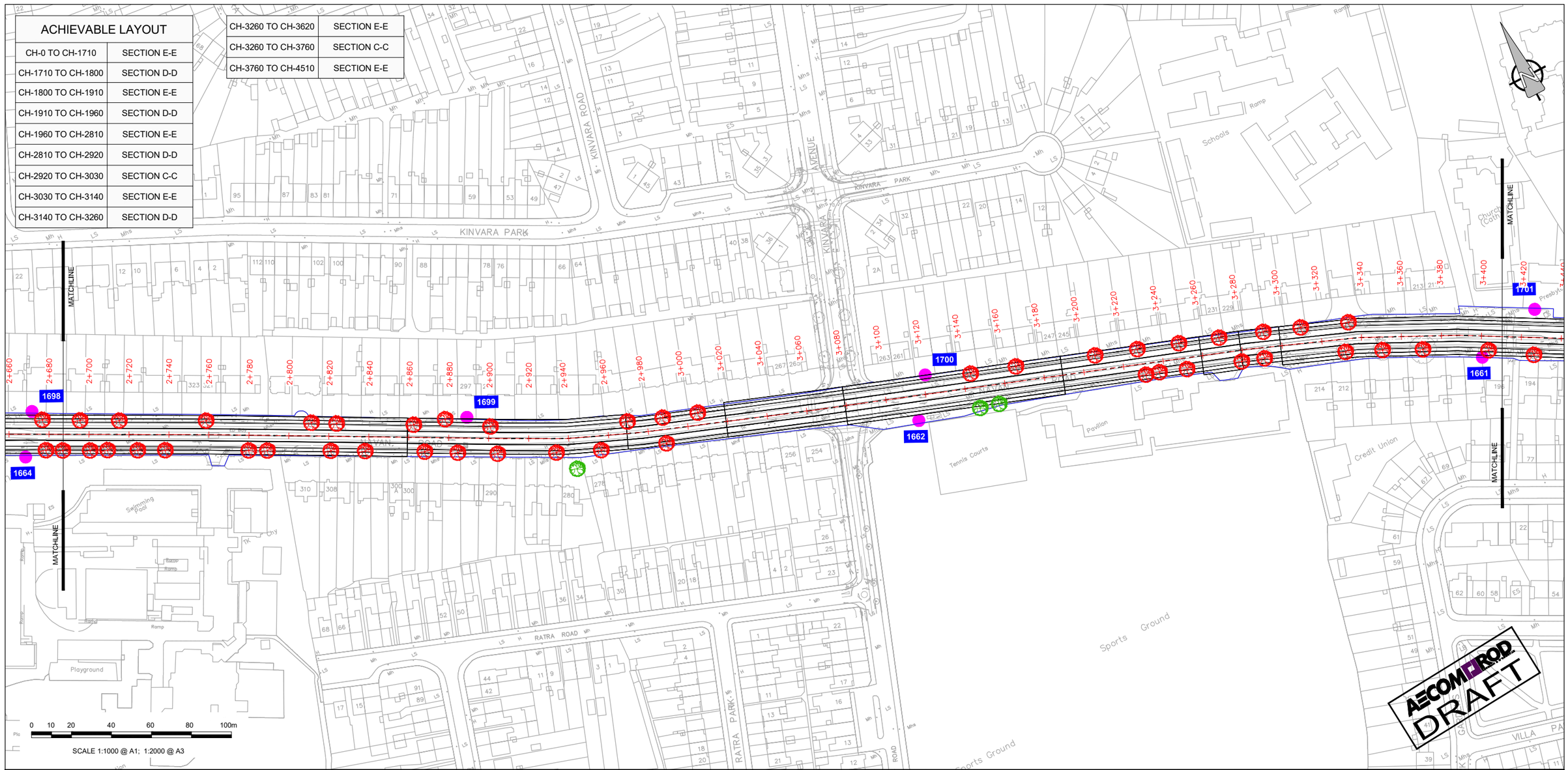
TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-1710	SECTION E-E
CH-1710 TO CH-1800	SECTION D-D
CH-1800 TO CH-1910	SECTION E-E
CH-1910 TO CH-1960	SECTION D-D
CH-1960 TO CH-2810	SECTION E-E
CH-2810 TO CH-2920	SECTION D-D
CH-2920 TO CH-3030	SECTION C-C
CH-3030 TO CH-3140	SECTION E-E
CH-3140 TO CH-3260	SECTION D-D

CH-3260 TO CH-3620	SECTION E-E
CH-3260 TO CH-3760	SECTION C-C
CH-3760 TO CH-4510	SECTION E-E



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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 2A2 SHEET 5 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A2.5	A
Scale: 1:1000 @A1	Date: NOV. 2017		

Dec 18, 2017 - 6:28pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_2.1.dwg

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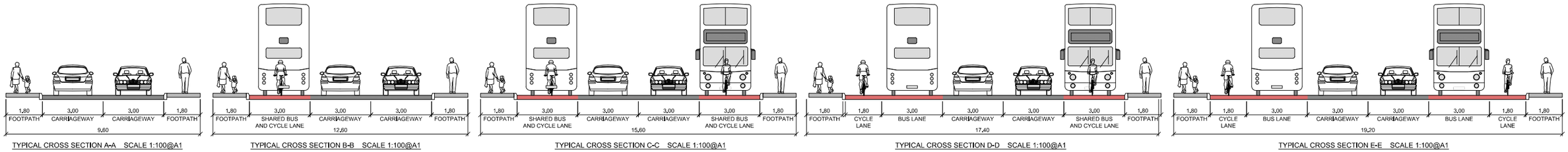

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TYPICAL CROSS SECTION B-B SCALE 1:100@A1

