



Balfour Beatty



Working for Herefordshire

Herefordshire Council

HEREFORD TRANSPORT PACKAGE

Active Travel Measures at Option Development Stage



Herefordshire **Council**

HEREFORD TRANSPORT PACKAGE

Active Travel Measures at Option Development Stage

PROJECT NO. 70024065

OUR REF. NO. 70024065-WSP-XX-RP-HE-00007_V1

DATE: JUNE 2018

WSP
1 Capital Quarter
Tyndall Street
Cardiff
CF10 4BZ
Phone: +44 2920 769 200

WSP.com

QUALITY CONTROL

Issue/revision	VO	V1	V2	V3
Remarks	Final Draft for Client Approval	For Client Acceptance		
Date	15.06.2018	25.06.2018		
Prepared by	Rhian Sheady	Rhian Sheady		
Signature				
Checked by	Rob Jones	Rob Jones		
Signature				
Authorised by		Gary Littler		
Signature				
BBLP Approval		David Neal		
BBLP Signature				
Report number	70024065-WSP-XX-RP-HE-00007_V1	70024065-WSP-XX-RP-HE-00007_V1		

CONTENTS

EXECUTIVE SUMMARY	1
1 INTRODUCTION	4
1.1 PURPOSE OF REPORT	4
1.2 OVERVIEW	4
2 WORK TO DATE	5
2.1 OVERVIEW	5
2.2 PHASE 1 CONSULTATION	5
2.3 HTP OBJECTIVES	6
2.4 WEBTAG PROCESS	8
2.5 PHASE 2 CONSULTATION	10
2.6 DEVELOPER PROPOSALS	12
2.7 IDENTIFICATION AND DEVELOPMENT OF MOVEMENT CORRIDORS	19
2.8 DEVELOPMENT OF TRAFFIC MANAGEMENT	47
2.9 INTERACTIONS WITH BYPASS	47
3 NEXT STEPS	50
3.1 OVERVIEW	50
3.2 ASSESS BENEFITS OF THE MOVEMENT CORRIDOR IMPROVEMENTS	51
3.3 PHASE 3 CONSULTATION	52
3.4 COST LEVELS AND DELIVERABILITY	52
3.5 PRIORITISE IMPROVEMENTS	52
3.6 DECISION FOR BUSINESS CASE	53
3.7 PRELIMINARY DESIGN AND COSTING	53
3.8 OUTLINE BUSINESS CASE	53

TABLES

Table 1 Priorities for improvements.	6
Table 2 Active travel improvement options.	10
Table 3 Development of traffic management improvements.	47

FIGURES

Figure 1 HTP objectives and how they define the active travel improvements.	6
Figure 2 Process of identifying Preferred Package for HTP.	8
Figure 3 Respondents support for the improvement options (Question 4).	11
Figure 4 Frequency of support for 'other' active travel improvements (Question 5).	11
Figure 5 Key housing developments in Hereford.	12
Figure 6 Holmer West SUE indicative masterplan.	14
Figure 7 Transport measures associated with the Holmer West SUE.	15
Figure 8 Three Elms SUE illustrative masterplan.	16
Figure 9 Transport measures associated with the Three Elms SUE.	17
Figure 10 Location of movement corridors.	20
Figure 11 College Road movement corridor.	23
Figure 12 A465 Aylestone Hill movement corridor.	25
Figure 13 A438 Ledbury Road movement corridor.	27
Figure 14 Greenway movement corridor.	29
Figure 15 A49 Victoria Street movement corridor.	31
Figure 16 A49 Edgar Street movement corridor.	33
Figure 17 Great Western Way movement corridor.	36
Figure 18 A438 Whitecross Road movement corridor.	38
Figure 19 Three Elms Road / Hurdman Walk movement corridor.	41
Figure 20 Grandstand Road movement corridor.	43
Figure 21 A49 Holmer Road movement corridor.	45
Figure 22 – Areas for consideration of walking, cycling and horse riding	48
Figure 23 Next steps for developing the active travel improvements within Hereford.	50
Figure 24 Demonstration of how assessment areas relate to HTP objectives.	51

APPENDICES

Appendix A - WCHAR Scoping Note

EXECUTIVE SUMMARY

Encouraging the greater use of active travel modes as alternatives to the car, particularly for short trips within the city, is a key part of the Local Transport Plan strategy and is reflected in the objectives of the Hereford Transport Package.

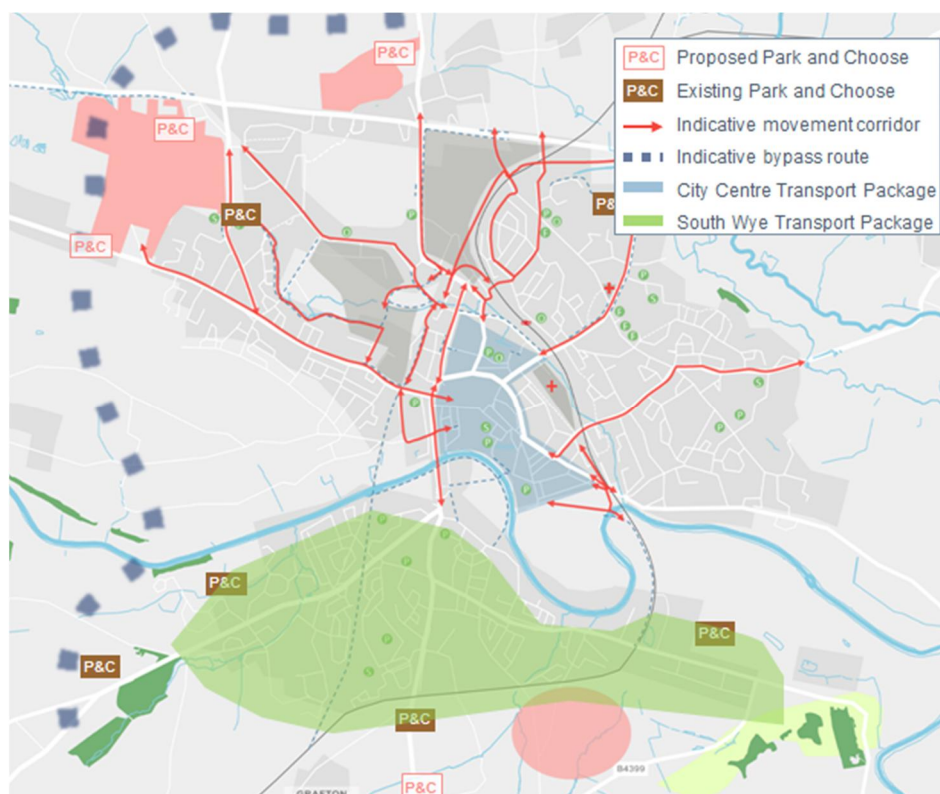
This report outlines the work to date in developing the walking, cycling, bus and public space improvements for the Hereford Transport Package (HTP), referred to as active travel improvements. It also sets out the next steps for further developing and refining the active travel improvements and developing the business case.

The work to date is presented in the form of 11 movement corridors and traffic management improvements within Hereford. These have been developed on the basis of the WebTAG Transport Appraisal Process; from an understanding of current and future conditions, identification of associated issues, the development of objectives and the identification and sifting of options. This process identified a preferred package for HTP of active travel improvement options and traffic management to support the bypass. The work has been informed by contributions from 2 phases of public consultation.

The WebTAG process identified the following five active travel improvement options:

- Better use of public space
- Junction improvements for pedestrians, cyclists and bus users
- Crossing improvements along and across main roads
- Improved existing traffic free paths
- New traffic free paths

The improvements to consider for each of the 11 movement corridors are based on the options above. The location of the movement corridors is summarised in the figure below.



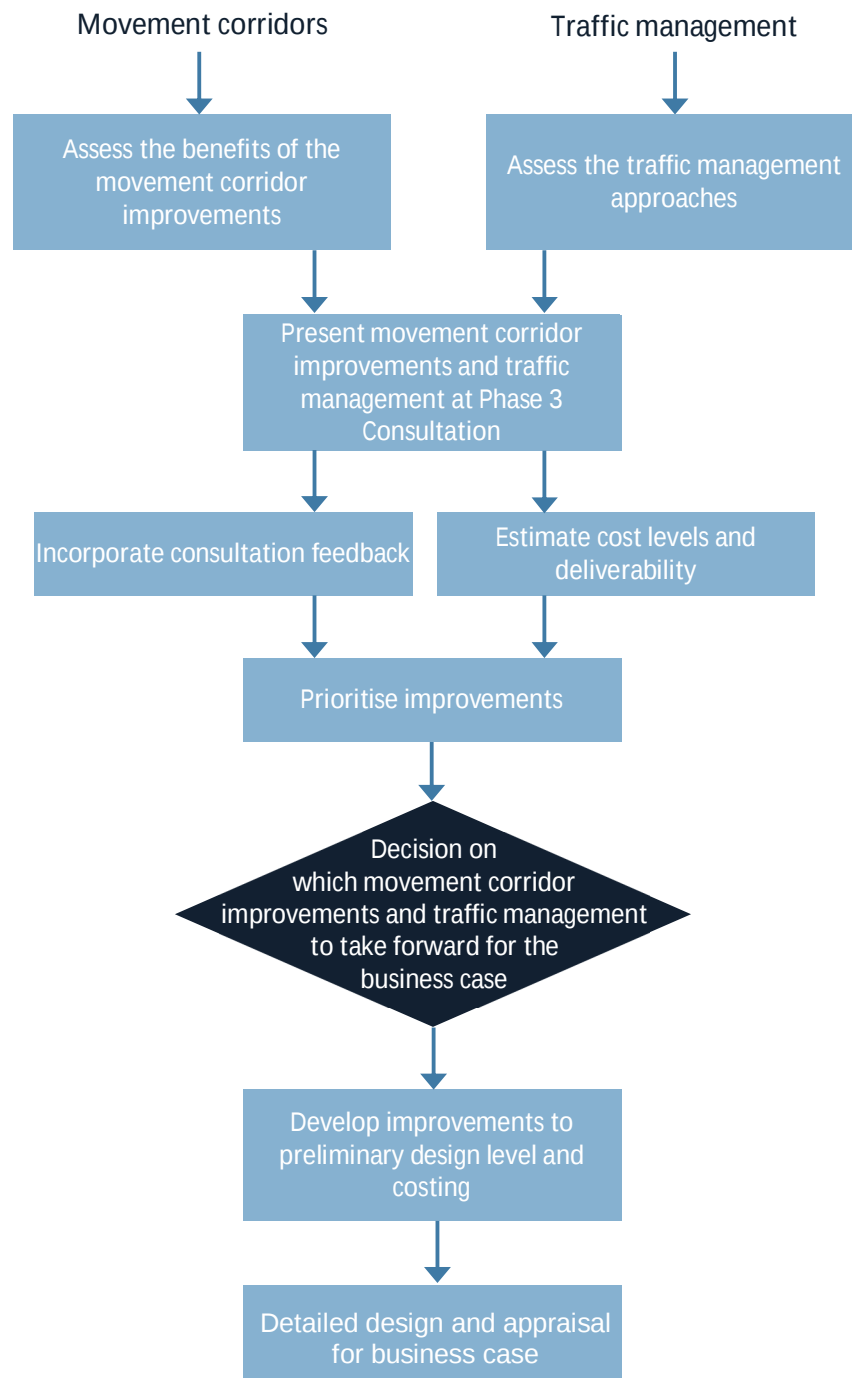
Each of the 11 movement corridors has been developed to outline the following:

- Their key function and role in the package
- The key corridor considerations
- The improvements to be considered
- The key risks and opportunities

The report sets out the development of traffic management improvements, outlining the purpose and key risks / opportunities associated with HGV restrictions within Central Hereford, 20mph speed limits on residential streets, and Intelligent Transport Systems.

Work to date has focused on the built-up area of Hereford. Walking, cycling and horse-riding measures associated with the bypass are to be developed through the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) process once the route has been determined. The bypass measures will be developed to interact with the active travel movement corridors and Strategic Urban Expansions. The bypass will create new junctions with the A465 Belmont Road A483 King's Acre Road, A4103 Roman Road and A49 north of Hereford. The design of these junctions will take account of the need to ensure maximum connectivity for walking and cycling. The WCHAR process also provides opportunities for the bypass corridor to develop new active travel routes between existing and new communities, employment areas and other trip generators.

The next steps section of the report provides a summary of the tasks and approach for developing the active travel improvements within Hereford, as outlined on the following page. The steps involve developing the improvements from their current conceptual level through the WebTAG based appraisal and design process in support of the Outline Business Case.



1 INTRODUCTION

1.1 PURPOSE OF REPORT

- 1.1.1. Encouraging the greater use of active travel modes as alternatives to the car, particularly for short trips within the city, is a key part of the Local Transport Plan strategy and is reflected in the overall aims of the Hereford Transport Package.
- 1.1.2. The purpose of this report is to:
- Outline the process and progress to date in developing the walking, cycling, bus and public space improvements for the Hereford Transport Package (HTP) within Hereford, referred to as active travel improvements; and
 - Outline the next steps for further developing and refining the active travel improvements and developing the business case.
- 1.1.3. This report concerns active travel improvements within Hereford. For the HTP, the phrase 'active travel' is used to refer to walking, cycling and public transport modes. To ensure a joined up approach, it considers where the relevant movement corridors will interact with the bypass. It also considers the active travel improvements associated with the Three Elms and Holmer West strategic urban expansion areas.
- 1.1.4. The process for identifying the walking, cycling and horse-riding measures associated with the bypass will be undertaken according to the Walking, Cycling and Horse-riding Assessment and Review (WCHAR) guidance. At this stage we have given early consideration to opportunities for possible on-line and off-line improvements to walking, cycling and horse rider networks associated with development of the bypass.

1.2 OVERVIEW

- 1.2.1. The report is structured as follows:
- **Chapter 2** outlines the progress to date in developing the active travel improvements for the HTP, resulting in the identification of 11 movement corridors and traffic management improvements;
 - **Chapter 2** also sets out the walking, cycling and horse rider locations and measures to be considered as part of the bypass scheme development through the WCHAR process; and
 - **Chapter 3** outlines the next steps for developing the movement corridors and traffic management to inform the outline business case.

A scoping note explaining the WCHAR process and what this means for HTP is provided in Appendix A.

2 WORK TO DATE

2.1 OVERVIEW

2.1.1. This chapter outlines the process and progress to date in developing the active travel improvements for the HTP. The chapter is structured as follows:

- **Section 2.2:** Phase 1 Consultation
- **Section 2.3:** HTP Objectives
- **Section 2.4:** Option Assessment Report
- **Section 2.5:** Phase 2 Consultation
- **Section 2.6:** Developer Proposals
- **Section 2.7:** Identification and Development of Movement Corridors
- **Section 2.8:** Development of Traffic Management
- **Section 2.9:** Interactions with Bypass

2.2 PHASE 1 CONSULTATION

2.2.1. Phase 1 of the consultation introduced the HTP and consulted on the transport related problems in Hereford. The consultation set out that the package will comprise a bypass supported by active travel improvements within Hereford.

2.2.2. The consultation was held for a 7 week period from the 4th April to 22nd May 2017. A consultation questionnaire was developed enabling the public to provide feedback on the HTP and was made available to complete via hard copies provided at the exhibition, via an iPad at the exhibition or on the consultation website.

2.2.3. The Hereford Transport Package Phase 1 Consultation Report (August 2017)¹ provides details of the consultation, the questionnaire responses, methodology and analysis. A brief summary is provided below of the questionnaire responses directly related to the active travel improvements.

2.2.4. Question 47 of the questionnaire asked *'what do you think are the current transport problems in Hereford?'* Respondents were given the opportunity to rank the top 5 current transport problems in Hereford from a list of 12 options.

2.2.5. The biggest perceived problems and the percentage of maximum possible score were as follows:

- 1) Traffic congestion – 79%
- 2) Volume of heavy goods vehicles – 39%
- 3) Long delays at signal junctions – 32%
- 4) Poor public transport links to rural areas – 32%
- 5) Poor cycling/walking infrastructure – 30%

2.2.6. Question 48 of the questionnaire asked *'what do you think puts some people off walking, cycling or using the bus for short trips?'*

2.2.7. There were 562 respondents (84%) to question 48 that covered a range of topics. The five most common reasons suggested were:

- Quality of public transport – 301 responses
- Lack of walking and cycling infrastructure – 181 responses
- Safety – 130 responses
- Laziness – 57 responses
- Poorly maintained infrastructure – 54 responses

¹ https://www.herefordshire.gov.uk/downloads/file/13345/http_phase_1_consultation_report_-_august_2017

- 2.2.8. Question 50 asked which of the following types of improvement do you think are your priorities? On a scale of 1 to 5 (1 being very important and 5 being not important at all), how important are the following factors to you?
- 2.2.9. The improvements identified in the questionnaire and the weighted scores are shown in Table 1. The responses show that there is good support for improvements to walking, cycling, bus and public space.

