
**Meeting of Executive Members for
City Strategy and Advisory Panel**

20 October 2008

Report of the Director of City Strategy

Blossom Street Multi Modal Study - Feasibility

Summary

1. This report presents the results of the first stage of the Blossom Street Multi Modal Study. This study was commissioned to investigate options for improving the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction and enhancing the streetscape of Blossom Street between this junction and its junction with Holgate Road, with the aim of improving accessibility and safety for all road users, particularly pedestrians and cyclists. The study also had to consider the requirements of the city's Air Quality Management Plan
2. This report also presents the key requirements that any scheme option(s) will need to satisfy.
3. The report recommends that Members receive a report at a future EMAP describing potential options and how they satisfy, as far as is practicable, the key requirements.

Background

4. Blossom Street is one of the major gateways into the main part of the city centre. It carries large volumes of traffic and cycles as well as being a prominent walking route to the city centre.
5. The current layout of Blossom Street and the junctions at either end is shown at Annex A.
6. There are six schools in the vicinity of the study area; these being All Saints RC Secondary School (Upper and Lower); Scarcroft Primary School; Millthorpe Secondary School and The Mount and Tregelles independent Schools. Blossom Street has been identified as a potential danger area for pupils going to and from school in several Safe Routes to Schools reports, specifically All Saints RC School, Millthorpe School and Scarcroft School. In addition to these reports, accident statistics show that over the five year period May 2003 to April 2008 there were several 'accident clusters' with 22 pedestrians and 9 cyclists involved in

accidents. Many of the pedestrian accidents occurred away from controlled pedestrian crossing points.

7. In recent years bus operators have experienced problems with turning left from Blossom Street into Queen Street, particularly using articulated vehicles, and in many cases have to use the Blossom Street inbound central approach lane in get into position to perform this turn. This is especially dangerous as cyclists travelling on the nearside lane (i.e. up the inside of the bus) frequently get cut-up as the vehicle rounds the corner. The Tadcaster Road / Mount Vale / The Mount / Blossom Street corridor also acts as a major route into York City Centre for many heavy goods vehicles travelling from the south, and a similar situation occurs when heavy goods vehicles perform the same left turn manoeuvre.
8. Blossom Street is also one of the principal routes for race-goers travelling to and from the city centre. Consequently, there are high flows of pedestrians, buses and taxis on race days.
9. A real time air quality monitoring station is located at The Mount/ Blossom Street junction as the area is with the York Air Quality Management Area (AQMA).
10. In May 2008 Halcrow was commissioned to undertake a study to ascertain the options for altering the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction and enhancing the streetscape of Blossom Street between this junction and its junction with Holgate Road to improve the accessibility and safety for all road users, particularly pedestrians and cyclists. The study consists of several stages. The first stage is to establish the issues and devise the key requirements that any proposed option(s) would need to satisfy.

The study and its findings

Assessment of the current situation

Accidents

11. During the five-year period, between May 2003 and April 2008, forty-eight accidents were recorded. Three of these were serious and the remainder were slight. Further analysis shows that there were 22 pedestrians and nine cyclists involved in these.
12. A cluster of 15 slight accidents occurred at the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction. Four of these involved cyclists and six involved pedestrians. Two of the cyclist accidents were caused by cyclists turning right from Queen Street to Blossom Street colliding with vehicles travelling straight ahead from Queen Street to Nunnery Lane. Two of the pedestrian accidents involved vehicles mounting the pavement at the corner of the Nunnery Lane approach to the junction and colliding with a pedestrian.
13. Another cluster of 11 accidents is located at the Holgate Road/Blossom Street/The Mount junction. Two of these were 'serious'; one involving a pedestrian crossing on a 'red-man' and the other involving a cyclist.

14. On Blossom Street itself, 8 out of the 12 slight accidents recorded involved pedestrians colliding with vehicles, indicating that pedestrians are attempting to cross a busy road away from controlled pedestrian crossing points.