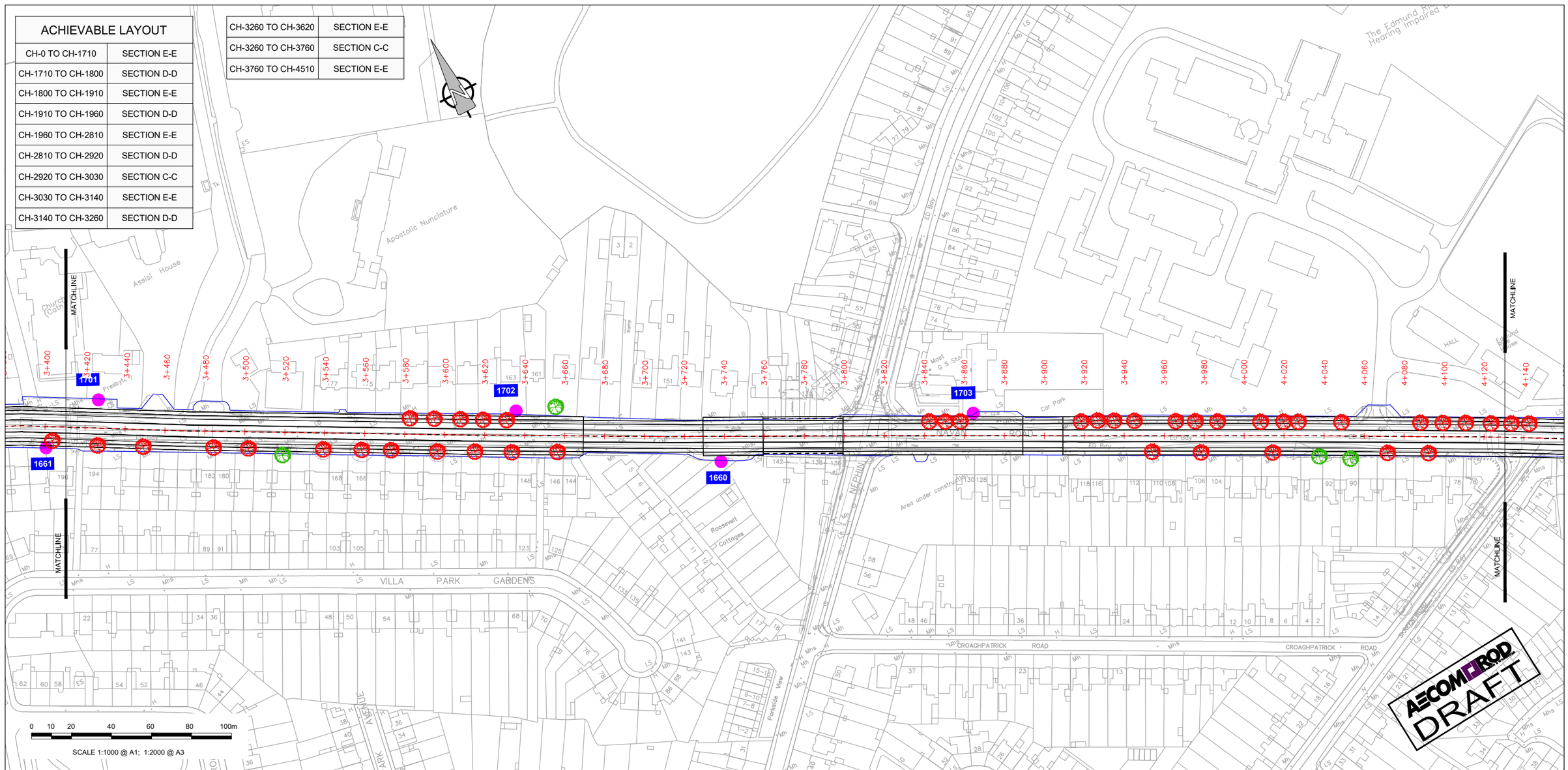
TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-1710	SECTION E-E
CH-1710 TO CH-1800	SECTION D-D
CH-1800 TO CH-1910	SECTION E-E
CH-1910 TO CH-1960	SECTION D-D
CH-1960 TO CH-2810	SECTION E-E
CH-2810 TO CH-2920	SECTION D-D
CH-2920 TO CH-3030	SECTION C-C
CH-3030 TO CH-3140	SECTION E-E
CH-3140 TO CH-3260	SECTION D-D

CH-3260 TO CH-3620	SECTION E-E
CH-3260 TO CH-3760	SECTION C-C
CH-3760 TO CH-4510	SECTION E-E



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No.	Revision	Date	By	Chk'd	App'd
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 2A2 SHEET 6 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A2.6	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 6:29pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_2.1.dwg

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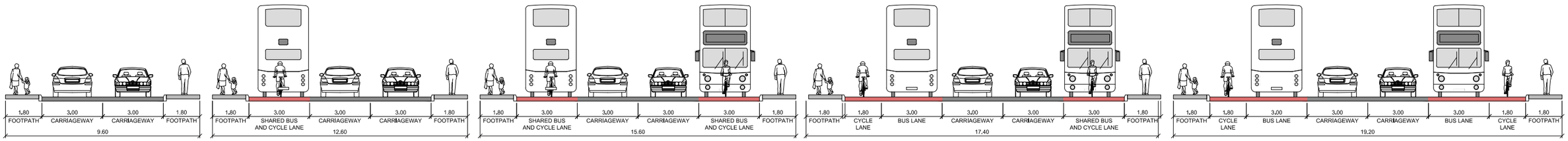

TYPICAL CROSS SECTION A-A SCALE 1:100@A1

TYPICAL CROSS SECTION B-B SCALE 1:100@A1

TYPICAL CROSS SECTION C-C SCALE 1:100@A1

TYPICAL CROSS SECTION D-D SCALE 1:100@A1

TYPICAL CROSS SECTION E-E SCALE 1:100@A1

ACHIEVABLE LAYOUT	
CH-0 TO CH-1710	SECTION E-E
CH-1710 TO CH-1800	SECTION D-D
CH-1800 TO CH-1910	SECTION E-E
CH-1910 TO CH-1960	SECTION D-D
CH-1960 TO CH-2810	SECTION E-E
CH-2810 TO CH-2920	SECTION D-D
CH-2920 TO CH-3030	SECTION C-C
CH-3030 TO CH-3140	SECTION E-E
CH-3140 TO CH-3260	SECTION D-D

CH-3260 TO CH-3620	SECTION E-E
CH-3260 TO CH-3760	SECTION C-C
CH-3760 TO CH-4510	SECTION E-E

MATCHLINE

MATCHLINE

1905

1806

4+060 4+080 4+100 4+120 4+140 4+160 4+180 4+200 4+220 4+240 4+260 4+280 4+300 4+320 4+340 4+360 4+380 4+400 4+420 4+440 4+460 4+480 4+500 4+520 4+540 4+549

0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

Area under construction

St Joseph's (School For Deaf Boys)

Play Ground

Car Park

Chapel

Swimming Pool

HALL

Telephone Exchange

MAST

Ramp

Library

The Maple Centre

Most ES

Rosscourt

Sycamore Court

Dunard Court

Hampton Square

RATOATH ROAD

DUNCAIRN ROAD

SWILLY RD

SWILLY ROAD

CABRA ROAD

OLD CABRA ROAD

EARLS COURT

DUNARD

PINE HURST

HAMPTON GREEN

ROAD

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No.	Revision	Date	By	Chk'd	App'd
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RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A2
SHEET 7 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A2.7	A

Scale: 1:1000 @A1 Date: NOV. 2017

DRAFT

Dec 18, 2017 - 6:29pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_2.1.dwg

