

Report of the Strategic Director of Place to the meeting of Environment and Waste Overview & Scrutiny Committee to be held on 20 February 2018

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Subject:

West Yorkshire Local Transport Plan (LTP3) Performance Report

Summary Statement:

This report updates the committee on the outcome of the delivery of the final year of the second Implementation Plan (April 2014 – April 2017) of the Local Transport Plan and the West Yorkshire Combined Authority's progress towards adoption of the replacement Transport Strategy for West Yorkshire.

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Portfolio:

Regeneration, Planning & Transport

Overview & Scrutiny Area:

Environment & Waste Management

1. SUMMARY

- 1.1 This report updates the committee on the outcome of the delivery of the final year of the second Implementation Plan (April 2014 – April 2017) of the Local Transport Plan and the West Yorkshire Combined Authority's progress towards adoption of the replacement Transport Strategy for West Yorkshire.

2. BACKGROUND

- 2.1 The third West Yorkshire Local Transport Plan (LTP), which covers the years from 2011 to 2026, was approved by the then West Yorkshire Integrated Transport Authority (ITA) in March 2011.

- 2.2 The objectives of the plan are as follows:

- To improve connectivity to support economic activity and growth in West Yorkshire and the Leeds City Region.
- To make substantial progress towards a low carbon, sustainable transport system for West Yorkshire, while recognising transport's contribution to national carbon reduction plans.
- To enhance the quality of life of people living in, working in and visiting West Yorkshire.

- 2.3 To ensure an appropriate focus on delivery of the Plan is maintained it was split into a series of 3-year Implementation Plans (IPs), the second of which spanned the period April 2014 to April 2017. This report therefore covers the activities within the final year of IP2.

Progress on Implementation Plan 2

- 2.4 Progress on the Integrated Transport capital schemes that have been, or are being, implemented by the Council is shown in Appendix A of this report. Further information about the work that has been undertaken by Bradford during 2016/17 through the Local Transport Plan and a number of related funding streams is provided in Appendix B. The funding allocation for the current IP2 programme is shown in Appendix C.

3. OTHER CONSIDERATIONS

Other Transport Issues

Single Transport Plan

- 3.1 The West Yorkshire Combined Authority (WYCA) has developed a new long-term Transport Strategy for West Yorkshire to deliver a modern, high class, integrated transport system that support the Leeds City Region Enterprise Partnership's Strategic Economic Plan for sustained and health economic growth. This plan covers the period through to 2040.

- 3.2 The Transport Strategy replaces the current West Yorkshire Local Transport Plan and which was adopted in 2011 and will set out a step change in the quality and performance of the transport system in West Yorkshire. The Transport Strategy is based around five core principles:
- a) **Road Network** – delivering an efficient, safe and reliable road network for all road users that creates new opportunities for jobs and housing.
 - b) **One system, public transport** – delivering a ‘Metro style’ public transport network that integrates all transport modes, including High Speed Rail, into one comprehensive easy-to-use system.
 - c) **Places to Work and Live** – Making cities and neighbourhoods more attractive places to live, work and invest in and making West Yorkshire known for the quality and liveability of its places.
 - d) **Smart futures** – Exploiting technology to improve the customer experience and assist effective management of the transport system.
 - e) **Asset management and Resilience** – Maximising the value for money in maintaining the transport system for future generations.

Together with the cross-cutting principles of Inclusive Growth, Environment, Health and Wellbeing to connect people to better living standards and higher earning jobs and to significantly improve the health, overall wellbeing and environment of people living and working in West Yorkshire.

- 3.3 Similar to the Local Transport Plan the new Transport Strategy will be supported by a series of five-year Implementation Plans containing the specific programmes and projects. The implementation of the strategy will be managed by the West Yorkshire Combined Authority in conjunction with each of the district partners.

Bradford Interchange & Forster Square Station

- 3.4 The two Bradford projects which are contained within the Station Gateways programme of the West Yorkshire + Transport Fund are the improvement to Forster Square and Bradford Interchange.
- 3.5 Towards the end of 2017 the Council were successful in achieving Outline Business Case approval for the Foster Square station improvements which released £3.6m of funding for the development of the Full Business Case. The strategy for the delivery of the Full Business Case is the subject of a separate report to this committee.
- 3.6 Scheme proposals for Bradford Interchange have been developed which provide a step-change in user experience which are compatible with any potential future Northern Powerhouse Rail proposal. These proposals are currently being used to develop the Outline Business Case submission which is anticipated to be submitted to the West Yorkshire Combined Authority by March 2018.

