

South Pennines Route Strategy Evidence Report Technical Annex

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Document History

South Pennines route-based strategy evidence report Technical Annex

Highways Agency

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A Route capability, condition and constraints

A.1 Route performance

A.1.1 In addition to the information provided table 2.1 of the evidence report, Table 1 below presents a further 16 links have flows that are in excess of 60,000.

Table A.1 Links with flows in excess of 60,000 AADT

SRN section	AADT	National Rank
M56 between M56 J4 and M56 J3 (LM641)	71,471	63
M62 between M62 J27 and M62 J26 (LM859)	67,620	81
M60 between M60 J11 and M60 J12 (LM760)	65,582	101
M60 between M60 J10 and M60 J11 (LM756)	65,052	106
M62 between M62 J26 and M62 J27 (LM858)	64,563	112
M56 between M56 J4 and M56 J5 (LM642)	64,064	116
M60 between M60 J11 and M60 J10 (LM757)	63,876	119
M56 between M56 J5 and M56 J4 (LM643)	63,793	120
M62 between M62 J18 and M62 J19 (LM844)	63,275	123
M62 between M62 J19 and M62 J20 (LM844A)	61,557	143
M62 between M62 J19 and M62 J18 (LM845)	61,491	145
M62 between M62 J29 and M62 J28 (LM861A)	61,088	152
M62 between M62 J28 and M62 J29 (LM860A)	60,795	160
M62 between M62 J29 and M62 J30 (LM862)	60,795	160
M60 between M60 J1 and M60 J2 (LM776)	60,575	164
M60 between M60 J3 and M60 J4 (LM798)	60,521	166

A.1.2 The table below lists the links in the South Pennines corridor that have a freight proportion in excess of 30% of the total traffic flow.

Table A.2 Links with freight proportions over 30%

SRN section	% Freight	National Rank
M56 between M56 J6 and M56 J5 (LM645)	51%	5
A160 between A1173 and A1077 (AL3349)	47%	7
M56 between M56 J7 and M56 J6 (LM649)	47%	10
M56 between M56 J2 and M56 J1 (LM635)	46%	13
A160 between A180 and A1077 (AL3347)	46%	14
M56 between M56 J1 and M56 J2 (LM634)	45%	16
A160 between A1077 and A1173 (AL3348)	45%	18
M56 between M56 J2 and M56 J3 (LM638)	44%	21
M62 between M62 J11 and M62 J12 (LM843)	43%	23
M62 between M62 J24 and M62 J23 (LM853)	39%	35
M67 between M60 J24 and M67 J1 (LM909)	39%	36
M60 between M60 J15 and M60 J14 (LM767)	38%	42
M56 between M56 J6 and M56 J7 (LM648)	37%	46
A627(M) between M62 J20 and A627(M) (LM92)	36%	51
M56 between M56 J7 Westbound and M56 J7 Westbound (LM650)	35%	56
M67 between M67 J1 and M60 J24 (LM908)	35%	60
M60 between M60 J2 and M60 J1 (LM777)	34%	64
A5036 between A5038 and A5207 (AL1368)	34%	66
A5036 between A5207 and A59 (AL1370A)	34%	66
M60 between M60 J24 and M60 J23 (LM787)	34%	69
M62 between M62 J20 and M62 J19 (LM845A)	33%	73
A180 between A160 and M180 J5 (AL1965)	33%	74
M62 between M62 J31 and M62 J32 (LM862B)	33%	75
M602 between M602 J2 and M602 J1 (LM748)	33%	76
M62 between M62 J33 and M62 J32a (LM1075)	33%	79
M56 between M56 J5 and M56 J4 (LM643)	33%	81
M180 between M180 J3 and M180 J2 (LM130)	32%	84
M180 between M180 J2 and M180 J3 (LM129)	32%	85

SRN section	% Freight	National Rank
M180 between M180 J1 and M180 J2 (LM127)	32%	89
M67 between M67 J3 and M67 J2 (LM912)	32%	96
M60 between M60 J5 and M60 J6 (LM802)	31%	108
M60 between M60 J6 and M60 J5 (LM803)	31%	108
M18 between M18 J7 and M18 J6 (LM149)	31%	113

A.1.3 In addition to table 2.2 of the evidence report, a further 15 links have a journey time that are in the top 100 nationally for the least reliable journey times. These are presented below in table 3

Table A.3 Links in the national top 100 least reliable journey time

SRN section	On time reliability measure	National Rank
A556 between A5034 and A50	58.2%	52
M621 between M621 J7 and M621 J6	58.7%	56
M53 between M53 J5 and M53 J6	58.9%	57
A5036 between A59 and A5207	59.4%	64
M60 between M60 J10 and M60 J11	59.8%	68
A556 between A50 and M6 J19	59.8%	70
A556 between M6 J19 and A50	59.9%	71
A5036 between A5207 and A5038	59.9%	72
A663 between A669 and M60 J21	60.4%	83
M60 between M60 J5 and M60 J4	60.5%	84
M56 between M56 J2 and M56 J1	60.5%	87
M67 between M67 J1 and M60 J24	60.5%	88
M53 between M53 J10 and M53 J11	60.6%	90
M60 between M60 J8 and M60 J9	60.6%	92
M60 between M60 J12 and M60 J13	60.8%	95

A.2 Asset Condition

A.2.1 The following provides more detail on the pavement condition for each section of the route:

- The A5036 is an urban all-purpose trunk road linking the end of the M57.M58 to the port of Liverpool. Due to the nature of this route it carries a high proportion HGV and international freight and this puts the pavement under considerable load. Given the urban area and associated noise and air quality issues pavement intervention is planned for completion within the RBS period.
- The A550 provides a link between the M56/A494 from North Wales into the Wirral and thereafter into Liverpool and other Merseyside areas. The route is generally rural/semi-rural so whilst not suffering from the same noise and air quality issues as the A5036 the pavement will require intervention during the RBS period.
- The A56 linking the M66 and the M65 is a north south route within the area and provides a link between the M60/M62 and the M65 around Blackburn. Again this is an all-purpose dual carriageway carrying HGV traffic and the current condition of the pavement demonstrates intervention will be required within the RBS period.
- The A663 is also an all-purpose single and dual carriageway which again is an urban area with similar noise and air quality issues as identified for the A5036. Whilst this is not a direct link to a port it does provide a short cut between the M60 at J21 and the M62 at J18. Consequently, the A663 carries a significant volume of traffic including HGVs which also access various industrial/commercial operations at Stakehill Industrial Estate amongst others. The condition of the pavement in this area will also require intervention during the RBS period.
- Due to the age and condition of the pavement on the M56 which comprises a mixture of aged HRA and thin surface course systems various sections have been identified for inclusion in a renewal programme over the coming years within the RBS period.
- The M57 which runs north south parallel to Liverpool includes sections of aged HRA which is at or approaching the end of serviceable life so again will require renewal in the short to medium term future.
- The M60 is the orbital route around Manchester with carries a mixture of short, medium and long distance traffic including local trips and international movement of freight as part of the TEN-T. The M60 is also a mixture of aged HRA and thin surface course systems which in part are at or reaching end of their serviceable life.
- The surfacing along the full length of the M55 is expected to reach the end of its design life by 2020.

