Balfour Beatty Living Places, Herefordshire Council

BROMYARD TRAFFIC MANAGEMENT STUDY

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

WSP.com

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APPENDICES

1 INTRODUCTION

1.1 BACKGROUND

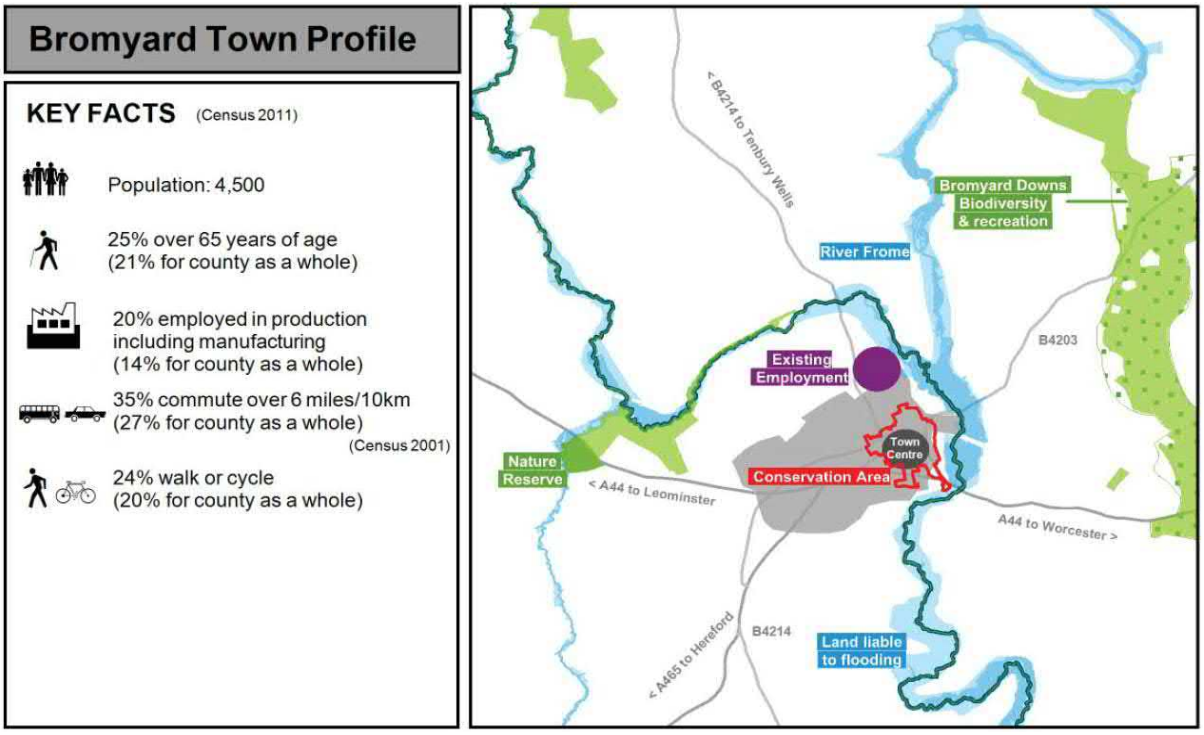
1.1.1. In 2016 WSP were initially commissioned by Balfour Beatty Living Places (BBLP), on behalf of Herefordshire Council (HC), to prepare a traffic management study for the town of Bromyard. This report takes the original work undertaken by WSP and includes further iterations and reviews as a consequence of local changes and progression of time since the original work was undertaken.

1.2 THE TOWN

1.2.1. Bromyard is a small town with a population of around 4,500 and is located in the north east of the county of Herefordshire. Bromyard is an historic town that serviced the surrounding countryside and villages. Its prosperity resulted in the many fine 16th to 18th century buildings that survive to this day in the town, and this has shaped the street pattern and character of the town as it exists and functions today.

1.2.2. Herefordshire Local Plan, Core Strategy (2011-2031) defines the town as being one of 5 secondary centres within the County, and as such will continue to be a focus for development and services supporting the community and the rural North east of the county.

Figure 1 - Local Plan Core Strategy – Town Profile



1.3 THE BRIEF

1.3.1. The brief issued by HC states that the need for a Bromyard traffic management study arises for three primary reasons:

- In the recent past goods vehicles have struck and damaged buildings at the junction of New Road and High Street so a review of the goods vehicle routing and signing arrangements in the town is required;
- The Herefordshire Local Plan Core Strategy has allocated a minimum of 500 new homes and five hectares of employment land to Bromyard. A better understanding of how these developments will be accessed by all forms of traffic is required and any impacts mitigated, not least to inform Section 106 / Community Infrastructure Levy (CIL) negotiations; and
- A proposed traffic plan to address problems in the town received from Bromyard Town Council.

1.3.2. The main deliverable for the study will be a report describing transport conditions in the town, focussing on the issues above, and setting out changes to the existing arrangements, if required, to deliver the traffic management plan objectives. Those objectives, which will be defined by stakeholders, including Bromyard Town and Herefordshire Councils, will assist in the development of:

- A goods vehicle signing and routing plan which will aim to reduce the negative impacts of goods vehicles in the town whilst enabling reasonable access to and from business premises for goods vehicles; and
- Transport arrangements, including active travel measures, to provide access to and from the various residential and employment developments proposed for the town such that traffic impacts from use of those arrangements are minimised and active travel increases.

1.4 REPORT STRUCTURE

1.4.1. This report is structured around the following chapter headings:

- Chapter 2: Baseline Transport Conditions;
- Chapter 3: Transport and Land Use Challenges and Opportunities.
- Chapter 4: Strategy Objectives;
- Chapter 5: Potential Interventions;
- Chapter 6: Intervention Scoring Framework;
- Chapter 7: Intervention Assessment Scoring;
- Chapter 8: Delivery.

2 BASELINE TRANSPORT CONDITIONS

2.1 INTRODUCTION

2.1.1. Baseline transport conditions describe the current traffic / travel patterns and constraints on the transport network within Bromyard. An understanding of these conditions is essential in order to assess the challenges being faced by road users, transport operators and local residents / businesses.

2.1.2. Our analysis of the baseline conditions includes:

- Highway network;
- Facilities for pedestrians and cyclists;
- Bus services; and
- Traffic flows and congestion.

2.2 HIGHWAY NETWORK

2.2.1. Bromyard is located on the A44 – a Primary Route which runs broadly east to west between Oxford and Aberystwyth. Leominster is located 10 miles to the west and Worcester 13 miles to the east.

2.2.2. The A465 starts in the town and runs in a south westerly direction to the county town of Hereford, some 14 miles away. Thereafter the road provides an important link to Abergavenny, the South Wales valleys and onwards to Swansea.

2.2.3. To the north, two B-class roads link the town with Tenbury Wells (B4214) and Stourport-on-Severn (B4203). The latter route is particularly important as it provides a link up to Kidderminster and the West Midlands conurbation, which avoids Worcester.

2.2.4. At the local level as Bromyard is a historic town and many of the roads were not planned or designed for modern-day levels of traffic, sizes of vehicles and demand for parking. A site visit was undertaken to assess the space constraints of the highway layout on the most important roads within the town.

2.2.5. The key highway links that feature within this study are described as follows:

- A44 West Hill / Bromyard Bypass – the main road through the town which also acts as the primary distributor for the residential areas and a bypass of the town centre.
- A465 Hereford Road – the main road into the south west of the town which provides access to Queen Elizabeth Humanities College.
- B4214 Panniers Lane – a road which runs parallel to Hereford Road and also provides access to the Queen Elizabeth Humanities College.
- B4214 Old Road – a largely residential road the main route into the town centre from the A44 west and A465.
- B4214 Tenbury Road – a link which provides the main access between the town centre and the Porthouse Farm Industrial Estate, as well as the main supermarket.
- B4203 Sherford Street / Church Street / Stourport Road – provides access between the eastern section of the A44, the town centre and the Station Road Industrial Estate.
- High Street / Broad Street – A one-way street which the main shopping and commercial centre and contains a number of historic buildings.
- Rowberry Street – Part of the town centre one-way system which is mainly comprised of commercial land uses.
- New Road – part of the original main road through the town until it was bypassed in the 1960s; now provides an alternative access to the town centre (Broad Street).
- Pump Street – another local access point between the town centre and A44.
- Station Road – An un-adopted route which provides access to the Station Road and the Porthouse Farm Industrial Estates.
- Winslow Road – a 1970s estate and local distributor road which provides access to one of the largest residential areas of the town between the A44 and Tenbury Road.

2.2.6. Almost all roads within the town urban area have a posted speed limit of 30mph, with the exception of the A44 West Hill where it is 40mph and the un-adopted length of Station Road which has a non-standard limit of 15mph and hence has limited enforceability.

A44 West Hill/ Bromyard Bypass

2.2.7. The A44 is part of the Primary Route Network (PRN) which designates routes of traffic importance across the United Kingdom.

2.2.8. West Hill starts at the western edge of the town and is a 7.3-metre-wide two-lane single carriageway. The road runs downhill from the western edge of the town as far as the junction with New Road. There is a footway on the northern (town centre) side of the road as far as Baynham Close. A narrow footway commences at this point on the southern side and runs downhill as far as the junction with New Road, gradually increasing in width. The key junctions with the A44 West Hill include B4214 Panniers Lane / Old Road (in effect a four-arm priority junction), A465 Hereford Road (three arm priority junction), and New Road (three arm priority junction).

2.2.9. There is frontage housing with driveways connecting directly on to the highway. A McColls convenience store is situated just to the east of the Panniers Lane junction on the southern side of the road, with parking accessed directly off the highway. In early 2018 a new Subway frabschise opened within the convernience store. Anecdotal evidence suggests this has given rise to additional parking demand in particular from HGV drivers. However, the layout of the the paring area does not readily accommodate HGV parking in a sfae fashion. A Pelican crossing is located just to the west of the Panniers Lane junction

Figure 2 - A44 Bromyard Bypass (Looking Westbound)

Figure 3 - A44 Bromyard Bypass and Sherford Street Junction

2.2.10. East of the junction with New Road, the A44 Bromyard Bypass continues downhill towards the River Frome. At this point the road widens with ghost islands separating the two carriageways and facilitating right turns into side roads. Compared with West Hill, there are fewer side roads and direct frontage properties. Just east of the junction with New Road, the speed limit changes from 30mph to 40mph.

2.2.11. There are footways on both sides of the road and three traffic island pedestrian crossings between the New Road junction and the petrol station. There is also a subway which connects Pump Street with Tower Hill on opposite sides of the A44 Bromyard bypass. There are no other pedestrian crossings further east of the petrol station.

2.2.12. As with West Hill there are a number of important junctions including New Road, Pump Street, and Sherford Street, of which the largest, Sherford Street, consists of a very wide left turn lane followed by an almost 180 degree turn back towards the town centre.

A465 Hereford Road

2.2.13. The A465 Hereford Road runs from the south-western edge of the urban area until the junction with the A44. The road is single carriageway and 7.3 metres wide, with a centre line. On entering the main urban area there

is a right turn ghost island into Ashfield Way which provides access to a modern residential development. Thereafter the road continues with a footway on the eastern side but no direct frontage access to housing, until a series of older properties are reached nearer to the junction with the A44.

2.2.14. The junction with A44 West Hill is a large priority junction separated by a grass island. The junction layout provides two opportunities for vehicles to turn left into Hereford road from the westbound A44.

B4214 Panniers Lane

2.2.15. Panniers Lane diverges from the A465 south of Bromyard and runs in a broadly northerly direction towards the A44. Until the road meets the entrance to Queen Elizabeth Humanities College, there is no footway and little frontage property. A footway on the eastern side of the road runs from the school exit up to the A44 West Hill. There is no footway on the other side of the road. Between the school and the A44 junction there is a small number of frontage properties.

2.2.16. The junction with the A44 is a four-arm priority arrangement, with Old Road directly opposite. The left turn into Panniers Lane from the A44 is a short section of slip road which gives way to traffic coming straight across from Old Road or turning right from the A44.

B4214 Old Road

2.2.17. Old Road starts from the junction with the A44 and runs steadily downhill towards the town centre. The section as far as Firs Lane has a number of frontage properties (generally modern bungalows), with a footway only on the northern side and a number of driveways accessing straight on to the highway.

2.2.18. East of Firs Lane frontage properties become slightly more sporadic and the southern side in particular is shielded by trees and grass banking. After the junction with Clover Road the residential frontage properties are largely confined to the northern side until the playing fields. At this point the road has a semi-rural feel, and properties on the southern side in particular are generally located on the slopes above the road and are shielded by trees.

2.2.19. The end of the playing fields marks the start of the approach to the town centre, residential properties fronting both sides of the road and parked cars present at regular intervals. Although the road is typical in width, on-street parking reduces the available space and often only allows travel in one direction at a time. Old Road finishes at the priority junction with Tenbury Road.

B4214 Tenbury Road

2.2.20. Tenbury Road starts at the junction with Old Road, on the edge of the town centre, and within a short distance runs through a mix of residential, industrial, commercial and leisure land uses. On the eastern side of the road there is the main town car park, which also provides access to the local theatre. Immediately past this point there are two food outlets – Legge's Delicatessen / Butchers and the Co-op supermarket – and a country goods supplier (Countrywide Stores). On the western side of the road a number of residential properties are situated on ground that rises steadily upwards. The junction with Winslow Road provides access to the town's largest residential estate.

2.2.21. The next junction after Winslow Road, this time on the opposite side of the road, provides access to the main industrial estate in the town – Porthouse Farm. Immediately thereafter Tenbury Road proceeds into open countryside. On the left-hand side is the land that is subject to a planning application for the Hardwick Bank development. On the right-hand side, planning permission has been granted for the Porthouse Farm residential development. There are footways on either side of Tenbury Road as far as the edge of the urban area.

B4203 Sherford Street / Church Street

2.2.22. Sherford Street is the main access into the town centre from the A44 at the eastern end of Bromyard. The road is generally slightly narrower than a standard 7.3-metre-wide two-lane road, and there is a centre line for part of its length from the junction with the A44.

2.2.23. From the junction with the A44 the road runs uphill past a small group of stone cottages on the left-hand side. At this point, there are double yellow lines on both sides of the road. Once the double yellow lines end, vehicles are parked on the left (western side) until single yellow lines commence opposite the Old Gaol. Thereafter, vehicles are generally parked on the eastern side of the road facing down the hill. At this point there are a number of properties with either pedestrian or vehicular access on to the road. There are narrow footways on both sides of the road as far as the Old Gaol. Thereafter there is only a footway on the western (town centre) side.

2.2.24. At the junction with High Street, Sherford Street ends and Church Street begins with a section between two buildings which runs up to the Zebra Crossing and Post Office. Thereafter the road is comprised of terraced cottages on both sides. Residents' Parking is located on the western side, with the eastern side controlled by double yellow lines. On the approach to St Peter's Church, double yellow lines are present on both sides of the road and continue (except for one short section on the western side) all the way down to the junction with Station Road. The road also has a centre line as it runs past the Church and down

Figure 4 - Sherford Street (Looking Towards the Town Centre)

Figure 5 - Church Street (Looking Northbound)

Town Centre

2.2.25. The town centre is defined by a one-way (clockwise) loop formed by Broad Street, High Street, Cruxwell Street (Old Road), Rowberry Street completing with the lower part of Church Street which accommodates two way traffic flow.

2.2.26. Cruxwell Street continues eastbound and narrows to around 6 metres in width by the time it reaches the junction with Broad Street (the latter one-way out of the town centre only). East of Broad Street, Cruxwell Street becomes one-way eastbound. There is a leisure centre, selection of commercial town centre land uses (shops / small businesses) and some residential properties. Broad Street and High Street are both one-way westbound and constitute the main retail and commercial area of the town centre. These streets contain a large number of historic buildings.

2.2.27. Broad Street starts at the junction with Sherford Street, and the first section is relatively wide and opens out into the attractive Market Square area, adjacent to the front of the Hop Pole Hotel. Thereafter the road narrows considerably, with build-outs providing protection for on-street parking bays on the left-hand (southern) side. The northern side is double yellow lines. There are block paved footways on both sides of the road, which are narrow in width. The whole length of Broad Street / High Street is taken up with shops, cafes / pubs and other service-related premises such as banks and estate agents. Broad Street continues as far as Pump Street, after which it becomes High Street and continues until the junction with Old Road.

Figure 6 - Old Road and Tenbury Rd

Figure 7 - Broad Street (View Eastbound)

2.2.28. Rowberry Street is also one-way and runs in the opposite direction to High Street / Broad Street (thereby constituting a circulatory arrangement around the town centre). The road starts at the junction with Cruxwell Street and Church Lane and runs one-way southwards past the Public Hall. Aside from residential properties at either end, the majority of land uses are commercial premises with garages and yards accessing on to the highway. Parking bays are marked out on the left hand (northern) side of the road and a footway runs continuously alongside.

New Road

2.2.29. New Road runs from the A44 West Hill into the town centre and therefore provides an alternative route in between Old Road (to the west) and Sherford Street (to the east). The section nearest the A44 is relatively wide, but a combination of a narrower road and parked cars on both sides of the road significantly reduces the width to a single lane as the junction with High Street / Broad Street is approached. The road is mainly residential although there are other land uses such as a Fire Station and a motor vehicle garage. The junction of New Road and Broad Street / High Street forces traffic to make a sharp left turn into the town centre one-way system. Conversely the entry from the A44 is wide and does not give HGV drivers the visual clues of the constrained junction ahead.

Figure 8 - New Road (View Eastbound)

Figure 9 - Pump Street (View towards High St)

Pump Street

2.2.30. Pump Street is a small length of two-way road which connects the A44 Bromyard Bypass with High Street. The junction with the A44 has a very wide entrance but the road narrows considerably as it approaches High Street. The left turn from Pump Street into High Street is particularly tight, especially if there are parked cars adjacent to the junction on the left-hand side of the road.

2.2.31. The land uses are generally a mix of residential and commercial, with the car park and back entrance to the Falcon Hotel also being present. One of the most important trip attractors is the doctor's surgery. There are a number of marked on-street parking bays on both sides of the road. Pump Street contains the town centre bus stop, which features a marked bay, basic shelter and timetable casing attached to the adjacent wall.

Station Road

2.2.32. Station Road connects the B4203 Stourport Road with the town's two industrial estates. The road is unusual in that, although Council-owned, it is not adopted public highway. After the priority junction with Stourport Road, Station Road proceeds southbound into the industrial estate before almost immediately turning 90 degrees westbound. At this point the road narrows as it leaves the industrial estate and passes under the old railway bridge (Station Road is built on an old railway alignment).

2.2.33. There is a traffic calming feature which gives priority to vehicles travelling westbound, and a speed limit which is given as 15mph (not enforceable because the road is not adopted highway). At this point the road is in cutting and only wide enough to safely accommodate one large vehicle per direction. However, there are a number of passing places, although none of these are officially marked. There is no frontage development, footway or street lighting between the bridge (Stourport Road) northwards to the T junction which links to the Porthouse Industrial Estate.

Figure 10 - Station Road (Looking Westbound towards the Narrowest Section)

Figure 11 - HGV Parking on Roads in Porthouse Farm Industrial Estate

2.2.34. After a distance of around 250 metres, more industrial units start to appear as the road enters Porthouse Farm Industrial Estate. A left turn provides access to the main route through this area, which is subject to parking by large HGVs. This road proceeds slightly up hill until it meets Tenbury Road. There is a wide mix of office and industrial business uses.

Winslow Road

2.2.35. Winslow Road is one of the more modern links in the town, as it was built to serve a large housing development whose construction started in the 1960s. The road connects Tenbury Road with the A44 West Hill. The road is designed to be a residential distributor route, and from the junction with Tenbury Road winds its way uphill into the development. There is a mix of on-street parking and driveways for the frontage housing. There a number of side road junctions which lead off to residential cul-de-sacs. Pedestrian footways are present on both sides of the road. Winslow Road is also an important bus route for the local town service, especially for the significant numbers of elderly residents in the town.

Figure 12 - Type caption here Winslow Road

General Conclusions

2.2.36. As a historic settlement, much of the highway layout nearer to the town centre has not been purpose designed or built to modern standards. Instead network has evolved over many years, and has managed to accommodate various land use developments and changes. The absence of a standardised highway layout, and the mix of land uses in many parts of the town, adds interest and gives Bromyard an important place-based setting. However, from the highway links perspective, the town has a number of constraints which mean that both people and motorised traffic are not able to move around the town as efficiently as would perhaps be desirable.

2.3 FACILITIES FOR PEDESTRIANS AND CYCLISTS

Pedestrians

2.3.1. The description of the highway layout above has provided a very basic assessment of the presence of footways that are adjacent to the roads in the town. In some instances, these footways do not meet the present standard width of 2.0m, and limit the ability of two people to pass each other comfortably, and without someone walking in the road.

2.3.2. There are sections of road where a footway is absent altogether – for example parts of Old Road and Panniers Lane. Where footways cross road junctions, modern standards require dropped kerbs and tactile paving to enable easier use by people with mobility impairments. In many instances, such facilities are not provided, as the footways and junctions were designed and built many years ago. Winslow Road is a good example where the footways need to cross a number of side roads, but there is a general lack of provision for dropped kerbs and tactile paving.

Figure 13 - Examples of Narrow Footway in the Town Centre

2.3.3. In addition to the footways, there are also a number of dedicated footpaths which often provide more direct routes for people who walk. Of particular interest are two existing Public Rights of Way (PROW) which connect the western edge of the town with the land at Hardwick Bank, which is allocated for development in the Core Strategy:

- Link into Damson Tree Close; and
- Link into an un-named area off Winslow Road.

2.3.4. At present these routes are simply unsurfaced rural footpaths which are used for leisure purposes. However, they are not suitable for wider public use because they are very narrow, unlit and subject to large pools of water.

Figure 14 - Existing Public Right of Way (Looking Towards Hardwick Bank)

Figure 15 - Footpath Heading Towards the Playing Fields

There is also an important route from Winslow Road to Old Road which utilises a footpath between houses and a grass section across the local playing fields.

Cyclists

2.3.5. The town is not on the national cycle route network and there is no formal cycle route provision within Bromyard. There is sporadic cycle parking within the town for example at the Co-operative store, but present demand is low, and provision limited.

2.4 BUS SERVICES

Services

2.4.1. Bus services in Bromyard provide an important facility in particular for people who do not have access to a private car. Most services in the town are run by local operator DRM, who kindly provided information which is summarised in this report. The bus fleet is modern and services are financially supported by Herefordshire Council. The principal weekday / Saturday bus services which serve the town are:

- Route 400 Town Service from Pump Street to Winslow Road (7 services per day in the two directions).
- Route 420 to Hereford (7 services per day) and Worcester (4 services per day);
- Route 672 to Ledbury (1 service per day);
- Route 482 to Leominster (1 service per week, Friday only).

Stops

2.4.2. There are a number of bus stops which are located across the town. The principal bus stop which serves the town centre is located in Pump Street, adjacent to the back of The Falcon Hotel. There is a single shelter and two separate timetable casings. There is a yellow marked area which can accommodate one bus. However, at certain times of the day there can be up to three buses wishing to use the stop at the same time. The turn from Broad Street into Pump Street can also present some difficulty for buses if vehicles are wrongly parked, or waiting to turn out of Pump Street.

2.4.3. Other bus stops are primarily located on the A44 West Hill and Bromyard Bypass. Some of these have shelters, whilst others do not. The sections of route on local roads – for example Winslow Road – are generally hail and ride.

2.5 TRAFFIC FLOWS AND CONGESTION

2.5.1. Traffic flow data has been obtained from two Automatic Traffic Counts (ATCs) and 17 Manual Classified Counts (MCCs) which were undertaken in October 2016. The ATCs (shown in blue) were located on the A44 Bromyard bypass (between New Road and Pump Street); and B4214 Old Road, whilst the junction count locations are shown in red. Data from the ATCs is summarised in the following tables

Figure 16 - Location of Traffic Count Sites

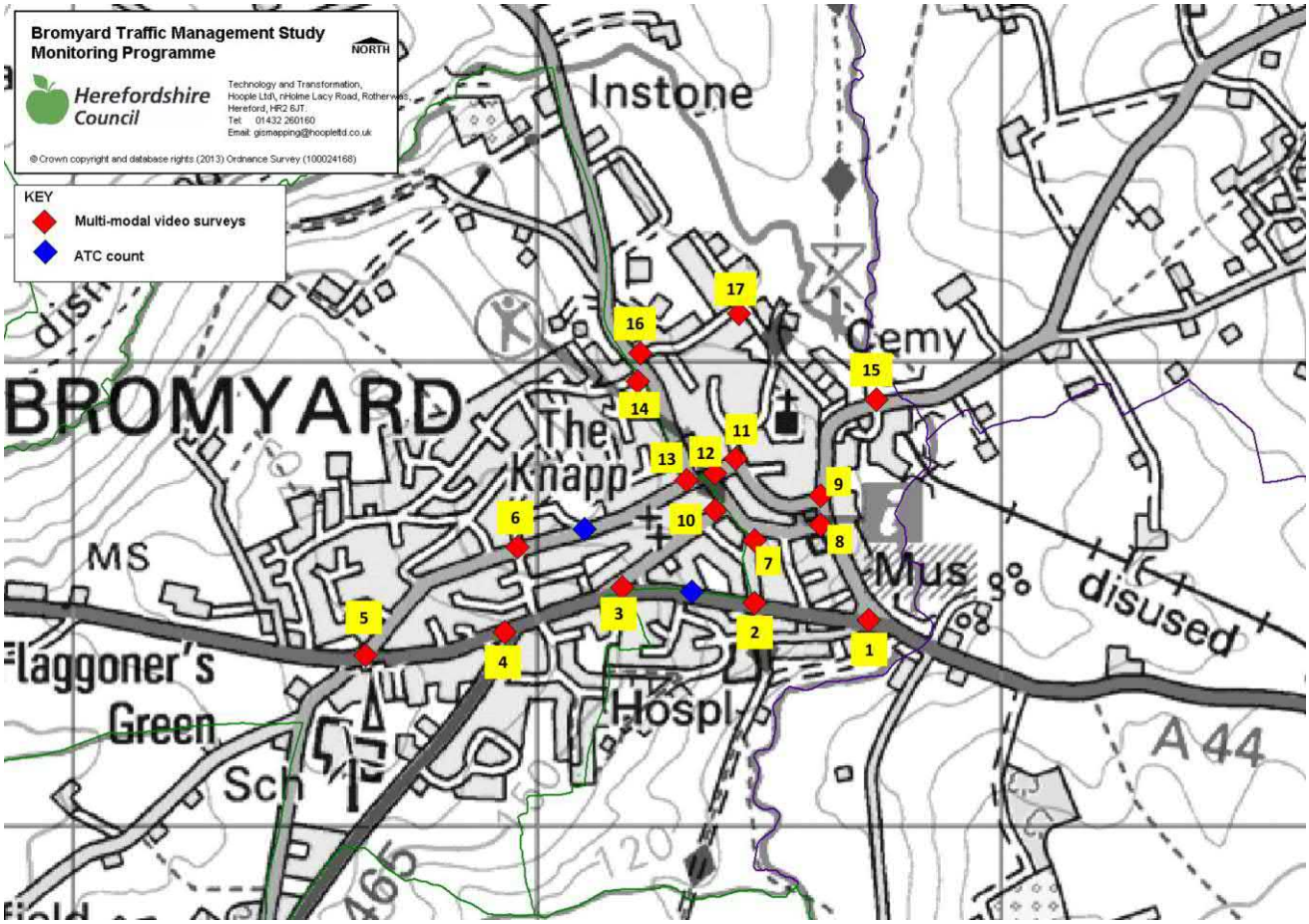


Table 1 - Automatic Traffic Count Data (Two-way Weekday Average for All Vehicles)

LOCATION	0800 - 0900	1700 - 1800	0700 - 1900	24 HOUR
A44 Bromyard Bypass	679	718	7,211	8,273
B4214 Old Road	216	286	2,569	3,096

Source: Automatic Traffic Count Data Produced by Tracsis PLC

Table 2 - A44 Bromyard Bypass (Two-way Weekday Average by Vehicle Class)

VEHICLE CLASS	0800 - 0900		1700 - 1800		24-HOUR	
	No.	%	No.	%	No.	%
Pedal / Motorcycle	1	*<1*	2	*<1*	39	*<1*
Car	598	*88*	660	*92*	7,306	*88*
LGV & PSV 2 Axle	62	*9*	50	*7*	700	*8*
OGV1 & PSV 3 Axle	2	*<1*	0	*0*	46	*<1*
OGV2	16	*2*	6	*<1*	182	*2*
ALL	**679**	***100***	**718**	***100***	**8,273**	***100***

Table 3 - B4214 Old Road (Two-way Weekday Average by Vehicle Class)

VEHICLE CLASS	0800 - 0900		1700 - 1800		24-HOUR	
	No.	%	No.	%	No.	%
Pedal / Motorcycle	1	*<1*	1	<1	17	*<1*
Car	183	*85*	272	95	2,848	*92*
LGV & PSV 2 Axle	30	*14*	13	5	223	*7*
OGV1 & PSV 3 Axle	2	*<1*	0	0	3	*<1*
OGV2	0	*0*	0	0	5	*<1*
ALL	**216**	***100***	**286**	***100***	**3,096**	***100***

2.5.2. Data from the 17 MCCs is summarised in **Appendix A**. The main conclusions are as follows:

- The A44 Bromyard Bypass has the highest total volume of both general traffic movements and HGV flows – with 8,273 vehicles in an average 24-hour period;
- The next busiest roads are Tenbury Road (5,037), Sherford Street (4,696), A465 Hereford Road (4,509), Stourport Road (3,797), Old Road (3,096) and Panniers Lane (3,044);
- The majority of travel demand is by private car, with HGVs being a relatively low percentage;

- Queue length surveys showed there to be no significant queues on any junctions in the town.

