

ABERDEEN CITY COUNCIL

COMMITTEE	Communities, Housing and Infrastructure
DATE	8 November 2017
REPORT TITLE	Review of Bedford Road Bus Gate
REPORT NUMBER	CHI/17/254
INTERIM DIRECTOR	Bernadette Marjoram
REPORT AUTHOR	Ross Stevenson

1. PURPOSE OF REPORT:-

To detail the options available for allowing taxis to have access through the bus gate on Bedford Road, including a review of potential alternatives to the bus gate.

2. RECOMMENDATION(S)

- a It is recommended that the Committee instruct the Head of Public Infrastructure and Environment to commence the necessary statutory procedure required to permit taxis access through the Bedford Road bus gate. If no significant objections are received, then progress with the public advertisement and report any objections to a future meeting of this Committee;
- b It is recommended that the Committee instruct the Head of Public Infrastructure and Environment to progress the design and consultation for a traffic calming scheme on Sunnyside Road and Bedford Place.
- c It is recommended that the Committee instruct the Head of Public Infrastructure and Environment to progress with the necessary procedures required to promote a 20mph speed limit on Bedford Road.

3. BACKGROUND / MAIN ISSUES

- 3.1 At its meeting of 5 October 2016, the Taxi Consultation Group resolved:

- (i) *“to recommend that the Communities, Housing and Infrastructure Committee instruct the Roads Infrastructure Manager to submit a report detailing the options for allowing taxis to have access to all bus gates in the city, in particular the bus gate on Bedford Road, including details on the statutory process which would be required, to a future meeting of that Committee; and*
- (ii) *to request that the decision of the Communities, Housing and Infrastructure Committee be reported back to the Group in due course.”*

This matter was then referred to the Communities, Housing and Infrastructure Committee on 1 November 2016 which resolved:

“To instruct the Roads Infrastructure Manager to submit a report detailing the options for allowing taxis to have access to the bus gate on Bedford Road including details on the statutory process which would be required to a future meeting of the Committee. “

- 3.1.1 Further to the CH&I Committee decision and following representations made to the Transport Spokesman and the former C,H&I Convenor it has been agreed that a review will be carried out as to further potential options regarding the operation of Bedford Road bus gate.

3.2 History to the bus gate

- 3.2.1 The concept for the provision of a “bus gate” (a length of road restricted to buses and cycles only) on Bedford Road was originally identified during consultations for the Access from the North study. Subsequently the traffic modelling for the *Access from the North (Third Don Crossing)* included scenarios for closing Bedford Road, however, at that time no formal decision was made whether a bus gate would form part of the Third Don Crossing scheme.
- 3.2.2 In 2009 the *Berryden Corridor Study – Traffic Modelling* report included further modelling of a bus gate on Bedford Road as part of the traffic model. This report indicated that there were minor differences between keeping Bedford Road open or closed, with queuing and congestion occurring at different times and locations depending on the option chosen. The report identified that as a whole the traffic model statistics are better with Bedford Road closed, journey times and reliability for buses was better, but with potential delays occurring for general traffic around Bedford Road / Powis Terrace junction, particularly in the Saturday peak. The findings of the Traffic Modelling report were reported to the Enterprise, Strategic Planning and Infrastructure Committee on 26 November 2009 who adopted the preferred option for progression to detailed design (the so-called “Do Something” option for the corridor, in association with a bus gate on Bedford Road), and that the officials report back on detailed design, costs and programming.
- 3.2.3 At its meeting of 4 September 2014 the Enterprise, Planning and Infrastructure Committee considered a series of traffic management proposals

being brought forward as a result of the Access from the North (3rd Don Crossing) scheme. One element of these proposals was the inclusion of a bus gate on Bedford Road to manage strategic traffic movements. The Traffic Regulation Order for these proposals was progressed in 2015 before being approved by the Communities, Housing and Infrastructure Committee of August 2015. The bus gate was implemented on 31 May 2016, Appendix 1 shows the location.