- The M62 is one of the older sections of the route. The M62 between J25-28 and J29-30 where recent managed motorway schemes have been implemented are not expected to require significant maintenance interventions during the period to 2021. The M62 J28-29 is managed and maintained by one of our DBFO Company's and as such will be maintained to the standards set out in that particular contract and handed back to the Agency at the end of the contract period in 2026 to that standard. M62 J22 to 25 & 30 to 38 are a mixture of aged HRA surfacing and thin surfacing materials and will all potentially require maintenance interventions during the period
- The A63/A1033 routes have thin surfacing of such age that it will require interventions during the period. Lack of suitable diversion routes mean any works will have a significant impact on the area. As the route also runs through the centre of Hull there are also issues with public interaction during maintenance works.
- M18 route has a mixture of aged HRA, thin surfacing and concrete pavements. Between J2 and J3 has hydraulically bound road base which is vulnerable to structural failures when water is allowed to penetrate the upper surface layers.
- The M180's main concern runs either side of Junction 2 where the old concrete pavement had a thin flexible overlay which is already beyond its design life. Between J3 and J4 there is a hydraulically bound road base which is vulnerable to structural failures when water is allowed to penetrate the upper surface layers.
- The M181 has a history of ride quality issues relating to historic construction methods,
- A180/A160 predominantly concrete which will be reaching the end of its design life by the end of the period, there are major improvement works planned here though.
- A57/A628/A616/A61 route has a varied and evolved pavement with a constant need for deep structural repairs. Maintenance on the A628 often involves a full closure.
- A64 route has a mixture of designed dual carriageway sections and single carriageway sections which have been built up over time. These evolved pavements are prone to requiring deep structural repairs. There are restrictions on maintenance activities along the A64 as a result of the summer tourist season and agricultural activities.

A.2.2 The following provides details of structures on the route which will require significant intervention during the RBS period:

- M60 Barton High Level Bridge - Monitoring of Barton High Level Bridge, between J10 and J11 of the M60 will also need to take place during the RBS period. Significant works near to the bridge will be ongoing during this time and monitoring to safeguard the bridge will be essential

- M62 Ouse Bridge – A 30 span structure of significant length. The bearings are ageing and bearing replacement has been recommended. Due to the number of spans the cost of this work will be significant. Project timing approx 2018 onwards.
- M62 Ferrybridge Interchange Centre – Severe concrete defects to a pier have led to capacity issues that have forced a closure of the hard shoulder. The closure will remain in place until mitigation works are carried out to repair the pier. Project timing approx. 2016.
- M62 Red Lane Dike – Strengthening or replacement of the structure. Structural capacity issues that will require load management measures prior to any repair works. The repair works will be technically challenging and come at significant cost. On whole life cost grounds this may justify the replacement of the structure. Project timing approx. 2017-8.
- M62 Flyboat – Structural problems due to mining settlement. There are ongoing business issues with UK Coal and any successor companies that may potentially affect any schemes to rectify the settlement. Project timing approx. 2018 onwards.
- M62 Lofthouse Interchange North, East, South and West Bridge – Waterproofing, expansion joint replacement, concrete repairs, bearing replacement and strengthening works. These structures carry a significant volume of traffic and repairs will result in significant congestion on the South Pennine and London to Scotland (East) route. There is likely to be significant cost and traffic management issues associated with any interventions at this location. Project timing approx. 2019-20.
- M621 Asquith Avenue – Issues with the half joints may require the replacement of this structure. Project timing approx. 2020.
- A63 Myton Bridge – A swing bridge in the centre of Hull linking the port. Maintenance to this type of structure is technically challenging as the bridge is finely balanced and disruption to this balance can lead to the inability to open the structure to river traffic. Waterproofing replacement, steelwork repairs, repainting and bearing replacement. Project timing approx. 2019.
- A628 Retaining Walls – Strengthening / repairs to a number of the retaining walls to bring them up to a condition whereby they are capable of withstanding the rigours of modern traffic loading. Project timing approx. 2019 onwards.
- There are a number of locations where strengthening of the structure is required to allow the passage of abnormal loads including M62 Altofts Canal, M62 Altofts River, M62 Lofthouse Interchange Centre, M62 Hey Lane and M62 Club.

B Future considerations

B.1 Economic development and surrounding environment

Growth by LEP area is set out on figure 3 of the evidence report. The table below sets out expected growth by local authority:

Table B.1 Growth proposals by Local Authority

Location of Development	Development Type	Scale by 2015	Scale by 2021	Scale by 2031
Barnsley	Dwellings	3500	10500	22200
Barnsley	Jobs	4000	10000	20000
Blackburn with Darwen	Dwellings	3500	7700	10500
Blackburn with Darwen	Jobs	3000	6600	9000
Blackpool	Dwellings	1000	2200	2500
Blackpool	Jobs	No data	No data	No data
Bolton	Dwellings	500	1900	2800
Bolton	Jobs	9000	34000	48000
Bradford	Dwellings	7000	19000	42100
Bradford	Jobs	3000	18000	43500
Burnley	Dwellings	300	1000	1500
Burnley	Jobs	1300	3100	3300
Bury	Dwellings	1400	4300	7000
Bury	Jobs	4300	15200	19000
Calderdale	Dwellings	2200	7800	16,800
Calderdale	Jobs	1200	4200	9000
Cheshire East	Dwellings	2100	8500	14200
Cheshire East	Jobs	8600	34600	43200
Cheshire West & Chester	Dwellings	No data	No data	No data
Cheshire West & Chester	Jobs	No data	No data	No data
Chorley	Dwellings	900	3300	5400
Chorley	Jobs	7500	21200	25300
Craven	Dwellings	600	1800	2800

Location of Development	Development Type	Scale by 2015	Scale by 2021	Scale by 2031
Craven	Jobs	No data	No data	No data
Doncaster	Dwellings	3000	10000	21000
Doncaster	Jobs	5000	17000	36,000
East Riding	Dwellings	3200	11100	23800
East Riding	Jobs	3600	12600	26950
Fylde	Dwellings	900	3600	6800
Fylde	Jobs	1700	6700	12500
Halton	Dwellings	2600	7500	11500
Halton	Jobs	No data	No data	No data
Hambleton	Dwellings	1100	2900	5800
Hambleton	Jobs	2600	7800	16500
Harrogate	Dwellings	1500	3900	7800
Harrogate	Jobs	300	1000	2000
High Peak and Derbyshire Dales	Dwellings	No data	990	1500
High Peak and Derbyshire Dales	Jobs	No data	No data	22500
Hull	Dwellings	No data	No data	No data
Hull	Jobs	No data	No data	No data
Hyndburn	Dwellings	No data	No data	No data
Hyndburn	Jobs	No data	No data	No data
Kirklees	Dwellings	3500	10500	22470
Kirklees	Jobs	5000	17500	37533
Knowsley	Dwellings	2400	7400	9800
Knowsley	Jobs	16300	63200	90000
Leeds	Dwellings	9,400	32,600	70,000
Leeds	Jobs	5800	20500	44037
Liverpool	Dwellings	No data	No data	No data
Liverpool	Jobs	No data	No data	No data
Manchester	Dwellings	7300	29300	55000
Manchester	Jobs	4000	15800	29600
North East Lincolnshire	Dwellings	2000	5100	10200

