

ABERDEEN CITY COUNCIL

COMMITTEE	Enterprise Planning and Infrastructure
DATE	9 November 2010
DIRECTOR	Gordon McIntosh
TITLE OF REPORT	Strategic Public Transport
REPORT NUMBER:	EPI/10/258

1. PURPOSE OF REPORT

To advise Members of further progress in undertaking evidence based assessments to identify areas on the City's road network where adjustments may contribute to the reliability and punctuality of buses, thereby encouraging greater use of this more sustainable mode of transport. This report focuses on delays to buses on the routes 1 and 2, particularly at the north and south ends of this route at Bridge of Don and Holburn Street, respectively.

2. RECOMMENDATION(S)

It is recommended that Members:

- a) Acknowledge the assessments undertaken to date on the Routes 1 and 2;
- b) Agree in principle the proposal to change the operational times of the existing northbound and southbound bus lanes on Holburn Street, as described in sections 1.6 and 1.7 of the report, in the AM peak period from 0830-0930 to **0800-0930**;
- c) Agree in principle the proposal to **extend** the southbound bus lane on Holburn Street on the approach to the Bridge of Dee by around **120metres** as referenced in section 1.7 of the report, with the associated parking and loading restrictions to mirror the existing bus lanes (including the proposed AM operational time of 0800-0930); and
- d) Instruct the appropriate officials to commence the necessary legislation for the required Traffic Regulation Orders to implement the proposals referenced in b) and c) above. If no objections are received at the Initial Statutory stage then instruct officers to continue with the public advert.

3. FINANCIAL IMPLICATIONS

The assessments of Route 1 and 2 bus priority proposals are being funded by NESTRANS and should the recommendations be agreed, NESTRANS will be requested to fund their implementation.

The likely future revenue maintenance demands of additional white lining and road signs to facilitate the proposed recommendations will be negligible.

4. OTHER IMPLICATIONS

There are no other implications at this time other than if appropriately evidenced based measures are not progressed to enhance the attractiveness and therefore the use of public transport, then the successful achievement of objectives contained within the Local and Regional Transport Strategies, as well as related objectives associated with Air Quality, Carbon Reduction and the local and regional economy may be undermined.

5. BACKGROUND/MAIN ISSUES

1. City Bus Routes 1 and 2

- 1.1 Reference is made to the report entitled 'Strategic Public Transport' which was considered by this Committee on 7 September 2010 wherein the following recommendations pertinent to bus routes 1 and 2 were agreed:

'a) Acknowledge the assessments undertaken to date on bus Routes 1 and 2 and instruct officers to report back to this Committee as soon as the remainder of this work is concluded;'

- 1.2 Initial observations of journey times, congestion and delays at the agreed locations were undertaken by Council officers to verify the extent of the reported problems on these routes. The final list of locations which were identified and reported to the September Committee are as follows:

1. Balgownie Road / The Parkway (Northbound)
2. Scotstown Road / The Parkway (Northbound)
3. Holburn Street (Northbound)
4. Holburn Street / Bridge of Dee roundabout (Southbound)

- 1.3 These locations reflected those highlighted by First Aberdeen as being problem areas and where it was considered that there was scope for implementing improvements. The initial findings from surveys in June 2010 were backed up by further surveys in October 2010 and a brief summary of the key survey results are listed below:

- Balgownie Road / The Parkway (Northbound)
 - No delays in the AM Peak
 - No off-peak delays
 - Delays of up to 6 minutes in the PM peak
- Scotstown Road / The Parkway (Northbound)
 - No significant delays in the AM peak, with the longest recorded delay 1 minute
 - No off-peak delays
 - Delays of up to 10 minutes in the PM peak
- Holburn Street between Nellfield Place and Great Western Road (Northbound)
 - Delays of up to 2 minutes in the AM peak
 - No significant off-peak delays, the longest recorded being 1 minute
 - No significant PM peak delays, the longest recorded being 30 seconds
- Holburn Street / Bridge of Dee roundabout (Southbound)
 - Delays of up to 4 minutes in the AM peak
 - No off-peak delays
 - Delays of up to 2 minutes in the PM peak

It was noted that, although significant delays were experienced at some of the above locations, buses were also observed, even at peak times, to suffer very little delay at many of the same junctions, depending on day-to-day and even minute-to-minute fluctuations in traffic levels, thus reflecting the inherent unpredictability of traffic movements and flows in the City even at peak times. Overall the October surveys did not show any greater level of delay than was shown during the June surveys and therefore gave a reasonable degree of confidence that the results are typical of delays experienced throughout the year. The conclusions from all the surveys and the further work undertaken since the September Committee are reported in the following sections.