Vehicle flows, turning movements and queues

15. Traffic surveys backed-up by on-site observations show that the study area is heavily congested with the local network operating at or above theoretical capacity at peak periods. For the purposes of this study it was, therefore, assumed that no increase in peak traffic levels (above 2005 levels) would be possible.
16. The surveys show that inbound flows on Blossom Street are 1101 passenger car units (PCUs) in the AM peak and 941 PCUs in the PM peak. The corresponding flows on Blossom Street outbound are 620 PCUs and 951 PCUs.
17. In both the AM and PM peak over 40% of the inbound traffic on Blossom Street turns left into Queen Street, with just over 30% turning right into Nunnery Lane and the remainder going straight ahead into Micklegate. Over 75% of the traffic leaving Queen Street turns right into Blossom Street in both peaks.
18. Outbound traffic on Blossom Street splits fairly evenly between The Mount and Holgate Road in both peaks.
19. In the AM peak queuing on Blossom Street inbound extends to and beyond the Blossom Street/Holgate Road Junction. In addition, queues form on the other approaches to the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction, but these clear during the allocated traffic signal green times. A similar situation occurs in the PM peak, but queues only extend on Blossom Street as far as the pedestrian crossing outside the former Odeon cinema and queues on Nunnery Lane extend back to its junction with St Benedict Road.

Cycle flows and turning movements

20. Although cycle flows are less than vehicle flows, they are still significant. The surveys show that there are 253 cyclists on Blossom Street inbound and 96 outbound in the AM peak and in the PM peak this is reversed (albeit slightly fewer). Flows on Queen Street are 74 (AM peak) and 108 (PM peak) with flows on Nunnery Lane being much lower. Outbound flow on Micklegate is highly tidal with 29 and 101 in the AM and PM peaks respectively.
21. Although the number of cyclists heading out of Micklegate in the PM peak is much higher than the AM peak, the maximum throughput of cyclists may be hindered due to queuing traffic below Micklegate Bar blocking the route for cyclists. In such circumstances the cyclists either have to wait on the inside of the bar until the traffic clears, or dismount to walk the cycle along the pavement under the adjacent eastern arch and rejoin the carriageway outside the Bar (in some cases cyclist perform this without dismounting).

22. In both the AM and PM peak approximately 90% of the inbound cyclists on Blossom Street either turn left into Queen Street or continue straight ahead into Micklegate (slightly more go straight ahead than turn left). A similar percentage turn right out of Queen Street into Blossom Street in both peaks. Outbound cycle traffic from Micklegate predominantly continues straight ahead into Blossom Street. In both the AM and PM peaks twice as many outbound cyclists on Blossom Street approaching the Blossom Street/Holgate Road junction continue straight ahead toward the Mount as those that turn right into Holgate Road.
23. Some facilities exist to ease cycle movements on Blossom Street and the junctions at either end. These consist of:
 - Sub-standard cycle lanes at the Queen Street and Nunnery Lane approaches to the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction, and
 - Advanced cycle stop lines on all approaches to the Street / Queen Street / Micklegate / Nunnery Lane junction, and the Blossom Street Holgate Road / The Mount junction, with the exception of the straight ahead lane outbound to the Mount at the latter.