Location of Development	Development Type	Scale by 2015	Scale by 2021	Scale by 2031
North East Lincolnshire	Jobs	No data	No data	No data
North Lincolnshire	Dwellings	3000	7500	15000
North Lincolnshire	Jobs	2200	5500	11000
Oldham	Dwellings	2200	5000	6000
Oldham	Jobs	2700	8300	15300
Pendle	Dwellings	200	1000	1500
Pendle	Jobs	400	500	500
Preston	Dwellings	700	4000	6900
Preston	Jobs	7100	26000	31200
Ribble Valley	Dwellings	800	3000	5000
Ribble Valley	Jobs	No data	No data	No data
Richmond	Dwellings	700	1800	3600
Richmond	Jobs	200	600	1200
Rochdale	Dwellings	100	400	600
Rochdale	Jobs	1800	6500	7700
Rossendale	Dwellings	1200	6100	8200
Rossendale	Jobs	500	1300	1300
Rotherham	Dwellings	3400	8500	17000
Rotherham	Jobs	3600	9000	18000
Ryedale	Dwellings	500	1400	3000
Ryedale	Jobs	4500	13500	28600
Salford	Dwellings	4700	15400	23200
Salford	Jobs	4800	14800	21000
Scarborough	Dwellings	No data	No data	No data
Scarborough	Jobs	No data	No data	No data
Sefton	Dwellings	900	3700	7000
Sefton	Jobs	3500	14200	26600
Selby	Dwellings	1100	3400	7200
Selby	Jobs	500	1300	2500
Sheffield	Dwellings	5800	14200	28500
Sheffield	Jobs	14100	42300	89300

Location of Development	Development Type	Scale by 2015	Scale by 2021	Scale by 2031
South Ribble	Dwellings	300	2000	4100
South Ribble	Jobs	8400	33400	41800
St. Helens	Dwellings	2200	5800	10000
St. Helens	Jobs	9300	50700	92500
Stockport	Dwellings	No data	No data	No data
Stockport	Jobs	No data	No data	No data
Tameside	Dwellings	No data	No data	No data
Tameside	Jobs	No data	No data	No data
Trafford	Dwellings	1500	5800	9000
Trafford	Jobs	3500	14600	28100
Wakefield	Dwellings	3900	11800	25000
Wakefield	Jobs	11700	35100	74100
Warrington	Dwellings	1900	3900	5000
Warrington	Jobs	4100	16600	20700
West Lancashire	Dwellings	400	1700	2700
West Lancashire	Jobs	No data	No data	No data
Wigan	Dwellings	1100	4300	5500
Wigan	Jobs	0	10300	28600
Wirral	Dwellings	3800	9400	12500
Wirral	Jobs	19500	52500	71000
Wyre	Dwellings	No data	No data	No data
Wyre	Jobs	No data	No data	No data
York	Dwellings	2900	10,000	21936
York	Jobs	2155	7600	16169

Within the evidence report, Table 4.1 provides a selection of the stakeholder priorities. Table B.2 below provides an expanded version, showing the full range of issues raised by stakeholders.

Table B.2 Schedule of challenges and opportunities

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Network Operation	A628	Risk of disruption due to severe weather. Resilience of the network.	Yes	✓			Yes	✓		
	M62		Yes	✓			Yes	✓		
	A56		Yes	✓			No			
	M60 Barton Bridge		Yes	✓			No			
	M65 J3-5		Yes	✓			No			
	M60 J15-17		Yes	✓			No			
	M67 J4		Yes	✓			No			
	A628	High proportions of freight on the route on busy single carriageway roads.	Yes	✓			Yes	✓		
	A585		Yes	✓			No			
	M62	Inadequate facilities for HGV's resulting in overnight parking in lay-bys	Yes	✓			Yes	✓		
	A63	Proportion of freight on the corridor is high, there are few dedicated facilities	Yes	✓			Yes	✓		
	A628		Yes	✓			Yes	✓		
	M180		Yes	✓			Yes	✓		
	A180		Yes	✓			Yes	✓		
	M62 J23-25	Opportunity to extend existing Smart Motorways								✓
	M62 J30-32a									✓
	A556	Gaps in technology provision, including CCTV	Yes				Yes		✓	

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Network Operation	A55/A483		Yes				No			
	M53		Yes	✓			Yes		✓	
	M56 J10-16		Yes	✓			Yes		✓	
	M62 J8-6/M57 / M58 / A5036		Yes	✓			No			
	M55		Yes	✓			No			
	M65 J3 - 10		Yes	✓			No			
	A56		Yes	✓			Yes		✓	
	A63		Yes	✓			Yes		✓	
	A180		Yes	✓			Yes		✓	
	A160		Yes	✓			Yes		✓	
	A64		Yes	✓			Yes		✓	
	M18		Yes	✓			Yes		✓	
	M62 J6 - 1	Confusion between LHA responsibility and HA responsibility	Yes	✓			Yes	✓		
	M65 J10 - 14		Yes	✓			Yes	✓		
	M62 J6	Signal timings/lane allocations causing delay	Yes	✓			Yes		✓	
	Greater Manchester Network	Network resilience impacted by high traffic volumes throughout much of the day.	Yes	✓			Yes	✓		
	M60	Close junction spacing	Yes	✓			Yes	✓		
	A5036/A585 /M56/M60 /M62	Reliable access to ports and airports needs to be maintained and improved	Yes	✓			Yes		✓	
	M60	M60 forms the main orbital route around the Greater Manchester conurbation	Yes	✓			Yes	✓		
M60	Limited access to A34	Yes	✓			Yes		✓		