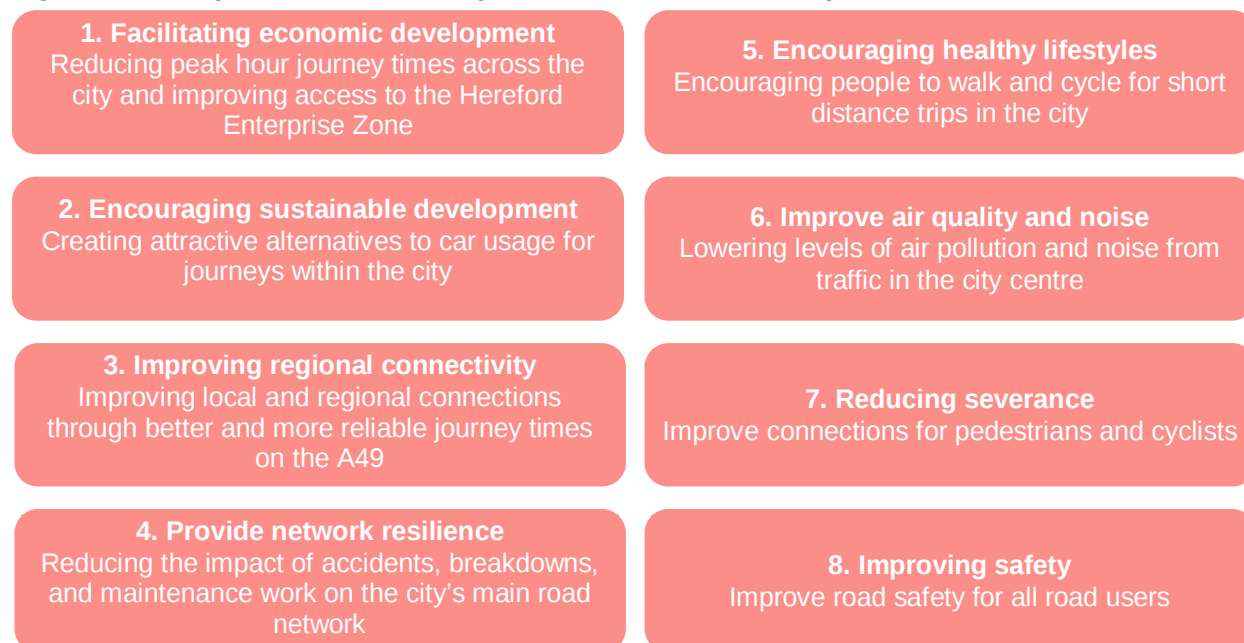
Table 1 Priorities for improvements.

Type of improvements	Weighted Score
Safer and better cycling routes (for example, the creation of dedicated cycle lanes, cycle friendly junctions, reduced speed limits and traffic-free routes)	1688 (69%)
Safer and better walking routes (for example, the provision of wider footways, improved pedestrian crossing facilities, reduced speed limits and traffic-free routes)	1659 (67%)
More reliable and quicker bus journeys (for example, bus priority on key routes into and out of the city)	1587 (65%)
More reliable and quicker journeys by car (for example more traffic lanes and measures that prioritise cars)	1541 (63%)
More attractive public space (for example, boulevard-style streets, shared space and the planting of trees to create green corridors)	1493 (61%)

2.3 HTP OBJECTIVES

- 2.3.1. The HTP objectives were established through consideration of local, regional and government policies and strategies and analysis of the current and future situation and problems. Findings from the Phase 1 consultation also informed the process of refining the HTP objectives. Figure 1 sets out the objectives for HTP.

Figure 1 HTP objectives and how they define the active travel improvements.

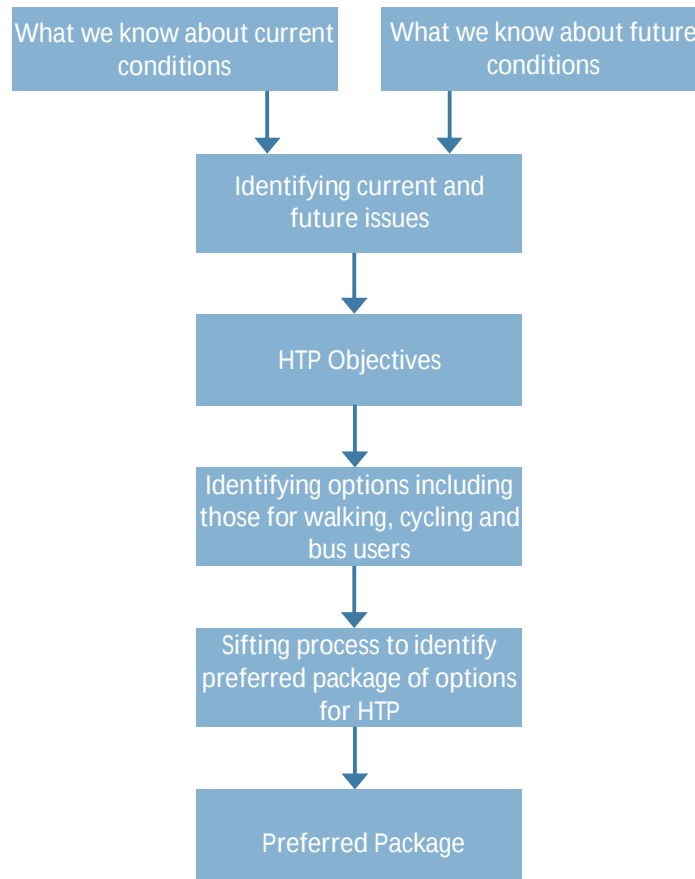


- 2.3.2. The following bullets set out how the active travel improvements would contribute towards the HTP objectives:
- Improvements which reduce delay or enhance journey quality for walking, cycling and bus users would directly benefit objective 1, 2, 5 and in some cases objective 7 and 8.
 - Improvements which improve connectivity to address severance would directly benefit objective 1, 2 and 5 and particularly objective 8.
 - Improvements which improve safety would directly benefit objective 2, 5, 7 and 8.
 - Improvements which make walking and cycling more attractive would directly benefit objective 2 and 5 and in some cases objective 7 and 8.
 - The improvements would have indirect benefits on the other HTP objectives particularly those encouraging more walking and cycling to replace short distance car journeys. For example a mode shift away from car use for local journeys will help to reduce the transport impacts on air quality and noise (objective 6), and improve network resilience (objective 4) associated with more reliable journey times on the A49.

2.4 WEBTAG PROCESS

- 2.4.1. The development of the HTP has followed the Transport Analysis Guidance WebTAG by Department for Transport. WebTAG provides guidance on the conduct of transport studies including advise on how to:
- Set objectives and identify problems;
 - Develop potential solutions; and
 - Conduct an appraisal which meets the Department for Transport's requirements.
- 2.4.2. Stage 1 Option Development of WebTAG sets out the process to allow options to be identified and sifted and is summarised in Figure 2.

Figure 2 Process of identifying Preferred Package for HTP.



- 2.4.3. Figure 2 summarises the Transport Appraisal Process for identifying the Preferred Package for HTP. The Phase 1 HTP consultation responses alongside previous consultation responses in Hereford and Herefordshire were used to inform all stages of this process.
- 2.4.4. The assessment process to identify a preferred package (as described in Section 2.4) has been conducted using the following WebTAG tools:
- Early Assessment Sifting Tool (EAST)
 - Option Assessment Framework (OAF)

- 2.4.5. The EAST assessed the options against appraisal criteria within the five business cases described as follows:
- **Strategic Case:** Determines whether or not a project or proposal is needed, either now or in the future.
 - **Economic Case:** Assesses whether projects or proposals offer value for money to the public.
 - **Management Case:** Ensures that the project is deliverable.
 - **Financial Case:** Provides evidence on the affordability of the proposal.
 - **Commercial Case:** Provides evidence of the viability of a project or proposal and the procurement strategy that will be used to engage that the market is set out and appraised.
- 2.4.6. The OAF assessed the options against using appraisal criteria within the following headings:
- Strategic fit
 - Value for money
 - Financial case
 - Delivery case
 - Commercial case
- 2.4.7. Through the EAST and OAF, the Preferred Package for the HTP consists of the following options:
- A bypass
 - Traffic management
 - Intelligent Transport Systems (i.e. the use of information technology and telecommunications to enable users to be better informed and make safer, more coordinated or more efficient use of transport networks)
 - HGV restrictions within central Hereford
 - 20mph speed limit on all streets north of the River Wye (except A roads)
 - Active travel improvements
 - Better use of public space
 - Junction improvements for pedestrians, cyclists and bus users
 - Crossing improvements along and across main roads
 - Improved existing traffic free paths
 - New traffic free paths
- 2.4.8. Table 2 sets out the active travel improvement options in more detail.

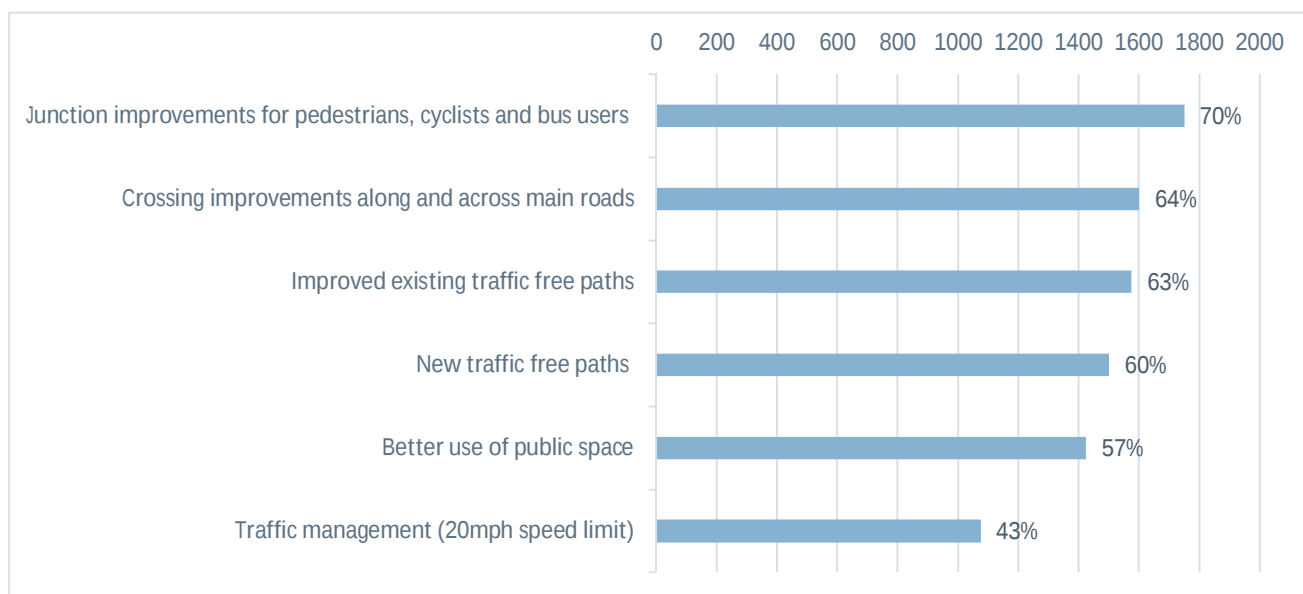
Table 2 Active travel improvement options.

Improvement options	Improvements to be considered
Better use of public space	- Shared use walking and cycling paths - New bus lanes or on-road cycle lanes - Wider footways - Improved street environment (e.g. tree lined boulevards and removal of street clutter) - Wider cycle lanes - Improvements to bus stops (e.g. real time information)
Junction improvements for pedestrians, cyclists and bus users	- Safe crossings at all junction arms (e.g. wider waiting areas) - New / upgraded crossings for pedestrians and cyclists (e.g. signalling crossings and single stage crossings) - More cycle friendly junction designs (e.g. advanced stop lines, advanced traffic signals or right turn lanes) - Bus priority improvements at junctions
Crossing improvements along and across main roads	- Walking and/or cycling priority over side streets (e.g. raised footway to reduce vehicle speeds) - New/upgraded crossings for pedestrians and cyclists (e.g. signalling crossings, bigger waiting areas and removing guard rails)
Improved existing traffic free paths	- Better lighting, surfacing and signage - Wider paths - Improved ramps and path accesses - New and improved connections to the city's main roads
New traffic free paths	- New green corridors for walking and cycling - Connections with Holmer West and Three Elms urban expansion areas "Park and Choose" sites

2.5 PHASE 2 CONSULTATION

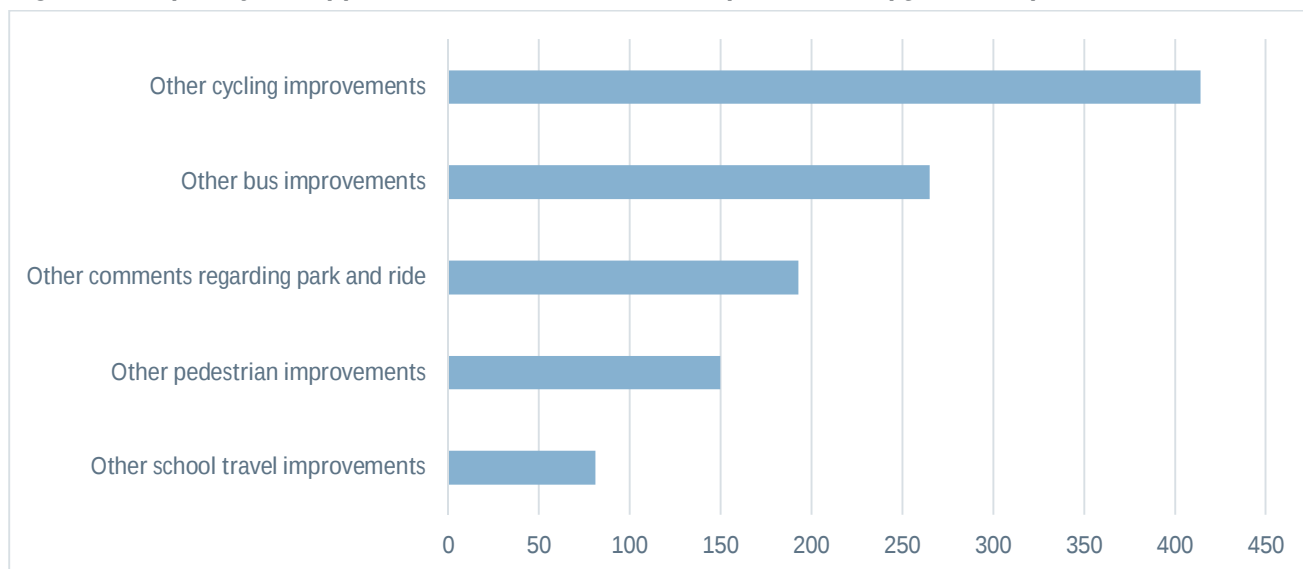
- 2.5.1. The second consultation for HTP presented the potential bypass routes, active travel improvements and traffic management.
- 2.5.2. The consultation was held for a six week period between 6th February and 20th March 2018.
- 2.5.3. The public were invited to provide feedback on the consultation via a Public Consultation Questionnaire. The questionnaire was available to complete via hard copies provided at the exhibition and on the consultation website. The Hereford Transport Package Phase 1 Consultation Report (June 2018) provides details of the consultation, the questionnaire responses, methodology and analysis. A brief summary of the questionnaire responses directly related to the active travel improvements is provided below.
- 2.5.4. Question 4 and 5 of the questionnaire concerned the active travel improvements of the HTP.
- 2.5.5. Question 4 of the questionnaire asked respondents to tick the improvement options which they support. Figure 3 summarises the responses to this question.

Figure 3 Respondents support for the improvement options (Question 4).



- 2.5.6. Question 4 also provided opportunity for respondents to comment on the improvement options. The analysis of common options revealed the most popular, was ‘general improvement to walking, cycling, bus and public realm’.
- 2.5.7. Question 5 asked respondents whether there were any other walking, cycling, bus or public space improvements or locations that should be considered.
- 2.5.8. A summary of the responses to question 5 is shown in Figure 4, which shows there is good support for active travel improvements, particularly cycle improvements.

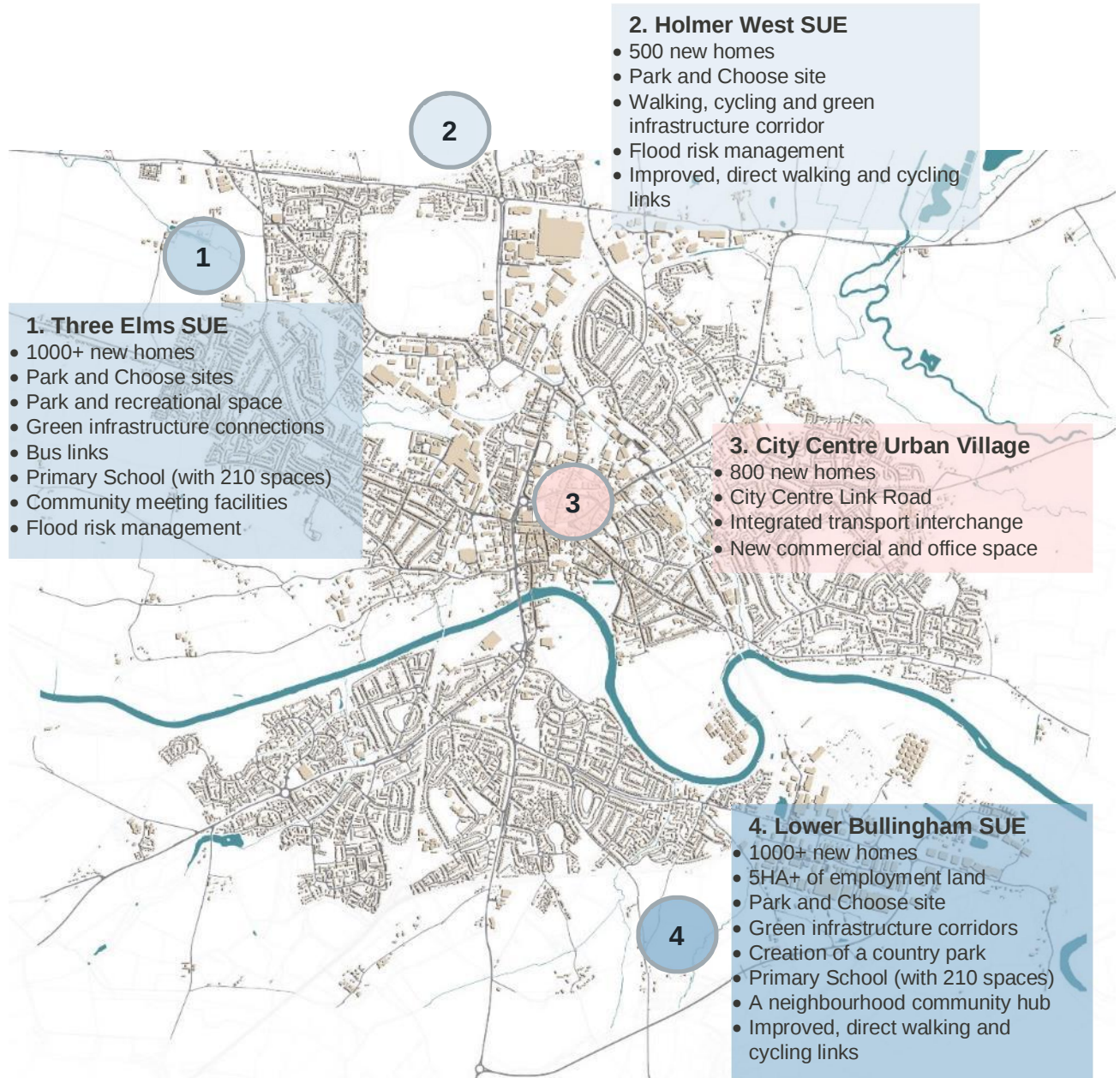
Figure 4 Frequency of support for ‘other’ active travel improvements (Question 5).