Pedestrians

24. Pedestrian surveys undertaken in June 2008 showed that the Queen Street controlled crossing is the most heavily used crossing facility in the peak periods with approximately 520 pedestrians crossing. These crossing movements were highly tidal, as four times as many people crossed inbound to those outbound in the AM peak, with the reverse in the PM peak. The surveys also revealed that a large number of pedestrians crossed on the crossing's 'red-man' phase. The Queen Street crossing has a refuge, which contains a signal head, and this is used by pedestrians to cross in two stages if deemed necessary. Observations of some bus (and, to a lesser degree, heavy goods vehicle) turning movements revealed that their front overhang frequently over-ran this refuge (see also paragraph 31), potentially putting waiting pedestrians at risk of injury.
25. The other controlled crossing points, with the exception of The Mount crossing point, had pedestrian flows in the order of 150 to 250 in the peaks. In addition to observed pedestrian movements at the controlled crossing points approximately 60 pedestrian crossings were observed at the Blossom Street approach to the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction, utilising the central refuge (where a traffic signal head is located) to cross in two stages if deemed necessary. In the AM peak many of these pedestrians were observed to be schoolchildren that had disembarked a school bus at a bus stop on Queen Street.
26. In the school peak hour (15:00 hrs to 16:00 hrs) the pedestrian flows on Queens Street and Nunnery Lane are more even at approximately 350 on each. However, the predominant direction of travel on each is different, with slightly more outbound than inbound on Queen Street, whereas more people cross outbound than inbound on Nunnery Lane. In

addition, slightly more pedestrians were observed crossing at the top of Blossom Street.

27. Crossings at The Mount controlled crossing were much lower than other crossings at fewer than 50. In addition a small number of pedestrians were observed crossing at The Crescent adjacent to a Sainsbury's Local store, indicating that the existing controlled crossings are not capturing all pedestrian desire lines in this location.

Bus services, stops and turning movements

28. Analysis of bus service timetables shows Blossom Street carries 33 inbound and 31 outbound bus services in the peak hours, with many of these continuing to operate throughout the day. Two inbound bus stops are located adjacent to each other on a common lay-by between the Crescent and the former Odeon cinema, whereas the two outbound bus stops are approximately 40 metres apart, with the northernmost of the two outside the Bar Convent. Both outbound bus stops are within a stretch of cobbles running along the eastern edge of Blossom Street. The stop outside the Bar Convent is in a lay-by, whereas the other is on a bus boarder build-out.
29. Analysis of bus timings showed that there are occasions where two buses can arrive at the same time at each of the stops, with (theoretically,) two buses turning up simultaneously at each of the outbound stops once each hour. If this was to happen in actuality, the layout of the stops would require some buses to wait while passenger's board or alight the buses that arrive first. At the northernmost outbound stop this may cause other traffic to wait in the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction until the first bus had cleared the stop.
30. One of the services running along Blossom Street is the **ftt** (Service 4). When the **ftt** is waiting at its inbound stop, other buses have to queue in Blossom Street. At the outbound stop passengers alighting from the rear door have to step off onto the loading bays below pavement level.
31. For the AM and PM peak there are approximately 50 inbound public service vehicles (buses and coaches) along Blossom Street, 90% of which turn left into Queen Street, to the railway station and city centre. Conversely, a similar number of buses emerge from Queen Street and turn right into Blossom Street. At the Holgate Road/ Blossom Street junction the overall number of buses is slightly less at approximately 36 and 1.5 to 2.5 times as many continue straight ahead to The Mount as turn right into Holgate Road.
32. On site observations revealed that **ftt** vehicles approach the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction either wholly or partly in the middle lane of the Blossom Street approach to turn left into Queen Street. Even when doing this to achieve the left turn, the **ftt**, other articulated buses and some heavy goods vehicles encroach onto the footway and overhang the refuge on Queen Street. This causes concern with regard to the potential for collision with cyclists in the left lane of the Blossom Street approach and pedestrians on either the south

side of Queen Street or the central refuge, particularly in view of the large pedestrian movements here.

Parking and servicing

33. Waiting is restricted on Blossom Street, Queen Street, Micklegate, Nunnery Lane, The Mount and Holgate Road. Parking is limited to one 1 hour maximum stay parking space adjacent to the southernmost outbound bus stop and on street pay and display parking (up to 2 hours maximum) in The Crescent. Loading restrictions also apply Monday to Saturday between 08:00 hrs and 09:15 hrs and between 16:00 hrs to 18:00 hrs. In addition, there are 'no stopping except buses 7am-7pm' signs at the four bus stops on Blossom Street.
34. Businesses on Blossom Street receive deliveries outside of the restricted hours, with vehicles unloading at the side of the road. Site observations also revealed that some visitors to businesses on the east (outbound) side of Blossom Street park in the cobbled areas in contravention of the waiting restrictions.

