

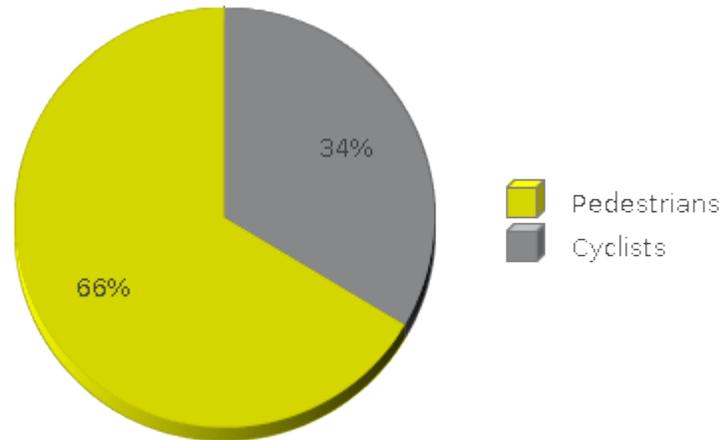
APPENDICES

3.2.2 Pedestrian and cycle use

 <p>eco counter COUNTING PEOPLE. ANALYSING DATA</p>	<h1 style="margin: 0;">Tillydrone Avenue</h1> <p style="margin: 0;">Period Analysed: Saturday 01 October 2016 to Saturday 30 September 2017</p>	 <p>eco counter COUNTING PEOPLE. ANALYSING DATA</p>
---	---	---

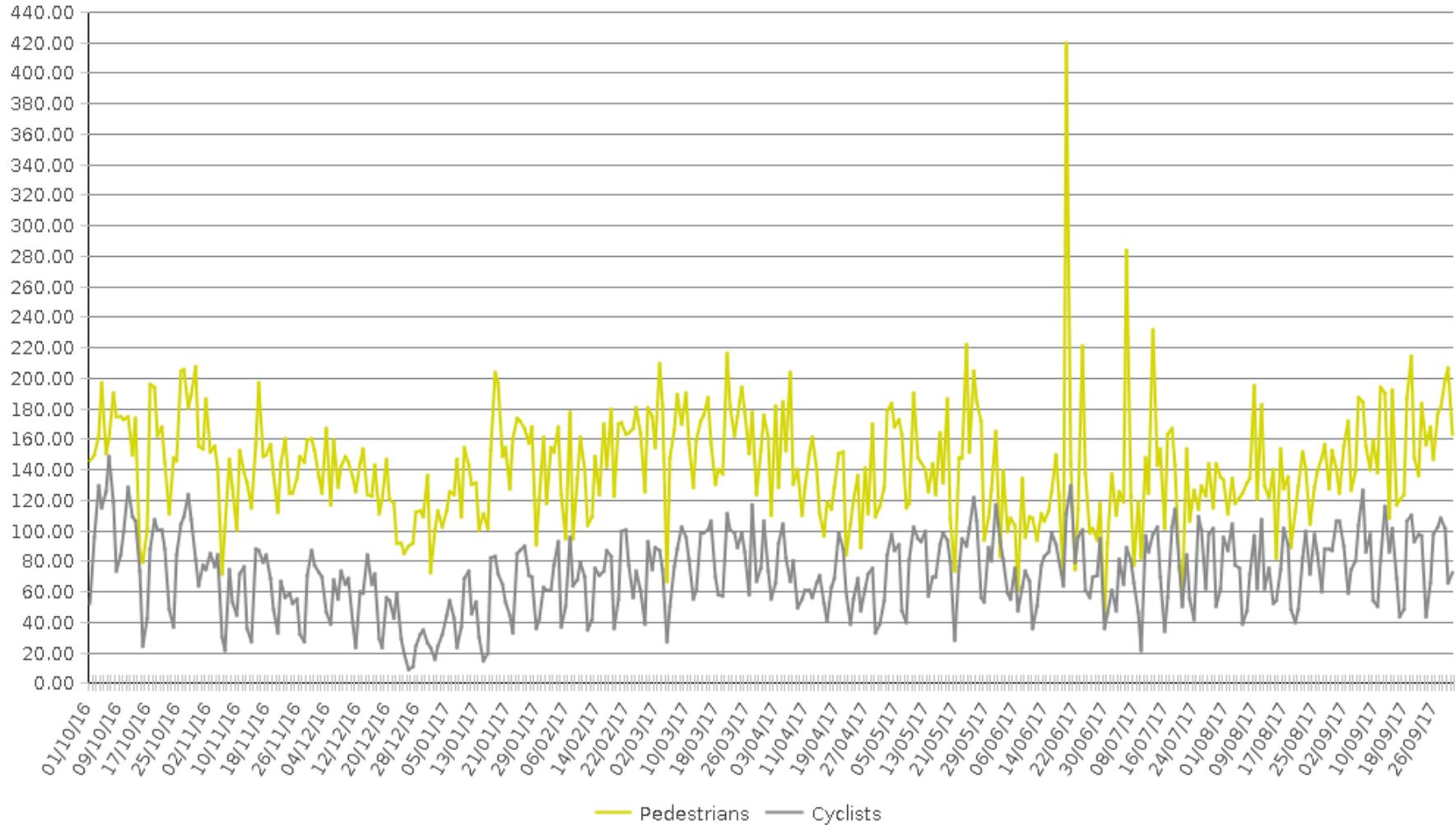


	Total Traffic for the Analysed Period	Daily Average	Busiest Day of the Week	Busiest Month of the Year	Distribution	
					IN	OUT
Pedestrians	51,912	142	Tuesday	March 17: 5,075	49	51
Cyclists	26,196	72	Thursday	October 16: 2,854	49	51



Tillydrone Avenue

Period Analysed: Saturday 01 October 2016 to Saturday 30 September 2017



3.2.2 Pedestrian and cycle use - continued

An integral part of the design for the Third Don Crossing was to embrace active travel by ensuring that pedestrians and cyclists were catered for over the whole length of the scheme. To this effect the footways, shared use facilities and cycle tracks at either side of the road are linked with twelve signalised Toucan crossings and one Puffin crossing.