2.6 DEVELOPER PROPOSALS

2.6.1. Figure 5 outlines the key housing developments in Hereford which are set out in Herefordshire Council Core Strategy including the three Sustainable Urban Extensions (SUEs) in Hereford.

Figure 5 Key housing developments in Hereford.



2.6.2. Development of the HTP considers the additional travel demand resulting from the future housing and any proposals to improve the transport network.

- 2.6.3. Figure 6 shows the indicative masterplan for the Holmer West SUE and Figure 7 shows the transport measures associated with the development. Planning documents associated with this development are available on the Herefordshire Council planning portal² (planning application reference P150478/O).
- 2.6.4. Figure 8 shows the illustrative masterplan for the Three Elms SUE and Figure 9 shows the transport measures associated with the development. Planning documents associated with the development are available on the Herefordshire Council planning portal³ (planning application reference P162920/F).
- 2.6.5. The developer proposals have been taken into consideration when developing the active travel movement corridors as shown in Section 2.7.

²https://www.herefordshire.gov.uk/info/200142/planning_services/planning_application_search/details?id=150478&search=150478

³https://www.herefordshire.gov.uk/info/200142/planning_services/planning_application_search/details?id=162920&search=162920

Figure 6 Holmer West SUE indicative masterplan.



Figure 7 Transport measures associated with the Holmer West SUE.

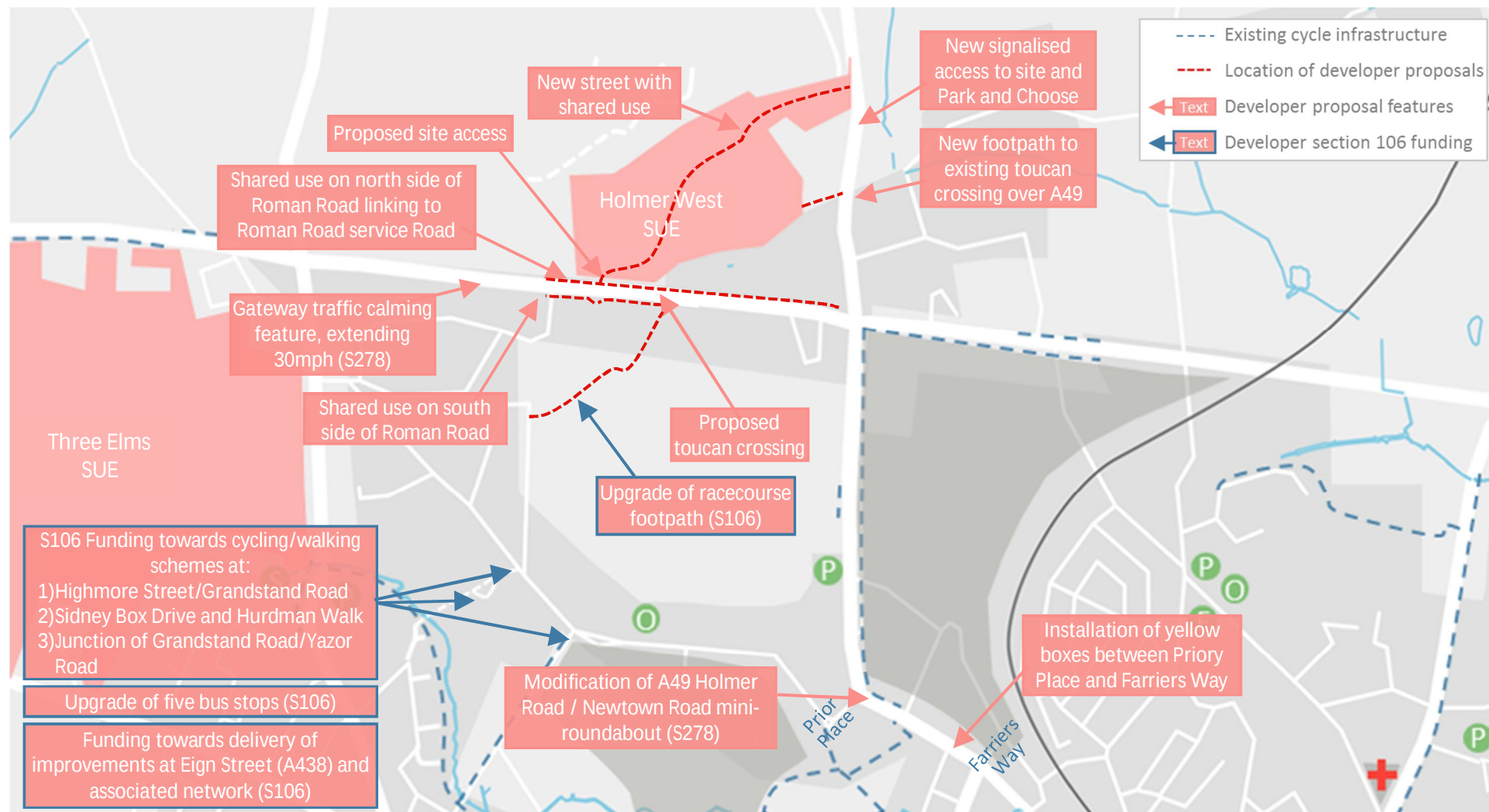
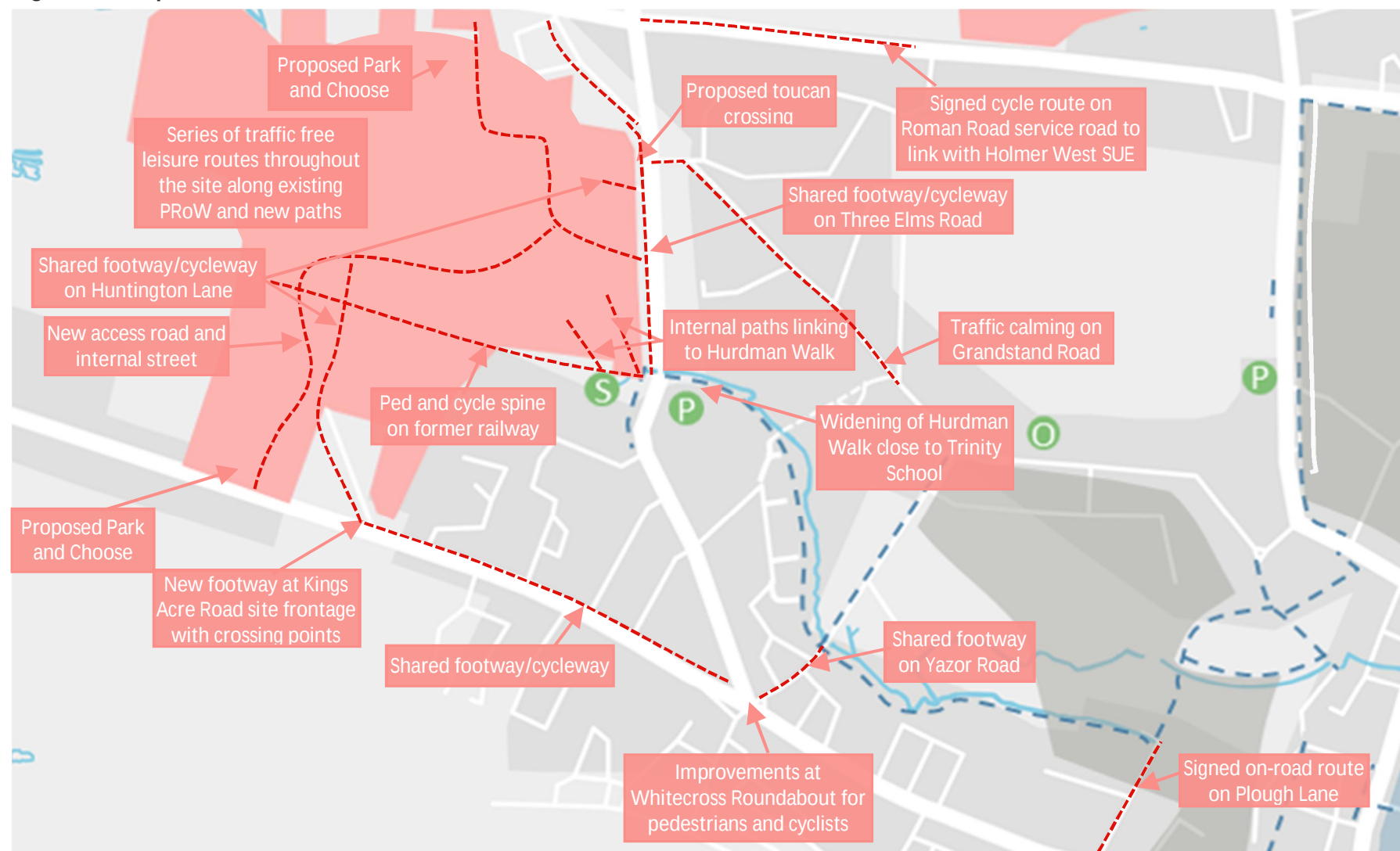


Figure 8 Three Elms SUE illustrative masterplan.



Figure 9 Transport measures associated with the Three Elms SUE.

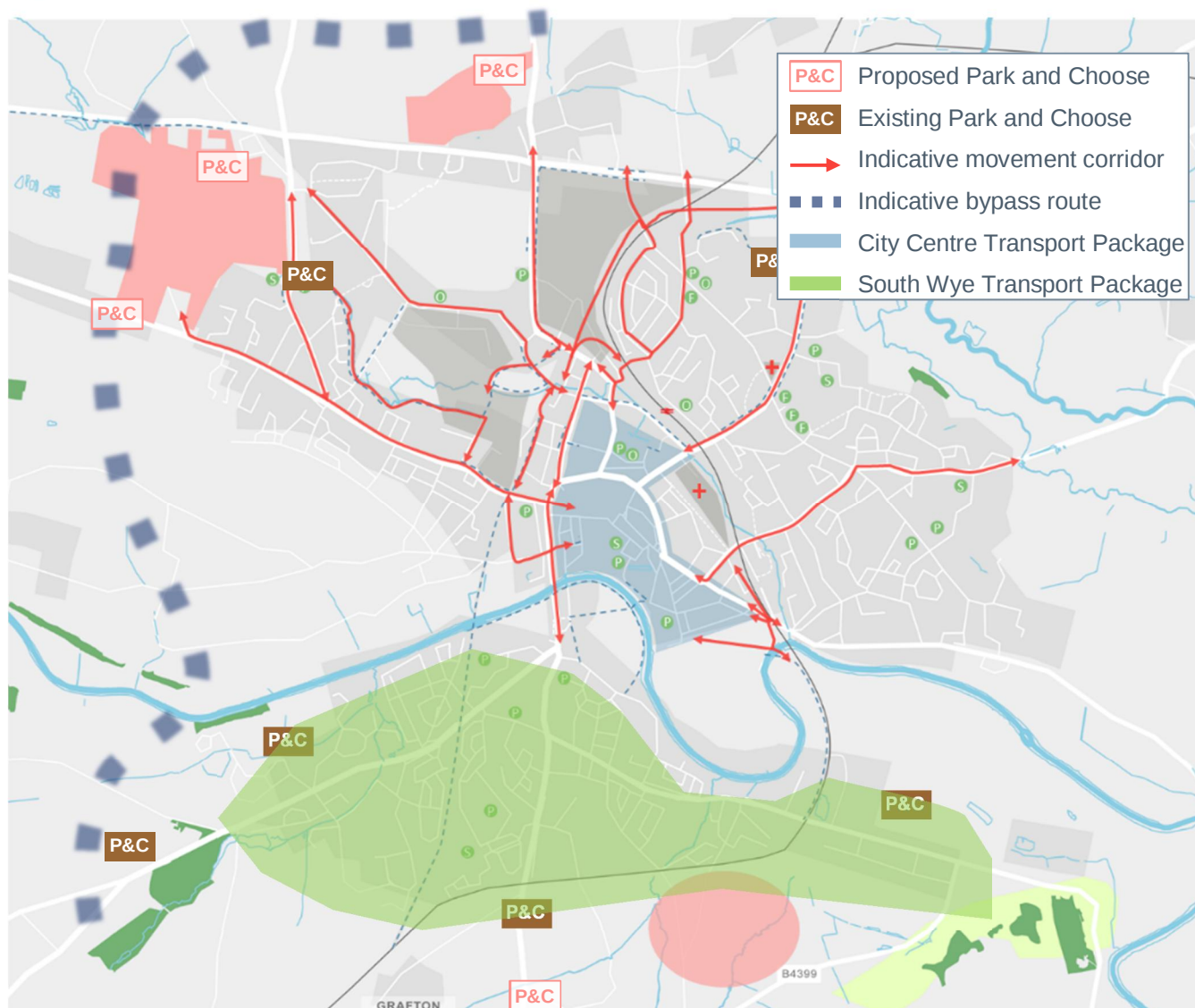


2.7 IDENTIFICATION AND DEVELOPMENT OF MOVEMENT CORRIDORS

OVERVIEW

- 2.7.1. To further develop the active travel improvements, 11 movement corridors have been identified. Identification of the movement corridors has been informed by the responses to the Phase 2 consultation and an understanding of the current and future situation in Hereford.
- 2.7.2. Traffic management improvements have been developed separately and these are discussed in Section 2.8. The movement corridors focus on the following five active travel improvement options:
- Better use of public space
 - Junction improvements for pedestrians, cyclists and bus users
 - Crossing improvements along and across main roads
 - Improved existing traffic free paths
 - New traffic free paths
- 2.7.3. An overview of the movement corridors is shown in Figure 10. Figure 10 also shows the geographical scope of the City Centre Transport Package and the South Wye Transport Package. The geographical scope of the HTP and the active travel improvements excludes these areas.
- 2.7.4. The WCHAR process and associated reports will cover the walking, cycling and horse-riding measures associated with the bypass corridor. Section 2.9 of this report sets out where the bypass is expected to interact with existing walking, cycling and horse riding routes. It also illustrates potential on and off-line opportunities to be addressed in the wider scheme development.

Figure 10 Location of movement corridors.



2.7.5. The coverage of the movement corridors is shown in Figure 10 and summarised as follows:

- College Road movement corridor
- A465 Aylestone Hill movement corridor
- A438 Ledbury Road movement corridor
- Greenway movement corridor
- A49 Victoria Street movement corridor
- A49 Edgar Street movement corridor
- Great Western Way movement corridor
- A438 Whitecross movement corridor
- Three Elms Road / Hurdman Walk movement corridor
- Grandstand Road movement corridor
- A49 Holmer Road movement corridor

2.7.6. There is some overlap of corridors where movement patterns and needs cross or merge. As shown in Figure 10 the movement corridors focus on improving connections to key destinations for the HTP, i.e. the city centre, Widemarsh employment, Holmer employment and towards the Hereford Enterprise Zone (HEZ).

2.7.7. The following sections set out the movement corridors in more detail, providing the following:

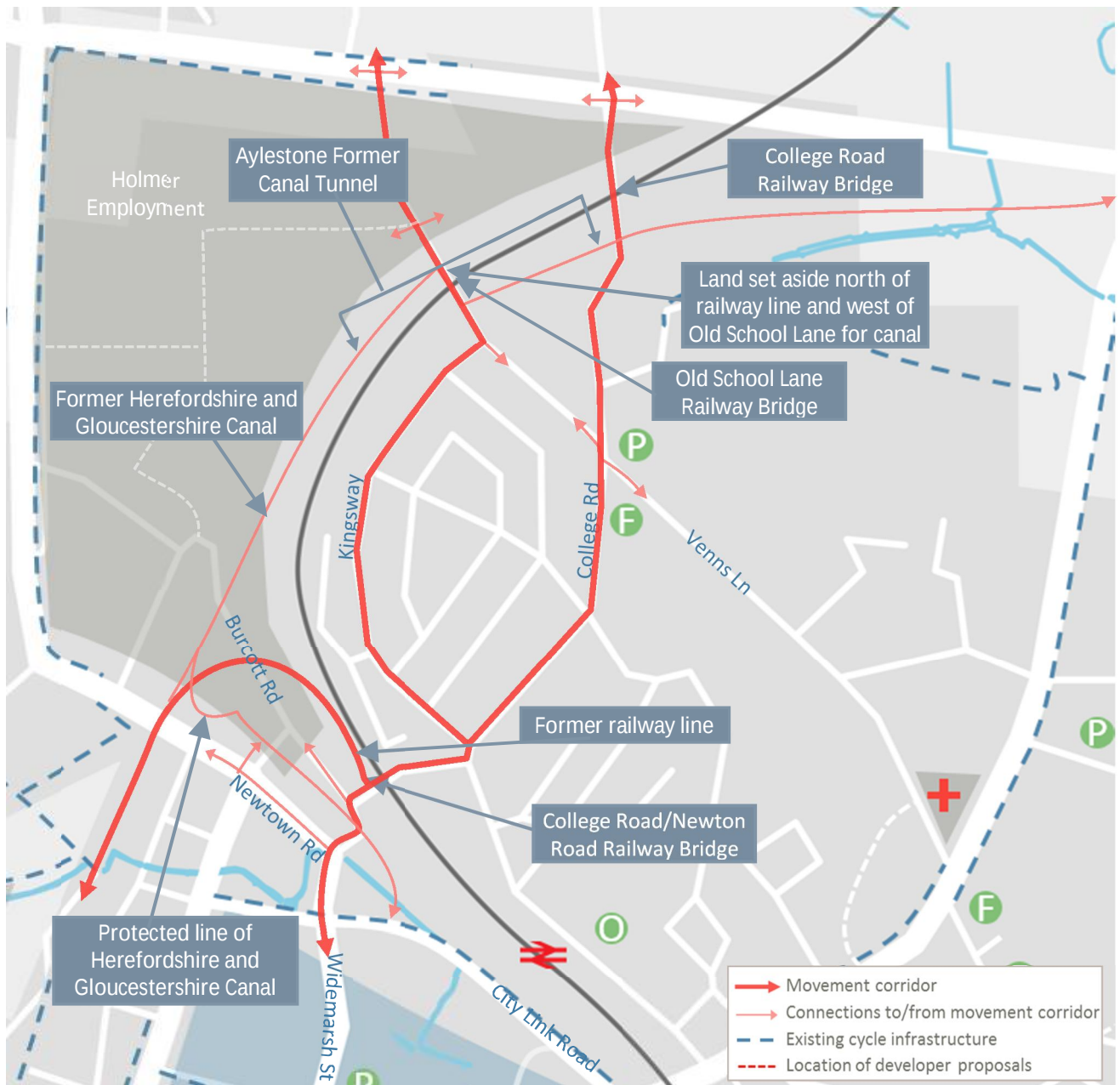
- An overview of the context and function of the movement corridor;
- Diagram showing the location of the movement corridor and connections to and from the movement corridor which will be considered;
- The key corridor considerations (i.e. what issues need to be addressed and what other proposals need to be considered);
- The improvements to consider; and
- The key risks and opportunities.

