

# CALDERDALE LOCAL PLAN EVIDENCE BASE

TECHNICAL NOTE 3: PREFERRED SPATIAL  
STRATEGY

CONFIDENTIAL

APRIL 2017

# CALDERDALE LOCAL PLAN EVIDENCE BASE

## TECHNICAL NOTE 3: PREFERRED SPATIAL STRATEGY

**Calderdale Metropolitan Borough Council**

### **Confidential**

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### **WSP | Parsons Brinckerhoff**

Three White Rose Office Park

Millshaw Park Lane

Leeds

LS11 0DL

Tel: +44 (0) 113 3956620

**[www.wsp-pb.com](http://www.wsp-pb.com)**

## QUALITY MANAGEMENT

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Date	11/4/17			
Prepared by	David Ellis			
Signature				
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# 1 INTRODUCTION

## 1.1 PROJECT BACKGROUND

- 1.1.1 WSP | Parsons Brinckerhoff have been commissioned by Calderdale Council (CMBC) to prepare an evidence base related to transport in order to support the decisions made in the Local Plan over allocations of development sites around the authority.
- 1.1.2 Previous to this report, earlier reported stages have been:
- Technical Note 1: Future Network Baseline
  - Technical Note 2: Implications of Settlement Growth
- 1.1.3 Technical Note 1 set out a 'snapshot' of future network operation prior to the application of growth to be allocated under the Local Plan but following realisation of committed developments, windfalls and planned major transport schemes.
- 1.1.4 Technical Note 2 looked at the relative macro-level implications likely to result from development in each settlement. The purpose of the note was to inform a preferred distribution of growth across settlements within Calderdale.
- 1.1.5 Following the submission of these documents to CMBC, alongside a range of other non-transport considerations, an initial decision was made by officers on the preferred distribution of development within Calderdale.

## 1.2 THIS DOCUMENT

This technical note describes the levels of settlement growth agreed by CMBC and links back to the conclusions of the previous technical notes. A transport narrative that justifies the pattern of growth through the district is provided.

# 2 DISTRIBUTION OF HOUSING AND EMPLOYMENT DEVELOPMENT

## 2.1 PREFERRED OPTION FOR HOUSING GROWTH

### 2.1.1

The preferred option for distribution of housing growth agreed by Calderdale Council officers in July 2016 is set out in Table 1 below. Table 2 shows the distribution from the now abandoned Core Strategy preferred options and alternative methods of distributing growth that have been considered.

**Table 1 Preferred spatial distribution of housing growth (2012-2032)**

Local plan area	Potential distribution of dwellings	% dwellings	Need for new allocations (dwellings following discounting of built sites, permissions and likely windfall)
Brighouse	6,909	39.14	6,397
Elland	1,800	10.20	1,354
Halifax	6,601	37.40	5,026
Hebden Bridge	252	1.43	107
Mytholmroyd/Luddenden	282	1.60	189
Northowram/Shelf	636	3.60	515
Ryburn Valley	71	0.40	-64 <sup>1</sup>
Sowerby Bridge	600	3.40	236

<sup>1</sup> A negative number is shown for the Ryburn Valley as a result of the low target number and the number of sites with current planning permission in the area that could be built.

Todmorden	500	2.83	74
<b>Calderdale</b>	<b>17,651</b>	<b>100</b>	<b>13,834</b>

**Table 2 Discarded alternatives for distribution of housing growth**

LOCAL PLAN AREA	PREFERRED OPTIONS (PO) ALLOCATIONS	SHMA 2015 DISTRIBUTION BY EXISTING DWELLINGS	SHMA 2015 SPREAD ACROSS USING PO DISTRIBUTION
Brighouse	2,100	3,071	3,530
Elland	1,067	1,835	1,800
Halifax	5,030	6,601	8,471
Hebden Bridge	252	865	424
Mytholmroyd / Luddenden	158/160	918	282
Northowram / Shelf	368	829	636
Ryburn Valley	46/50/55	829	71
Sowerby Bridge	840	1,253	1,412
Todmorden	630	1,359	1,059
<b>Calderdale</b>	<b>10,491</b>	<b>17,651</b>	<b>17,651</b>