They are at the following locations:-

- Bedford Road at St. Machar Drive Junction – 1 x Toucan
- St Machar Drive at St. Machar Drive junction – 2 x Toucans
- Tillydrone Avenue at St. Machar Drive junction – 1 x Toucan
- Tillydrone Avenue by Wingate Road – 1 x Toucan
- Tillydrone Avenue by Coningham Road – 1 x Toucan
- Tillydrone Road by Coningham Terrace – 1 x Toucan
- Gordon's Mills Road close to Hayton Road – 1 x Puffin
- Gordon's Mills Road by Meadow Lane – 1 x Toucan
- Gordon's Mills Road by Meadow Place – 1 x Toucan
- Gordon Brae by Grandholm Drive – 1 x Toucan
- Gordon Brae close to Laurel Drive – 1 x Toucan
- Gordon Brae near to the Parkway roundabout – 1 x Toucan

Since the opening of the new route various requests have been received from the local communities regarding the installation/upgrading of crossing facilities at locations which have been deemed to be impacted by the change in traffic behaviour as a result of the new route.

Aberdeen City Council assesses and prioritised the requirement for crossing facilities using the PV² survey method as in Local Transport Note 1/95 – The Assessment of Pedestrian Crossings.

This method determines a conflict value based on the number of pedestrians crossing the road P, which is then multiplied by the number of conflicting vehicles V². The PV² value is calculated from the arithmetic average of the four highest hourly values over a typical day. Allowances are made within this calculation for additional factors which give a more site specific final value, known as the modified PV² value. Examples of the additional factors which can be considered include the proximity of local services (shops, schools, bus stops, medical facilities etc.), percentage of elderly or young pedestrians, accident stats and local site conditions.

The table below details the values which must be met and the appropriate response based on the modified PV² value.

Modified PV ² value	Type of facility to be considered
Less than 0.7	Does not qualify for any type of crossing facility but can be reviewed at an appropriate later date should there be deemed a significant change in local circumstance.
Between 0.7 and 1.0	Will qualify for the provision of a central refuge island.
Greater than 1.0	Qualifies for the provision of a controlled crossing facility.

PV² values and appropriate responses

The following locations have been assessed:-

Laurel Drive

The new Laurel Drive link to Gordon Brae resulted in requests from local residents and elected members for the provision of a crossing facility on Laurel Drive between Laurel Place and Fairview Brae. This was investigated by officers and a PV² survey was conducted. The resultant PV² value for the survey conducted produced a modified PV² value of 0.02 which as can be seen in the above table is far below the minimum requirement for the consideration of a crossing facility.

The survey indicated there was no fixed demand point for a crossing facility and pedestrians witnessed crossing the road were able to find suitable breaks in the traffic flow and did not suffer any significant delays in waiting to cross. There is also an underpass provision linking Laurel View and Fairview Manor which provides a safe north-south link without having to cross the road.

There has been a recent campaign, using highly visible Variable Message Signs, reminding motorists of the mandatory 30mph speed limit and children going to school warning signs have been erected.

Hayton Road

On completion of the project it was envisaged that there would be an increase of traffic flow on Hayton Road and requests from the community were made to upgrade the current zebra crossings to signal controlled crossing points.

A PV² survey was undertaken prior to the opening of the scheme to assess the demand at the zebra located in close proximity to Dill Road, which has the highest footfall owing to its proximity to Riverbank Primary School and the local shops. The results of the initial survey produced a modified value of PV² of 0.12 which, as can be seen in the table above, is very low.

A follow up survey was undertaken in September 2017 to determine if the changes in traffic patterns as a result of the Third Don Crossing had significantly altered the results, to warrant any kind of upgrade to this facility. The zebra crossing further east along Hayton Road was also surveyed as a result of the opening of a new convenience store on the site previously occupied by the Broadsword pub.

The results of the surveys indicated that there was not a significant demand change in the number of pedestrians using the crossing and the figures at the crossing near the new convenience store were also low. The resultant PV² values are; Zebra in proximity to Dill Road – 0.20 and zebra in proximity to Gort Road 0.04.

However, it was noted during the survey that a large delivery vehicle in the layby parking in close proximity to the butcher obscured visibility to a section of the crossing for oncoming traffic. It was also noted that, out with peak hours, pedestrian crossing patterns were not confined to the formal crossing points, with a significant number of pedestrians utilising gaps in the traffic flow to cross at various points on Hayton Road.

Hilton Street (A978)

A request was received for an additional crossing facility to be installed in the middle section of Hilton Street. Hilton Street is currently served with two signalised crossing points; one is available at the east and the other at the west end of Hilton Street. From observations it is concluded that there is no obvious demand point for the installation of an additional crossing facility. There are no properties or services on the north side of this street which would necessitate the need to cross the road.

Location of Toucan at Coningham Drive/Tillydrone Terrace

A concern was raised by a resident regarding this crossing point being located too far away from the bus stop on Tillydrone Avenue. The distance from the crossing to the nearest bus stop, northbound, is to be 46 metres and 75 metres to the southbound bus stop. These distances are considered to be moderate and no action is required at this time.

Additional Guard Rails along route

Comments received via the 'Access from the North' consultation email requested that officers consider the implementation of additional pedestrian guardrails, *to ensure pedestrians utilise the crossing facilities provided*. Whilst guard rail has often been employed in the past to direct pedestrians to designated crossing points, more recent guidance is to presume against the implementation of pedestrian guardrail unless strictly necessary.

The Local Transport Note 2/09, issued by the Department for Transport, highlights that excessive segregation of pedestrians and vehicles may result in higher vehicle speeds in certain locations, as drivers may perceive a reduced risk of conflict with pedestrians. Similarly, poorly located guardrail can result in pedestrians being trapped on the carriageway or divert them significantly from their desire line. The guidance also notes that, in some circumstances, this has led to cyclists on the carriageway becoming trapped against the guardrail by turning vehicles at some junctions.

The crossing facilities provided on the new link have been installed to the requisite design standards and the current level of pedestrian guardrail provided on the route is appropriate. The Aberdeen Active Travel Action Plan 2017-2021 policy recognises the restrictions which pedestrian guardrail poses to people walking and the dangers it poses to people cycling on-road.

3.2.3 Public Transport

Since the opening of the Diamond Bridge, First Aberdeen have introduced new routes and amended existing routes to serve the new crossing. The services 8/9 in part replaced the former service 4 and now provide a quicker link into the City Centre from certain areas of Bridge of Don compared to the existing King Street services 1 and 2.

These services also open up new links between Tillydrone and Bedford Road with Bridge of Don and ARI. The opening of the bridge has also resulted in the service 9 serving Balgownie Drive, an area which for a considerable period has been devoid of bus services.