3.3 Post Implementation

- 3.3.1 Initially with the opening of the Diamond Bridge and the simultaneous introduction of the bus gate facility on Bedford Road, delays occurred on the A96 corridor and on Bedford Road on the approach to the Powis Terrace signalised junction. Anecdotal reports were received of vehicles leaving the Kittybrewster Retail Park and taking forty minutes to reach the Bedford Road / Powis Terrace junction.
- 3.3.2 On 31 October 2016 a petition with 3119 names was presented to Councillor Grant requesting that Bedford Road be reopened to traffic. At the same time, officers had been in discussions with the owners of and businesses in the Kittybrewster retail park, the businesses submitted a letter containing financial information regarding a downturn of business. The companies involved attribute this downturn to the introduction of the bus gate however this could also be attributed towards the economic downturn within Aberdeen.
- 3.3.3 After the initial acclimatisation period, and allowing for the start of the new academic year, a review of the operation of the Bedford Road / Powis Terrace and Belmont Road / Powis Terrace signalised junctions was undertaken. Following the data gathering and subsequent traffic modelling analysis, alterations to the signal timings at the junctions were implemented during Easter 2017; these alterations have improved the traffic flow in the area resulting in improvements to journey times. The residents of Powis do not agree that there has been a noticeable improvement however, it should be noted that there have been some intermittent faults with the communication link between the two junctions resulting in each junction operating under its own control instead of in a co-ordinated fashion. This intermittent communications failure is currently being investigated.
- 3.3.4 Following the remodelling of the traffic signals on Powis Terrace, both Stagecoach and First Bus agree that the traffic flow is improved on the corridor, First Bus have confirmed that the punctuality of their services at the Erskine Street bus stop has improved from December and March to July.
- 3.3.5 Officers met with the Powis Residents Group who highlighted a number of issues, including the Bedford Road bus gate. The residents have raised concerns of being “stuck” between the bus gate and a congested junction, effectively being “trapped without an escape route”. The residents have highlighted that this issue is particularly acute when Aberdeen Football Club are playing at home when; they state that, congestion can result in considerable delays. The residents have requested a number of alternative solutions which will be detailed later in the report.

3.3.6 Appendix 2 shows the number of bus lane penalty charge notices issued per month since the implementation of the bus gate. It is clear that the number of tickets issued is declining however approximately 1000 vehicles per month continue to contravene the restriction.

3.4 Review of existing measures

3.4.1 One area of criticism directed at the Council over the bus gate is the amount and clarity of signage advising drivers of the presence of the restriction. The level of signage has been reviewed both by Council officers and by representatives from Police Scotland and the signage is considered appropriate; there are advanced directional signs on the principal approaches to Bedford Road, the forward visibility to the regulatory signs is suitable for the speed limit and there is an additional warning sign on the southern approach to the bus gate. Signs have not been installed on Sunnyside Road, Sunnyside Bank Road or Bedford Place as these roads are used by local traffic with local knowledge of the area.



Signs at the bus gate



Example of Advanced Directional signs on approach

- 3.4.2 Traffic volumes - As reported in the Third Don Crossing report, the Annual Average Daily Traffic (AADT) for Tillydrone Avenue is 11591, much of this traffic would have the opportunity to use Bedford Road if the bus gate were not in position. However, with the bus gate in place the AADT north of the bus gate has gone from 5896 in 2014 to 720 in 2016, and the AADT south of the retail park has increased from 6239 in 2014 to 7496.

The number of vehicles on Sunnyside Road has decreased from 2253 to 1887 AADT after the installation of the bus gate, Bedford Place previously had restricted access at the western extremity but now has 2004 AADT.

- 3.4.3 Walking – With the reduction in through traffic along Bedford Road there has been a noticeable change to the environment in the area. The reduced level of motor vehicles has changed the balance between the movement and place functions providing greater opportunities for placemaking. A recent Community Street Audit carried out by an independent organisation Living Streets on behalf of the Powis Residents Group highlighted

“The newly installed bus gate limits access for drivers traveling between Powis and St Machar Drive, and for this reason has been contentious for some residents. From a pedestrian perspective, however, the bus gate prevents Bedford Road to the north becoming a 'rat run', reducing volumes and speeds of vehicle traffic. This contributes to a noticeably pleasant area for walking, and ensures that traffic on Bedford Road at this location does not act to 'sever' Powis from Sunnybank. Residents note crossing in the vicinity of the bus gate is relatively easy as traffic at the north end of the street is well managed, which is important as pupils traveling from Powis to Sunnybank Primary School are likely to cross in this vicinity. Residents suggest improved

lighting at this location would further enhance the safety of the street for walking after dark, and improve safety for those crossing in the area.”