1.4 The work on routes 1 and 2 is about resolving perceived delays at locations highlighted by First Aberdeen as being problem areas on the road network ie to help them meet their current timetables for reliability and punctuality. The delays recorded are in relation to their timetable and in many cases, the surveys suggest that these are not necessarily delays in terms of congestion impeding adherence to the timetable. This differs from the approach taken on the BPIP Buchan/King Street route which is about improving overall journey times which will hopefully result in future improvements to the service eg better frequencies. In the case of the routes 1 and 2, officers have not been able to substantiate the perceived delays at many of the locations. Without optimum journey times being provided by bus operators, it is, therefore, difficult to enable a suitable base line to be established and allow appropriate actions to be taken.

1.5 **Balgownie Road (Northbound on the approach to the Parkway Junction)**

1.5.1 This was highlighted by First as a significant problem area in the PM peak. Observations in both June and October have indicated that vehicles are delayed for as much as 6 minutes between exiting the Braehead Way / Balgownie Road junction and the Parkway. The queues were observed to extend on Balgownie Road to its junction with the Parkway for a distance of around 300m. There is currently no bus priority on this stretch of road.

1.5.2 The observations of PM peak traffic heading towards the Balgownie Road / Parkway junction revealed the following points:

- Significant queuing seems to be restricted to the period 1705-1725.
- The longest recorded delay to a bus was 6 minutes, even within this 'peak peak' period.
- Queuing outwith these times is not severe, rarely stretching as far as the Hillhead Cottages entrance and did not cause any significant delays to buses.

1.5.3 Consideration has been given to the introduction of a bus lane on the approach to this junction as a means of reducing delays for buses. The preliminary cost estimate for a bus lane at this location is approximately £0.5 million. The addition of a bus lane on the approach to this junction would certainly benefit buses, however, the benefits achieved would

unlikely be significant enough to justify the high cost of implementing such a scheme. On average a bus that turns right out of Braehead Way onto Balgownie Road takes 3 minutes to reach the junction if the queue on Balgownie Road stretches back that far. The fact that the queuing is over a relatively short period of time means that relatively few buses are impacted by the delays. Further consideration was given to the possibility of rerouting buses along Barbour Brae and accessing Balgownie Road via Mundurno Road some 50m prior to the junction. This would require construction of a short link road at Mundurno Road linking through to Balgownie Road. The preliminary cost estimate of such a scheme is £65K. It would mean diverting the peak hour buses along a residential side road that has never been used as a regular public transport route and there are likely to be safety issues associated with a proposal that is likely to only provide time savings of around 2 minutes for a small number of buses.

1.5.4 The impact on this junction of the proposed Third Don Crossing and of potential future development had led to the view that there may be a future need for traffic signals at the location. Further investigation work, however, has indicated that a traffic signal junction will not likely to be required at this location in the future. It is probable that construction of the Third Don crossing and the Aberdeen Western Peripheral Route will change traffic patterns at this location and reduce the traffic pressure on this junction. It is, therefore, considered that any major modifications at this junction would not be cost effective at this time. As indicated, the delays are over a relatively short period of time in the PM peak and therefore, it is not considered a cost effective use of funds to put in place an improvement in the short term that would benefit so few buses.

1.5.5 It is therefore recommended that no further action be taken at this location.

1.6 **Scotstown Road (Northbound on the approach to the Parkway Junction)**

1.6.1 This was highlighted as a significant problem area in the PM peak. The observations in both June and October have indicated that buses are delayed for as much as 6 minutes on the Scotstown Road approach to the its junction with the Parkway. There is currently no northbound bus priority on this stretch of road. It should be noted that at its maximum queue length, vehicles can be delayed for more than 10 minutes on the approach to the junction. However, the maximum that queues were observed to develop is over a very short time period (1710 to 1720) and this did not coincide with the arrival of a bus.

1.6.2 The observations of PM peak traffic heading towards the Scotstown Road / Parkway junction revealed the following points:

- Significant queuing seems to be restricted to the period 1705-1730.
- The longest recorded delay to a bus was 6 minutes, even within this 'peak peak' period.
- Queuing outwith these times is not severe, rarely stretching more than 200m and did not cause any significant delays to buses.