West Yorkshire+ Transport Fund

- 3.7 In July 2014 the Government announced that WYCA had uniquely secured funding to establish a £1bn West Yorkshire+ Transport Fund. The fund will target reducing congestion, improving the flow of freight and making it easier for people to commute to and from expected major growth areas.
- 3.8 As part of the approved programme of projects to be delivered by the fund Bradford have the following schemes which are programmed to be delivered in full by 2021:
- a) **A650 Tong Street Corridor Improvements** – Detailed work preparing the Outline Business Case submission for this project is nearing completion and is currently anticipated that this will be completed by the end of March 2018. Assuming that approval is obtained for this detailed design and land assembly activities will commence in mid-2018 through to mid-2019 with works currently anticipated to be completed by Summer 2021.
 - b) **A650 Hard Ings Road** – The planned Public Inquiry for the assembly of the remaining land parcels has now been cancelled following mutually agreeable terms being negotiated with both objectors to the scheme. It is anticipated that with the need for an inquiry being averted the submission of the Full Business Case for this project can be accelerated. Again, on the basis of confirmation of funding it is currently anticipated the works will be completed by the beginning of 2020.
 - c) **Harrogate Road / New Line Junction** – Formal advertisement of the Compulsory Purchase Order and Side Roads Order commenced at the end of January 2018. It is not possible to definitively indicate at this time the delivery programme beyond this advertisement until confirmation of whether or not a Public Inquiry will be required has been received. However, indicatively completion of this project is expected in 2019/20.
 - d) **Bradford to Shipley Corridor Improvement** – This project consists of a number of junction improvements including The Branch, Otley Road / Valley Road, Fox's Corner as well as dualling a section of Canal Road between Queens Road arches and Stanley Road. Introduction of public transport benefits (Quality Bus corridor) on A650 Manningham Lane is also included in the project mandate. Development of the Outline Business Case for this project is currently anticipated to be completed later this year which is likely to recommend a phased delivery strategy to accelerate aspects of the project where land assembly is not necessary, for example in the case of the former Branch PH which has recently been acquired by the Council in preparation for the delivery of adjacent the junction improvement.
 - e) **Corridor Investment Programme** – This programme was added to the Council's portfolio in 2017. The programme comprises junction and link upgrades to sites on the outer ring-road including Great Horton Road / Cross Lane, Thornton Road / Toller Lane and Great Horton Road / Horton Grange Lane as part of the Phase 1 package. These schemes are on an accelerated delivery programme and must be completed by 2021.

- 3.9 Development work on the longer-term scheme within the overall West Yorkshire+ Transport Fund of South East Bradford Link Road commenced towards the end of 2017. This project is at a very early stage of development and is indicatively programmed for delivery by 2026.

Air Quality

- 3.10 The impact of transport on Air Quality is of significant public health concern. The District has four declared Air Quality Management Areas and a large number of other locations are thought to be at, or close, to exceedance levels. Particulate air pollution has been assessed by Public Health England as being responsible for 5.3% of all deaths in the Bradford district, or approximately 222 deaths in the 25+ age range every year. The health costs associated with this in Bradford are >£150m/pa.
- 3.11 The UK is currently facing infraction proceedings from the EU due to failure to meet air quality targets. It has been confirmed that Brexit will not result in a 'watering down' of air quality legislation and that all EU legislation relating to air quality will be transposed into UK law. In December 2015 Government announced that Leeds would be one of five cities which would have a mandated Clean Air Zone (CAZ) imposed in order to improve air quality to meet legal limits by 2020.
- 3.12 The health impact of air quality on the Bradford population and the potential of fines being imposed by the EU are a serious concern for the Council and the importance of encouraging more sustainable modes of travel and addressing congestion issues that impact on air quality cannot be overstated. A Low Emission Strategy (LES) for Bradford has already been developed and was adopted in November 2013 (the 2nd in the UK). Bradford Council has project managed development of West Yorkshire Low Emission Strategy in collaboration with the other four local authorities, WYCA and Public Health England. The strategy was formally adopted by all parties in December 2016.

4. FINANCE & RESOURCE APPRAISAL

- 4.1 The measures being undertaken by the Council and its partners through the Local Transport Plan are being delivered from the Capital and Revenue funding and staff resources available.