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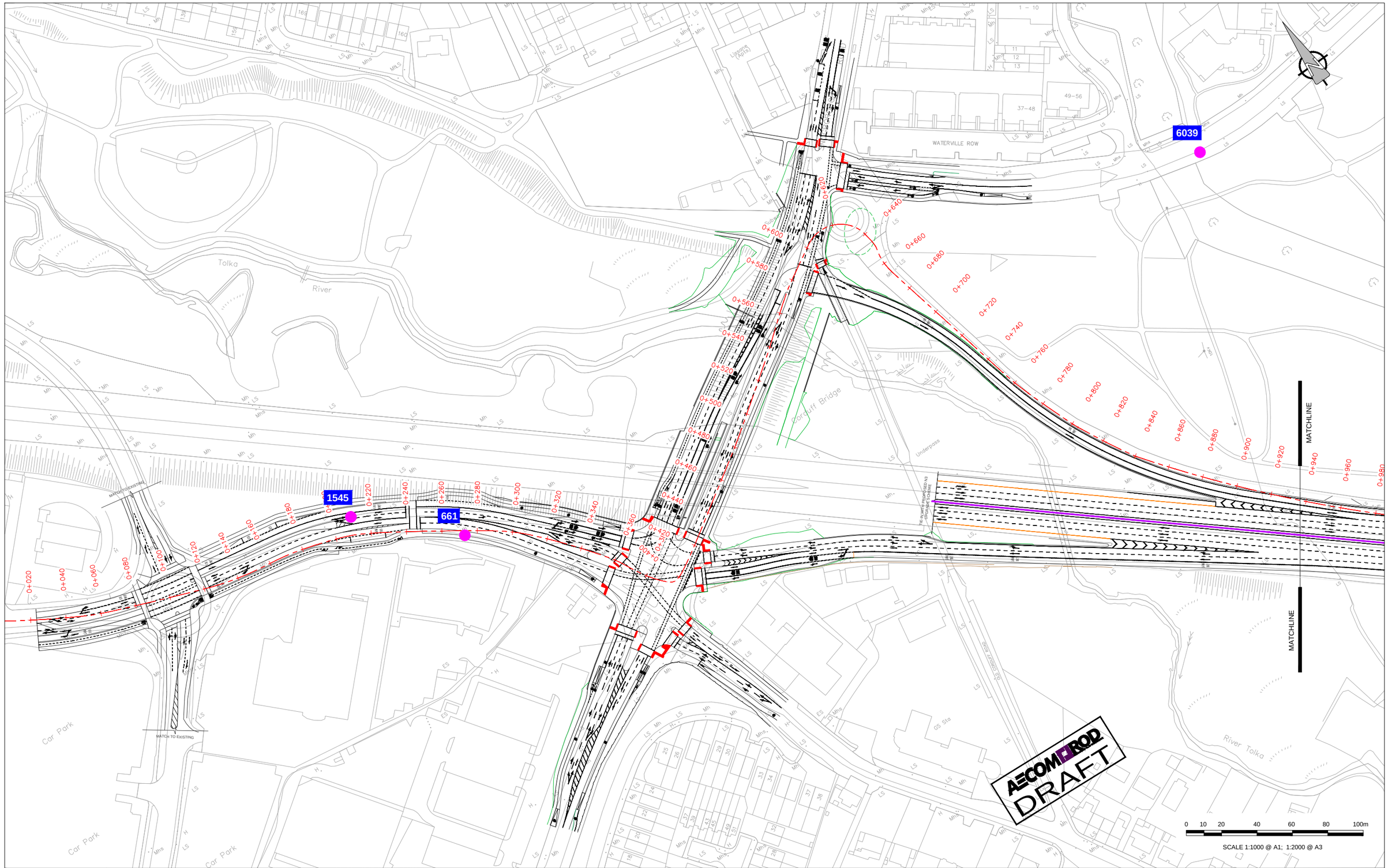

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No.	Revision	Date	By	Chk'd	App'd
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Designed:	Checked:	Approved:	Status:
SC	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS ROUTE OPTION 1B1 SHEET 1 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_1.1	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 6:46pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_1.1.dwg

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6039

7297

7298

MATCHLINE

MATCHLINE

MATCHLINE

0+760 0+780 0+800 0+820 0+840 0+860 0+880 0+900 0+920 0+940 0+960 0+980 1+000 1+020 1+040 1+060 1+080 1+100 1+120 1+140 1+160 1+180 1+200 1+220 1+240 1+260 1+280 1+300 1+320 1+340 1+360 1+380 1+400 1+420 1+440 1+460 1+480 1+500 1+520 1+540

Institute of Horology

JAMES CONNOLLY MEMORIAL HOSPITAL

Car Park

Car Park

POND

Tolka River

River Tolka

MILL ROAD

HERBERT ROAD

BLANCHARD

MILLSTED

RIVER ROAD

AECOM ROD DRAFT

0 10 20 40 60 80 100m

SCALE 1:1000 @ A1; 1:2000 @ A3

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1B1
SHEET 2 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_1.2	A

Scale: 1:1000 @A1 | Date: NOV. 2017

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Dec 18, 2017 - 6:46pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_1.1.dwg

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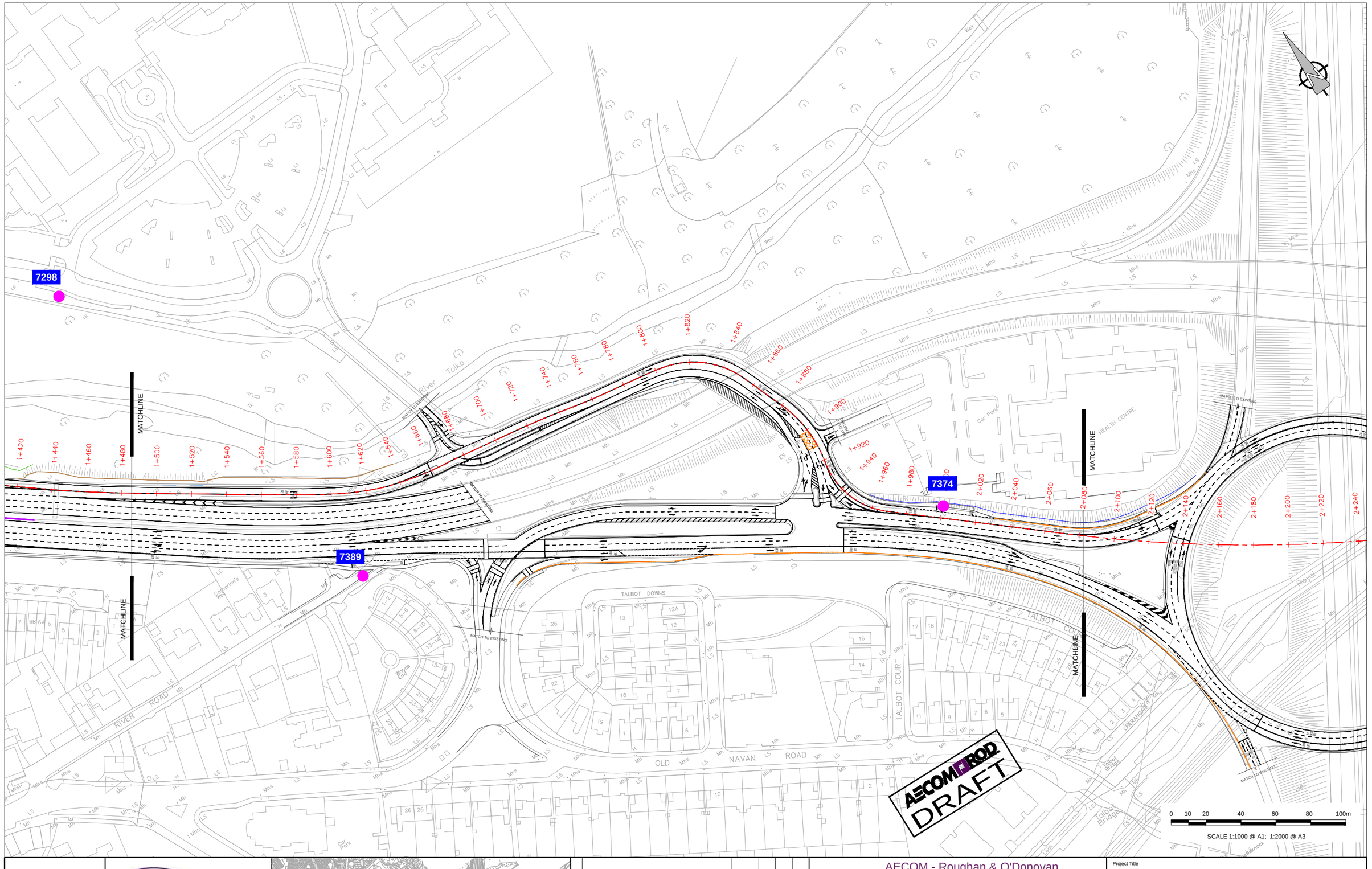

