

Report to	Norwich Highway Agency committee 4 June 2015	Item
Report of	Head of City Development Services and Executive Director of Community and Environmental Services	6
Subject	Norwich Area Transportation Strategy/Implementation Plan Golden Ball Street and Westlegate	

Purpose

To seek approval to consult on the proposals for the Golden Ball Street and Westlegate project. Members are also asked to approve the advertisement of Traffic Regulation Orders that would be required to enforce the final scheme.

Recommendations

That the committee:

1. approves for consultation the proposals included in the Golden Ball Street project, including:
 - (a) Conversion of Golden Ball Street to two-way for general traffic.
 - (b) Pedestrianisation of Westlegate with access for deliveries and cyclists only.
 - (c) Removal of general traffic from Red Lion Street to create a bus, cycle and taxi only route with access for deliveries only.
 - (d) Reconfiguration of John Lewis car park access on Ber Street to enable right turn in and out in addition to existing movements.
 - (e) Conversion of Farmers Avenue to two-way for general traffic between the Castle Mall car park entrance and its junction with Golden Ball Street.
 - (f) Reconfiguration of Rouen Road/Cattle Market Street junction to remove traffic signals and improve cycle/pedestrian facilities.
 - (g) Removal of traffic on Farmers Avenue between its junctions with Castle Meadow and Orford Street, with access for cyclists and pedestrians retained.
 - (h) Removal of through traffic from All Saints Green, from its junction with Surrey Street northwards, and removal of all traffic from All Saints Street, except for use by buses when St Stephens Street, Red Lion Street or Castle Meadow are closed.
 - (i) Removal of traffic signals at St Stephens Plain - Westlegate/St Stephens Street/Red Lion Street/Rampant Horse Street junction.
 - (j) Removal of existing turning bans at St Stephens Plain, with provision of right turn for buses from Rampant Horse Street into St Stephens Street, and left turn from St Stephens Street into Rampant Horse Street.

- (k) Closure of Thorn Lane at its junction with Ber Street, with the provision of a turning area at the closed end.
 - (l) Removal of the signal controlled pedestrian crossing at Castle Meadow/Farmers Avenue junction, with provision of a raised table crossing in its place.
 - (m) Provision of raised table crossing on Ber Street at junction with Golden Ball Street/Timberhill.
 - (n) The removal of the banned left turns for cyclists from St Stephens Street into Rampant Horse Street, and from Westlegate into St Stephens Street.
 - (o) The ability for buses to use All Saints Green and All Saints Street on occasions when Castle Meadow is unavailable on occasions such as during events i.e. Lord Mayor's Procession, or when closed for maintenance works.
2. asks the transportation manager at Norwich City Council to carry out the necessary statutory procedures associated with advertising the Traffic Regulation Orders that would be required for the implementation of the scheme as described in this report.
 3. agrees that the outcome of the proposed consultation will be reported to a future meeting of the committee.

Strategic Objectives

The scheme is part of the Norwich Area Transportation Strategy (NATS) Implementation Plan (now known as 'Transport for Norwich' - TfN), which was approved at County Council Cabinet in April 2010, and reported to the Norwich Highways Agency Committee on 25 March 2010. The plan outlines the transport elements of the Joint Core Strategy (JCS) and aims to build on the significant success of NATS and TfN to date.

The TfN Plan includes a series of measures in the city centre to reduce extraneous through traffic across the city but enable access to all destinations including car parks.

Scheme Objectives and Benefits

The purpose of the city centre measures is to improve transport choices and make it easier for walking, cycling and public transport in the centre, to help improve the public realm and the economic vitality of the business and retail centre, and to help reduce the conflict between vehicles and pedestrians/cyclists by removing general traffic from the main shopping streets.

Making Golden Ball Street two-way will improve access to the city centre car parks. The proposal to allow additional movements at the John Lewis car park on Ber Street will provide more options for those wanting to park within the centre and reduce the likelihood of "U-turn" movements for those accessing the car parks. Access to the Castle Mall car park on Farmers Avenue will be directly improved.

The scheme is part of the strategy to improve public transport connectivity within the city centre and links with the benefits recently introduced on St Stephens Street, by removing general traffic from Red Lion Street to complete the bus corridor between Castle Meadow and St Stephens roundabout improving bus journey times. The scheme is also compatible with the separate proposals to introduce a 20mph speed limit across the area.