The bus gate also aligns with the objectives of the adopted Local Transport Strategy *“to increase the number of people walking, both as a means of travel and for recreation, in recognition of the significant health benefits it can bring to our citizens”*

With the change in the nature of Bedford Road it could be considered suitable to introduce a 20mph speed limit to enhance and support the new Place orientated environment.

- 3.4.4 Cycling – Similar to the benefits that have been experienced by pedestrians in the area, the bus gate has significantly improved the experience for cyclists particularly in the vicinity of the University. This helps to foster a cycling culture in a notable area of Aberdeen promoting cycling as a safe mode of transport for all
- 3.4.5 Public Transport- The bus gate provides priority to public transport in the area. Since the opening of the Diamond Bridge and the associated introduction of the bus gate four additional bus services have been provided along Bedford Road. This has enhanced public transport links across the north of the city with associated benefits in the Powis and Sunnybank areas, and improved links to both the University and Kittybrewster Retail Park. This aligns with the LTS objective *“To increase public transport patronage by making bus travel an attractive option to all users and competitive with the car in terms of speed and cost.”*
- 3.4.6 Road Safety - The following injury accidents have occurred on Bedford Road from 3 years prior to the implementation of the bus gate to date.

Year	Injury Accidents	Total
2013	1 Serious, 2 Slight	3
2014	4 Slight	4
2015	1 Slight	1
2016	0	0
2016 Post	0	0
2017	0	0

3.5 Option Review

- 3.5.1 As part of the review process various options have been identified as potential possibilities for Bedford Road, the viable options have been assessed further using the microsimulation traffic modelling package Paramics, using the City Centre 2017 Reference Case model. Appendix 3 shows a summary of the observations from the testing.
- 3.5.2 When testing options it is appropriate to include Do Nothing for comparison this is the bus gate in situ (Option 1).
Option 2 - Allow taxis to use the bus gate, as requested by the Taxi Consultation Group

Option 3 – Timed restriction – following discussions with the retail park, officers were asked to consider opening the bus gate to all traffic during evenings and weekends.

Option 4 – Consider a one way with bus lane contraflow rather than a bus gate, either enabling traffic through northbound (4a) or Southbound (4b) with a bus lane in the opposite direction. The residents of Powis have requested this option be considered as a potential alternative.

Option 5 – Removing bus gate, as requested by the petition submitted to Councillor Grant.

Other options which have been raised but have not been investigated further include,

- Completely removing the bus gate with a right turn ban into Bedford Road, this has not been progressed further as officers believe that this could result in significant volumes of traffic diverting through the Sunnybank area.
- allowing residents access to use the bus gate - this was not taken further as it would be difficult to define which residents / communities would qualify for access, how this could be managed/ enforced and whether there is appropriate road traffic legislation available which could allow such a measure to be implemented.
- allowing blue badge holders to use the bus gate, as above
- opening up Bedford Avenue at St Machar Drive, this option was not considered further as it would increase the volume of vehicles utilising this residential area and should be resisted on road safety grounds.
- opening up Bedford Avenue at St Machar Drive and closing Bedford Avenue at Bedford Road, this option has not been considered further as it would increase turning manoeuvres on St Machar Drive, impacting on the road network in the area and potentially reducing road safety in the vicinity of St Machar Academy.
- relocating the bus gate to south of the retail park, this option is likely to result in significant volumes of traffic diverting through the Sunnybank area, and as a result has not been taken forward.

3.5.2 After testing the options using the microsimulation model, each option was assessed on a number of criteria including the outcomes identified in the adopted Local Transport Strategy 2016 – 2021:

- A. Increased modal share for public transport and active travel;
- B. Reduced the need to travel and reduced dependence on the private car;
- C. Improved journey time reliability for all modes;
- D. Improved road safety within the City;
- E. Improved air quality and the environment; and,
- F. Improved accessibility to transport for all.

Additionally each option was appraised against central Roads Hierarchy Principle (e) as approved by the Communities, Housing and Infrastructure Committee on 29 August 2017. Appendix 4 summarises the impacts of each proposal.

- 3.5.3 The assessment suggest that with the current road network the provision of the bus gate, with the inclusion of taxis is the most appropriate option to limit queueing, prioritise walking, cycling and public transport and to meet the outcomes of the Local Transport Strategy 2016 2021/ LOIP/ emerging SQP/ Place Making/ Roads Hierarchy principles etc.