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities			
				Short-term	Medium-term	Long-term		Low	Medium	High	
Network Operation	Route Wide	Improve creditability of VMS messages and information to drivers. Make sure its up to date and accurate.	Yes	✓			Yes		✓		
	M56 J8-M60	Conflicts between longer distance and short commuter trips. The route serves a variety of functions adding to delay, congestion and journey time reliability	Yes	✓			No				
	M62 J8-11		Yes	✓			No				
	M60		Yes	✓			Yes		✓		
	M602		Yes	✓			No				
	A663 Broadway						No				
	M62 J24 to 32		Yes	✓			Yes		✓		
	M621		Yes	✓			Yes		✓		
	A628 -urban sections		Yes	✓			Yes		✓		
	A64		Yes	✓			Yes		✓		
	A63		Yes	✓			Yes		✓		
	M180/A180		Yes	✓			Yes		✓		
	M18		Yes	✓			Yes		✓		
	Route Wide		Journey Time Reliability	Yes	✓			Yes		✓	
	M60		Not enough notice on local network of delays on motorway	No	✓			Yes	✓		
	M56	Access to north Wales improved with Deeside Improvements. However, there are still delays on M56.	Yes	✓			Yes	✓			
	M60	Apparent lack of proactive management of route choice round M60.	No	✓			Yes	✓			
M60	Ambiguous and confusing signing and carriageway marking around major interchanges and junctions	No	✓			Yes	✓				
Cheshire Oaks (M53 J10 and M56 J15)		Yes	✓			Yes		✓			

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Network Operation	Whole Route	Better coordination of works with local authority	Yes	✓			Yes			✓
	A63	The ability to manage incidents is impacted by the lack of Traffic Officer Service on some routes								✓
	Trunk Road Sections of Route		Yes	✓			Yes		✓	
	Across route		Yes	✓			Yes		✓	
	Across route	In the event of an incident the lack of strategic alternatives has a detrimental effect on the local road network, causing delay and congestion	Yes	✓			Yes	✓		
	M62		Yes	✓			Yes		✓	
	M180		Yes	✓			Yes	✓		
	Across route	There is an opportunity for closer working with local authorities in relation to incident and congestion management	Yes	✓			Yes	✓		
Asset Condition	Across Route	Significant lengths of surfacing likely to reach end of design life.	Yes	✓			No			✓
	Cheshire	Poor pavement condition	Yes	✓			Yes			✓
	Route Wide	Short lifespan of thin surfacing. Is this a false economy?	Yes	✓			Yes		✓	
	A55	Soft estate maintenance is poor. Verges left to grow wild.	Yes	✓			Yes	✓		
	A556		Yes	✓			Yes	✓		
	Route wide		Yes	✓			Yes	✓		
	Across Route	Condition of road markings and studs is deteriorating.	Yes	✓			No		✓	
	Route wide	Better liaison required between HA and LHAs when undertaking works	No	✓			Yes	✓		
	Route Wide	Poor maintenance of traffic signs and lane markings	No	✓			Yes	✓		

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Asset Condition	Across route including M56 J15-16, M53 J11-12, A483 Pulford to Wales border, M62 near J38, M180 J2, M18 J2-3, A180 Brocklesby to Barnetby	Concrete surfacing defects.	Yes	✓			Yes			✓
	M181	Poor quality condition of the surface	Yes	✓			Yes	✓		
	A63	Thin surfacing, which will require replacement	Yes	✓			Yes	✓		
	Across route	Ongoing significant interventions required to address structural defects	Yes	✓			Yes		✓	
	M1/M62 Lofthouse Interchange	Key interchange requiring structural interventions and capacity enhancement	Yes	✓			No			✓
	M62 - Altofts Canal	Structures are unsuitable to support abnormal loads.	Yes	✓			No	✓		
	M62 Altofts River						No	✓		
	M62 Lofthouse Interchange Centre						No	✓		
	M62 Hey Lane						No	✓		
	M62 Club						No	✓		
	A628		Geotechnical issues, such as land slippage cause operational issues for the route.	Yes	✓			No		✓
	A56	Yes		✓			No			
	M62 J11-12	Geotechnical defects causing ride issues.	Yes	✓			No			
	A585	Consider de-trunking	No		✓		Yes	✓		
	A663		No		✓		Yes	✓		
	A5036	Maintenance seen as poor	No	✓			Yes	✓		

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Asset Condition	A585	Maintenance of pedestrian / cycle facilities is poor	No	✓			Yes			✓
	Route wide		No	✓			Yes			✓
	M621	Lighting asset reaching end of design life	Yes	✓			No	✓		
	M62		Yes	✓			No	✓		
	A64	Ageing drainage asset	Yes	✓			No		✓	
	A628		Yes	✓			No		✓	
Capacity	Deeside	Outline planning permission has been granted for a new development at Deeside Industrial Estate, providing employment for 4,000-5,000 employees. The area currently experiences congestion, which will be made worse by the development.	Yes		✓		Yes	✓		
	A55 / A51 'Vickers Cross' junction	Severe existing congestion particularly on A51	Yes	✓			Yes		✓	
	A483 / A55	Severe existing congestion hindering development of Wrexham and surrounding areas	Yes	✓			Yes			✓
	A550	M53 through the tunnels is a popular route used by commuters. A550 to J5 experiences congestion during the AM and PM peak hours. Dualling of route has been proposed, but not yet been implemented. Dualling of A5017 has exaggerated congestion along A550.	Yes	✓			Yes	✓		
	M53 J10	Cheshire Oaks and surrounding area – how to accommodate scale of development growth planned given current network problems. Including access from the west.	Yes		✓		Yes		✓	
	M53 Corridor	Bottlenecks on M53 – impacts on local businesses	No	✓			Yes		✓	
	M53	Dual-two lane sections - capacity issues, as well as Junction 5 issues	Yes	✓			Yes	✓		

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Capacity	M56 J11	How to accommodate planned development associated with Enterprise Zone at Science & Innovation Park (10,000 jobs)	No		✓		Yes	✓		
	M56 Junctions 11 & 12 (and proposed 11a)	Potential for new junction in this location to relieve stress and pressure on existing junctions & local road issues from strategic trips	Yes		✓		Yes			✓
	M56 Junction 12	Known hot spot for delays and unreliable journey times for users with no obvious source.	Yes	✓			Yes	✓		
	M56 J12	Severe congestion on approaches to J12 in the peak periods. This also affects the links from J14 and J11. Likely due to capacity issues at Junction 12.	Yes	✓			Yes		✓	
	M56 Junction 11 & 12 (plus potential 11A)	Congestion issues, new mersey gateway scheme expected to exacerbate issues in this area. Appropriate infrastructure required to support this scheme of nationally recognised importance.	Yes		✓		Yes		✓	
	M56 J7	Heavy congestion experienced, which is getting worse. Congestion causes queuing onto the local highway network. Proposed A556 by-pass scheme will only help vehicles travel faster between the two congested junctions. Existing Mere and Bucklow Hill crossroads help to slow traffic flow between M56 and M6, which helps to relieve congestion.	No	✓			Yes			✓
	M56 J6	Junction and LRN capacity	No	✓			Yes	✓		
	M56 / M60 interchange	Existing operation & impact of: • A556 'link' • SEMMMS link • HS2	No		✓		Yes			✓
	Airport City	Impact on corridors – M56 / M60 / A34 – South Manchester / North Cheshire	No		✓		Yes	✓		