## 2.2 EMPLOYMENT LAND STUDY

- 2.2.1 An Employment Land Study (ELS) was produced for Calderdale Council in November 2016.
- 2.2.2 The ELS identified that demand for employment sites is strongest in East Calderdale (Elland and Brighouse), but the current supply in this area is insufficient to meet demand. East Calderdale is attractive to investors due to the proximity of the M62 and the relatively modern stock of premises compared to the rest of the Borough. There are several large and popular industrial estates which can accommodate large premises. The commercial property market is dominated by industrial, warehousing and distribution uses; the market for office premises is modest. Demand for industrial premises is stronger in East Calderdale than anywhere else in the borough.
- 2.2.3 The ELS identified generally high levels of demand for industrial premises in the Halifax area, despite the longer distance to the M62 and the greater than average age of commercial premises. There is particularly strong demand among SMEs requiring good quality premises. Demand for office accommodation in Calderdale is strongest in Halifax, particularly near the town centre. High quality mill conversions, such as Dean Clough, are popular.
- 2.2.4 The ELS found that demand for employment sites in West Calderdale is reasonable, even though there is a higher than average preponderance of poor quality sites in this part of the Borough and the fact that many sites face challenges posed by topography and flood risk. The market is characterised by small businesses seeking smaller industrial premises. This part of the Borough is particularly attractive to businesses in the creative and cultural sector, which consists mainly of SMEs.
- 2.2.5 To summarise, the ELS found that demand is significantly greater in East Calderdale and Halifax and there is strong demand for large sites in East Calderdale. While there is some demand for employment sites in West Calderdale, this demand is for smaller sites.

## 2.3 PRIORITISED LOCATIONS FOR EMPLOYMENT GROWTH

- 2.3.1 Based on the analysis of the ELS, Calderdale Council drew up a list of preferred employment sites for allocation. Drawing on this preferred list of employment sites, Table 4 summarises the total amount of employment land, composed of one or more preferred sites, in each part of Calderdale. This indicates that the overwhelming majority of preferred sites are located in Halifax, Brighouse and Elland, that is, eastern Calderdale.
- 2.3.2 Halifax has the largest number of sites, while Brighouse has the largest total area of employment land. The allocation to Brighouse includes the Clifton Enterprise Zone site, part of the M62 Enterprise Zone, which is the largest employment site in Calderdale and critical to the economic prosperity of Calderdale and the wider city region. The site consists of 25.48 ha of employment land, comprised of 70% B2, 20% B1 and 10% B8. This reinforces the centrality of eastern Calderdale to the district's plans for employment growth.
- 2.3.3 Western Calderdale has only two sites which account for a relatively small area.
- 2.3.4 Across the district, the vast majority of this land has been allocated for B2 uses, which will capitalise on the good motorway and A-road links in eastern Calderdale (especially relative to western Calderdale) and build upon the existing concentration of industrial development in this part of the district.

Table 4: Summary of Preferred sites for employment growth

Town	Number of preferred sites	Employment Land Site Area total (ha)	Use class
Halifax	9	23.59	18.59 ha B2 and circa 5 ha B1
Brighouse	6	61.61	45.11 ha B2, 5 ha B1 and 2.5 ha B8
Elland	7	27.68	All B2
Sowerby Bridge	1	0.39	All B1
Hebden Bridge	1	0.97	All B2

## 2.4 CONCLUSION

### 2.4.1

In summary, the evidence from this work indicates that eastern Calderdale is preferred over western Calderdale as the location for both housing and employment growth. Within eastern Calderdale, Brighouse, Halifax and Elland are prioritised as the main locations for housing and employment growth. The west of the borough is earmarked for significantly less employment and housing growth. This overarching point and its implications are explored in greater depth in Sections 3, 4 and 5.

# 3

## TRANSPORT EVIDENCE BASE FOR HOUSING DISTRIBUTION

**3.1.1** Stages 1 and 2 of the Calderdale Local Plan Evidence Base outlined implications for transport of allocating likely quanta of housing development in different Local Plan areas. This section demonstrates that the housing allocation decision (as shown in Section 2) for each Local Plan area was partly informed by this evidence base.

**3.1.2** There were, of course, other issues to consider in choosing to allocate different quanta of housing growth in various Local Plan areas, including ecology and flooding issues, the availability of housing land and employment opportunities. This section explains the transport factors that underpinned the decision on the distribution of housing growth.