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1B1
SHEET 3 OF 4

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_1B_1.3	A
Scale: 1:1000 @A1	Date: NOV. 2017		

Dec 18, 2017 - 6:47pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_1.1.dwg

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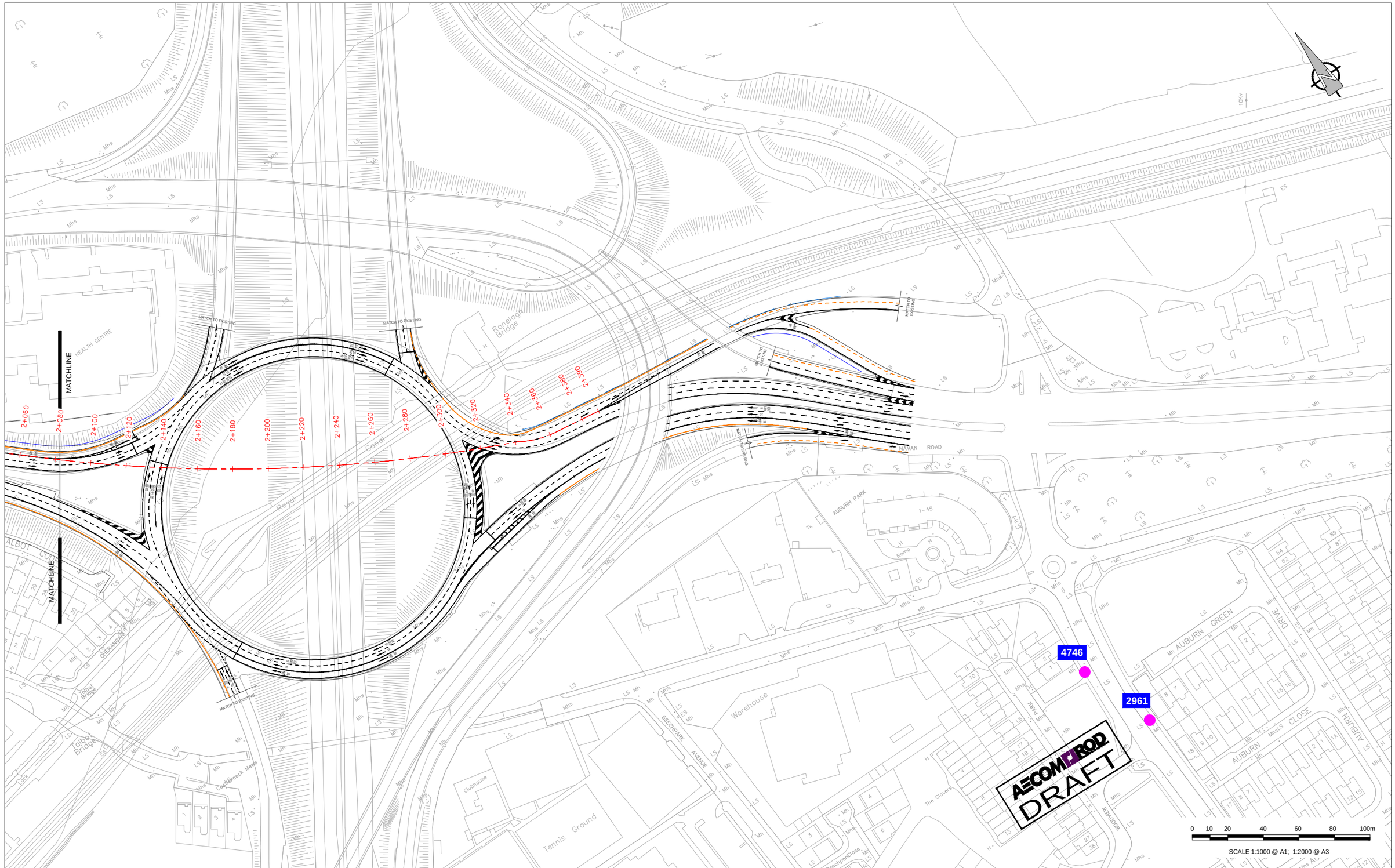

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 1B1
SHEET 4 OF 4

Drawn:	Job No:	Drawing No:	Rev:
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Dec 18, 2017 - 6:47pm Drawing Location: F:\Projects\Traffic - BxU BRT\03 EXECUTION\09 CAD\02 - Sheets (Drawings)\Route Options\60540050_SHT_20_CT_S1_1B_1.1.dwg