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Capacity	Manchester Airport / Airport City	Need for public transport routes and infrastructure to access the Airport / Airport City	Yes		✓		Yes	✓		
	M62	Congestion issues at Junction 7 (Rainhill)	Yes	✓			Yes		✓	
	M62 J8	Planned growth at Omega will exceed capacity of J8.	Yes		✓		Yes		✓	
	M62 J9 to J11	Severe operational problems due to capacity issues. Impacts on local road network at J9 and also on includes impacts at Croft Interchange and Birchwood.	Yes	✓			Yes			✓
	Sefton / A5036 / Switch Island	Expected growth at the port in terms of tonnage handled, post panamax container birth, the cruise terminal in Liverpool and planned port associated industries and manufacturing are all expected to increase demand and congestion on the A5036.	Yes		✓		Yes			✓
	A5036	Overlooked part of the SRN. Access to Atlantic Dock / Port of Liverpool. Used heavily by HGVs and issues with the interface with the local road network. Can experience heavy congestion.	Yes	✓			Yes			✓
	A5036	Potential to be over-capacity post-2020	Yes		✓		Yes		✓	
	M58 Junction 1	South-facing slips would enable development to come forward in this location	No		✓		Yes	✓		
	M58	Skelmersdale – development pressures	Yes		✓		Yes	✓		
	A585(T)	Pinch point schemes being delivered (e.g. Windy Harbor) may result in consequences at other locations along the corridor (e.g. at Singleton junction).	Yes		✓		Yes			✓
	A585(T) Norcross	Issues of queuing on the local road network, which are likely to be exacerbated by future development (particularly associated with the changing nature of an existing site).	Yes	✓			Yes	✓		

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Capacity	A585	Lack of capacity on A585 causing significant local opposition to strategic housing developments	Yes	✓			Yes			✓
	A585	Area expected to receive significant amounts of housing but little employment. Means increase in commuting on already congested A585.	Yes		✓		Yes			✓
	A585(T)	BP petrol filling station blocks back on the A585 – a right turn lane would be beneficial	No	✓			Yes	✓		
	M55	Growth at Warton Enterprise Zone and north Preston. Access is restricted and congested.	Yes		✓		Yes		✓	
	M55 J1	Capacity issue – a scheme on site at present. Scheme will provide capacity for a few years but not all cover developments.	Yes	✓			Yes		✓	
	M65 J1-7	Future congestion on the M65 from growth planned for Blackburn and other East Lancashire Towns.	Yes		✓		Yes			✓
	M65 Junction 5	Issues on the local road network close to the junction	Yes	✓			Yes			✓
	Burnley Bridge (M65 Junction 9)	Future development pressures	Yes		✓		Yes		✓	
	Pendle	Local road impacts at M65 junctions	Yes		✓		Yes		✓	
	M65	Gateway to East Lancashire – perceived as being congested & a 'dead end'	No	✓			Yes	✓		
	M61 / M60 Interface	Growth in Central Lancs City Region may compromise access to Manchester Airport & M60	Yes		✓		Yes		✓	
	M61 corridor (Bolton-Mcr)	Potential for commuter trips to transfer on to rail is not being realised due to lack of trains	Yes	✓			Yes	✓		
	A56/M66 corridor	Issues on the A56 / M66 corridor through pinch points at Guide Bridge, M66 (Bury) & Simister Island. This entire route should be treated as a corridor to ensure East Lancs access to Manchester.	Yes	✓			Yes	✓		

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Capacity	M60	Constraint to growth in Stockport. Preventing access to employment sites and retail opportunities	No	✓			Yes	✓		
	M60 Bredbury	Impact of reduced speed section on capacity of M60	No	✓			Yes	✓		
	M60 South	No access towards city centre for eastbound traffic via the A5103 or A34 due to junctions	No	✓			Yes		✓	
	M60 J7	Operation during match day (Manchester United) events	No	✓			Yes	✓		
	M60 J8-J12	Growth around Trafford Centre plus Port Salford and wider Atlantic Gateway plans	Yes		✓		Yes			✓
	M60 J9 & 10	Peak journey time reliability	Yes	✓			Yes	✓		
	M60 J12 / M62 / M602	Multiple SRN connections resulting in wide spread issues when incident(s) occur on any connection occurs and propagates across wider network	No	✓			Yes	✓		
	M60 west (clockwise) evening peak	Existing operational issues and journey time reliability	Yes	✓			Yes	✓		
	M60 J13 - 12 & J 11 -12 M60 J2 – 3 anti-clockwise	Weaving / junction spacing (as above, but less so)	No	✓			Yes	✓		
	M60 Junction 18	M60 through route issues with alignment of Simister Island	No	✓			Yes	✓		
	M60 J18 Simister Island	Key node on the SRN whose poor performance in peak periods has significant impacts on flows / conditions over a wide (LA) area.	No	✓			Yes	✓		
	M60 J22 / 21 (A6104)	Junction layout(s) & mix of traffic at Hollinwood Ave & Victoria Ave East	No	✓			Yes	✓		
	M60 J24 Denton	Tailing back of traffic onto M60 ACW mainline in peak periods	No	✓			Yes	✓		
	East and South of M60 Greater Manchester	Change in travel patterns in East Manchester and around the Airport post-Airport City	Yes		✓		Yes		✓	

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Capacity	M60	Changing nature in land uses within business parks resulting in changeable impacts on the SRN at different times of day	No		✓		Yes	✓		
	M60 various	Stressed locations and local road interaction/knock-on delay	No	✓			Yes			✓
	M602 J2-3	Development in Salford Quays (and in East Manchester) may cause greater orbital demand	Yes		✓		Yes		✓	
	All of Greater Manchester	Development in City Centre and on Oxford Road Corridor	No		✓		Yes		✓	
	Woodford	Development of unallocated site for housing (some parts not served by public transport)	No		✓		Yes	✓		
	A663	New junction required to deliver site promoted through LDF	No		✓		Yes	✓		
	A57 / A628 Glossop	Major bottleneck for NW traffic – significant impact on transpennine traffic	No	✓			Yes	✓		
	Access to ports	Need to maintain or improve access to ports along Lancashire coast	Yes	✓			Yes		✓	
	Freight Interchanges / Multi-modal	Access to freight interchanges and maintaining reliable links to them	Yes		✓		Yes	✓		
	North West	AM Peak / PM Peak Hour congestion	Yes	✓			Yes	✓		
	North West	Importance of quick and reliable access to and from the SRN. Important for businesses to have a reliable SRN.	Yes	✓			Yes		✓	
	National	Lack of consistent funding and objectives over time for all modes limits the co-ordination	No	✓			Yes	✓		
	M62 J24-J32	Existing limited capacity at Junctions including Lofthouse interchange will be exacerbated by planned future growth.	Yes	✓	✓	✓	Yes			✓