- 1.6.3 The addition of a bus lane on the approach to this junction would certainly benefit buses during the period of significant queues in the PM peak and there is sufficient width within the existing verge to construct the scheme without land purchase. Because of the potential time savings for buses at this location it was considered that this scheme could have significant benefits and should be considered further.
- 1.6.4 The proposed start point for the bus lane would be 800m south of the Parkway junction. This is in line with the average queue length during the PM peak period and would be therefore be the optimum location for maximum time savings. It would also allow the bus lane to start just north of the access to the sports centre. A preliminary cost estimate of this scheme would be between £0.35 million and £0.5 million depending on how close the bus lane was constructed to the junction and whether shared use facilities were provided on the footway.
- 1.6.5 Having considered the results of the surveys along with the cost of a bus lane, it is concluded that there is little benefit to be gained by construction of a bus lane at this location. The delays caused by queuing on this length of the route are over a very short period of time and only impact on a small number of buses. Observations indicate that delays of between 3 and 6 minutes are experienced by no more than 2 to 3 buses during this period. It would therefore not be a cost effective use of funds to put in place an improvement that would benefit so few buses. It is also probable that construction of the Third Don crossing and the AWPR will change traffic patterns at this location and reduce the traffic pressure on this junction. It is, therefore, considered that any major modifications at this junction would not be cost effective at this time.
- 1.6.6 It is therefore recommended that no further action be taken at this location.

1.7 Holburn Street between Nellfield Place and Great Western Road (Northbound)

- 1.7.1 This route was observed to have delays to buses in the AM peak of around 2 minutes, although anecdotal evidence from bus operators suggest delays here are often in excess of this. There is currently a bus lane on this section of road but this operates from 0830 to 0930, whereas the majority of bus lanes in the City operate from 0730 to 0930. The bus lanes on Holburn Street have later start times to accommodate the loading needs of the adjacent businesses when they were first implemented. Queue length surveys and on-site observations were undertaken to see if it would be to the benefit of buses to have this bus lane operational from 0730.
- 1.7.2 There are loading and waiting restrictions in place on this stretch of road and adequate signings and markings are in place to highlight these.
- Great Western Road – 196 Holburn Street – No loading Monday to Saturday 0800-0930 and 1630-1800.

- 196 Holburn Street – Nellfield Place – No loading Monday to Saturday 0800-0930 and 1630-1800 and No Waiting Monday to Saturday 0900-1800
- 1.7.3 The observations of AM peak traffic on this section of Holburn Street revealed the following points:
- No residents seem to use this stretch of road for parking between 0730 and 0830.
 - Loading restrictions are being adhered to – the only business observed to be engaged in loading was the Sainsbury’s furniture store, and this was before the ban comes into operation (i.e. pre-0800).
 - The bakery attracts a lot of parking, and there is much illegal parking going on outside the bakery when the bus lane is in operation.
 - Despite this, parked vehicles were not observed to cause any significant delays to buses, even when the bus lane was being violated. Delays were very occasional and normally restricted to a few seconds.
 - Queuing in the right hand lane was rarely so excessive that it prevented buses bypassing vehicles parked in the left lane.
 - There were a few instances of parked vehicles preventing buses accessing the bus stop at the southern end of this stretch.
- 1.7.4 The observations of PM peak traffic on this section of Holburn Street revealed the following points:
- Very little queuing was observed in the PM peak, therefore buses were not seen to be delayed by traffic.
 - The bus lane is largely adhered to in the PM peak and seems of an adequate length and operating time.
 - Loading and waiting restrictions are largely adhered to.
- 1.7.5 The results in both June and October seem to indicate that there is no significant issue that causes delays to buses on this section of the route and although there are some observed delays in the AM peak, this does not seem to cause the buses significant problems. However, there is clearly an inconsistency between the restriction times at this location on Holburn Street compared with other locations throughout the City. There is also a significant amount of parking both prior to and after 8am (therefore illegal) outside the bakery. A review of the operating times of the bus lanes has therefore, been carried out to consider bringing them in line with other areas of the city.
- 1.7.6 Local businesses and residents in the area have been consulted on this proposal to extend the operation time for bus lane in the AM peak period to 7.30 to 9.30. The results show that of the 16 respondents, 10 indicated that they either found the proposals acceptable or expressed no preference. The remaining 6 respondents indicated that they found the proposals unacceptable. The reasons given include the lack of existing parking on Holburn Street and the potential impact on loading times of existing businesses. In particular, one business highlighted that they arrange their business loading operations in the AM peak to occur just before the existing loading ban comes into force. In their view they would be significantly impacted by the changes.