3.6 Recommendation

- 3.6.1 It is recommended that the Committee instruct the Head of Public Infrastructure and Environment to commence the necessary statutory procedure required to permit taxis access through the Bedford Road bus gate. If no significant objections are received, then progress with the public advertisement and report any objections to a future meeting of this Committee;
- 3.6.2 Furthermore, as per the report on the Third Don Crossing it is recommended that the Committee instruct the Head of Public Infrastructure and Environment to progress the design and consultation for a traffic calming scheme on Sunnyside Road and Bedford Place, and progress with the necessary procedures required to promote a 20mph speed limit on Bedford Road.

4. FINANCIAL IMPLICATIONS

- 4.1 There would be a cost associated with promoting a traffic regulation order for any change to the operation of the bus gate. Permitting taxis to use the bus gate would incur minimal implementation costs which could be funded from existing budgets and the maintenance costs would remain unchanged.

The recommended provision of a traffic calming scheme in Bedford Place / Sunnyside would require funding from a future year Cycling, Walking and Safer Streets or equivalent budget.

Any alternative proposal would require a report to the Finance, Policy and Resources

5. LEGAL IMPLICATIONS

- 5.1 Should the committee decide to accept the recommendations regarding the bus gate it will be necessary to promote a new Traffic Regulation Order to replace the current Order, to do this Aberdeen City Council must follow the procedures set out in the The Local Authorities' Traffic Orders (Procedure)(Scotland) Regulations 1999.

6. MANAGEMENT OF RISK

Financial

- 6.1 There is no financial risk associated with these proposals; any surplus income generated through Bus Lane Enforcement is consequently reinvested in the delivery of the Local Transport Strategy 2016-21 across the city in accordance with legislation and the recently approved Council policy.

Employee

- 6.2 N/A

Customer/Citizen

- 6.3 Removing the bus gate would be contrary to the adopted Local Transport Strategy with regard to encouraging walking, cycling and public transport. Bus priority measures seek to reduce journey times and improve reliability across the network, promoting and encouraging the uptake of public transport. Additionally the removal of the bus gate would impact on the local environment to the detriment of pedestrians and cyclists.

Removal would also reintroduce a higher volume of traffic onto Bedford Road; this would have a detrimental effect on road safety which has implications for the customers and citizens of Aberdeen. The impact of a reduction in road safety is high with the likelihood of an occurrence increased, additional traffic management measures may be necessary to reduce the likelihood of an occurrence.

Environmental

- 6.4 The local environment in the immediate vicinity of the bus gate is enhanced by the reduction in cars creating a more attractive place to walk and cycle. It is highly likely that the removal of the bus gate would result in a detrimental impact on the environment of the Bedford area.

Furthermore the provision of the bus gate supports the overall objectives of the Local Transport Strategy and Active Travel Plan. There is a high risk that the removal of the bus gate could impact on the efficiency of the wider transport network which would inevitably have an impact on air quality.

Technological

- 6.5 N/A

Legal

- 6.6 The introduction of a Traffic Regulation Order is subject to a statutory process in accordance with "The Local Authorities' Traffic Orders (Procedure)(Scotland) Regulations 1999", should objections be received to any proposed change then there is a risk that the proposals could be delayed or abandoned.

Reputational

- 6.7 The Bedford Road bus gate is a controversial issue amongst the citizens of Aberdeen. It is highly likely that there will be negative feeling within some

communities who will feel disproportionately impacted by these proposals. It is highly likely that there will be objections received to these proposals however any proposal is likely to be a diminution of the current restriction therefore the impact is considered low.

7. IMPACT SECTION

This section demonstrates how the proposals within this report impact on the strategic themes of Aberdeen City Council and Community Planning Aberdeen, as set out in the [Aberdeen City Local Outcome Improvement Plan 2016-26](#) and the [Aberdeen City Council Strategic Business Plan](#).

Economy

- 7.1 A functioning transport network which supports the efficient and effective movement of people and goods is critical to the economy of the city and city region, and must be able to support this movement in an environmentally sustainable way to the betterment of places and people's health and wellbeing. The bus gate which is aligned to the Local Transport Strategy outcomes will help to achieve this.

People

- 7.2 The content of this report relates to the general travelling public and how they move around the city, and also the local communities who are directly affected by the traffic restriction. This report will be of interest to residents/ proprietors/ businesses within Aberdeen City

The report has links to the Local Outcome Improvement Plan

- We will develop infrastructure for commuter, visitor and freight transportation •
- We will promote health and wellbeing in all policies by Community Planning Partners to maximise contribution toward prevention of ill health and reduction in health inequalities.
- We will be a city whose built environment is fit for keeping an ageing population safe and healthy and puts the child at the centre of design.