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Capacity	M621	Existing congestion will be exacerbated by planned future growth	Yes	✓	✓	✓	Yes		✓	
	M18	Future growth of development land around Hatfield, the Inland Port and on the route of the Finingley and Rossington Regeneration Route will create additional pressure on the M18	Yes		✓		Yes		✓	
	A57	Congestion on the alternative trans pennine routes to the M62. This is experienced mostly where the strategic road network interacts with the urban area.	Yes	✓			Yes			✓
	A628		Yes	✓			Yes			✓
	A61		Yes	✓			Yes			✓
	A616		Yes	✓			Yes			✓
	A63	Future growth will add to existing congestion issues. A particular issue where the strategic road network interacts with the local road network at junctions such as Mytongate	Yes	✓			Yes			✓
	A64 around York	Future growth will add to existing congestion issues at the junctions between the York Outer Ring Road.	Yes	✓			Yes		✓	
	A64 -north east of Hopgrove roundabout	To the north east of Hopgrove the existing single carriageway sections cause delay on the route especially during tourist peaks. Future growth of York, Malton and Scarborough will add to the problem	Yes	✓	✓		Yes			✓
	A5036	Planned future growth of ports and airports will increase congestion and numbers of HGV's	Yes		✓		Yes			✓
	M58		Yes		✓		Yes	✓		
	M56		Yes		✓		Yes			✓
	M60		Yes		✓		Yes			✓
	M62		Yes		✓		Yes		✓	
	A180		Yes			✓	Yes			✓

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Capacity	A160	Planned future growth of ports and airports will increase congestion and numbers of HGV's	Yes			✓	Yes	✓		
	M180		Yes			✓	Yes		✓	
	M181		Yes			✓	Yes	✓		
	M180	Construction of Lincolnshire Lakes will cause congestion in the future	No			✓	Yes	✓		
	M180 Barnetby top	Growth of Humberside Airport Business Park will cause congestion in the future	No			✓	Yes	✓		
	A64	Limited facility for farm vehicles to turn and move around on the network	No	✓			Yes	✓		
	A63/M62 Junction	The junction will not have enough capacity in the future to support growth	No		✓		Yes	✓		
	M181	Limited number of exits causes congestion	Yes	✓			Yes	✓		
	M62 J25 -Cooper Bridge	Limited capacity of local road junctions causing congestion on the strategic road network	Yes		✓		No		✓	
	A64 -York Outer Ring Road		Yes		✓		No		✓	
Safety	A56 junctions	Featured in the top 250 worst accident locations identified in section 2	Yes	✓			Yes			✓
	A585 junctions		Yes	✓			No			
	M62 J26		Yes	✓			Yes			✓
	A63, Mytongate, Hull		Yes	✓			Yes			✓
	A63, Garrison Road Roundabout, Hull		Yes	✓			No			✓
	A63 Daltry Street Interchange, Hull		Yes	✓			No			✓
	A180 Pyewipe Roundabout, Grimsby		Yes	✓			Yes			✓

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Safety	M18 J2 / A1(M) Wadworth Interchange	Featured in the top 250 worst accident locations identified in section 2	Yes	✓			No			✓
	M62 J30		Yes	✓			No			✓
	M56 J12 - 14	High collision rate identified by stakeholders leads to delays and congestion on SRN and local network	No	✓			Yes			✓
	A663	High collision rate identified by stakeholders leads to delays and congestion on SRN and local network	Yes	✓			Yes			✓
	Route wide	Control speed using average speed cameras	No		✓		Yes			✓
	Urban sections of M62, M1 and M621	High collision risk identified in section 2.	Yes	✓			No			✓
	A61, A616, A628	High collision risk identified in section 2 and safety concerns expressed by stakeholders	Yes	✓			Yes			✓
	A63 through Hull	High collision risk identified in section 2 and safety concerns expressed by stakeholders	Yes	✓			Yes			✓
	A64	High collision risk identified in section 2. Concerns expressed by stakeholders in particular about the single carriageway sections	Yes	✓			Yes			✓
	M180, A180 and A160	The route has few features making it hard for drivers to stay on task. The route also has high numbers of HGVs and a high proportion of the accidents involve HGVs.	Yes	✓			Yes			✓
Social and environment	Route wide	Do we have the balance right for funding Improvements. Should there be more emphasis towards supporting areas of deprivation?	No	✓			Yes			✓
	A180	Concrete surface causes noise issues	Yes	✓			Yes		✓	
	M18		Yes	✓			Yes		✓	
	M1 J38		Yes	✓			No		✓	
	Across Route	Defra Noise First Priority Locations identified	Yes	✓			Yes			✓

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Social and environment	Across Route	Air quality issues. AQMA's and locations where Defra have identified exceedences of European air quality limits	Yes	✓			Yes			✓
	M62	Poor air quality due to the proximity of the route to populated areas	Yes	✓			Yes	✓		
	A160	Poor air quality due to queuing HGVs	Yes	✓			Yes	✓		
	Route wide	Use speed control to improve Air Quality	Yes				Yes		✓	
	M60	There are a number of locations where there is population living close to the route and the strategic road network causes severance	Yes	✓			Yes			✓
	A56		Yes	✓			Yes			✓
	A63		Yes	✓			Yes		✓	
	A64		Yes	✓			Yes	✓		
	A5036	Frequent interactions with vulnerable users. Stakeholder concerns about limited provision for vulnerable users.	Yes				Yes	✓		
	A585		Yes				No			
	A56		Yes				Yes			✓
	A663		Yes				No			
	A64		Yes	✓			Yes		✓	
	A63			✓				✓		
	A628		Yes	✓			Yes		✓	
	A585	Lack of provision for pedestrians, cyclists and equestrians	Yes	✓			Yes	✓		
	A56		Yes	✓			Yes		✓	
	A180		Yes	✓			Yes	✓		
	A160		Yes	✓			Yes	✓		
	A628	The environment is ecologically and visually sensitive	Yes	✓			Yes		✓	
A64 and M18	Flooding risks identified	Yes	✓			Yes	✓			

	Location	Description	Is there supporting evidence?	Timescales			Was this Identified through stakeholder engagement?	Top Priorities		
				Short-term	Medium-term	Long-term		Low	Medium	High
Other Issues	A628	Manchester to Sheffield Travel	Yes	✓			Yes		✓	
	Route Wide	Interact better with the rail industry	No		✓		Yes		✓	
	Route Wide	A need to link RBS to growth plans	No				Yes			

C Stakeholder Engagement

C.1 Stakeholder Engagement Events

C.1.1 Stakeholder engagement events for the route were held as set out in the table below:

Table C.1 Stakeholder engagement events

LEP Area	Location	Date
York & North Yorkshire	The Golden Lion, Northallerton	12 September 2013
Leeds City Region	Leeds Metropolitan University	23 September 2013
Humber	Holiday Inn, Hull Marina	24 September 2013
Cheshire & Warrington	Daresbury Park Hotel, Daresbury	24 September 2013
Sheffield City Region	Jurys Inn, Sheffield	26 September 2013
Lancashire	Best Western Hotel, Leyland, Lancashire	26 September 2013
Merseyside	The Gateway Conference Centre, Liverpool	1 October 2013
Greater Manchester	Piccadilly Gate, Manchester	4 October 2013

C.1.2 In addition to the events set out above we have also sought views from stakeholders through a number of existing forums and meetings including:

- Joint operations meeting with police and fire services – 10 September 2013
- South Yorkshire Senior Leaders Group – 13 September 2013
- West Yorkshire LTP Task Group - 20 September 2013

C.1.3 The tables below also provides details of who was invited and who attended each of the stakeholder events.

