

CABINET MEETING – 20 JUNE 2012

EXECUTIVE SUMMARY SHEET – PART I

Title of Report:

Vaux: Advance Infrastructure and Public Realm Improvements

Author(s):

Report of the Deputy Chief Executive and Executive Director City Services

Purpose of Report:

The purpose of this report is to seek approval to undertake a significant infrastructure and public realm scheme designed to support the regeneration of Vaux and the wider city centre. The works comprise the re-alignment of St Mary's Way / Livingstone Road into a boulevard, and the development of a new civic space referred to as Magistrates Square.

Description of Decision:

Cabinet is requested to:

1. Approve the proposed scheme for the re-alignment of St Mary's Way / Livingstone Road and the development of the proposed Magistrates Square and authorise the Deputy Chief Executive and the Executive Director of City Services to take all necessary actions required for the procurement and delivery of the scheme;
2. Authorise the Deputy Chief Executive to progress the disposal of two development plots overlooking the proposed Magistrates Square for best consideration and otherwise on terms to be agreed by the Deputy Chief Executive.

Is the decision consistent with the Budget/Policy Framework? *Yes/No

If not, Council approval is required to change the Budget/Policy Framework

Suggested reason(s) for Decision:

To deliver significant infrastructure and public realm improvements in the city centre in order to support the future redevelopment of the Vaux site and the city centre and the delivery of the Economic Masterplan. In addition, the scheme will also deliver a further phase of the Council's multi-phase Sunderland Strategic Transport Corridor (SSTC) which also incorporates the new Wear bridge and provides improved strategic access from the Port and the city's key development sites to the A19 and the wider area.

Alternative options to be considered and recommended to be rejected:

Several alternative scheme concepts have been considered (as outlined in Appendix 1) but they are unlikely to deliver the same regenerative benefits as the recommended option, and would require higher levels of investment. The option of carrying out minimum improvements (and the least cost option) should also be rejected because it would have no positive regeneration impact on Vaux and the city centre and would not support the aims and objectives of the Economic Masterplan.

Impacts analysed:

Equality **Privacy** **Sustainability** **Crime and Disorder**

Is this a “Key Decision” as defined in the Constitution?
Yes/No

Is it included in the Forward Plan?
Yes/No

Scrutiny Committee

Scrutiny Lead Member for Skills, Economy, and Regeneration

VAUX: ADVANCE INFRASTRUCTURE AND PUBLIC REALM IMPROVEMENTS**REPORT OF THE DEPUTY CHIEF EXECUTIVE AND EXECUTIVE DIRECTOR CITY SERVICES****1. PURPOSE OF REPORT**

- 1.1 The purpose of this report is to seek approval to undertake a significant infrastructure and public realm scheme designed to support the regeneration of Vaux and the wider city centre. The proposed works comprise the re-alignment of St Mary's Way / Livingstone Road into a new urban boulevard and the development of a significant new civic space which, for reporting purposes, is referred to as Magistrates Square.

2. DESCRIPTION OF DECISION

- 2.1 Cabinet is requested to:
 1. Approve the proposed scheme for the re-alignment of St Mary's Way / Livingstone Road and the development of the proposed Magistrates Square and authorise the Deputy Chief Executive and the Executive Director of City Services to take all necessary actions required for the procurement and delivery of the scheme;
 2. Authorise the Deputy Chief Executive to progress the disposal of two development plots overlooking the proposed Magistrates Square for best consideration and otherwise on terms to be agreed by the Deputy Chief Executive.

3. BACKGROUND

- 3.1 Vaux provides a unique opportunity to form a new and distinctive business district and urban quarter of the highest quality that will reinvigorate Sunderland city centre and secure its long term economic revival. Underpinned by the aims of the Sunderland Economic Masterplan, the development of Vaux has a fundamental role in realising Sunderland's vision to become "an entrepreneurial University City at the heart of a low carbon regional economy", creating new office, hotel, retail, leisure and residential opportunities.
- 3.2 However, in order to realise the vision for Vaux and maximise the benefits from such a unique development opportunity, it is vital to properly integrate the site into the urban fabric of the city centre. Strategic highway infrastructure and public realm have a key role in reconnecting Vaux with the city centre and also reconnecting the city centre with the river.