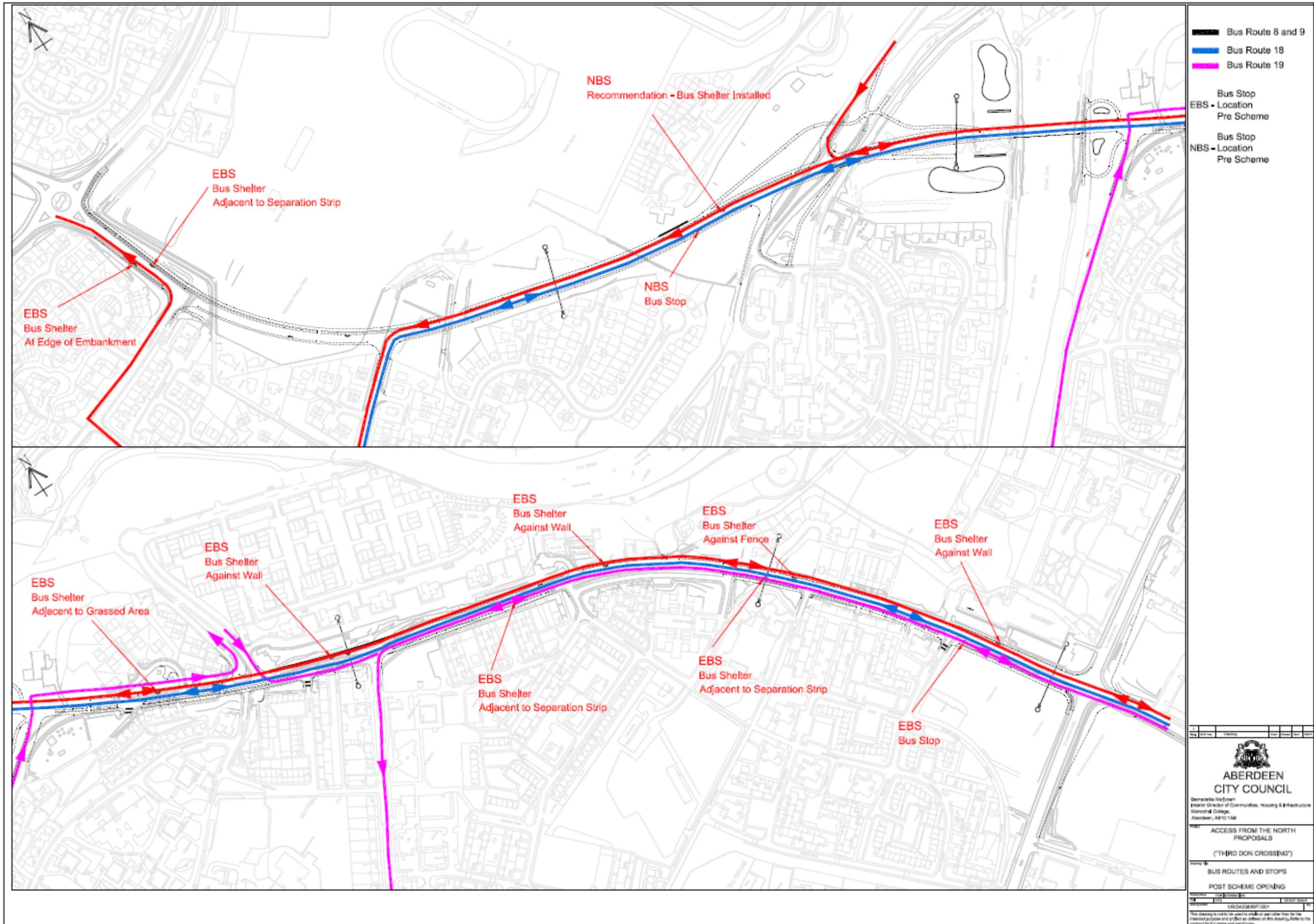
First Aberdeen has also re-routed service 18. This operates via Mugiemoor, Danestone and Diamond Bridge and now provides a faster journey time for Dyce residents to the City Centre compared with that along Auchmill Road and Great Northern Road. New links between Danestone and Dyce have also opened allowing quicker connectivity within Bridge of Don to Dyce and the Bridge of Don, Kincorth and Cove link.

The Third Don Crossing route and the bus gate at Bedford Road are certainly proving conducive to speeding up bus journey times; high volume of patronage services remain on King Street and due to reduced traffic as a result of the new crossing journey times have reduced. As an example from Danestone to City Centre journey times can be up to 15 minutes quicker using services 8/18 over the service 1.

Prior to opening the Diamond Bridge bus operators did not want to pre-plan using this new route and this resulted in the implementation, post construction, of additional infrastructure in the form of bus stops on Gordon Mill's Road, and soon to be, Grandholm Drive and Laurel Drive. The bus operators continue to consider their routings taking into account the new access.

There has been some negative impact on bus timetables with both First and Stagecoach experienced delays to their services on Powis Terrace following the implementation of the Bedford Road Bus Gate. The Intelligent Transport Systems Team have made some adjustments to the traffic signals in the area which appears to have improved the situation and this is continuing to be monitored.

Bus Routes and Stops – Post Scheme Opening



<p>ABERDEEN CITY COUNCIL <small>Barrackle Hall Internal Director of Communities, Housing & Infrastructure Marischal College, Aberdeen, AB9 1AB</small></p>	
<p>ACCESS FROM THE NORTH PROPOSALS ("THIRD DON CROSSING")</p>	
<p>BUS ROUTES AND STOPS POST SCHEME OPENING</p>	
<p>19/04/2017/001</p>	<p>This drawing is not to be used in whole or in part for any other purpose than the intended purpose and project as defined on the drawing. Refer to the contract for full terms and conditions.</p>

3.2.4 & 3.3.2 Vehicle movements and Traffic Speeds

Prior to the construction phase of the Third Don Crossing project, various traffic surveys were conducted on selected roads in the immediate vicinity of the footprint of the scheme. These surveys allowed for a comparative study of vehicular volumes and speeds in the surrounding neighbourhoods before and after the opening of the Diamond Bridge. The surveys determined the impact of the project on traffic flows in the surrounding area. The initial surveys covered ten key links of which the locations are illustrated in Table 2 & 3. All surveys were conducted using radar devices attached to street furniture at the required sites. These devices were utilised to provide true spot speeds and an accurate traffic count over a longer period of time than manual counts.