### 3.2 HIGH LEVEL ANALYSIS

**3.2.1** The Stage 1 report reaches a number of high level conclusions that support the distribution of new housing development across the Borough:

- The large towns in eastern Calderdale are a more sustainable location for housing growth than the western part of the Borough. This is because existing employment opportunities, public services, shops, amenities and public transport are more widely available in eastern Calderdale. This reduces the need to travel long distances for everyday needs.
- Sustainable transport provision is more extensive in the eastern part of the Borough. There are more rail and bus routes and public transport service levels are higher. The settlements in eastern Calderdale are more walkable and it is easier to reach destinations by cycling. This means that more amenities, jobs and services can be reached without travelling by car.
- While the towns in eastern Calderdale require improvements in sustainable transport provision to accommodate growth, existing and planned commitments mean they will receive more investment in sustainable transport infrastructure and services than the western part of the Borough. This includes committed WY+TF schemes for the corridors of the A629 and A641 as well as Halifax Town Centre and Halifax Station Gateway, and the M62 Smart Motorway upgrade between junctions 20 and 25. In addition, the planned Leeds City Region Metro project, the Calder Valley line improvements, M62 Junction 24(a) and Northern Powerhouse Rail have the potential to also bring greater benefits to eastern Calderdale.
- Allocating a larger share of housing growth to eastern Calderdale strengthens the case for highly desirable transport interventions that benefit from significant political support but do not yet have committed funding, such as the proposed Elland railway station.
- The eastern part of the Borough is prioritised for more employment growth than the west. Calderdale's M62 Enterprise Zone site is located at Clifton Moor near Brighouse. Moreover, the eastern part of the Borough is located closer to employment growth areas in neighbouring and nearby districts, such as Kirklees, Bradford and Leeds. The Cooper Bridge employment growth area and Bradley Wood housing growth area in Kirklees are located near to Brighouse. The M62 Enterprise Zone sites in Kirklees at Lindley Moor and Moor Park are located close to Elland and Brighouse respectively. This means that new housing development in eastern Calderdale will be situated in closer proximity to new job opportunities, reducing the need for long distance travel. Conversely, employment opportunities in Calderdale will be located near to new housing in Kirklees. This means that significant increases in cross-boundary flows are likely given the inter-linked nature of the economy with neighbouring districts.

- Focusing growth in south-east Calderdale complements similar growth plans in north-east Kirklees. Combined these plans will help to generate the critical mass of development that will attract inward investment and ensure that new housing is provided to complement new job opportunities – not only in Calderdale but in surrounding districts.
- Of the towns in eastern Calderdale, Halifax and Brighouse are particularly appropriate as locations for housing growth. Halifax has the highest levels of public transport service in Calderdale, the largest concentration of public services and amenities and good highway links. Brighouse has the best strategic highway links, a high concentration of amenities and public services, and above average public transport services.

**3.2.2** The Stage 2 report examined the relative merits of each settlement within Calderdale and supports the distribution of housing growth among different settlements as follows.

### **3.3 BRIGHOUSE**

- 3.3.1** Brighouse is a suitable area for the largest share of allocated dwellings because new housing development will benefit from planned investment on the M62 to the east of the town, the A641 corridor, which runs through the town, and the Calder Valley railway line which can be accessed from Brighouse rail station. This significant investment in transport infrastructure will help to accommodate the new trips associated with housing growth. Brighouse contains high levels of local employment and this will increase over the Local Plan period, which will reduce travel-to-work distances.
- 3.3.2** The pattern of existing journeys to work from Brighouse suggests that 40% of new trips generated by new housing development will either have a destination in Brighouse or be made by sustainable modes. These internal and sustainable trips reduce the strain on the Calderdale and West Yorkshire highway network. Most new trips are to destinations served by the Calder Valley line, which means that many commuters from Brighouse will be able to transfer from the car to rail to take advantage of enhanced services on this line. Again, this will reduce the strain on the Calderdale and West Yorkshire highway network.
- 3.3.3** Brighouse contains sufficient sites located in close proximity to good transport infrastructure, both highways and public transport services, to accommodate this level of growth. This, of course, is reliant on investment commitments being delivered. These are currently advancing through the funding process and sufficient flexibility exists to adapt their scope to ensure they are best tailored to accommodate evolving development needs.

### **3.4 ELLAND**

- 3.4.1** Elland is an appropriate location for the third largest share of allocated dwellings because the new housing development can capitalise on the planned West Yorkshire plus Transport Fund scheme on the A629 towards Halifax and the M62. Phases 1 and 2 of this scheme have already achieved conditional approval, with an enabling package (Phase 1a) due to commence on site this year. Other phases, whilst at a less advanced stage of development, have been approved for funding consideration and are currently being scoped to accommodate needs arising from preferred development ambitions.
- 3.4.2** The pattern of existing journeys to work from Elland indicated that a high proportion of trips are to Halifax and Kirklees. The public transport offer on these corridors is good and it will benefit from the aforementioned scheme. Elland has high levels of local employment, which reduces the distance many residents must travel. Many of these employment sites are served by public transport.