- 3.3 At present the links between the city centre and the Vaux site are relatively poor because the existing St Mary's Way / Livingstone Road ring road constitutes a major barrier to north-south pedestrian movement. Following closure of the brewery and the regeneration opportunity afforded by the site, it was recognised from the outset that improvements to the ring road would be required to fundamentally transform its character in such a way that lessens its barrier effect and helps pedestrians move more easily from the city centre retail core into the Vaux site, through to Galleys Gill, the cliff top and the waterfront beyond. From a visual and environmental perspective Livingstone Road and St Mary's Way are of low quality: they present an unwelcoming and uninspiring image of the city. Hence the imperative to establish a new gateway into Sunderland city centre and signal a greater sense of arrival.
- 3.4 This section of the ring road links the Port and commercial areas to the east and north of the city centre with the city's comprehensive redevelopment sites and the primary and national road network; as such its importance has been reflected in the inclusion of the re-alignment of St Mary's Way as Phase 1 of the Sunderland Strategic Transport Corridor (SSTC). The route of the SSTC was adopted by the Council for strategic development control purposes in 2005.
- 3.5 An improved highway solution relies on reconfiguring the existing ring road to enable it to provide satisfactory access to new development at Vaux, whilst continuing to perform its role as a vital link in the city's strategic road network. On this basis several alternative approaches to improving this highway corridor have been considered in the past. Following the Council's successful acquisition of the site in February 2011, and confirmation that the new Wear crossing is to proceed (which is Phase 2 of the SSTC), these options have been reviewed; officers have undertaken further analysis of alternative highway solutions with a view to enabling an informed recommendation to be made on the most appropriate way to proceed. Funding of £100,000 was approved in last year's capital programme to fund additional preliminary design and feasibility work, building upon work carried out in 2010 by consultants Ove Arup & Partners Ltd on behalf of Sunderland arc (which culminated in Arup's "St Mary's Way Highway Parameters Report" in October 2010).

4. CURRENT POSITION

The case for Council investment

- 4.1 Traditional methods to secure physical infrastructure rely on the private sector developer to incorporate highways and other elements like public realm, with the developer recouping these upfront costs from the proceeds of sale of the development. However because of its scale, redevelopment of Vaux will be carried out over a series of phases during a 10-15 year period. Financial analysis indicates that due to the pioneering nature and fragile financial viability of early development phases at Vaux, they will not produce sufficient financial returns to cover the substantial upfront infrastructure costs. The infrastructure costs represent a significant and prohibitive financial burden on development. It is difficult to imagine scheme viability ever improving to such an extent that the requisite upfront infrastructure could be delivered through this traditional method. Early delivery of highway infrastructure and public realm by the Council removes those elements of development that would be all cost and no income to a private developer.
- 4.2 The appeal of the Vaux site as a development opportunity is also substantially enhanced in other ways. The pace and viability of commercial development will be reliant on forward commitments from occupiers (i.e. developers securing pre-lets). To attract occupiers, developers need to minimise delivery time, planning risk and present as favourable a proposition as possible. This extends to the environment in which a building would sit and access to it. Thus public sector provision of upfront infrastructure de-risks the site from both an occupier and developer perspective. This should translate into higher levels of interest and improves financial viability / land value because it removes the developer's profit which would otherwise be generated from the infrastructure works, coupled with a reduction in finance charges, fees and contingencies on the cost of the works.
- 4.3 The regeneration funding landscape has changed dramatically over the past 18 months or so as a result of funding cuts and the demise of organisations such as the arc and One North East. The Homes & Communities Agency has already invested £20m in Vaux through its contribution towards site acquisition, and has advised no further project funding is available.
- 4.4 In the circumstances the Council now appears to be the only certain funding source for delivering the boulevard and Magistrates Square. However potential external funding opportunities are being explored in an effort to secure a contribution towards the cost of the scheme. An outline application for ERDF funding has been submitted (£2,992,219) and an expression of interest in the Growing Places Fund (GPF) has also been registered (£2,500,000).

- 4.5 Ultimately the Council's investment in the site is likely to be recouped at least in part through land sale proceeds as development progresses over a 10 – 15 year period.