COLLEGE ROAD MOVEMENT CORRIDOR

Overview

- 2.7.8. The college road movement corridor considers movements between north Hereford and the city centre / the Great Western Way, as shown in Figure 11.
- 2.7.9. This movement corridor has been selected to address the severance caused by the railway line and to improve the safety of pedestrian and cycle movements across it.
- 2.7.10. There are links to the colleges to the east along Venns Lane toward the Aylestone Hill movement corridor.
- 2.7.11. This movement corridor considers improvements along the line of the former Herefordshire and Gloucestershire canal section through north-east Hereford and the former railway line near Newtown Road. These would connect the Great Western Way to the railway station area. There are currently limited pedestrian or cyclist facilities along parts of the canal where it has been restored at Aylestone Park. However, the line of the canal is protected from direct development other than that required for the restoration of the canal and provision of the towpath as a walking and cycling route. Where the former canal used a tunnel (between College Road and under Old School Lane), land for an over ground route has been reserved for the walking and cycling route.
- 2.7.12. This movement corridor connects with the following movement corridors:
 - A49 Edgar Street movement corridor
 - A49 Holmer Road movement corridor
 - Great Western Way movement corridor

Figure 11 College Road movement corridor.



Key Corridor Considerations

2.7.13. The improvements for this movement corridor need to:

- Reduce severance impacts caused by the railway line north of the city centre
- Improve connectivity between the city centre and Holmer employment over the railway line
- Tie into any proposals from other movement corridors which coincide with this corridor
- Tie into on-going works surrounding City Link Road and Station Approach

Improvements to Consider

2.7.14. The improvements to consider for this movement corridor include:

- New footways on Burcott Road (between railway bridge and Farriers Way)
- Pedestrian and cycle priority over side streets/accesses
- Advisory cycle lane on Burcott Road and railway bridge/s
- Signal controlled one-way working over railway bridge/s
- Shared use / segregated cycleway on College Road
- Redesign of Newtown Road / Widemarsh Street roundabout and Newtown Road / A49 Edgar Street (Pizza Hut) roundabout to make more compact and upgrade crossings
- New pedestrian cycle bridge/s over railway bridge(s)
- New path on former railway line with connections to existing network
- Proposed shared use route along the line of the former Herefordshire and Gloucestershire Canal

Risks and Opportunities

2.7.15. The key risks and opportunities which have currently been identified for this movement corridor are:

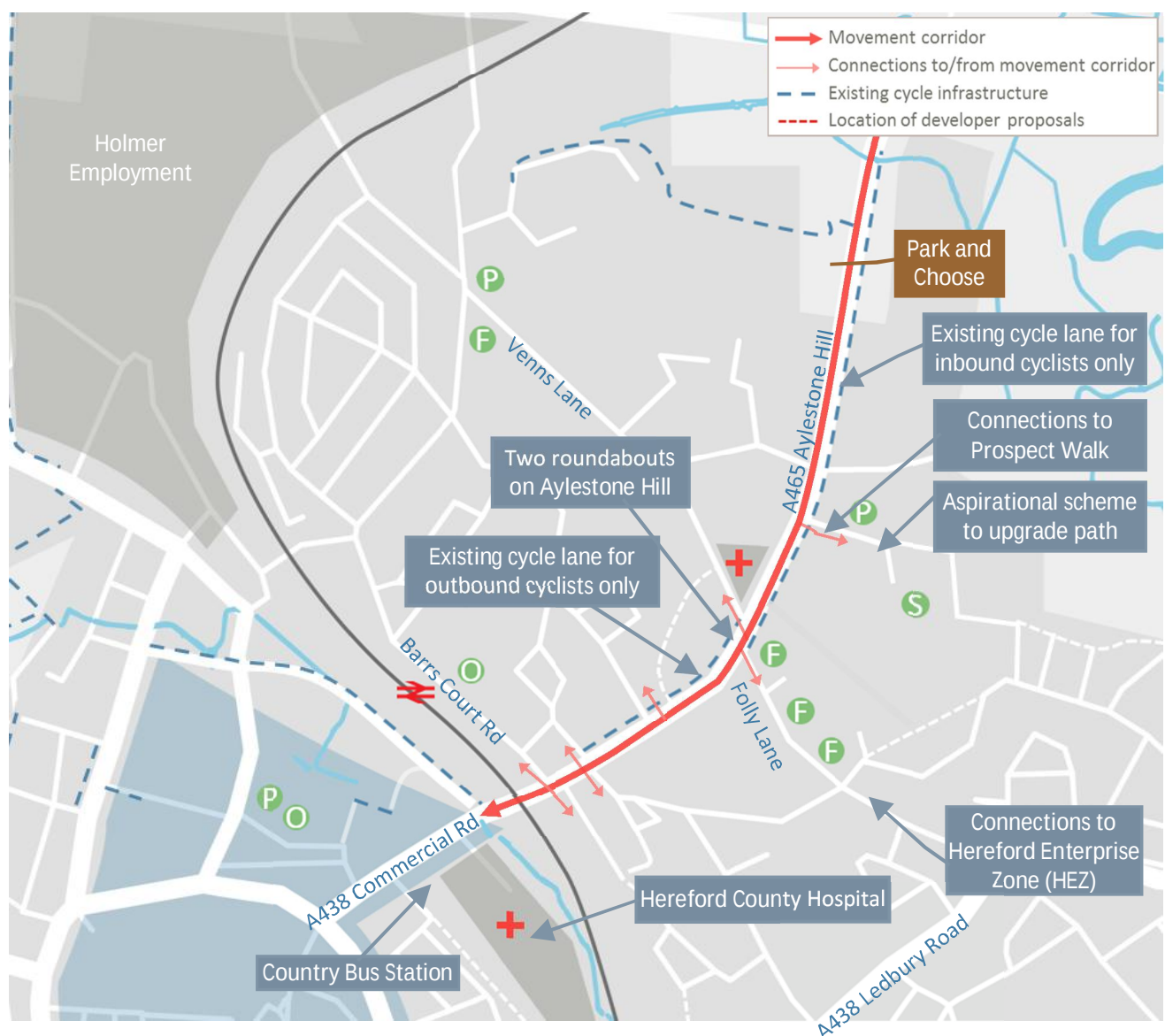
- Risk: Potentially high cost for upgrading path along canal – depending on condition of path and tunnel
- Risk: Running shared use path alongside live rail lines
- Risk: Environmental feasibility
- Risk: High cost and traffic impact in signalling railway bridge/s and redesigning Newton Road roundabout
- Opportunity: Delivery not dependent on bypass
- Opportunity: To coincide with Network Rail potential aspirations to replace Burcott Road railway bridge
- Opportunity: Collaboration with the group restoring the canal
- Opportunity: S106 contributions from developments alongside the canal

A465 AYLESTONE HILL MOVEMENT CORRIDOR

Overview

- 2.7.16. This movement corridor concerns movements along the A465 Aylestone Hill. Aylestone Hill serves as an arterial route connecting residential areas of north-east Hereford to the city centre, as shown in Figure 12.
- 2.7.17. There is a Park & Choose site at Aylestone Park and colleges and a secondary school are at the top of the hill. There is also potential to provide connections to Prospect Walk which is a walking and cycling link between Aylestone and Bishops secondary schools.
- 2.7.18. The corridor has been selected to improve connectivity and safety along the A465 and improve connections across the A465 for cyclists and pedestrians. Improvements to this movement corridor would benefit trips to the education establishments adjacent to Aylestone Hill.

Figure 12 A465 Aylestone Hill movement corridor.



Key Corridor Considerations

2.7.19. The improvements for this movement corridor need to:

- Improve connectivity and safety for cyclists and pedestrians between north-east Hereford and city centre / hospital / colleges / schools via the A465
- Improve connectivity and safety for cyclists and pedestrians across the A465
- Tie into on-going works surrounding City Link Road and Station Approach
- Tie into connections to Prospect Walk

Improvements to Consider

2.7.20. The improvements to consider for this movement corridor include:

- Widen existing cycle lanes / footways
- New shared use / segregated cycleway
- New / upgraded crossing provision over A465 and Venns Lane / Folly Lane double roundabout
- Pedestrian and cycle priority over side streets
- Removal of right turn lanes to accommodate bus priority / cycle lanes / wider footways

Risks and Opportunities

2.7.21. The key risks and opportunities which have currently been identified for this movement corridor are:

- Risk: Traffic impacts associated with improvements which involve reallocation of road space on A465
- Opportunity: Delivery not dependent on bypass
- Opportunity: Potential to utilise S106 from possible development north-east of Aylestone Hill
- Opportunity: Potential synergies with aspirational scheme to upgrade Prospect Walk

A438 LEDBURY ROAD MOVEMENT CORRIDOR

Overview

- 2.7.22. This movement corridor concerns movements along the A438 Ledbury Road which serves as an arterial route connecting residential areas of north-east Hereford and the city centre, as shown in Figure 13. The corridor has been selected to improve connectivity and safety along the A438 and improve connections across the A438 for cyclists and pedestrians.
- 2.7.23. This movement corridor connects with the Greenway movement corridor.

Figure 13 A438 Ledbury Road movement corridor.



Key Corridor Considerations

- 2.7.24. The improvements for this movement corridor need to:
- Improve connectivity and safety for cyclists and pedestrians between north-east Hereford and the city centre/colleges/schools/hospital via A438
 - Tie into planned works on St Owen's Street
 - Tie into connections to Prospect Walk
 - Tie into any proposals from other movement corridors which coincide with this corridor

Improvements to Consider

2.7.25. Improvements to consider for this movement corridor include:

- Widen footways
- New shared use/segregated cycleway / cycle lane
- New/upgraded crossings over A438
- Pedestrian and cycle priority over side streets and Tesco Express filling station
- Upgrade crossing provision at Hafod Road / A438 roundabout and redesign to compact roundabout
- New crossing facilities over A438 at junction with Central Avenue and Portfield Street
- Redesign of 5-arm signalised junction with Folly Lane

Risks and Opportunities

2.7.26. The key risks and opportunities which have currently been identified for this movement corridor are:

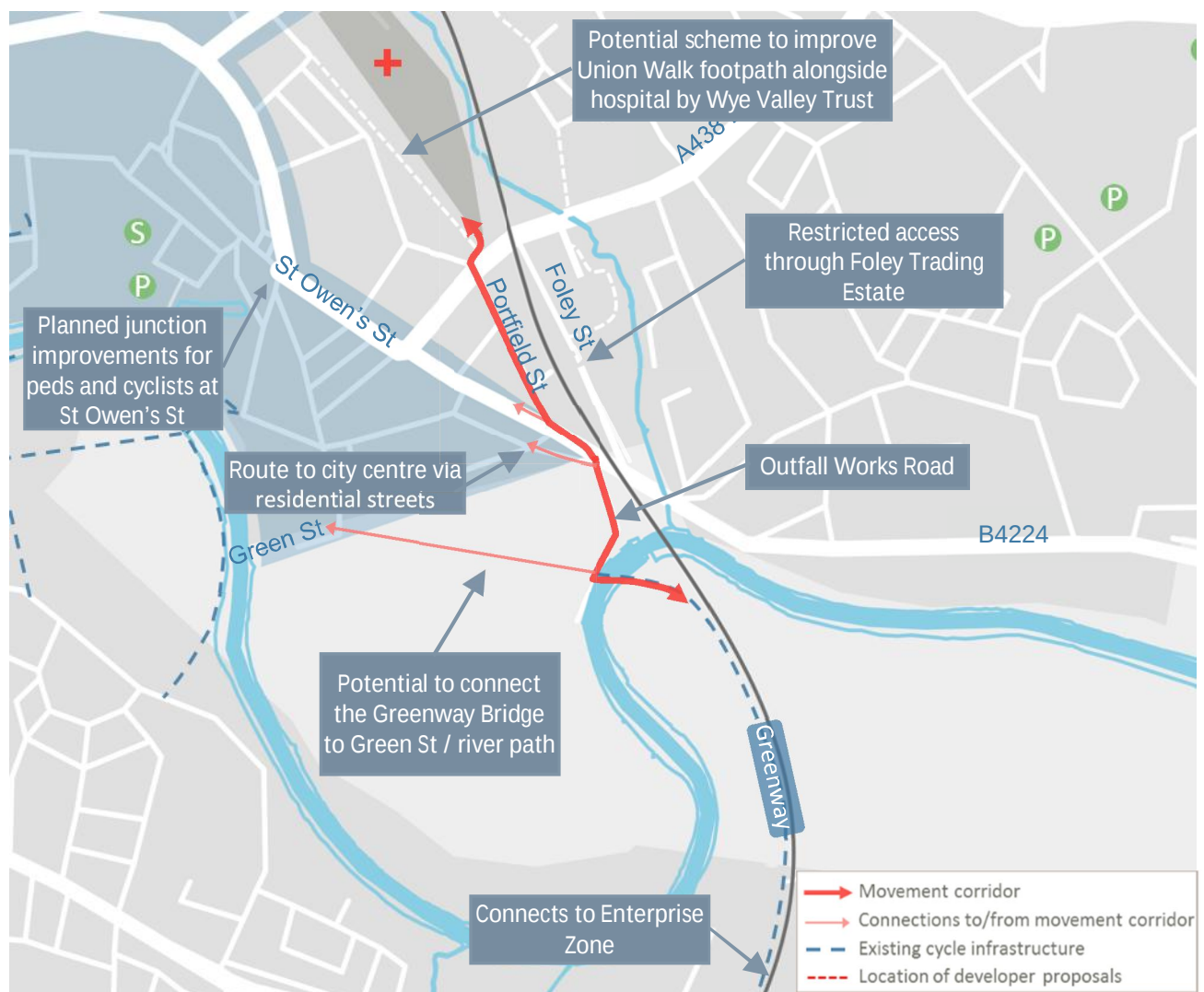
- Risk: Traffic impacts associated with improvements which involve reallocation of road space on A438
- Opportunity: Delivery not dependent on bypass

GREENWAY MOVEMENT CORRIDOR

Overview

- 2.7.27. The purpose of the Greenway movement corridor is to improve connections between the Greenway and the city centre/hospital and future university as shown in Figure 14. The Greenway currently provides a traffic free pedestrian and cycle route to Hereford Enterprise Zone with connections to the city centre via Crozen Lane or the B4224. Improvements just north of the A438 which connect the Greenway to the hospital would also benefit the A438 Ledbury Road movement corridor.
- 2.7.28. This movement corridor connects with the A438 Ledbury Road movement corridor.

Figure 14 Greenway movement corridor.