The removal and reduction of traffic on Westlegate, Red Lion Street and part of Farmers Avenue will help to improve the connections for different parts of the area for pedestrians and cyclists. For example, a key pedestrian route is that between Rampant Horse Street, Ber Street and St Stephens and the proposal will enhance these movements. This will not only make the area more vibrant for shoppers but will also reduce conflict that exists on Westlegate and Red Lion Street in particular.

The proposals will enable public realm enhancements to be carried out at certain key areas such as the area bounded by All Saints Street and Ber Street and will help to make the city centre a more pleasant, healthier and safer place. The enhancements will include additional trees and benches. Cycle parking facilities will be reviewed and some additional cycle stands will be provided. The proposals will also enable street clutter to be removed, including redundant signing and pedestrian guardrails - this will not only improve the look of the streets but will also reduce the future maintenance requirements.

In order to minimise future disruption and to maximise savings, it is proposed to carry out planned surfacing schemes at the same time.

Service Priorities

The project helps meet the City Council priorities 'To make Norwich a Safe and Clean City' and 'To make Norwich a Prosperous City'.

This project supports the County Council's priorities, by:

- supporting, developing and maintaining the infrastructure that helps our economy to promote real sustainable jobs;
- providing good infrastructure where businesses can succeed and grow;
- helping to improve and safeguard the quality of life for all the people of Norfolk;
- promoting prosperity by championing the best practices, ideas and innovation for local economic success

Scheme Timescales

The preliminary scheme programme is as follows:

- A four week public consultation of scheme proposals in June/July 2015
- Consideration of consultation feedback in August 2015
- Refine the proposals where necessary and present the scheme in September 2015
- Start of construction in early 2016, with completion within that year

Financial implications

The scheme development and implementation costs of the Golden Ball Street project will be developed and refined as the design is progressed. The scheme will be funded by £2m from the local growth funding (LGF), £0.5m from Community Infrastructure Levy (CIL) income as part of the strategic pool as agreed by the Greater Norwich Growth Board, and £52k of Section 106 funds from the recently completed Westlegate House development.

Contact Officers

Bruce Bentley, Principal Transportation Planner – Norwich City Council	01603 212445
Jon Barnard, NATS Manager – Norfolk County Council	01603 224414

Report

Background

1. The need for this project has been identified through three linked spatial planning documents that have been jointly produced by the City and County Councils under the auspices of the Greater Norwich Development Partnership:

Norwich Area Transportation Strategy Implementation Plan – now ‘Transport for Norwich’ (TfN) (adopted in March 2010, with 2013 update that was adopted in November 2013)

<http://www.norwich.gov.uk/CommitteeMeetings/Norwich%20highways%20agency/Document%20Library/71/REPNHAC09NATSIImplementationPlan20130919.pdf>

Joint Core Strategy for Broadland, Norwich and South Norfolk (adopted in March 2011, and amended by the Broadland Part of the Norwich Policy Area: Local Plan, adopted in January 2014)

<http://www.greaternorwichgrowth.org.uk>

St Stephens Street Area Outline Masterplan (October 2009)

<http://www.norwich.gov.uk/Planning/Pages/Planning-StStephensStreetAreaMasterplan.aspx>

2. The TfN public consultation in October 2009 introduced the principles of the city centre measures. The purpose of these measures is to make it easier for walking, cycling and public transport in the city centre and to help improve the public realm and the economic vitality of the business and retail centre. The measures were subsequently embodied in the TfN Plan. The initial implementation involved traffic changes to Chapel Field North and St Stephens Street and these were completed in November 2014. The proposed scheme involves the pedestrianisation of Westlegate and making Golden Ball Street and Farmers Avenue two-way for general traffic.
3. The brief for the project has six principal objectives that are derived from the TfN Plan and JCS that seek to:
 - Improve the local economy by stimulating property investment in the St Stephens Street Area, the occupation of empty shops and the growth of the evening economy.
 - Increase walking and cycling.
 - Create well-designed and maintainable public spaces and streets (informed by the Streetscape Design Manual), that people enjoy spending time in.
 - Increase peoples’ sense of safety and reduce the number of casualties in road traffic accidents.
 - Maintain essential access for disabled motorists and vehicles servicing businesses.
 - Monitor and mitigate the impact of any displaced traffic.
4. The St Stephens Area Masterplan fulfils policies in the TfN Plan and the Joint Core