2.6 PERSONAL INJURY COLLISIONS

2.6.1. There have been 27 recorded Personal Injury Collisions (PICs) recorded between 01/02/2012 to 31/05/2018 as summarised below. At the time of initial assessment (up to June 2016) there had been only two serious collisions, and no fatalities. Of those two serious collisions, one involved a single vehicle and driver error or illness, whilst the second involved a vehicle injudiciously making a right turn from Pump Street and colliding with a passing vehicle travelling along the A44.

2.6.2. Since then, 3 serious collisions have occurred, along Sherford Street. Two of these involved pedestrians being struck by vehicles on the zebra crossing, whilst the third was a vehicle strike attributed to alcohol and speeding.

Table 4 - Number of Accidents and (Casualties) by Severity

CLASSIFICATION	2012	2013	2014	2015	2016	2017	2018 (part)	TOTAL
Serious	1 (1)	1 (1)	0 (0)	0 (0)	1 (1)	1 (1)	1 (1)	**4 (4)**
Slight	6 (9)	3 (6)	2 (2)	3 (5)	6 (6)	2 (2)	1 (1)	**14 (21)**
Total	**7 (10)**	**4 (7)**	**2 (2)**	**3 (5)**	**4 (4)**	**3 (3)**	**2 (2)**	**18 (23)**

Source: Stats19 Database

Figure 17 - Collision Distribution

3 TRANSPORT: LAND USE CHALLENGES AND OPPORTUNITIES

3.1 INTRODUCTION

3.1.1. Bromyard has a number of transport and land use challenges which have been detailed in the following documents:

- Core Strategy (Herefordshire Council);
- Local Transport Plan (Herefordshire Council);
- Bromyard Transport Policy Study Review (Herefordshire Council);
- Town Council Traffic Management Plan; and
- Green Party survey.
- To supplement the above, stakeholder consultation has also been undertaken including
- Town Council meeting
- Local Business consultation

3.1.2. We have reviewed these pieces of work, and a range of other data sources to provide the following overview.

3.2 DEVELOPMENT

3.2.1. For a town of its size Bromyard is planned to accommodate a significant increase in the levels of housing development. A number of developments are currently at various stages of the planning process and could provide in excess of 800 homes.

- Hardwick Bank – planning application for up to 500 houses;
- Land off Pencombe Lane – planning application for 80-120 houses refused and at the time of writing is at appeal;
- Porthouse Farm – planning permission granted for 76 houses and 6 industrial units; and
- Land off Ashfield Way – potential for up to 120 houses.

3.2.2. This is in line, but significantly greater than Herefordshire Core Strategy (Policy BY1) which states that:

3.2.3. “Bromyard will accommodate a minimum of 500 new homes together with around 5 hectares of new employment land during the plan period. The majority of new development will be located in the north-western areas of the town with a minimum of 250 new homes. Around 5ha of employment land will also be required to come forward through the Bromyard Development Plan. Further development will take place through the implementation of existing commitments, windfall development and sites allocated through the Bromyard Development Plan.

3.2.4. As the largest of the potential developments in Bromyard, the proposals at Hardwick Bank are particularly important from a transport perspective. An initial Transport Assessment (TA) has been submitted in support of a planning application for up to 500 houses. The TA, prepared by Peter Evans & Partners, highlights the pre-application discussions with HC highways officers which have identified:

3.2.5. A roundabout is the preferred form of access from the A44;

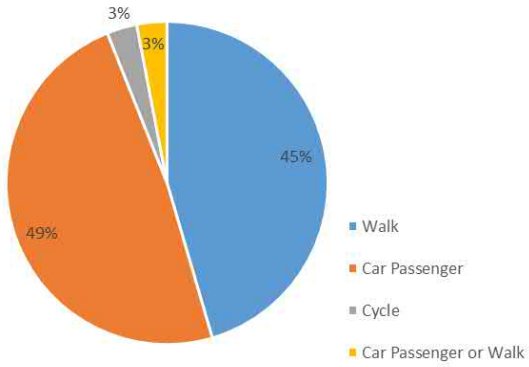
- A signal junction on Tenbury Road would be acceptable in principle as a second point of access to serve the main part of the development;
- Changes to the speed limits on Tenbury Road and the A44 would be acceptable in principle;
- Although subject to reserve matters, the route through the development should be capable of accommodating public transport services in the future but would not need to serve as a through route for HGVs, subject to an on-going HGV study for Bromyard; and
- Pedestrian routes to the key facilities should be provided.

3.3 PERSONAL TRAVEL

Journeys to Work

3.3.1. In common with towns across the country, Bromyard has a high dependence on the private car. Data from the 2011 Census sets out the modal split for journeys to work made by residents in the town. : The Census also reveals that there are a large number of short distance journeys to work with a third of Bromyard residents travelling less than 2km to work – likely to be within the town itself. Nevertheless only 24.5% of people travel on foot or bike. In other words, nearly 10% of all journeys to work are both less than 2km and undertaken by car / van. Whilst some of these short distance trips will be made by people who have mobility impairments or who need a van for their work, there is still a percentage that could be amenable to walking or cycling instead.

Figure 18 - 2011 Census Data Analysis: Journeys to Work by Bromyard Residents

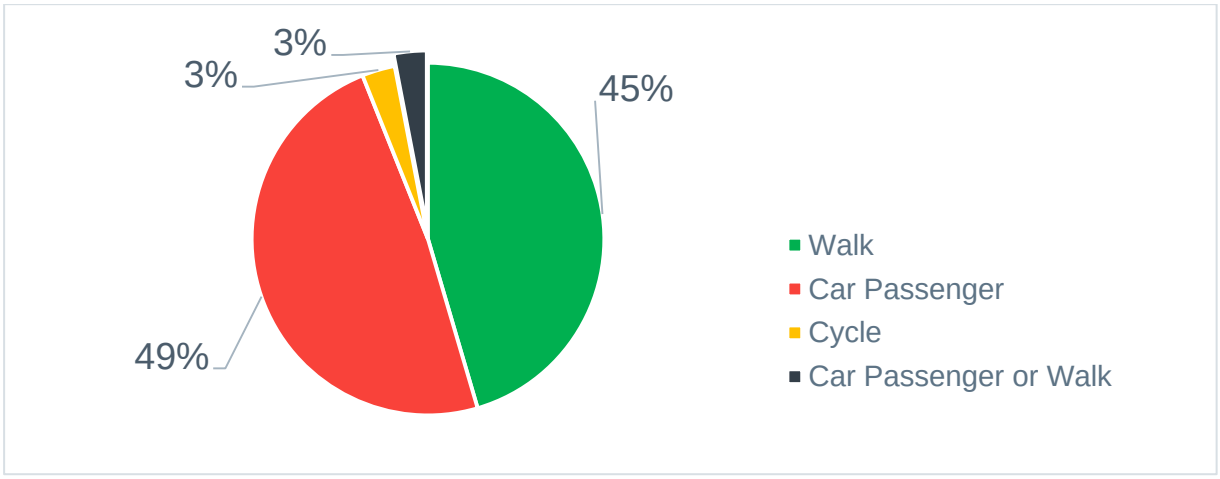


[redacted]

Journeys To School

3.3.2. Survey data is available for St Peter's Primary School, which is located off Winslow Road. The survey shows that, for a primary school with a relatively localised catchment area, there is a relatively high percentage of children who travel to school by car

Figure 19 - Mode Split for Journeys to St Peter's Primary School



3.3.3. To the south of the town Queen Elizabeth High School provides for the town's secondary education needs. Vehicle and pedestrian access is taken from Paniers Lane, which the traffic surveys indicate is heavily used and has in the past been subject to treatment in response to safety concerns at the junction with the A465.

3.3.4. Pedestrain routes for the majority of the pupils rely on crossing the A44, but in discussion with the school the suitability of the desire lines and crossing location was called into question. The potential for a secondary

pedestrian acces to the rear of the school onto Hereford Road is considered feasible, and is an item for consideration in the design of the future housing scheme on the former highway depot.

3.4 SAFETY

3.4.1. Safety is understandably one of the more emotive transport issues as it directly represents an immediate threat to personal well-being. A number of safety issues have been raised by stakeholders:

A44 Speeds

3.4.2. There are concerns that the 30mph limit (on the section west of New Road) is not being observed, which has resulted in calls to reduce the current 40mph limit (east of New Road) to 30mph. In effect this proposal would make the A44 30mph throughout the entire length of Bromyard.

3.4.3. A speed survey undertaken in the 40mph limit section between Pump Street and Stonehill Drive shows that the average speed is less than the current 40mph limit, and that nearly 80% of drivers obey the law:

- Average Speed = 37.3 mph
- 85th percentile Speed = 41.2 mph
- Proportion of traffic travelling in excess of 40mph = 21.5%

3.4.4. A further survey undertaken in conjunction with the Pencombe Lane planning application indicated the following, as recorded 25m east of Winslow Road, within the 30mph zone. This indicates a reasonable rate of compliance with the 30mph speed limit.

- Average Speed = 27mph eastbound, 29.4mph westbound
- 85th percentile Speed = 31.3mph eastbound, and 33.4mph westbound

Figure 20 - A44 Speed Survey

Town Centre Access

3.4.5. Bromyard Green Party carried out a survey of opinions into various safety matters in the town centre, in response to concerns expressed by some traders about traffic speeds. In total, the Green Party states that there were 279 responses to this survey. The results are shown in the graphs below. The conclusions are:

- A large majority in support for a 20mph speed limit in the town centre;
- Less agreement about whether traffic calming (in the form of "speed tables") would be the best way of enforcing any such limit; and
- A large majority in support of restrictions on "unnecessary" HGV movements through the town centre.

	YES	NO	DON'T KNOW
20mph Speed Limit for High Street and Broad Street	80.9%	17.3%	1.8%
Raised platforms to the tarmac at each end Broad Street and High Street, and at the junctions with Pump Street and New Rd	46.0%	38.9%	15.1%
Weight Limit on Broad Street and High Street to Prevent Unnecessary use by Heavy Goods Vehicles	86.1%	12.5%	1.4%

3.4.6. The Bromyard Town Council Traffic Plan also proposed a 20mph zone for the town centre. As part of this study, all local businesses in the town were contacted for their views on a range of traffic management issues. A total of 26 responses were received. A large number of issues were raised, and are summarised as follows:

- Concern over illegal parking on double yellow lines, which causes both a safety and congestion issue;
- Articulated vehicles using Pump Street have difficulty in manoeuvring and they often have to reverse back, which can cause traffic congestion;
- Problems are caused by vehicles parking too close to junctions, which means that larger vehicles struggle to make turns (for example from New Road into High Street);
- More warning signs for larger HGVs are required for High Street and Broad Street;
- Problems seem to arise when lorries heading for the industrial estates follow non-HGV satellite navigation systems and end up on unsuitable roads;
- The temporary yellow signs advising HGVs to avoid New Road are sometimes ignored, with the result that there is regular damage to the building on the corner of High Street (also the result of parking on the double yellow lines on the corner);
- Visitors to the town are unfamiliar with the one-way street arrangements, and vehicles have been observed turning right into High Street from New Road (and so better signs are needed);
- Signage to the industrial estates is inadequate;
- Driving down Old Road, Sherford Street and New Road can be difficult due to parked cars; with particular "hot spots" such as at the junction of Old Road, York Road and Clover Road which has limited visibility; and
- The turning into Church Lane, at the junction of Old Road and Rowberry Street, requires better signage in order to prevent goods vehicles from getting stuck and blocking the traffic.

Heavy Goods Vehicles

3.4.7. A consistent theme of our investigations is the problems resulting from larger HGVs traversing town centre streets. There have been a number of incidents where vehicles have become stuck after trying to turn into streets where there is insufficient space.

3.4.8. In December 2016, an articulated HGV became stuck at the junction of Cruxwell Street and Church Lane causing significant traffic disruption for a number of hours.

Figure 21 - HGV Stuck at Junction of Cruxwell Street and Church Lane and Tenbury Road/Old Road Junction (turn HGV should have taken but missed signage)

3.4.9. Subsequent discussions with the HGV operator revealed that the driver (who was unfamiliar with the area) had missed the turn into Tenbury Road from Old Road, and his satellite navigation device had then advised him to proceed up to the junction of Rowberry Street and Church Lane, and then turn left into the latter. The operator pointed out at there are no advance warning signs at the Tenbury Road / Old Road junction about the unsuitability of this route for HGVs. The sign is also at risk of being blocked by vehicles emerging from Tenbury Road. At the Church Lane junction there is a small (unlit and non-standard) warning sign located on a wall opposite the entry point. There is also an official blue sign at the head of the junction. The driver did not see either sign until he was at the junction, and by then it was too late.

3.4.10. Another incident took place in Pump Street where a large articulated HGV was unable to make the left turn into High Street, partly because of parked cars on the left-hand side. It was reported that the driver was assisted by a number of pedestrians to reverse up to the A44 Bromyard bypass, and that there was significant traffic disruption as a result.

Figure 22 - HGV Getting Stuck at Junction of Pump Street and High Street

3.4.11. A further problem relates to building strikes. The most commonly cited example is at the junction of New Road and High Street, where the estate agents on the corner has been hit on a number of occasions. This issue has resulted in temporary diversion signs being erected in order to advise HGV drivers to avoid New Road. These signs are advisory and do not have any legal status. As it stands there are no controls on general HGV movements within the town, and the present signage strategy is shown In Appendix B (Drawing Ref: MN0089-

I-009). As noted earlier, the entry from the A44 is wide and does not provide the visual clues that the road ahead is constrained.

Figure 23 - Temporary Diversion Signs and High Street / New Road Junction

3.4.12. The turn into High Street from New Road can also cause problems for pedestrians when an articulated vehicle encroaches on to the footway as shown above. This is also an issue along Old Road (No's 29-41) where such actions place pedestrians at risk, and residents who step outside their property to be faced with HGVs immediate to their property.

3.4.13. As part of this study BBLP undertook a survey of local businesses within the town to identify issues connected with delivery needs and HGV access. 39 responses were received out of 240 issued, representing a 10% response rate. Of these:

- 23 from business within the town centre including Broad Street/High Street, Cruxwell Street, Rowberry Street or Old Road/New Road.
- 6 represented business on the two industrial estates;
- 10 were from business elsewhere in the town including Little Hereford Street, and Panniers Lane.

3.4.14. The responses are summarised in relation to the question as follows, clustered by the general location of the respondents.

QUESTION REGARDING…	INDUSTRIAL ESTATE	TOWN CENTRE	ELSEWHERE
Vehicle types	Tendency towards larger vehicle sizes	Generally, vans uo to 7.5T, but some HGV deliveries	Mixed
Frequency	Daily or greater	Some businesses daily, but typically less frequent with twice a week-weekly or less	Daily
Location/ Duration of delivery	Up to one hour, on premise	Average 10 minutes on street	Mixed
Rear access available?	Off road access available	Overwhelmingly no rear access is available	Mixed
Access route	Mixed route choices	Varied, but a high number use Old Road/Bypass	Mixed
Provide a suggested route?	Only on request	About half provide upon request directions/suggested route	About half provide some suggestions

3.4.15. When asked about any issues the following points are typical of the issues raised:

- Illegally parked cars forcing other traffic onto footways and causing damage to buildings;
- HGVs using Pump Street to access the town centre are getting stuck – causing damage to buildings;
- HGVs ignoring designated routes and signage, and accessing the industrial estates via unsuitable routes;

- Signage is confusing and all types of vehicles trying to access the one-way system the wrong way;
- Flooding issues during severe weather when accessing industrial estates;
- Poor road surface conditions;

3.4.16. A key element of any controls in the town centre to HGV movement is to ensure that appropriate alternative routes are fit for purpose. As discussed in Section 2, Station Road, although owned by Herefordshire Council is not adopted, and is not constructed to the Council's approved Industrial Access Road standard. The Council are actively investigating measures to enhance this route and provide robustness for increased use by HGVs that facilities safe passing, forward visibility, pedestrian use and a long-term maintenance regime for drainage, surfacing and vegetation management.

Conclusions

3.4.17. A number of information sources have been reviewed for evidence of the problems being experienced in the town.

3.4.18. A common theme appears to be that there is an inadequate supply of space on many roads – especially in the town centre. There is a combination of reasons for this, including:

- Narrow historic streets that were not designed for modern day motorised traffic;
- On-street parking and loading which further reduce the available space;
- Narrow footway widths (reflecting the narrow roads); and
- The size of modern-day vehicles, especially HGVs.

3.4.19. There also appear to be issues regarding the management of demand for access. Whilst there is little evidence of congestion caused by the sheer volume of traffic, particular problems result from route choices that car and (especially) HGV drivers are making. The result is that there are negative impacts on historic buildings and unpredictable congestion when traffic gets stuck behind a vehicle that cannot manoeuvre into a restricted space.

4 STRATEGY OBJECTIVES

4.1 INTRODUCTION

4.1.1. Strategy objectives set out what needs to be achieved both by policy and investment in specific interventions. The objectives for this Traffic Management Plan have been derived from a review of the Local Transport Plan (LTP) and a specific review of the situation in Bromyard.

Local Transport Plan

4.1.2. The Herefordshire Local Transport Plan (LTP) sets the context for transport policy in the county. The LTP includes a number of policies that have direct relevance to traffic issues in Bromyard framed by five key objectives:

1. **Enable economic growth** – by building new roads linking new developments to the transport network and by reducing short distance car journeys.
2. **Provide a good quality transport network for all users** - by being proactive in our asset management and by working closely with the public, Highways England and rail and bus companies.
3. **Promote healthy lifestyles** – by making sure new developments maximise healthier and less polluting forms of transport including walking, cycling and bus use, by delivering and promoting active travel schemes and by reducing short distance single occupant car journeys on our roads.
4. **Make journeys safer, easier and healthier** – by making bus and rail tickets compatible and easier to buy and use, by providing 'real time' information at well-equipped transport hubs, by improving signage to walking and cycling routes and by helping people feel safe during their journeys.
5. **Ensure access to services for those living in rural areas** – by improving the resilience of our road network and by working closely with all transport operators to deliver a range of transport options particularly for those without access to a car.

Bromyard Transport Policy Review

4.1.3. This review, undertaken in November 2016 by HC, identifies local policy which has a direct or indirect influence on transport management in Bromyard. The aim of the policy review was to assist in the development of objectives to assess potential transport management plans for the town.

4.1.4. After analysing a range of policy documents, the review recommends that a Bromyard Transport Study should focus on the following strategy outcome objectives and sub-objectives:

1. Enable and encourage economic growth and the delivery of more homes and jobs;
2. Manage and operate a safe transport network:
   - Reduce the impact of HGVs on town centres and residential areas; and
   - Maintain the highway network to a high standard.
3. Reduce the impact of new developments and transport infrastructure on landscape, townscape, biodiversity, air quality and noise; and
4. Enable and encourage active travel behaviour to improve health and reduce short distance journeys by car within market towns.

4.1.5. Following consultation with Bromyard Town Council, it was decided to include an additional sub-objective:

- Enable appropriate goods vehicle access to shops and industrial premises.

4.1.6. It was also decided that for this particular study, the third objective was not necessary as it relates more to specific issues in relation to individual development sites.

4.2 STRATEGY OBJECTIVES

4.2.1. The strategy objectives are therefore as follows:

Figure 24 - Strategy Objectives

4.2.2. These objectives link back to problems that have been identified, as summarised in the following table:

Table 5 - Links Between Objectives and Problems

OBJECTIVE	LINK TO IDENTIFIED PROBLEMS
Enable and encourage economic growth through delivery of more homes and jobs	A lack of housing supply to meet forecast demand and an imbalance between the number of people employed compared with the available jobs in the town
Manage and operate an efficient and safe network:	
Enable appropriate goods vehicle access to shops and industrial premises	HGV access to the town centre and Station / Porthouse Farm Industrial Estates
Reduce the impact of HGVs in the town centre and residential areas	Damage to historic buildings in the town centre, HGVs getting stuck in narrow streets and general perceived safety concerns (especially where pedestrians are present)
Maintain the highway network to an appropriate standard	Lack of joined up pedestrian routes and poor condition of some bus shelters
Encourage active travel behaviour to improve health and reduce short distance journeys within the town	Reliance on the private car for very short distance employment and school journeys within the town

5 POTENTIAL INTERVENTIONS

5.1 INTRODUCTION

5.1.1. In order to address the problems and meet the strategy objectives, a large number of "interventions" have been identified through a review of various sources including:

- Review of development proposals (including existing section 106 contributions and the draft Hardwick Bank Transport Assessment);
- Bromyard Town Council Traffic Plan (and subsequent meeting);
- Green Party survey;
- Meeting with the local bus operator; and
- Observations from site visits.

5.1.2. Where the scheme has been assessed further a Reference (Ref) has been included as shown within **Appendix B:**

5.2 DEVELOPMENT RELATED INTERVENTIONS

5.2.1. There are a number of developments where potential interventions have been identified, and these are summarised in the following table. Some of these are not development dependent and could be brought forward irrespective of any planning permission.

Table 6 - Summary of Development Related Interventions

DEVELOPMENT	LOCATION	DESCRIPTION	REF
77 Old Road (Permission for 6 dwellings) Ref: 143013	Cruxwell Street	Uncontrolled pedestrian crossing	**G**
	Tenbury Road	Uncontrolled pedestrian crossing close to junction of Tenbury Road / Cruxwell Street	
	Old Road (6 locations)	Dropped kerbs and tactile paving improvements	
	Additional bus stop on Pump Street	Additional bus stop on Pump Street; relocation of existing bus stop to the south, introduction of TROs to modify parking arrangements and one-way system for north-south travel.	**N**
Porthouse Farm (Permission for 78 dwellings) Ref: 140285	Town Centre / Schools	Improved cycle parking in town centre and at schools	**A**
	Various	Improved crossing points with tactile paving and dropped kerbs on identified routes to the development	
	Tenbury Road	Footway diverted to open grassed areas on the Bromyard town side by industrial estate	
	Former railway line	Improvements to proposed greenway along former railway line	
	Old Road	Footway provision	
	A465 Hereford Road	Extension of footway heading towards garage and Panniers Lane	
	Winslow Road / Tenbury Road	Improved southerly visibility on junction between Tenbury Road and Winslow Road	

DEVELOPMENT	LOCATION	DESCRIPTION	REF
Land at Pencombe Lane (Application for 120 dwellings) Ref 163001	A44	Footway on the A44 (southern side) extended to site	B
	A44	Extended 30mph limit	
	Panniers Lane	Footway extension at northern end of Panniers Lane and provision of two bus stops	
Hardwick Bank (Outline planning application for up to 500 dwellings) Ref: 163932	A44	Roundabout to access development	S
	B4214 Tenbury Rd	Traffic signal junction to access development	T
	Town wide	Walking and cycling route improvements	Q
	Town wide	New walking and cycle route provision	R

5.3 BROMYARD TOWN COUNCIL TRAFFIC PLAN

5.3.1. In March 2015, Bromyard Town Council has produced a Traffic Plan which has identified a range of possible interventions, as summarised in the following table:

Table 7 - Summary of Proposals from Bromyard Town Council Traffic Plan

LOCATION	PROPOSAL	SUMMARY DESCRIPTION	REF
Sherford Street	Changes to town centre one-way system	One-way inbound for all traffic, from A44 Bromyard Bypass as far as Church Street	**U**
Church Street	Access restrictions for HGVs	Loading only from Station Road for inbound HGVs	**W**
	Improve crossing facilities for pedestrians outside the Post Office	Replacement of the current Zebra Crossing with a Pelican Crossing	**D**
Broad Street and High Street	Reduce traffic speeds in the town centre	Introduction of a 20mph speed limit	**E**
	Improve pedestrian crossing facilities outside the leisure centre	New Pelican Crossing from left-hand pavement beside the newsagents	**G**
Pump Street	Access restrictions for HGVs	Loading only for HGVs	**H**
	Changes to bus set-down and pick-up arrangements	Re-locate bus stop to the A44 Bromyard Bypass, with additional parking being created in its place	**AA**
A44 Bromyard Bypass	Changes to bus set-down and pick-up arrangements	Creation of a new bus stop on the A44 Bromyard Bypass	
		Creation of a new bus turning area at the junction with Sherford Street	**AA**
New Road	Access restrictions for HGVs	Loading only for HGVs	**I**
Cruxwell Street	Changes to on-street parking arrangements	Transfer of on-street parking from left to right hand side of the road	**J**
Rowberry Street	Changes to on-street parking arrangements	Removal of one parking space outside of the Public Hall	**K**
Winslow Road	Access restrictions for HGVs	Loading only for HGVs	**L**
Old Road	Changes to town one-way system	One-way outbound between the town centre and the junction with Clover Road / York Road	**V**

5.3.2. In addition to these specific proposals, the Traffic Plan also made the more general point that appropriate signage and enforcement of traffic regulations would be required.

5.3.3. The Traffic Plan claims that these changes will provide a number of benefits at a strategic level:

- Improve traffic flow by extending the present one-way system to cover the outer town area;
- As far as possible to take heavy vehicles “around” instead of “through”;
- Smoother traffic flows;
- Safety improvements for pedestrians; and
- Making the town centre more “visitor-friendly”.

5.4 BROMYARD INDUSTRIAL RELIEF ROAD

5.4.1. A consistent theme surrounding transport and movement within Bromyard relates to the impact of HGV movements through the town. To this end it has been a longstanding ambition of individuals, businesses the former District Council and Town Council to provide a link from the A44 to the industrial estate to remove existing industrial traffic from Church Street, Old Road, Sherford Street, Broad Street and High Street.

5.4.2. The high costs and need to identify and secure appropriate funding have long been acknowledged as noted in the Malvern Hills District Local Plan Adopted in January 1998. A detailed feasibility study was undertaken during the 1990’s and the Link was included in the Adopted Local Plan. An equivalent of this policy is not included in any present Herefordshire Council document (Core Strategy or Local Transport Plan).

