

# **Clontarf to City Centre Project**

## **Design Considerations for Bus Stop Ref. 617 and 4384**

**(June 2023)**

## 1. Introduction

This mini report is intended to give some background relating to two bus stops on North Strand Road which are proposed to be removed as part of the *Clontarf to City Centre Scheme*. The design process for the Scheme has been defined by the planning consent which was obtained in late 2017, requiring amendments so that *'The locations of bus stops shall be examined and all bus stops along the route shall be redesigned to segregate buses and bicycles...'*. A more detailed report which provides further information on the bus stop spacing along the entire length of the Clontarf to City Scheme is available at this link ([Bus Stop Spacing Report](#)), and should be read in conjunction with this report.

## 2. Rationale for the Design of Bus Stop Locations

The proposal to remove bus stop 617 and 4384 was subsequently incorporated into the scheme detailed design since 2019 as per the *'bus stop locations'* drawing on page 8 of this report. The general design layout proposed for North Strand Road, which incorporates the previous locations of 617 and 4384, can be observed on page 9 of this report.

As part of the process the design team considered the following issues which included many physical and spacing limitations during the design optimisation of the bus stopping arrangements;

1. Segregation of cyclists and buses – the creation of an 'island' bus stop separates the buses from cyclists, this requires a 2.7m width to create a single bus stop platform which is separate to the footpath.
2. Existing street widths played a significant role in locating enough space for these 2.7m wide island bus stops. For example to the front of James Larkin House additional land was required, resulting in the installation of a significant soil retaining wall.
3. The bus islands are designed to include sufficient waiting/standing area for a greater number of passengers, thus increasing the capacity of individual stops as well as the comfort for waiting or alighting passengers.
4. The length of the bus islands are designed to accommodate two buses stopping concurrently, where practicable.
5. The requirement to have a fully accessible 160mm high bus kerb, required that the start and end of bus stops be located away from existing entrance / vehicular dishings (i.e. low height kerbs). This is essential for universal access to bus services.
6. Ideally the preferred location for bus stops is downstream of junctions, where they are served by crossing facilities at the junctions, and they won't be delayed by traffic lights when departing a stop. This also improves safety by

- reducing the probability of a stopped bus obstructing visibility of a traffic signal.
7. Other items played a significant role in the bus stop locations include the requirement to maintain a number of mature trees and parking bays along the route.
  8. The largest gap along the route between the proposed bus stops will be 592 metres, which is a 296m walk, and at an average walking speed would take approximately 3.5 minutes. This is well within the typical 800 metres maximum.

### 3. Specific Design Considerations

#### 3.1 Overall Scheme Design

- The Clontarf to City Centre Scheme (C2CC Project) shall provide segregated cycling facilities and bus priority infrastructure along the 2.7km route.
- A segregated cycle route shall protect vulnerable pedestrians whilst providing for a safe and attractive commuter and recreational cycling route.
- In addition to accounting for a segregated pedestrian and cycle areas the Scheme Designers also need to account for parking/loading bay requirements, trees/landscaping, traffic furniture and so forth all within the available road space.
- In recent weeks a further review of the design rationale for the removal of 617 and 4384 has been undertaken. The design review for these two stops is summarised herein.

#### 3.2 Proposals for Stops 617 (inbound) – North Strand Road;

Bus Stop 617 was located on North Strand Road at the corner of Strandville Avenue. The current scheme design proposes that Stop 617 shall be permanently removed.

There is a setback in the property alignment where stop 617 existed previously. It may be possible therefore to locate a constrained stop at this location. However, there are also concerns associated with a constrained bus stop which makes the proposal undesirable;

- The location at bus stop 617 is constrained on one side by Strandville Avenue and by private landings and a vehicular access / dishing on the other side. The size of the preferred bus platform would therefore need to be considerably reduced as a result of the limited available space. This constraint raises safety concerns that if a group were to congregate at the stops or alight from a bus that (i) the proximity of the bus stop to the Strandville Avenue junction would be a concern and also (ii) the potential for conflict between pedestrians and cyclists would be greatly increased given the restricted platform space

- The constrained design would only provide for a single crossing point from the footpath across the cycletrack to reach the bus island. As mentioned then if passenger numbers were significant this has the potential to lead to undesirable crossing of the cycle track by passengers alighting from the buses and likely conflict with passing cyclists.
- The maximum length of the full height bus kerb that can be installed at this location is approximately 13m and as such only one bus can stop at this stop and allow passengers to board/alight at a time. With buses queuing to gain access to the stop it is likely to lead to bus delays. The delays caused by the queuing will affect journey times and reliability, resulting in operational difficulties, particularly during peak hours.