5. RISK MANAGEMENT AND GOVERNANCE ISSUES

- 5.1 Both the Council and the West Yorkshire Combined Authority (WYCA) have well developed processes to manage risk in a timely and effective manner. The programmes included in this report are subject to these processes.

6. LEGAL APPRAISAL

- 6.1 The programmes of work identified in this report are being implemented through the Council's role as Highway and Traffic Regulation Authority and the WYCA's role as Transport Authority.

7. OTHER IMPLICATIONS

7.1 Equality & Diversity

The public sector equality duty in s149 of the Equalities Act applies to the Council in the exercise of its functions. Those functions will include most, if not all, of the proposals and other measures referred to in this report.

The duty is to “have due regard to the need to (a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited under [the 2010 Act], (b) advance equality of opportunity between persons who share relevant protected characteristic and persons who do not share it, [and] (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it”. In summary, this includes the need to remove or minimise disadvantages suffered by persons that are connected to that relevant protected characteristic and taking steps to meet the needs of persons who do not share it and encouraging persons who share a relevant protected characteristic to participate in public life. It also includes taking steps to take account of disabled persons’ disabilities and makes it clear that compliance with the duties “may involve treating some persons more favourably than others”.

It is evident that all of the schemes and proposals referred to in this report have the potential to impact on persons who share one or more of the relevant protected characteristics. Some of these were identified in the Integrated Sustainability Assessment undertaken on LTP3 as identified in a report to Executive on 18 March 2011 – Transport Delivery Plan 2011/12 (paragraphs 9.1.2 to 9.1.7).

The factors covered in the ISA are narrower than the definitions of relevant protected characteristics in s149 and the duty under that section itself. Due to the nature of this report it is not possible to provide any form of detailed equality impact assessment of specific schemes. However, officers will ensure that a specific assessment is carried out as part of the preparatory work for each programme or scheme as appropriate and, as far as practicable, is taken into account in the design of each scheme with Members being consulted if issues arise which either cannot be addressed, or can only be addressed with difficulty or excessive cost, as part of the programme or scheme.

7.2 Sustainability Implications

The ISA considered that there were mixed implications on sustainability with neutral impacts on noise, townscape and landscape, heritage and water. Air quality, material assets, health and the economy would be benefitted by the strategy whilst biodiversity, flora, fauna could suffer minor adverse impacts dependent upon the details of the schemes implemented.

7.3 Greenhouse Gas Emissions Impacts

The ISA suggested that there would be a reduction of CO₂ of 19% by 2025 across West Yorkshire with LTP3 proposals (compared with a ‘do-minimum’ scenario).

7.4 Community Safety Implications

Safety and Security of the Transport Network is a key consideration for LTP3. One of the key objectives is to 'deliver an integrated, reliable transport system that enables people and goods to move around as efficiently and safely as possible'. The ISA concluded that there would be benefits from the plan in terms of reducing deaths and injuries from collisions. The LTP Implementation Plans include projects and schemes to improve safety and reduce casualties on the highway network as well as improving personal security on the public transport network.

7.5 Human Rights Act

Human Rights implications are taken into account in the development of individual schemes.

7.6 Trade Union

There are no trade union implications associated with this report.

7.7 Ward Implications

The wards in which the measures described in this report are implemented will generally benefit from the improvements. Appropriate consultation has, and will continue, to take place with Ward Members and local communities during the development of individual projects.

7. NOT FOR PUBLICATION DOCUMENTS

7.1 None.

8. OPTIONS

8.1 None.

9. RECOMMENDATIONS

9.1 That progress on West Yorkshire Local Transport Plan 3 be considered by the Committee and that feedback to officers be provided.

9.2 That a further report on the development of the first 5-year Implementation Plan of the replacement Transport Strategy and its delivery be presented to a future meeting of this committee.

10. APPENDICES

10.1 Appendix 1 – West Yorkshire Local Transport Plan 3 – Implementation Plan 2 (2014 – 2017) Bradford Integrated Transport Capital Programme – Progress Report.