BROMYARD TRANSPORT POLICY 1

The District Council identify a road line for the construction of a Relief Road. The route to be safeguarded is defined on the Proposals Map.

In defining this route the District Council will need to have regard to the following criteria:-

A) The need to avoid the floodplain and the possibility of contributing to flooding problems
B) The need to take into account of the nearby Conservation Area.
C) To address problems of noise and consider incorporating noise attenuating measures to minimise traffic disturbance to residents of properties to the west.
D) Have regard to the present landscape features and ground configuration and incorporate new landscaping to maximise integration into the landscape.

5.4.3. The defined route of approximately 450metres, allows for connection to Station Road and land for this connection is within Herefordshire Council’s ownership. The remainder of the alignment crosses agricultural fields. Dependent upon any future design works, access could be taken from a roundabout (this was considered in the 1992 feasibility study) or a priority junction with Sherford Street.

5.4.4. A primary consideration for any road is the extent and impact upon the flood plain and this limits the land available, whilst also giving rise to design challenges that will need to be faced. The Flood Zone is shown below. The option of a new Relief Road is assessed in Section 7 (Ref Y).

Figure 25 - Industrial Relief Road- Indicative Location

5.5 GREEN PARTY SURVEY

5.5.1. The Green Party survey concluded with a number of proposals for consideration:

- Improved permanent signage (including Satellite Navigation “cross-through” symbol);
- 20mph speed restriction through the town and its feeder roads; and
- Flashing speed warning signs, weight restrictions, zebra crossings, and 20mph zonal road markings.

5.6 MEETING WITH THE LOCAL BUS OPERATOR

5.6.1. As part of this study we organised a meeting with Dave Morris of local operator DRM Bus. The operator did not support the proposal to remove the current bus stop from Pump Street, on the grounds that this location is the most convenient for bus passengers (in particular elderly people) travelling to and from the town centre. Furthermore, the potential need for bus passengers, wishing to access the “through” bus services from Worcester to Hereford, to cross the A44 Bromyard Bypass (by means of the subway) was strongly rejected.

5.6.2. The operator did ask for the bus stop on Pump Street to be extended southwards to a point just before the entrance to the car park of the Falcon Hotel; and also for an additional shelter to be provided. These proposals were identified by a study by Amey undertaken in August 2011.

5.6.3. The operator did not make any specific requests for other new bus infrastructure, although there was a general concern around the standard of shelter maintenance.

5.6.4. The operator was asked about the potential for additional services to meet demand from the new development at Hardwick Bank. In his view there would be limited potential demand.

5.7 HARDWICK BANK TRANSPORT ASSESSMENT

5.7.1. The Hardwick Bank Transport Assessment (TA) sets out a number of potential interventions, as summarised previously. The Transport Assessment states that the roads through the proposed development would have the following arrangements:

- The primary internal access road would run through the site from north east to south west providing a vehicular link between the Tenbury Road and Worcester Road;
- A number of smaller side roads would be provided to serve the residential parcels;

- The primary access route would be designed to accommodate potential future new bus services, but would not be designed to accommodate HGV movements or act as a bypass for vehicles wishing to avoid the town centre; and
- The design of the primary internal access road would be established at the reserved matters stage (it is anticipated that it would be a residential road with enforcement of a 20mph speed limit along its length).

5.7.2. An additional intervention investigated within this study as suggested by the Town Council is to amend the access road design to allow for HGV use between the A44 and Tenbury Road (Ref Z).

5.8 OBSERVATIONS FROM SITE VISIT

5.8.1. A site visit was undertaken in order to both assess the feasibility of previously suggested interventions and to consider additional proposals. The additional proposals relate to provision of new / improved pedestrian links between the proposed Hardwick Bank Development and local trip attractors – the town centre, employment areas and the Humanities College. There are three links which could be subject to improvement:

- Improvement of existing Public Right of Way (link into Damson Tree Close); and
- Improvement of existing Public Right of Way (link into an un-named area off Winslow Road);
- New footpath link from the north west of Hardwick Bank, through the garages, across Winslow Road and through the playing fields;

5.8.2. It is recommended that investigation into any barriers that school children face crossing the A44, and whether formalised crossing points, a reduction in the speed limit, or the provision of a flashing amber warning sign is appropriate.

5.8.3. These would need to be considered within the package of transport works to be undertaken in conjunction with the development (Ref Q/R).

5.8.4. It is also recommended that parking charges in the town are reviewed as the differential between on and off-street costs may generate some of the problems, and if the free parking was available in off street locations, drivers could be less tempted to park inappropriately with the town centre.

5.9 FEEDBACK FROM TOWN COUNCIL MEETING

5.9.1. A meeting was held with Bromyard Town Council in order to receive further suggestions for potential interventions. The Town Council were invited to annotate potential interventions on a map-based plan, which is included in Appendix B.

5.9.2. Whilst many of these proposals have already been detailed in the Traffic Plan or in association with a planning scheme, there are number which are additional:

- Road through the proposed Hardwick Bank development from A44 to Tenbury Road, which would be designed to a standard which could accommodate HGVs and enable the town centre to be bypassed (Ref Z);
- New zebra crossing on Tenbury Road.

5.9.3. The Town Council and Ward Members have repeated their desire to see swift action to remedy HGV issues within the town and control unsuitable movements along roads and through junctions that have historic issues of building strikes or conflicts.

5.10 GOOD PRACTICE ELSEWHERE

5.10.1. In addition to the locally identified measures, a review of possible interventions based on good practice elsewhere has been undertaken. There are a small number of interventions that could be relevant to the Bromyard situation:

Voluntary Freight Quality Partnership

5.10.2. Freight Quality Partnerships (FQPs) take place between the freight industry, local government and other interested stakeholders. They aim to develop an understanding of freight distribution issues and problems and promote constructive solutions, which reconcile the need for access to goods and services with local environmental and safety concerns.

5.10.3. An FQP for Bromyard (Ref O) could be a valuable means of securing agreement for HGVs to use certain routes which avoid the most constrained town centre areas.

Automatic Number Plate Recognition (ANPR)

5.10.4. ANPR consists of a camera that is linked to a computer. When a vehicle passes by the camera the camera records an image which is automatically "read" by the computer and the vehicle registration mark (VRM) recorded. The use of ANPR cameras to enforce existing and future Traffic Regulation Orders (for example in relation to HGV access restrictions) could be used to address current Police resource constraints. However at this time, it is felt pre-mature to recommend any scheme until a comprehensive set of measures is agreed, and it can be established if such an intervention would be cost effective.

6 INTERVENTION SCORING FRAMEWORK

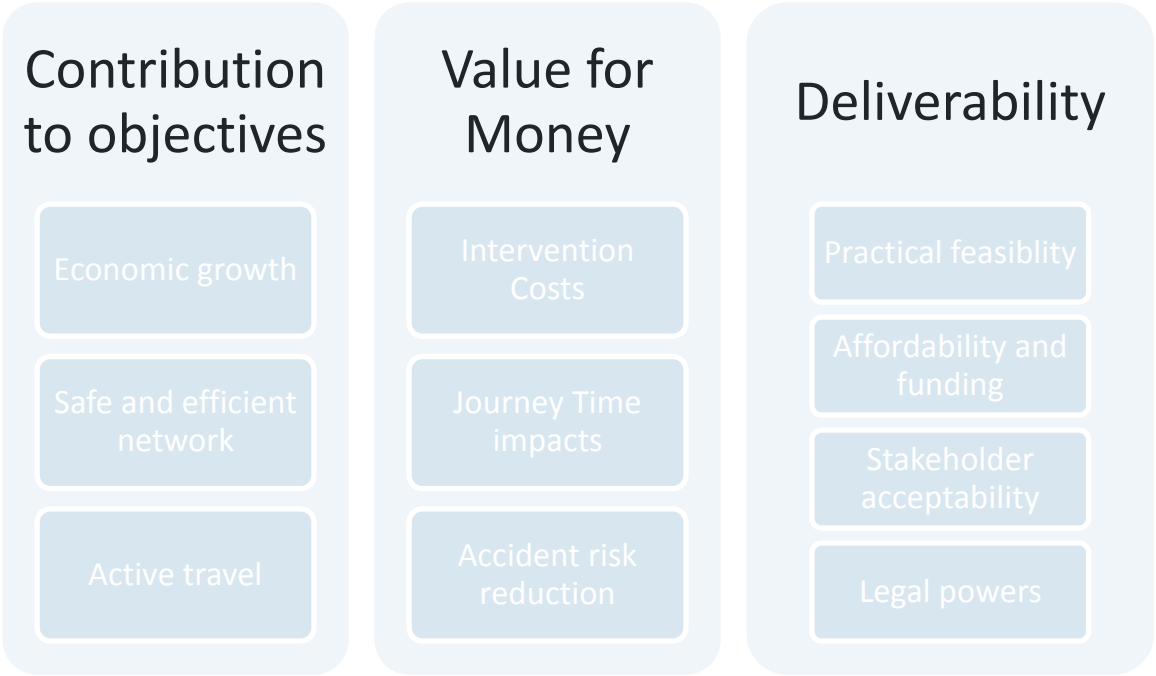
6.1 INTRODUCTION

6.1.1. The interventions and options have been assessed against three main criteria:

- Contribution to the strategy objectives;
- Value for money; and
- Deliverability.

Figure 26 summarises the individual elements which make up the criteria.

Figure 26 - Scoring Criteria



6.2 SCORING FRAMEWORK

6.2.1. The approach has been to score each intervention against a Red, Amber, Green (RAG) framework, as summarised in the following table:

Table 8 - Scoring Framework

CRITERIA	RED (-1)	AMBER (+1)	GREEN (+2)	NEUTRAL (0)
Contribution to Objectives	There is no clear or convincing narrative which describes how the intervention will address the requirements of the objective. There is evidence - for example from survey data or	There is a basic narrative which describes a link between the intervention and achievement of the objective. The evidence, as to whether this	There is a clear and convincing narrative which describes how the intervention will address the requirements of the objective. There is evidence - for example from survey data or	There is no evidence - either through a narrative or survey data that the intervention is in any way relevant to the objective.

CRITERIA	RED (-1)	AMBER (+1)	GREEN (+2)	NEUTRAL (0)
	previous experience - which identifies a risk that the intervention may make the objective harder to achieve.	contribution would be delivered may be limited. Some elements of the objective may be achieved, whilst others may not.	previous experience - that the contribution has a quantified and beneficial outcome in relation to the objective.	
Value for Money	The intervention is not likely to represent an effective and proportionate solution to the identified problem(s). There is clear evidence to suggest that there is a high risk of undesirable consequences if it is implemented.	In principle the intervention may represent an effective and proportionate solution to the identified problem, although more evidence is likely to be necessary to provide justification.	The intervention clearly addresses the identified problem(s) in a way that is both effective and proportionate.	There is no evidence that the intervention will have any impact (positive or negative) on the identified problem(s).
Deliverability	There is evidence to suggest that there are serious deliverability issues with at least one of the following - technical feasibility, cost / funding, stakeholder acceptability and legal powers - and that there is no prospect of the issue being resolved without substantial and disproportionate effort.	There is evidence to suggest that there are deliverability issues with at least one of the following -technical feasibility, cost / funding, stakeholder acceptability and legal powers - but there is a realistic prospect of the issue being resolved, albeit with a degree of effort outside the normal course of business.	There is evidence to suggest that, if any deliverability issues exist at all, they are relatively minor and can be solved in the normal course of business.	There is no evidence as to whether the intervention is deliverable or not, primarily because there is not sufficient detail to be able to make a judgement.

6.2.2. The results of the intervention and option assessment are derived as follows:

- Each intervention is scored (between -1 and +2) against the sub-criteria summarised in Table 6-2 below;
- The scores for each of the sub-criteria are added together to provide an overall score for each of the three criteria;
- The sub-criteria scores are then added together to give an overall score for the intervention.

Table 9 - Criteria and Sub-criteria

CRITERIA	SUB-CRITERIA
Contribution to objectives	1. Enable and encourage economic growth through the delivery of more homes and jobs.
	2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.
	3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.
Value for Money	1. Cost of the intervention (capital and maintenance)
	2. Impact upon journey time
	3. Accident risk reduction/saving
Deliverability	1. Technical / practical feasibility
	2. Affordability / funding availability
	3. Stakeholder acceptability
	4. Legal powers

6.2.3. The approach to producing the scores has been to use a mix of available evidence (for example from the traffic surveys and accident data), stakeholder feedback, local knowledge of transport conditions and professional judgement (which includes experience from other areas).

6.2.4. Each intervention is assessed against the same objectives. Furthermore, this assessment considers the contribution of each intervention on its own (i.e. not taking into account other interventions that could also be implemented). The maximum possible scores against each of the criteria are as follows:

- Contribution to objectives: 6
- Value for money: 6
- Deliverability: 8

6.2.5. Therefore, the maximum possible score for any intervention is 20. Whilst total score is an important indicator of whether an intervention is worth pursuing, scores for the individual criteria are also important in their own right. If an intervention has a particularly low score against one such criteria – especially deliverability – then the case for implementation may be seriously weakened.

7 INTERVENTION ASSESSMENT SCORING

7.1 INTRODUCTION

7.1.1. The results of the intervention and package assessment are set out in Appendix C. A summary is set out in this chapter.

7.2 INTERVENTION SCORES

7.2.1. Table 10 identifies the interventions recommended to be taken forward and their respective rank from 1 being the highest scoring down to 30, the lowest scoring intervention. Note as some schemes scored identically there are multiple interventions with the same rank.

7.2.2. The schemes recommended to progress further are shown in GREEN,, those dependent upon planning applications/ or wider interventions in ORANGE, and those recommended to be discounted in RED. In total 18 of the schemes are recommended to be taken forward, 6 are dependent upon planning permission/implementation, and 6 have been discounted at this time. The scores are based on the best available evidence at the present time. If further evidence becomes available, then the case for pursuing any particular intervention may change.

Table 10 - Summary Intervention Appraisal

PROCEED		PLANNING DEPENDENT		DISCOUNT	
Intervention	**Rank**	**Intervention**	**Rank**	**Intervention**	**Rank**
F	1	A	1	Y	25
I	6	B	1	V	26
M	6	S	1	W	27
N	6	T	1	U	28
E	10	Q	6	AA	29
P	10	R	10	Z	30
G	13				
L	13				
O	13				
X	13				
AB	17				
J	17				
H	19				
K	20				
C	21				
AD	22				
AC	23				
D	23				

7.2.3. Table 11 below sets out the scores for the individual interventions. The table also includes an indication of the scale of costs associated with the intervention. This is based on an approximation of similar schemes elsewhere and is not a full detailed cost. It includes an allowance for professional fees, land, compensation, and maintenance costs based on a simple banding structure of

£ Up to circa £50,000

££ Above £50,000, but likely to be less than £100,000

£££ In excess of £100,000.

Table 11 - Summary Intervention appraisal

REF	INTERVENTION	DESCRIPTION	SCALE OF COST	CONTRIBUTION TO	VALUE FOR MONEY	DELIVER-ABILITY	TOTAL SCORE	RANK	RECOMMENDATION
A	Porthouse Farm Development, Active Travel Improvements	Various local improvements to footpaths and junctions	££	5	5	7	**17**	**1**	The package should be progressed to design and implementation.
B	Pencombe Lane Development Transport Improvements	Various local improvements to footpaths and junctions	££	5	5	7	**17**	**1**	The package should be progressed to design and implementation.
C	A44 Bromyard Bypass Speed Limit	Reduced speed limit on A44 (from 40mph to 30mph)	£	3	3	2	**8**	**21**	Under further investigation by BBLP
D	Church Street Pedestrian Crossing Improvements	Conversion of Zebra crossing outside Post Office to Pelican crossing	££	2	1	2	**5**	**23**	The existing Zebra crossing should be retained but refurbished.
E	Broad Street & High Street HGV Access Restrictions	Access only for HGVs on Broad Street / High Street	£	4	5	6	**15**	**10**	Should be progressed in conjunction with H, I, L and M
F	Broad Street / High Street 20mph Limit	Introduction of a 20mph speed limit on Broad Street / High Street	££	5	6	6	**17**	**1**	Current speeds to be investigated and potential to progress in conjunction with suite of HGV restrictions
G	Cruxwell Street Pedestrian Improvements	New Pelican crossing outside the Leisure Centre	££	5	5	4	**14**	**13**	Alternative provision to improve crossing in conjunction with J
H	Pump Street HGV Access-restrictions	Access-only for HGVs; bus stop relocation and parking changes	£	4	4	4	**12**	**19**	Should be partially progressed in conjunction with E, I, L and M
I	New Road HGV Access-restrictions	Access only for HGVs on New Road. Scope for road changes to dissuade HGV movements.	£	5	4	7	**16**	**6**	Should be progressed in conjunction with E, H, L and M
J	Cruxwell Street Parking Changes	On-street parking transferred to right hand side	£	3	4	6	**13**	**17**	Should be progressed in conjunction with G
K	Rowberry Street Parking Changes	Remove one parking space outside public hall on Rowberry Street	£	0	3	7	**10**	**20**	Should be progressed in conjunction with G and J
L	Winslow Road HGV Access-restrictions	Access-only for HGVs on Winslow Road	£	2	5	7	**14**	**13**	Should be progressed in conjunction with E, H, I, and M
M	Station Road HGV Route basic improvements	*De minimis* improvement of Station Road to cater for HGV use	££	4	5	7	**16**	**6**	Should be progressed in conjunction with E, H, I, and L
N	Pump Street Bus Stop Improvements	Extension of bus stop in Pump Street and improvements to all bus stops	££	6	4	6	**16**	**6**	This intervention should be pursued as supported by S106 funds
O	Freight Quality Partnership	To encourage voluntary enforcement of HGV routes and to provide good levels of information to local businesses and freight haulers	££	4	4	6	**14**	**13**	An FQP should be further investigated to identify partners and lead, but is dependent upon interventions to be implemented
P	Civil Enforcement Officer Funding	Funding to support civil enforcement officer to enforce parking regulations	££	3	5	7	**15**	**10**	This intervention should be further investigated, funding dependent
Q	Hardwick Bank: Improve Active Travel Routes	Improvements to existing Public Rights of Way	£	6	5	5	**16**	**6**	This intervention should be pursued through the planning process
R	Hardwick Bank: New Active Travel Route	New walking and cycle route from Hardwick Bank development to Old Road	££	6	5	4	**15**	**10**	This intervention should be pursued through the planning process
S	Hardwick Bank A44 Access	New roundabout junction on the A44	£££	5	5	7	**17**	**1**	This intervention should be pursued through the planning process
T	Hardwick Bank B4214 Access	New traffic signal junction on Tenbury Road to access Hardwick Bank	£££	5	5	7	**17**	**1**	This intervention should be pursued through the planning process
U	Sherford Road One Way	Sherford Street one-way inbound from the junction with the A44 to High St.	££	-3	-3	4	**-2**	**28**	No apparent significant benefits, and should not be implemented
V	Old Road One Way	Old Road one-way outbound between Tenbury Road and York Road	££	1	-3	4	**2**	**26**	No apparent significant benefits, and should not be implemented
W	Church Street HGV Access-restrictions	Access / Loading only on Church Street for inbound HGVs.	£	-1	-3	4	**0**	**27**	No apparent significant benefits, and should not be implemented
X	Station Road improvements (full HGV use)	Improvement of Station Road to become official HGV route through town	£££	5	4	5	**14**	**13**	A full feasibility study should be pursued and funding identified
Y	Station Road Industrial Estate access link from A44	Single carriageway link from A44 across to Station Road	£££++	4	2	-2	**4**	**25**	Challenges to secure funding and detail design require political will and wider desire to pursue to secure commitment and develop further.
Z	Hardwick Bank HGV route	Upgrade of proposed residential road to cater for HGV through movements	£££+	-1	-2	-3	**-6**	**30**	It is not proposed to take the scheme any further
AA	A44 Bus Terminus	New bus turning bay / terminal point at the By-pass end of Sherford Street.	£££	-1	-2	-1	**-4**	**29**	No clear justification for moving the town centre bus facility, and therefore this proposal should not be pursued

REF	INTERVENTION	DESCRIPTION	SCALE OF COST	CONTRIBUTION TO	VALUE FOR MONEY	DELIVER-ABILITY	TOTAL SCORE	RANK	RECOMMENDATION
AB	Paniers Lane Calming Measures	Package to improve safety around the school, to dissuade through traffic and enhance sustainable transport links.	££	6	3	4	**13**	**17**	This intervention should be further investigated, funding dependent
AC	A44/A465 Junction alteration	Alteration to junction form to incorporate crossing facilities	£££	4	1	0	**5**	**23**	This intervention should be further investigated, funding dependent
AD	A44 pedestrian subway enhancement	Enhancement or potential closure with at-grade crossing	££	3	1	3	**7**	**22**	This intervention should be further investigated, funding dependent

8 DELIVERY

8.1.1. The above summary has assessed 28 different interventions to address the identified objectives of this Traffic Management Study. Of those a number have been identified for immediate action, or further refinement to allow their implementation.

8.1.2. Based on the scoring criteria there are several schemes that could progress, with a suite of measures concerning the town centre, a further suite of HGV restrictions, and some others that will be dependent upon their progress through the planning process.

8.1.3. The following table has aggregated these bundles to identify how they can be implemented and a likely timeline. Those interventions that form mitigation for development (Interventions A, B, Q, R, S and T) have not been included in the Table below due to their dependency upon the start of construction and implementation of any associated permissions/S.106 staged payments.

8.1.4. Whilst there has been a previous policy commitment in Malvern District Local Plan to provide an Industrial Link Road, there is no current planning status or funding secured to progress any scheme further. The scheme would have to address a number of issues including:

- Land ownership;
- Funding;
- Political backing;
- Impact on the flood zone;
- Landscape and ecological impacts; and
- Impact on businesses/properties on the route corridor.

8.1.5. In light of the current policy and as there is very little likelihood of funding being found for its delivery in the near to medium term the scheme has been excluded from the Local Plan Core Strategy and Local Transport Plan.

8.1.6. If political backing and funding sources could be identified by the Town Council, there is nothing precluding the link becoming an element of the strategy at some point in the future. This is predicated on a need to update the historic feasibility studies in order to address the issues above, allow the formulation of a preliminary business case and subsequently allow Herefordshire Council to incorporate the Access Road into their plans and policies.

Table 12 - Packages of Options

REF	INTERVENTION	COMMENTARY	NEXT STEPS	TIMELINE *NB: All the below are dependent upon funding being secured to meet the stated timeline*	ISSUES/BARRIERS	SUGGESTED FUNDING SOURCE
E, H, I	HGV Access Restrictions	TROs required to take forward implementation. Proposed as one town centre TRO.	Design schemes for TRO consultation	TRO process circa 6 months with 2-year implementation period	Some dependency on ensuring Station Road HGV route is fit for purpose	BBLP Annual Plan
D	Church Street Pedestrian Crossing Improvements	Recommended maintenance/ renewal of existing zebra	Schedule into maintenance programme	Financial Year (FY) 2018/19		Highway maintenance
G & J	Cruxwell Street Improvements	Whilst the physical constraints limit the ability to provide a formal crossing, relocation of the marked parking bays from the north to the south side of Cruxwell Street could facilitate a build out and reduced/safer place to cross	Design scheme to take forward to implementation	6 months – design/consultation 12-18 months implementation	None perceived at this time	Improvements were identified in this location in conjunction with development. Recommended that S.106 monies could be used
K	Rowberry Street Parking Changes	Small scale intervention. Potential inclusion within town centre HGV restrictions	TRO publication	TRO process circa 6 months with 2-year implementation period	None perceived at this time	Highway maintenance
M	Station Road HGV Route basic improvements	As the road is within HC ownership, no perceived barriers to undertaking small scale changes	Maintenance regime to be designed.	Immediate	Ownership constraints. Funding	Highway maintenance
X	Station Road improvements (full HGV use)	Although in HC ownership, the un-adopted status limits the ability to implement a suitable HGV route. Any improvement works have to consider the impact on alternative routes and possible closures	Surveys and design work necessary to determine scheme and feasibility	Design work and consultation FY 2018/19. Implement FY 2019/20	Utility impacts Scheme costs Land ownership constraints	Capital funds to be bid for
F	Broad Street / High Street 20mph limit	Existing speeds need to be determined to evaluate the extent of works that maybe required prior to any TRO process and subsequent 20mph limit being introduced. Potential to extend to cover Cruxwell Street and Rowberry Street	Undertake speed surveys. Design scheme for consultation	Design and consultation FY 2018/19. Funding to be identified for implementation FY 2019/20+	Public support	To be secured/identified. Possible developer funding
N	Pump Street Bus Stop Improvements	Past scheme identified but never actioned	Take forward design for implementation	Funding question if S.106 monies as scheme not yet progressed, but target FY 2018/19.	2011 study highlighted utility issues and limited space	S.106 monies Public transport support/maintenance
L	Winslow Road HGV Access-restrictions	Whilst linked to the wider HGV restrictions, this is felt to be a separate TRO and consultation process should be followed reflective of the different issues and aspirations for the intervention	Design for TRO publication	With a lower rank score, it is felt this could follow after the town centre restrictions to allow an evaluation to take place FY 2020/21	Possible local objection	None yet identified
P	Civil Enforcement Officer Funding	Enforcement of existing orders could be undertaken by diverting other officers to the town. Need may reduce if local awareness improves and if interventions bring improvements. Potential review of off street parking charges to compliment the enforcement and implementation.	Discussion with HC Enforcement team	Can be started as soon as funds/post secured.	Staff recruitment Funding	None yet identified
O	Freight Quality Partnership	Need to establish role and function for any FQP, or an informal arrangement	Determine local support, and take proposal forward	On the basis of the questionnaire results this is not seen as priority as businesses generally are aware of their options	Support from businesses	FTA, local hauliers, LTP

9 CONCLUSION

9.1.1. The purpose of this study was to evaluate the existing traffic management issues within the town of Bromyard in order to identify suitable measures for implementation in conjunction with proposed development in the town.

9.1.2. The review has clearly identified that parking and HGV access are the most visible problems and the historic constrained network of roads within the town, has shaped the possible measures that can be implemented to remedy local issues.

9.1.3. Based on data including traffic flows and collision records, site walkovers and consultation with local businesses and stakeholders, a list of interventions was identified and assessed to remedy the observed problems.

9.1.4. These have been evaluated using a scoring framework taking into account their ability to provide a solution, their cost and deliverability. From this assessment some measures have been discounted, but a series of schemes are recommended for implementation. Many of these are seen as complimentary and could be implemented as a package of small schemes rather than standalone measures as detailed in Table 8.1. These focus on those independent of any planning application and hence are deliverable by Herefordshire Council as the lead organisation.

Table 13 - Recommended Intervention and Implementation

Ref	Description	IMPLEMENTATION
G & J	Cruxwell Street Improvements	Within 12-18 months
E, H, I	HGV Access Restrictions	
M	Station Road HGV Route basic improvements	
D	Church Street Pedestrian Crossing Improvements	
N	Pump Street Bus Stop Improvements	
P	Civil Enforcement Officer Funding	
K	Rowberry Street Parking Changes	Within next 3 years
AB	Paniers Lane Calming	
F	Broad Street / High Street 20mph limit	
X	Station Road further improvements	
L	Winslow Road HGV Access-restrictions	Longer term
O	Freight Quality Partnership	
AC	A465/A44 Junction Improvements	
AD	A44 pedestrian subway improvements	

9.1.5. Overall there is a proven need to manage inappropriate parking and HGV access in the town to reduce conflicts, and enhance highway safety particularly in light of additional development in the town which will increase these pressures. The above measures and indicative program respond to these issues.