Key Corridor Considerations

- 2.7.29. The improvements for this movement corridor need to:
- Improve safety and route quality for cyclists and pedestrians between Greenway and city centre / hospital / future university
 - Tie into on-going works on St Owen's Street
 - Tie into any proposals from other movement corridors which coincide with this corridor
 - To tie into aspirational scheme by Wye Valley Trust to upgrade Union Walk footpath alongside hospital

Improvements to Consider

2.7.30. Improvements to consider for this movement corridor include:

- Footway on Outfall Work Road at junction with B4224
- Widen footways under railway bridge
- Shared use cycleway/cycle lane under railway bridge
- Signal controlled one-way working under railway bridge
- Ped/cycle provision through Foley Trading Estate
- New shared use path connecting from the Greenway Bridge to Green Street/river path

Risks and Opportunities

2.7.31. The key risks and opportunities which have currently been identified for this movement corridor are:

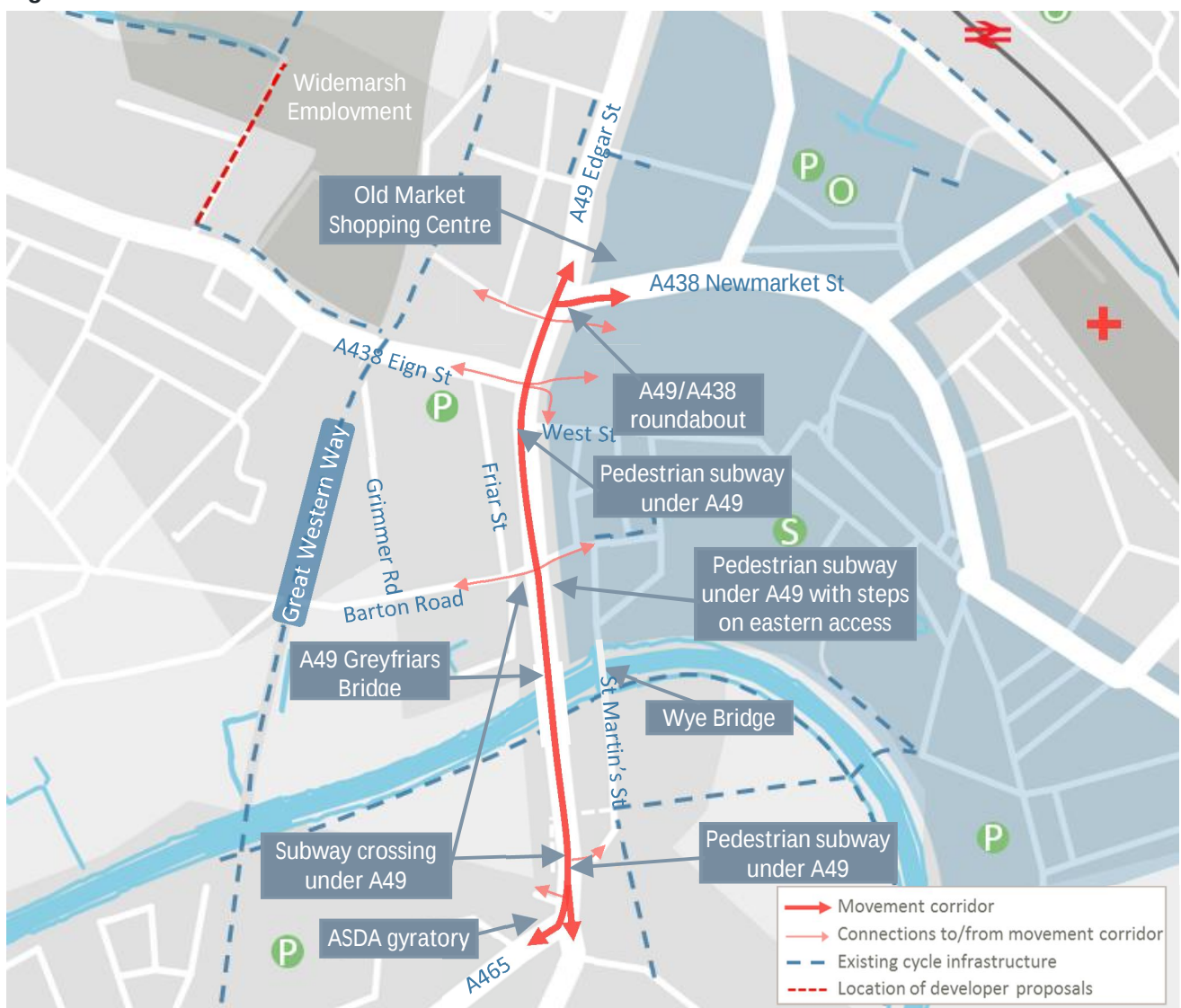
- Risk: Land ownership uncertainties for new path to city centre
- Risk: Continuity of route given land ownership of private road through Foley Trading Estate
- Risk: Traffic impact associated with signalising under bridge improvement
- Opportunity: Delivery not dependent on bypass

A49 VICTORIA STREET MOVEMENT CORRIDOR

Overview

- 2.7.32. The A49 Victoria Street movement corridor concerns the length of the A49 between ASDA gyratory and the A49 / A438 roundabout as shown in Figure 15.
- 2.7.33. The corridor has been selected to improve connectivity and safety along and across the A49 Victoria Street for cyclists and pedestrians.
- 2.7.34. Improvements for crossing the A49 would likely benefit the following movement corridors which connect the north-west of Hereford with the city centre across the A49:
- Great Western Way movement corridor
 - A438 Whitecross Road movement corridor
 - Three Elms Road / Hurdman Walk movement corridor

Figure 15 A49 Victoria Street movement corridor.



Key Corridor Considerations

2.7.35. The improvements for this movement corridor need to:

- Improve connectivity, safety and comfort along and across A49 Victoria St
- Reduce severance caused by the A49
- Consider improvements from South Wye Transport Package and Hereford City Centre Transport Package
- Tie into any proposals from other movement corridors which coincide with this corridor

Improvements to Consider

2.7.36. The Improvements to consider for this movement corridor include:

- Reduction of vehicle lanes for new cycle lane/bus lane/boulevard on A49
- Widen footways
- Signalise crossing facilities at A49/Barton Road junction
- Cycle priority at A49/Barton Road e.g. advanced green signal for cycles
- New crossing/continuous footway over West Street
- Redesign of ASDA gyratory, A438 Eign Street/A49 junction and A49/A438 roundabout to improve accessibility for pedestrians and cyclists and bus priority
- Provide new crossing over A49 at Eign Street and/or Portland Street
- Shared use path on eastern side of A49 between West Street and Newmarket Street

Risks and Opportunities

2.7.37. The key risks and opportunities which have currently been identified for this movement corridor are:

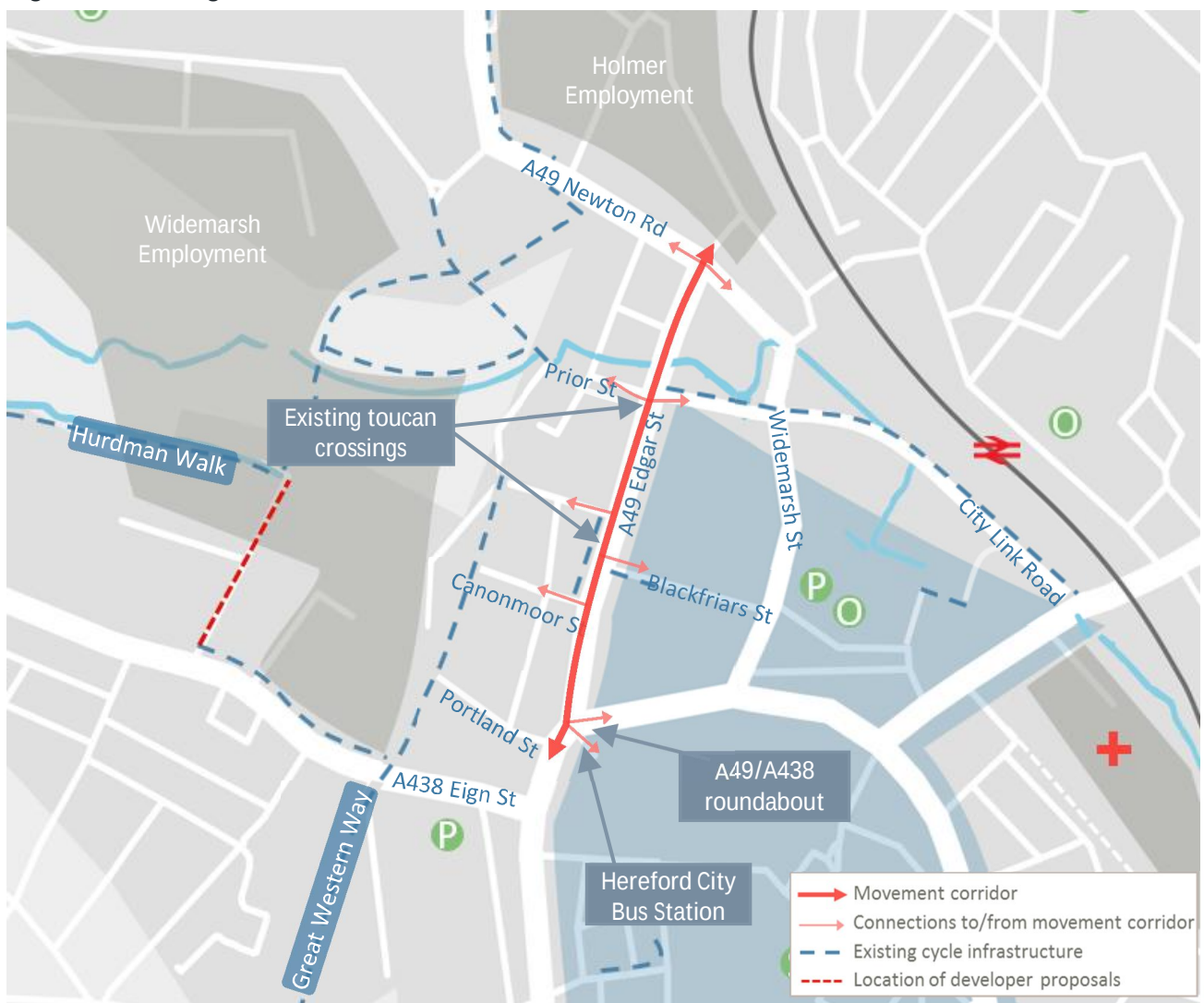
- Risk: Potential improvements on Portland Street may be limited by highway boundary
- Risk: High costs and traffic impacts associated with redesign of ASDA gyratory and signal changes at Barton Road junction
- Opportunity: Potential ability to influence route choice for cross city movements

A49 EDGAR STREET MOVEMENT CORRIDOR

Overview

- 2.7.38. The A49 Edgar Street movement corridor concerns the length of the A49 between the A49 / A438 roundabout and Newtown Road / Edgar Street roundabout as shown in Figure 16.
- 2.7.39. The corridor has been selected to improve safety and journey quality along and across the A49 Edgar Street for cyclists and pedestrians.
- 2.7.40. This corridor ties in to the A49 Holmer Road corridor and College Road corridor to the north and A49 Victoria Street corridor to the south. Improvements for crossing the A49 would likely benefit the following movement corridors which connect the north-west of Hereford with the city centre across the A49:
- Great Western Way movement corridor
 - A438 Whitecross Road movement corridor
 - Three Elms Road / Hurdman Walk movement corridor

Figure 16 A49 Edgar Street movement corridor.



Key Corridor Considerations

2.7.41. The improvements for this movement corridor need to:

- Improve connectivity, safety and journey quality along and across the A49
- Improve connectivity to Great Western Way
- Tie in with City Link Road scheme
- Support pedestrian movements to the bus station
- Tie into any proposals from other movement corridors which coincide with this corridor

Improvements to Consider

2.7.42. Improvements to consider for this movement corridor include:

- Major redesign of A438 / A49 roundabout to prioritise pedestrian, bus (and cycle) movements
- Pedestrian and cycle priority over side streets
- Reduction of vehicle lanes for new cycle lane/bus lane/boulevard on A49
- Widen footways on A49
- Extend/widen shared use
- New crossings at junction with Blackfriars St

Risks and Opportunities

2.7.43. The key risks and opportunities which have currently been identified for this movement corridor are:

- Risk: Potential improvements on Portland Street may be limited by highway boundary
- Risk: High costs associated with redesign of A49/A438 Roundabout
- Opportunity: Potential ability to influence route choice for cross city movements at A49/A438 roundabout

GREAT WESTERN WAY MOVEMENT CORRIDOR

Overview

- 2.7.44. The Great Western Way is a highly used pedestrian and cycle path which runs along a former railway corridor. Designed in the 1980's and 90s the route would benefit from upgrading to reflect current standards, particularly at the access junctions at Portland Street, Canonmoor Street, Penhaligon Way, Moor Walk and Barton Yard. It runs parallel to the A49 and provides an additional river crossing opportunity for pedestrians and cyclists only as shown in Figure 17. The purpose of the Great Western Way movement corridor is to improve journey quality along the corridor and improve connectivity to and from the corridor.
- 2.7.45. This movement corridor connects with the following movement corridors:
- College Road movement corridor
 - A49 Edgar Street movement corridor
 - A49 Victoria street movement corridor
 - A438 Whitecross Road movement corridor
 - Three Elms Road / Hurdman Walk movement corridor
 - Grandstand Road movement corridor
 - A49 Holmer Road movement corridor

Figure 17 Great Western Way movement corridor.



Key Corridor Considerations

2.7.46. The improvements for this movement corridor need to:

- Improve connectivity, comfort and journey quality along and to/from the Great Western Way
- Tie into connections to the City Link Road, the city centre and employment areas
- Tie into any proposals from other movement corridors which coincide with this corridor

Improvements to Consider

2.7.47. Improvements to consider for this movement corridor include:

- Improved lighting and surfacing on Great Western Way and access ramps
- Provide paths to / from Great Western Way that align with where people want to travel
- Improvements to access points at Portland Street / Canonmoor Street, Penhaligon Way, Moor Walk and Barton Yard
- Widen foot/cycle path

Risks and Opportunities

2.7.48. The key risks and opportunities which have currently been identified for this movement corridor are:

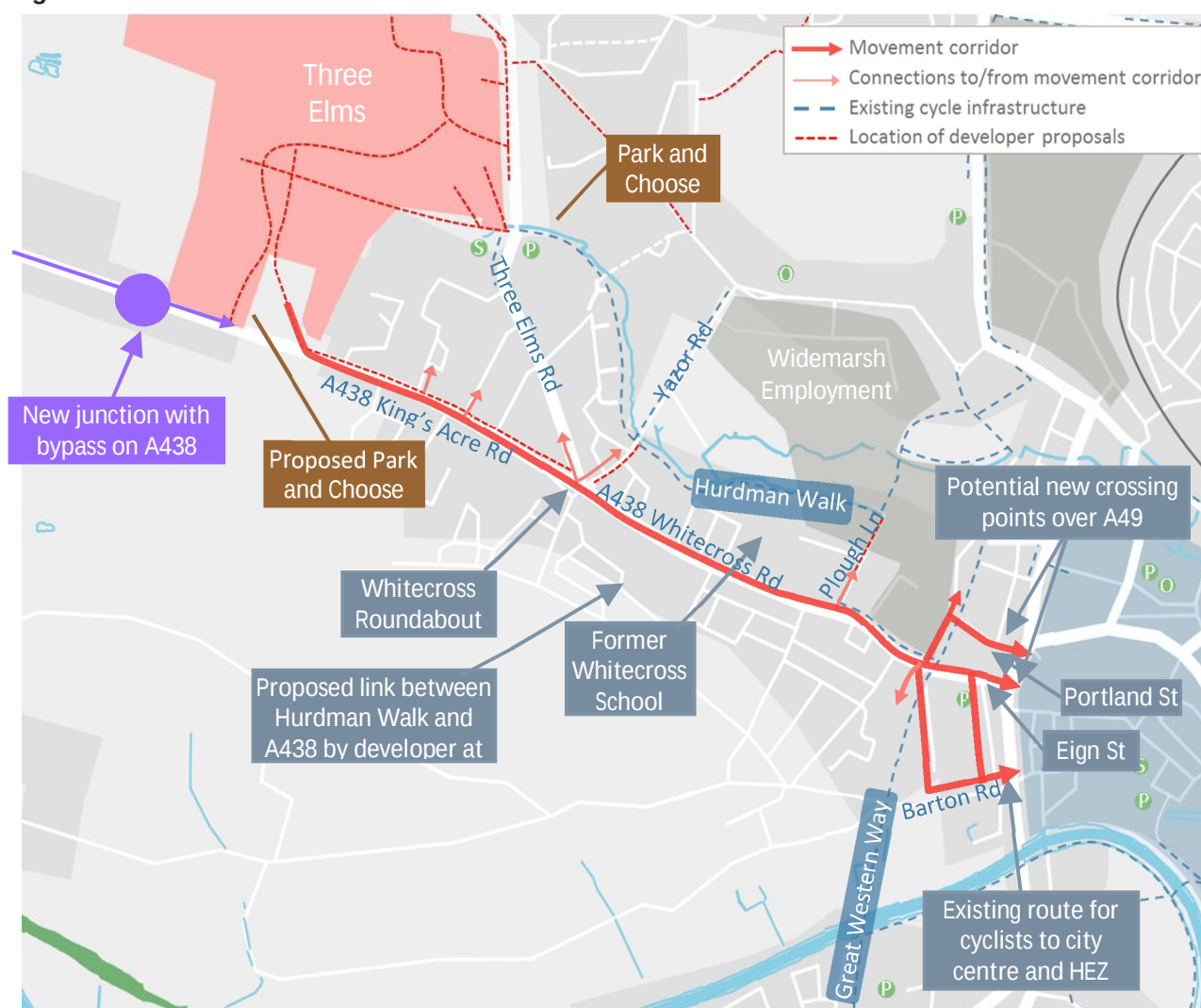
- Risk: Potential improvements on Portland Street may be limited by highway boundary
- Opportunity: Delivery not dependent on bypass

A438 WHITECROSS MOVEMENT CORRIDOR

Overview

- 2.7.49. This movement corridor concerns movements along and across the A438 King's Acre Road / Whitecross Road / Eign Street as shown in Figure 18.
- 2.7.50. The A438 connects residential areas in north-west Hereford and the city centre. The A438 separates the wider Whitecross residential area from the Widemarsh employment area. The corridor has been selected to improve connectivity and safety along the A438 and improve connections across the A438 for cyclists and pedestrians.
- 2.7.51. There are developer proposals for improvements on the A438 and adjoining streets as set out in Section 2.6 which will be taken into consideration.
- 2.7.52. Improvements for crossings over the A49 to connect to the city would also benefit the following corridors which connect to this corridor:
 - A49 Victoria Street movement corridor
 - Great Western Way movement corridor
 - Three Elms Road / Hurdman Walk movement corridor

Figure 18 A438 Whitecross Road movement corridor.