10.2 Appendix 2 – Examples of Transport Projects and Initiatives Delivered in 2014/15.

10.3 Appendix 3 – Glossary of Terms and Abbreviations

11. BACKGROUND DOCUMENTS

11.1 Report to Executive 12 March 2013, Transport Delivery Plan 2013/14

- 11.2 Report to Executive 18 March 2014, Transport Delivery Plan 2011/12
- 11.3 'My Journey' – West Yorkshire Local Transport Plan 2011-2026
- 11.4 West Yorkshire Transport Strategy
<https://www.westyorks-ca.gov.uk/media/2664/transport-strategy-2040.pdf>
- 11.5 West Yorkshire Transport Strategy Integrated Sustainability Appraisal
<https://www.westyorks-ca.gov.uk/media/2554/issue-wyca-isa-report-final-130716-v20.pdf>
- 11.6 West Yorkshire Transport Strategy Integrated Sustainability Appraisal Technical Appendices
<https://www.westyorks-ca.gov.uk/media/2555/issue-wyca-isa-report-appendices-final-130716-rev20.pdf><https://www.westyorks-ca.gov.uk/media/2555/issue-wyca-isa-report-appendices-final-130716-rev20.pdf>

**WY LOCAL TRANSPORT PLAN 3 – IMPLEMENTATION PLAN 2 (2014-17)
BRADFORD INTEGRATED TRANSPORT CAPITAL PROGRAMME –
PROGRESS REPORT**

Description	Comments
Network Management	
Improved Data Network	Rolling programme of upgrades and improvements to the Council's wireless network infrastructure including introduction of Bluetooth vehicle detectors for journey time monitoring throughout the District.
Improved Signals Operation	Rolling programme of schemes to upgrade existing traffic signal installations - complete
Traffic Signals Maintenance	Rolling programme of maintenance upgrades to existing junction locations to improve safety and efficiency and reduce on-going maintenance costs - complete
VMS Signs	Introduction of Variable Message Signs on the network to provide traffic information for road users – complete.
Freight	Feasibility study into potential HGV freight park in Bradford South – complete.
Safer Roads	
KSI Casualty Reduction Programme	On-going programme of schemes mostly delivered by the end of 2016/17.
Locally determined traffic management programme	On-going programme of schemes mostly delivered by end of 2016/17.
Low Carbon Fuels and Technologies	
Air Quality Monitoring	Monitoring being undertaken at 7 sites across the district.
Integrated Public Transport	
Bus Hotspots – Delivery and Feasibility	Great Horton Road - introduction of traffic light priority at junctions. Complete. Odsal Roundabout – bus gate on Rooley Lane approach and additional traffic light priority. Complete.
Low Moor station	Scheme complete.
Cycling & Walking	
CCAG – City Connect superhighway (Bradford & Leeds)	Scheme completed and operating. Currently in monitoring phase.
CCAG2 – City Connect superhighway (Bradford)	Design complete and tender for works awarded. Scheme currently on site with completion expected mid 2018.

APPENDIX B: EXAMPLES OF TRANSPORT PROJECTS & INITIATIVES DELIVERED / COMMENCED IN 2016/17

Local Transport Plan – Implementation Plan 2 Schemes

The 5 Constituency Area Committees promote Safer Roads schemes at a local level to tackle priorities with a primarily evidence led approach based on casualty rates. The Traffic & Road Safety teams also work with local communities through forums, community groups and day-to-day contact with local residents to assist the Area Committees in determining where the problems and community priorities are.

In addition to Traffic Measures and Casualty Reduction schemes, the Area Committees also have responsibility for Disabled Persons Parking Places, access improvement schemes (e.g. dropped kerbs etc.), local public transport infrastructure (e.g. raised kerbs at bus stops, bus build-outs), safer routes to schools and cycling initiatives

The Safer Roads schemes therefore not only seek to reduce the incidence of road traffic collisions and thereby the occurrence and severity of associated casualties, but to improve accessibility and encourage sustainable transport i.e. walking, cycling and public transport use. Examples of schemes delivered through this programme in 2016/17 include: -

- Whetley Lane, Bradford – pedestrian refuge island and footway build-outs;
- Harrogate Road/Leeds Road, Undercliffe – side road loop detectors to provide safe side road exit opportunities for motorists;
- Huddersfield Road, Wyke – Traffic Regulation Order for yellow lines to improve sight-lines at side roads and relieve congestion (particularly for bus services) at local pinch point.
- Station Road and Roundwood Road, Baildon - Installation of zebra crossing in the vicinity of the rail station to assist pedestrians (particularly commuters and school children).
- Moor Lane area, Addingham – introduction of 20mph speed limit within the estate, minor lining/signing changes to a nearby junction to include a right turn pocket, and junction radii reduction/tactile crossing points to improve safety along school walking route.