Appendix A

RECORDED TRAFFIC FLOWS

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N

Tenbury Road B4214

Kirkham Garden

Rowberry Street B4203

High Street B4203

Church Street B4203

Industrial Estate

Old Road B4214

New Road

Pump Street

Frog Lane

Sherford Street

A44

Nunwell Road

1119 17 1440

1800 624 33

1889 2452 898

362 286 2517

950 438 0

19 21 22

772 509 2681

1090 512 2107

667 1 1142

2163 0 1142

1618 2423

0 1062 1163

Rev	Revision details	Chkd	Appd	Date
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Drawn: □B	
Design: N/A	
Chkd: SN	
Appd: HI	
Date: 17-02-17	

Preliminary	
For comment	✓
For tender	
For construction	
As constructed	
Other	

Balfour Beatty
Living Places

Client
G. HUGHES BA(Hons) MA TP1 MLEO.
DIRECTOR of ECONOMIES, COMMUNITIES and CORPORATE
Herefordshire Council
Place Based Commissioning, Plough Lane, PO Box 4, Hereford, HR4 0L□

Project Name
BROMYARD TRAFFIC MANAGEMENT STUDY

Drawing Title
A□ERAGE 24 HOUR TRAFFIC FLOWS ALL □EHICLES INNER ROUTE

Original Drg Size : A3	Dimensions : -
Scale : Not to scale	Copyright © BBLP

Drawing No	Rev
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0 100

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Winslow Road
Firs Lane
London Avenue
York Road
Firs Orchard
Old Road B4214
New Road
Tenbury Road B4214
Rowberry Street B4203
High Street B4203
Pump Street
Frog Lane
Church Street B4203
Sherford Street
B4203
Industrial Estate
Industrial Estate
Nunwell Road
West Hill
A44
Clover Road
Lower Westfields
Westfield Close
Hereford Road A465
Panniers Lane

Rev	Revision details	Chkd	Appd	Date
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Drawn: □B		Preliminary	
Design: N/A		For comment	✓
Chkd: SN		For tender	
Appd: HI		For construction	
Date: 17-02-17		As constructed	
		Other	

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Herefordshire Council
Place Based Commissioning, Plough Lane, PO Box 4, Hereford, HR4 0L□

Project Name
BROMYARD TRAFFIC MANAGEMENT STUDY

Drawing Title
A□ERAGE 24 HOUR TRAFFIC FLOWS ALL □EHICLES OUTER ROUTE

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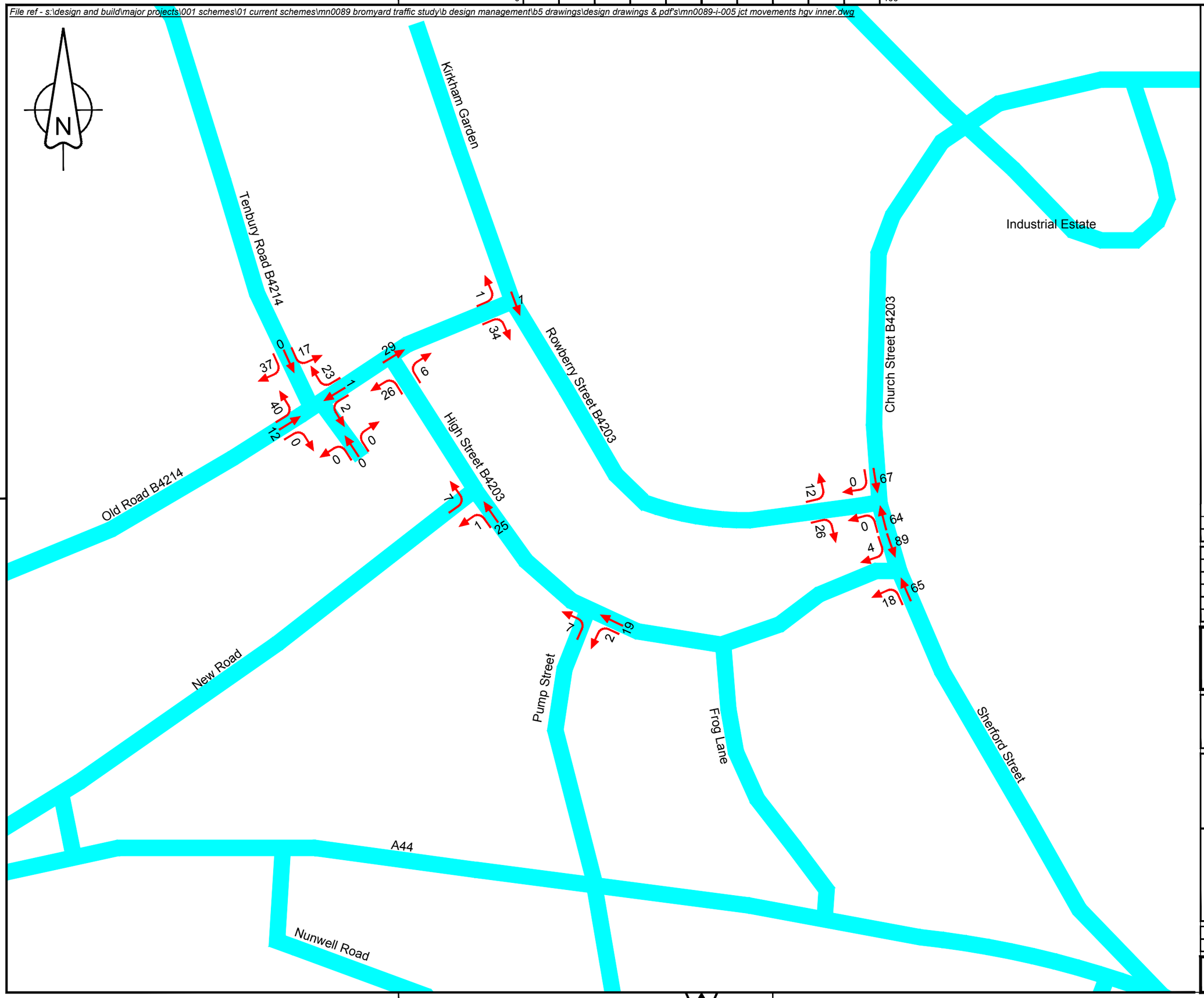

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Chkd: SN		For tender	
Appd: HI		For construction	
Date: 17-02-17		As constructed	
		Other	

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G. HUGHES BA(Hons), M.R.T.P.I, M.I.E.D.
DIRECTOR of ECONOMIES, COMMUNITIES and CORPORATE
Herefordshire Council
Place Based Commissioning, Plough Lane, PO Box 4, Hereford, HR4 0L

Project Name
BROMYARD TRAFFIC MANAGEMENT STUDY

Drawing Title
AVERAGE 24 HOUR TRAFFIC FLOWS HGV INNER ROUTE

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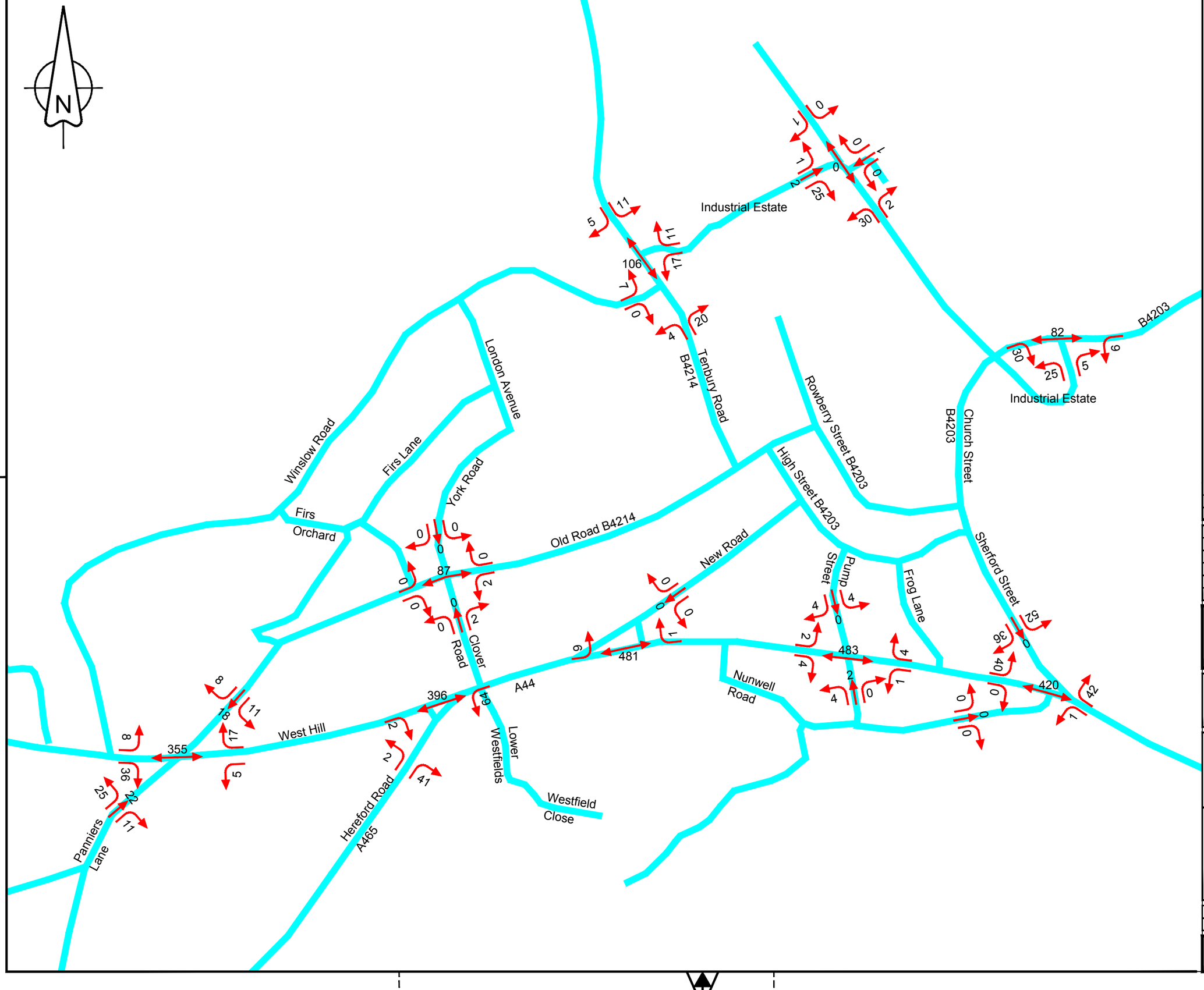

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Design: N/A		For comment	✓
Chkd: SN		For tender	
Appd: HI		For construction	
Date: 17-02-17		As constructed	
		Other	

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Project Name
BROMYARD TRAFFIC MANAGEMENT STUDY

Drawing Title
AVERAGE 24 HOUR TRAFFIC FLOWS HGV OUTER ROUTE

Original Drg Size : A3	Dimensions : -
Scale : Not to scale	Copyright © BBLP

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MN0089-I-004	

Appendix B

SCHEME PLANS AND EXISTING INFRASTRUCTURE

0 100

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Industrial Estate

Tenbury Road B4214

London Avenue

Winslow Road

Firs Lane

York Road

Firs Orchard

Old Road B4214

New Road

Rowberry Street B4203

High Street B4203

Church Street B4203

Industrial Estate

B4203

Sherford Street

Pump Street

Nunwell Road

A44

West Hill

Lower Westfields

Westfield Close

Hereford Road A465

Panniers Lane

Rev	Revision details	Chkd	Appd	Date

Design:
Chkd:
Appd:
Date:

Pre y
For comment ✓
For tender
For constructio
As constructed
Other

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DIRECTOR of ECONOMIES, COMMUNITIES and CORPORATE
Herefordshire Council
Place Based Commissioning, Plough Lane, PO Box 4, Hereford, HR4 0L

Project Name
BROMYARD TRAFFIC MANAGEMENT STUDY

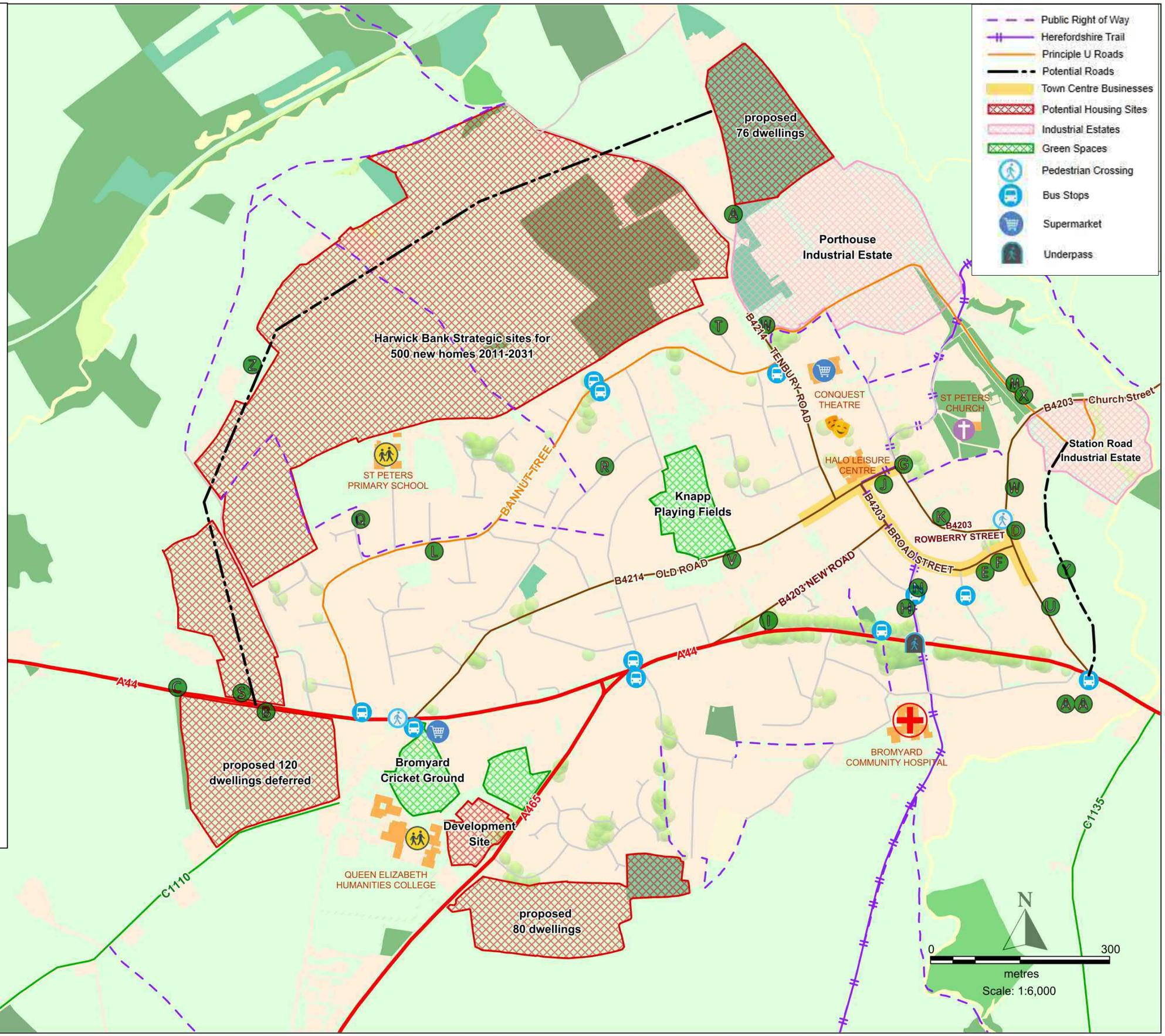
Drawing Title
EXISTING HGV SIGNAGE

Original Drg Size : A3	Dimensions : -
Scale : Not to scale	Copyright © BBLP

Drawing No
MN0089-I-009

Rev

Ref	Intervention
A	Porthouse Farm Development Active Travel Improvements
B	Pencombe Lane Development Transport Improvements
C	A44 Bromyard Bypass Speed Limit Reduction
D	Church Street Pedestrian Crossing Improvements
E	Broad Street/High Street 20MPH Limit
F	Broad Street/High Street HGV Access Restrictions
G	Cruxwell Street Pedestrian Improvements
H	Pump Street HGV Access Restrictions
I	New Road HGV Access Restrictions
J	Cruxwell Street Parking Changes
K	Rowberry Street Parking Changes
L	Winslow Road HGV Access Restrictions
M	Station Road HGV Route - Basic Improvements
N	Pump Street Bus Stop Improvements
O	Bromyard Freight Quality Partnership (Town Wide)
P	Funding of Parking Enforcement Officer (Town Wide)
Q	Hardwick Back Development Improvements to Existing Active Travel Routes
R	Hardwick Bank Development New Active Travel Route
S	Hardwick Bank Development Access from The A44
T	Hardwick Bank Development Access from Tenbury Road
U	Sherford Street One-Way
V	Old Road One-Way
W	Church Street HGV Access Restrictions
X	Station Road HGV Route - Capacity and Safety Improvements
Y	Station Road Industrial Estate (Fourboys) Link Road
Z	Hardwick Bank HGV Access Route
AA	Changes to Bus Stopping / Terminal Arrangements



Bromyard Transport Study

Proposed section 106 improvements and developments

INTERVENTION A

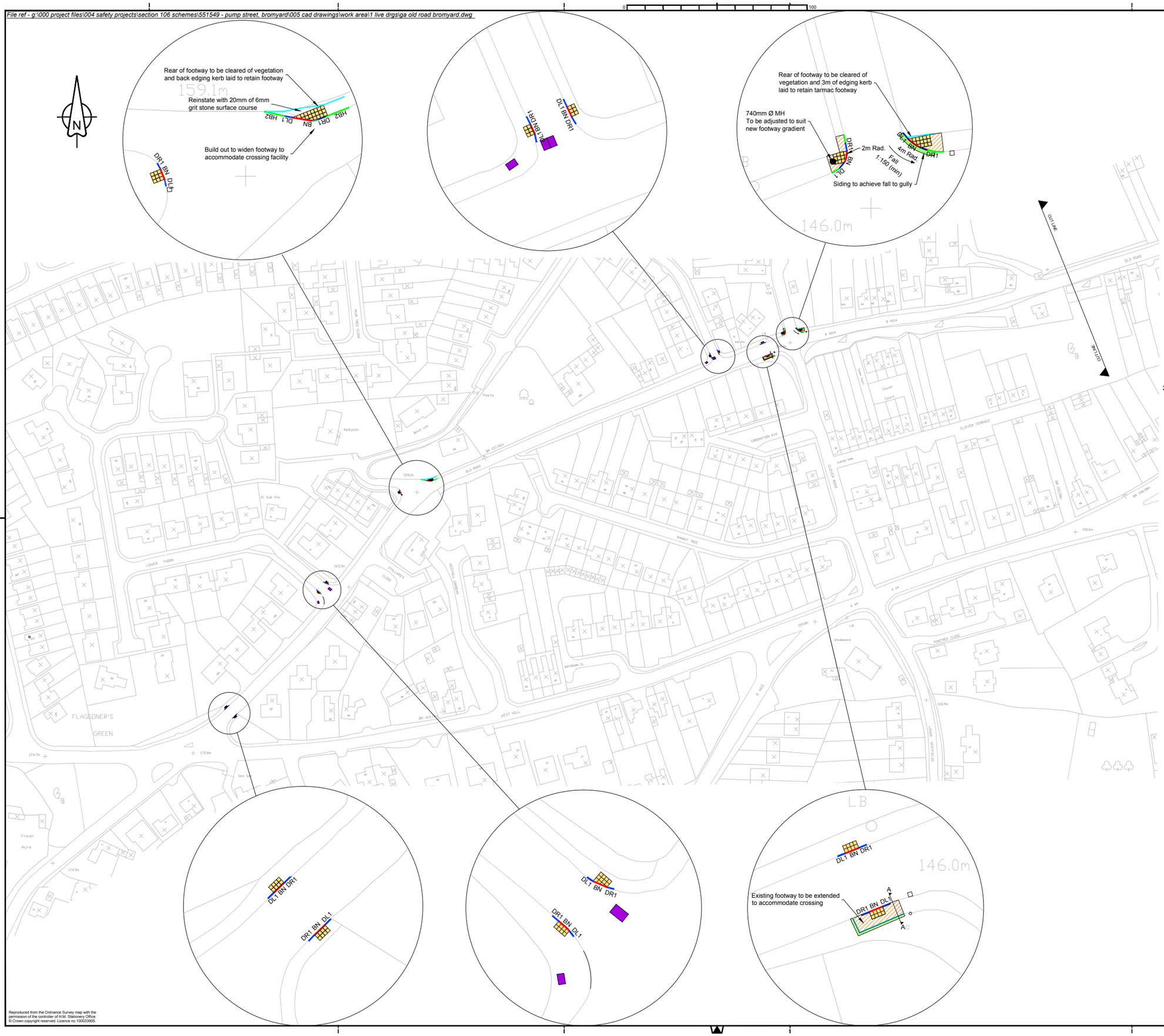
Land at Porthouse Farm
76 dwellings

77 Old road, Bromyard

Land at Porthouse Farm

Rhos 77 Old Road, Bromyard

- Uncontrolled pedestrian crossing
- Proposed one-way
- Bus stop improvements
- Proposed pedestrian route improvements
- Junction visibility improvements
- Proposed greenway improvements
- Proposed footway extension
- Proposed cycle parking



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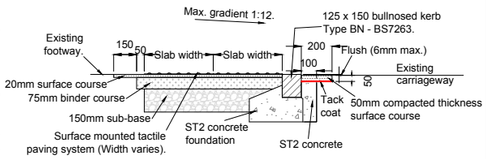
NOTES

1. Bull nosed kerbing to be laid flush with the carriageway surface or with a face no greater than 6mm.
2. Location plan scale 1:1000 - Detail scale 1:200

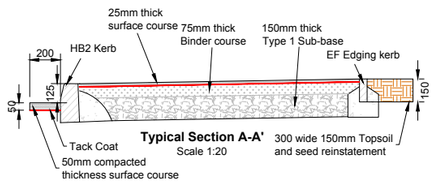
Key:

- 125 x 255 Half Batter Kerb (HB2)
- 125 x 255/150 Dropper Kerb (DR & DL)
- 125 x 150 Bullnosed Kerb (BN)
- 50 x 150 Bullnosed Edging Kerb
- 2m Radius 125 x 255 Bullnosed Kerb
- Full footway construction
- Carriageway shaping to carry surface water to gully 0.5m wide
- Road gully
- 300mm wide 150mm deep topsoil and seed reinstatement
- BT Chamber

Refer to HB2 kerb detail on drawing 551549/C/2602 for clarification of kerb installation and reinstatement details



Tactile Paving and Kerbing Detail
Scale 1:20



Typical Section A-A'
Scale 1:20

Rev	Revision details	Chkd	Appd	Date

Drawn:	CTWS	Preliminary	
Design:	SN/CTWS	For comment	
Chkd:	TRC	For tender	
Appd:	SN	For construction	✓
Date:	21st May 2012	As constructed	
		Other	

amey

Client

G. HUGHES B.A.(Hons), M.R.T.P.I. M.U.P.D. **DIRECTOR of SUSTAINABLE COMMUNITIES**

Herefordshire Council

Brockington, 35 Hafod Road, Hereford, HR1 1SH Tel: (01432) 260000 Fax: (01432) 260286

Project Name

OLD ROAD, BROMYARD

Drawing Title

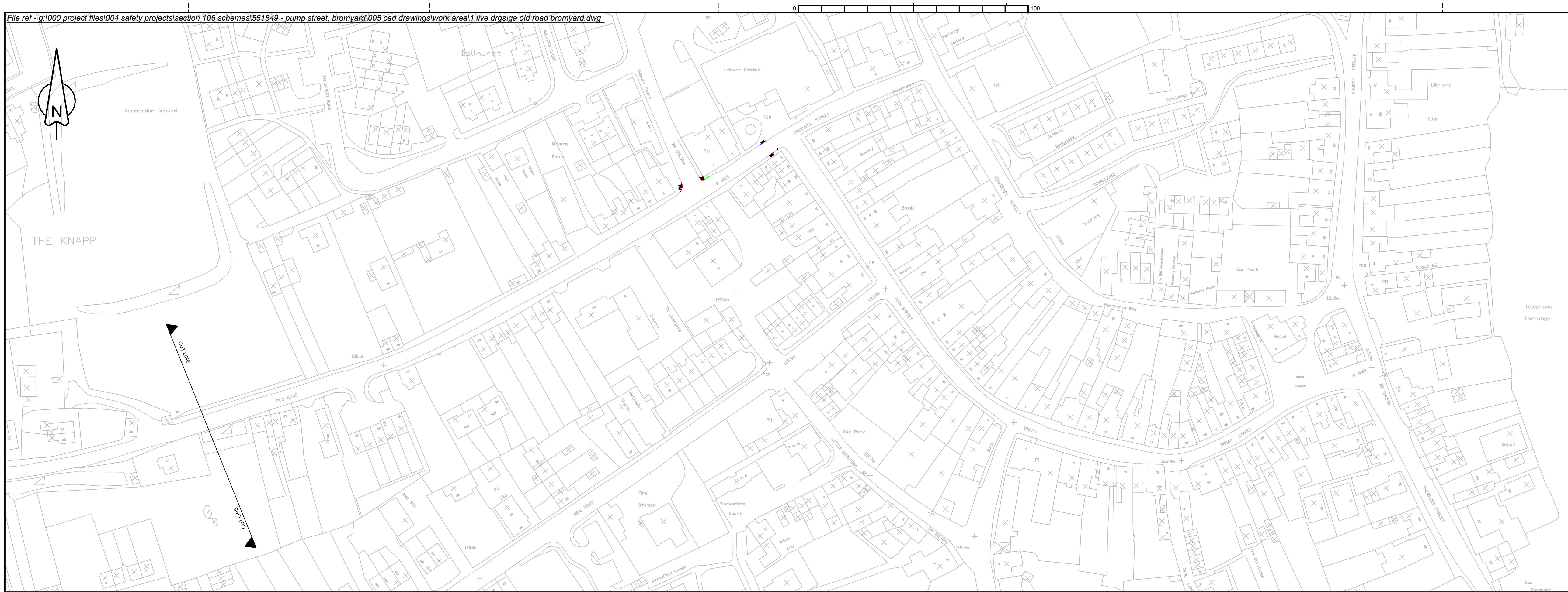
General Arrangement Plan
Sheet 1 of 2

Original Drawing Size : A1	Dimensions : m
Scale : 1:1000 / 1:200	Copyright © Amey

Drawing No
551549/C/2601

Rev

File ref - g:\000 project files\004 safety projects\section 106 schemes\551549 - pump street, bromyard\005 cad drawings\work area\1 live drgs\ga old road bromyard.dwg



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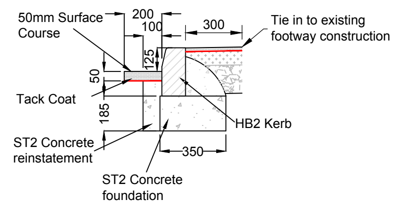
G:\000 Project Files\004 Safety Projects\Section 106 schemes\551549 - Pump Street, Bromyard\005 CAD Drawings\Work Area\1 Live Drgs\GA old road bromyard.dwg, 21/05/2012 14:23:52, cschofield

NOTES

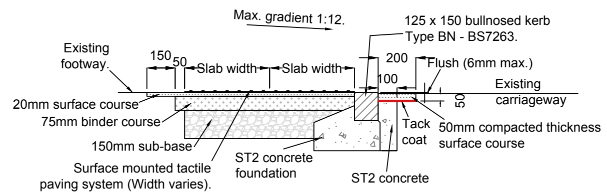
1. Bull nosed kerbing to be laid flush with the carriageway surface or with a face no greater than 6mm.
2. Location plan scale 1:1000 - Detail scale 1:200

Kerbing Specification:

- 125 x 255 Half Batter Kerb (HB2)
- 125 x 255/150 Dropper Kerb (DR & DL)
- 125 x 150 Bullnosed Kerb (BN)
- 1m Radius 125 x 255 Bullnosed Kerb
- BT Chamber
- Road gully



HB2 Kerb Detail
Scale 1:20



Tactile Paving and Kerbing Detail
Scale 1:20

Rev	Revision details	Chkd	Appd	Date

Drawn:	CTWS	Preliminary	
Design:	SN/CTWS	For comment	
Chkd:	TRC	For tender	
Appd:	SN	For construction	✓
Date:	21st May 2012	As constructed	
		Other	

Client

G. HUGHES B.A.(Hons), M.R.T.P.I, M.I.E.D.
DIRECTOR of SUSTAINABLE COMMUNITIES

Herefordshire Council

Brockington, 35 Hafod Road, Hereford, HR1 1SH Tel: (01432) 260000 Fax: (01432) 260286

Project Name

OLD ROAD, BROMYARD

Drawing Title

General Arrangement Plan Sheet 2 of 2

Original Drawing Size : A1	Dimensions : m
Scale : 1:1000 / 1:200	Copyright © Amey

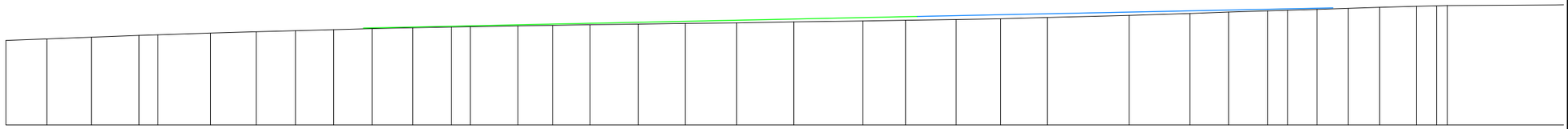
Drawing No	Rev
551549/C/2602	

Key:

120m stopping sight distance

160m stopping sight distance

VERTICAL PROFILE



Key:

120m stopping sight distance

160m stopping sight distance

Proposed kerbline

Proposed road markings

Existing road markings

Footway width minimum of 1.8m (2.0m at all other locations)

Temporary landscaping, to be removed when Phase 2 roundabout is introduced

Introduce 30mph speed limit and 'gateway' traffic calming feature. Details to be agreed with Highway Authority

Phase 1 priority controlled T-junction

Introduce kerbline on north side of A44, where presently lacking

Existing pedestrian crossing

Developer has secured strip of land from a third party to provide a 2.0m footway link to existing pedestrian crossing. A 1.8m footway to be provided for a circa 10m section due to constraints

A44

Traffic calming detail

Gladman Site

Introduce 2.0m footway on south side of A44, except for a circa 30m section at eastern end where a 1.8m wide footway will be provided

Introduce dropped kerbs and tactile paving at footway termination point

Introduce bus stop

Introduce dropped kerbs and tactile paving at crossing point to College

Introduce pedestrian access

Introduce bus stop

Phase 2 roundabout

SCALE 1:500

N

Note:
1. Dropped kerbs, tactile paving and pedestrian guardrail to be provided where necessary. Details to be agreed with highway authority

Rev	Description	Date
B	Additional changes to A44 footway scheme	30.08.16
A	Changes to A44 footway scheme	25.08.16

Project: BROMYARD, HEREFORDSHIRE

Client: GLADMAN DEVELOPMENTS

Title: PROPOSED ACCESS STRATEGY

INTERVENTION B

ashleyhelme associates
76 washway road, sale, manchester, m33 7re
e: aha@ashleyhelme.co.uk t: 0161 972 0552 f: 0161 972 0553

Drg No: 1470/20

Rev: B

Date: AUGUST 2016

Scale: 1:1000@A2

0 100

Church Street

(A)
Potential location for pelican crossing.
Would re□uire removal of residents parking to facilitate, this is likely to attract residents opposition.
Minimum distance from junction - 20m
Approximately 4 parking spaces would be lost to achieve visibility to crossing.