**3.4.3** This quantum of housing development in Elland will also strengthen the business case for the provision of a new railway station on the Calder Valley line in Elland. This would absorb a significant proportion of new car trips and relieve strain on the highway network. This is also in line with the principles of the Calderdale Transport Strategy, which supports the increased use of the rail network.

**3.4.4** Elland cannot absorb as high a proportion of housing growth as Brighouse or Halifax because there are not as many available housing sites in Elland located within close proximity of bus and rail services.

## **3.5 HALIFAX**

**3.5.1** Halifax can accommodate a high level of housing growth, second only to Brighouse, because the housing development in the town will benefit from the most comprehensive public transport network in Calderdale. There are high levels of employment situated in the town, and especially the town centre, which are connected to most of the town's suburbs by public transport. Consequently, a high proportion of new trips will be made by sustainable modes, limiting the burden on the town's highway network. Halifax has the most self-contained labour market in Calderdale, with a majority of journeys to work from Halifax ending in Halifax. This means that housing growth in Halifax will have a less significant impact upon the Borough's highway network.

**3.5.2** Many of the additional external trips from Halifax generated by this level of housing development will be accommodated by investments in highway and public transport infrastructure, including the West Yorkshire plus Transport Fund A629 scheme, the Corridor Improvement Programme, Halifax Station Gateway and improvements to the Calder Valley line. All of these schemes are at various stages in the funding approval process, work to improve the town centre's highway and public transport networks being most advanced; the A629 Phase 2 scheme having secured conditional funding approval in 2016.

## **3.6 HEBDEN BRIDGE**

**3.6.1** Hebden Bridge can accommodate a low level of housing growth, significantly below Brighouse and Halifax and also below Todmorden and Sowerby Bridge. This is because there are few available sites in Hebden Bridge in sustainable locations within walking distance of bus or rail services. Development in these locations would be dependent on car travel. With the exception of improvements to the Calder Valley line, there are insufficient planned interventions in transport infrastructure in this area to support a higher level of housing growth.

**3.6.2** The quantum of housing growth allocated is sustainable because the high proportion of local trips, and especially local trips made by sustainable modes, made from Hebden Bridge will mitigate the potential impact of development on the Calderdale and West Yorkshire highway network. The high share for public transport among long distance trips from Hebden Bridge also reduces the strain on the highway network.

**3.6.3** Long distance employment opportunities in major employment centres – specifically, the city centres of Manchester and Leeds, which Hebden Bridge sits between – can be accessed by rail, but limited connectivity to employment opportunities more distant from the mainline rail network limits the quantum of housing that can be accommodated due to the limited number of rapid highway connections.

## **3.7 MYTHOLMROYD/LUDDENDEN**

**3.7.1** Mytholmroyd/Luddenden can accommodate a low level of housing growth, significantly below Brighouse and Halifax and also below Todmorden and Sowerby Bridge. This is because there are few available sites in sustainable locations within walking distance of bus or rail services. Development in these locations would be dependent on car travel.

- 3.7.2** Car trips from the Upper Valley to Elland and Huddersfield contribute to congestion in settlements such as Sowerby Bridge; this problem is unlikely to be soluble if the level of demand from the Upper Valley is increased significantly.
- 3.7.3** The quantum of housing growth allocated is sustainable because the high proportion of local trips, and especially local trips made by sustainable modes, made from Mytholmroyd/Luddenden will mitigate the potential impact of development on the Calderdale and West Yorkshire highway network. The above average (in a Calderdale context) share for public transport among long distance trips from Mytholmroyd/Luddenden also reduces the strain on the highway network. With the exception of improvements to the Calder Valley line, there are insufficient planned interventions in transport infrastructure in this area to support a higher level of housing growth.