Network Management

Improved Traffic Signal (UTMC) data communications including provision of wireless data networks and outstation transmission units at various sites.

Traffic Signal Upgrades

More efficient traffic signal control at 10 sites including:

- Church Street / Brook Street
- Westgate / Drewton Road
- A65/Leeds Road/Lower Wellington Road
- South Street / Worth Way

APPENDIX B: EXAMPLES OF TRANSPORT PROJECTS & INITIATIVES DELIVERED / COMMENCED IN 2016/17

- Bradford Road / Bingley Road
- Manor Row / Upper Piccadilly
- Halifax Road / Thornton Road
- Otley Road / Valley Road
- Thornton Road / Preston Street
- Manchester Rd / Croft St

Traffic Signal Asset Management

Signal refurbishment at 13 sites including:

- Leeds Road / Crag Road / Carr Lane
- Bradford Road / Avondale
- Canal Road / Hillam TOUCAN
- Killinghall Road / First Ave
- A650 / Aireville Ave
- Manchester / St Stephens inbound out and main
- Bradford Road / Shipley Fields Road
- A650 / Bradford Road / Clifton Place
- Main St / Ferncliffe Rd
- Main St / Myrtle Pl
- Main St / Foundary Hill, Bingley,
- Main St / Park Rd
- Main St / Ferrand Ln

Variable Message Signs

Variable Message signs to provide driver information and improve management of the network at:

- Manchester Road (near Caledonia Street)

Road Safety Cameras

An on-going programme of upgrading of Safety Cameras to the latest digital technology to improve efficiency and resilience of the function.

Low Moor Station

Scheme completed and opened.

Street Lighting

Street lighting column replacement schemes including the installation of LED lanterns on the following roads:

- Harris Street, (Bowling and Barkerend)
- Leeds Road (Idle and Thackley)
- Legrams Lane (City)
- Manningham Lane (Manningham)
- Ashfield Avenue (Heaton)
- Wyke Lane (Wyke)
- Wibsey Park Avenue (Wibsey)

APPENDIX B: EXAMPLES OF TRANSPORT PROJECTS & INITIATIVES DELIVERED / COMMENCED IN 2016/17

- Wharfedale Road (Tong)
- Merrydale Road (Tong)
- Otley Road, Baildon Bridge (Baildon)
- Otley Road Jnc Bradford Road (Shipley)
- Glenside Road (Windhill and Wrose)
- Grove Road, Ilkley (Ilkley)
- West Lane (Keighley Central/West)

Department for Transport Cycle City Ambition Grant (CityConnect)

WYCA, Leeds City Council and Bradford Council were successful in securing £18.052m to support the construction of a high quality cycle route from east of Leeds to Bradford City Centre together with associated traffic management measures in the corridor and tow path improvements between Armley and Shipley. A further funding bid secured £250,000 for walking encouragement activities in the corridor.

Design work was completed in early 2015 and the new cycle route was completed and opened to the public in June 2016. Improvement works are continuing over the maintenance period with anticipated completion in 2018.

Department for Transport Cycle City Ambition Grant (CityConnect 2)

WYCA and Bradford Council have secured £2.508m for the construction of the Bradford Canal Road Corridor Scheme, a segregated cycle super highway between Bradford and Shipley. Design work is being carried out in 2016 and construction works are expected to commence in late 2017 with anticipated completion in 2018.

Challenge Fund Retaining Walls on A6034, A629 and A6033

The Council continues to deliver structural maintenance projects on three principal roads, A6034, A629 and A6033. Bradford's three years allocation equated to £4,340,00 (2015/16 to 2017/18) of which 16.45% had to be matched funded. Due to the unprecedented challenges arising from the Boxing Day floods and competing resources, only £1,266,802 had been spent to the end of financial year 2016/17. It is expected that a total of £1.9 million will be spent by 31/03/2018.

Safer Roads Initiatives

Practical Pedestrian Training

The practical pedestrian training programme has been delivered in 82 schools with 4209 pupils receiving training which is up from last years' performance of 66 schools with 3513 pupils. The programme is a positive contribution to health and sustainable travel.

Primary School Plan

Similarly, the Primary School Plan has been delivered in 109 schools reaching 37400 children which is up from last years' performance figures of 99 schools reaching 29700 children.

APPENDIX B: EXAMPLES OF TRANSPORT PROJECTS & INITIATIVES DELIVERED / COMMENCED IN 2016/17

Children's Centres and Madrassas

Information has been circulated to 66 Madrassas and 41 Children's Centres in October (2016) for the 'Be Bright, Be Seen' campaign and June (2017) for Child Safety Week.