Key Corridor Considerations

2.7.53. The improvements for this movement corridor need to:

- Improve connectivity, safety and priority between Whitecross / Kings Acre Road area and city centre/employment via A438
- Improve connectivity to Great Western Way and Hurdman Walk
- Tie in to links to the new Whitecross School and the development on the former Whitecross School at Baggallay Street
- Tie in with Three Elms developer proposals including Park and Choose sites
- Ensure continuity with any pedestrian, cycle or horse-riding measures associated with bypass
- Tie into any proposals from other movement corridors which coincide with this corridor

Improvements to Consider

2.7.54. Improvements to consider for this movement corridor include:

- Redesign of A49/A438 roundabout and A49/A438 Eign Street junction to improve accessibility for pedestrians and cyclists and bus priority
- Provide new crossing over A49 at Eign Street and/or Portland Street
- Cycle priority at A49/Barton Road junction e.g. advanced green signal for cycles
- Potential contraflow cycle lane on Friar Street
- Cycle lane/shared use on Plough Lane
- Shared use route on A438 between Plough Lane and Whitecross Roundabout
- Widening of A438 footway between Plough Lane and Bricknell Close
- Pedestrian and cycle priority over side streets
- New crossings over A438

Risks and Opportunities

2.7.55. The key risks and opportunities which have currently been identified for this movement corridor are:

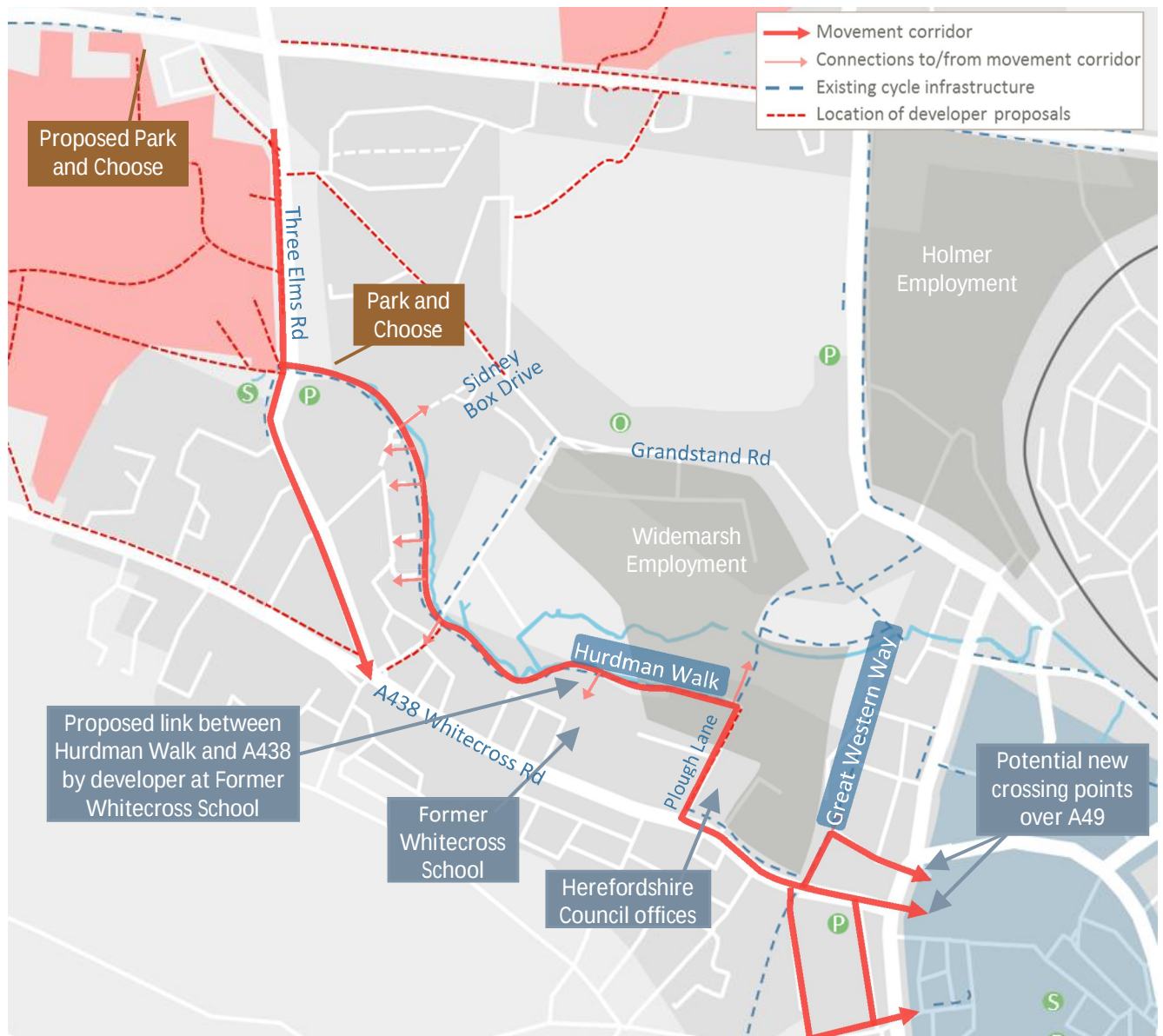
- Risk: Uncertainty of developer proposals
- Risk: High costs associated with realignment of A438 carriageway to accommodate continuous shared use route
- Risk: High costs and traffic impact associated with redesign of A49/A438 Eign St junction
- Risk/Opportunity: Phasing of bypass, Three Elms development and corridor scheme delivery
- Opportunity: To tie into a proposed link between A438 Whitecross Road and Hurdman Walk which has Section 106 funding associated with the development of the former Whitecross School Site

THREE ELMS ROAD / HURDMAN WALK MOVEMENT CORRIDOR

Overview

- 2.7.56. This movement corridor concerns movements between north-west Hereford and the city centre via the Three Elms Road and Hurdman Walk as shown in Figure 19.
- 2.7.57. Hurdman Walk is a traffic free pedestrian and cycle path which runs alongside Yazor Brook between Three Elms Road and Plough Lane. There is a Park and Choose facility at the western end of Hurdman Walk. The purpose of this movement corridor is to improve journey quality along the corridor and improve connectivity to and from the corridor.
- 2.7.58. There are developer proposals for improvements on the A438 Plough Lane as set out in Section 2.6, which will be taken into consideration.
- 2.7.59. Improvements to the footpath between Grandstand Road and Hurdman Walk would also benefit the Three Elms Road / Hurdman Walk corridor.
- 2.7.60. Improvements for crossings over the A49 to connect to the city would also benefit the following corridors:
 - A49 Victoria Street movement corridor
 - A438 Whitecross movement corridor
 - Great Western Way movement corridor

Figure 19 Three Elms Road / Hurdman Walk movement corridor.



Key Corridor Considerations

2.7.61. The improvements for this movement corridor need to:

- Improve connectivity and journey quality between north-west Hereford and the city centre/Widemarsh employment area via Three Elms Road and Hurdman Walk
- Improve connections to Great Western Way and Hurdman Walk
- Tie in with Three Elms developer proposals including Park and Choose sites
- Consider any pedestrian and cycle proposals associated with bypass development
- Tie into any proposals from other movement corridors which coincide with this corridor

Improvements to Consider

2.7.62. Improvements to consider for this movement corridor include:

- Extend proposed shared use on Three Elms Road through to access to Hurdman Walk
- Widen Hurdman Walk
- Upgrade/widen paths between Hurdman Walk and Grandstand Road/Widemarsh employment, such as the path connecting to Sidney Box Drive
- Cycle lane/shared use on Plough Lane

Risks and Opportunities

2.7.63. The key risks and opportunities which have currently been identified for this movement corridor are:

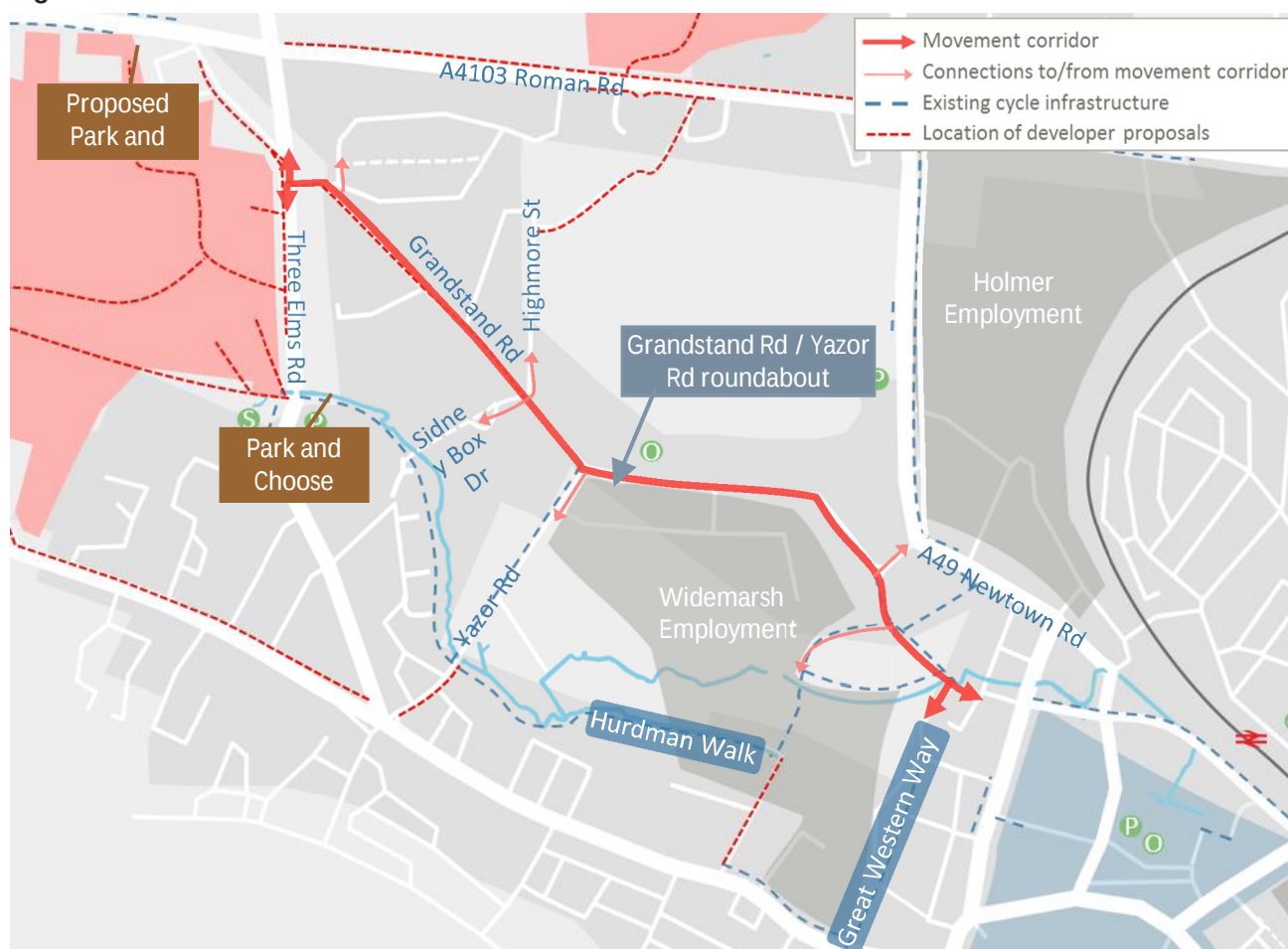
- Risk: Uncertainty of developer proposals
- Risk: Compatibility with and extent of Three Elms developer proposals
- Opportunity: Three Elms developer funding
- Opportunity: Section 106 funding is available to widen Hurdman Walk
- Opportunity: To tie into a proposed link between A438 Whitecross Road and Hurdman Walk which has Section 106 funding associated with the development of the former Whitecross School Site
- Opportunity: To utilise S106 funding for walking/cycling schemes at Sidney Box Drive and Hurdman Walk

GRANDSTAND ROAD MOVEMENT CORRIDOR

Overview

- 2.7.64. This corridor concerns movements between north-west Hereford and the city centre via Grandstand Road as shown in Figure 20.
- 2.7.65. The purpose of this movement corridor is to improve connectivity between north-west Hereford and Widemarsh employment area and the Great Western Way.
- 2.7.66. Improvements to the footpath between Grandstand Road and Hurdman Walk would also benefit the Three Elms Road / Hurdman Walk corridor.
- 2.7.67. This movement corridor connects to the following movement corridors:
 - College Road movement corridor
 - Great Western Way movement corridor
 - A49 Holmer Road movement corridor

Figure 20 Grandstand Road movement corridor.



Key Corridor Considerations

- 2.7.68. The improvements for this movement corridor need to:
 - Improve connectivity and safety between north-west Hereford and employment via Grandstand Road
 - Connect to the Great Western Way for onward connections to city centre / Hereford City Link Road
 - Tie in with Three Elms developer proposals
 - Improve quality of connections to Great Western Way and Hurdman Walk

- Consider any pedestrian and cycle proposals associated with bypass development
- Tie into any proposals from other movement corridors which coincide with this corridor

Improvements to Consider

2.7.69. Improvements to consider for this movement corridor include:

- New crossings at Grandstand Road/Yazor Road roundabout
- Widen footway
- New shared use/segregated cycleway/ cycle lane on Grandstand Road
- Upgrade/widen paths between Grandstand Road and Great Western Way/Hurdman Walk
- Improve crossings at Highmore Street / Sidney Box Drive junction

Risks and Opportunities

2.7.70. The key risks and opportunities which have currently been identified for this movement corridor are:

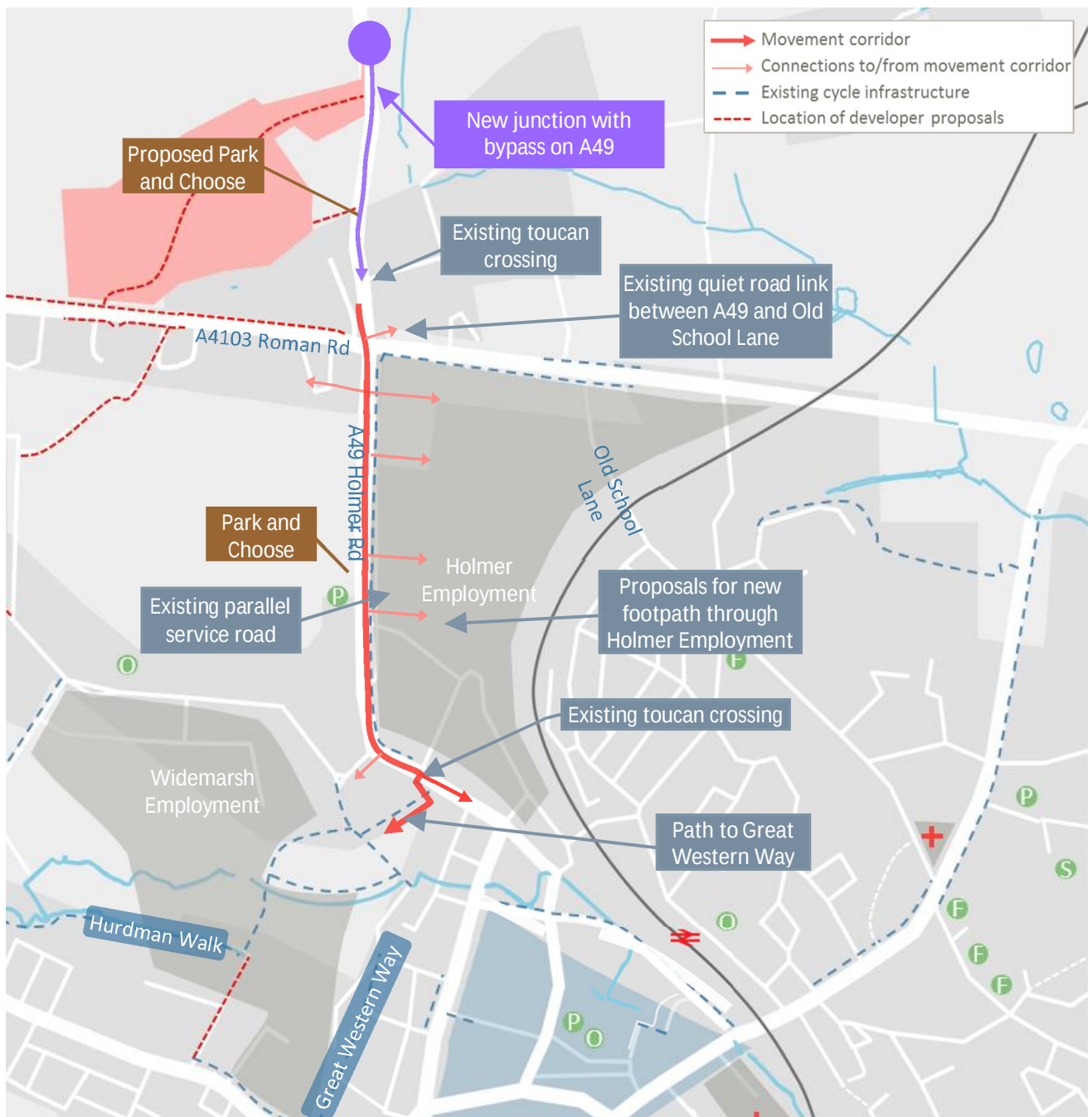
- Risk: Uncertainty of developer proposals and timing of delivery
- Opportunity: To phase some of the improvements ahead of bypass delivery
- Opportunity: To connect with S106 improvements on upgrade of racecourse footpath
- Opportunity: To utilise S106 funding for walking/cycling schemes at Highmore Street/Grandstand Road, Sidney Box Drive and Hurdman Walk, and the junction of Grandstand Road/Yazor Road from Holmer West SUE developer
- Risk/Opportunity: Phasing of bypass, Three Elms development and corridor scheme delivery

A49 HOLMER ROAD MOVEMENT CORRIDOR

Overview

- 2.7.71. The A49 movement corridor concerns the length of the A49 between the A49 / A4103 roundabout and Newtown Road / Edgar Street roundabout as shown in Figure 21.
- 2.7.72. The corridor runs along the border of the Holmer employment area and connects the employment to the Great Western Way and onto A49 Edgar Street. The corridor will also serve future movements from the Holmer West SUE to the city centre.
- 2.7.73. Links to the east of this roundabout would also benefit the College Road corridor.

Figure 21 A49 Holmer Road movement corridor.