## **3.8 NORTHOWRAM/SHELF**

- 3.8.1** Northowram/Shelf is a suitable area for a level of housing growth below Brighouse and Halifax but above other smaller settlements because it contains potential sites within walking distance of a major bus corridor.
- 3.8.2** The vast majority of trips from Northowram/Shelf are made to Halifax and Bradford, both of which are easily reachable by public transport. This, combined with the dispersed nature of development in these settlements, means that this level of housing growth will not place an undue strain on the Borough's highway network.
- 3.8.3** This area cannot support a level of housing growth similar to Brighouse or Halifax due to the lack of access to the railway network and the absence of any major planned investments in transport infrastructure. The dispersed nature of development also lacks the critical mass to influence significant transport improvements in this location.
- 3.8.4** On the highway network, the Hipperholme Crossroads is a major pinch point. Modelling suggests that significant development in and around Hipperholme would exacerbate congestion at Hipperholme Crossroads. Development in Northowram and Shelf is therefore preferable to development closer to Hipperholme due to the increased predominance of trips to Bradford and Halifax which would be generated, limiting the number of new trips through the crossroads.

## **3.9 RYBURN VALLEY**

- 3.9.1** The Ryburn Valley can accommodate a low level of housing growth significantly below Brighouse and Halifax and also below Todmorden and Mytholmroyd/Luddenden. This is because the Ryburn Valley has limited public transport services. There are few housing sites within easy walking distance of even satisfactory sustainable transport provision.
- 3.9.2** The vast majority of journeys to work made from the Ryburn Valley are made by car, which means a higher quantum of housing growth would place greater strain on the Borough's highway network because most new households would be dependent on car travel. There are no major planned interventions in transport infrastructure in this area which would be needed to support a higher level of housing growth.
- 3.9.3** A higher level of development in the Ryburn Valley would exacerbate congestion in Sowerby Bridge. Given the constraints of topography, environment and heritage, significant expansions in highway capacity to reduce such congestion are not likely to be feasible. Focusing development in the Ryburn Valley would also fail to capitalise on major infrastructural investment elsewhere in the Borough.

### 3.10 SOWERBY BRIDGE

- 3.10.1 Sowerby Bridge can accommodate a level of housing growth significantly below Brighouse and Halifax, but above the levels that can be absorbed by Ryburn Valley and Mytholmroyd/Luddenden. This is because, although Sowerby Bridge has adequate rail and bus links to Halifax and the Upper Valley, there is very little spare capacity at peak hours on the main highways that serve the town and public transport links to Brighouse and Kirklees are much weaker.
- 3.10.2 The capacity of the highway network in Sowerby Bridge is already constrained by the high numbers of conflicting movements through the town centre between more distant pairs of settlements. This therefore limits the amount of growth achievable within Sowerby Bridge itself, with the exception of trips that can be accommodated by the rail and bus network. As noted in above, there are few opportunities to significantly expand the highway network in Sowerby Bridge, but there is scope to enhance bus and rail services.
- 3.10.3 Many of the new trips generated by housing growth in Sowerby Bridge can transfer from the car to sustainable modes following the planned improvements on the Calder Valley line, the delivery of City Connect 2 and the completion of the West Yorkshire plus Transport Fund A629 scheme, which will enhance provision for buses.

### 3.11 TODMORDEN

- 3.11.1 Todmorden can accommodate a level of housing growth significantly below Brighouse and Halifax but above the Ryburn Valley and Hebden Bridge because the high proportion of local trips, and especially local trips made by sustainable modes, mitigates the potential impact of development on the Calderdale and West Yorkshire highway network. The high share for public transport among long distance trips also reduces the strain on the highway network.
- 3.11.2 Todmorden cannot accommodate housing growth of an order of magnitude comparable to Brighouse, Elland and Halifax because the highway network in the area could not accommodate it and there are too few sites within walking distance of bus and rail services. With the exception of improvements to the Calder Valley line, there are insufficient planned interventions in transport infrastructure in this area to support a higher level of housing growth. Some of the growth in Todmorden can be accommodated by the rail network, including trips to Manchester, which account for a greater proportion of trips here than elsewhere in the Borough.



# 4 TRANSPORT EVIDENCE BASE FOR EMPLOYMENT DISTRIBUTION

## 4.1 BACKGROUND

4.1.1 Stages 1 and 2 of the Calderdale Local Plan Evidence Base outlined implications for transport of allocating likely quanta of employment development in different Local Plan areas. This section demonstrates that the preferred distribution of sites for employment growth, outlined in Section 4, is consistent with this transport evidence base.

4.1.2 Like housing, there are other issues to consider in choosing to allocate different quanta of employment growth in various Local Plan areas, including current trends in employment, ecology and flooding issues and the availability of land. This section explains the transport factors that support the decision on the distribution of employment growth.