Table C.2 York and North Yorkshire

Organisation	Name	Invited	Attended
A19 Design Outlet	Paul Tyler	Yes	No
British Horse Society	Caroline Bradley	Yes	Yes
British Horse Society	Catriona Cook	Yes	No
British Motorcycle Federation	Brian Burke	Yes	Yes
Castle Howard	Neil Swain	Yes	Yes
CECA (Y&H)	Philip Bentley	Yes	No
City of York Council	Ian Stokes	Yes	Yes
City of York Council	Martin Grainger	Yes	No
City of York Council	Richard Wood	Yes	No

Organisation	Name	Invited	Attended
CPRE North Yorkshire	John Gill	Yes	Yes
Craven DC	Sian Watson	Yes	No
Cycle Touring Club	Terry Ratcliffe	Yes	Yes
East Riding of Yorkshire	Ian Burnett	Yes	No
East Riding of Yorkshire	Stephen Hunt	Yes	No
Hambleton DC	Mick Jewitt	Yes	No
Harrogate BC	Dave Allenby	Yes	No
Middlesbrough Council	Derek Gittins	Yes	No
National Farmers Union	James Copeland	Yes	Yes
North York Moors National Park Authority	Sarah Housden	Yes	No
North Yorkshire CC	Barrie Mason	Yes	No
North Yorkshire CC	Andrew Bainbridge	Yes	Yes
Richmondshire & Hambleton	Peter Featherstone	Yes	No
Richmondshire DC	John Hiles	Yes	No
Ryedale DC	Julian Rudd	Yes	No
Ryedale DC	Howard Wallis	Yes	Yes
Ryedale DC	Daniel Wheelwright	Yes	Yes
Scarborough Business Park	Iain Simpson	Yes	No
Scarborough DC	David Hand	Yes	Yes
Selby DC	Diane Wilson	Yes	Yes
Selby DC	Eileen Scothern	Yes	No
The Food and Environment Research Agency	Paul Walker	Yes	No
York Science Park		Yes	No
York University	Professor Brian Cantor	Yes	No
York, North Yorkshire & East Riding LEP	Barry Dodd	Yes	No
York, North Yorkshire & East Riding LEP	Andrew Leeming	Yes	No
York, North Yorkshire & East Riding LEP	James Farrar	Yes	No
Yorkshire Dales NPA	Peter Stockton	Yes	Yes
Yorkshire Wildlife Trust		Yes	No

Table C.3 Leeds City Region

Organisation	Name	Invited	Attended
Aire Valley LEZ	Peter Anderson-Beck	Yes	No
Arups	Adam Parbutt	Yes	Yes
Birstall Shopping Park	Denis Copeland	Yes	No
Bradford CC	Julian Jackson	Yes	No
Bradford CC	Andrew Marshall	Yes	No
Bradford Chamber of Commerce	Sandy Needham	Yes	No
Calderdale MBC	Peter Stubbs	Yes	Yes
Calderdale MBC	Carolyn Walton	Yes	No
Calderdale MBC	Ian Gray	Yes	No
Capitol Park (Sterling Capital)	Gary Cartmell	Yes	No
CPRE South York's and Friends of the Peak District	Anne Robinson	Yes	No
Friends of the Earth	Anthony Rae	Yes	Yes
IKEA	Paul Jacobs	Yes	No
Kirklees MBC	Richard Hadfield	Yes	No
Kirklees MBC	Tim Lawrence	Yes	Yes
Kirklees MBC	Kathryn Broadbent	Yes	No
Leeds Bradford Airport	Jon Mayor	Yes	No
Leeds CC	Martin Farrington	Yes	No
Leeds CC	David Feeny	Yes	No
Leeds CC	Phil Mitchell	Yes	Yes
Leeds City Region LEP	Roger Marsh	Yes	No
Leeds Metropolitan University	Prof Ian Strange	Yes	No
Leeds University Institute for Transport Studies	Dr Ronghui Liu	Yes	Yes
Leeds University Institute for Transport Studies	Professor Greg Marsden	Yes	No
Leeds, York & North Yorkshire Chamber of Commerce	Ian Williams	Yes	Yes
Mid Yorkshire Chamber of Commerce	David Horseman	Yes	Yes
Mid Yorkshire Chamber of Commerce	Steven Leigh	Yes	Yes
Peel Land & Property	Matthew Fitton	Yes	No
Prologis	David Storer	Yes	No

Organisation	Name	Invited	Attended
Realm Limited	Lynn Ward	Yes	No
RHA Northern Region	Phil Snowden	Yes	No
Scarborough Development Group	Paul Smith	Yes	No
Sustrans	Mike Babbitt	Yes	Yes
Thorpe Park (Scarborough Property Group)	Lee Savage	Yes	No
Wakefield MBC	Ian Thompson	Yes	No
Wakefield MBC	Graham West	Yes	No
Welcome to Yorkshire	Gary Verity	Yes	No
White Rose Centre	Dean Stratton	Yes	No
WY Federation of Small Businesses	Chris Glen	Yes	No
WYPTE	Jeff English	Yes	Yes
Yorkcourt Properties	Colin Mackie	Yes	Yes

Table C.4 Humber

Organisation	Name	Invited	Attended
Able Auk		Yes	No
ABP	Gareth Russell	Yes	No
ABP	Arran Marshall	Yes	Yes
Conoco Phillips	Clive Hitchman	Yes	No
Conoco Phillips	Andy Allen	Yes	No
CPRE East Riding	Margaret Cockbill	Yes	No
CPRE North Lincolnshire	Jenny Haynes	Yes	No
Cycle Touring Club	Malcolm Revell	Yes	No
Drax Power Station	Dorothy Thompson	Yes	No
Drax Power Station	Mark Gibbens	Yes	Yes
East Riding CC	Ian Burnett	Yes	No
East Riding CC	James Durham	Yes	Yes
Eon Killingholme Power Station		Yes	No
Europarc	Dominic Gibbons	Yes	No
Hull and Humber Chamber of Commerce, Industry and Shipping	Dr Ian Kelly	Yes	No
Hull and Humber Chamber of Commerce, Industry and Shipping	David Hooper	Yes	Yes
Hull CC	Alex Codd	Yes	No
Hull CC	Mike Ibbotson	Yes	Yes