Strategy (JCS). The most relevant policies in the Masterplan include:

- Promoting investment and property development in the city centre.
 - Improving access to and within the city centre by cycle and on foot.
 - Enhancing streetscape and public realm quality.
5. The Masterplan identifies the pivotal role Westlegate could play in connecting different parts of the St. Stephens Street area, the potential for development along the street and the way that current traffic levels suppress the chance of achieving redevelopment. It presents a vision of Westlegate and All Saints Green transformed into attractive public spaces surrounded by successful shops and cafes and linking John Lewis into a pedestrian circuit from St Stephens Street and Red Lion Street via Westlegate and Timberhill. The Westlegate House development has recently been completed and the scheme proposed in this report to pedestrianise Westlegate will further enhance the area and help to improve the commercial viability.
 6. The recently completed Chapel Field North Traffic Management and the St Stephens Street projects have provided fundamental changes in the way traffic operates within the city centre and have laid down some of the initial traffic management arrangements that will enable the new proposal. The traffic changes introduced in November 2014 included the no entry to general traffic from Rampant Horse Street to Red Lion Street and from Westlegate to Rampant Horse Street, and also the general traffic ban on St Stephens Street.
 7. Appendix 1 of this report contains diagrams showing the current traffic management arrangements in the area affected by the scheme, and the proposed arrangements that would apply if the scheme is implemented as proposed.
 8. All works proposed are within the boundary of the adopted highway, and no significant adverse impacts have been identified. In fact, there are likely to be environmental benefits, particularly in the heart of the city centre.

Design Proposals

Golden Ball Street

9. Making Golden Ball Street available for two-way general traffic not only allows the pedestrianisation of Westlegate but also simplifies the access to the major car parks to the south of the city centre. This will enable Red Lion Street to be made a bus (and taxi) only route, with access for deliveries retained; this is consistent with the recent changes that have been introduced on St Stephens Street and the status of this street as part of the yellow and blue pedalways.

Westlegate

10. Westlegate would be pedestrianised and become a shared space, with access retained for deliveries to businesses along here, and also for cyclists, who will be able to ride in both directions.

Farmers Avenue

11. Farmers Avenue would be made two-way with access to Castle Mall car park (car park 2) from Golden Ball Street. The precise arrangements for the car park access are being discussed with the operator but it is probable that the in/out will be switched round to avoid the possibility of traffic entering the car park blocking the car park exit. The junction of Farmers Avenue with Cattle Market Street will be modified with the Farmers Avenue joining Golden Ball Street via a give way junction.
12. The section of Farmers Avenue from Castle Meadow to the Castle Mall car park will become pedestrianised, with access for cyclists and deliveries, and for access to Orford Street. This will enable the removal of the signalled junction on Castle Meadow at the junction with Red Lion Street/Farmers Avenue; uncontrolled pedestrian crossing facilities will be provided here.

St Stephens Plain

13. The new layout means that the traffic signal controlled junctions at St Stephens Plain, Castle Meadow/Red Lion Street and Farmers Avenue/Rouen Road will no longer be required. With Westlegate closed to general traffic, a raised table will be provided across the whole junction at St Stephens Plain to aid pedestrians.
14. A right turn will be available for buses from Rampant Horse Street into St Stephens Street, which will provide a useful link to the bus station for buses using the new inbound route along Chapel Field North. Buses will also be able to turn left from St Stephens Street into Rampant Horse Street; provision of these movements has been requested by the bus operators and will provide enhanced route options for buses both to and from the bus station.
15. All existing bans on cyclists turning movements at St Stephens Plain will be removed

Cattle Market Street

16. The junctions of Farmers Avenue and Rouen Road with Cattle Market Street will be staggered and become simple give way junctions. Cattle Market Street southbound will be modified to provide a single traffic lane in each direction with an on-carriageway southbound (uphill) cycle lane.

All Saints Green/All Saints Street

17. Following discussions with the bus operators and contrary to the 2009 NATS consultation, it has been decided not to retain All Saints Green and Farmers Avenue as bus routes. This will enable All Saints Green and All Saints Street, adjacent to John Lewis, to be closed to all traffic. However, All Saints Street will be made available to buses in the case that St Stephens Street, Red Lion Street or Castle Meadow are unavailable for buses; for example during maintenance works or when public events are taking place.
18. The large open area where Westlegate/All Saints Green/All Saints Street and Ber Street meet will be enhanced to provide a better linkage between the Ber Street and Rampant Horse Street areas. Hard and soft landscaping will be incorporated to make this location more accessible and pleasant for pedestrians and cyclists.