In order to accommodate the outbound segregated cycle-track through North Strand Road it was necessary to reduce the amount of previously available parking. Parking which was previously available between Bayview Avenue and Waterloo Avenue on the outbound side shall need to be removed. With stop 617 proposed to be removed for the reason outlined above it was deemed of benefit then that the space could then be used to compensate for parking removed elsewhere on the road. Without the spaces now provided at the location of bus stop 617 there would be no other parking available for the post office and businesses between Newcomen Bridge and Annesley Place.

Restrictions on the permitted duration of parking (or similar) shall be investigated to apply to these spaces if it was deemed helpful to keep a turnover of cars. This would likely be of benefit to local businesses and those wishing to avail of the parking.

All of the footways on North Strand are to be fully re-constructed with the crossing of side roads made considerably easier due to the design of the raised tables i.e. the footpath remains at the same level when crossing roads.

With bus stop 617 removed the alternative bus stops are outlined below;

- The closest stop nearest to town is stop 618 (located outside James Larkin House). The distance from bus stop 617 to stop 618 is approximately 316m. This equates to a walking time of approximately 3.8mins.
- The closest stop in the Marino direction is stop 616 (located outside North Strand Road Fire Station). The distance from bus stop 617 to stop 616 is approximately 276m. This equates to a walking time of approximately 3.4mins.

Details relating to alternatives to stop 617 are again summarised as per Table 1 and Figure 1 below.

### Bus Stop 617 (inbound):

**Location Description;** North Strand Rd adjacent to Strandville Avenue (inbound)

Bus stop Number	Location (travelling from Clontarf)	Distance to nearest downstream stop	Distance to nearest upstream stop
617	North Strand Road near Strandville Avenue	316m to stop 618 (located outside James Larkin House, North Strand Rd) Approx 3.8 mins walk	276m to stop 616 (located outside North Strand Fire Station) Approx 3.4 mins walk