Proposed St Mary's Way / Livingstone Road re-alignment

- 4.6 In reviewing alternative highway solutions and arriving at a preferred option, regard has been given not only to the present functionality and operation of St Mary's Way / Livingstone Road but also the potential traffic implications arising from the future comprehensive redevelopment of the Vaux site. Achieving improved connectivity between the Vaux site and the rest of the city centre is another prime consideration. In total six options have been considered including the concept of re-aligning St Mary's Way / Livingstone Road to create a boulevard. This has emerged as the preferred option for reasons set out in Section 5 of this report. The other five options are considered in Appendix 1.
- 4.7 The SSTC concept proposes the re-alignment of St Mary's Way / Livingstone Road in the form of a boulevard. This was the context within which the 2005 Major Scheme Business Case for the SSTC and the new Wear bridge crossing was prepared. This approach was considered to be the simplest way of connecting two points at either end of the Vaux site, without compromising network capacity. It creates a more direct and linear route between the St Michael's Way and Wearmouth Bridge junctions by moving the highway northwards at its central point and removing the West Street roundabout fronting the Magistrates Court. This option also delivers significant environmental and public realm improvements. Connectivity between the Vaux site and the wider city centre continues to be a primary objective of the proposal.
- 4.8 The scheme therefore delivers a further phase of the SSTC and is especially timely in light of last December's announcement that another section of the SSTC - the new Wear bridge – had gained Department for Transport Programme Entry funding approval. Implementation of these two phases is a clear and powerful demonstration of the Council's commitment to the SSTC project and the realisation of its anticipated economic benefits.
- 4.9 The boulevard approach creates an opportunity to transform the character of the highway network by providing wider footways with trees, a planted central reservation, and encouraging pedestrian access to new developments. Footways at least 5m wide are considered appropriate to accommodate pedestrians, cyclists, trees and necessary street furniture, such as street lighting columns. The boulevard will be typically 34.1m in width. The increase in width (in comparison with the existing St Mary's Way which has a typical overall

width of 22.6m) is accounted for through the wider footways and central reservation which are desirable to create a more attractive and safer pedestrian environment, and the provision of a dedicated bus lane.

- 4.10 The realignment and straightening of the central section of the route will maximise the views along the boulevard and provide additional space at Magistrates Square for both a broad range of activities and new adjacent development opportunities. In order to maintain network capacity the general form of the road is proposed to be dual (two lane) carriageway; widening at junctions will be required to accommodate queuing traffic. Consideration of public transport movements around the city centre and specifically the diversion of bus services currently moving between High St West and St Mary's Way indicates the requirement for an additional public transport priority lane to be provided. Previous studies suggested that a westbound priority lane would provide the greatest benefit.
- 4.11 Fundamental to the success of the development of the Vaux site is its successful integration with the existing city centre. It is envisaged this can be achieved through careful engineering/urban design via the introduction of a main point of access – a pedestrian “super crossing” which will join the two areas together. This crossing will be located at the to-be-formed Magistrates Square area at the west end of High Street West.
- 4.12 In recent years, there has been an increasing trend towards the use of different types of road crossing in the UK, other than the more standard pelican/zebra crossing arrangements that are commonplace. These crossings work by reducing the sense of priority that vehicles have on the highway and empowering pedestrians, which results in a safe and effective traffic calmed environment (the UK's most well-known super crossing is the Oxford Circus X-Crossing in London).
- 4.13 It is intended that a principal crossing (“super crossing”) will form part of a commodious route for pedestrians linking the Vaux site with the wider city centre. It will form the principal gateway into the Vaux masterplan area for pedestrians. The crossing is intended to be traffic signal controlled, accommodating both pedestrians and cyclists. The detailed design of the super crossing is being progressed and it is proposed that it will be sufficiently wide to clearly establish its prominence on the road, be spacious and capable of accommodating anticipated pedestrian flows. It is being designed and controlled to provide opportunities, as far as is possible, to be crossed in a single movement however a generous central reservation will be large enough to enable pedestrians to pause and complete a crossing in two stages, if necessary. Materials will be used to convey the continuity of the route and will be complementary to those used in Magistrates Square, to the extent that safety considerations allow. Traffic modelling will verify the extent to which priority can be afforded to pedestrians,

commensurate with the need to maintain reasonable network traffic flows.