Secondary Schools

Theatre in Education has been delivered in 23 schools to 7800 pupils in year 7 and 8. All secondary schools in the district have received pre-driver information for pupils in Year 12/13.

Priority Ward Area Work

The Road Safety Team has worked with key partners to address road safety casualties in the City, Manningham, Bolton and Undercliffe, Bradford Moor, Little Horton, Toller, Great Horton and Bowling and Barkerend wards. Activities have focused on community engagement, empowerment and ownership to reduce casualties.

Publicity

The Drivers, passengers, adult cyclists, motorcyclists and pedestrians are targeted through publicity activities. Press releases, tweets, advertising on buses, radio, JC Decaux boards, and leaflets are used to put out key messages related to seat belt wearing, speed, the use of mobile phones, drink and drug driving, distractions and awareness of other road users.

The Road Safety Team work with the other West Yorkshire and Yorkshire and Humber authorities on publicity campaigns and support the Government's 'Think' campaigns.

The West Yorkshire Safer Roads Delivery Group has promoted key messages on drink and drug driving, using mobiles whilst driving, inappropriate speed and seatbelt wearing. The group has also continued to promote the Look Out campaign encouraging all road users to share the roads safely and to look out for each other.

Workplace Travel Plans

Workplace travel planning remains a key priority in engaging employers and their staff on the benefits of sustainable travel options. The Local Plan & Infrastructure team, which comprises the previous Transport Planning team, continue to comment on Travel Plans associated with new developments as well as working with existing employers to ensure that the best possible travel opportunities are made available to staff across the District.

APPENDIX B: EXAMPLES OF TRANSPORT PROJECTS & INITIATIVES DELIVERED / COMMENCED IN 2016/17

Electric Vehicle Charging Points

Investment under Programme 9 Low Carbon theme of the LTP enabled installation of a 'rapid chargepoint' at the Crown Courts car park in Bradford City Centre during August 2017. A sum of £30,000 allowed purchase of equipment and civil engineering works. The charger will allow visitors to the City Centre to re-charge electric vehicles in around 20-30 minutes.

There are now four public charges (local authority managed) plus a charging facility at Asda on Cemetery Road, Abundant Life Centre and the Nissan Dealership.

APPENDIX C: WEST YORKSHIRE LOCAL TRANSPROT PLAN IMPLEMENTATION PLAN 2014-17

Notes:

For simplicity, specific programmes/projects in neighbouring Districts have been omitted from the table below.

West Yorkshire wide programmes / projects are shown in ***BOLD ITALICS***

	Profiled capital costs			
	2014/15	2015/16	2016/17	3 year total
Highway Asset				
<i>Highway surfacing / reconstruction</i>	15,458,000	19,000,800	17,419,000	51,877,800
<i>Bridges, structures and retaining walls</i>	6,662,000	8,188,900	7,507,200	22,358,100
<i>Street lighting.</i>	1,646,000	2,023,300	1,854,800	5,524,100
TOTAL HIGHWAY ASSET				79,760,000
TOTAL HIGHWAY MAINTENANCE BLOCK				79,760,000
Public Transport Asset				
<i>Smart 5 refurbishment to extend asset life</i>		100,000	1,700,000	1,800,000
<i>Bus shelter programme – 30 shelters per year</i>	250,000	250,000	223,000	723,000
TOTAL PUBLIC TRANSPORT ASSET				2,523,000
Network Management				
<i>Improved Data Communications Programme</i>				
Bradford – Bluetooth vehicle detectors for journey times	2,100	13,600	61,600	77,300
Bradford – Equipment for UTMC control			8,000	8,000
Bradford – Wi-Fi improvement at 160 sites	82,300	137,800	18,000	238,100
Bradford – Remote monitoring of sites	52,700	800		53,500
<i>More Efficient Traffic Signal Control Programme</i>				
Bradford – Manningham Lane / Drewton Road	76,100			76,100
Bradford – Chester Street / Little Horton Lane	49,900			49,900
Bradford – Toller Lane / Haworth Road	43,200			43,200
Dudley Hill Roundabout		8,900	25,500	34,400
Tong St/Knowles Lane		33,600		33,600
Church St/Brook St		11,300	15,200	26,500
Bradford Rd/Granby Lane		21,700		21,700
Bierley Roundabout		79,200		79,200
Leeds Rd/Lower Wellington Rd		13,400	24,200	37,600
The Branch, Bradford Rd		44,400	1,600	46,000
Bradford Rd/Kirkgate			40,800	40,800
Halifax Rd/Thornton Rd			22,500	22,500
Leeds Rd/Crag Rd			32,700	32,700
Manor Row/Upper Piccadilly			22,700	22,700
Otley Rd/Valley Rd			37,200	37,200