With regard to vehicular volumes, the survey results only provide a snapshot view a few days of a week, and thus, as is common practice with highway design and appraisal, these results were converted to Average Annual Daily Total flows (AADT). The AADT flows have been obtained by multiplying the observed 16 hour (06:00-22:00) weekday traffic counts for a specified day during the survey period, by the adjustment factor provided in the COBA Manual;- “Table 9/2 – Variation of M-Factor with Seasonality Index” and divided by 365 days to convert from a 16 hour- weekday flow to AADT flow. An advantage of using this factoring process is to provide comparable figures for analysis free from seasonal fluctuations as surveys have been conducted at different times during a 15 month period to September 2017.

Site Number	Location	AADT (Pre TDC)	AADT (post TDC)
1	Parkway A90 (West of Whitestripes Roundabout)	18058	15755
2	Parkway A90 (East of Whitestripes Roundabout)	20750	19955
3	Fairview Street	6933	4598
4	Gordon's Mill Road	1132	1086
5	Donbank Terrace	379	2081
6	Hayton Road	3761	3451
7	Don Street	953	5850
8	Sunnyside Road	2253	1887
9	Bedford Place	-	2004
10	Bedford Road (Retail Park)	6239	7496

Table 2 – Comparative Average Annual Daily Total flows – Before and After TDC

The radar devices utilised for surveying the vehicular speeds record the instantaneous speed of all vehicles travelling past the point at which the device is deployed. This has allowed officers to collect a significant amount of speed data for the areas surrounding the Third Don Crossing scheme, as well as on the new link itself, providing a representative overview of current vehicular speeds on this section of the network. In this respect, it is worthy highlighting

that mean speed and 85th percentile speed (the speed at or below which 85% of vehicles are travelling) are the most commonly used measures of actual traffic speed. Scottish Government guidelines for setting local speed limits recommend traffic authorities should continue to routinely collect and assess both, but mean speeds should be used as the basis for determining local speed limits. Both 85th percentile speeds and mean speeds are therefore presented in this report.

Site Number	Location	Pre-TDC Avg. Speed (mph)	Pre-TDC 85th% (mph)	Post-TDC Avg. Speed (mph)	Post-TDC 85th% (mph)
1	Parkway A90 (West of Whitestripes Roundabout)	44.82	50.87	37.91	44.66
2	Parkway A90 (East of Whitestripes Roundabout)	39.54	45.9	38.51	44.4
3	Fairview Street	27.72	34.52	30.1	35.19
4	Gordon's Mill Road	21.6	27.8	22.21	27.05
5	Donbank Terrace	21.9	27.8	23.86	28.5
6	Hayton Road	25.39	30.24	22.5	28.05
7	Don Street	25.25	30.247	22.64	27.05
8	Sunnyside Road	25.34	30.69	25.01	30.79
9	Bedford Place	-	-	21.69	26.45
10	Bedford Road (Retail Park)	26.85	32.14	21.33	25.55

Table 3 – Comparative Average Mean and 85th Percentile speeds – Before and After TDC

Following the opening of the Third Don Crossing scheme, a number of enquiries, related to vehicular speeds and traffic volumes, were raised through elected members, the 'Access from the North' email address and general enquires from members of the public. These additional concerns were investigated and where necessary additional survey work was undertaken. This includes surveys conducted at various points along the new corridor on Gordon Brae, Tillydrone Road and Tillydrone Avenue.

The results of these additional surveys are displayed below:

Site Number	Location	AADT	Average Speed (mph)	85th% (mph)
11	Gordon Brae	12004	35.2	40.45
12	Tillydrone Avenue	11591	29.72	33.93
13	Tillydrone Road	11261	28.6	33.55
14	Laurel Drive (Near Gordon Brae Junction)	3088	31.15	36.73
15	Whitestripes Avenue	9310	34.09	39.03
16	Portal Crescent	856	16.21	19.46
17	Wingate Road	468	14.4	17.96
18	Gladstone Place	318	15.57	18.3
19	Sunnybank Road	1872	15.05	19.25
20	Sunnyside Avenue	401	22.02	23.27
21	Hilton Street (A978)	10707	27.48	31.85

Table 4 – Additional Speed/Volume survey results

Bedford Place and Sunnyside Road

Prior to the completion of the scheme, Bedford Place was subject to a no-entry restriction from Bedford Road and a left turn only restriction from Bedford Place onto Bedford Road. With the implementation of the Bus Gate on Bedford Road it was agreed to remove this point of no-entry to increase accessibility for residents of the area and provide a route for visitors to the Kittybrewster Retail Park through to King Street via Bedford Place – Sunnybank Road – Orchard Street. Traffic volumes on Bedford Place have increased since the opening of this junction, albeit the average speeds recorded are in the range of the mandatory speed limit. Previous proposals, in 2004, for the introduction of a mandatory 20mph speed limit and associated physical traffic calming on Bedford Place and the surrounding area resulted in the committee approving the speed limit change without the associated traffic calming measures.

The decrease in traffic volumes on Sunnyside Road is a direct result of the opening of Bedford Place to through traffic, which offers a more direct route between King Street (A956) and Bedford Road.

The Review of Bedford Road Bus Gate report considers any recommendations on the above.

Sunnybank Road

Enquiries received about the increase in traffic volumes and speeds on Sunnybank Road due to the introduction of the bus gate on Bedford Road were also investigated. Sunnybank Road is subject to a mandatory 20mph speed limit and has physical traffic calming measures, in the form of speed cushions. Surveys completed prior to the installation of the bus gate showed average speeds to be 15 mph and the 85th% speeds to be 18.66 mph; post survey results figures indicate there has been no significant change in the characteristics of traffic flow on this link.

Sunnyside Avenue

With the introduction of the bus gate and the re-opening of Hermitage Avenue there was potential for vehicles travelling along Bedford Road to loop down Hermitage Avenue and Sunnyside Avenue to avoid the bus gate on Bedford Road. The concerns raised related to a significant number of vehicles utilising this route, and doing so at inappropriate speeds. However, results from the survey show there are only very low numbers of vehicles utilising this route, with the spot speeds recorded providing no indication there is a significant volume of vehicles doing so at unsuitable speeds.

Wingate Road and Portal Crescent

Concerns were raised following the opening of the signalised junction at St Machar Drive and Tillydrone Avenue that motorists may attempt to 'rat-run' via Teddar Road, Portal Crescent and Wingate Road. Vertical deflections were installed on both of these streets, as an anticipatory mitigation measure, as part of the Third Don Crossing scheme. The results of the speed/volume surveys undertaken at these locations following the completion of the scheme indicate these measures have been effective in maintaining low vehicular speeds and reduced traffic volumes.