(B)
Potential location for zebra crossing.
Minimum distance from junction - 5m
Approximately 2 parking spaces would be lost if this option is progressed.

Narrow footway width, unlikely to be able to accommodate signal head.

Potential modified kerb line.
Autotrack to confirm radius.
Drainage works likely to be re□uired.

(C)
Approximate location of existing zebra crossing.
□isibility issues for traffic and pedestrians.

Steep footway gradient

Narrow footway (sub standard width)

Notes:

1. Conversion of zebra crossing to pelican cannot be undertaken as pelicans need to be located at a minimum distance of 20m from junctions.
2. Consideration given to signalising the junction but footway widths would prevent the installation of signal heads and control cabinets. This option may also have a detrimental effect on the operation of the junction. Modeling would be re□uired to confirm.
3. Locations (A) and (B) would both result in the loss of car parking spaces.
4. Location (A) and (B) would both need to be assessed against the re□uirements of LTN 1/95 and LTN 2/95.
5. Locations (A) and (B) may be remote from pedestrian desire lines.
6. □ebra / pelican crossing would re□uire illumination at night.

Rev	Revision details	Chkd	Appd	Date
A	Alterations following review	SN	HI	12-05-17

Drawn: □B		Preliminary	
Design: SN		For comment	✓
Chkd: SN		For tender	
Appd: HI		For construction	
Date: 25-04-17		As constructed	
		Other	

Balfour Beatty
Living Places

Client
G. HUGHES BA(Hons) MATPI MLED.
DIRECTOR of ECONOMIES, COMMUNITIES and CORPORATE
Herefordshire Council
Place Based Commissioning, Plough Lane, PO Box 4, Hereford, HR4 0L□

Project Name
BROMYARD TRAFFIC MANAGEMENT STUDY

Drawing Title
CHURCH STREET PEDESTRIAN CROSSING - OPTIONS IN□ESTIGATION

INTERVENTION D

Original Drg Size : A3	Dimensions : -
Scale : 1:500	Copyright © BBLP

Drawing No	Rev
MN0089-I-021	A

0 100

File ref - s:\design and build\major projects\001 schemes\01 current schemes\mn0089 bromyard traffic study\b design management\b5 drawings\design drawings & pdf's\mn0089-i-022a cruxwell street zebra crossing.dwg

Possible location for pelican crossing mid way between junctions

Tenbury Road

Cruxwell Street

Possible zone for the introduction of a pelican crossing

High Street

SHEEP CLOS

Notes:

1. Locations exhibit narrow footways □2m (design recommendation)
2. Limited space to sight signal heads and control cabinet which will reduce footway widths further.
3. Shop frontages emerge on to be footway.
4. Pelican crossing would re□uire illumination at night.
5. Options would re□uire assessment against LTN 1/95 and LTN 2/95.

Rev	Revision details	Chkd	Appd	Date
A	Alterations following review	SN	HI	12-05-17

Drawn: □B	Preliminary	
Design: SN	For comment	✓
Chkd: SN	For tender	
Appd: HI	For construction	
Date: 25-04-17	As constructed	
	Other	

Balfour Beatty
Living Places

Client
G. HUGHES B.A.(Hons), M.R.T.P.I, M.I.E.D.
DIRECTOR of ECONOMIES, COMMUNITIES and CORPORATE
Herefordshire Council
Place Based Commissioning, Plough Lane, PO Box 4, Hereford, HR4 0L□

Project Name
BROMYARD TRAFFIC MANAGEMENT STUDY

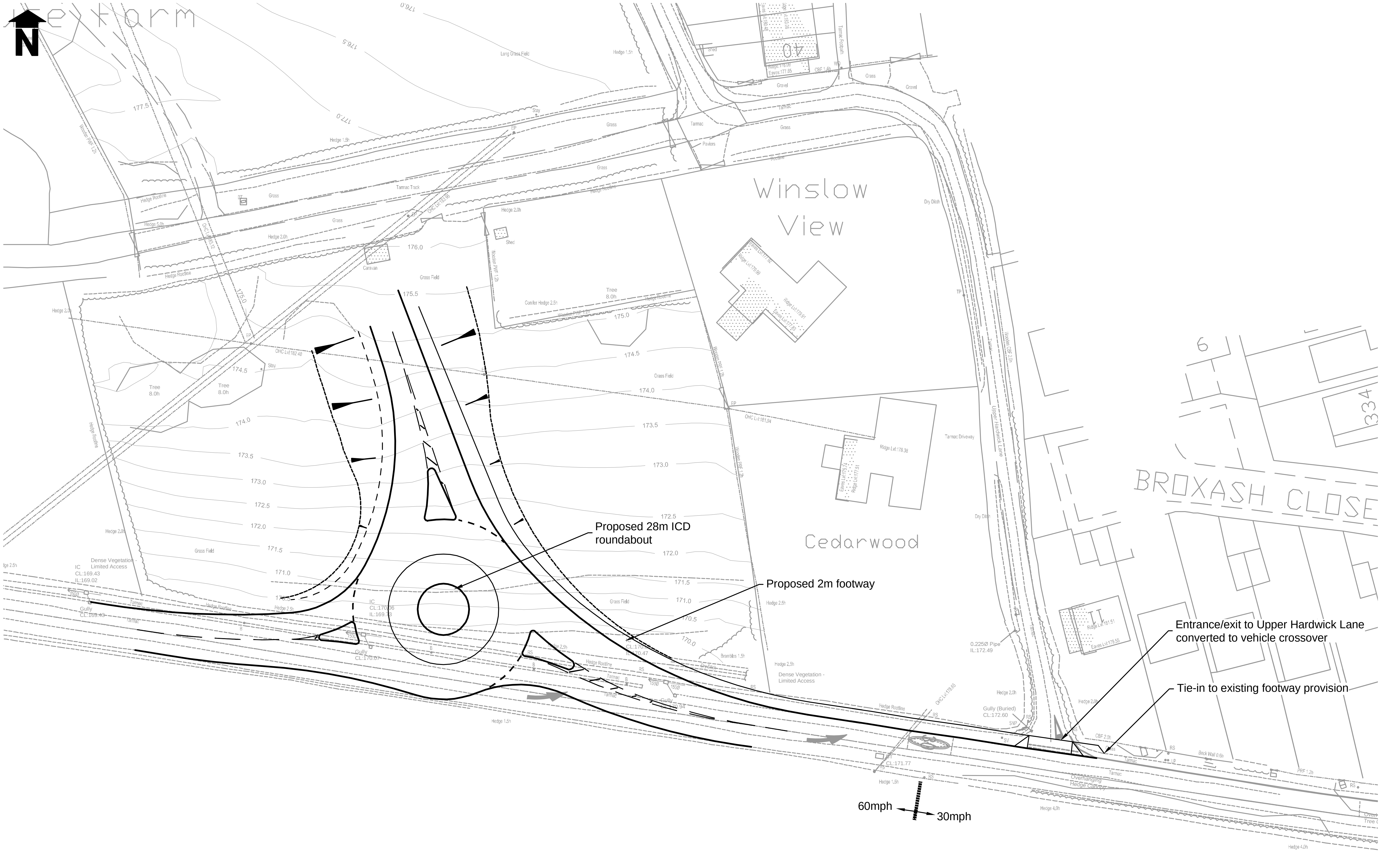
Drawing Title
CRU□WELL STREET CONTROLLED CROSSING - OPTIONS IN□ESTIGATION

INTERVENTION G

Original Drg Size : A3	Dimensions : -
Scale : 1:500	Copyright © BBLP

Drawing No	Rev
MN0089-I-022	A

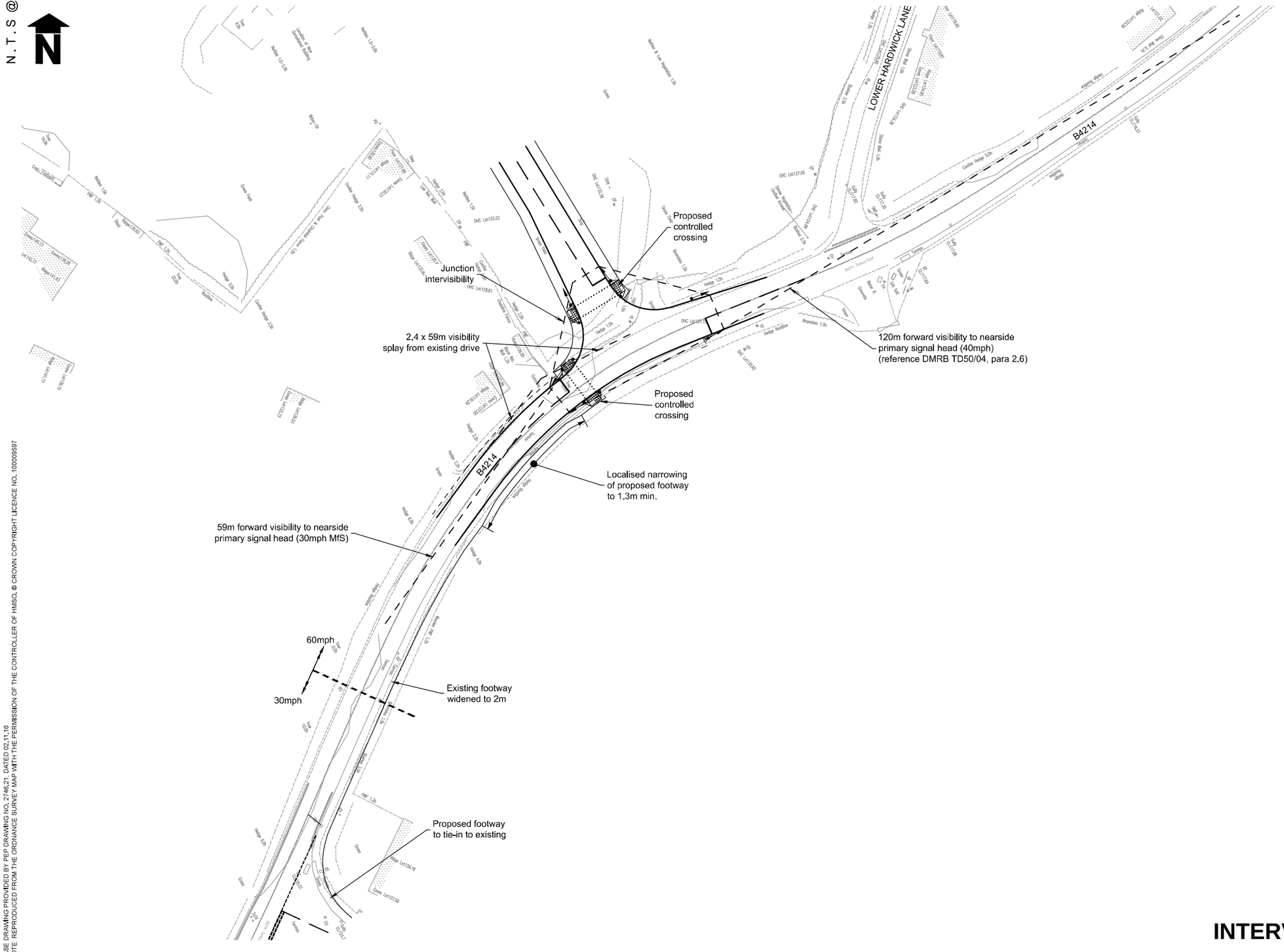
N . T . S @ A3



INTERVENTION S

APPENDIX 8.1
A44 Roundabout

N.T.S @A3



INTERVENTION T

Appendix C

INTERVENTION ASSESSMENT SCORING

Appendix C.1

OPTION ASSESSMENT RESULTS

The following tables and plans provide a summary of the performance of each intervention, as well as additional information as to the potential next steps and a recommendation.

A: PORTHOUSE FARM ACTIVE TRAVEL INFRASTRUCTURE

Summary description of Intervention: A package of pedestrian route improvements to enable walking from the proposed housing development to the town centre and employment areas (see Figure 8.1 below).				
Appraisal Scores	*Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	5	7	7	**19**
Positive Impacts:	Provides a joined up package of measures on the pedestrian main routes from the development – to the town centre and the A44 corridor. Enables safer and easier crossing of side roads on the main routes, in particular Old Road and Tenbury Road.			
Potential Drawbacks:	It is unclear whether there is sufficient demand for additional cycle parking in the locations specified in the Section 106 agreement. It is not clear from the Section 106 agreement as to the precise proposals for improvement to the greenway.			
Main Challenges:	The extent to which money allocated to the section 106 agreement could be allocated to more effective interventions, if these are identified.			
Interfaces:	Any proposals for improvements to the Greenway will need to fit with the proposal to improve Station Road for HGVs.			
Further work required if the intervention is considered to be a priority:	Review of demand for cycle parking, and re-prioritisation of spending if appropriate. Identify scheme to improve the greenway adjacent to the old railway line.			
Recommendation:	Subject to review of the cycle parking, the package should be progressed to design and implementation.			

B: PENCOMBE LANE DEVELOPMENT TRANSPORT IMPROVEMENTS

Summary description of Intervention: Improvements to footways in the vicinity of the development and provision of public transport facilities in the form of new bus stops.				
Appraisal Scores	*Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	5	5	6	**16**
Positive Impacts:	Provides a number of improvements to the physical infrastructure on Panniers Lane and the A44, with particular benefits for access to Queen Elizabeth Humanities College.			
Potential Drawbacks:	The proposals are part of a planning application that was previously rejected because of poor pedestrian connectivity.			
Main Challenges:	There will be a need to ensure that proposals are part of an integrated package of improvements, that enable whole pedestrian routes to be brought up to a common standard (especially for mobility impaired people) and to link into the proposals for Old Road.			
Interfaces:	The interventions need to relate strongly to pedestrian route improvements proposed as part of other developments – most notably Hardwick Bank (in the Winslow Road area) and Porthouse Farm (in the Old Road area).			
Further work required if the intervention is considered to be a priority:	If a re-submitted planning application is considered for approval, then the proposed measures will need to be assessed against evidence that they address the main pedestrian desire lines in the area.			
Recommendation:	The package should be progressed to feasibility study to allow for future design and implementation depending upon planning outcome.			

C: A44 BROMYARD BYPASS SPEED LIMIT

Summary description of Intervention: Reduction in the speed limit from 40mph to 30mph, east of the junction with New Road until the start of the existing de-restricted speed limit.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	3	3	2	**8**
Positive Impacts:	According to Department for Transport Circular 01/2013, as a general rule for every 1 mph reduction in average speed, collision frequency reduces by around 5%. For typical types of road traffic collisions the risk of death for drivers and pedestrians involved reduces with reduced vehicle speeds. Therefore if implementing a 30mph limit can reduce the average speed of vehicles, the risk of collisions (and their potential severity) is also likely to be reduced.			
Potential Drawbacks:	There is no evidence of any speed-related accidents; and the evidence suggests that the existing 40mph limit is being observed by the majority of vehicles.			
Main Challenges:	Circular 01/2013 states that speed limits should be evidence-led and self-explaining and seek to reinforce people's assessment of what is a safe speed to travel, and therefore encourage self-compliance. The relatively modern design standard of the road, compared with the adjacent 30mph section, means that drivers are likely to perceive 40mph as being the appropriate limit; and the Police will have concerns around enforcement in the absence of the road being re-designed to reduce speeds.			
Interfaces:	Any proposals to improve or create new bus stop facilities on the A44 will potentially benefit from a lower speed limit (in safety terms).			
Further work required if the intervention is considered to be a priority:	In line with Circular 01/2013 more detailed investigation is required into: → History of collisions; → Road geometry and engineering; → Road function; → Composition of road users (including existing and potential levels of vulnerable road users); → Existing traffic speeds; and → Road environment.			
Recommendation:	The existing 40mph speed limit is appropriate and should be retained. Any issues of vehicles exceeding the existing limit are a matter for the Police.			

D: CHURCH STREET PEDESTRIAN CROSSING IMPROVEMENTS

Summary description of Intervention: Conversion of the existing Zebra crossing into a traffic signal (Pelican) crossing; with options including re-location of the facility to alternative locations (see Figure 8.2 below).				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	2	1	2	**5**
Positive Impacts:	A traffic signal crossing will give people a dedicated phase for pedestrians, which will give more confidence to mobility impaired users in particular.			
Potential Drawbacks:	The time taken for the pedestrian phase of the traffic signal to be activated is likely to be longer compared with traffic stopping at a Zebra crossing. There is a risk of delays and people just crossing anyway (and not waiting for the "green man").			
Main Challenges:	Conversion of the existing Zebra crossing to a Pelican cannot be undertaken as pelicans need to be located at a minimum distance of 20m from junctions. Consideration given to signalising the junction but footway widths would prevent the installation of signal heads and control cabinets. This option may also have a detrimental effect on the operation of the junction. Modelling would be required to confirm. Locations (A) and (B) on Figure 8-2 would both result in the loss of car parking spaces. Locations (A) and (B) may be remote from pedestrian desire lines.			
Interfaces:	There would be some interface with the proposal to make High Street / Broad Street a 20mph speed limit.			
Further work required if the intervention is considered to be a priority:	Location (A) and (B) on Figure 8-2 would both need to be assessed against the requirements of LTN 1/95 and LTN 2/95.			
Recommendation:	The existing Zebra crossing should be retained, although there is a clear case for the facility to be refurbished. Finance from maintenance budget to enhance provision noting the steep gradient on footway approaches and narrow footway widths which are not compliant with design guidance.			

E: BROAD STREET AND HIGH STREET LOADING ONLY FOR HGVS

Summary description of Intervention: Reduction in the speed limit from 30mph to 20mph, with associated traffic calming measures if required.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	4	5	6	**15**
Positive Impacts:	A reduction in the number of HGVs travelling through Broad Street / High Street will lessen improve the local environment and give pedestrians greater confidence to traverse the town centre.			
Potential Drawbacks:	There are none apparent.			
Main Challenges:	The signing required for the loading restrictions will require careful planning and design in a historic urban environment – especially as the gateway signs may need to be illuminated. Direction signing on the main routes approaching the town centre will need to ensure that HGV drivers have adequate advanced warning.			
Interfaces:	There would be an interface with the proposal for a 20mph limit on New Road; and also for parallel proposal to introduce loading only for HGVs on Pump Street. The improvement of the HGV route on Station Road will be important in order to accommodate increased numbers of HGVs diverted from New Road.			
Further work required if the intervention is considered to be a priority:	Public and stakeholder consultation should be undertaken, especially with hauliers and local businesses who rely on HGV deliveries. The potential for enforcement through Automatic Number Plate Recognition (ANPR) cameras should be investigated.			
Recommendation:	The proposal for introducing loading-only for HGVs should be progressed through a more detailed study (in conjunction with other HGV loading only proposals – for example on Pump Street, Winslow Road and Church Street).			

F: BROAD STREET AND HIGH STREET 20MPH SPEED LIMIT

Summary description of Intervention: Reduction in the speed limit from 30mph to 20mph, with associated traffic calming measures if required.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	5	5	6	**16**
Positive Impacts:	Any reduction in speed in the narrow town centre streets is likely to improve perceptions of safety, improve the general environment and thereby encourage more people to visit the town (and stay for longer).			
Potential Drawbacks:	There may a need for measures (such as traffic calming) to "self-enforce" the 20mph limit as the Police may not have the resources available to catch speeding vehicles. There is no clear evidence (from speed surveys) that there is a problem with the existing 30mph speed limit being exceeded by a large number of vehicles.			
Main Challenges:	The signing required for the 20mph limit will require careful planning and design in a historic urban environment – especially as the gateway signs may need to be illuminated.			
Interfaces:	There would be some interface with the proposal to convert the Church Street Zebra crossing into a Pelican.			
Further work required if the intervention is considered to be a priority:	A speed survey is required to establish current average speeds and the extent to which the current 30mph limit is being exceeded. These surveys will establish whether a significant number of vehicles travel at or below 20mph. Depending on the results of the speed survey, a series of design options to assess the potential for traffic calming measures may need to be commissioned. Public consultation will be an important aspect of taking any specific proposals forward. Any design process should also consider opportunities to increase the amount of space for pedestrians.			
Recommendation:	A speed survey should be commissioned and the intervention progressed to an early design stage in readiness for a public consultation.			

G: CRUXWELL STREET PEDESTRIAN CROSSING IMPROVEMENTS

Summary description of Intervention: Provision of a new Pelican crossing near to the leisure centre and end of High Street.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	5	5	4	**14**
Positive Impacts:	A formal crossing point, located in an area where pedestrian activity is relatively high, will provide a step-change in connectivity – especially as the proposed facility is located on a desire line between the town centre and developments at Porthouse Farm and Hardwick Bank.			
Potential Drawbacks:	Locations exhibit narrow footways (less than the minimum 2 metre design recommendation). There is limited space to sight signal heads and control cabinet which will reduce footway widths further.			
Main Challenges:	Shop frontages emerge on to the footway. Pelican crossing would require illumination at night. The signing required for the 20mph limit will require careful planning and design in a historic urban environment – especially as the gateway signs may need to be illuminated.			
Interfaces:	There would be some interface with the proposal for a 20mph limit on Broad Street and High Street.			
Further work required if the intervention is considered to be a priority:	Options would require assessment against LTN 1/95 and LTN 2/95. Outline scheme design and costs will need to be produced in order to be able to consider funding sources. Swept path analysis required for town centre routs to identify conflicts. Public and stakeholder consultation should be undertaken.			
Recommendation:	Further investigation of the feasibility of a Pelican crossing should be progressed, with a Zebra or uncontrolled crossing also options.			

H: PUMP STREET LOADING ONLY FOR HGVS

Summary description of Intervention: Introduction of loading-only restrictions for HGVs; and re-location of bus stop to bypass to enable conversion of area to on-street parking spaces.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	4	4	4	**12**
Positive Impacts:	A reduction in the number of HGVs travelling through Pump Street to and from Broad Street / High Street will lessen the chances of HGVs getting stuck in the narrow sections of highway. A reduction in HGVs on narrow town centre streets will also improve perceptions of safety – especially at the turn from Pump Street into Broad Street.			
Potential Drawbacks:	Re-location of the bus stop to the bypass will result in longer walking distances to / from the town centre, which will be a particular issues for elderly / mobility impaired people in particular. People wishing to access the Hereford-bound bus stop will need to use the subway under the A44.			
Main Challenges:	The signing required for the loading restrictions will require careful planning and design in a historic urban environment – especially as the gateway signs may need to be illuminated. Re-location of the bus stop to the bypass will require space to be available, and the pedestrian route from Pump Street may need to be improved.			
Interfaces:	There would be an interface with the proposal for a 20mph limit on Broad Street and High Street; and also for the proposal to improve the bus stop on Pump Street.			
Further work required if the intervention is considered to be a priority:	Public and stakeholder consultation should be undertaken, especially with hauliers and local businesses who rely on HGV deliveries. The potential for enforcement through Automatic Number Plate Recognition (ANPR) cameras should be investigated.			
Recommendation:	The proposal for introducing loading-only for HGVs should be progressed through a more detailed study (in conjunction with other HGV loading only proposals – for example on New Road, Winslow Road and Church Street). The proposal to re-locate the bus stop from Pump Street to the bypass should not be progressed.			

I: NEW ROAD LOADING ONLY FOR HGVS

Summary description of Intervention: Introduction of loading-only restrictions for HGVs on the entire length of New Road (from A44 to the junction with High Street).				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	5	4	7	**16**
Positive Impacts:	A reduction in the number of HGVs travelling through New Road to and from Broad Street / High Street will lessen the chances of HGVs striking historic buildings.			
Potential Drawbacks:	New Road is currently one of the most direct routes for HGVs to access the Porthouse Farm Industrial Estate – and not being able to use New Road will increase the journey distance and associated travel costs.			
Main Challenges:	The signing required for the loading restrictions will require careful planning and design in a historic urban environment – especially as the gateway signs may need to be illuminated. Direction signing on the main routes approaching New Road will need to ensure that HGV drivers have adequate advanced warning.			
Interfaces:	There would be an interface with the proposal for a 20mph limit on Broad Street and High Street; and also for parallel proposal to introduce loading only for HGVs on Pump Street. The improvement of the HGV route on Station Road will be important in order to accommodate increased numbers of HGVs diverted from New Road.			
Further work required if the intervention is considered to be a priority:	Public and stakeholder consultation should be undertaken, especially with hauliers and local businesses who rely on HGV deliveries. The potential for enforcement through Automatic Number Plate Recognition (ANPR) cameras should be investigated.			
Recommendation:	The proposal for introducing loading-only for HGVs should be progressed through a more detailed study (in conjunction with other HGV loading only proposals – for example on Broad Street / High Street, Pump Street, Winslow Road and Church Street).			