## 4.2 HIGH LEVEL ANALYSIS

4.2.1 The Stage 1 report reaches a number of high level conclusions that support the distribution of new employment development across the Borough:

- The large towns in eastern Calderdale are a more sustainable location for employment growth than the western part of the Borough. This is because there is a denser pattern of existing residential development in eastern Calderdale. This means new employment sites will be located in closer proximity to their likely employees, reducing the need for long distance travel. Eastern Calderdale is also closer to surrounding urban centres in neighbouring districts, which helps to ensure there is a sufficient supply of labour for the area.
- Sustainable transport provision is more extensive in the eastern part of the Borough. There are more rail and bus routes and service levels are higher on both modes. The settlements in eastern Calderdale are more walkable and it is easier to reach destinations by cycling. This means that new employment opportunities can be reached more easily without travelling by car.
- While the towns in eastern Calderdale require improvements in sustainable transport provision to accommodate employment growth, they are likely to receive more investment in sustainable transport infrastructure and services than the western part of the Borough. More planned and programmed transport interventions target the eastern part of Calderdale. This includes the committed WY+TF schemes for the A629 and A641 corridors, Halifax Town Centre, Halifax Station Gateway, and the M62 Smart Motorway upgrade between junctions 20 and 25. In addition, the planned Leeds City Region Metro project, the Calder Valley line improvements, M62 Junction 24(a) and potential ambitions for Northern Powerhouse Rail will bring greater benefits to eastern Calderdale. All of these committed and planned investments will make new employment sites more accessible.
- Allocating a larger share of employment growth to eastern Calderdale strengthens the case for highly desirable transport interventions that do not yet have committed funding, such as the proposed Elland railway station.
- The eastern part of the Borough is prioritised for more housing growth than the west. Brighouse and Halifax, in particular, will see major housing growth, including strategic sustainable urban extensions in Brighouse. This means that new housing development in eastern Calderdale will be situated in closer proximity to new job opportunities, reducing the need for long distance travel.



- Of the towns in eastern Calderdale, Halifax and Brighouse are particularly appropriate as locations for employment growth. Halifax has the highest levels of public transport service in Calderdale and Brighouse has the best strategic highway links with its proximity to the M62. Good links to the Strategic Road Network are important for new B2 employment growth to ensure manufactured goods have good access to external markets.

4.2.2 The Stage 2 report examined the relative merits of each settlement within Calderdale and supports the distribution of the majority of employment growth among different settlements as follows.

## 4.3 HALIFAX

4.3.1 Halifax is currently the largest employment location in the district; therefore, the allocation of employment sites in the town, which is the third largest in size in Calderdale, is an appropriate addition to the existing offer. The mix of B1 and B2 uses is a continuation of the current land-uses and will assist in providing further critical mass to support public transport interventions and wider public realm improvements.

4.3.2 Travel patterns are expected to continue to be dominated by local trips from within Halifax, with the inherent advantages of reduced highway impacts due to the greater chances of being carried out via sustainable modes. With the majority of employment sites being within the town centre, it is likely that these travel patterns will continue.

4.3.3 Halifax continues to have the most opportunity for sustainable travel to employment locations given its role as a destination for public transport services via bus and rail. Highway improvements in Halifax town centre proposed under the WY+TF provide opportunities for growth in some vehicular trips to be accommodated. These interventions are also focused on improving routes for pedestrians and cycle users in Halifax Town Centre which will also assist the potential use of active travel and public transport for journeys to work.

4.3.4 Additional growth in employment within the town centre of Halifax will also lend support to the transport improvements in the town centre and others further afield, such as the potential Elland rail station.

## 4.4 BRIGHOUSE

- 4.4.1 Brighouse currently supports a high level of employment within the B2 and B8 land uses. The proposal to locate the largest employment growth (primarily in the same employment types) within the settlement helps to reach a critical mass of development, which supports the development of sustainable transport and local amenities.
- 4.4.2 Current patterns of travel show a relatively high (30%) level of local commuting trips with an origin within Brighouse. This – and the context of significant local housing growth – lends further weight to the sustainability of Brighouse being a key area for employment growth. There is also a key commuting connection between Brighouse and Kirklees, which will be further strengthened by the quantum of employment allocations in Brighouse. Given the proximity of Kirklees this is a sustainable cross-border movement.
- 4.4.3 Brighouse will continue to benefit from the accessibility by road which the proximity of the M62 corridor gives, both for commuting purposes and the movement of goods and materials to and from the new employment zone.
- 4.4.4 Feasibility work is underway for improvements to the A641 and A644 corridors which cross Brighouse. The transport interventions suggested by the study will have a greater level of support if they can be linked to the need to deliver employment growth. The massing of employment in Brighouse will also lend additional support to improvements in public transport services by bus and rail.