19. A turning area will be provided on All Saints Green for traffic to leave the area via its junction with Surrey Street.

Ber Street

20. On Ber Street, changes will be required at the John Lewis car park entrance. It is proposed to provide a right turn into the car park by removing the existing central islands; vehicles leaving the car park will be able to turn either left or right onto Ber Street. The John Lewis car park fixed and variable message signing will be modified to indicate the new access arrangements and the availability of car park spaces for traffic coming from each direction.
21. It is proposed to close Thorn Lane at its junction with Ber Street, in order to reduce the complexity of the junction and this will enable the eastern footway on Ber Street to be continuous across the former junction mouth.
22. The proposed design is consistent with proposals to replace the existing pelican crossing just north of Horns lane junction with an uncontrolled crossing, to be provided as part of a separate Push the Pedalways project.

Rouen Road

23. On Rouen Road it is proposed to remove the signals at the junction with Cattle Market Street and to narrow the road to help enforce the 20mph zone.
24. The proposed design is consistent with plans for a new raised table crossing point just north of the Stepping Lane junction to serve pedestrians accessing the relocated walk-in Health Centre but this and other changes further south will be delivered as part of a separate Push the Pedalways project.

Finkelgate

25. At the Finkelgate junction with Queens Road, it is proposed to reduce the size of the splitter island in order to widen the approach on Finkelgate to allow for both left and right turning traffic to queue at the junction.

General

26. Traffic signal controlled crossings will be retained on Red Lion Street, by Orford Hill, and on St Stephens Street at the Surrey Street junction. The crossings at the All Saints Green/Surrey Street junction will also remain.
27. The fixed and variable message signing to each of the two Castle Mall car parks and the John Lewis car park will be modified to indicate the new access arrangements and the availability of car park spaces for traffic coming from each direction.
28. The entire project area is within the proposed City Centre 20mph Zone that is expected to be implemented in 2015 as part of the wider Push the Pedalways project.

Traffic Regulation Orders

29. The following Traffic Regulation Orders would be required to implement the scheme:

In relation to traffic management:

- Introduce a pedestrian zone on Westlegate and All Saints Street, whilst retaining access for loading and cyclists.
- Introduce a pedestrian zone on Farmers Avenue between Castle Meadow and Orford Street, retaining access for cyclists.
- Rescind the existing turning bans, to enable buses and cyclists to turn in all directions at St Stephens Plain.
- Make Red Lion Street two-way for buses, cycles and access only; this will be consistent with the approach taken on St Stephens Street.
- Rescind the current one-way orders on Golden Ball Street and Farmers Avenue, and the one-way order on Westlegate to allow two-way cycling.
- Introduce a point closure, with cycling access, on Thorn Lane at its junction with Ber Street.
- Introduce a mandatory on-carriageway cycle lane on the east side of Cattle Market Street and Golden Ball Street.

In relation to on-street parking controls:

- Introduce a 'loading only' restriction in all of the proposed pedestrian areas.
- Introduce no waiting and no loading restrictions along both sides of Golden Ball Street and Ber Street up until the junction with Thorn Lane, excepting those locations reserved for on-street parking. Similar restrictions will be introduced on All Saints Green around the proposed turning head.
- Introduce revised parking arrangements on Ber Street to include additional Disabled parking provision.

In relation to pedestrian crossings:

- Replace the existing signal controlled crossing on Surrey Street, at its junction with St Stephens Street, with an uncontrolled crossing point.
- Replace the existing signal controlled crossing on Rampant Horse Street, near St Stephens Plain, with a raised uncontrolled crossing point.
- Replace the existing signal controlled crossing on Red Lion Street, near St Stephens Plain, with a raised uncontrolled crossing point.
- Remove the existing signal controlled crossing on Westlegate near St Stephens Plain.
- Replace the existing signal controlled crossing on Castle Meadow, at its

junction with Farmers Avenue, with a raised uncontrolled crossing point.