1.7.7 Having considered the consultation responses and the results of the surveys, it is concluded that there is little benefit to be gained for public transport by changing the bus lane start time to 0730. The delays to buses caused by queuing on this length of the route would not seem to be significant and the negative impact of starting the bus lanes at 0730 on local businesses in particular would outweigh any small benefits gained. The original reason for the 0830 bus lane start time was to take into account the concerns of local businesses and these needs clearly still exist. However, it is considered beneficial in terms of consistency and the reduction in driver confusion to extend the operational start time of the bus lane to 0800. This would bring it in line with the existing loading and waiting restriction times and would, therefore, have no impact on existing legitimate parking and loading patterns. The additional 30 minutes would bring the bus lane start time closer to the start of the peak period. This proposal should be considered for the whole section of this bus lane, which continues north to just before the junction with Union Grove.

1.7.8 It is therefore recommended to amend to the current AM operational time for the northbound bus lane on Holburn Street (Nellfield Place to Union Grove) from 0830-0930 to 0800 to 0930, as shown in the Plan included as Appendix A.

1.8 Holburn Street towards the Bridge of Dee roundabout (Southbound)

1.8.1 The Bridge of Dee roundabout has been highlighted as a congestion hotspot in both the AM and PM peak. There is an existing bus lane stretching from the Holburn Street / Riverside Drive junction to just prior to the Bridge of Dee roundabout, which is operational in the AM from 0830 to 0930 and in the PM from 1630 to 1800. This is similar to other sections of bus lanes on Holburn Street and differs from the majority of bus lanes in the City which are in operation between 0730-0930 and 1600-1800. The bus lanes on Holburn Street have later start times to accommodate the loading needs of the adjacent businesses when they were first implemented. There is a loading ban in place over the section of bus lane which is operational in the AM from 0800 to 09.30 and in the PM from 1600 to 1800 and a section of single yellow lines with the same restriction times. Queue length surveys and on-the-ground observations were therefore undertaken in both June and October to investigate whether there would be any benefit to buses if the bus lane was extended in the AM peak to operate from 0730 to 0930 and in the PM peak from 1600 to 1830, and whether it would be beneficial to extend the bus lane further north.

1.8.2 The observations of AM peak traffic on this section of Holburn Street revealed the following points:

- Very little queuing was observed in the AM peak, therefore buses were not seen to be delayed by traffic, even before the bus lane came into operation.
- The bus lane is largely adhered to in the AM peak and seems of an adequate length and operating time.
- Loading and waiting restrictions are largely adhered to.

- 1.8.3 The observations of PM peak traffic on this section of Holburn Street revealed the following points:
- Significant queuing was observed in the PM peak between 1630 and 1800. For around an hour between 1650 and 1750 the queue extended beyond the link to Riverside Drive with the maximum queue length occurring at 1730 and extending some 500m.
 - The bus lane is largely adhered to in the PM peak although the queue does extend beyond the start of it.
 - Loading and waiting restrictions are largely adhered to. The occasional vehicle was observed to park for short periods but this did not seem to cause significant delays.
- 1.8.4 The situation here is similar to the previously discussed section of Holburn Street, where the results of the surveys in both June and October seem to indicate that there is no significant issue that causes delays to buses in the AM peak on this section of the route. However, there is a similar inconsistency between the restriction times at this location on Holburn Street compared with other locations throughout the City. Therefore, a review of the operating times of the bus lanes was carried out to consider bringing them in line with other areas of the City.
- 1.8.5 Local businesses and residents in the area have also been consulted on this proposal to extend the operation time for bus lane in the AM peak period to 0730 to 0930 and in the PM peak from 1630 to 1830. The results show that of the 6 respondents, all found the proposals unacceptable. The reasons given include the lack of existing parking on Holburn Street and the additional length of queuing caused by traffic having to queue in single file because of the bus lane. The view was also expressed that traffic queues had all but disappeared by 1800 and there was therefore no need to extend the operational times in the PM Peak.
- 1.8.6 Having considered the consultation responses and the results of the surveys, it is concluded that there is little benefit to be gained by changing the bus lane start time to 0730 in the AM peak or extending it to 1830 in the PM peak. The delays to buses caused by queuing on this length of the route in the AM peak are not significant and the negative impact on local businesses in particular would outweigh any small benefits gained. The original reason for the 0830 bus lane start time was to take into account the concerns of local businesses and these needs clearly still exist. However, as considered in the previous section, it would be beneficial to extend the operational start time of the bus lane to 0800. This would bring it in line with the existing loading and waiting restriction times and would, therefore, have no impact on existing parking and loading patterns. The additional 30 minutes would bring the bus lane start time closer to the start of the peak period. There would, however, seem to be little benefit in extending the operational time of the bus lane beyond 1800 as the observations indicate that the queues are significantly reduced after this time and the delays to buses are not significant.