J: CRUXWELL STREET PARKING CHANGES

J: On-street parking between Leisure Centre and Public Hall transferred to right hand side.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	3	4	6	**13**
Positive Impacts:	It is claimed that this intervention will improve safety through reducing the need for traffic to move to the right of Cruxwell Street to avoid the parked cars on the left.			
Potential Drawbacks:	The intervention does not address an obvious problem. There is no evidence to suggest that the on-street car parking is causing a substantive safety issue.			
Main Challenges:	The transfer of parking may impact on properties which are situated on the right hand side of the road.			
Interfaces:	There are no particular interfaces with any other proposal.			
Further work required if the intervention is considered to be a priority:	Public and stakeholder consultation should be undertaken, especially with local residents and businesses. Swept path analysis required for town centre routs to identify conflicts.			
Recommendation:	There is no compelling case for this proposal to be pursued, and so it should not be taken forward.			

K: ROWBERRY STREET PARKING CHANGES

K: Remove one parking space outside public hall on Rowberry Street.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	0	3	7	**10**
Positive Impacts:	There may be some limited localised benefit to pedestrian safety through the slight improvement in visibility.			
Potential Drawbacks:	The intervention does not address an obvious problem. There is no evidence to suggest that the current car parking arrangement is causing a substantive safety issue.			
Main Challenges:	There are no obvious challenges, as this a very minor change to the highway layout.			
Interfaces:	There are no particular interfaces with any other proposal.			
Further work required if the intervention is considered to be a priority:	Public and stakeholder consultation should be undertaken, especially with local residents and businesses. Swept path analysis required for town centre routs to identify conflicts.			
Recommendation:	The proposal for introducing loading-only for HGVs should be progressed through a more detailed study (in conjunction with other HGV loading only proposals – for example on New Road, Pump Street and Church Street).			

L: WINSLOW ROAD HGV ACCESS RESTRICTIONS

Summary description of Intervention:				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	2	5	7	**14**
Positive Impacts:	The risk of HGV traffic rat running to avoid proposed loading restrictions on New Road and Pump Street would be mitigated by this proposal.			
Potential Drawbacks:	There are no obvious drawbacks.			
Main Challenges:	Signing of the restrictions on the main approaches will need to be considered. Enforcement of the restrictions.			
Interfaces:	The proposed intervention aims to remove the risks of HGVs using Winslow Road after the introduction of loading restrictions on New Road and Pump Street.			
Further work required if the intervention is considered to be a priority:	Public and stakeholder consultation should be undertaken, especially with local residents and businesses.			
Recommendation:	The proposal for introducing loading-only for HGVs should be progressed through a more detailed study (in conjunction with other HGV loading only proposals – for example on New Road, Pump Street and Church Street).			

M: STATION ROAD HGV ROUTE - BASIC IMPROVEMENTS

Summary description of Intervention: *De minimis* improvement of Station Road (e.g. changes to signing and maintenance activities such as vegetation clearance and road marking improvements).				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	4	5	7	**16**
Positive Impacts:	Improvement of the route aims to encourage greater usage by HGVs, which will benefit town centre and residential streets.			
Potential Drawbacks:	The route remains narrow in places and the capacity of the route to accommodate significant numbers of additional HGVs would need to be considered. The narrow sections of route could also lead to conflicts between opposite movements along the road.			
Main Challenges:	The general standard of the road falls below what would be considered as an adoptable standard. In particular the carriageway width varies between 4.35m and 5.6m; with 7.3m being the desired standard.			
Interfaces:	The ability to deliver scheme to restrict HGV access is contingent on developing Station Road as a route that is fit for purpose.			
Further work required if the intervention is considered to be a priority:	The main work required will be to develop specific proposals and provide a cost which can be considered for funding and delivery through the council's maintenance programme.			
Recommendation:	This intervention should be pursued.			

N: TOWN BUS STOP IMPROVEMENTS, INCLUDING PUMP STREET

Summary description of Intervention: Extension of bus stop in Pump Street and improvements to all town bus stops (new shelters and comprehensive provision of timetable information).				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	6	4	6	**16**
Positive Impacts:	Waiting facilities and information for passengers will be improved, thereby giving more confidence in the ability to use bus services.			
Potential Drawbacks:	None identified.			
Main Challenges:	There are a number of engineering challenges associated with improving and extending the bus stop in Church Street, primarily associated with the width of the existing footway and the presence of a high pressure gas main.			
Interfaces:	The main interface will be with proposals to restrict HGV access to loading only in Pump Street.			
Further work required if the intervention is considered to be a priority:	The feasibility of installation of bus shelters, in locations where they do not exist, will need to be investigated. A preferred option for increasing the size of the bus stop and shelter in Pump Street needs to be progressed.			
Recommendation:	These measures should be progressed, and funding identified as a priority.			

O: BROMYARD FREIGHT QUALITY PARTNERSHIP

Summary description of Intervention: To encourage voluntary enforcement of HGV routes in order to avoid sensitive town centre streets and residential areas; also to provide good levels of information to local business and freight hauliers that will increase awareness around the most appropriate HGV routes.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	4	4	6	**14**
Positive Impacts:	A Freight Quality Partnership provides a forum for in-depth review of specific problems and progression of potential solutions. All stakeholders have an opportunity to raise their concerns and become part of the solution. The over-regulation of access to various parts of the highway network can be avoided.			
Potential Drawbacks:	There is no means of legal enforcement if voluntary arrangements are not adhered to.			
Main Challenges:	The main challenge is likely to be a degree of scepticism as to whether an FQP would be effective.			
Interfaces:	An FQP would either support or potentially reduce the need for various regulatory interventions – in particular restrictions on HGV access.			
Further work required if the intervention is considered to be a priority:	The scope of a potential FQP should be set out – using the evidence collected as part of this study. A workshop involving various stakeholders should be undertaken to ascertain the opportunities of, and potential barriers to delivering, an FQP.			
Recommendation:	An FQP should be fully investigated and pursued if there is sufficient stakeholder engagement and agreement.			

P: CIVIL ENFORCEMENT OFFICER FUNDING

Summary description of Intervention: To enforce existing parking restrictions and ensure the free flow and safe movement of vehicles and town centre users within Bromyard.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	3	5	7	**15**
Positive Impacts:	A stronger visual presence of a Civil Enforcement Officer will ensure the public are more likely to obey and follow the parking regulations in force around the town, thereby reducing the instances where vehicles have encountered difficulties travelling through the town.			
Potential Drawbacks:	Traders often fear that parking enforcement may dissuade people from visiting the town.			
Main Challenges:	The main challenge is likely to be identification of funding support.			
Interfaces:	Effective parking enforcement would support or potentially negate the need for various regulatory interventions – in particular restrictions on HGV access and changes to some parking locations. .			
Further work required if the intervention is considered to be a priority:	Identification of staffing costs and current barriers to effective resourcing of parking enforcement within the town.			
Recommendation:	Additional funding support for a Civil Enforcement Officer appears warranted and could negate the need for other schemes that are proposed.			

Q: HARDWICK BANK DEVELOPMENT IMPROVEMENTS TO EXISTING ACTIVE TRAVEL ROUTES

Summary description of Intervention: Improvements to existing Public Rights of Way which link into Winslow Road.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	6	5	4	**15**
Positive Impacts:	Delivers improvements to what are currently unsurfaced pedestrian routes in order to enable use of active travel modes from the proposed Hardwick Bank development to the town centre, employment areas and local schools.			
Potential Drawbacks:	The routes follow existing historic Public Rights of Way, and may not always represent the most direct and attractive route.			
Main Challenges:	There is a need to bring these existing routes up to a minimum width of 2 metres and install lighting; but an initial site visit has revealed some sections of route which are currently constrained by close proximity to housing and back gardens.			
Interfaces:	The proposed route will strongly complement other proposals for delivering a new active travel routes from the Hardwick Bank development to the town centre.			
Further work required if the intervention is considered to be a priority:	The planning process for the Hardwick Bank development needs to be able to secure sufficient funding to deliver a high standard route. If possible, up front funding should be made available to progress feasibility of options for the route; and to assess the likely costs.			
Recommendation:	This intervention should be pursued through the planning process, including the negotiation of appropriate section 106 contributions.			

R: HARDWICK BANK DEVELOPMENT NEW ACTIVE TRAVEL ROUTE

Summary description of Intervention: New walking and cycle route from Hardwick Bank development to Old Road, crossing Winslow Road and the playing field.				
Appraisal Scores	*Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	6	5	5	**16**
Positive Impacts:	Provides a direct off-road active travel route between the Hardwick Bank development and the town centre.			
Potential Drawbacks:	There may be some environmental impacts and loss of amenity space where the route crosses the playing fields. There are also some issues with the gradient as the route runs across the edge of the playing fields and towards Old Road.			
Main Challenges:	Parts of the route are likely to require the acquisition of land. Ideally the whole of the route should be lit; so that it provides the necessary confidence to use when it is dark – this will significantly increase the costs.			
Interfaces:	The proposed route will strongly complement other proposals for improving existing active travel routes from the area designated for the Hardwick Bank development and the existing urban area of Bromyard.			
Further work required if the intervention is considered to be a priority:	The planning process for the Hardwick Bank development needs to be able to secure sufficient funding to deliver a high standard route. If possible, up front funding should be made available to progress feasibility of options for the route; and to assess the likely costs.			
Recommendation:	This intervention should be pursued through the planning process, including the negotiation of appropriate section 106 contributions.			

S: ACCESS TO HARDWICK BANK DEVELOPMENT FROM A44

Summary description of Intervention:				
Appraisal Scores	*Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	5	5	7	**17**
Positive Impacts:	Provides an essential access into the development, which cannot take place without it. There would be an improvement in pedestrian facilities between the roundabout and the existing urban area of Bromyard along the A44. The junction could act as a means of slowing down traffic further in advance of the start of the main urban area. The Transport Assessment submitted as part of the Hardwick Bank planning application shows that the design can accommodate the forecast traffic flows.			
Potential Drawbacks:	There will be an increase in the maintenance liability to the council.			
Main Challenges:	There is a potential need to also provide access to the proposed development on the opposite side of the A44.			
Interfaces:	The junction improvement, and in particular the proposed measures to reduce the speed limit and improve pedestrian facilities, will complement other proposed improvements to active travel routes.			
Further work required if the intervention is considered to be a priority:	Further design work is likely to be primarily the responsibility of the developer, as part of the package of transport infrastructure works needed to facilitate the development. The council will be responsible for ensuring that the relevant technical standards are adhered to.			
Recommendation:	This intervention will be pursued through the planning process.			

T: ACCESS TO HARDWICK BANK DEVELOPMENT FROM TENBURY ROAD

Summary description of Intervention: New traffic signal junction on Tenbury Road to access Hardwick Bank development.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	5	5	7	**17**
Positive Impacts:	Provides an essential access into the development, which cannot take place without it. There would be an improvement in pedestrian facilities between the junction and the existing urban area of Bromyard along Tenbury Road. The junction could act as a means of slowing down traffic further in advance of the start of the main urban area. The Transport Assessment submitted as part of the Hardwick Bank planning application shows that the design can accommodate the forecast traffic flows.			
Potential Drawbacks:	There will be an increase in the maintenance liability to the council.			
Main Challenges:	None immediately identified.			
Interfaces:	The junction improvement, and in particular the proposed measures to reduce the speed limit and improve pedestrian facilities, will complement other proposed improvements to active travel routes.			
Further work required if the intervention is considered to be a priority:	Further design work is likely to be primarily the responsibility of the developer, as part of the package of transport infrastructure works needed to facilitate the development. The council will be responsible for ensuring that the relevant technical standards are adhered to.			
Recommendation:	This intervention will be pursued through the planning process.			

U: CHANGES TO THE TOWN CENTRE ONE-WAY SYSTEM (SHERFORD STREET)

Summary description of Intervention: Sherford Street one-way inbound from the junction with the A44 to Broad Street.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	-3	-3	4	**-2**
Positive Impacts:	It is claimed that making Sherford Street one-way will reduce traffic congestion associated with parked cars reducing the width of the road to a single lane for both directions.			
Potential Drawbacks:	There would be very long diversions (via Station Road, Tenbury Road and Old Road) for HGV traffic wishing to access the A44 towards Worcester. The removal of opposing traffic flows on Sherford Street is likely to lead to an increase in traffic speeds.			
Main Challenges:	There is likely to be considerable opposition to the proposal from the bus operator, freight companies and local businesses. Residents of Sherford Street may also be opposed because of the potential increase in traffic speeds and the additional journey distance needed to gain access to the A44.			
Interfaces:	The one-way proposals would interface with many other possible interventions, especially those which are restricting HGV access. In conjunction with the proposal for Old Road, the effect would be to extend the town centre one-way system to cover a much wider area.			
Further work required if the intervention is considered to be a priority:	A full traffic impact assessment would be needed, to include origin / destination surveys (using ANPR) in order to establish the potential impacts in more detail; and to quantify the level of additional travel required.			
Recommendation:	The proposed intervention does not appear to offer any significant benefits, and could result in large increases in journey lengths around the town. Therefore it should not be implemented.			

V: CHANGES TO THE TOWN CENTRE ONE-WAY SYSTEM (OLD ROAD)

Summary description of Intervention: Old Road would become one-way outbound between Tenbury Road and York Road.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	1	-3	4	**2**
Positive Impacts:	It is claimed that making Old Road one-way will reduce traffic congestion associated with parked cars reducing the width of the road to a single lane for both directions. It is also claimed that one-way working will improve safety for residents whose properties and driveways access on to Old Road.			
Potential Drawbacks:	There would be very long diversions (via Sherford Street, Church Street and Station Road) for HGV traffic travelling from Leominster and Hereford towards the Porthouse Industrial Estate. The removal of opposing traffic flows on Old Road is likely to lead to an increase in traffic speeds.			
Main Challenges:	There is likely to be considerable opposition to the proposal from freight companies and local businesses. Residents of Sherford Street may also be opposed because of the potential increase in traffic speeds and the additional journey distance needed to gain access to the A44.			
Interfaces:	The one-way proposals would interface with many other possible interventions, especially those which are restricting HGV access. In conjunction with the proposal for Old Road, the effect would be to extend the town centre one-way system to cover a much wider area.			
Further work required if the intervention is considered to be a priority:	A full traffic impact assessment would be needed, to include origin / destination surveys (using ANPR) in order to establish the potential impacts in more detail; and to quantify the level of additional travel required.			
Recommendation:	The proposed intervention does not appear to offer any significant benefits, and could result in large increases in journey lengths around the town. Therefore it should not be implemented.			

W: CHURCH STREET LOADING ONLY FOR HGVS

Summary: Loading only on Church Street for inbound HGVs (from Stourport Road direction).				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	-1	-3	4	**0**
Positive Impacts:	Removal of HGVs may improve perceptions of safety, especially in the area around the Post Office and Zebra crossing.			
Potential Drawbacks:	There would be very long diversions (via Station Road, Tenbury Road and Old Road) for HGV traffic wishing to access the A44 towards Worcester. The restrictions may be confusing to drivers, as HGVs will still be permitted to travel through Church Street from the A44 to Stourport Road. However they will not be able to make the opposite movement.			
Main Challenges:	There is likely to be considerable opposition to the proposal from the bus operator, freight companies and local businesses.			
Interfaces:	The one-way proposals would interface with many other possible interventions, especially those which are restricting HGV access.			
Further work required if the intervention is considered to be a priority:	A full traffic impact assessment would be needed, to include origin / destination surveys (using ANPR) in order to establish the potential impacts in more detail; and to quantify the level of additional travel required.			
Recommendation:	The proposed intervention does not appear to offer any significant benefits, and could result in large increases in journey lengths around the town. Therefore it should not be implemented.			

X: IMPROVEMENTS TO STATION ROAD HGV ROUTE

Summary description of Intervention: Improvement of Station Road (either localised widening or shuttle working) to become official HGV route through town (based HC adopting the highway).				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	5	4	5	**14**
Positive Impacts:	The road will become more attractive as the official HGV access route both for traffic accessing the industrial estate and some through movements.			
Potential Drawbacks:	If it is not possible to widen the route to a suitable standard (i.e. 7.3m width) then it may not be acceptable to adopt the highway and pursue other improvement options.			
Main Challenges:	Sections of the route are very narrow. Land ownership / rock outcrop / bridge abutments may limit the ability to widen.			
Interfaces:	The proposals would support proposed interventions which are restricting HGV access.			
Further work required if the intervention is considered to be a priority:	A full engineering feasibility study will need to be undertaken in order to assess the potential options and likely costs.			
Recommendation:	The HGV route along Station Road requires significant improvement if it is to become adopted highway; and therefore a full feasibility study should be pursued and funding identified.			

Y: IMPROVEMENT IN ACCESS TO THE INDUSTRIAL ESTATE FROM THE A44

Summary: Single carriageway highway link from A44 across to Station Road Industrial Estate.				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	4	2	-2	**4**
Positive Impacts:	Sherford Street and Church Street will be bypassed by a more direct route accessible directly via the A44 – which will provide more efficient access for HGVs (both to the industrial estates and Stourport Road) and reduce levels of traffic within the town centre.			
Potential Drawbacks:	There are likely to be significant environmental issues – especially in terms of flooding and water quality given the proximity to the River Frome.			
Main Challenges:	Even though the route is relatively short, the environmental mitigation measures required, as well as the new junction required on the A44, is likely to make the scheme very expensive.			
Interfaces:	The route would support various HGV restrictions in the town centre; and would also link up with the proposed improvements to Station Road.			
Further work required if the intervention is considered to be a priority:	A feasibility study – including environmental and engineering assessments – would need to be undertaken.			
Recommendation:	Given the likely cost of the scheme, compared with the levels of HGV traffic, until greater political backing and funding is identified to progress against the many constraints to be overcome, this aspiration remains a medium to longer term proposal.			

Z: UPGRADE OF PROPOSED RESIDENTIAL ROAD THROUGH HARDWICK BANK TO HGV ROUTE

Summary: Upgrade of proposed residential road through the Hardwick Bank development to a 7.5 metre route suitable for HGV through movements, which would directly link the A44 with Tenbury Road.				
Appraisal Scores	*Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	-1	-2	-3	**-6**
Positive Impacts:	Old Road and New Road will be bypassed by a route accessible directly via the A44 – which will provide more efficient access for HGVs (both to the industrial estates and Tenbury Road) and reduce levels of traffic within the town centre.			
Potential Drawbacks:	The road which provides access to the proposed Hardwick Bank development is not intended to be a through route for traffic; and is currently planned as a 20mph residential distributor road. The road constructed as a through route would create significant severance issues for the residents of Hardwick Bank, especially for the proposed active travel routes that would cross it.			
Main Challenges:	The developer of Hardwick Bank is likely to be strongly opposed to upgrading the road to a through route.			
Interfaces:	The route would support various HGV restrictions in the town centre (especially New Road); and also any proposal for making Old Road one-way.			
Further work required if considered to be a priority:	A feasibility study – including environmental and engineering assessments – would need to be undertaken.			
Recommendation:	Given the likely cost of the scheme and the likely developer opposition it is not proposed to take the scheme any further.			

AA: CHANGES TO BUS STOPPING AND TERMINAL ARRANGEMENTS

Summary description of Intervention: Upgrade of proposed residential road through the Hardwick Bank development to a 7.5 metre route suitable for HGV through movements, which would directly link the A44 with Tenbury Road.				
Appraisal Scores	*Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	-1	-2	-1	**-4**
Positive Impacts:	There may be more space available to provide improved passenger facilities.			
Potential Drawbacks:	The proposed location adjacent to the junction of the A44 and Sherford Street is much further away from the town centre and doctor's surgery, compared with the existing Pump Street facility. The bus company is strongly opposed to any change to the location of the town centre bus stopping facilities.			
Main Challenges:	There is unlikely to be sufficient space to develop a facility of sufficient size.			
Interfaces:	There may be an interface with any proposals to make Sherford Street one-way, as buses travelling back to Hereford would need to turn round at the junction with the A44.			
Further work required if the intervention is considered to be a priority:	A full feasibility study – considering engineering, bus operational and passenger impact issues – would need to be commissioned.			
Recommendation:	There is no clear justification for moving the town centre bus facility, and therefore this proposal should not be pursued.			

AB: PANIERS LANE TRAFIC CALMING MEASURES

Summary description of Intervention: Measures to enhance sfaety and slow vehicles peeds past the school (possible 20mph zone in connunction with HC's adopted SMOTS strategy). .				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	6	3	4	**13**
Positive Impacts:	In line with adopted SMOTS, this could encourage active travel and enhance safety in proximity of the High School			
Potential Drawbacks:	Traffic currently using Panniers Lane would add to delays at A465 junction			
Main Challenges:	Funding and support.			
Interfaces:	Scheme can work together with development proposals and travel plans. This could include Hardwick Bank as a source of funding, alongside the development of the former Highway Depot.			
Further work required if the intervention is considered to be a priority:	Concept scheme can be drawn up. Potential TRO work if a 20MPH zone deemed appropriate.			
Recommendation:	Merit to pursue option and identify concept scheme for consideration and funding options.			

AC: A465/A44 JUNCTION ALTERATION

Summary description of Intervention: Alteration to junction form to incorporate crossing facilities (likely junction signalisation).				
Appraisal Scores	*Contribution to Objectives*	*Value for Money*	*Deliverability*	***Total (out of 20)***
	4	1	0	**5**
Positive Impacts:	Changes to this junction could manage traffic flow and balance demand fromminor arms, whilst incporating crossing facilities on the percieved pedestrain desire line to the High School. .			
Potential Drawbacks:	Delay to mainline through traffic on A44.			
Main Challenges:	Land take. Delays or relationship to other junctions and any consequential impacts.			
Interfaces:	Scheme could be associated with new developments and enhance active travel measures to points south of the bypass.			
Further work required if the intervention is considered to be a priority:	Concept scheme will need to be drawn up. Funding options to be identified.			
Recommendation:	Merit to pursue option and identify concept scheme for consideration and funding options. Considered a medium term scheme.			

Appendix C.2

DETAILED SCORING ASSESSMENT

Intervention	Description	Objectives	RAGN Assessment	Score	Total
A: Porthouse Farm Development, Active Travel Infrastructure	(1) Dropped crossings; (2) Improved cycle parking; (3) Improvements to the junction from the B4214; (4) Provision / improvements to proposed greenway along former railway line; (5) Old Road footway provision; (6) Extension of footway on the A465; (7) Enhancement of southerly visibility at junction of Winslow Road and Tenbury Road (B4214).	1. Enable and encourage economic growth through the delivery of more homes and jobs.	Improves routes for pedestrians and enables enhances access to the town centre from new housing development to the town centre (for shopping) and the employment area of Porthouse Farm.	**2**	**5**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is no specific impact on the management of HGV access. Provides an opportunity to improve the overall condition of the footway network.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Provides better facilities for pedestrians and cyclists on routes to the town centre and employment areas, which are likely to be a major destination for short distance trips. Provides secure parking in order to encourage cycling.	**2**	
B: Pencombe Lane Development Transport Improvements	(1) Pedestrian footway on the A44; (2) Extension of the footway on the northern side of Panniers Lane; (3) Provision of two marked bus stops; (4) Funding for a TRO for a 30 mph speed limit to the west of the vehicular access to the proposal.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	Provides new pedestrian facilities which will encourage shorter distance journeys to be undertaken on foot to the town centre and employment areas. Provides new public transport facilities for bus passengers travelling into Bromyard and beyond. Proposed speed limit reductions to improve highway safety and to reduce the fear of accidents.	**2**	**5**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is no specific impact on the management of HGV access. Provides an opportunity to improve the overall condition of the footway network.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Provides better facilities for pedestrians and cyclists within the town centre and employment areas, which are likely to be a major destination for short distance trips.	**2**	
C: A44 Bromyard Bypass Speed Limit	Reduced speed limit on A44 (from 40mph to 30mph) in response to local concern.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	There is no specific contribution, as this is primarily a safety measure which would benefit existing housing areas.	**0**	**3**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	No specific impact on the management of HGV access. Speed surveys suggest that the existing 40mph limit is appropriate for the standard of the route (average speed is 37.2mph). The section of the A44 between New Road and Pump Street has had two accidents in the last four years, and so there is little evidence of any hot spot issues.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Reducing the speed of traffic on the A44 would improve perceptions of safety and encourage more local walking trips from housing areas to the south of the town centre.	**2**	
D: Church Street Pedestrian Crossing Improvements	Conversion of Zebra crossing outside Post Office to Pelican crossing.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	There is no specific contribution, as this is primarily a localised safety measure at one location on the edge of the town centre.	**0**	**2**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is no specific impact on the management of HGV access. There is no evidence to suggest that there is any safety problem at the crossing.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The ability to cross using a traffic signal facility may provide pedestrians with greater feelings of safety. However, pedestrians are likely to have to wait longer for the signals to stop the traffic.	**1**	
E: Broad Street / High Street 20mph Limit	Introduction of a 20mph speed limit on Broad Street / High Street.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	May encourage greater numbers of visitors into the town centre as a result of improving perceptions of safety and making the streets more pleasant places to walk.	**1**	**4**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is no evidence to suggest that speed is a particular problem associated with HGVs. Goods vehicle access into the town centre may be made slightly easier and safer as a result of reduced general traffic speeds. There has been one accident in the town centre in the last four years.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	May encourage more walking trips to, and within, the town centre as a result of any speed reductions.	**2**	

Intervention	Description	Objectives	RAGN Assessment	Score	Total
F: Broad Street & High Street HGV Access Restrictions	Introduction of loading only for HGVs over 7.5 tonnes.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	HGVs will continue to have access for loading.	**2**	**5**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	HGV through traffic will be removed from the main shopping streets, which will reduce the number of such vehicles in the town centre. HGVs which need to service the shops will still be able to undertake their legitimate business.	**2**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The reduction of HGVs in the town centre streets may make it safer for use of the route by pedestrians and cyclists, although there is no evidence of any specific safety issue. Therefore the benefit is likely to be one of perceived improvements to safety.	**1**	
G: Cruxwell Street Pedestrian Crossing Improvements	New Pelican crossing outside the Leisure Centre	1. Enable and encourage economic growth through the delivery of more homes and jobs.	The crossing would be located on one of the main routes between the town centre and the housing development areas at Hardwick Bank and Porthouse Farm. The crossing could form an important part of the main pedestrian route.	**2**	**5**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is no specific impact on management of HGV access. There is no evidence of any safety issue in terms of the numbers of accidents.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Although no data is available, the crossing is located on a busy part of the pedestrian network as a number of routes converge on the location from different directions. The leisure centre is a key destination for pedestrian access.	**2**	
H: Pump Street HGV Access Restrictions	(1) Access-only for HGVs; (2) Bus stop relocation to bypass and conversion of area to on-street parking spaces.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	Provision of additional parking could make a contribution to increasing the number of visits to the town, although the impact will be limited if the on-street spaces are long stay (as they could be occupied all day). Access is maintained for HGV loading.	**1**	**4**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	HGV through traffic will be removed from Pump Street, which will reduce the number of HGVs in the town centre.	**2**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Removal of the bus stop on Pump Street may not encourage use of public transport as it will mean a longer walk to / from the town centre for alighting and boarding passengers. However the extra distance is likely to be limited.	**1**	
I: New Road HGV Access-restrictions	Loading-only for HGVs on New Road.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	HGVs will continue to have access for loading.	**2**	**5**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	HGV through traffic will be removed from Pump Street, which will reduce the number of HGVs in the town centre. The potential for HGVs to strike the building on the corner of New Road and High Street will be reduced.	**2**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The reduction of HGVs on New Road may make it safer for use of the route by pedestrians and cyclists, although there is no evidence of any specific safety issue. Therefore the benefit is likely to be one of perceived improvements to safety.	**1**	