The report is in line with the Council's Transportation Strategy to improve safety for all road users by continuing to reduce the number of casualties in traffic collisions.

These proposals have no negative outcomes with respect to Equality and Human Rights Impact Assessment.

As the recommendation is to approve the proposals, there will be a positive impact on current customer experience in terms of road safety in our communities.

Place

The report links with the themes contained within the Local Outcome Improvement Plan particularly Prosperous Places, priorities Empowered, Resilient and Sustainable Communities, both Primary Drivers - Safe and resilient communities, and People Friendly City

Technology

NA

8. BACKGROUND PAPERS

[26 November 2009 Enterprise Planning and Infrastructure](#)
[26 November 2009 Enterprise Planning and Infrastructure](#)
[4 September 2014 Enterprise Planning and Infrastructure](#)
[4 September 2014 Enterprise Planning and Infrastructure minute](#)
[4 September 2014 Enterprise Planning and Infrastructure decision sheet](#)
[27 August 2015 Communities Housing and Infrastructure](#)
[27 August 2015 Communities, Housing and Infrastructure minute](#)
[27 August 2015 Communities Housing and Infrastructure decision sheet](#)
[5 October 2016 – Taxi Consultation Group](#)
[1 November 2016 Communities Housing and Infrastructure Referral](#)
[1 November 2016 Communities Housing and Infrastructure Minute](#)
[1 November 2016 Communities Housing and Infrastructure decision sheet](#)

9. APPENDICES (if applicable)

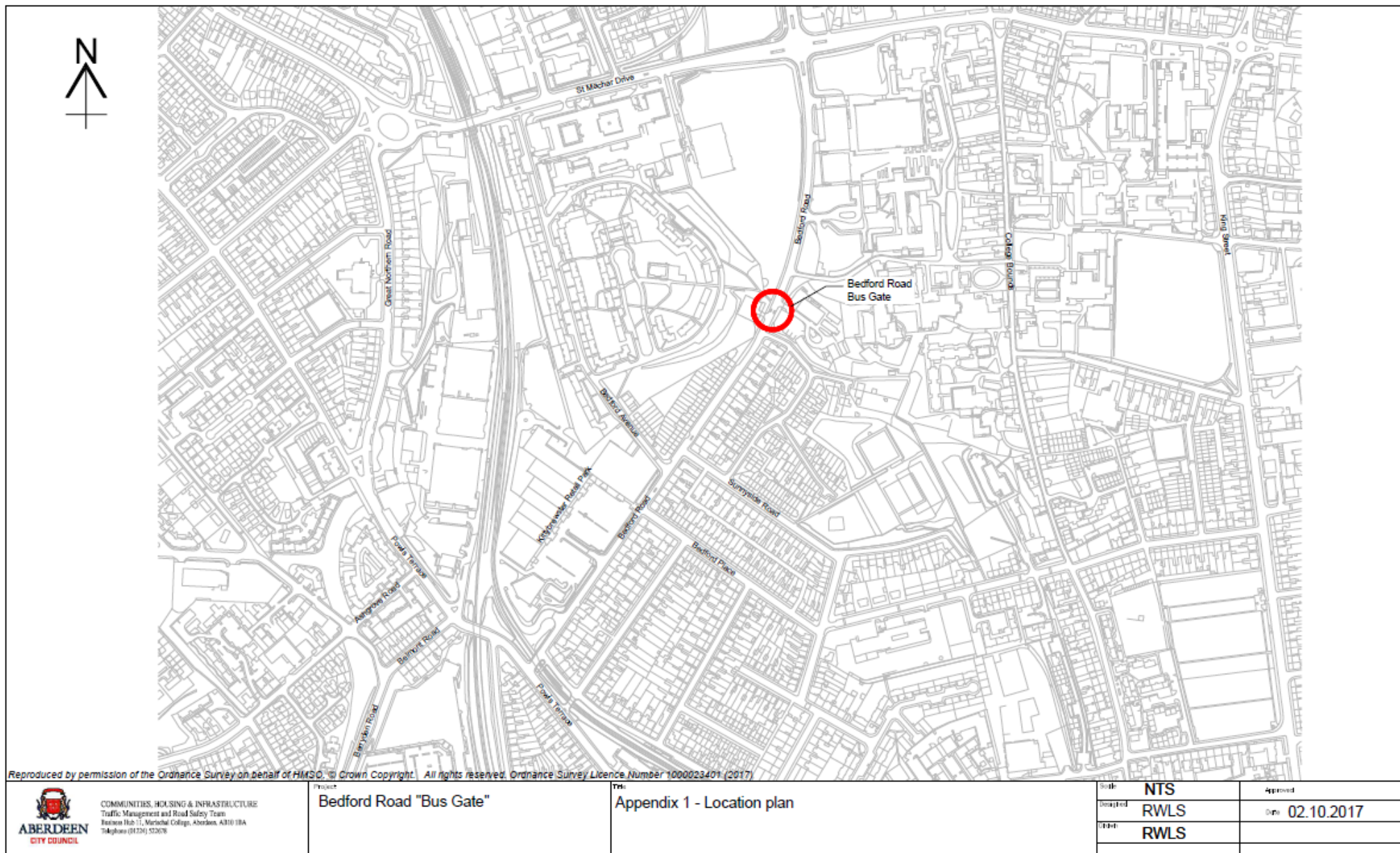
Appendix 1 – Location Plan
Appendix 2 – Bedford Road – Bus Lane Charge Notices
Appendix 3 – Paramics Assessment
Appendix 3 – Local Transport Strategy Outcomes