- 4.14 Development on the Vaux site will be accessed from a new internal road via two primary junctions from the boulevard: one at Cumberland Street which will also serve St Mary's car park and one to the west of High Street, in the vicinity of the police station. Each junction is to be signal controlled and incorporate pedestrian crossing facilities, thereby establishing three pedestrian crossing points in total along the length of the boulevard and enhancing permeability between Vaux and the city centre. It is envisaged the internal road will be constructed as part of the future redevelopment of the Vaux site.
- 4.15 Preliminary highway scheme design was completed in Spring 2012 to arrive at a proposal which is deliverable from an engineering and traffic management perspective, but one which has been driven by broader regeneration objectives. Detailed scheme design is ongoing and will be completed later this summer. A plan showing the indicative scheme design will be displayed at the meeting.
- 4.16 St Mary's Way / Livingstone Road will remain open during construction, however they will need to be reduced to single lane operation in either direction during the construction period. Every effort will be made to minimise disruption, particularly during periods of increased activity within the city centre such as the Christmas shopping period. St Mary's car park will also remain operational.

Proposed Magistrates Square

- 4.17 "Placemaking" is an important component in realising the vision for Vaux and is a key constituent in establishing a desirable new location where people want to work, live and visit. Formation of a contemporary, vibrant and flexible civic space will contribute significantly to this "placemaking" agenda. Re-alignment of St Mary's Way as a boulevard will directly open up the opportunity to create a major new public space on land that is currently predominantly vehicular highway and in the main comprises the existing mini roundabout adjacent to the Magistrates Court building, providing a unique opportunity to deliver significant regenerative benefits to this northern edge of the city centre retail core.
- 4.18 This new location will form an immediate interface with the existing city centre and the pedestrian gateway into the Vaux development. A new square (the final naming of which has yet to be determined but for the purpose of this report is referred to as Magistrates Square) is fundamental to the successful provision of a crossing point into Vaux and achieving a strong north-south link to and from Vaux from the established city centre. The civic space will form a central hub providing clear and legible access to High Street West, the Bridges, Minster Quarter and Vaux.

- 4.19 Magistrates Square would become a significant civic space in the city centre in terms of scale and quality, redressing the fact that the central area currently has few quality public spaces for orientation, relaxation, social interaction, formal and informal events. The square would provide a flexible multi-functional area capable of accommodating a wide range of events and activities such as markets, concerts, displays, festivals, events shown on a big screen etc. It also creates attractive potential commercial development opportunities around the new square, most likely for retail, food and drink uses.
- 4.20 Redevelopment of this area to create a traffic-free pedestrianised Magistrates Square will require alternative access arrangements to be put in place. The revised access arrangements for traffic and pedestrians are being incorporated into the St Mary's Way design process. The Council has acquired (by agreement) several properties in the vicinity of the West Street roundabout necessary to implement such alternative arrangements (and the overall ambition for Magistrates Square). This ensures a comprehensive scheme can be progressed in a controlled and timely fashion, avoiding the risks, costs and delays that would arise if the Council had to resort to using its compulsory purchase powers to acquire the necessary property interests.
- 4.21 Proposals for Magistrates Square are at the preliminary design stage; there is considerable work to be done regarding its detailed design, connectivity to adjacent streets, and its relationship with adjacent development plots. This work is being led by the Design Services team within Property Services, in close collaboration with City Services; it is recognised that the St Mary's Way and Magistrates Square proposals must be fully aligned to ensure coherent, coordinated delivery. It is envisaged construction of the two elements will be procured as a single contract to reflect their inter-dependencies (from a technical and practical perspective it is extremely difficult to separate them) and to achieve economies of scale. Design work will therefore be progressed to synchronise with the timetable for contractor procurement, which will need to follow the European Union procurement procedures as the value of the works exceeds the relevant threshold.
- 4.22 A plan will be displayed at the meeting showing the indicative extent of Magistrates Square, potential surrounding development opportunities, and its connectivity with Vaux.
- 4.23 There is still uncertainty relating to the programme as it is heavily influenced by the timescales to implement requisite utility diversions and secure various statutory orders: these matters are not entirely within the Council's control. However the best case current project plan identifies the following principal milestones:

Pre-application public consultation	June 2012
Finalise scheme design (St Mary's Way)	July 2012
Submit planning application	Aug 2012
Commence contractor procurement	Aug 2012
Commence Traffic Regulation Orders process	Aug 2012
Determination of planning application	Nov 2012
Traffic Regulation Orders made (assuming no public inquiry)	Jan 2013
Award works contract	Feb 2013
Road scheme commences	April 2013
Road scheme completes	March 2014
Magistrates Square works commence	April 2014
Magistrates Square works complete	Nov 2014

It should be noted that the planning application and the Traffic Regulation Orders required for the scheme will need to follow the normal statutory processes.