Table 1 Nearest Stops and walking distances from Bus Stop 617

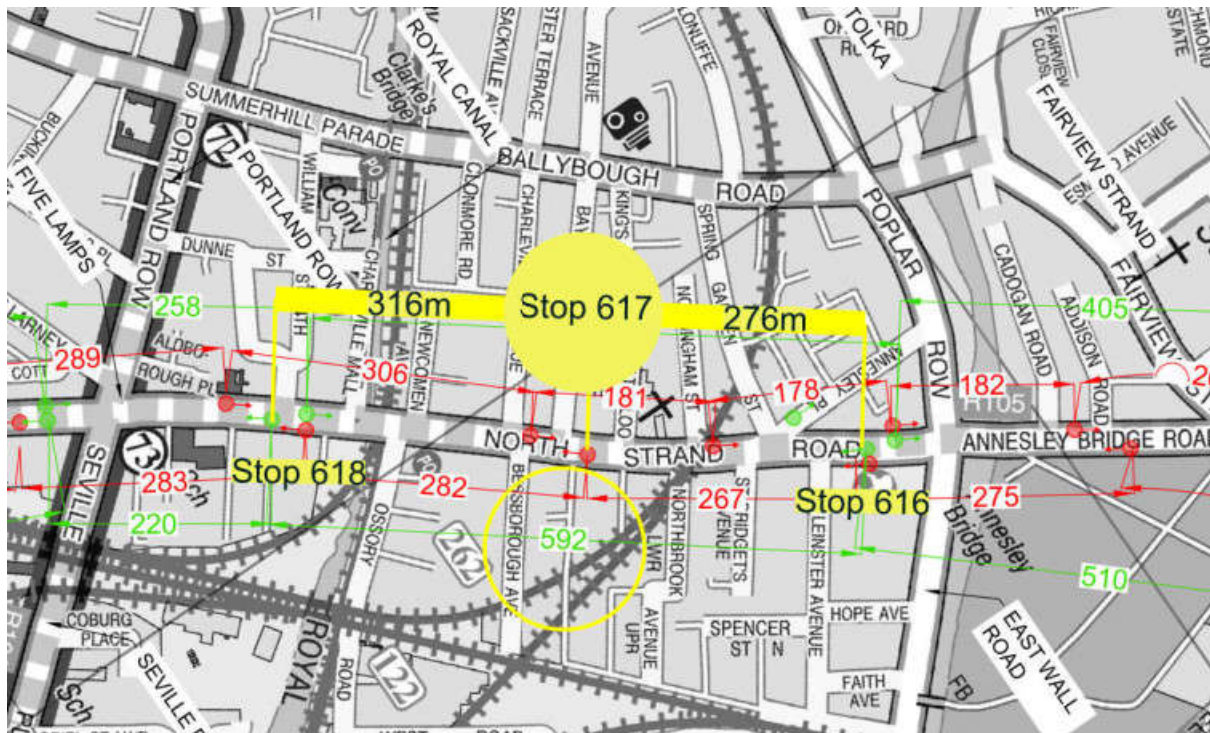


Fig. 1 Nearest Stops and walking distances from Bus Stop 617

In summary, with regard to stop 617, it is believed that there is risk to public safety, specifically the bus-users, pedestrians and cyclists if this constrained option was pursued. The lack of available parking for the post office and businesses and the potential to impact the reliability of the bus service are also factors which have been considered.

### 3.3 Proposals for Stop 4384 (outbound) – North Strand Road

Bus Stop 4384 was located between Charleville Avenue and Bayview Avenue. As per Stop 617 stop no. 4384 is also proposed to be permanently removed.

Unlike bus stop 617 on the inbound side, there is no property setback space available for use by the Scheme Designers at bus stop 4384 on the outbound side. Therefore, after providing for the segregated cycle-track and footway a further review has concluded that there is no space remaining to construct even a constrained bus stop at this location. Without accounting for a new cycle-track the existing bus stop shelter occupies a large portion of the existing footway.

With bus stop 4384 removed the alternative bus stops are outlined below;

- The closest stop nearest to town (from 4384, once removed) is stop 516 (which is to be re-located to the corner of Charleville Mall). The distance from bus stop 4384 to the proposed new location of stop 516 is approximately 221m. This equates to a walking time of approximately 2.5mins.  
(It is noted that the existing stop located outside the Health Centre on North Strand Road, Stop 516 is to be moved by approximately 90m closer in the direction of bus stop 4384).
- The closest stop in the Marino direction (from 4384, once removed) is stop 519 (located opposite North Strand Road Fire Station). The distance from bus stop 4384 to stop 519 is approximately 365m. This equates to a walking time of approximately 4.5mins.

Details relating to alternatives to stop 4384 are again summarised as per Table 2 and Figure 2 below.

### **Bus Stop 4384 (outbound):**

**Location Description;** North Strand Road near Bayview Avenue (outbound)

Bus stop Number	Location (travelling from City)	Distance to nearest city side stop	Distance to nearest out of city stop
4384	North Strand Road near Bayview Avenue	221m to relocated stop 516 (moved from outside Health Centre approx. 90m closer towards Canal)  Approx 2.5 mins walk	365m to relocated stop 519 (located on North Strand Road near East Wall Road)  Approx 4.5 mins walk