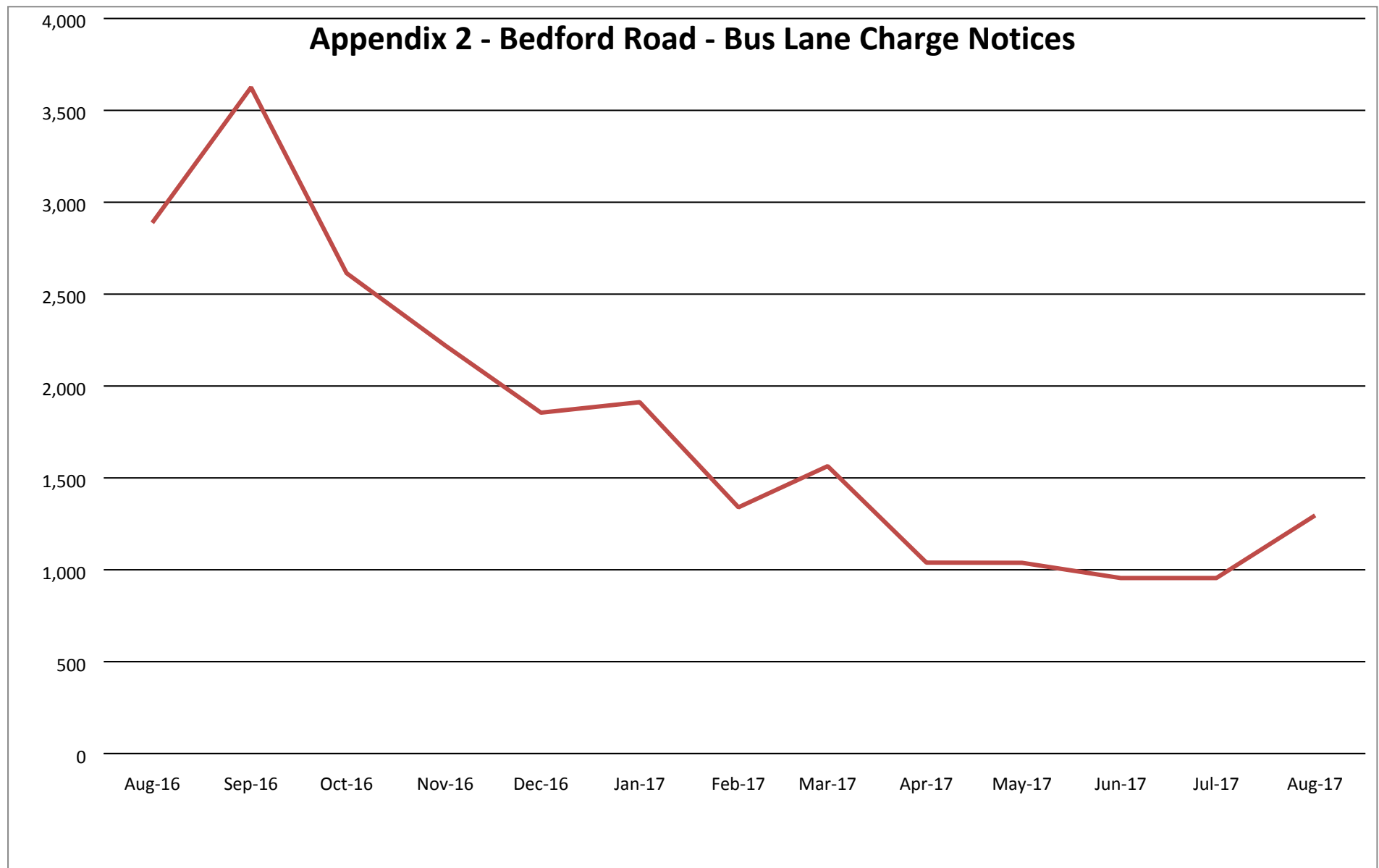
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Appendix 3 – Paramics Assessment