Laurel Drive

The creation of the through route on Laurel Drive from Gordon Brae has created an additional route for drivers from the Bridge of Don area and Tillydrone to access the Danestone area. This has resulted in some traffic being displaced from Fairview Street onto this new route. The average vehicular speed recorded is 31 mph.

Gladstone Place

An enquiry raised about increased traffic volumes 'rat-running' using Bank Street – Gladstone Place and Don Place to avoid the signal controlled junction between Don Street and Great Northern Road was investigated through the deployment of a radar survey device at this location. The recorded traffic volumes and speeds do not provide any indication that this route is consistently being utilised in this manner.

Whitestripes Avenue

Whitestripes Avenue is a local distributor road. Although figures pre Third Don Crossing survey data is not available, there has been a clear migration from other key routes such as Scotstown Road - Ellon Road to this new corridor into the city, which includes two new bus services (Service numbers 8 and 9). The resultant traffic volume increases have however not resulted in any negative impacts in relation to speed.

Tillydrone Avenue – HGV use

Concerns were raised by Tillydrone Community Council, with regards to the volume of Heavy Goods Vehicles (HGVs) traveling on Tillydrone Avenue. The radar units used to conduct the previously noted speed/volume assessments are also capable of monitoring lengths of vehicles. In this respect, the data collected when monitoring the speed and volume of vehicles on Tillydrone Avenue also provides an indication of the size of vehicles utilising the route. All data captured relating to vehicles greater than 6.5 metres in length has been used to represent HGVs for the purposes of assessment. This approach may mean that the data also includes some smaller vehicles, which may not usually be classified as HGVs (i.e. greater than 7.5 tonnes). However this information gives a good indication of HGV volumes without discounting smaller HGVs. The results of the survey are displayed below:

Date	South Bound Total Vol.	SB HGV* Vol.	North Bound Total Vol.	NB HGV* Vol.	Total Vol.	Total HGV*	%
Tue 17 Jan	5841	301	5231	155	11072	456	4.12
Wed 18 Jan	6259	280	5394	166	11653	446	3.83
Thu 19 Jan	6171	306	5234	163	11405	469	4.11
Fri 20 Jan	6361	300	5431	151	11792	451	3.82

**Figures do not exclude buses*

Table 5 – Tillydrone Avenue: Traffic Volume Survey Data for Vehicles >6.5m

As shown above the number of larger vehicles (between 6.5m and 16m>) recorded travelling on Tillydrone Avenue constitute only a very small percentage of the total vehicles. Furthermore, if buses, which are frequent along this route, were excluded from the results the figures would be even lower. It is not considered that HGV traffic volumes are problematic unless it represented between 10% and 15% of overall traffic, depending on the total volume of vehicles on that particular route.

Additional observational surveys undertaken have also failed to identify a significant number of HGVs utilising the new bridge as a north-south route.

Gordon's Mill Road – Prohibition of right turn manoeuvres

In response to residents' concerns about the potential of vehicles utilising the bridge to 'rat-run' through the residential areas of Donbank Terrace / Don Street to gain access to Great Northern Road and to the west. It was agreed to introduce 'prohibition of right turn manoeuvres' into Gordon's Mills Road (westbound) from directly south of the new bridge.

Reports of this restriction being ignored were investigated during AM and PM peak periods, the results are displayed below:

AM Peak		PM Peak	
Time	Vehicles	Time	Vehicles
07:00-07:30	2	16:00-16:30	0
07:30-08:00	1	16:30 -17:00	1
08:00-08:30	9	17:00-17:30	1
08:30-09:00	3	17:30-18:00	3

Table 6 – Survey of vehicles contravening 'prohibition of right turn manoeuvres' onto Gordon's Mills Road

Whilst it is disappointing that a minority of drivers are not adhering to the restriction, Officers are content that there is adequate signage in place. It remains to Police Scotland, who has previously carried out enforcement of the restriction, to continue to carry out enforcement.

Don Street - Great Northern Road - Grandholm Street traffic movements

The opening of the crossing has presented the opportunity for drivers coming south to utilise Don Street - Great Northern Road - Grandholm Street as a means of accessing North Anderson Drive and the west whilst avoiding delays at the Haudagain roundabout.

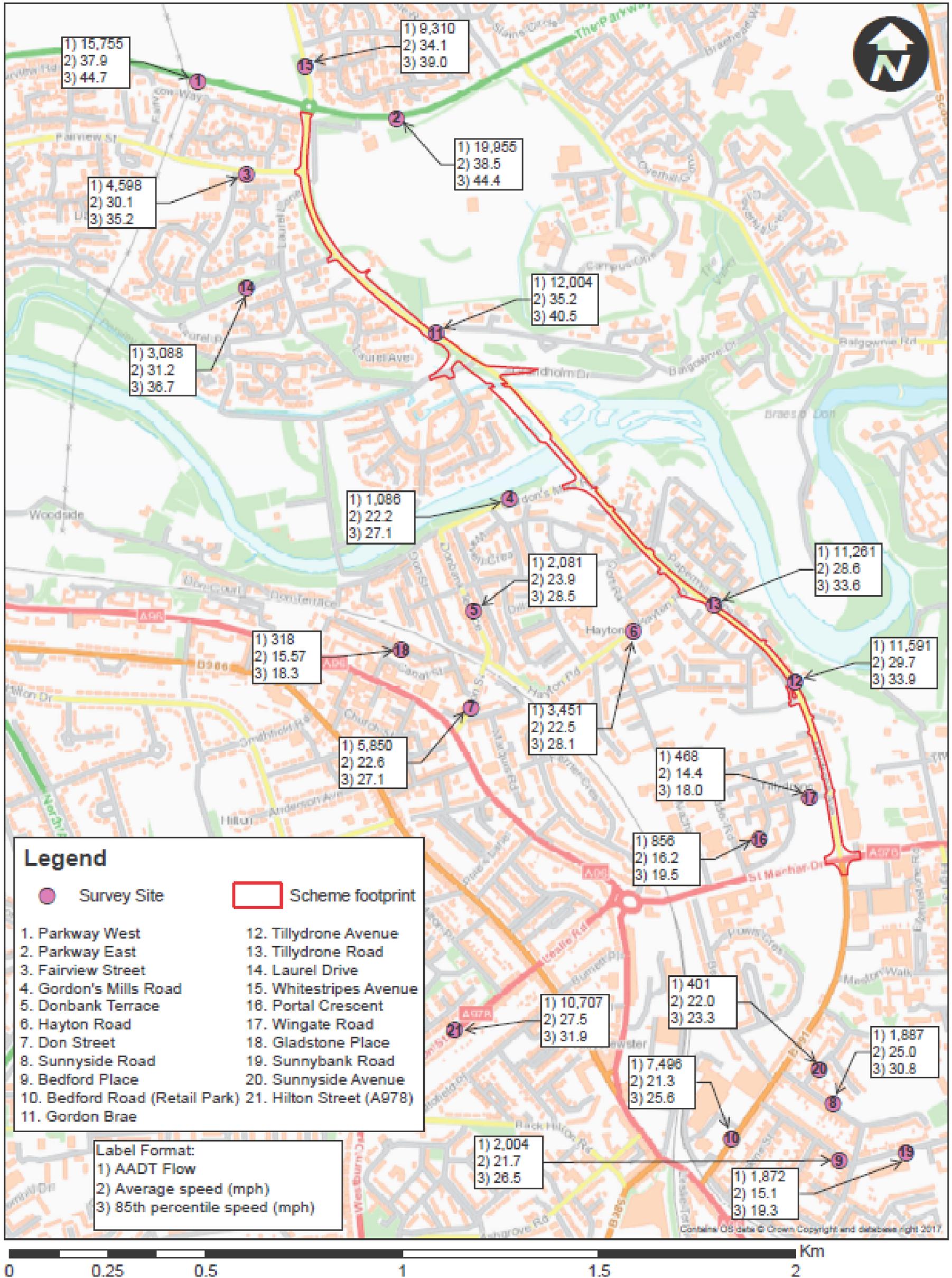
A snap shot survey was conducted by Officers which found a number of vehicles exiting Don Street turning right before making the left turn on to Grandholm Street.