Table 2 Nearest Stops and walking distances from Bus Stop 4384



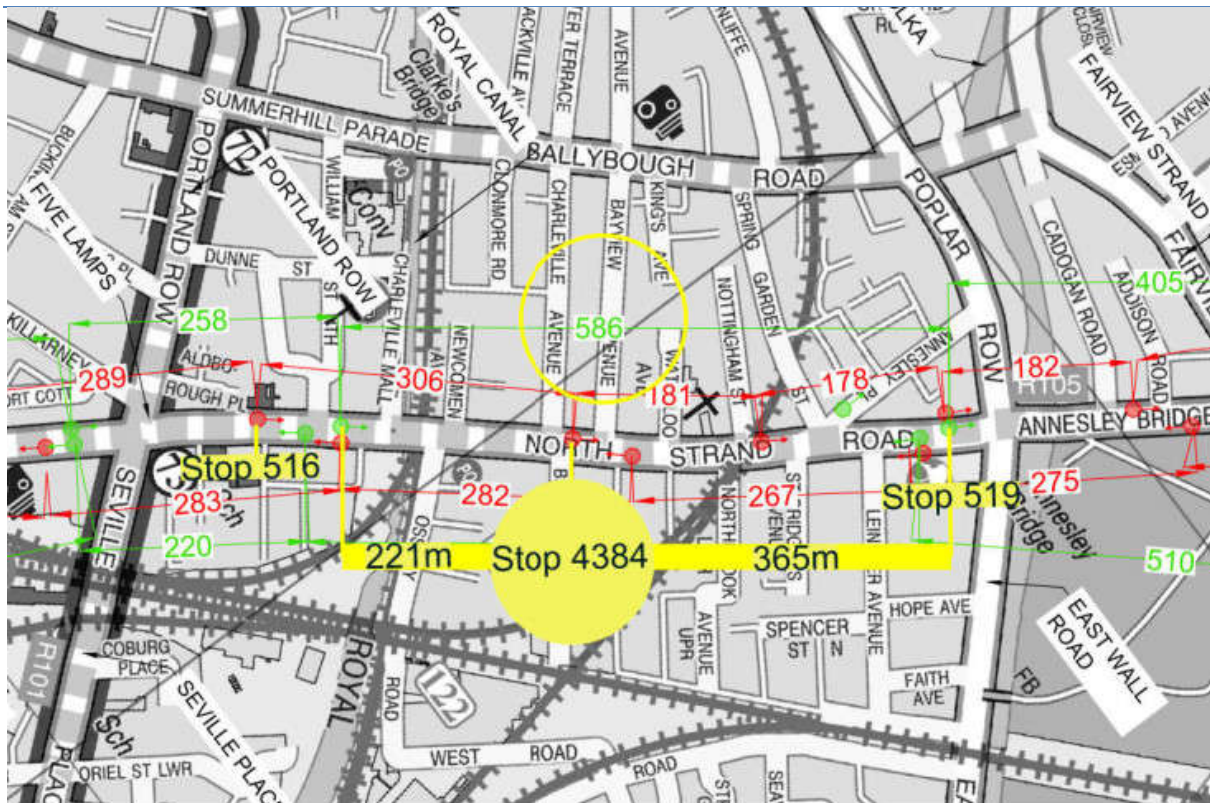


Fig. 2 Nearest Stops and walking distances from Bus Stop 4384

#### 4. Further Design Considerations

In addition to details relating to the rationalisation of bus stops on North Strand Road it is also worth noting;

- All footways on North Strand shall be reconstructed. At side-roads there is no drop to cross the road and instead the footway is to be raised and on one level. Without a kerb at the side road crossings this should make walking on the footway an easier and more pleasant experience.
- The reorganisation of bus stops will result in a significantly faster and more reliable bus service in both directions.
- The bus stop platform, or 'island' will also be of a higher quality and standard, thus improving the passenger experience while boarding, alighting and waiting for a bus.

#### 5. Design Review Summary;

It is acknowledged that bus stop 617 and bus stop 4384 were convenient for those residents of North Strand Road and surrounding environs. However, after a further review of options there are design considerations which are deemed not favourable for the Scheme to progress with the incorporation of the two stops into the proposed new Scheme layout.