5 REASON FOR DECISION

5.1 Having considered the available options and the need to balance the traffic flows, technical alignment requirements, costs, development potential of the Vaux site and improve its integration with the city centre, the re-alignment of St Mary's Way to create a new boulevard is considered to be the preferred option for the reasons summarised below:-

- reduces the impact of the highway and transforms St Mary's Way into a more attractive space in its own right and a more attractive environment for all road users;
- transforms the sense of arrival and generates a positive city image;
- it delivers a further phase of the Council's SSTC project to facilitate east-west movements;
- creates a pedestrian crossing which links with the public realm, connecting the Vaux development area and the heart of the city centre;
- creates an active street that is animated by the uses that line its length and enhanced by wide footways;
- is fully aligned with strategic planning policy and the Economic Masterplan;
- reduces the volume of traffic circulating through the main body of the Vaux development site, creating a more attractive environment;
- bus usage is promoted and encouraged by providing high quality bus facilities and priority measures;
- creates a new attractive cycle link which would provide access to the Vaux site and beyond;
- additional opportunity to regenerate the city centre retail core by releasing land on the south side of the boulevard at the junction of West Street/High Street West to facilitate retail/leisure development; is the least-cost solution (apart from the "do minimum" option).

6. ALTERNATIVE OPTION

- 6.1 Not to go ahead with the project would severely undermine the prospects of achieving comprehensive redevelopment of the Vaux site, thereby compromising the Council's most important regeneration project. Furthermore, Council intervention should be considered in the context of long term investment in the Vaux site: protecting the substantial public investment to date (primarily the £22m site acquisition cost), promoting the regeneration of Sunderland city centre and achieving the aims and objectives of the Economic Masterplan. For a site of the scale and importance of Vaux a "do nothing" approach is neither a viable or credible option and there are sound commercial reasons why the Council should build upon the significant investment that has already been made in the Vaux site.
- 6.2 The alternative highway solutions fail to deliver the requisite level of regenerative benefits as the recommended option, and therefore do not represent value for money.

7. FINANCIAL IMPLICATIONS

- 7.1 The provisional cost estimate of the boulevard scheme based on the preliminary design is £9.4m. This includes an allowance for cost inflation and an approximation of utility diversion costs. The cost estimate will be refined throughout the detailed design stage and once more accurate utility costs have been identified.
- 7.2 In terms of Magistrates Square, it is crucial to achieve the highest quality scheme design in order to maximise its impact and utilisation. It provides a unique opportunity to set a new benchmark for the standard of public realm in the city centre. It should be designed with accessible infrastructure within its floor (e.g. electricity, water, drainage) and high quality durable materials. At this preliminary stage it is estimated that this element of the scheme will cost £4m. Refinement of this cost will continue as the scheme design develops.
- 7.3 On this basis the overall scheme cost is estimated to be in the order of £13.4m. The anticipated sequencing of works indicates expenditure will be spread over four financial years commencing in 2012/13 with the majority of expenditure being incurred within the first three years.
- 7.4 Both schemes together with financing were included in the capital programme approved by Council on 7th March 2012. The boulevard element is included within the capital contingencies outline schemes provision and the Magistrates Square element within the allocation for Magistrates Square / High Street West improvements on the basis that external funding would be sought to deliver the overall scheme. As set out in paragraph 4.4, potential external funding opportunities are being explored in the form of ERDF and GPF. Following submission of the outline submission for ERDF funding of £2.992m, a full business case

for the scheme has been requested. The full business case will be subject to detailed assessment of the achievement of ERDF outputs, in particular jobs, through this scheme facilitating the development of the Vaux site. GPF is an interest-free loan repayable within a short-term period. The Council is seeking support in the sum of £2.5m. At this stage the scheme has been included on a reserve list of projects which the North Eastern LEP Board has approved for GPF.