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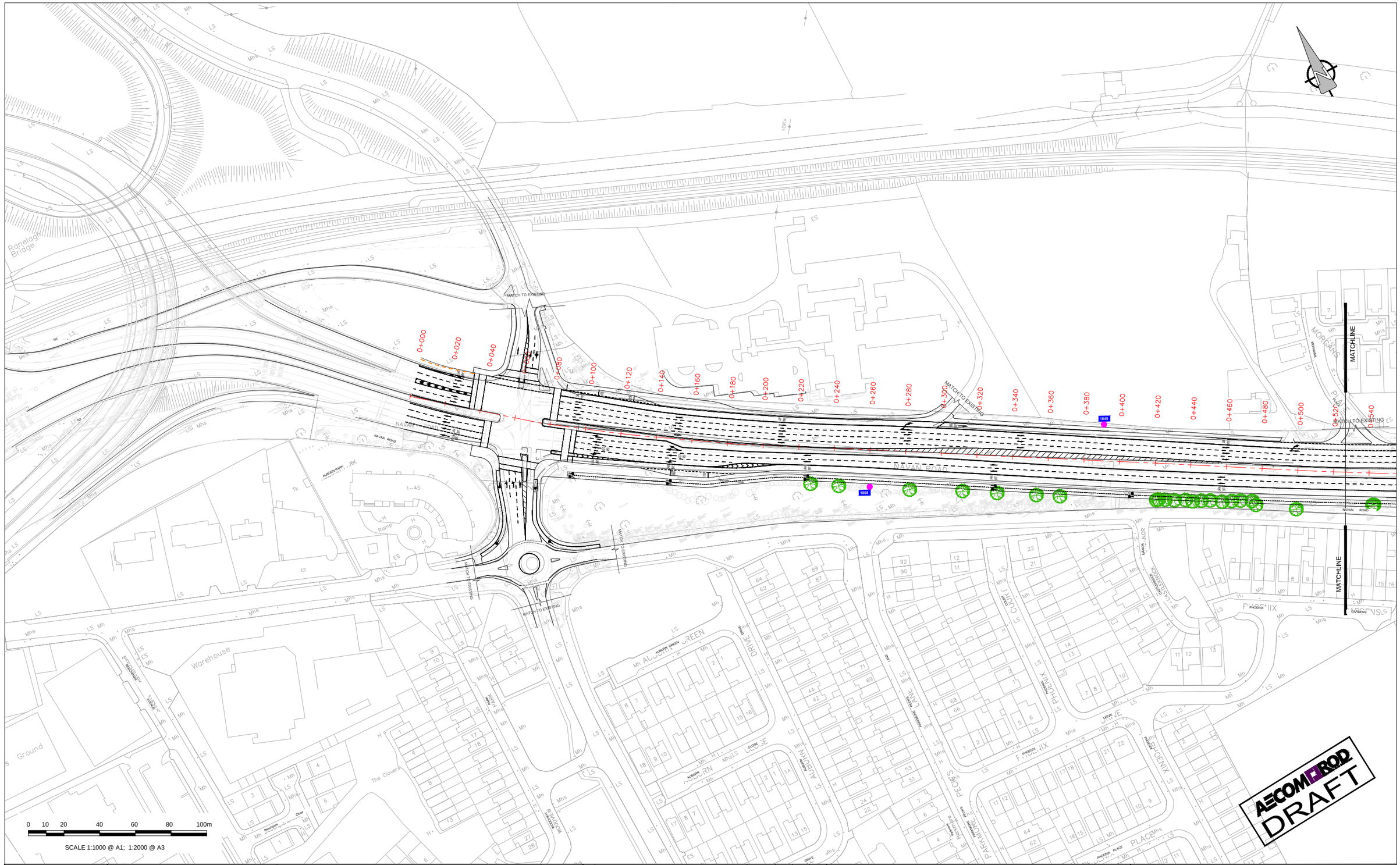

AECOM ROD DRAFT

Údarás Náisiúnta Iompair
National Transport Authority

KEY PLAN
N.T.S.

No.	Revision	Date	By	Ch'd	App'd
	Stage		Date		App'd
	PRELIMINARY				
	APPROVAL				
	TENDER				
	CONSTRUCTION				

AECOM - Roughan & O'Donovan

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www.aecom.com

AECOM ROD ROUGHAN & O'DONOVAN

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 1 OF 7

Designed:	Checked:	Approved:	Status:	Drawn:	Job No:	Drawing No:	Rev:
RH	--	--	CONCEPT	RH	60540050	SHT_20_CT_S1_2A1.1	A

Scale: 1:1000 @A1 Date: NOV. 2017

Dec 18, 2017 - 9:01pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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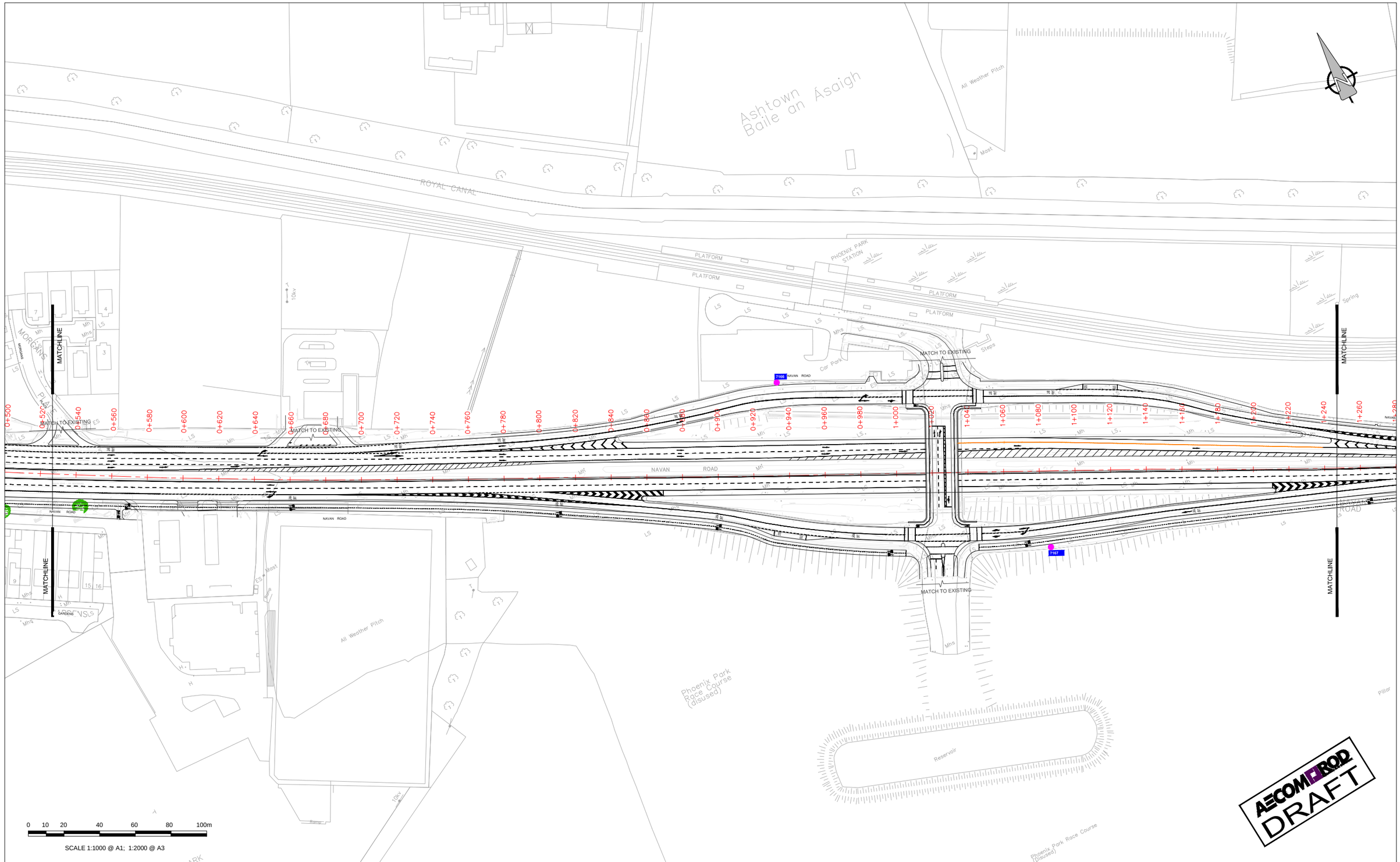

DRAFT

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No.	Revision	Date	By	Ch'd	App'd
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 2 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.2	A