Time	Vehicles
07:00 -07:30	29
07:30-08:00	77
08:00-08:30	92
08:30-09:00	69
Total:	267

Table 7 – Survey of vehicles conducting Don Street – Great Northern Road – Grandholm Street manoeuvre

The results of the survey provide an indication that there is some commuter traffic utilising the side roads around the Tillydrone area to avoid the new signal controlled junction at St Machar Drive, Kittybrewster Roundabout and the Haudagain Roundabout. As is often the case when there are motorists familiar with the local geography travelling during peak times. The level of traffic displaced from the main routes demonstrated in the table above is similar to that experienced when considered against other roads in the city that are located in close proximity to congested distributor routes. Whilst such increases in through traffic will always be of concern for local residents, There are reservations about implanting additional restrictions, such as banning turning manoeuvres, as side road traffic flows will likely displace onto other side-roads, rather than onto main routes. Schemes such as the Berryden corridor and the Haudagain improvements will help to address this issue, with side roads becoming a less attractive alternative once improvements have been made to these key routes in the local network.

Third Don Crossing Review - Speed/Volume survey sites



3.3.3 Road Traffic Accident (RTA) Statistics

Personal injury Accidents

The Department for Transport *Instructions for the Completion of Road Accident Reports from non-CRASH Source (STATS 20)* gives guidance in the recording of road traffic accidents (RTAs) and stipulates that for an accident to be recorded there must be three requirements, namely that:

- 1) a vehicle is involved (which includes pedal cycles, horses and even locomotives);
- 2) at least one person is injured;
- 3) the accident occurred on a road which the general public have right of way for 365 days a year.

STATS19 is the reporting database and requires that RTAs on public roads in Great Britain, as described above, are recorded by the attending police officer. A variety of data is required to be gathered about the incident and is split into three categories – Accident Circumstances, Vehicle(s) involved, and Casualties caused.

As part of the ongoing RTA monitoring of the Third Don Crossing the STATS19 database has been interrogated to analyse if there are any causal factors i.e. repeat occurrences. Two personal injury RTAs have occurred within the footprint of the scheme since it opened to the public, both of which were recorded as ‘Serious’ in terms of their severity. An overview of these incidents is provided below;

Accident: 201600904 (10/10/2016)

Light conditions: Darkness, street lights, lit

Weather: Fine, no high winds

Road Surface condition: Dry

This incident occurred on Gordon’s Mills Road at the signal-controlled pedestrian crossing near to its junction with Gort Road. The casualty was a child pedestrian who did not wait for the ‘Green man’ on the nearside pedestrian crossing display and walked out into the path of an oncoming vehicle. In this respect Police Scotland recorded the collision factors as a failure to look properly, on the part of the pedestrian, and the improper use of a pedestrian crossing facility.

Accident: 201700224 (17/01/2017)

Light conditions: Darkness, street lights, lit

Weather: Other

Road Surface condition: Wet

This collision also transpired on Gordon’s Mills Road, near to its junction with Gordon Brae, and involved two vehicles. Vehicle 1 was travelling in a northwards direction on Gordons’ Mills Road, towards the Diamond Bridge, and Vehicle 2 was travelling in the opposite direction. Vehicle 2 proceeded to perform a right turn manoeuvre, in contravention of the ‘No Right Turns’ restriction at this junction, and thereafter collided with Vehicle 1. As a result of this collision, both vehicles sustained extensive front-end damage and came to rest within the carriageway. The driver of Vehicle 2 sustained

a serious injury as a result of the collision. Their investigations of this incident led Police Scotland to determine the causal factors as being the illegal turn performed by Vehicle 2 and careless/reckless driver behaviour, on the part of the driver of Vehicle 2.

Non Personal Injury Accidents

Information from Tillydrone, Seaton and Old Aberdeen Community Policing Team was also requested regarding any non-personal injury incidents reported within the footprint of the scheme. Police Scotland reported one collision on 09/08/2017 on Gordons Mills Road, but as a result of drunk driver and one on 07/08/2017, on Gordon Brae, where a youth walked into a moving car and was clipped by the wing mirror.

Conclusion

A brief assessment of the accident history within the footprint of the Third Don Crossing, since its opening, has indicated that there are no common factors or trends in the data. Furthermore, based on the recorded accident circumstances, officers are satisfied that neither the design of the scheme (in terms of road geometry, junction arrangements, traffic signing, and pedestrian/cycle facilities) or traffic conditions have been causal factors in any of the accidents that have occurred.

As this report considers only 15 months of accident data and no common factors or trends have been identified at this stage, no firm conclusions can be drawn from the accident information. However, this will be continuously checked as part of the routine accident data monitoring undertaken by the Road Safety and Traffic Management team.