Key Corridor Considerations

2.7.74. The improvements for the movement corridor need to:

- Improve continuity, safety and priority for cyclists and pedestrians between Holmer/Holmer West SUE and city centre/employment
- Improve connections to Great Western Way, Hurdman Walk and Grandstand Road
- Tie in to Holmer West developer proposals including the Park and Choose site and existing cycle route on A4103 eastbound
- Ensure continuity with any pedestrian, cycle or horse-riding measures associated with the bypass
- Tie into any proposals from other movement corridors which coincide with this corridor

Improvements to Consider

2.7.75. Improvements to consider for this movement corridor include:

- New/upgraded crossing provision at A49 / A4103 roundabout
- Widen/enhance existing shared use route
- Priority over side streets
- Extend cycling provision alongside A49 Holmer Road to entrance to SUE on A49

Risks and Opportunities

2.7.76. The key risks and opportunities which have currently been identified for this movement corridor are:

- Risk: High costs for upgrading crossing provision at A49 / A4103 roundabout
- Risk: Dependency of improvements at A49 / A4103 roundabout on bypass
- Opportunity: To tie into new footpath to be provided through Holmer Employment through work with various land owners.
- Opportunity: To connect to existing Park and Choose at Aylestone Park

2.8 DEVELOPMENT OF TRAFFIC MANAGEMENT

2.8.1. The development of the traffic management improvements is set out in Table 3.

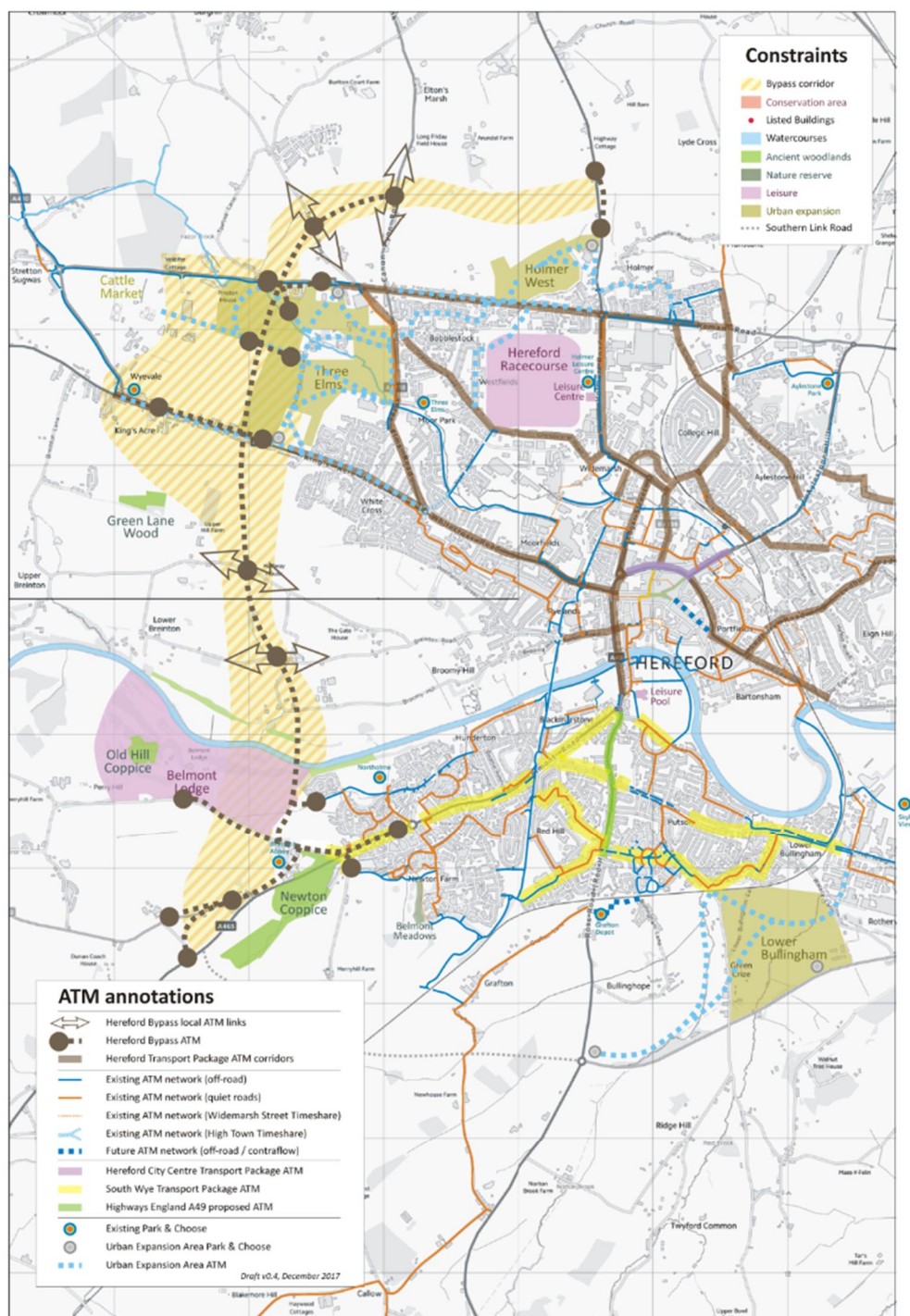
Table 3 Development of traffic management improvements.

Traffic management option	Purpose	Key risks/opportunities
HGV restrictions within central Hereford	To reduce HGV traffic through the city centre, particularly through the AQMA	Maintaining local deliveries and supporting businesses Enforcement capabilities
20mph speed limit on all streets north of the River Wye	To reduce traffic speeds to improve pedestrian/cycle comfort and safety.	Enforcement capabilities
Intelligent Transport Systems	To manage traffic demand through Hereford through intelligent transport systems	Technology advancements

2.9 INTERACTIONS WITH BYPASS

- 2.9.1. Integration of measures to enable the use of active travel modes alongside and across the bypass route will be a key part of the design for the scheme and will be developed as part of the next stage of scheme development in accordance with the WCHAR.
- 2.9.2. Figure 22 shows the bypass corridor in the context of Hereford and its existing active travel network. It illustrates a number of interactions along with opportunities to improve connections for walking, cycling and horse riding, both on-line and off-line.
- 2.9.3. The WCHAR process set out in HD 42/17 is a requirement for schemes impacting on the motorway and trunk road network. The process will consider dedicated walking and cycling facilities within the limits of the bypass or in areas outside/parallel to the bypass alignment. It will also consider and provide for where the bypass interacts with the existing highway and Public Right of Way network.
- 2.9.4. The bypass will create new junctions with the A465 Belmont Road A483 Kings Acre Road, A4103 Roman Road and A49 north of Hereford. The design of these junctions will take account of the need to ensure maximum connectivity for walking and cycling. The walking, cycling and horse-riding measures associated with the bypass will be developed to tie in with movement corridors, in particular the A438 Whitecross Road and A49 Holmer Road movement corridors, complementing the active travel improvements within Hereford.
- 2.9.5. Further detail on the WCHAR Guidance and its application to HTP is set out in Appendix A.

Figure 22 – Areas for consideration of walking, cycling and horse riding

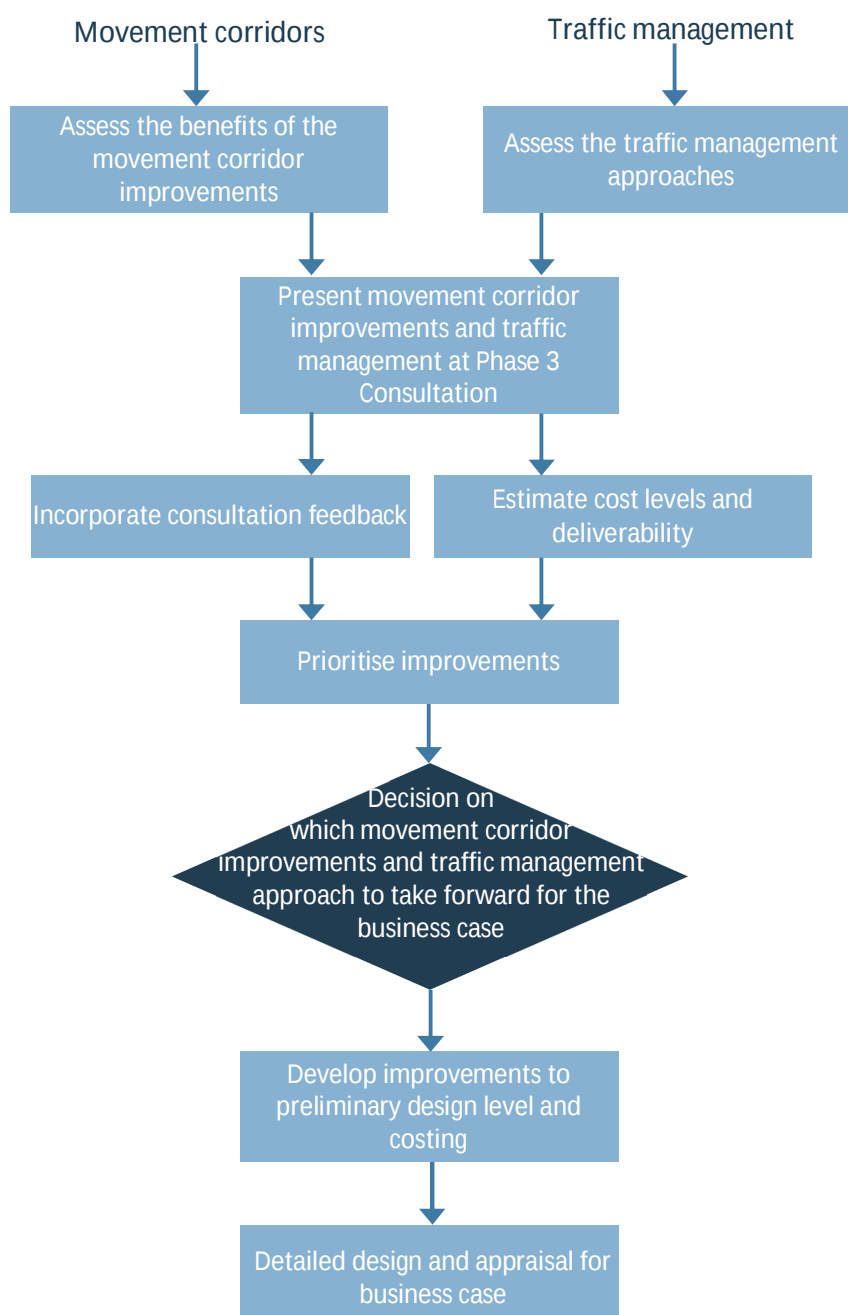


3 NEXT STEPS

3.1 OVERVIEW

- 3.1.1. This section outlines the next steps from developing the movement corridors and traffic management to informing the outline business case. The next steps are summarised in Figure 23 and described in more detail in the following sections.
- 3.1.2. The development of the active travel improvements form a key part of the development of the overall HTP and the business case for the whole scheme. Provision of improvements for active travel within the city and walking, cycling and horse-riding measures associated with the bypass route itself will make a significant contribution to achieving the overall benefits for Hereford.

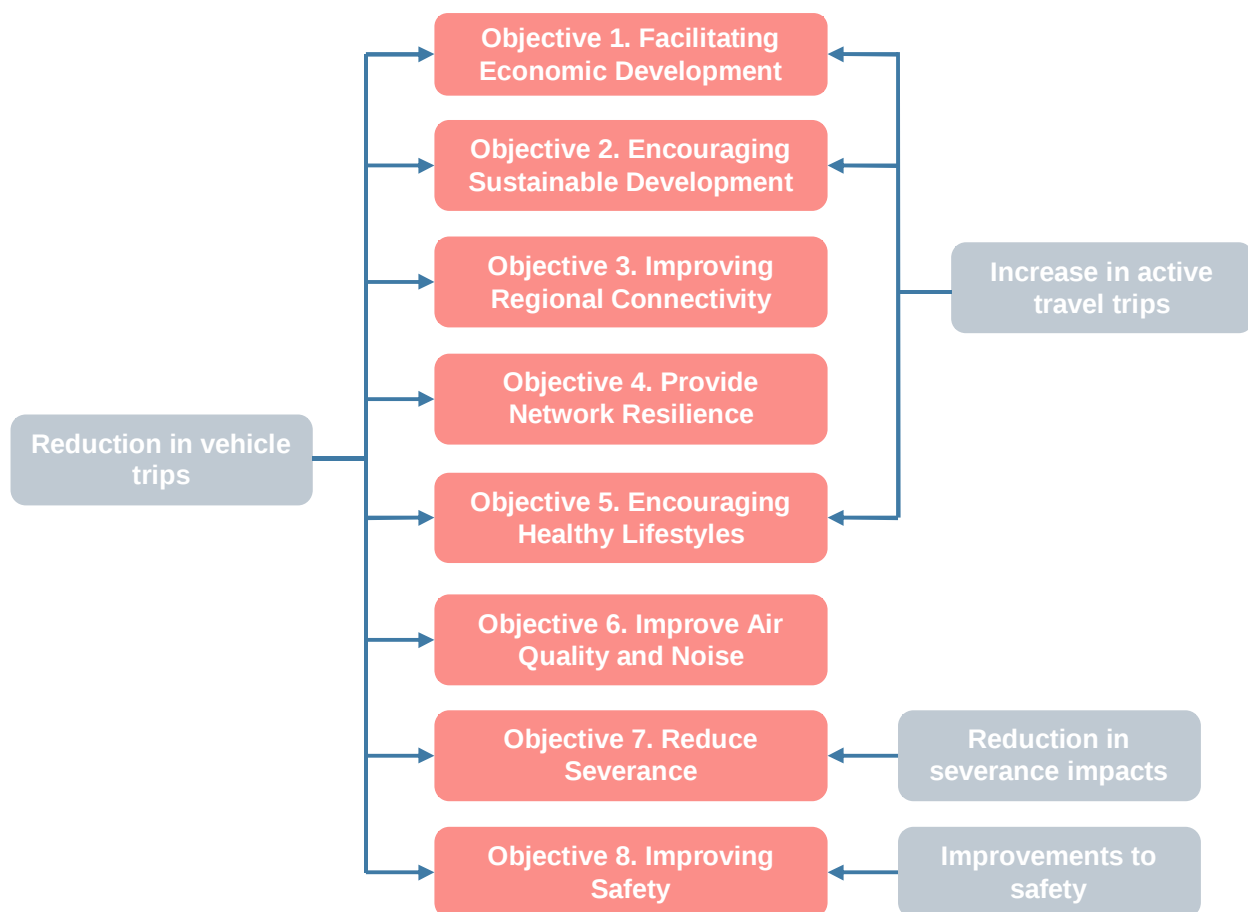
Figure 23 Next steps for developing the active travel improvements within Hereford.



3.2 ASSESS BENEFITS OF THE MOVEMENT CORRIDOR IMPROVEMENTS

- 3.2.1. The next stage for the active travel improvements is to assess the benefits of the movement corridor improvements.
- 3.2.2. The improvements will be assessed against four assessment areas which have been identified based on the objectives for HTP and an understanding of the existing and future situation in Hereford.
- 3.2.3. The four assessment areas are:
- Potential to increase active travel trips
 - Potential to reduce vehicle trips
 - Potential to reduce severance impacts
 - Potential to improve safety
- 3.2.4. Figure 24 demonstrates how these assessment areas relate to the HTP objectives. Further details on the HTP objectives are provided in Section 2.3.

Figure 24 Demonstration of how assessment areas relate to HTP objectives.



- 3.2.5. Section 2.4 sets out how the five active travel improvement options have been assessed using the EAST and OAF WebTAG processes. This assessment of the benefits is to be undertaken to inform the prioritisation process and the decision on which movement corridor improvements will be taken through to the business case. It is therefore not necessary for them to be re-assessed again using EAST or OAF appraisal criteria.
- 3.2.6. The proposed approach for assessing and scoring the movement corridor improvements against the four assessment areas is outlined below. Details of the methodology will be developed and agreed with Herefordshire Council.

PROPOSED APPROACH FOR ASSESSMENT AREAS

- 3.2.7. An increase in active travel trips will comprise of new trips and trips previously made by motor vehicle. A reduction in vehicle trips is considered to be due to trips previously made by motor vehicle switching to active travel modes or no longer being made.
- 3.2.8. The potential to increase active travel trips will be based on the following:
- a) How well the improvements connect key existing and future destinations
 - b) The size of the catchment population (i.e. the number of people who can make use of the improvement)
 - c) How likely the type of infrastructure and design is to encourage additional walking, cycling and public transport trips
- 3.2.9. The potential to reduce vehicle trips will be based on the following:
- a) How well the improvements connect key existing and future destinations
 - b) The size of the catchment population (i.e. the number of people who can make use of the improvement)
 - c) How likely the type of infrastructure and design is to encourage additional walking, cycling and public transport trips
 - d) To what degree the improvements connects origins and destinations where there are high levels of vehicle trips
- 3.2.10. A relative and quantitative assessment will be carried out to identify where there are origin-destination trips which have a high level of vehicle trips. This will be based on the Highway Assignment Model and be presented using a Geographic Information System (GIS). The top destinations for vehicle trips in Hereford will be identified using model data for the 2031 Do Something scenario. An analysis will then be undertaken to evaluate where the majority of the trips are originating.
- 3.2.11. A relative and qualitative assessment will be undertaken of the movement corridor improvements potential to reduce severance impacts and improve safety.

3.3 PHASE 3 CONSULTATION

- 3.3.1. The third phase of the consultation will present:
- The movement corridor improvements and the expected benefits based on the assessment described in Section 3.2
 - The traffic management improvements and the expected benefits
 - Walking and cycling facilities associated with the bypass, as described in Section 2.9
- 3.3.2. The consultation will be an opportunity to obtain feedback on the improvements and identify which improvements are most supported. This will be undertaken through the consultation questionnaire by asking which improvements respondents support/don't support.

3.4 COST LEVELS AND DELIVERABILITY

- 3.4.1. The cost level of the improvements will be estimated and categorised into an appropriate number of simple cost ranges, to be agreed. For example <£100k <£0.1-1m, £1-5m, £5-10m, £10-20m, and >£20m.
- 3.4.2. Cost levels will be identified for individual improvements on the basis that some could be included in a number of movement corridors. The costs will be aggregated to provide comparative cost levels for each movement corridor.
- 3.4.3. A qualitative assessment of the deliverability of each movement corridor improvement will also be undertaken. This will include consideration of dependencies and timescales.

3.5 PRIORITISE IMPROVEMENTS

- 3.5.1. The movement corridor improvements will be ordered from best performing to worst performing based on the following:
- Assessment of benefits of improvements (see Section 3.2)
 - Cost level of improvements (see Section 3.4)
 - Deliverability of improvements (see Section 3.4)

3.5.2. The deliverability of improvements will take into consideration the level of public support demonstrated through Phase 3 consultation questionnaire (see Section 3.3).

3.5.3. Details of the methodology for ordering the improvements will be provided and agreed with Herefordshire Council.

3.6 DECISION FOR BUSINESS CASE

3.6.1. A decision will need to be made by Herefordshire Council on which movement corridor improvements will be taken forward to the business case. The decision will be informed by the ordered list of improvements.

3.6.2. An estimate of the budget allocated to the active travel improvements alongside the cost level of improvements will be required to identify which improvements can be taken forward. This is to ensure that the amount of design work is proportionate to the potential scale and value of the active travel component of the package.