Scale: 1:1000 @A1 | Date: NOV. 2017

Dec 18, 2017 - 9:02pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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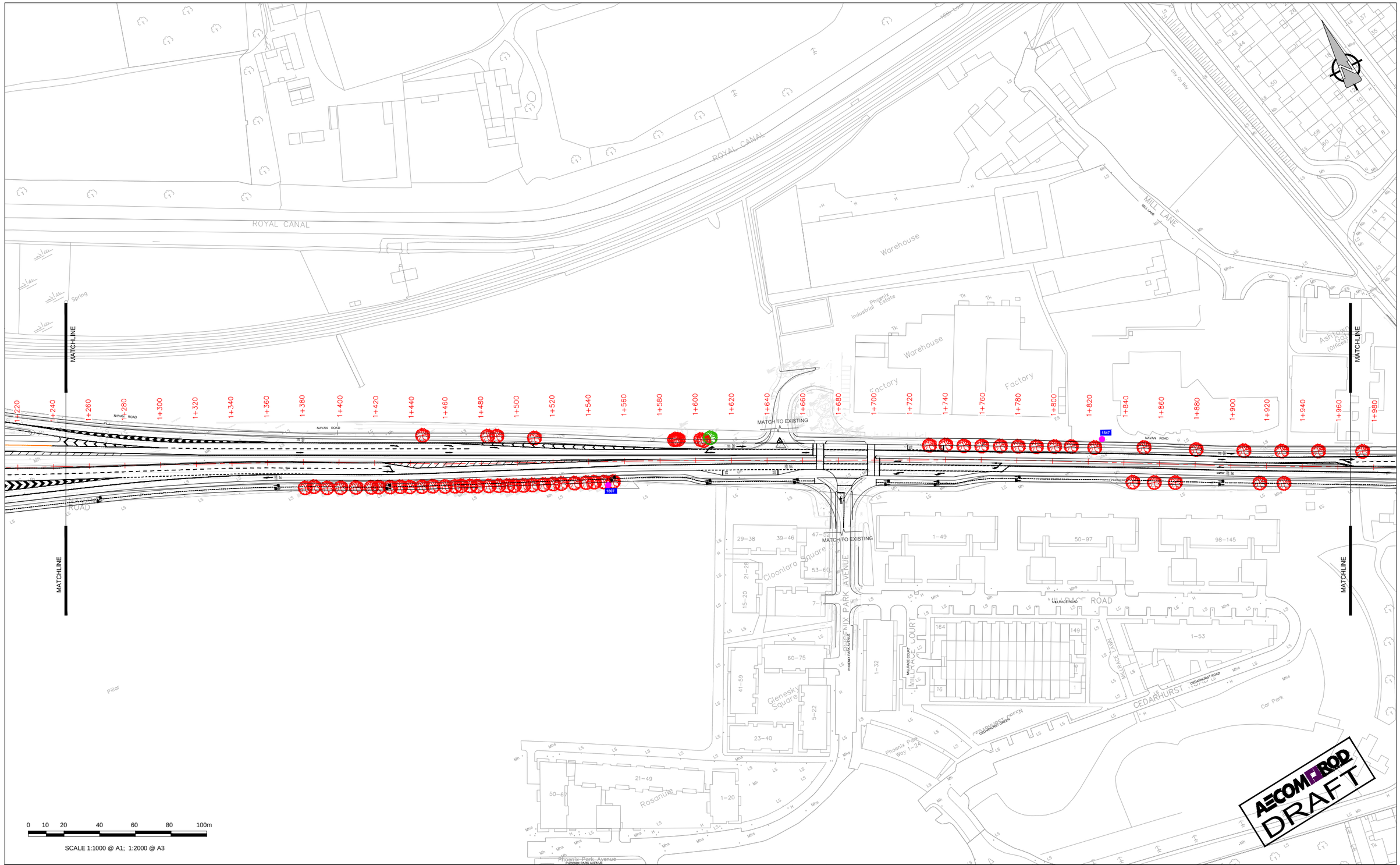

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KEY PLAN
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No.	Revision	Date	By	Chk'd	App'd
Stage			Date		App'd
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Designed:	Checked:	Approved:	Status:
RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 3 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.3	A
Scale: 1:1000 @A1	Date: NOV. 2017		

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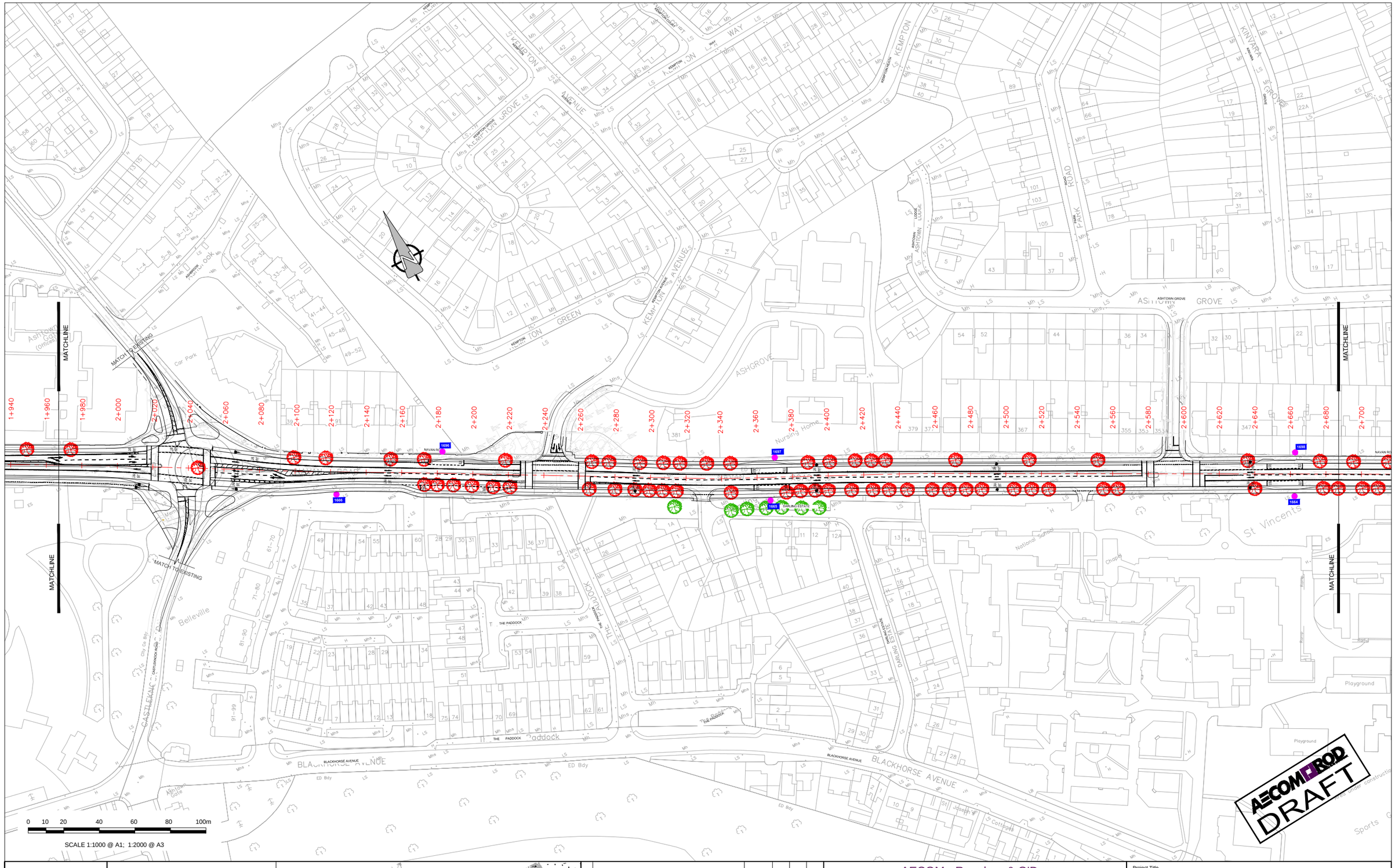