Streetscape

35. Observations on site showed that a considerable amount of road signage exists inbound on Blossom Street, which can present a confusing array of information to drivers. This, combined with the collection of street furniture in the vicinity of bus stops can impede the free movement of pedestrians.

Consultations

36. To identify the issues that would inform the compilation of the key requirements for any scheme option(s), 2000 questionnaire leaflets (See Annex B) were distributed to residents and businesses within and adjacent to the study area, augmented by direct consultation with key internal and external stakeholders (see Annex C).
37. 145 completed questionnaires were received. Of these, 131 (90%) were from residents and 14 (10%) were from local businesses. A summary of the responses is contained at Annex D. The key issues are, in no particular order, listed below:
 - Concerns regarding safety for cyclists due to lack of dedicated cycle lanes, traffic volumes and vehicle conflict (particularly buses);
 - Dangers for pedestrians crossing roads (low priority at traffic signals) and conflict with cyclists riding on footways;
 - Timing of traffic signals and lack of synchronisation slowing down traffic and causing congestion (although some stated traffic travels too fast);
 - Congestion on Blossom Street limits travelling within the area;
 - Illegal parking of delivery vehicles and coaches;
 - Bus services are expensive, overcrowded, run at inappropriate times and are unreliable;
 - Bus stop facilities are inadequate;
 - Buses blocking lanes and using two lanes when turning;

- Bus lane difficult to cross and traffic signals hold-up other traffic;
- Air and noise pollution; and
- Difficulties turning right in/out of South Parade plus unsafe to complete some manoeuvres at junctions.

Review of previous and other ongoing studies and scheme bids

38. Several studies (see Annex E) were reviewed in order to appreciate the scheme in a wider context to ensure it is complementary to the longer term objectives for the locality and the city overall. A brief outline of their respective influence follows in paragraph 39 to paragraph 45.
39. Both of the safe routes to schools reports recommended introducing cycle lanes and removing one lane of traffic from Blossom Street (northbound), together with an new pedestrian crossing (on Blossom Street) at the Blossom Street/Nunnery Lane junction.
40. The A59 Corridor Report recommended that the Holgate Road route be taken forward as the preferred route for Park & Ride services along the A59. This would create additional bus services running at 10 minute frequency along Blossom Street.
41. The York Central Transport Masterplan Study proposes that the main access to the York Central Site will be via Water End and Holgate Park. Therefore, it is unlikely that Blossom Street will be a main route in and out of the site. Park & Ride services may, initially, run along the A59, but may, ultimately, run through the new development. An access to York Central via Queen Street is also proposed but this may be for public transport only and is largely dependent on the location of a new public transport interchange in the vicinity of York railway station.
42. The Holgate Road Gyratory Study concluded that a scheme to form a gyratory system incorporating The Mount, Holgate Road and Dalton Terrace in order to improve facilities for pedestrians and cyclists, air quality and bus journey reliability should not be taken at the time (2005/06). However, revisiting this at a later time was not ruled out.
43. The council is currently preparing a Major Scheme Bid for Access York Phase 1, which comprises three Park & Ride sites with ancillary bus priority measures. One of these is the A59 Park & Ride, for which, if the bid is successful, the services will run on the A59 (see also paragraph 41). The bid also includes a new Park & Ride at Askham Bar, with bus priority measures on the A1036 (Tadcaster Road / The Mount / Blossom Street). These measures should in the longer-term regulate traffic flows along Blossom Street by gating traffic further out from the city centre.
44. A bid to the Regional Transport Board has also been submitted for Access York Phase 2, consisting of improvements to the Outer Ring Road (ORR) and other measures on roads within the ORR to improve the situation for walking, cycling and public transport. If the bid for inclusion in the Regional Funding Allocation programme is successful, it

will have an impact on (reducing) traffic flows around the Inner Ring Road and connecting radial routes.