- Remove the existing signal controlled crossing on Farmers Avenue, at its junction with Castle Meadow.
- Replace the existing signal controlled crossings at the All Saints Street junction with Golden Ball Street and Ber Street with raised uncontrolled crossing points.
- Replace the existing signal controlled crossing on Farmers Avenue, at its junction with Golden Ball Street, with an uncontrolled crossing point.
- Replace the existing signal controlled crossing on Golden Ball Street, at its junction with Farmers Avenue, with an uncontrolled crossing point on Cattle Market Street, just north of its junction with Rouen Road.
- Replace the existing signal controlled crossing on Rouen Road, at its junction with Cattle Market Street, with an uncontrolled crossing point.
- Replace the existing signal controlled crossing on Ber Street, just west of its junction with Horns Lane, with a zebra crossing.

Traffic impacts

30. Overall the TfN city centre measures reduce extraneous through traffic but enable access to all destinations including car parks.
31. Strategic modelling has been carried out to understand the impacts of the city centre measures. The output from this modelling and further traffic counts will support the development of the individual Norwich city centre measures for design and construction.
32. The reduction of extraneous through traffic from the city centre place an additional pressure on the inner ring road (IRR), but this is a more appropriate route for this type of traffic. In view of this, it is likely that the city centre changes may require some modest reconfiguration of the existing Inner Ring Road (IRR) junctions to reflect new flow patterns. If required, changes to the junctions would only be carried out once the scheme is in operation and the new traffic patterns have become established.
33. The strategic modelling has considered scenarios that represent the latest programme for city centre measures including by 2017:
 - Bus only on All Saints Green
 - John Lewis car park right turn in and out
 - Golden Ball Street and Farmers Avenue two-way
 - Amended access arrangements to Castle Mall car park on Farmers Avenue
 - Removal of general traffic from Red Lion Street
 - Full pedestrianisation of Westlegate

34. Although not part of the currently proposed scheme, other city centre measures by 2032 include proposals for:
- Rose Lane to be made two way
 - Bus, taxi and cycle only on Prince of Wales Road (except eastern section)
 - Bus, taxi and cycle only on Agricultural Hall Plain
 - Removal of extraneous through traffic from Tombland, with car park and local access retained
35. For individual links on the highway network around the IRR none of the predicted directional flows appear to exceed the theoretical capacity. The issue that may require further investigation is the operation of the junctions. Some of these could benefit from reconfiguring to better reflect the flows patterns brought about by the city centre measures.
36. Following discussions with the bus operators, the section of All Saints Green from Surrey Street to Westlegate (by John Lewis) is not required for bus movements on a regular basis, and the proposed scheme involves pedestrianising this section of All Saints Green. Therefore to enable egress from the John Lewis car park to the south, the scheme involves allowing right turning movements out of the car park onto Ber Street. It is also proposed to allow right turns into this car park.
37. The consequence of the proposed changes to the John Lewis car park is that flows on Ber Street, particularly southbound, may increase. The strategic modelling does indicate increases on Ber Street of about 10% (over a 24 hour period). However, in the absence of data on the car park usage, including the origins of users, at certain hours of the day traffic flow increases could be higher.
38. Increases in traffic flow on Ber Street could have an impact upon its junction with Bracondale and on Finkelgate at its junction with Queens Road. In view of this, as part of the scheme it is proposed to reduce the size of the splitter island on Finkelgate so that there is space for separate left and right turns into Queens Road.
39. Although not proposed as part of the scheme, after the scheme is implemented it may be necessary to carry out other minor changes to address existing highway network issues in this area that affect capacity at Finkelgate. Any further changes would be subject to consultation and reporting back to NHAC. These changes could include:
- Removal of a pinchpoint on Finkelgate, due to on street parking, which at times makes it effectively only one lane for both directions. This could involve relocating the parking onto Ber Street but it is likely that the zebra crossing between the Finkelgate and Bracondale junctions would need to be modified to reduce the length of controlled zone, or changed to a simple crossing point, in order to provide the relocated parking here.
 - Provide a build out of the kerb to prevent the straight ahead movement from City Road to Ber Street, while still allowing the right turn from Bracondale into Ber Street.

40. Depending upon further work and the implementation of the remainder of the city centre measures, scope will still remain for further improvements in the Finkelgate area, such as the introduction of additional signal control at the Finkelgate/Queens Road junction. It is recognised that, at present, the adjacent signalised pedestrian crossings benefit the existing priority junctions by breaking up the flow of traffic to enable gaps for vehicle to emerge from the side roads. Such additional signal control may never be required, but scope exists to provide it if it proves necessary.
41. Appendix 2 of this report contains both existing and forecast traffic flows.