- 0 – No observations noted
- 1 – Occasional queueing
- 2 – Queueing occurs but traffic generally moving
- 3 – More frequent queueing with reasonable delays
- 4 – Regular Queues with longer delays

	Bedford Road / Powis Terrace			Belmont Road / Powis Terrace			St Machar Drive / Bedford Road			Bedford Road / Kittybrewster Retail Park			Berryden Road / Ashgrove Road, PM and Sat			Positives against the do nothing scenario	Negatives against the do nothing scenario	Additional comments
	am	pm	Sat	am	pm	Sat	am	pm	Sat	am	pm	Sat	am	pm	Sat			
Do nothing	0	2	4	2	2	4	2	0	0	0	0	4	0	2	4	NA	NA	With the bus gate in place there is a reoccurring issue with traffic during the Saturday peak. The inclusion of taxis at the bus gate would not affect traffic from the do nothing scenario.
Contraflow northbound (at existing bus gate location)	1	2	4	3	3	0	1	4	4	0	0	4	0	3	0	During the Saturday peak there is reduced queueing at the Belmont Road / Powis Terrace junction as northbound traffic from the retail park is removed from this corridor.	In the PM and Saturday peaks the queueing that occurs on Bedford Road at the St Machar Drive / Bedford Road junction is significant. In the PM peak there is additional queueing through the Berryden / Ashgrove Road / Bedford Road corridor. This is as a consequence of the additional vehicles turning right from Powis Terrace into Bedford Road subsequently impacting on the operation of the Belmont Road junction.	

	Bedford Road / Powis Terrace			Belmont Road / Powis Terrace			St Machar Drive / Bedford Road			Bedford Road / Kittybrewster Retail Park			Berryden Road / Ashgrove Road, PM and Sat			Positives against the do nothing scenario	Negatives against the do nothing scenario	Additional comments
	am	pm	Sat	am	pm	Sat	am	pm	Sat	am	pm	Sat	am	pm	Sat			
Contraflow southbound (at existing bus gate location)	1	4	4	0	4	2	0	0	0	0	4	4	0	0	0	<p>In the PM and Saturday peak periods allowing vehicles to travel southbound through Bedford Road slightly improves queueing at the Berryden Road Belmont Road junction as southbound traffic is removed from the area.</p> <p>Allowing traffic to travel southwards during peak periods also improves queueing at the St Machar junction.</p>	<p>In the peak periods the Bedford Road / Powis Terrace junction, and the Belmont Road junction in the PM peak experience longer queues as a result of the redistribution of traffic movements</p>	<p>Queuing noted at Great Northern Road / St Machar Drive roundabout in the PM extending southwards towards Clifton Road junction.</p> <p>On a Saturday significant queues occur at the junction of Powis Terrace / Powis Place</p>
Removing the bus gate	0	3	3	3	2	3	0	4	4	0	4	4	2	1	4	<p>On a Saturday there is slightly reduced queueing on the Bedford Road / Belmont / Ashgrove route as northbound traffic is removed from this corridor.</p>	<p>In the AM peak there is additional traffic at the Belmont Road junction as a result of vehicles using the Bedford / Berryden / Ashgrove route.</p> <p>In the PM peak there is additional traffic at the Powis Terrace / Bedford junction as more vehicles are turning right into Bedford Road.</p> <p>Additional queueing out of the retail park in the PM peak is likely to be caused by vehicles being unable to find acceptable gaps in the traffic flow.</p>	<p>Whilst the paramics model cannot reflect this, it is expected that the removal of the bus gate would generate additional through traffic in the Sunnybank area.</p> <p>Some of the queueing that occurs on Bedford Road at the St Machar Drive / Bedford Road junction could be redistributed by optimising the signal timings between St Machar Drive, Tillydrone Road and Bedford Road.</p>