8. RISK MANAGEMENT

- 8.1 This is quite a complex physical project and as such the importance of effective risk management is recognised. It has been progressing within the Council's risk management framework; this has included the development of a risk and opportunity management strategy, risk register, and the ongoing support of a senior risk management advisor within Commercial and Corporate Services. In addition, suitable project governance arrangements are in place to ensure the project is managed effectively and risks are reported and dealt with appropriately.
- 8.2 The main project risk is potential delay in scheme delivery. There are several potential causes of delay. Some examples include: statutory approval processes taken longer than envisaged due to objections, procurement challenge, inclement weather during construction, or utility companies fail to deliver to the required programme. Identifying appropriate mitigation measures and responses to prevent delays from occurring or minimising their impact is an integral part of the project's risk management strategy.
- 8.3 The cost and duration of utility diversions and provision is another potential area of risk. Whilst the overall scheme cost estimate includes an allowance for utility diversion costs, a definitive position can only be established following meaningful dialogue with the various utility companies to verify exactly what utilities are affected and how best to divert them. This engagement was only able to start recently once preliminary scheme design had reached a relatively advanced stage.

9. BACKGROUND PAPERS

- 8.1 St Mary's Way Highway Parameters Report October 2010, Ove Arup & Partners Ltd.

APPENDIX 1

VAUX ADVANCE INFRASTRUCTURE: HIGHWAY OPTIONS

A number of alternative highway solutions have been considered with a view to achieving the desired objective of better integrating the Vaux site with the wider city centre in order to make it a more attractive development opportunity and to optimise the economic benefits for the wider city centre. The five alternative options considered alongside the preferred boulevard approach, are summarised below:

1. **Option one: removal or downgrading St Mary's Way / Livingstone Road**
 - 1.1 St Mary's Way and Livingstone Road, forming the northern link of the ring road, have successfully contributed to the reduction of traffic in the core of the city centre, whilst maintaining both the strategic connectivity to the regional and nation road networks and essential access to the city centre. The removal or downgrading of the link would require consideration of the impact with regard to displaced vehicles. Traffic data suggests that in the peak periods 2,000 vehicles (carrying 2,400 passengers) undertaking longer distance journeys and 500 vehicles (carrying 600 passengers) requiring local access to the city centre would need to be accommodated.
 - 1.2 The opportunity for public transport to accommodate any displaced journeys is limited. The construction of the Metro in Sunderland has undoubtedly contributed to lower levels of traffic than would otherwise be the case. However no further significant investment in Metro is planned in Sunderland at this time and the limited corridors served would indicate only a modest increase in patronage would follow a reduction in the road capacity. Also, whilst buses serving the city centre have additional capacity, the likelihood is that few journeys and particularly longer distance travellers would transfer to bus.
 - 1.3 Removal of the major traffic flow capacity for through-traffic provided by St Mary's Way / Livingstone Road has two potential outcomes; either traffic diverting to alternative routes or travel demand being suppressed. The ability for traffic to divert will be limited by the capacity of the alternative routes, which are predicted in future years to be congested, accordingly travel demand in the area will likely be suppressed. In this instance, it is considered that suppressed traffic movement will likely result in reduced economic activity in and around the city centre.
 - 1.4 Alternatively, significant investment would be required to increase capacity by replacing the northern ring road link with a southern link between Stockton Road and the A1018 Eastern Relief Road by widening Park Road and Peel Street. However in addition to the high

costs for the dual carriageway which would be the minimum requirement, there would be increased community severance and adverse impact in a sensitive area of the city centre (Ashbrooke Conservation Area). Additionally, by comparison to the existing link, operating costs for users would be higher given the additional journey of approximately 1.5 km with a consequential impact of increased carbon dioxide emissions.