Intervention	Description	Objectives	RAGN Assessment	Score	Total
J: Cruxwell Street Parking Changes	On-street parking between Leisure Centre and Public Hall transferred to right hand side.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	This is a very localised measure which simply proposes to change the location of parking, rather than fundamentally alter its supply.	**1**	**3**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	Potential safety benefits (as set out in the Town Council Traffic Plan) include: (1) Straight-through access to the one-way section of Cruxwell Street for vehicles from the Tenbury Road direction, removing current risk of collision with vehicles exiting High Street; (2) A wider, safer turn towards the Public Hall and Rowberry Street for vehicles from High Street (especially important for larger vehicles); and; (3) Vehicles turning to Rowberry Street by the Public Hall no longer need to 'snake' to approach the turn from the left-hand side.	**2**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	There is no obvious positive impact for pedestrians and cyclists.	**0**	
K: Rowberry Street Parking Changes	Remove one parking space outside public hall on Rowberry Street.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	There is no obvious contribution to this objective from what is a very minor proposed change. The rationale and benefits are not set out in the Town Council Traffic Plan.	**0**	**0**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is no obvious contribution to this objective from what is a very minor proposed change. The rationale and benefits are not set out in the Town Council Traffic Plan.	**0**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	There is no obvious contribution to this objective from what is a very minor proposed change. The rationale and benefits are not set out in the Town Council Traffic Plan.	**0**	
L: Winslow Road HGVs Access-restrictions	Loading-only for HGVs on Winslow Road.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	The proposal does not seek to improve access for HGVs, and does not have any particular relationship with the adjacent Hardwick Bank and Porthouse Farm developments.	**0**	**2**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is no clear evidence that this proposal will have any impact on this objective under current traffic arrangements. HGV movements on Winslow Road are already minimal (less than 10 per 24 hour period), although that could change if proposals to make Old Road one-way were implemented.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Any reduction in HGV numbers may improve perceptions of safety for pedestrians and cyclists, although there is no clear evidence of any accident problem on Winslow Road.	**1**	
M: Station Road HGV Route Basic Improvements	*De minimis* improvement of Station Road (e.g. changes to signing and maintenance activities such as vegetation clearance and road marking improvements).	1. Enable and encourage economic growth through the delivery of more homes and jobs.	An upgraded route to the Station Road and Porthouse Farm Industrial Areas will help to improve access for HGVs, compared with unsuitable routes through the town centre. However, for HGVs coming from the Hereford and Leominster directions, the new route via Station Road is longer and could result in increased time / fuel costs.	**1**	**4**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	The proposed alternative route via Station Road will reduce the volume of HGVs that currently run through the town centre from New Road, Pump Street and Sherford Street / Church Street (estimated at a reduction of around 30 vehicles in a 24 hour period).	**2**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The removal of HGVs from the town centre streets may help to encourage greater levels of walking activity in particular, as people are likely to feel less intimidated as a result of the presence of HGVs.	**1**	
N: Pump Street Bus Stop Improvements	Extension of bus stop in Pump Street and improvements to all town bus stops (new shelters and comprehensive provision of timetable information).	1. Enable and encourage economic growth through the delivery of more homes and jobs.	Improves access from new development to and from the town centre.	**2**	**6**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	Improves facilities and safety for bus passengers, as the increase in the size of the bus stop area enables a larger number of vehicles to access the kerb in Pump Street.	**2**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Helps to reduce the number of short distance car trips between the various residential areas of Bromyard and the town centre.	**2**	

Intervention	Description	Objectives	RAGN Assessment	Score	Total
O: Freight Quality Partnership	To encourage voluntary enforcement of HGV routes in order to avoid sensitive town centre streets and residential areas; also to provide good levels of information to local business and freight hauliers that will increase awareness around the most appropriate HGV routes.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	An FQP could significantly improve both the perception and reality of access improvements for HGVs who need to serve both the town centre and the two main industrial estates.	1	4
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	An FQP specifically aims to provide information and guidance on the most appropriate routes for HGV traffic, both for the purpose of deliveries to premises within the town and also as a means of avoiding sensitive areas. An FQP can also help to address maintenance issues, again by advising avoidance of inappropriate routes and where HGVs encroach on to the footway.	2	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Any reduction in HGVs traversing residential and town centre routes will help to encourage walking and cycling trips as there will be a reduced perception of danger.	1	
P: Civil Enforcement Officer Funding	Funding to support civil enforcement officer to enforce parking regulations	1. Enable and encourage economic growth through the delivery of more homes and jobs.	This could disuade some people from visiting the town if they see parking as an issue.	0	3
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	Enforecement of TROs within the town would ensure safer free flow of traffic and negate the need for many of the interventions which are in part due to inapprorpraite driver behaviour.	2	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	If stronger parking controls are in place drivers may consider their options before choosing to travel by car.	1	
Q: Hardwick Back: Improve Active Travel Routes	Improvements to existing Public Rights of Way, to include widening to at least 2 metres, hard surfacing and lighting.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	The proposed route would provide a continuous and direct route to the town centre from the Hardwick Bank development.	2	6
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is no direct impact on HGV movements. The scheme would provide a safer and more direct route for pedestrians and cyclists (compared with alternatrives such as Tenbury Road). There would also be opportunities to improve the condition of the existing sections of the route.	2	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The proposed route would provide a continuous and direct route to the town centre from the Hardwick Bank development, and would also benefit existing residents (for example in the Winslow Road area).	2	
R: Hardwick Bank: New Active Travel Route	New walking and cycle route from Hardwick Bank development to Old Road, crossing Winslow Road and the playing field. Specific improvements include hard surfacing on the section of route across the playing field and lighting.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	The proposed route would provide a continuous and direct route to the town centre from the Hardwick Bank development.	2	6
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is no direct impact on HGV movements. The scheme would provide a safer and more direct route for pedestrians and cyclists (compared with alternatrives such as Tenbury Road). There would also be opportunities to improve the condition of the existing sections of the route.	2	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The proposed route would provide a continuous and direct route to the town centre from the Hardwick Bank development, and would also benefit existing residents (for example in the Winslow Road area).	2	
S: Hardwick Bank A44 Access	New roundabout junction on the A44, providing access to the proposed Hardwick Bank development.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	Provides direct access to development, without which it would be impossible to deliver housing on a site which has been identified in the Core Strategy.	2	5
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	The highway works would be designed to modern standards and therefore have a longer design life than the current sections of carriageway. However, creation of an additional highway asset would increase the council's overall maintenance liability.	1	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Facilities for pedestrians would be included as part of the junction and, in combination with complementary footway proposals, create brand new routes.	2	

Intervention	Description	Objectives	RAGN Assessment	Score	Total
T: Hardwick Bank B4214 Access	New traffic signal junction on Tenbury Road to access Hardwick Bank development.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	Provides direct access to development, without which it would be impossible to deliver housing on a site which has been identified in the Core Strategy.	**2**	**5**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	The highway works would be designed to modern standards and therefore have a longer design life than the current sections of carriageway. However, creation of an additional highway asset would increase the council's overall maintenance liability.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Facilities for pedestrians would be included as part of the junction and, in combination with complementary footway proposals, create brand new routes to the town centre along Tenbury Road.	**2**	
U: Sherford Street One Way	Sherford Street would become one-way inbound from the junction with the A44 to Broad Street.	1. Enable and encourage economic growth through the delivery of more homes and jobs	There is likely to be a reduction in delays to both general traffic and HGVs as a result of reducing conflicts between traffic travelling in opposite directions on Sherford Street. However the one-way proposal will result in a significant increase in distance travelled for Heavy Goods Vehicles wishing to travel from either Station Road Industrial Estate or Stourport Road towards Worcester. The route via Station Road, Tenbury Road, Old Road and A44 West Hill is an additional 2km for each HGV travelled. This situation will increase costs for hauliers, which will ultimately be passed on to their business customers.	**-1**	**-3**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	The need for HGVs to find an alternative route to Sherford Street will increase levels of traffic on Old Road, which has residential frontage on both sides. For HGVs, it is estimated there could be a 32.3% increase in the number of vehicles over a 24 hour period.	**-1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	There is not likely to be any siginificant positive impact on levels of active travel. The removal of opposing traffic flows on a two-way street could lead to traffic speeds increasing, which will not assist with making pedestrians and cyclists feel safer.	**-1**	
V: Old Road One Way	Old Road would become one-way outbound between Tenbury Road and York Road.	1. Enable and encourage economic growth through the delivery of more homes and jobs	There may be a reduction in delays to both general traffic and HGVs as a result of reducing conflicts between traffic travelling in opposite directions on Old Road.	**1**	**1**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	The one-way proposal will encourage HGV traffic coming from the south (Hereford) and west (Leominster) to travel further down the A44 and access the town centre / industrial areas via Sherford Street. HGV traffic travelling to the Porthouse Industrial Estate will have a slightly longer journey as a result.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	There is not likely to be any siginificant positive impact on levels of active travel. The removal of opposing traffic flows on a two-way street could lead to traffic speeds increasing, which will not assist with making pedestrians and cyclists feel safer.	**-1**	
W: Church Street HGV Access-restriction	Loading only on Church Street for inbound HGVs (from Stourport Road direction).	1. Enable and encourage economic growth through the delivery of more homes and jobs.	The proposed intervention is likely to make HGV trips from the Station Industrial Estate more challenging. Lorries will have to traverse the whole length of Station Road and eventually exit the Porthouse Farm Industrial Estate on to Tenbury Road. Thereafter, HGVs travelling towards Worcester will have to travel either through the town centre one-way system or (if Rowberry Steet is also subject to HGV access restrictions) the whole length of Old Road before then turning left back on to the A44.	**-1**	**-1**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	The proposal to restrict HGV access in Church Street will increase the distance that some lorries will need to travel in order to get from Stourport Road towards Worcester.	**-1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The removal of most HGVs from Church Street could enable actual and perceived traffic conditions to be improved for pedestrians and cyclists.	**1**	

Intervention	Description	Objectives	RAGN Assessment	Score	Total
X: Station Road Improvements (full HGV use)	Improvement of Station Road (either localised widening or shuttle working) to become official HGV route through town (based HC adopting the highway).	1. Enable and encourage economic growth through the delivery of more homes and jobs.	The proposed scheme will provide an improved route for HGVs to access both the Station Road and Porthouse Farm Industrial Estates, which will reduce journey times and potentially encourage additional employment (job creation) development on the industrial sites (subject to appropriate planning approvals).	**2**	**5**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	Improving the Station Road route will help to reduce the numbers of HGVs on inappropriate routes on the approach to, and within, the town centre - most notably New Road, Pump Street, High Street / Broad Street and Rowberry Street. In conjunction with access restrictions in the town centre, HGV traffic on Station Road is estimated to increase by 168.9% of a 24-hour period.	**2**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	Whilst not directly providing any new facilities for pedestrians and cyclists, the proposal will remove HGVs from town centre streets (and their approach routes) which may help to encourage greater levels of active travel (by reducing the perception of the safety risk posed by large numbers of HGVs).	**1**	
Y: Station Road Industrial Estate access link from A44	Single carriageway highway link from A44 across the Fourboys, linking into Station Road Industrial Estate.	1. Enable and encourage economic growth through the delivery of more homes and jobs	A new route designed to accommodate HGVs would enable Sherford Street and Church Street to be bypassed, and provide a slightly faster route into the Station Road Industrial Estate as a result of a direct connection to the A44. However the road proposal may lead to the loss of some space within the industrial estate itself, in order to accommodate the road alignment and junction.	**1**	**4**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	Provision of an alternative route to Old Road and New Road will enable HGVs wishing to access Tenbury Road / Porthouse Farm Industrial Estate to avoid the town centre. However, a new road will increase the level of maintenance liabilities to the council.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The removal of HGV traffic from Sherford Street and Church Street may encourage greater levels of walking and cycling as a result of reducing the perceived danger associated with the larger HGVs in particular.	**2**	
Z: Hardwick Bank HGV route	Upgrade of proposed residential road through the Hardwick Bank development to a 7.5 metre route suitable for HGV through movements, which would directly link the A44 with Tenbury Road.	1. Enable and encourage economic growth through the delivery of more homes and jobs	A new route suitable for HGVs would provide a shorter and faster route for traffic between the Porthouse Farm Industrial Estate and Leominster / Hereford. This could reduce haulage costs to operators and local businesses; and also make the industrial areas more attractive for employment / job creation development. However, this could be outweighed by a concern that if the developer is unable or unwilling to design and fund a road of the standard necessary for use by HGV through traffic, then the whole development may not take place at all.	**-1**	**-1**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	Provision of an alternative route to Old Road and New Road will enable HGVs wishing to access Tenbury Road / Porthouse Farm Industrial Estate to avoid the town centre. However, a higher standard of road through the development will increase the level of maintenance liabilities to the council.	**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The presence of a route with significant numbers of HGVs (as well as general traffic using the route as a means of avoiding the town centre) would not encourage active travel within the Hardwick Bank development	**-1**	
AA: A44 Bus Terminus	New bus turning bay / terminal point at the By-pass end of Sherford Street.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	There is unlikely to be any significant positive impact of this proposal.	**0**	**-1**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	There is unlikely to be any impact on HGV management issues. Provision of a new bus terminal facility could result in an increased maintenance liability for the council.	**0**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The proposal to move bus terminal facilties further away from the town centre is not likely to encourage use of the bus in preference to the private car, as it will make access less convenient	**-1**	
AB: Paniers Lane Trafic Calming	Measures to reduce vehicle speeds and enhance conditions for active travel by Queen Elizabeth High School.	1. Enable and encourage economic growth through the delivery of more homes and jobs.	With a growth in planned homes in the town, improved access and increased sustainable travel to school will be a positive ascpect	**2**	**6**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.	Ensuring HGVs can route away from te school will be a positive, and focus movements on appropriate corridors	**2**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.	The proposal will enhance conditions for pupils to travel to school by active travel modes	**2**	
AC: A465/A44 Junction alteration	Alteration to junction form to incorporate crossing facilities	1. Enable and encourage economic growth through the delivery of more homes and jobs.		**1**	**4**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.		**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.		**2**	
AD: A44 pedestrian subway enhancement	Enhancement or potential closure with at-grade crossing	1. Enable and encourage economic growth through the delivery of more homes and jobs.		**1**	**3**
		2. Manage and operate an efficient and safe transport network: (a) Enable appropriate goods vehicle access to shops and industrial premises; (b) Reduce the impact of HGVs in the town centre and residential areas; (c) Maintain the highway network to an appropriate standard.		**1**	
		3. Encourage active travel behaviour to improve health and reduce short distance journeys by car within the town.		**1**	

Intervention	Description	Criteria	RAGN Assessment	Score	Total
A: Porthouse Farm Development, Active Travel Infrastructure	(1) Dropped crossings; (2) Improved cycle parking; (3) Improvements to the junction from the B4214; (4) Provision / improvements to proposed greenway along former railway line; (5) Old Road footway provision; (6) Extension of footway on the A465; (7) Enhancement of southerly visibility at junction of Winslow Road and Tenbury Road (B4214).	Cost of intervention	The package of measures, negotiated as part of a section 106 agreement, provides a series of improvements to pedestrian facilities that will assist with reducing the number of short distance car trips from the Porthouse Farm development to the town centre in particular. The measures are also likely to provide a safer route towards the Humanities College. The measures are likely to assist with mitigating the traffic impact of other developments - notably Hardwick Bank. Costs will be borne by the developer.	**2**	5
		Journey time savings or impact	There is no specific impact journey times, but enhanced pedestrian provision could reduce additional demand on the network proving a positive benefit.	**1**	
		Reduction in accident rate	All of the proposed measures are targeted specifically at active travel modes and will thereby bring positive safety enhancements	**2**	
B: Pencombe Lane Development Transport Improvements	(1) Pedestrian footway on the A44; (2) Extension of the footway on the northern side of Panniers Lane; (3) Provision of two marked bus stops; (4) Funding for a TRO for a 30 mph speed limit to the west of the vehicular access to the proposal.	Cost of intervention	The package of measures, negotiated as part of a section 106 agreement, provides a series of improvements to pedestrian facilities that will assist with reducing the number of short distance car trips from the Pencombe Lane and Hardwick Bank developments to the town centre in particular. The measures are also likely to provide a safer route towards the Humanities College. Costs will be borne by the developer.	**2**	5
		Journey time savings or impact	There is no specific impact journey times, but enhanced pedestrian provision could reduce additional demand on the network proving a positive benefit.	**1**	
		Reduction in accident rate	All of the proposed measures are targeted specifically at active travel modes and bus users. Reducing vehicle demand and enhanced routes will thereby bring positive safety enhancements	**2**	
C: A44 Bromyard Bypass Speed Limit	Reduced speed limit on A44 (from 40mph to 30mph) in response to local petition.	Cost of intervention	The scheme will require further design consideration to identify whether additional calming features would be necessary above changes to signs and the TRO process.	**1**	3
		Journey time savings or impact	A reduction in speed will marginally increase journey times, but the length of road in question is short and would have very limited difference	**0**	
		Reduction in accident rate	Lower vehicle speeds will reduce the likely severity of any collisions.	**2**	
D: Church Street Pedestrian Crossing Improvements	Conversion of Zebra crossing outside Post Office to Pelican crossing.	Cost of intervention	The proposed intervention is located on an important desire line between the proposed developments at Hardwick Bank and Porthouse Farm. Therefore improvements to crossing facilities could encourage short distance walking trips to the town centre from these new developments. However, as there is already a crossing in this location the benefits are	**1**	1
		Journey time savings or impact	The proposed intervention is located on an important desire line between the proposed developments at Hardwick Bank and Porthouse Farm. Therefore improvements to crossing facilities could encourage short distance walking trips to the town centre from these new developments. However, as there is already a crossing in this location the benefits are likely to be incremental.	**0**	
		Reduction in accident rate	There is already a pedestrian crossing in this location, although it is in a poor state of maintenance. Conversion from a Zebra to a Pelican may provide additional reassurance for some pedestrians (especially elderly people). However for others having to wait for the lights to change may introduce additional delay and make walking less convenient. The length of the existing crossing is relatively narrow and most able bodied people are less likely to wait if they can see that	**0**	
E: Broad Street / High Street 20mph Limit	Introduction of a 20mph speed limit on Broad Street / High Street.	Cost of intervention	The scheme would not be a significant cost in capital or maintenance terms.	**2**	5
		Journey time savings or impact	The existing vehicles speeds are estimated to be in this order, and no major change would be expected. If other traffic diverts from the town centre, this would enhance the flow of vehicles around the central area.	**1**	
		Reduction in accident rate	Lower vehicle speeds will reduce the likely severity of any collisions.	**2**	
F: Broad Street & High Street HGV Access Restrictions	Introduction of loading only for HGVs over 7.5 tonnes.	Cost of intervention	The cost of the intervention is not seen as prohibitive or significant.	**2**	6
		Journey time savings or impact	Broad Street and High Street are the main shopping areas, where significant numbers of pedestrians are present. The removal of HGV through traffic will reduce the impact of HGVs on what are narrow and historic streets, where footways are often very narrow.	**2**	
		Reduction in accident rate	A reduction in the number of HGVs as a result of the intervention would reduce the risk of building strikes, and unsafe manoeuvres .	**2**	

Intervention	Description	Criteria	RAGN Assessment	Score	Total
G: Cruxwell Street Pedestrian Crossing Improvements	New Pelican crossing outside the Leisure Centre, adjacent to the wall of the newsagents. An existing set of dropped kerbs is already located at this point.	Cost of intervention	The location of the proposed pedestrian crossing is on an important desire line between the proposed new developments and the town centre. Therefore it is likely that greater numbers of short distance trips from the developments could be encouraged to the town centre, using walking as the preferred mode.	**2**	5
		Journey time savings or impact	There is evidence that at least 15 HGVs per day may be using Cruxwell Street as a means of accessing Sherford Street and the A44 towards Worcester. Improving pedestrian crossing facilities may make some contribution to making the route less attractive for through traffic.	**1**	
		Reduction in accident rate	The location of the proposed pedestrian crossing at the end of High Street enables a direct connection to be provided from Tenbury Road, and all the existing residential areas in the west of the town. The existing crossing is of a limited standard and so provision of a signalised facility should encourage higher numbers of short distance trips.	**2**	
H: Pump Street HGV Access Restrictions	(1) Access-only for HGVs; (2) Bus stop relocation to bypass and conversion of area to on-street parking spaces.	Cost of intervention	The cost of the HGV ban is not seen as prohibitive or significant. Bus stop relocation impacted by gas main which impacts on cost and options	**0**	4
		Journey time savings or impact	There have been problems with larger HGVs using Pump Street to access the town centre, specifically when they attempt to turn left into High Street. Around 7 HGVs per day make this movement, although it is not clear how many of these are making deliveries in Pump Street. A ban on through HGV movements therefore may have some impact on reducing the numbers traversing High Street and reduce the potential number of conflicts and associated delays.	**2**	
		Reduction in accident rate	A reduction in the number of HGVs as a result of the intervention would reduce the risk of building strikes, and unsafe manoeuvres .	**2**	
I: New Road HGV Access-restrictions	Loading-only for HGVs on New Road.	Cost of intervention	The cost of the intervention is not seen as prohibitive or significant	**2**	4
		Journey time savings or impact	The number of HGVs using New Road is small (around 6 per day). Delays from vehicles waiting to turn, or becoming stuck could be eliminated, but no significant change	**0**	
		Reduction in accident rate	A reduction in the number of HGVs as a result of the intervention could encourage more walking and cycling trips along New Road, as it will enable space to be given over to pedestrians and cyclists.	**2**	
J: Cruxwell Street Parking Changes	On-street parking between Leisure Centre and Public Hall transferred to right hand side	Cost of intervention	The cost of the intervention is not seen as prohibitive or significant	**2**	4
		Journey time savings or impact	If anything this proposed change may make it slightly easier for HGVs to use the town centre one-way system (specifically Cruxwell Street and Rowberry Street), as vehicles will not now need to manoeuvre on to the opposite side of the road.	**2**	
		Reduction in accident rate	Drivers can exit their vehicles directly onto the footpath, but will have less visibility when leaving a parking bay as they will be the far side of their vehicle when pulling away.	**0**	
K: Rowberry Street Parking Changes	Remove one parking space outside public hall on Rowberry Street.	Cost of intervention	The cost is minimal, and as parking is free there is no loss of revenue.	**2**	3
		Journey time savings or impact	If vehicles are currently delayed due to the limitations on the turn, so potential improved free flow of traffic. Swept path analysis needed to confirm if turn is problematic.	**1**	
		Reduction in accident rate	The removal of one space could encourage illegal parking, but with improved traffic free flow could reduce any conflict or compromised manoeuvres.	**0**	
L: Winslow Road HGVs Access-restrictions	Access-only for HGVs on Winslow Road.	Cost of intervention	The cost of the intervention is not seen as prohibitive or significant	**2**	5
		Journey time savings or impact	Winslow Road is a residential street which is unsuitable for HGV use. The road is not direct route for HGVs and therefore would have little/no impact on journey times. If HGVs currently using Winslow Road cause some delays, their removal would be a positive impact.	**1**	
		Reduction in accident rate	Winslow Road is an important pedestrian route for trips to the town centre, Porthouse Farm Industrial Estate and the local primary school. Therefore a proposal which aims to reduce the potential of HGV traffic to use the route will have benefit in improving the environment for pedestrians and cyclists and in the vicinity of the school.	**2**	
M: Station Road HGV Route Basic Improvements	*De minimis* improvement of Station Road (e.g. changes to signing and maintenance activities such as vegetation clearance and road marking improvements).	Cost of intervention	Station Road has the potential to be used by traffic from the Porthouse Farm and Hardwick Bank developments that accesses on to Tenbury Road. In effect Station Road could become a bypass of the town centre for traffic heading towards either Stourport or Worcester.	**1**	5
		Journey time savings or impact	HGVs which currently use Cruxwell Street and Rowberry Street to travel to / from both Stourport and Worcester will have the opportunity to use Station Road an alternative to Broad Street / High Street, Cruxwell Street and Rowberry Street. This could reduce delays and mix of traffic, and reduce incidents of vehicles having difficulties in making turns within the town centre.	**2**	
		Reduction in accident rate	Whilst no pedestrian route is planned as part of improvements to Station Road, there are opportunities to remove vehicles from routes currently used by pedestrians, which could have indirect benefits in terms of safety.	**2**	

Intervention	Description	Criteria	RAGN Assessment	Score	Total
N: Pump Street Bus Stop Improvements	Extension of bus stop in Pump Street and improvements to all town bus stops (new shelters and comprehensive provision of timetable information).	Cost of intervention	Greater bus use could reduce demand for subsidy. Cost of works influenced by location of gas main, and could become considerable and require further detailed design and exploratory works to confirm depth and protection necessary for gas main.	1	4
		Journey time savings or impact	Improved capacity will allow quicker boarding and reduce bus dwell time.	1	
		Reduction in accident rate	Greater provision will enable the safe parking of buses and reduce any impact on parking vehicles, whilst providing a safer waiting environment for bus users.	2	
O: Freight Quality Partnership	To encourage voluntary enforcement of HGV routes in order to avoid sensitive town centre streets and residential areas; also to provide good levels of information to local business and freight hauliers that will increase awareness around the most appropriate HGV routes.	Cost of intervention	An FQP could be specifically targeted to mitigate any development impacts where high numbers of HGV trips are generated. Funding source and support hard to determine.	1	4
		Journey time savings or impact	A primary purpose of an FQP is to identify routes which are most suitable for HGVs, and for those that are not. The provision of information, to back up any legal restrictions, is an important aspect of helping HGV drivers and their customers to make better routing decisions.	2	
		Reduction in accident rate	FQPs are not specifically concerned with the promotion of short distance trips. However, the ability of an FQP to encourage HGVs to avoid routes used by pedestrians and cyclists could encourage greater use of these modes.	1	
P: Civil Enforcement Officer Funding	Funding to support civil enforcement officer to enforce parking regulations	Cost of intervention	Previous lack of resources has stopped effective enforcement. Potential for cross settlement use. Lower cost than potential other solutions that are effectively seeking to achieve the same outcome.	1	5
		Journey time savings or impact	If illegal parking is managed, improved free flow through the town could result	2	
		Reduction in accident rate	Improved parking behaviour would assist in safer movement and easier environment for pedestrians and cyclist to move around town.	2	
Q: Hardwick Back: Improve Active Travel Routes	Improvements to existing Public Rights of Way, to include widening to at least 2 metres, hard surfacing and lighting.	Cost of intervention	The cost would be borne by the developer, but will be subject to final costing and design to determine exact cost.	1	5
		Journey time savings or impact	The proposed new walking and cycle route is the most direct to the town centre and industrial estates from the central and southern parts of the development, and is therefore likely to attract a significant proportion of the walking trips that would be generated by the development - if there is a concerted and effective travel plan that encourages use of walking and cycling.	2	
		Reduction in accident rate	Based on the trip generation and modal split figures in the Transport Assessment, nearly a quarter of person trips to / from the development could be undertaken by walking. Given that the census shows that a third of trips for work are less than 2km, the provision of this route could well encourage higher levels of walking and cycling than predicted by the Transport Assessment.	2	
R: Hardwick Bank: New Active Travel Route	New walking and cycle route from Hardwick Bank development to Old Road, crossing Winslow Road and the playing field. Specific improvements include hard surfacing on the section of route across the playing field and lighting.	Cost of intervention	The cost would be borne by the developer, but will be subject to final costing and design to determine exact cost.	1	5
		Journey time savings or impact	The proposed new walking and cycle route is the most direct to the town centre and industrial estates from the northern part of the development, and is therefore likely to attract a significant proportion of the walking trips that would be generated by the development	2	
		Reduction in accident rate	Based on the trip generation and modal split figures in the Transport Assessment, nearly a quarter of person trips to / from the development could be undertaken by walking. Given that the census shows that a third of trips for work are less than 2km, the provision of this route could well encourage higher levels of walking and cycling than predicted by the Transport Assessment on a dedicated traffic free route.	2	
S: Hardwick Bank A44 Access	New roundabout junction on the A44	Cost of intervention	The new roundabout junction will be essential for providing efficient access to the proposed development at Hardwick Bank, as there are no viable options off Winslow Road. The design of the junction has been tested using junction	2	5
		Journey time savings or impact	The proposed junction will slow through traffic on the A44, but provide quality direct access to the primary network for development trips.	1	
		Reduction in accident rate	The proposed access includes pedestrian facilities, both at the junction itself and along the A44 to meet up with the end of the current footway near the junction with Winslow Road.	2	
T: Hardwick Bank B4214 Access	New traffic signal junction on Tenbury Road to access Hardwick Bank development	Cost of intervention	The new traffic signal junction will be essential for providing efficient access to the proposed development at Hardwick Bank, as there are no viable options off Winslow Road. The design of the junction has been tested using junction modelling software and demonstrates that the capacity is adequate.	2	5
		Journey time savings or impact	The proposed junction will slow through traffic on Tenbury Road, but provide quality direct access for development trips.	1	
		Reduction in accident rate	The proposed access includes pedestrian facilities, in the form of formal crossing points, and the existing footway will be widened to 2 metres. These improvements will enable and encourage short distance active travel journeys to the shops on Tenbury Road and then onwards to the town centre.	2	