Accident reduction

42. One of the objectives of the project is to improve conditions for pedestrians by removing traffic on the main pedestrian routes and reduce the number of casualties in road traffic accidents. It is envisaged that the pedestrianisation of Westlegate and the adjacent roads as proposed, and the implementation of the 20 mph zones, will result in a reduction in the number and severity of accidents as most traffic is removed from the main shopping thoroughfare.

Public Consultation

43. As previously discussed, extensive public consultation was carried out for the NATS IP (TfN) in autumn 2009 which resulted in adoption of the proposals in 2010. Consultation for the St Stephens Area Masterplan took place in 2009. A large number of respondents agreed that change in the area was needed, and a significant majority tended to or strongly agreed to the vision statements and the concepts for the character areas.
44. It is proposed that a 4-week public consultation will be carried out on the proposed scheme; this is in excess of the statutory consultation period required for the Traffic Regulation Orders. The consultation would involve a public exhibition, to be manned at various times in order for the public to meet officers from the project team and to discuss issues with them. It is planned that information detailing the proposals will be available on both the Norfolk County Council and Norwich City Council websites.
45. The consultation feedback and any objections to the traffic order proposals will be reported to a future NHAC meeting for consideration on how to proceed with the scheme. The outcome of the consultation will be available on the websites.
46. The precise details of the consultation and exhibition will be advertised within the local press and radio.

Timescales

47. If approval to consult on the scheme is given, it is proposed to consult in June/July 2015. It is planned that the consultation would comprise of a public exhibition and information would be available online. The results of the consultation would be reported back to NHAC, nominally to the 17 September 2015 meeting depending on the extent and nature of the feedback received.

48. Providing the scheme is approved, construction could start as early as January 2016, and be completed within 2016, prior to the Christmas moratorium on works within the highway in the city centre.

Stakeholder views

49. Meetings have already been held with some stakeholders on the scheme proposals, in particular the bus companies and the operators of the affected car parks, to discuss access issues. These stakeholders support the proposals and the aims of the scheme. The detailed proposals relating to the affected car parks will be developed and finalised as part of the detailed design phase, in discussion with the car park operators.
50. Other stakeholders, including the major businesses in the area, will be fully engaged during the consultation to make sure their views are taken into account as the scheme details are developed.

Conclusions

51. The project is rooted in strategy documents that have been adopted by Norwich City and Norfolk County Councils and the proposals will provide a range of benefits. The principle of closing Westgate to general traffic has support from a majority of the public and stakeholder organisations and the project team are confident that all major issues of feasibility can be satisfactorily resolved.
52. The proposals as presented would provide the next phase of improvements in the city centre that would improve the environment of the city within the core retail area. A public consultation will help us to identify any residual issues that need to be addressed.
53. If NHAC approves the required Traffic Regulation Orders, construction of this next stage in delivering transport improvements in the city centre for buses, pedestrians and cyclists could begin in early 2016, and be completed within that year.

Resource Implications

54. Finance: The TfN programme forms an integral part of strategic infrastructure as set out in the Joint Core Strategy. The delivery of this work is funded through a number of sources including additional government grants e.g. City Cycle ambition, Community Infrastructure Levy, and mainstream capital funding LTP and allocated funding from the Local Enterprise Partnership (LEP). The overall funding of the programme has been agreed through the Greater Norwich Growth Board.
55. Staff: The project will be delivered through joint team working involving both County Council and City Council officers.
56. Property: The proposals can be provided within the existing highway boundary.
57. IT: None.

Other implications

58. Legal Implications: None.

59. Human Rights: None.

60. Equality Impact Assessment (EqIA): An EqIA has been completed for the NATS Implementation Plan (TfN). An Equality Impact Assessment for this scheme will be carried out as part of the detailed development, after discussions with the appropriate groups.

61. Communications: None.

Section 17 - Crime and Disorder Act

62. The scheme will be designed to ensure it has a positive effect on crime and disorder where possible. Care will be taken during construction to minimise opportunities for crime and disorder, for instance the secure storage of construction equipment and materials.

Risk Implications/Assessment

63. A risk assessment has been undertaken for development of the NATS Implementation Plan (TfN). The key risks for delivering this are around funding, timescales and planning. These risks are being managed through active project management and ongoing engagement with stakeholders.