APPENDIX C: WEST YORKSHIRE LOCAL TRANSPORT PLAN IMPLEMENTATION PLAN 2014-17

South St/Worth Way			26,600	26,600
Thornton Rd/Preston St			21,800	21,800
<i>Variable Message Signs Programme</i>				
Bradford – Common Database Works	500			500
Bradford – New Information Signs – Westfield Development		356,500	3,800	360,300
Bradford – New Information Signs – Inter Area Strategic Routes			20,200	20,200
Bradford – Leeds Road, Shipley (towards Leeds)	46,800			46,800
Bradford – Leeds Road, Shipley (towards Leeds)	46,800			46,800
Bradford – Wakefield Road, Bradford (towards Kirklees)	32,500			32,500
Bradford – Wakefield Road, Bradford (towards Kirklees)	32,700			32,700
<i>Traffic Signals - Asset Management Programme</i>				
Bradford – Replacement of Obsolete Traffic Signal Poles & Controllers	141,800	23,600	78,400	243,800
Manor Row/Upper Piccadilly		21,300		21,300
Wakefield Rd Gyratory		85,400		85,400
Haworth Rd/Chellow Grange		30,900		30,900
Southfield Lane/Hutton Road		3,400	1,700	5,100
Bradford Rd/Avondale Rd			18,400	18,400
Bradford Rd/Aireville Ave Puffin			12,700	12,700
Canal Rd/Hillam Rd			14,000	14,000
Clifton Place Puffin			14,000	14,000
Killinghall Rd/First Ave Puffin			13,700	13,700
Manchester Rd/Croft St			53,200	53,200
Manchester Rd/St Stephen's Rd			73,600	73,600
Shipley Fields Rd Puffin			14,600	14,600
Bradford – HGV Park – feasibility	5,000	1,000	10,000	16,000
TOTAL NETWORK MANAGEMENT				2,185,900
Information				
Smartcards	1,272,000	400,000		1,672,000
Transport Data management		475,000	425,000	900,000
Multi-modal, hubs, disruption information, web portal		575,000	525,000	1,100,000
Bus real-time evolution	108,000	356,000	536,000	1,000,000

APPENDIX D: GLOSSARY OF TERMS AND ABBREVIATIONS

Bike It	Cycling encouragement programme delivered by Sustrans in schools
Common Database	A 'live' database containing a wide range of traffic and transport data which provides information to websites, Variable Message Signs, UTC systems etc.
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
HS2	High Speed 2 Rail Link between London and Manchester / Leeds
HS3	High Speed 3 Rail Link running east-west connecting Liverpool to Hull via Manchester and Leeds.
Hub	A location where there is a focus on transport movements and where improvements are being implemented to enhance facilities
ISA	Integrated Sustainability Assessment – an assessment of the extent to which a strategic plan will help achieve relevant environmental, economic and social objectives.
KSI	Killed and Seriously Injured Road Casualties
LED	Light Emitting Diode Lighting – energy efficient lighting equipment.
LES	Low Emission Strategy
LSTF	Local Sustainable Transport Fund
LTP / IP1 / IP2	Local Transport Plan / Implementation Plan 1 / Implementation Plan 2
MOVA	Micro Processor Optimised Vehicle Actuation – a sophisticated traffic signal operating system that responds to changes in traffic flow by altering green light durations and signal cycle times.
OLEV	Office for Low Emission Vehicles
PRN	Principal Road Network – highways identified as serving the strategic needs of the nation.
RailPlan7	The current rail planning document for West Yorkshire

APPENDIX D: GLOSSARY OF TERMS AND ABBREVIATIONS

TLP	Traffic Light Priority for Buses – a system that uses GPS positioning to trigger extended or advanced green signals for buses.
Urban Traffic Management Control / UTMC / UTC	The traffic management and control systems that lie behind traffic signals, variable message signs, TLP etc.
WYCA	West Yorkshire Combined Authority
WY+TF	West Yorkshire Plus Transport Fund.