Intervention	Description	Criteria	RAGN Assessment	Score	Total
U: Sherford Street One Way	Sherford Street would become one-way inbound from the junction with the A44 to High Street.	Cost of intervention	In itself not significant cost, but knock on consequences with signage, provision of alternative routes and impact upon wider network where traffic would be diverted or impact could be considerable.	-1	-3
		Journey time savings or impact	Traffic from the Porthouse Farm and Station Industrial Estates, wishing to access the A44 towards Worcester, would need to use Tenbury Road / Old Road. This would increase HGV mileage in the town.	-1	
		Reduction in accident rate	The additional travel length and increase in traffic along routes with higher pedestrian footfall could increase accident risk.	-1	
V: Old Road One Way	Old Road would become one-way outbound between Tenbury Road and York Road	Cost of intervention	In itself not significant cost, but knock on consequences with signage, provision of alternative routes and impact upon wider network where traffic would be diverted or impact could be considerable.	-1	-3
		Journey time savings or impact	Traffic from the Porthouse Farm and Station Industrial Estates, wishing to access the A44 towards Worcester, would need to use Tenbury Road / Old Road. This would increase HGV mileage in the town.	-1	
		Reduction in accident rate	The additional travel length and increase in traffic along routes with higher pedestrian footfall could increase accident risk.	-1	
W: Church Street HGV Access-restriction	Access / Loading only on Church Street for inbound HGVs	Cost of intervention	In itself not significant cost, but knock on consequences with signage, provision of alternative routes and impact upon wider network where traffic would be diverted or impact could be considerable.	-1	-3
		Journey time savings or impact	HGV traffic from Stourport and the Porthouse Farm / Station Industrial Estates, wishing to access the A44 would need to use Tenbury Road / Old Road. This would increase HGV mileage in the town.	-1	
		Reduction in accident rate	The additional travel length and increase in traffic along routes with higher pedestrian footfall could increase accident risk.	-1	
X: Station Road Improvements (full HGV use)	Improvement of Station Road (either localised widening or shuttle working) to become official HGV route through town (based HC adopting the highway)	Cost of intervention	Detailed design work necessary to develop and cost proposal which would be in excess of £200k. Savings in maintenance on other routes may offset some of this cost.	0	4
		Journey time savings or impact	Improvements to the route on Station Road for HGVs, coupled with access restrictions on town centre routes, will help to reduce traffic on inappropriate routes and aid ease of movement to and from the industrial areas.	2	
		Reduction in accident rate	Removal of HGVs from inappropriate routes reduce wider safety risk, whilst the enhanced route will improve conditions for present users of this route.	2	
Y: Station Road Industrial Estate access link from A44	Single carriageway highway link from A44 across the Fourboys, linking into Station Road Industrial Estate.	Cost of intervention	There could be a reduction of around 70 HGVs per day on Sherford Street, Church Street and High Street as a result of traffic being attracted to the new link and then traversing Station Road to access the industrial estates and Tenbury Road. This is a relatively low number of vehicles for what would be an expensive new highway link.	-1	2
		Journey time savings or impact	There could be some journey time savings with the reduction in HGV trips through Sherford Road, and the enhanced route for HGV movements.	1	
		Reduction in accident rate	The new road would not be likely to provide a pedestrian or cycle route and with a purpose built HGV route would enhance local safety with the removal of HGV trips from older, less appropriate routes.	2	
Z: Hardwick Bank HGV route	Upgrade of proposed residential road through the Hardwick Bank development to a 7.3 metre route suitable for HGV through movements, which would directly link the A44 with Tenbury Road.	Cost of intervention	Although lower cost than a purpose built link (Fourboys) the extra cost in road construction, width, and reduced value/density of housing development would make this unattractive.	-1	-2
		Journey time savings or impact	If it is assumed that the proposed route would provide an alternative to both Old Road and Sherford Street / Church Street / High Street, then it might be expected that around 160 HGVs per day could run through the Hardwick Bank development with minimal change in journey time.	0	
		Reduction in accident rate	Upgrading the proposed residential road to accommodate HGVs travelling from the A44 to Tenbury Road would not assist with the promotion of walking and cycling, as the route would form a barrier between the Hardwick Bank development and the rest of Bromyard. The risk is that perceptions of danger mean that residents decide to travel by car for short trips, which will increase the traffic impact of the new development.	-1	
AA: A44 Bus Terminus	New bus turning bay / terminal point at the By-pass end of Sherford Street.	Cost of intervention	Further design challenges need to be determined to fully cost the intervention, but the cost would be higher than making localised improvements to the existing stops on Pump Street	-1	-2
		Journey time savings or impact	Removal of the current centrally located bus stop away from the town centre will increase walking distances and do little to encourage bus use for people living in new developments.	-1	
		Reduction in accident rate	A purpose built facility could enhance safety at the point of boarding, but the increased walking distance to the town centre would expose vulnerable users to a longer walk.	0	
AB: Paniers Lane Trafic Calming	Measures to reduce vehicle speeds and enhance conditions for active travel by Queen Elizabeth High School.	Cost of intervention	Further design challenges need to be determined to fully cost the intervention. Funding needs to be identified.	1	3
		Journey time savings or impact	Evidence route used as a rat run. Some displaced traffic could increase delay at A465 junction, but improved active travel mode share could offer savings across the town	0	
		Reduction in accident rate	Traffic claming would enhance saftey for vulnerable users in the locality and would reduce vehicle speeds	2	
AC: A465/A44 Junction alteration	Alteration to junction form to incorporate crossing facilities	Cost of intervention		0	1
		Journey time savings or impact		0	
		Reduction in accident rate		1	
AD: A44 pedestrian subway enhancement	Enhancement or potential closure with at-grade crossing	Cost of intervention		0	1
		Journey time savings or impact		0	
		Reduction in accident rate		1	

Intervention	Description	Deliverability Issues	RAGN Assessment	Score	Total
A: Porthouse Farm Development, Active Travel Infrastructure	(1) Dropped crossings; (2) Improved cycle parking; (3) Improvements to the junction from the B4214; (4) Provision / improvements to proposed greenway along former railway line; (5) Old Road footway provision; (6) Extension of footway on the A465; (7) Enhancement of southerly visibility at junction of Winslow Road and Tenbury Road (B4214).	Technical / practical feasibility	The proposed interventions is based on standard highway works, and no significant technical challenges are anticipated. As these works have are part of a section 106 agreement it is assumed that they have been subject to a technical assessment against relevant highway design standards.	2	7
		Affordability / funding availability	The works are part of a section 106 agreement and could be fully funded (subject to confirmation of the costings following any further design work).	2	
		Stakeholder acceptability	There are no obvious stakeholder issues.	2	
		Legal powers	Most works are to take place within highway land. However it is not clear whether the location of the proposed cycle parking has been established.	1	
B: Pencombe Lane Development Transport Improvements	(1) Pedestrian footway on the A44; (2) Extension of the footway on the northern side of Panniers Lane; (3) Provision of two marked bus stops; (4) Funding for a TRO for a 30 mph speed limit to the west of the vehicular access to the proposal.	Technical / practical feasibility	The proposed interventions is based on standard highway works, and no significant technical challenges are anticipated. As these works have are part of a section 106 agreement it is assumed that they have been subject to a technical assessment against relevant highway design standards.	2	7
		Affordability / funding availability	The works are part of a section 106 agreement and could be fully funded (subject to confirmation of the costings following any further design work).	2	
		Stakeholder acceptability	There are no obvious stakeholder issues.	2	
		Legal powers	TROs needed to change to the speed limit.	1	
C: A44 Bromyard Bypass Speed Limit	Reduced speed limit on A44 (from 40mph to 30mph) in response to local petition.	Technical / practical feasibility	There are no obvious issues in relation to the practical feasibility of changing the speed limit.	2	2
		Affordability / funding availability	The measure will be relatively low cost for the physical works - which are likely to constitute additional signing. However, there may be an issue around availability of resource for TROs delivery and enforcement of the speed limit.	1	
		Stakeholder acceptability	The proposal is being put forward on the basis of a local request, although it is not clear how many people have signed it. There may be some resistance from the Police because of the need for enforcement of the new limit - although this is not clear. People who travel through Bromyard may not understand the reason for the change.	0	
		Legal powers / technical standards	Existing speed surveys suggest that the existing average speeds are 37.1mph, which is below the 40mph limit. DfT guidance states that in order for a speed limit to be changed, average speeds need to be higher than the exsiting limit. 85th percentile. TROs needed to change the speed limit, capacity is seriously constrained.	-1	
D: Church Street Pedestrian Crossing Improvements	Conversion of Zebra crossing outside Post Office to Pelican crossing.	Technical / practical feasibility	Conversion to a Pelican crossing at the existing location cannot be undertaken as there needs to be a minimum of 20 metres from the junction. Possible alternative locations in Church Street would need to be considered.	-1	2
		Affordability / funding availability	With all the necessary civil engineering works, pelican crossings are liklely to cost at least £50,000.	1	
		Stakeholder acceptability	The Town Council supports provision of a new crossing in this area. However, the potential alternative locations for the crossing would necessitate the removal of residents' parking spaces, which is likely to attract opposition.	1	
		Legal powers	Traffic Regulation Orders would be needed if changes to the adjacent on-street parking provision is deemed to be necessary.	1	
E: Broad Street / High Street 20mph Limit	Introduction of a 20mph speed limit on Broad Street / High Street.	Technical / practical feasibility	There are no speed surveys which provide evidence of whether average speeds are in excess of the 20mph limit. However the narrow nature of the road and the presence of parked vehicles lends itself to a lower speed limit.	1	6
		Affordability / funding availability	The main cost would be in the signs and road markings required to make road users aware of the change from the 30mph limit that is applicable on the adjacent roads. The cost of signs is not anticipated to be significant.	2	
		Stakeholder acceptability	There appears to be strong stakeholder support for a change, based on the results of the Green Party survey.	2	
		Legal powers	TROs will be needed to change to the speed limit.	1	
F: Broad Street & High Street HGV Access Restrictions	Introduction of loading only for HGVs over 7.5 tonnes.	Technical / practical feasibility	There is an alternative HGV route (via Sherford Street and Station Road).	2	6
		Affordability / funding availability	The main cost would be in the signs required to make HGV drivers aware that New Road is only accessible for vehicles which are loading or unloading. The cost of signs is not anticipated to be significant.	2	
		Stakeholder acceptability	There may be some concern from local businesses (especially the shops) as to the potential impact on ability to facilitate deliveries - but the exemptions for loading onlty should reassure them.	1	
		Legal powers	TROs will be needed to restrict HGV access to loading only.	1	

Intervention	Description	Deliverability Issues	RAGN Assessment	Score	Total
G: Cruxwell Street Pedestrian Crossing Improvements	New Pelican crossing outside the Leisure Centre	Technical / practical feasibility	There are a number of significant technical feasibility issues including (1) narrow footways (less than the recommeded 2 metres); (2) Limited space to site the signal heads and control equipment; (3) There are shop frontages directly on the footway;	-1	4
		Affordability / funding availability	With all the necessary civil engineering works, pelican crossings are liklely to cost at least £50,000.	1	
		Stakeholder acceptability	The Town Council supports provision of a new crossing in this area.	2	
		Legal powers	No additional legal orders are required	2	
H: Pump Street HGV Access Restrictions	(1) Access-only for HGVs; (2) Bus stop relocation to bypass and conversion of area to on-street parking spaces.	Technical / practical feasibility	There is an alternative HGV route (via Sherford Street and Station Road).	2	4
		Affordability / funding availability	The main cost would be in the signs required to make HGV drivers aware that Pump Street is only accessible for vehicles which are loading or unloading. The cost of signs is not anticipated to be significant.	2	
		Stakeholder acceptability	The bus operator strongly objects to the removal of the bus stop, and this change is highly unlikely to find favour with bus passengers.	-1	
		Legal powers	TROs will be needed to restrict HGV access to loading only.	1	
I: New Road HGV Access-restrictions	Loading-only for HGVs on New Road.	Technical / practical feasibility	There is an alternative HGV route (via Sherford Street and Station Road).	2	7
		Affordability / funding availability	The main cost would be in the signs required to make HGV drivers aware that New Road is only accessible for vehicles which are loading or unloading. The cost of signs is not anticipated to be significant.	2	
		Stakeholder acceptability	There are not anticipated to be any significant stakeholder objections, and the current (temporary) diversion signing does not appear to be being widely ignored.	2	
		Legal powers	TROs will be needed to restrict HGV access to loading only.	1	
J: Cruxwell Street Parking Changes	On-street parking between Leisure Centre and Public Hall transferred to right hand side	Technical / practical feasibility	There are not likely to be any significant feasibility issues associated with this change.	2	6
		Affordability / funding availability	The costs associated with changes to signs and road markings are not likely to be significant.	2	
		Stakeholder acceptability	There may be some concern from local businesses on the left hand side of the road, as a result of their customers now having to cross the road.	1	
		Legal powers	TROs will be needed to create the new parking spaces and also to introduce the yellow line waiting restrictions on the left hand side of the road.	1	
K: Rowberry Street Parking Changes	Remove one parking space outside public hall on Rowberry Street.	Technical / practical feasibility	There are not likely to be any significant feasibility issues associated with this change.	2	7
		Affordability / funding availability	The costs associated with changes to signs and road markings are not likely to be significant.	2	
		Stakeholder acceptability	There are unliklely to be any significant stakeholder objections to the removal of a single parking space.	2	
		Legal powers	TROs will be needed to remove the existing parking space and also to introduce the yellow line waiting restrictions on the left hand side of the road.	1	
L: Winslow Road HGVs Access-restrictions	Access-only for HGVs on Winslow Road.	Technical / practical feasibility	There is an alternative HGV route (via Sherford Street and Station Road).	2	7
		Affordability / funding availability	The main cost would be in the signs required to make HGV drivers aware that Winslow Road is only accessible for vehicles which are loading or unloading. The cost of signs is not anticipated to be significant.	2	
		Stakeholder acceptability	There are not anticipated to be any significant stakeholder objections, as Winslow Road is not a route that is used by large numbers of HGVs.	2	
		Legal powers	TROs will be needed to restrict HGV access to loading only.	1	
M: Station Road HGV Route Basic Improvements	*De minimis* improvement of Station Road (e.g. changes to signing and maintenance activities such as vegetation clearance and road marking improvements).	Technical / practical feasibility	The proposed interventions do not require any engineering measures that require changes to the physical layout of the road.	2	7
		Affordability / funding availability	The proposed works are low cost maintenance activities. However, there will be a need to identify additional funding from the highway maintenance budget.	1	
		Stakeholder acceptability	There are unlikely to be any negative stakeholder issues associated with this intervention, and improvemments to visibility / safety are likely to be strongly supported.	2	
		Legal powers	No legal powers will be needed and the intervention is (in effect) on unadopted highway that is council-owned.	2	
N: Pump Street Bus Stop Improvements	Extension of bus stop in Pump Street and improvements to all town bus stops (new shelters and comprehensive provision of timetable information).	Technical / practical feasibility	A previous study by Amey concluded that a low pressure gas main currently lies adjacent to the eastern footway kerb on Pump Street. Current footway widths will not be able to accommodate an additional bus shelter and any footway widening within this	1	6
		Affordability / funding availability	New bus stops generally cost around £6,000 - although this can increase if additional services such as lighting are required.	1	
		Stakeholder acceptability	As these bus stops already exist, there are unlikely to be any significant stakeholder concerns.	2	
		Legal powers	No legal powers are needed to improve bus stops.	2	

Intervention	Description	Deliverability Issues	RAGN Assessment	Score	Total
O: Freight Quality Partnership	To encourage voluntary enforcement of HGV routes in order to avoid sensitive town centre streets and residential areas; also to provide good levels of information to local business and freight hauliers that will increase awareness around the most	Technical / practical feasibility	There is good practice and guidance which demonstrates the success of FQPs.	2	6
		Affordability / funding availability	FQPs do not require infrastructure measures, although they can support them.	1	
		Stakeholder acceptability	FQPs are voluntary and rely on extensive stakeholder work and co-operation. Therefore it is more likely that solutions will have a significant degree of buy-in from stakeholders.	1	
		Legal powers	No legal powers are needed.	2	
P: Civil Enforcement Officer Funding	Funding to support civil enforcement officer to enforce parking regulations	Technical / practical feasibility	There are no barriers to this intervention	2	7
		Affordability / funding availability	Lack of resource has stopped previous action. Some revenue can be colected and used to enhance town centre measures.	1	
		Stakeholder acceptability	Whilst maybe some objection, generally illegal parking is an issue that the wider population were seeking action on.	2	
		Legal powers	No legal powers are needed.	2	
R: Hardwick Bank: New Active Travel Route	New walking and cycle route from Hardwick Bank development to Old Road, crossing Winslow Road and the playing field. Specific improvements include hard surfacing on the section of route across the playing field and lighting.	Technical / practical feasibility	There appears to be sufficient space to construct a route.	2	5
		Affordability / funding availability	Upgrade of the entire route, to include path provision / widening along with lighting, is likely to be a relatively high cost measure (potentially in the region of £200,000). Funding could be made available through a Section 106 agreement with the developers of the Hardwick Bank site.	1	
		Stakeholder acceptability	On sections of the route which is already a footpath, there should be a high level of stakeholder support. However, there are new sections of route (through the existing garages and across the playing fields) which may attract opposition.	1	
		Legal powers	It is likely that land may need to be acquired, depending on the ownership of the area around the garages and any strip adjacent to the Hardwick Bank development.	1	
Q: Hardwick Back: Improve Active Travel Routes	Improvements to existing Public Rights of Way, to include widening to at least 2 metres, hard surfacing and lighting.	Technical / practical feasibility	There may be some sections of route where it could be a challenge to increase the width to 2 metres, especially the section of route which runs behind the houses.	1	4
		Affordability / funding availability	Upgrade of the entire route, to include path provision / widening along with lighting, is likely to be a relatively high cost measure (potentially in the region of £200,000). Funding could be made available through a Section 106 agreement with the developers of the Hardwick Bank site.	1	
		Stakeholder acceptability	The provision of active travel routes from the Hardwick Bank development is strongly supported by the Town Council. However, there may be some local opposition from residents adjacent to the proposed route improvements.	1	
		Legal powers	Planning permission and land acquisition may be required, especially where routes need to be widened.	1	
S: Hardwick Bank A44 Access	New roundabout junction on the A44	Technical / practical feasibility	The design of the roundabout is in accordance with the Department for Transport design standard TD 16/07 'Geometric Design of Roundabouts'. The roundabout would provide for a low level subsidiary island to accommodate large vehicle movements	2	7
		Affordability / funding availability	The junction is necessary for access to the Hardwick Bank development, and would therefore be fully funded.	2	
		Stakeholder acceptability	The provision of the roundabout is away from any built-up areas and does not appear likely to attract significant stakeholder opposition.	2	
		Legal powers	Third party land may be required, aklthough this issue should be dealt with as part of the overall development planning application.	1	
T: Hardwick Bank B4214 Access	New traffic signal junction on Tenbury Road to access Hardwick Bank development	Technical / practical feasibility	The proposed signal junction has been designed in accordance with DMRB TD 50/04 and Manual for Streets. The junction layout and the measurements of inter-visibility, visibility for pedestrians and to the stop lines are is in accordance with DMRB.	2	7
		Affordability / funding availability	The junction is necessary for access to the Hardwick Bank development, and would therefore be fully funded.	2	
		Stakeholder acceptability	The provision of the roundabout is away from any built-up areas and does not appear likely to attract significant stakeholder opposition.	2	
		Legal powers	Third party land may be required, although this issue should be dealt with as part of the overall development planning application.	1	
U: Sherford Street One Way	Sherford Street would become one-way inbound from the junction with the A44 to High Street.	Technical / practical feasibility	It would be practically and technically feasible to make Sherford Street one-way.	2	4
		Affordability / funding availability	The cost associated with introducing one-way streets is mainly limited to installation of signs.	2	
		Stakeholder acceptability	There are likely to be objections from local businesses, hauliers and the bus company who will all have to make significant detours as a result of the inability to access Sherford Street.	-1	
		Legal powers	Traffic Regulation Orders would be required.	1	

Intervention	Description	Deliverability Issues	RAGN Assessment	Score	Total
V: Old Road One Way	Old Road would become one-way outbound between Tenbury Road and York Road	Technical / practical feasibility	It would be practically and technically feasible to make Sherford Street one-way.	**2**	4
		Affordability / funding availability	The cost associated with introducing one-way streets is mainly limited to installation of signs.	**2**	
		Stakeholder acceptability	There are likely to be objections from local businesses, hauliers and the bus company who will all have to make significant detours as a result of the inability to access Old Road.	**-1**	
		Legal powers	Traffic Regulation Orders would be required.	**1**	
W: Church Street HGV Access-restriction	Access / Loading only on Church Street for inbound HGVs	Technical / practical feasibility	It would be practically and technically feasible to restrict access for HGVs.	**2**	4
		Affordability / funding availability	The cost associated with introducing one-way streets is mainly limited to installation of signs.	**2**	
		Stakeholder acceptability	There are likely to be objections from local businesses and hauliers who will all have to make significant detours as a result of the inability to access Church Street.	**-1**	
		Legal powers	Traffic Regulation Orders would be required.	**1**	
X: Station Road Improvements (full HGV use)	Improvement of Station Road (either localised widening or shuttle working) to become official HGV route through town (based HC adopting the highway)	Technical / practical feasibility	Carriageway width 5.6m with scope to widen, but land ownership / rock outcrop / bridge abutments may limit the practical feasibility.	**2**	5
		Affordability / funding availability	Assessment of existing carriageway and sub-grade will be desirable to determine condition and to enable upgrade costs to be determined.	**0**	
		Stakeholder acceptability	The Station Road route is away from any significant areas of housing and should therefore not be too controversial.	**2**	
		Legal powers	If the improvements are undertaken within highway boundary, then legal powers may not be needed. Although the highway is not adopted, the ownership is with the council.	**1**	
Y: Station Road Industrial Estate access link from A44	Single carriageway highway link from A44 linking into Station Road Industrial Estate.	Technical / practical feasibility	There are a number of technical feasibility challenges associated with this proposed intervention, including (1) provision of a safe junction with the A44, (2) mitigating the impact on the road on the adjacent watercourse; (3) addressing the issue of flood risk; (4) understanding other environmental impacts (for example biodiversity); and (5) providing a connection to Station Road.	**-1**	**-2**
		Affordability / funding availability	The proposal would could cost in excess of £5m, especially as a result of the need for environmental mitigation measures. No funding for this scheme has been identified.	**-1**	
		Stakeholder acceptability	There is likely to a mixed set of stakeholder views. There will be many within the town who support the idea, as it is likely to remove traffic from the town. However, there will also be stakeholders who oppose the proposal on environmental grounds.	**0**	
		Legal powers	Planning permission and land acquisition will be required, and these could be challenging to obtain.	**0**	
Z: Hardwick Bank HGV route	Upgrade of proposed residential road through the Hardwick Bank development to a 7.3 metre route suitable for HGV through movements, which would directly link the A44 with Tenbury Road.	Technical / practical feasibility	The developer proposals are for a route that is designed in line with the principles of Manual for Streets and the adopted Herefordshire Highways Design Guide for New Developments, this includes designing all of the internal roads, including the main access road for 20mph. The design would allow for a vehicular through route to be provided through the site linking the A44 to Tenbury Road, however would be designed to discourage large volumes of traffic from using the through route in order to maintain the residential nature of the development. The feasibility of a higher standard route has not been clearly established, in terms of its ability to integrate with existing development proposals.	**0**	**-3**
		Affordability / funding availability	Whilst the developer proposes to provide a residential route through the development, there is no funding currently identified to upgrade the road to a standard suitable for HGVs and through traffic.	**-1**	
		Stakeholder acceptability	There is likely to a mixed set of stakeholder views. There will be many within the town who support the idea, as it is likely to remove traffic from the town. However, the developer is likely to oppose provision of a through route fior HGVs and larger volumes of traffic. There may also be opposition from householders whose property is adjacent to any new road.	**-1**	
		Legal powers	Planning permission and land acquisition will be required, and these could be challenging to obtain.	**-1**	
AA: A44 Bus Terminus	New bus turning bay / terminal point at the By-pass end of Sherford Street.	Technical / practical feasibility	There appears to be insufficient space to provide a full bus turning facility on the area of ground adjacent to the A44 / Sherford Street junction.	**-1**	**-1**
		Affordability / funding availability	A bus turning facility could cost anything between £100,000 and £500,000, depending on the size and level of facilities. No funding has been identified.	**0**	
		Stakeholder acceptability	The bus operator opposes this proposal, especially if it would entail the removal of the existing stop in Pump Street. Passengers are unlikely to support moving a bus facility further away from the town centre and important facilities in Pump Street (e.g. the Doctor's surgery).	**-1**	
		Legal powers	Depending on the extent of highway land, planning permission may be required.	**1**	
AB: Paniers Lane Trafic Calming	Measures to reduce vehicle speeds and enhance conditions for active travel by Queen Elizabeth High School.	Technical / practical feasibility	No immedaite barrier to delivery. Consideration of consequences and possible works at A465 juncion to enhance any impact from re-routed trafic.	**1**	**4**
		Affordability / funding availability	Funding to be identified. Sope for a low cost through to higher cost schemes allowing some flexibility in delivery.	**1**	
		Stakeholder acceptability	School supportive. Some potential objection for local drivers, but reasons and positive benefits of the works could offset some of these concerns.	**1**	
		Legal powers	No obvious constraints to delivery, but TRO's may be required if lower speed limit introduced.	**1**	
AC: A465/A44 Junction alteration	Alteration to junction form to incorporate crossing facilities	Technical / practical feasibility		**0**	**0**
		Affordability / funding availability		**0**	
		Stakeholder acceptability		**0**	
		Legal powers		**0**	
AD: A44 pedestrian subway enhancement	Enhancement or potential closure with at-grade crossing	Technical / practical feasibility		**1**	**3**
		Affordability / funding availability		**0**	
		Stakeholder acceptability		**1**	
		Legal powers		**1**	