1.8.7 As previously described, the queue in the PM peak is significant and extends beyond the start of the existing bus lane. The surveys indicate that for a period of around an hour in the PM peak the queue extends for up to 500m which takes it beyond the Ruthrieston Road link to Riverside Drive. There would, therefore, be benefit in extending the bus lane north of this link. Consideration has been given to an appropriate length of extension and this would require daytime parking and peak hour loading to be removed, as is the case with all other bus lanes, from a section of the southbound carriageway. The bus lane could be extended by around 120m to the north side of the old filling station site without significantly impacting on on-street parking directly outside existing properties. A plan showing the proposed extent of the bus lane (and associated parking and loading restrictions) is shown in Appendix B. Although the queue sometimes extends beyond this point the delays experienced by buses in reaching this point would be relatively small. This would be an optimum length for the bus lane giving the greatest benefit to buses with only a small impact on existing daytime parking and peak hour loading opportunities in the area. When the filling station was open, there was limited available parking in front of the site so the impact of removing this parking bearing in mind the length of road unavailable for parking in any case, would not be significant.

1.8.8 It is therefore recommended to extend the existing southbound bus lane on Holburn Street further north by approximately 120m, with the associated parking and loading restriction, and reflecting the proposed AM peak and existing PM peak operational times, as shown in the Plan included as Appendix A.

6. IMPACT

The contents of this report link to the Community Plan vision of creating a 'sustainable City with an integrated transport system that is accessible to all'.

Public Transport improvements will contribute to delivery of the transport aims of Vibrant, Dynamic and Forward Looking – **'Improve Aberdeen's transport infrastructure addressing other pinch points Work to improve public transport encourage cycling and walking'**.

The projects identified in this report will also assist in the delivery of actions identified in the Single Outcome Agreement, in particular the delivery of both Local and Regional Transport Strategies which will contribute directly and indirectly to 14 out of the 15 National Outcomes described in Aberdeen City Council's 2009/10 SOA.

The Local Transport Strategy and the Regional Transport Strategy from which the public transport projects within this report are an integral part have been subject to an Equalities & Human Rights Impact Assessment.

7. BACKGROUND PAPERS

Bus Routes 1 & 2 – Survey Note, June 2010

Bus Routes 1 & 2 – Survey Note, October 2010

7-9-10 EP and I Committee Report – ‘Strategic Public Transport’

(Please contact the report author if you require copies of these papers)