3.7 PRELIMINARY DESIGN AND COSTING

3.7.1. The active travel improvements which will be taken forward to the business case will be developed to preliminary design level. The preliminary designs will be the first phase of the design process and will define the design parameters and the overall layout.

3.7.2. The preliminary designs will be developed by the design team who will be informed of the context, purpose and expectations of the movement corridor improvements and traffic management proposals by the active travel team. The design team will work closely with the active travel team to ensure the designs are developed accordingly.

3.8 OUTLINE BUSINESS CASE

Detailed appraisal of the designs will be undertaken as set out in the Appraisal Specification Report and will inform the outline business case.

Appendix A

WCHAR SCOPE



Walking Cycling and Horse Rider Assessment and Review (WCHAR) Scoping Note

INTRODUCTION

A Walking Cycling and Horse-Riding Assessment and Review (WCHAR) is required to be undertaken on a spatial area potentially impacted by the Hereford Bypass currently being designed within the Hereford Transport Package. The requirement relates to DMRB Volume 5, Section 2, Part 5, HD42/17 which replaces HD 42/05 (Non-Motorised User Audit). HD42/17 comprises an assessment of the existing facility provision in order to identify potential opportunities for improvement and integration, and then an ongoing review of the scheme design to assess integration.

This Scoping Note sets out the following:

- The new WCHAR requirements;
- The implications of the WCHAR on the Hereford Bypass;
- Links with development of walking and cycling schemes in the city; and
- Recommendations and next steps.

THE NEW WCHAR REQUIREMENTS

The WCHAR process applies to all highway schemes where there is a potential impact on pedestrians, cyclists or equestrians on the motorway and all-purpose trunk road network. The Hereford Bypass has the potential to impact on the trunk road network in two ways:

- i. By reducing traffic volumes and changing the composition of traffic on the existing A49(T) through Hereford – improving conditions for people walking and cycling along this and intersecting and converging corridors; and
- ii. Providing a new section of trunk road impacting on communities and routes along and either side of the new corridor

Walking, cycling & horse-riding modes (or users) are primarily defined within HD42/17 as:-

- Pedestrian – including mobility impaired and vulnerable pedestrians
- Cyclists – including mobility impaired and vulnerable cyclists
- Equestrians - including mobility impaired and vulnerable equestrians

Other users to be considered as part of this process include (but not limited to):-

- Scooter riders (non-motorised)
- Cyclists with electrically assisted pedal cycles (where these conform to Department for Transport or other relevant regional regulations and where they may legally be used)
- Users of powered wheelchairs (where these conform to Department for Transport or other relevant regional regulations and where they may legally be used)

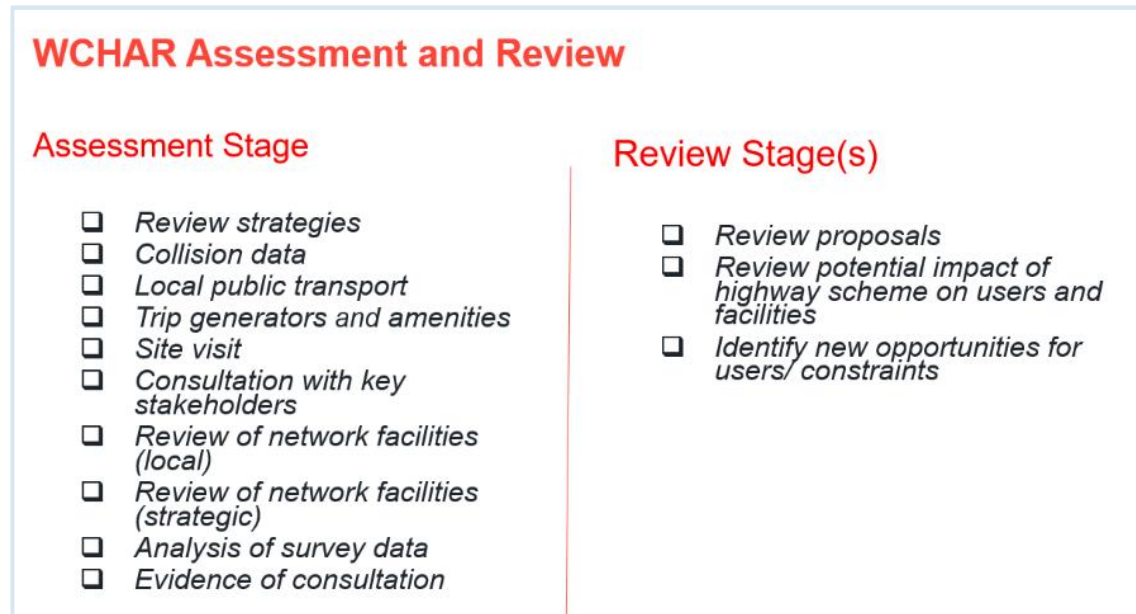
The completion of the WCHAR process is the responsibility of the design team; it is NOT an external audit of the walking, cycling and horse-riding matters related to the scheme. The competencies of the relevant practitioner are set out in HD42/17 and are reproduced as **Reference Item A** to this Note.

The process as laid out in HD42/17 is made up of two distinct parts:-

Assessment - is an assessment of the current or existing situation (Walking, Cycling & Horse-Riding Assessment) and is required to commence before the start of the preliminary design stage.

Review - relates to an ongoing review of user opportunities throughout the design process (Walking, Cycling & Horse-Riding Review). The process concludes prior to the end of the detailed design stage.

The WCHAR Assessment and Review processes will include the following elements:-



ASSESSMENT

HD42/17 states:-

“Walking, Cycling & Horse-Riding Assessment

2.9 The Assessment shall be undertaken during the options or concept stage of a highway scheme and shall apply to large and small schemes. The Assessment shall be completed before the commencement of preliminary design activities.

2.10 The output of the Assessment shall comprise an Assessment Report which shall be completed before the end of the preliminary design phase of the highway scheme.”

The aims of carrying out a Walking, Cycling & Horse-Riding Assessment are:

- a) To gain an appropriate understanding of all relevant existing facilities for pedestrians, cyclists and equestrians in the local area.
- b) To provide background user information that can be referred to throughout the design process.
- c) To identify opportunities for improvement for users.

Reference Item B shows the information requirements as detailed in Section 4 of HD42/17.

REVIEW

The aims of carrying out a Walking, Cycling & Horse-Riding Review are:

- a) To review proposals for pedestrians, cyclists and equestrians throughout the highway scheme design process.
- b) To review the potential impact of the proposed highway scheme on users in the area and on existing facilities.

c) To identify new opportunities for improvement (or constraints) for users that may arise from the development of the highway scheme that were not evident during the Assessment phase.

Reference Item C shows the Review steps as detailed in Section 5 of HD42/17

THE IMPLICATIONS OF WCHAR ON THE HEREFORD BYPASS

Under the considerations of HD42/17 (paragraph 2.7) the Hereford Bypass can be determined as a “large” scheme.

Under the Highways England Project Control Framework the scheme can be determined as nearing completion of the “Options” phase (i.e. *identifying the preferred road solution to the transport problem*). The next stage is the Development phase which focuses on the design of the preferred solution taking it through the necessary statutory processes up to where a decision to commit to investing in building the road solution can be made. Prior to commencing the next stage the design lead will need to appoint an appropriate Lead Assessor to undertake the WCHAR process.

LINKS WITH DEVELOPMENT OF WALKING & CYCLING SCHEMES IN THE CITY

A Hereford-wide package of walking, cycling, bus improvement and public realm measures are being developed as part of the Hereford Transport Package. Traffic management improvements including potential information technology systems, HGV and other traffic restrictions are also being developed as part of the package. These components will support the bypass by directing through traffic along the bypass and making the best use of the local transport infrastructure to encourage more sustainable journeys within the city.

The WCHAR will need to cover any scheme associated with Hereford Transport Package that impacts on the trunk road network. This comprises the proposed bypass and potentially schemes associated with the existing A49(T). Phasing of activities and associated outputs is likely to be required to account for the Bypass being developed ahead of complementing schemes within the built-up area of Hereford.

Schemes associated with South Wye Transport Package and the Hereford City Centre Transport Package, where they are considered to impact on the trunk road network, will have been subject to their own WCHAR (or the previous NMU) assessments at the relevant design stages.

RECOMMENDATIONS AND NEXT STEPS

Upon announcement of the Preferred Route for the Hereford Bypass the Design Lead will need to determine what area(s) the WCHAR applies to and appoint a Lead Assessor. The Lead Assessor is to carry out the Assessment stage of the WCHAR process to inform the design and undertake the Review stage through the development of the designs.

The Assessment Stage will make use of the wealth of data obtained for WebTAG ‘Step 1 – Understanding the existing situation’ which is documented in the Hereford Transport Package Option Assessment Report. Although there is significant data and knowledge on networks and their usage, there may be gaps that surface during the assessment and/ or review stages of the WCHAR, particularly in relation to walking and equestrian movements or demand.

The key locations where the bypass is anticipated to interact with existing or future walking, cycling and horse rider routes are as follows:

- In the vicinity of the proposed junction with the A438 Kings Acre Road

- Within the Three Elms urban extension area
- In the vicinity of the proposed junction with the Southern Link Road
- A number of PROWS and lanes that interact with the bypass along its length
- In the vicinity of the proposed junction with the A4103 Roman Road
- In the vicinity of the proposed junction with the A49

A plan prepared by Herefordshire Council showing areas that may be considered during the Assessment stage is shown as **Reference Item D**. This includes new connections between existing and new communities and employment areas. There are also off-line opportunities to be considered, for example in relation to the A4103 Roman Road and Belmont areas at either end of the scheme.

Reference Item A

ASSESSMENT AND REVIEW TEAM REQUIREMENTS.

Volume 5 Section 2
Part 5 HD 42/17

Chapter 3
Assessment and Review Team Requirements

3. ASSESSMENT AND REVIEW TEAM REQUIREMENTS

Lead Assessor Role

3.1 The Lead Assessor:

- a. Shall be part of the design team for the highway scheme providing advice on Walking, Cycling & Horse-Riding issues.
- b. Shall co-ordinate the activities and resources required as part of the WCHAR process.
- c. Shall demonstrate the competencies needed to complete the process - in line with the guidance set out in Table 3/2.

Lead Assessor Competency

3.2 The competencies expected of Lead Assessors are detailed in Table 3/2 below.

Table 3/2 – Lead Assessor Competencies

Background
An understanding of walking, cycling and horse-riding policies within the UK.
Knowledge of the needs of each user group - pedestrians, cyclists and equestrians and the various sub- groups of these.
Knowledge of current best practice in infrastructure design for all user groups.
Knowledge and an understanding of the planning and operation of walking, cycling and horse-riding networks.
Knowledge of potential issues created by facilities that provide for a combination of users.
Experience
Experience of managing stakeholder consultation events.
Experience of managing conflicting stakeholder views and expectations.
Experience of working on Strategic Road Network highway schemes.
Experience of designing facilities for pedestrians, cyclists and equestrians.
Experience of completing feasibility studies and reviews of walking, cycling and horse-riding infrastructure design.
Assessment Competencies
Knowledge and experience of identifying key trip attractors and subsequent desire lines for pedestrians, cyclists and equestrians.
Experience of the analysis and subsequent interpretation of survey data such as pedestrian count data and automatic cycle count data.

May 2017

3/1

Experience of the assessment of existing routes and facilities used by pedestrians, cyclists and equestrians including condition surveys performed during site visits.
Experience of collision data analysis in the context of providing facilities for pedestrians, cyclists and equestrians.
Experience of being able to make viable and proportionate recommendations for the improvement of facilities.
Knowledge of public transport networks and their operation, including the opportunities and issues arising from potential multi-modal transport options for pedestrians, cyclists and equestrians.
Review Competencies
Experience of presenting options to key stakeholders and promoting the various benefits and dis-benefits of options.
Experience of working as part of a wider design team(s) in order to present and discuss options for enhancing the design for all user groups.

Assessment and Review Team

- 3.3 The Lead Assessor may deem it necessary to be assisted by an additional Assessor(s), particularly for large schemes. This may be beneficial where the Lead Assessor feels there are particularly complex issues for pedestrians, cyclists and equestrians within a highway scheme that require specific specialist knowledge.
- 3.4 The Lead Assessor and any additional Assessors shall record their involvement and specified role in a highway scheme through the Assessment and Review Report documentation.
- 3.5 Whilst additional Assessors are not required to demonstrate any specific competencies, the Lead Assessor shall ensure that the additional Assessor(s) have relevant knowledge and experience for the task they are being asked to undertake.
- 3.6 Members of the WCHAR Assessment and Review Team shall not be permitted to be members of the Road Safety Audit Team, in order to maintain the independence of the Road Safety Audit Team. The Lead Assessor shall be permitted to seek guidance from the Road Safety Audit Team about road safety matters but this should be documented within the Assessment and/or Review Reports.

Reference Item B - WALKING, CYCLING & HORSE-RIDING ASSESSMENT REQUIREMENTS

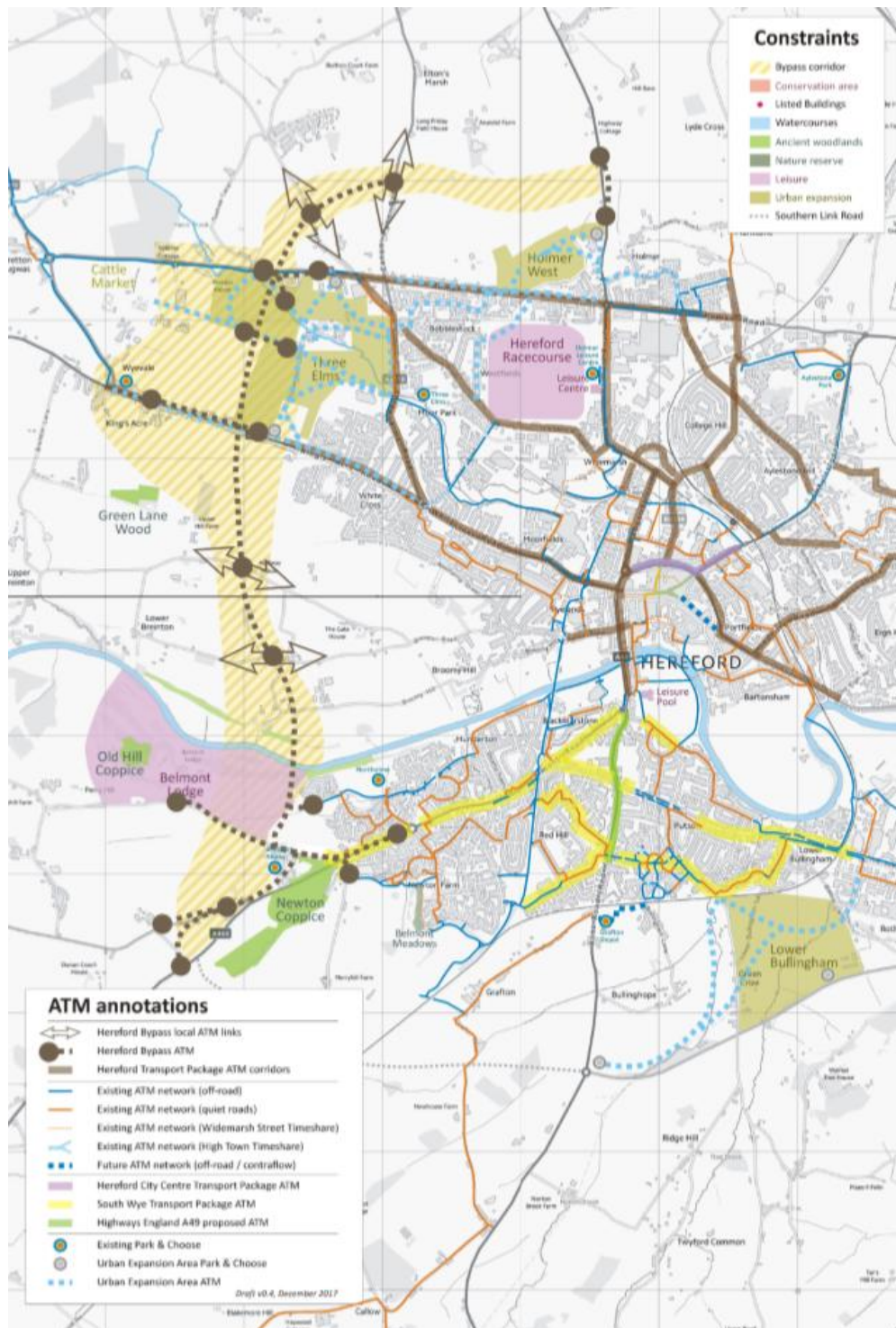
Information type	Large scheme	Small scheme
Review of walking, cycling & horse-riding policies and strategies relevant to the scheme area.	✓	✓
Collision data – analysis of all collisions in study area.	✓	✓
Description of local public transport service and interchange information.	✓	✓
Description of key trip generators and local amenities.	✓	✓
Evidence of site visit.	✓	✓
Evidence of consultation with key stakeholders.	✓	✓
Description and review of existing walking, cycling & horse-riding network facilities within the local area.	✓	✓
Description and review of existing walking, cycling & horse-riding network facilities at a county wide (strategic) level.	✓	
Collation and analysis of walking, cycling & horse-riding user survey data.	✓	
Evidence of consultation with local user groups and wider public.	✓	

Reference Item C

WALKING, CYCLING & HORSE-RIDING REVIEW REQUIREMENTS

Likely steps required for completion of Review Report	For a large scheme (Review required at preliminary and detailed design stages)	For a small scheme (Review required at detailed design stage only)
Review of Assessment Report	✓	✓
Review of preliminary design stage Review Report	✓	N/A
Review of highway scheme proposal	✓	✓
Consultation	✓	✓
Site visits	<i>If necessary</i>	<i>If necessary</i>
Review of steps taken to implement opportunities	✓	✓

Reference Item D – PLAN SHOWING POSSIBLE AREAS FOR CONSIDERATION OF WCHAR AT ASSESSMENT STAGE





1 Capital Quarter
Tyndall Street
Cardiff
CF10 4BZ

wsp.com