2. Option two: bifurcation (splitting the carriageways)

- 2.1 This option was proposed as part of the planning consent granted previously to Sunderland arc and would result in the northern (eastbound) carriageway being diverted north into the site with modest realignment of the current southern (westbound) carriageway. Each carriageway would be two lanes wide.
- 2.2 This option provided for an island of development between the carriageways, allowing pedestrians to cross each carriageway separately. Junctions were to be provided to allow access to the site and provide for traffic circulation. Re-alignment of the westbound carriageway created a new Magistrates Square (as per the preferred option). This option performed satisfactorily in traffic and road safety terms. The benefit for pedestrian connectivity being that there is significant separation of the carriageways and pedestrians accessing that part of the development within the island would only have to cross one carriageway. However, higher levels of traffic would penetrate into the Vaux site itself, due to the position of the northern carriageway. It is understood that this proposal had limited developer support because it resulted in a relatively fragmented development platform and restricted flexibility. It also raised some concern regarding the poor environmental performance of gyratory road systems elsewhere in the city.

3. Option three: grade separation

- 3.1 This option was identified several years ago by Tesco as their preferred option when presenting redevelopment concepts for the site. The intention would be to lower both carriageways and allow pedestrians to cross over St Mary's Way. The alignment of St Mary's Way would have to be straightened to provide forward visibility for drivers. Vehicular access to Vaux development would be provided by an internal service road with junctions at St Michael's Way and Cumberland Street. However it is not possible to fully lower the road and create an at-grade pedestrian crossing because it would not meet design and safety standards. Consequently there is a limit to the extent to which St Mary's Way can be lowered, resulting in the need to form an over-bridge.
- 3.2 Pedestrian access to the Vaux site would be achieved at the equivalent of first floor level of new development, served by a pedestrian over-

bridge with steps, lifts and escalators being required in the Magistrates Square area. This layout providing pedestrian access to high level best suits a large single floor-plate form of development, such as a retail store or shopping mall. The relatively level floor-plate provided by a mall type development also results in significant level differences where there is an interface with any adjacent development, requiring steps and ramps. Also, whilst the bridge link could provide pedestrian access into a development, extensive retaining walls would be required along St Mary's Way serving to restrict movement and reduce permeability between the city centre and the overall Vaux site as well as being visually intrusive and costly.

4. Option four: northern re-alignment

- 4.1 Consideration has been given to the re-alignment of St Mary's Way / Livingstone Road northwards to theoretically maximise the available development land within the ring road. Under this option, the existing dual carriageway would be partially removed to enable the Vaux site to connect with the city centre. However, the potential alignment of a northern route is constrained by the position of its junctions at St Michael's Way and Cumberland Street, the limited length of this section of road, and the technical requirements for the alignment necessary to achieve the desired traffic capacity.
- 4.2 These constraints therefore limit the extent to which the road can be realigned in a northerly direction; it would have to be set back from the northern edge of the site, resulting in a significant proportion of the site lying outside the ring-road and not necessarily optimising the site's developable area. Accordingly, this option is considered not to provide sufficient benefit to warrant further consideration.

5. Option five: do minimum option

- 5.1 This option would retain the current alignments of St Mary's Way and Livingstone Road, provide for access to the Vaux site, and could provide a modest pedestrianised area at High Street West with a controlled pedestrian crossing. Vehicular access would be provided to the Vaux site by the formation of a new traffic signal controlled junction in Livingstone Road opposite the entrance to the Police Station and the modification of the existing junction in St Mary's Way at Cumberland Street (St Mary's Car Park). Localised widening is required in the vicinity of the junctions. At the Livingstone Road approach, the highway requires widening, but the curvature of the route at this location is substandard in terms of national guidance. At High Street West, the existing roundabout could be removed which would allow for that area to be pedestrianised.
- 5.2 The removal of the roundabout would allow for the closure of the junctions with High Street West and West Street. Vehicular access for servicing the city centre could be provided by a new section of link road

at South Street (to the east of Crowtree Leisure Centre). A controlled pedestrian crossing could be provided at the apex of the bend and the existing adjacent crossings removed.

- 5.3 Opportunities to assist public transport are limited to the provision of on-street bus stops, with existing bus services requiring to be re-routed from High Street West onto Livingstone Road.
- 5.4 This option fails to address the poor current environmental and visual characteristics of the existing route and conveys a negative perception of arrival in the city centre. Furthermore the impact and opportunities afforded by the creation of a substantial new civic space (Magistrates Square) would be lost.