## 4.5 ELLAND

- 4.5.1 Elland is currently an employment destination with travel patterns equally split between origins from within Elland, Halifax and Huddersfield. The eastern edge of the town already contains significant development of B2/B8 uses; for example within the Lowfield business park.
- 4.5.2 The local plan envisages additional employment sites of a similar scale in size to the proposed growth in Halifax. This is appropriate given the agglomeration benefits of siting similar businesses together.
- 4.5.3 Like Brighouse, Elland is advantageously positioned within relatively close proximity to the M62 corridor with advantages for both commuting and goods travel. The proposed improvements to the A629 corridor via the WY+TF scheme will also support the key movements to Elland from north and south for commuting.
- 4.5.4 The allocation of significant employment sites within Elland also strengthens the case for the proposal to re-open Elland Station and in turn aids the potential use of public transport for future commuting travel, particularly for the Halifax to Elland movement.

# 5 COMMITTED AND PROPOSED TRANSPORT SCHEME IMPLICATIONS

## 5.1 INTRODUCTION

- 5.1.1 This section sets out the implication of the foregoing analysis in the earlier sections for committed, planned and proposed schemes in Calderdale.

## 5.2 A629 CORRIDOR

Growth in Halifax and Elland is supported by the WY+TF A629 corridor improvements by facilitating additional movements and improving journey time reliability for all modes between Huddersfield and Halifax via Elland. These are the primary employment centres in the area already; moreover, Halifax and Huddersfield are identified as spatial priority areas in the SEP.

## 5.3 HALIFAX TOWN CENTRE AND RAILWAY STATION

- 5.3.1 Growth in Halifax, particularly employment growth, is supported by the WY+TF investment in highways, public realm and railway station facilities via the Halifax Town Centre and Halifax Station Gateway schemes.

## 5.4 A641 CORRIDOR

- 5.4.1 Growth in Brighouse is supported by the WY+TF A641 corridor improvements by facilitating additional movements and improving journey time reliability for all modes from Huddersfield to Bradford via Brighouse. The scheme is at a sufficiently early stage to be influenced in scope by the context and distribution of planned development.

## 5.5 BRIGHOUSE TOWN CENTRE

- 5.5.1 Significant highway investment to benefit all modes will be required in Brighouse town centre to facilitate the quantum of growth allocated to the town. This could be delivered as part of the A641 corridor scheme. The quantum of development that could be brought forward by strategic sustainable urban extensions gives the opportunity for associated provision of significant improvements in transport infrastructure.

## 5.6 ELLAND RAILWAY STATION

- 5.6.1 Growth in Elland is supported by Elland Station because it enables more sustainable movements to and from Elland by people both resident and employed in the town. Elland Station also supports growth in all settlements in Calderdale connected to Elland by the Calder Valley line because Elland Station allows for sustainable movements between Elland and other destinations. This is particularly true for Sowerby Bridge, Halifax and Brighouse.

## 5.7 CALDER VALLEY LINE

- 5.7.1 Investment in the Calder Valley line will support growth in all settlements in Calderdale with a railway station by enabling more movements by sustainable modes and enhancing journey time reliability. All Calderdale settlements will benefit from committed investment in signalling and rolling stock, which will improve journey times and service reliability. Longer term ambitions for electrification would deliver more significant benefits in these areas as a result of further improvements in journey time and service offering that could result.

- 5.7.2 Halifax and Brighouse will benefit in particular from investment in the Calder Valley line because it will improve journey times and service frequencies to major employment destinations, including Bradford, Huddersfield and Leeds.

## 5.8 BUS NETWORK

- 5.8.1 Investment in the bus network throughout Calderdale will support growth in all settlements in the Borough. The WY+TF investment along key public transport corridors including the A58/A672 through Sowerby Bridge, the A629 north of Halifax, the A646 and the A6036 via the Corridor Improvement Programme (former HEBP) will support growth in Halifax, Sowerby Bridge and the Upper Valley, and Northowram and Shelf, respectively.