3.4.3 Air quality

Aberdeen City Council as the local Authority determines air quality by monitoring nitrogen dioxide levels via diffusion tubes fixed to street lighting columns near to the carriageway. Levels have to be adjusted to the nearest façade as compliance of objectives is at relevant receptor locations such as the nearby facades of residential properties.

Monitoring sites are chosen due to current high levels or areas of potential exceedances e.g. Great Northern Road where additional traffic could cause exceedances of the objectives, or locations close to the new Third Don Crossing route where, although background levels are low, there may be a more substantial increase.

The national and EU air quality objective for nitrogen dioxide is to achieve levels below the exceedance value of 40ugm-3.

Monitoring in the surrounding area of Tillydrone where the Third Don Crossing is now implemented started in July 2013 and has shown a downward trend i.e. Tillydrone Avenue by properties No. 47 to 61 shows a downward trend from an annual mean concentration of 26.0ugm-3 in 2015 to 20.8ugm-3 in 2016. It needs to be recognised that the results for Tillydrone Avenue by properties No. 90 to 104 and by No 10 Meadow Place for 2016 only show 6 months' worth of data as the Third Don Crossing opened in June 2016, however, the new route and its traffic flows do not appear to have affected the downward trend.

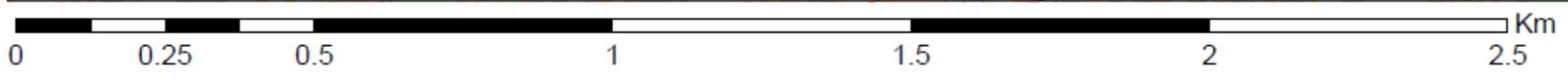
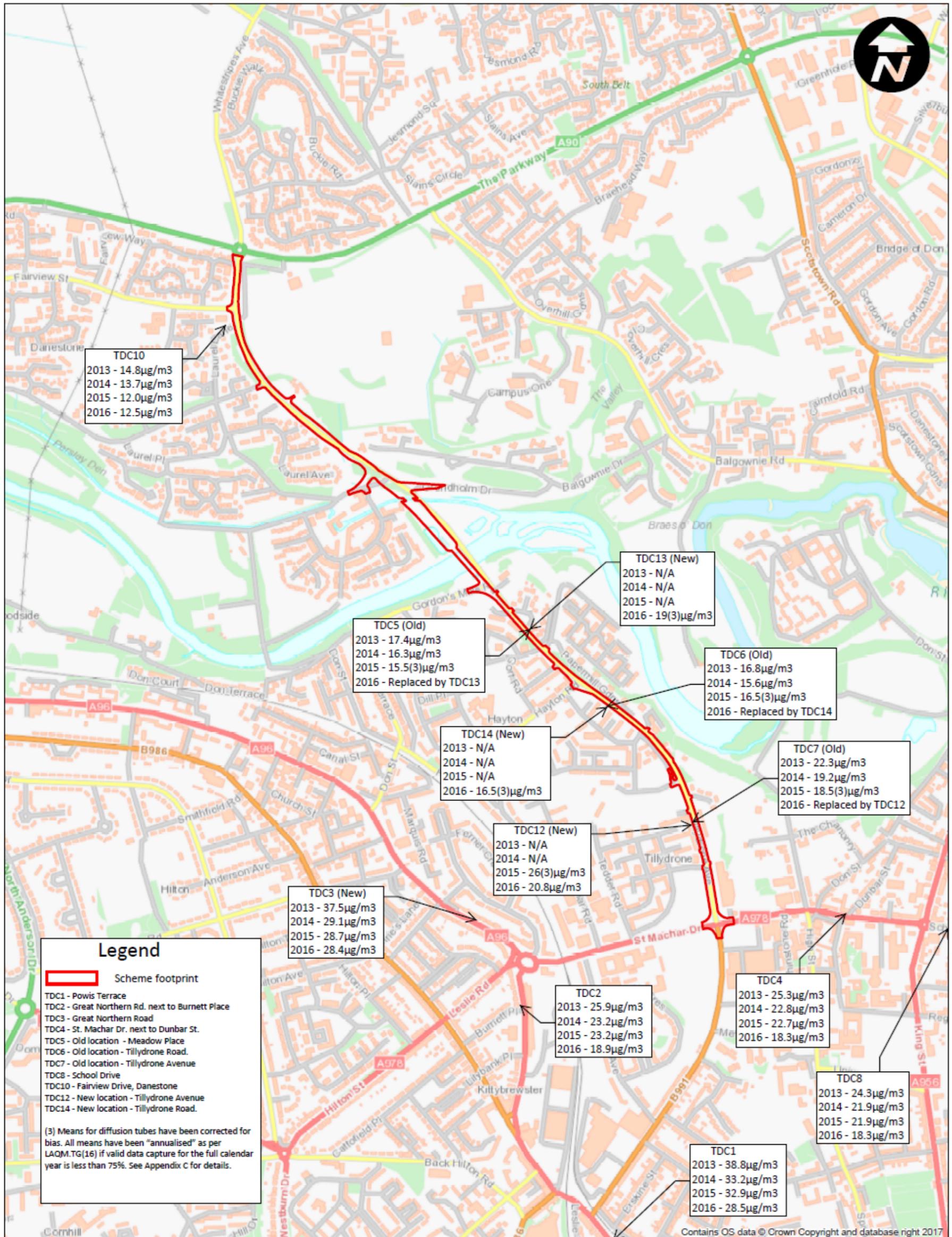
As pollution levels are subject to seasonal variations and local climate, traffic and other local issues the comparison of the pre and post opening monthly results will not provide an accurate indicator of trends in relation to the annual mean objective. Diffusion tube data provides an indicator of annual trends and potential areas of exceedances.

Monitoring at the locations listed continues and will be reported again in the next Air Quality Progress report due to be published in June 2018.

Receptor points along the route are located by Fairview Street, Gordon's Mills Road, Tillydrone Road, Tillydrone Avenue and St Machar Drive by Dunbar Street.

The current data for this area (extract from the Air Quality Annual Progress Report 2017) can be viewed along with a plan of the receptor locations below.