8. REPORT AUTHOR DETAILS

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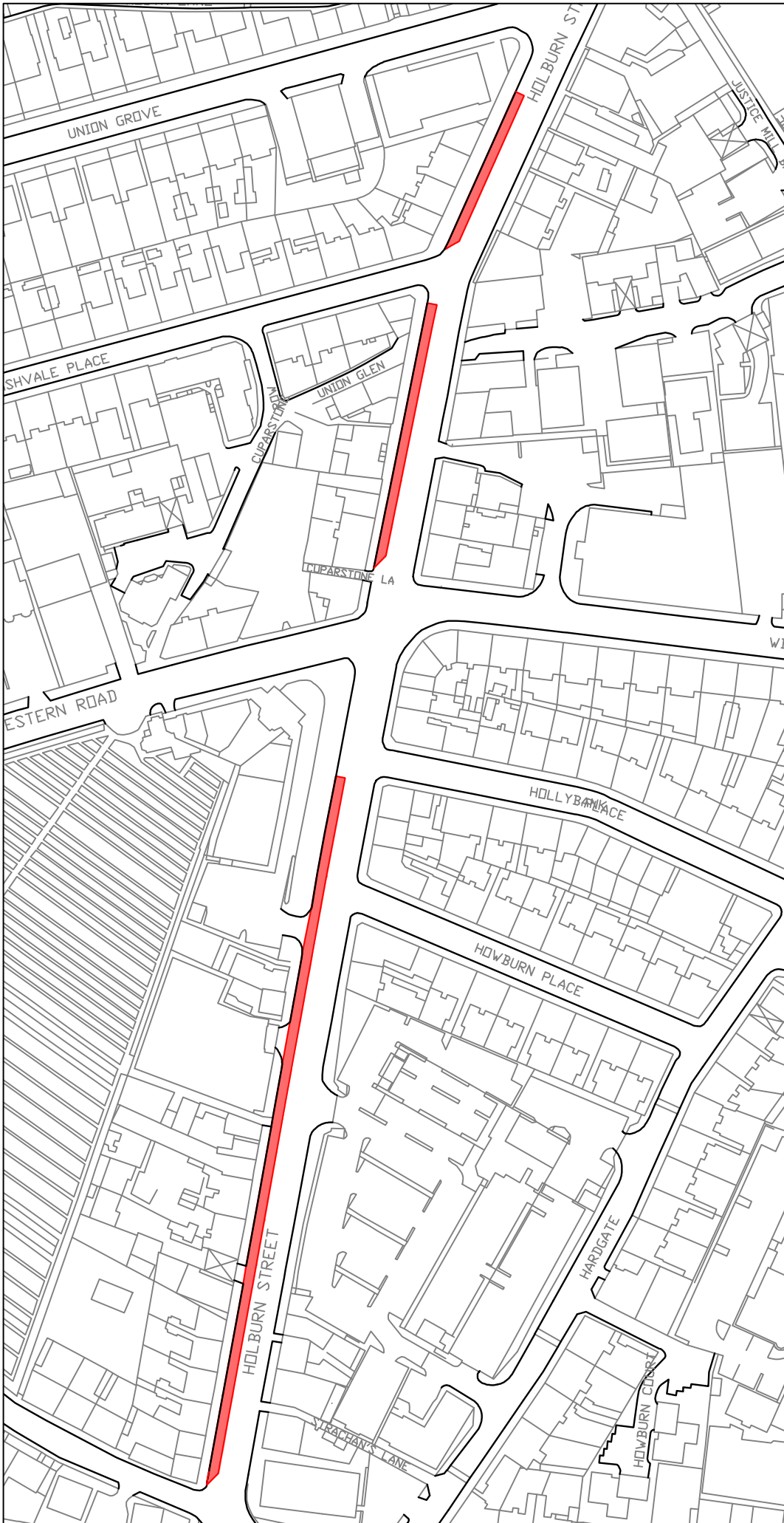
Appendix A - Holburn Street Northbound Bus Lane – Proposed Change to AM operational times

Appendix B - Holburn Street Southbound Bus Lane – Proposed Extension with Associated Parking and Loading Restrictions

Appendix A

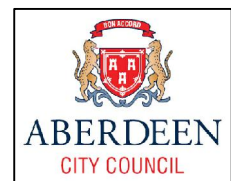
Holburn Street Northbound

Existing bus lane proposed change in AM hour operation to 8:00am - 9:30am



KEY:

Existing Bus Lane



ABERDEEN
CITY COUNCIL

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Client: **ABERDEEN CITY COUNCIL**

Project: **Bus Lane Proposals**

Title: **Appendix A**

Drawn (S.A.)
CP
- October 2010
Scale & Date
NTS at A4

Drawing No.
1 of 2



Appendix B

Holburn Street Southbound

Proposed bus lane

Operational Hours
AM 8:00am - 9:30am
PM 4:30pm - 6:00pm
(Mon - Sat)

with associated peak hour loading prohibition and daytime parking restrictions

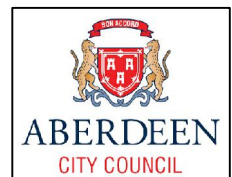
Existing bus lane proposed change in AM hour operation to 8:00am - 9:30am

KEY:

Proposed Bus Lane



Existing Bus Lane



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ABERDEEN CITY COUNCIL

Bus Lane Proposals

Appendix B

CP
 - October 2010
 1:1250 at
 A4

2 of 2