45. As the Blossom Street area is entirely within the city's AQMA, any increase in congestion here will be contrary to its air quality objectives.

Key Requirements

46. Through examination of the questionnaire responses and discussion at a workshop Halcrow held with Officers, the identified key requirements for any future scheme option(s) to satisfy included:

Highway

- Road space reallocation, principally on Blossom Street inbound to facilitate cycle lane(s) to current design standards;
- Reduce cycle/vehicle and pedestrian vehicle conflict in and out of Queen Street; and
- Review traffic movements at Micklegate to increase junction capacity, and

Cycling

- Sufficient cycle lane(s), principally on Blossom Street inbound between Holgate Road and Queen Street Blossom Street approach to the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction;
- Reduce cycle/vehicle conflict in and out of Queen Street and along Blossom Street outbound
- Safer routing for cyclists along Blossom Street outbound turning into the A59,
- Easier and safer egress from Micklegate, and
- Alternate routing of cyclists away from busy junctions via off road cyclepaths / less highly trafficked roads

Pedestrian

- Formalise crossing at the north end of Blossom Street;
- Improved crossing facilities on Blossom Street by former Odeon cinema;
- Reduce pedestrian/vehicle conflict in and out of Queen Street, and
- Reduce pedestrian/vehicle conflict at The Crescent

Public transport

- Reduce bus queues at inbound bus stops
- Improve bus turning movements in and out of Queen Street and ease of access to/egress from bus stops along Blossom Street outbound;
- Improve bus boarding/alighting on Blossom Street outbound, and
- Rationalise waiting facilities.

Streetscape/Environment improvements

- Reduce the amount of unnecessary information for drivers.
- Rationalise street furniture surrounding bus stops (bus stop shelters, flags and litter bins) to ensure pedestrians are not impeded along footways whilst walking along Blossom Street.
- Ensure compliance with Air Quality Management Plan.

Initial appraisal

47. Whilst many of the key requirements are complimentary, others are not. For example, reallocating road space, principally on Blossom Street inbound, to facilitate cycle lane(s) will have an adverse effect on the efficiency of the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction, thereby increasing congestion and/or vehicle queue lengths, potentially leading to a degradation in air quality.
48. It will, therefore, be difficult to devise a scheme option(s) that satisfies all of the key requirements. Hence, the relative benefits/disbenefits of any scheme option(s) will need to be considered by Members to decide on a preferred option for further evaluation and detailed design.

Conclusions

49. Accident records show that there are two accident cluster sites interspersed by many other accidents at other points on Blossom Street and its associated junctions. In total 48 accidents have been recorded over the past five years, three of which were serious. Many of these accidents involved either pedestrians or cyclists. Both of these groups are high-up in the city's 'Hierarchy of Road Users.'
50. Current facilities for pedestrians and cyclists are less than ideal. In order to provide cycle lanes on Blossom Street inbound, one of the existing traffic lanes could be removed. This approach was advocated in the Safe Route to Schools Reports for All Saints RC School and Millthorpe Secondary School. However, reducing Blossom Street inbound from 3 lanes to 2 severely reduces the capacity of the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction, which is already congested, and this may have an adverse effect on local air quality. The junction capacity could be restored to its present capacity if access restrictions at Micklegate (i.e. no entry/exit to or from Micklegate) are applied.
51. The following options are, available to the council:
 - Option 1 - accept the principal that the Blossom Street / Queen Street / Micklegate / Nunnery lane junction should be altered and the streetscape of Blossom Street between this junction and its junction with Holgate Road should be enhanced to improve the accessibility and safety for all road users, particularly pedestrians and cyclists. The alterations and enhancements to be considered will have an impact on the operation of the junction and congestion to varying degrees. Subject to this, scheme options should be presented to a future EMAP for their relative benefits/disbenefits to be considered

by Members in order to decide on a preferred option for further evaluation, consultation and detailed design

- Option 2 reject the principal.