Appendix 4 – Local Transport Strategy Outcomes

- A. Increased modal share for public transport and active travel;
 - B. Reduced the need to travel and reduced dependence on the private car;
 - C. Improved journey time reliability for all modes;
 - D. Improved road safety within the City;
 - E. Improved air quality and the environment; and,
 - F. Improved accessibility to transport for all.
- Roads Hierarchy Principle e

	A	B	C	D	E	F	RHP	Cost	Summary
Option 1 Do nothing	0	0	0	0	0	0	0	The estimated cost approximately £15,000	With the change in the nature of Bedford Road consideration could be given towards the introduction of a 20mph speed limit on Bedford Road, furthermore the introduction of traffic calming on Bedford Place and Sunnyside Road could be considered.
Option 2 Allow Taxis	0	+1	0	0	0	0	+1	The estimated cost approximately £20,000	<p>There is a concern that allowing taxis access to the bus gate could cause an increase in the number of vehicles contravening the restriction, as drivers may follow taxis through the bus gate</p> <p>There would be minimal impact on Walking, Cycling, Public Transport.</p> <p>Residents of the Powis area have highlighted that taxi journeys are costing more / or taxis are deliberately avoiding the area due to the detour required, resulting in customers being dropped off on St Machar Drive. Allowing taxis access through the bus gate would reduce taxi fares, and assist patrons ultimately reducing dependence on the private car.</p> <p>With the change in the nature of Bedford Road consideration could be given towards the introduction of a 20mph speed limit on Bedford</p>

									Road, furthermore the introduction of traffic calming on Bedford Place and Sunnyside Road could be considered.
Option 3 – Timed Restriction	-2	-1	+1	-1	-1	0	0	The estimated cost approximately £20,000 to change the signs, there would also be additional costs associated with redesigning the St Machar Drive signalised junction	<p>Introducing a timed restriction or removing the restriction at weekends is likely to cause confusion and would require additional complex signage which has already been identified by members of the public as a source of concern.</p> <p>There would be a detrimental impact on the Bedford Road / St Machar Drive junction resulting in significant queues. Further traffic modelling would be required but this option would likely require additional works to mitigate some of the impact of the changes on a Saturday.</p> <p>There would also be a detrimental impact on cycling, walking and public transport due to increased vehicles on Bedford road.</p>
Option 4a – Contraflow Northbound	-1	-1	-2	-1	-1	0	-1	The estimated cost approximately £20,000 to change the signs, there would also be additional costs associated with redesigning the St Machar Drive and Powis Terrace signalised junctions	<p>Opening up the bus gate to a one-way with contraflow bus lane would remove bus priority on the route; buses would be included in the increased queueing at junctions impacting on bus journey time and reliability.</p> <p>There would be a detrimental impact on Walking, and Cycling, as the environmental benefits gained by the bus gate would be reduced.</p>
Option 4b – Contraflow Southbound	-1	-1	-1	-1	-1	0	-1	The estimated cost approximately £20,000 to change the signs, there would also be additional costs associated with redesigning the St Machar Drive and Powis Terrace signalised junctions.	<p>Opening up the bus gate to a one-way with contraflow bus lane would remove bus priority on the route; buses would be included in the increased queueing at junctions impacting on bus journey time and reliability.</p> <p>There would be a detrimental impact on Walking, and Cycling, as the environmental benefits gained by the bus gate would be reduced.</p>

Option 5 – Remove the bus gate	-2	-2	-1	-2	-2	0	-2	<p>An estimated cost of £40,000 to remove the bus gate, alter the signage and reintroduce the closures on Hermitage Avenue and Bedford Place.</p> <p>This does not include the costs associated with altering or upgrading other junctions on the network which would be subject to detailed design work and implementation costs.</p>	<p>Opening up the bus gate would remove bus priority on the route; buses would be included in the increased queueing at junctions impacting on bus journey time and reliability.</p> <p>There would be a detrimental impact on Walking, and Cycling, as the environmental benefits gained by the provision of the bus gate would be lost.</p> <p>The measures previously removed from Bedford Place at the junction with Bedford Road would require to be reinstated.</p>
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