- 5.8.2 Growth in Brighouse, Elland, Sowerby Bridge and the Upper Valley will benefit from network changes to create new orbital routes from the Upper Valley to eastern Calderdale. The re-design of the network is ultimately dependent on decisions made by the private bus operators, but WY+TF investment in congestion hotspots such as the A629 will help to ensure bus services between Sowerby Bridge, Elland and Huddersfield are commercially viable.

## 5.9 M62 SMART MOTORWAY AND JUNCTION 24(A)

- 5.9.1 The M62 Smart Motorway upgrade between Junction 20 and 25 by Highways England will support growth across Calderdale, but particularly in eastern Calderdale. The potential WY+TF investment in a new M62 Junction 24(A) will enable growth in Brighouse and Elland. This will boost links to external markets and facilitate access to a wider pool of labour via the Strategic Road Network. However, this intervention is less certain than the other WY+TF schemes. Failure to deliver will constrain long term growth in South East Calderdale and North East Kirklees.

## 5.10 ACTIVE MODES INFRASTRUCTURE

- 5.10.1 Proposed investment in new infrastructure to support walking and cycling will support growth across Calderdale. Investment in facilities for cycling and walking will be particularly valuable in Halifax, Brighouse and Elland which are particularly well-suited for travel by active modes. The proposed City Connect 2 investment in Calderdale canals will support growth in Brighouse, Elland, Sowerby Bridge and the Upper Valley, while the proposed Ryburn Valley Greenway will enable growth in Sowerby Bridge and the Ryburn Valley. Funding has not yet been secured for this scheme.

## 5.11 HIPPERHOLME CROSSROADS

- 5.11.1 An as-yet unplanned investment for the A58 corridor to improve journey time reliability for all modes would enable growth in Hipperholme, but it is less necessary to facilitate growth in other Calderdale settlements. Calderdale Council recognises the need to address issues along the A58 corridor and it is seeking to secure funding to explore options for a transformational scheme in this area. However, given that the precise requirements of such a scheme have yet to be determined and the current lack of funding commitment, it is not appropriate to bring forward substantial development in these areas before the nature and viability of this intervention has been clarified.

# 6 SCOPE FOR INTEGRATED DELIVERY

## 6.1 NON-TRANSPORT INFRASTRUCTURE

6.1.1 The delivery of transport infrastructure can be integrated with the delivery of non-transport infrastructure, including

- Water supply and waste water,
- Surface water and drainage,
- Electricity infrastructure,
- Gas infrastructure,
- Future proofing of transport schemes to incorporate ducting for provision of upgraded telephone and broadband for Halifax town centre and Brighouse,
- Waste management,
- Flood protection and drainage,
- Education facilities,
- Healthcare facilities
- Community Facilities, and
- Green infrastructure incorporated within the WY+TF schemes as an integral element and specific appraisal of the benefits of this.

6.1.2 There will be significant interface between transport schemes and flood alleviation schemes in several of the areas where growth is planned:

- Brighouse – flood alleviation work will be planned alongside the A641 scheme;
- Elland – flood alleviation work will be planned alongside the A629 scheme and Elland Station; and
- Sowerby Bridge and the Upper Valley – flood alleviation work will be planned alongside Calder Valley line improvements and CIP schemes.

## 6.2 INFRASTRUCTURE DELIVERY PLAN (2012)

6.2.1 Calderdale Council's Infrastructure Delivery Plan (2012) summarised the main non-transport infrastructure needs of the district at the time of the Core Strategy preferred options. These included

- the need to expand rural broadband provision;
- the need to provide new education, community and healthcare facilities to meet the needs of a growing population;
- the need for additional waste facilities, particularly for commercial waste;
- the need for additional areas of open space that can be delivered at no cost to the Council;
- the need to preserve and enhance habitats for endangered species; and
- the need to minimise flood risk by avoiding development in areas prone to flooding and providing flood alleviation measures.

### 6.2.2

The Infrastructure delivery plan requires updating to take into account the proposed Local Plan. The technical notes produced as part of the work on the transport evidence base will give an initial view on the form and level of transport interventions required to support the Local Plan growth. This will be expanded upon in the infrastructure delivery plan alongside other non-transport aspects.

# 7 CONCLUSION

## 7.1 SUMMARY

7.1.1 This technical note has set out the current transport evidence which lends support to the decisions made on the distribution of development around the settlements that make up the Calderdale district.

7.1.2 The distribution of growth has been influenced by a range of considerations, with transport a key consideration. With this in mind the decision to prioritise the east of Calderdale, in particular Brighouse and Halifax, is supported by the available transport evidence.