Third Don Crossing Review - Nitrogen Dioxide survey sites



3.4.2 Air quality

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2016 (%) ⁽²⁾	NO ₂ Annual Mean Concentration (µg/m ³) ⁽³⁾				
					2012	2013	2014	2015	2016
DT47 ⁽⁵⁾ /TDC1	Roadside	Diffusion Tube		100	n/a	38.8	33.2	32.9	28.5
DT48 ⁽⁵⁾ /TDC2	Roadside	Diffusion Tube		100	n/a	25.9	23.2	23.2	18.9
DT49 ⁽⁵⁾ /TDC3	Roadside	Diffusion Tube		100	n/a	37.5	29.1	28.7	28.4
DT50 ⁽⁵⁾ /TDC4	Roadside	Diffusion Tube		100	n/a	25.3	22.8	22.7	18.3
DT51 ⁽⁵⁾ /TDC5	Roadside	Diffusion Tube		33	n/a	17.4	16.3	15.5 ⁽³⁾	n/a
DT52 ⁽⁵⁾ /TDC6	Roadside	Diffusion Tube		67	n/a	16.8	15.6	16.5 ⁽³⁾	n/a
DT53 ⁽⁵⁾ /TDC7	Roadside	Diffusion Tube		25	n/a	22.3	19.2	18.5 ⁽³⁾	n/a
DT54 ⁽⁵⁾ /TDC8	Roadside	Diffusion Tube		100	n/a	24.3	21.9	21.9	18.3
DT56 /TDC10	Urban Background	Diffusion Tube		100	n/a	14.8	13.7	12.0	12.5
DT58 ⁽⁵⁾ /TDC12	Roadside	Diffusion Tube		100	n/a	n/a	n/a	26 ⁽³⁾	20.8
DT65 ⁽⁵⁾ /TDC14	Roadside	Diffusion Tube		50	n/a	n/a	n/a	n/a	16.5 ⁽³⁾
DT66 ⁽⁵⁾ /TDC13	Roadside	Diffusion Tube		50	n/a	n/a	n/a	n/a	19 ⁽³⁾

Exceedances of the NO₂ annual mean objective of 40µg/m³ are shown in **bold**.

NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

(3) Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG(16) if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(4) Although collection is almost 75% data has not been annualised in accordance with LAQM.TG(09) since the periods of data collection were sporadic over the 12 month period. Measured mean concentration is of data collected and therefore is a best estimate.

(5) Concentrations at nearest relevant receptor have been estimated using the “NO₂ fall-off with distance calculator” described in LAQM.TG.16 and are discussed in section Appendix C.

(6) Data not bias adjusted due to lack of continuous Urban Background data.

3.5.2 Localised Impacts – User concerns

Scheme concerns

a) Proposed cycle signage



b) Gort Road signage



c) Large corner radii

Hayton Road



c) Large corner radii - continued

Gordon's Mills Road



Associated concerns

d) Uneven ground level in front of Tillydrone Community Centre



f) Bus stop shelters located partially within 2 metre wide footway



Possible

further action

Scheme concerns

g) Cycling on footway between Old Tillydrone Road and Tillydrone Road northbound



h) Unsightly deterrent paving against Pennan Road flats gable end



i) Pedestrian access across Tillydrone Terrace



3.5.3

Parking regulations.

At its meeting on 4 September 2014, the Enterprise, Strategic Planning and Infrastructure Committee resolved to commence the necessary legal procedures for the various traffic management proposals associated with the Third Don Crossing. The subsequent reports detail this process and outline all of the traffic management measures requiring a Traffic Regulation Order (TRO) implemented as part of the Third Don Crossing scheme:

'EPI/14/225 - Third Don Crossing – Traffic Management Proposals' submitted to Enterprise, Strategic Planning and Infrastructure Committee 04 September 2014.

<http://committees.aberdeencity.gov.uk/ieListDocuments.aspx?CId=140&MId=2901&Ver=4>

'CHI/14/021 – Third Don Crossing – Traffic Management Proposals (Initial Statutory Consultation from September 2014 E,P&I Committee)' submitted to Communities, Housing and Infrastructure Committee 28 October 2014.

<http://committees.aberdeencity.gov.uk/documents/s41573/CHI-14-021%20Third%20Don%20Crossing%20-%20Traffic%20Management%20Proposals.pdf>

'CHI/15/223 – Third Don Crossing – Traffic Management Proposals (Stage 3 Public Advert)' submitted to Communities, Housing and Infrastructure Committee 27 August 2015.

<https://committees.aberdeencity.gov.uk/documents/s49757/CHI.15.223%20Third%20Don%20Crossing%20-%20Traffic%20Management%20Proposals%20Public%20Advert%20-%20Report.pdf>

Following the opening of the scheme, officers examined the effectiveness of these waiting restrictions with consideration being made to any necessary amendments, particularly in those areas where issues have been raised through enquiries. The following matters have been highlighted for consideration by the committee as a result of this review:

The following matters have been highlighted for consideration by the committee as a result of this review:

- Meadow Place (Turning Area)

It was considered that the 'At any time' restrictions could be removed from the end of the turning head by approximately 6 metres allowing additional parking for at least two vehicles.

Following an assessment of these restrictions, officers propose the aforementioned revocation of 'At any time' waiting restrictions to allow additional parking for residents.

- Tillydrone Avenue (East side)

Subsequent to the opening of the scheme, officers received numerous reports of indiscriminate and obstructive parking on footway at the east side of Tillydrove Avenue, between the access to the University of Aberdeen Zoology building and the point where the 'At any time' waiting restrictions implemented as part of the scheme originally started, outside property no. 68 Tillydrone Avenue.

Soon after a Temporary Traffic Regulation Order (TTRO) for the extension of 'At any time' waiting restrictions was promoted and the associated lining was implemented.

Following a review of this measure, officers proposed that a permanent TRO was sought for these restrictions.

- Gort Road northernmost (Turning Area)

'At any time' waiting restrictions were implemented around the Gort Road turning head as part of the scheme to protect accessibility for turning. During the review officers considered that the 'At any time' waiting restrictions could be curtailed by approximately 3 metres, on the approach to the turning area itself to improve parking opportunities for residents of Gort Road.

Proposals seeking to promote the reduction of these restrictions will be included in the Small Scale (Stage 1) report to the November 2017 CHI Committee.

- Gort Road southernmost (access through to Hayton Road)

One of the supplementary measures implemented as part of the Third Don Crossing scheme was to open up the section of Gort Road connecting through to Hayton Road. However, since this route has been opened there has been little change to the parking behaviours with vehicles parking directly opposite and too close to the junction. This impedes visibility to on-coming vehicles in both directions. Additionally, concerns regarding vehicles parking on both sides of Gort Road and often on the footway.