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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 4 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.4	A

Scale: 1:1000 @A1 | Date: NOV. 2017

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Dec 18, 2017 - 9:03pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

Last saved by: HANNANR(2017-12-18) Last Plotted: 2017-12-18
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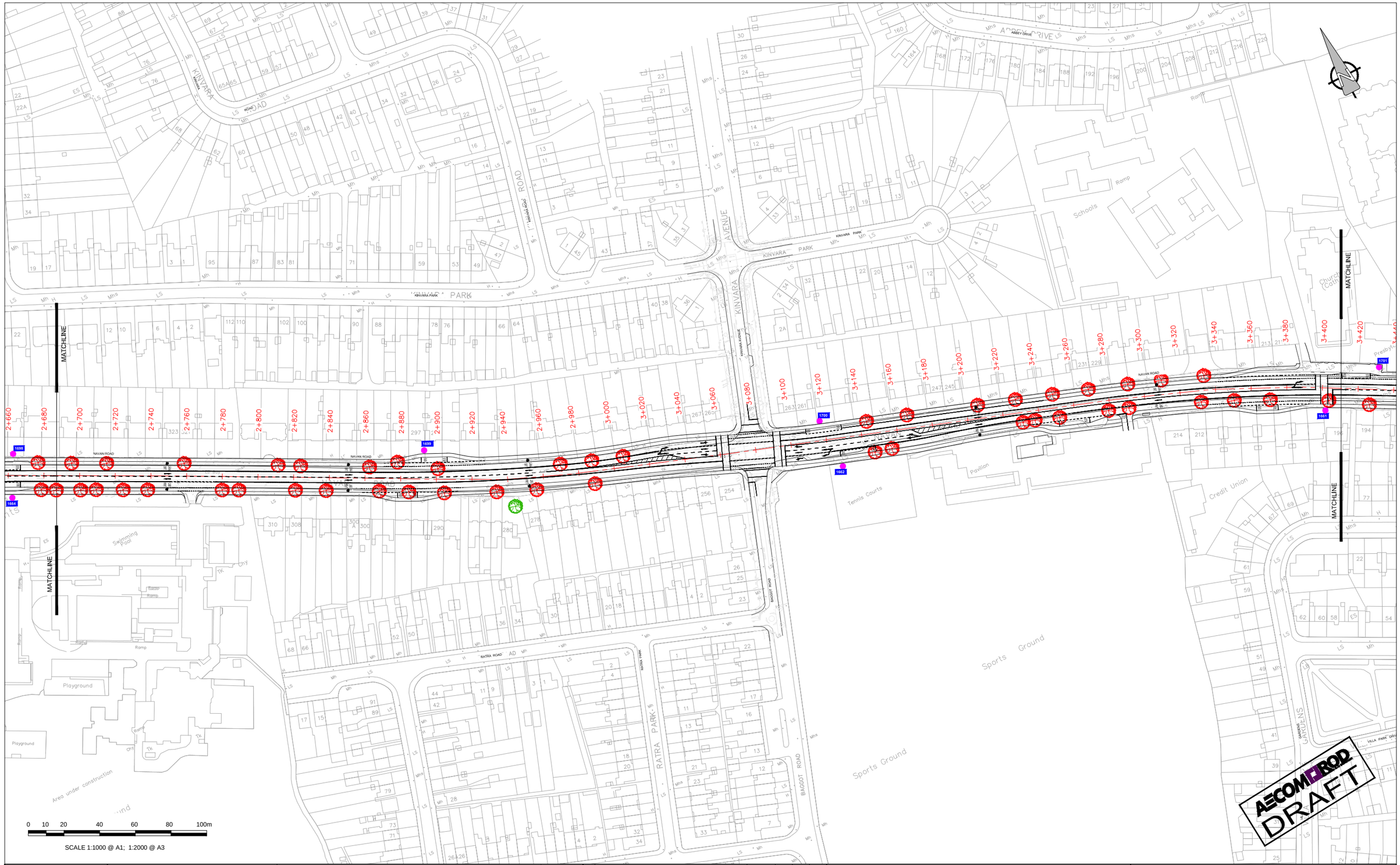

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RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 5 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.5	A