Corporate Priorities

52. Implementing alterations to Blossom Street and its associated junctions to improve accessibility and safety for all road users, particularly pedestrians and cyclists, will contribute to the following Corporate Priorities:

- Reduce the environmental impact of council activities and encourage, empower and promote others to do the same. *There is considerable scope for encouraging more people to use more sustainable forms of transport in a safer environment.*
- Increase the use of public and other environmentally friendly modes of transport. *There is considerable scope for encouraging a more walking, cycling and use of buses as the improvements will include new cycle lanes and new/improved pedestrian crossings.*
- Improve the health and lifestyles of the people who live in York, in particular among groups whose levels of health are the poorest. *There is considerable scope for encouraging a more walking, cycling and use of buses as the improvements will include new cycle lanes and other measures to benefit pedestrians and public transport users.*

53. Local Transport Plan 2006-2011 (LTP2): The scheme would contribute to several of the aims of the recently submitted LTP2, namely:

- To reduce the levels of actual and perceived safety problems;
- To enhance opportunities for all community members, including disadvantaged groups, to play an active part in society;
- To improve the health of those who live or work in, or visit, York, and
- To reduce the impact of traffic and travel on the environment, including air quality, noise and the use of non-renewable resources.

Implications

54. This report has the following implications:

- **Financial** - There are no financial implications for the council at this stage. Once the detailed design has been undertaken, further resources may be required to undertake additional consultation and implement the measures.
- **Human Resources (HR)** – There are no HR implications for the council.
- **Equalities** - The potential improvements to reach opportunities and facilities within York using wider range of more sustainable transport that would have otherwise been unattractive.

- **Legal** – There are no legal implications at present.
- **Crime and Disorder** – There are no legal implications at present.
- **Information Technology (IT)** – there are no IT implications at present.
- **Property** – There are no property implications at present.
- **Sustainability** – No comments.
- **Other** – No comments.

Risk Management

55. In compliance with the Council's Risk Management Strategy the main risk that has been identified in this report could lead to the inability to meet the council's objectives (Strategic).
56. Measured in terms of impact and likelihood, the risk score for the recommendation is less than 16 and thus at this point the risks need only to be monitored as they do not provide a real threat to the achievement of the objectives of this report.

Recommendations

57. That the Advisory Panel advise the Executive Member to:
 - i. Note this report (including, Annexes).
 - ii. Accept the principal that the Blossom Street / Queen Street / Micklegate / Nunnery lane junction should be altered and the streetscape of Blossom Street between this junction and its junction with Holgate Road should be enhanced to improve the accessibility and safety for all road users, particularly pedestrians and cyclists. The alterations and enhancements to be considered will have an impact on the operation of the junction and congestion to varying degrees.
 - iii. Receive a further report from officers at a future EMAP describing potential options and how they satisfy, as far as is practicable, the key requirements.

Reason: The study confirmed that current facilities for pedestrians and cyclists are less than ideal, evidenced by the number of accidents that have occurred in the past five years. Accepting the principal that the Blossom Street / Queen Street / Micklegate / Nunnery Lane junction should be altered and the streetscape of Blossom Street between this junction and its junction with Holgate Road should be enhanced, particularly and ultimately deciding on an option to address the issues as far as is practicable should improve safety for all road users, pedestrians and cyclists.

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Report Approved

Date 03/10/08

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Wards Affected:

Micklegate

All

For further information please contact the author of the report

Background Papers

None

Annexes

- Annex A – Blossom Street Existing Layout Drawings
- Annex B – Questionnaire Leaflet
- Annex C – Internal and External Stakeholders
- Annex D – Summary of Consultation Responses
- Annex E – List of Studies Reviewed