## 6. Bibliography

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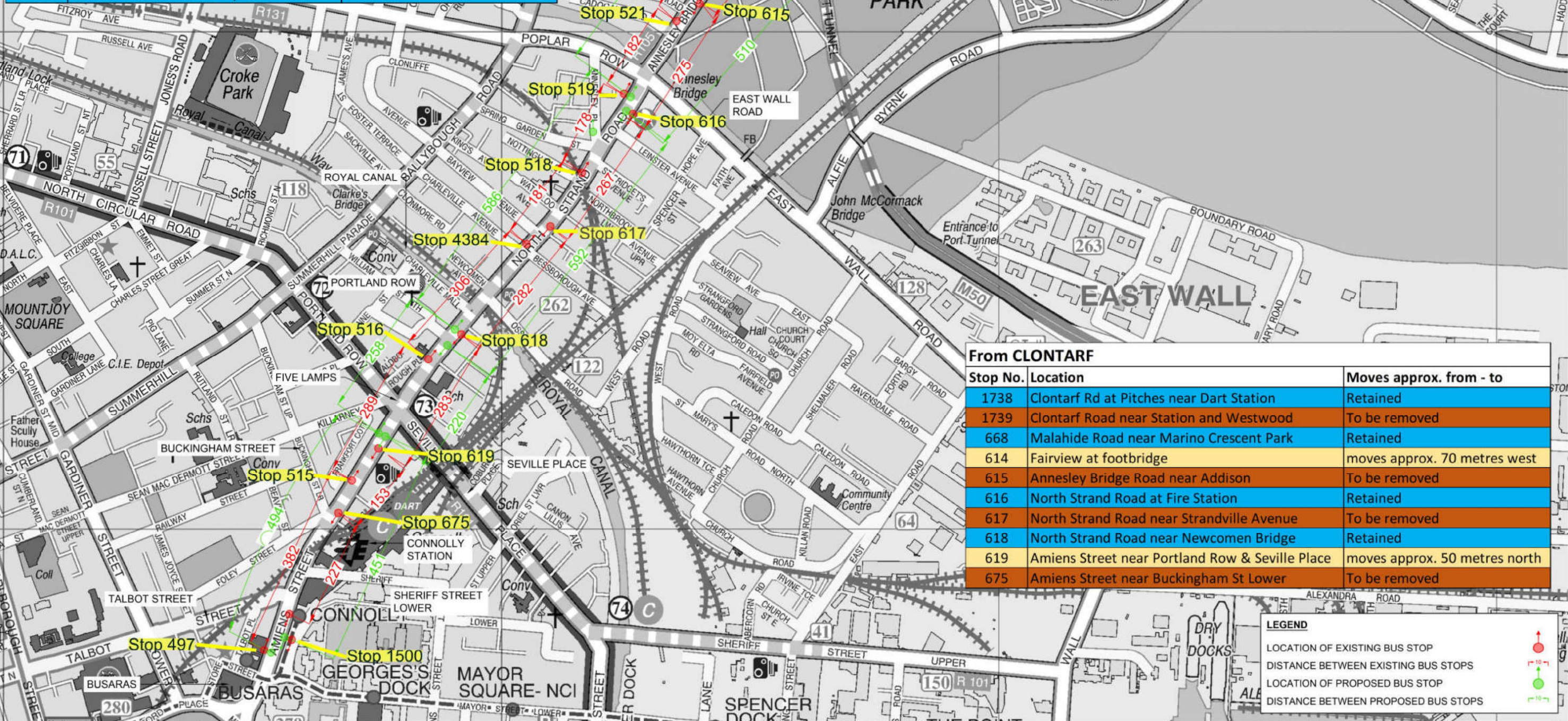
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# From CITY CENTRE

Stop No.	Location	Moves approx. from - to
515	Amiens Street near Portland Row	Moves approx. 100 metres north
516	North Strand Road near Health Centre	Moves approx. 100 metres north
4384	North Strand Road near Bayview Avenue	To be removed
518	North Strand Road near Waterloo Avenue	To be removed
519	North Strand Road near East Wall Road	Retained
521	Annesley Bridge Road near Addison Road	To be removed
522	Fairview near Merville Ave	Retained
523	Fairview near Marino College	Retained
1740	Clontarf Road near Howth Road	Moves approx. 50 metres east
1741	Clontarf Road near Alfie Byrne Road	Retained



# From CLONTARF

Stop No.	Location	Moves approx. from - to
1738	Clontarf Rd at Pitches near Dart Station	Retained
1739	Clontarf Road near Station and Westwood	To be removed
668	Malahide Road near Marino Crescent Park	Retained
614	Fairview at footbridge	moves approx. 70 metres west
615	Annesley Bridge Road near Addison	To be removed
616	North Strand Road at Fire Station	Retained
617	North Strand Road near Strandville Avenue	To be removed
618	North Strand Road near Newcomen Bridge	Retained
619	Amiens Street near Portland Row & Seville Place	moves approx. 50 metres north
675	Amiens Street near Buckingham St Lower	To be removed

# LEGEND

- LOCATION OF EXISTING BUS STOP
- DISTANCE BETWEEN EXISTING BUS STOPS
- LOCATION OF PROPOSED BUS STOP
- DISTANCE BETWEEN PROPOSED BUS STOPS



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Project Title	Clontarf to City Centre Project (Main Works)
Drawing Title	BUS STOP LOCATIONS
Drawing Number	C2CC-ROD-HGN-S2_AE-SK-CH-6022001
Scale (A1)	1:250
Date	AUGUST 2022
Job No.	17.203
Rev.	01