64. A risk register is being maintained as part of the technical design and construction delivery processes.



Figure 1: Current highway network following implementation of Chapel Field North and St Stephens Street projects in 2014



Figure 2: Changes to highway network following implementation of proposed Golden Ball Street project

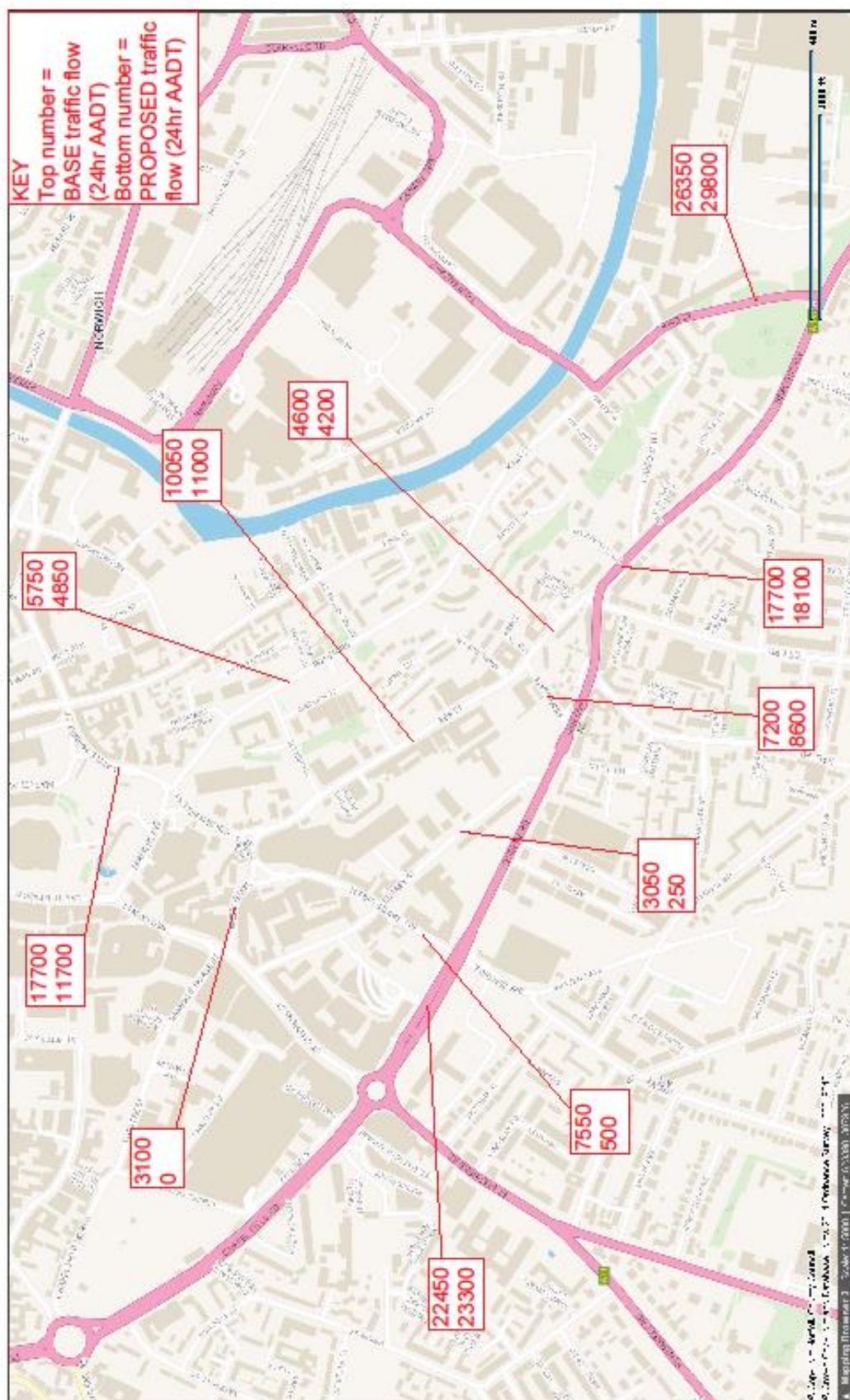


Figure 3: Existing and forecast traffic flows of proposed Golden Ball Street project (shown as 24-hour Annual Average Daily Traffic)