Scale: 1:1000 @A1 Date: NOV. 2017

DRAFT

Dec 18, 2017 - 9:04pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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Last saved by: HANNANR(2017-12-18) Last Plotted: 2017-12-18
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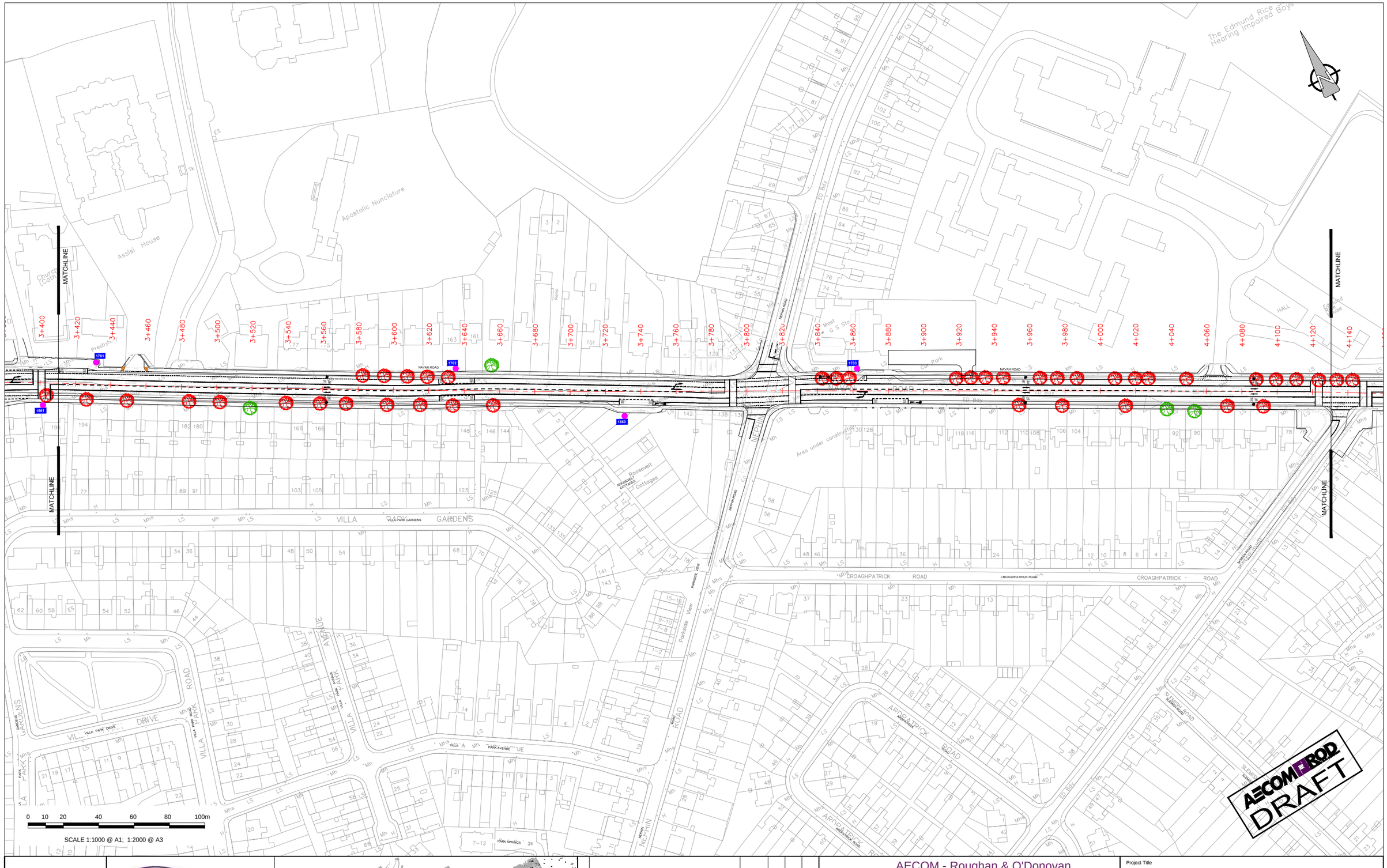

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RH	--	--	CONCEPT

Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 6 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.6	A
Scale: 1:1000 @A1	Date: NOV. 2017		

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Last saved by: HANNANR(2017-12-18) Last Plotted: 2017-12-18
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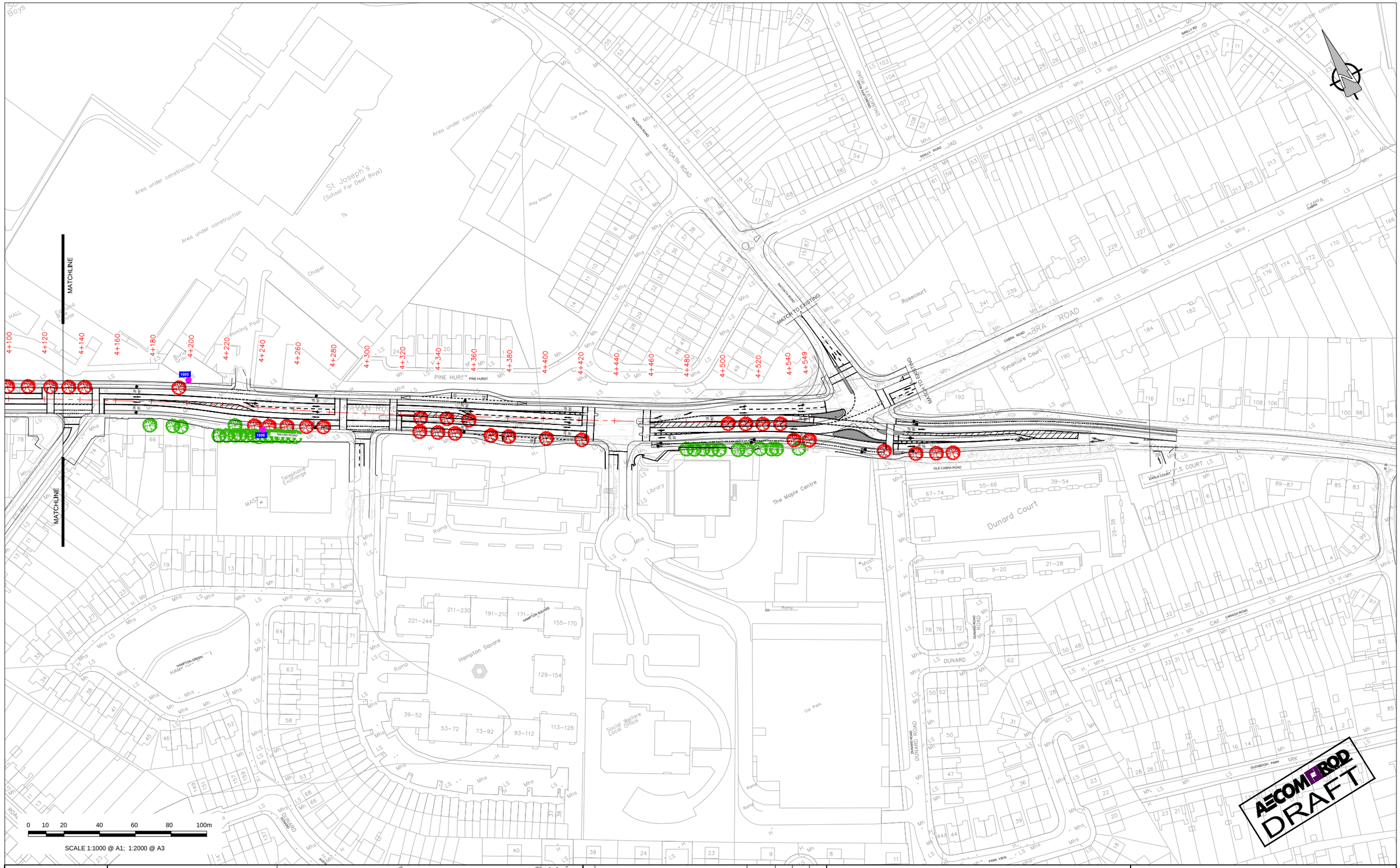

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Designed:	Checked:	Approved:	Status:
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Project Title: BLANCHARDSTOWN TO LIFFEY QUAY

Drawing Title: BLANCHARDSTOWN TO LIFFEY QUAYS
ROUTE OPTION 2A1
SHEET 7 OF 7

Drawn:	Job No:	Drawing No:	Rev:
RH	60540050	SHT_20_CT_S1_2A1.7	A
Scale: 1:1000 @A1	Date: NOV. 2017		

Dec 18, 2017 - 9:06pm Drawing Location: C:\Users\Hannanr\appdata\local\temp\AcPublish_7068\60540050_SHT_20_CT_S1_2A_1.1.dwg

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Last saved by: HANNANR(2017-12-18) Last Plotted: 2017-12-18
Filename: F:\PROJECTS\TRAFFIC - BKU BRT\03 EXECUTION\09 CAD\02 - SHEETS (DRAWINGS)\ROUTE OPTIONS\60540050_SHT_20_CT_S1_2A_1.1.DWG