Organisation	Name	Invited	Attended
Hull CC	Graham Hall	Yes	Yes
Hull CC	Paul Robinson	Yes	Yes
Hull Civic Society	Ken Baker	Yes	No
Hull Civic Society	John Netherwood	Yes	Yes
Humber Bridge Board	Peter Hill	Yes	No
Humber Bridge Board	John Webb	Yes	Yes
Humberside Airport	Simon Whitby	Yes	No
Killingholme Centrica Power Station	Paul Dalton	Yes	No
King George Dock	Sally Booker	Yes	No
Local Enterprise Partnership(s)	Lord Haskins	Yes	No
NE Lincolnshire Council	Ian King	Yes	No
NE Lincolnshire Council	Martin Lear	Yes	No
North East Lincolnshire Council	Mark Scarr	Yes	Yes
North East Lincolnshire Council	Angie Blake	Yes	Yes
North Lincolnshire DC	Jodie Booth	Yes	Yes
North Lincolnshire DC	Ian Cunningham	Yes	Yes
North Lincolnshire DC	Chris Barwell	Yes	No
Saltend Chemicals Park	Chris Bowlas	Yes	No
South Humber Bank Power Station	Darren Fleming	Yes	No
Sustrans	Rupert Douglas	Yes	No
Total Lindsey Oil Refinery		Yes	No

Table C.5 Sheffield City Region

Organisation	Name	Invited	Attended
Barnsley and Rotherham Chamber of Commerce		Yes	No
Barnsley MBC	Dave Pownall	Yes	No
Bassetlaw District Council	David Rowen	Yes	No
Bassetlaw District Council	Joe Davies	Yes	Yes
British Land	Miles Price	Yes	Yes
Chesterfield BC	Richard Bryant	Yes	No
Counter Context	Thomas McHugh	Yes	Yes
CPRE South York's and Friends of the Peak District	Anne Robinson	Yes	Yes
Cycle Sheffield	Mick Nott	Yes	Yes

Organisation	Name	Invited	Attended
Derbyshire and Nottinghamshire Chamber of Commerce	Scott Knowles	Yes	No
Derbyshire Dales DC	Paul Wilson	Yes	No
DfT	Margaret Jackson	Yes	Yes
Derbyshire and Nottinghamshire Chamber of Commerce	Chris Hobson	Yes	Yes
Don Valley Strategy Group	Steve Birch	Yes	No
Doncaster Chamber of Commerce & Enterprise	Daniel Fell	Yes	No
Doncaster MBC	Neil Firth	Yes	No
Doncaster MBC	Chris Hobson	Yes	Yes
DTA	Tom Mais	Yes	Yes
Friends of the Earth	Anthony Rae	Yes	Yes
High Peak	Dai Lerner	Yes	No
Meadowhall Shopping Centre	Dawn Osborne	Yes	Yes
Morgan Sindall plc	Gary Crisp	Yes	Yes
NABARRO LLP/Sheffield City Region LEP	Martin McKervey	Yes	Yes
North East Derbyshire DC	James Arnold	Yes	No
Office of Andrew Bingham MP	Jamie Douglas	Yes	Yes
Outokumpu	John Stanfield	Yes	No
Peak District NPA	Tim Nicholson	Yes	Yes
R3 Products	Gary Shepherd	Yes	Yes
Robin Hood Airport	Steve Gill	Yes	No
Rotherham MBC	Tom Finnegan-Smith	Yes	No
Rotherham MBC	Ian Ashmore	Yes	Yes
Sheffield CC	Peter Vickers	Yes	Yes
Sheffield CC	John Bann	Yes	No
Sheffield Chamber of Commerce		Yes	No
Sheffield City Region	Ben Still	Yes	No
Sheffield Forgemasters International Limited		Yes	No
Sheffield Hallam University	Keith McKoy	Yes	No
Shepherd Group (Rossington Inland Port)	Caroline Scott	Yes	No
Sustrans	Gordon McArthur	Yes	Yes
SYPTe	Julie Hurley	Yes	No

Organisation	Name	Invited	Attended
SYLTE	Dave Allatt	Yes	Yes
SYLTE	Neal Byers	Yes	Yes
Tameside	Nigel Gilmore	Yes	Yes
Tata Steel	Mick Morris	Yes	Yes
University of Sheffield	Prof John Flint	Yes	No
Visit Peak District & Derbyshire		Yes	No

Table C.6 Cheshire and Warrington

Organisation	Name	Invited	Attended
B.I.S. NW	Martin Wood	Yes	Yes
Brereton PC	Jane Deans	Yes	Yes
C & W LEP and Cheshire East Council	Andrew Ross	Yes	Yes
Cheshire West & Chester Council	Kevin Carrol	Yes	Yes
Cheshire West & Chester Council	Richard Flood	Yes	Yes
CPRE (& NWTAR)	Lillian Burns	Yes	Yes
FTA	Malcolm Bingham	Yes	Yes
Halton BC	Stephen Rimmer	Yes	Yes
High Legh PC	Richard Wright	Yes	Yes
Mere PC	Ian Hodgson	Yes	Yes
Mersey Gateway	Ian Draycott	Yes	Yes
N&MWTRA	Dave Evans	Yes	Yes
Warrington BC	Alan Dickin	Yes	Yes
Welsh Government	David Peel	Yes	Yes
Welsh Government	Peris Jones	Yes	Yes
Wirral MBC	Julie Barnes	Yes	Yes

Table C.7 Lancashire

Organisation	Name	Invited	Attended
Blackburn with Darwen Council	Mike Cliffe	Yes	Yes
Blackpool Council	Jeremy Walker	Yes	Yes
Burnley BC	Sarah Taylor	Yes	Yes
Chorley Council	Gary Hall	Yes	Yes
CPRE (& NWTAR)	Lillian Burns	Yes	Yes
Environment Agency	Jo Bradley	Yes	Yes
Fylde BC	Mark Sims	Yes	Yes
Greenhalgh with Thistleton PC	Ken Dodsworth	Yes	Yes
Hyndburn BC	Simon Prideaux	Yes	Yes
Lancashire CC	Dave Colbert	Yes	Yes

Organisation	Name	Invited	Attended
Lancashire CC	Martin Porter	Yes	Yes
Lancashire CC	Simon Emery	Yes	Yes
Lancashire Police	Ross Willis	Yes	Yes
Peel Ports	Warren Marshall	Yes	Yes
Rosendale BC	Adrian Smith	Yes	Yes
Thornton Area Action Group	Audrey Jenkins	Yes	Yes
Thornton Area Action Group	Philip Jenkins	Yes	Yes
Wyre BC	David Thow	Yes	Yes

Table C.8 Manchester

Organisation	Name	Invited	Attended
British Cycling	Martin Key	Yes	Yes
Bury MBC	Ian Lord	Yes	Yes
Friends of the Peak District (CPRE & CNP)	Anne Robinson	Yes	Yes
Manchester Airport Group	Jon Bottomley	Yes	Yes
Manchester City Council	Richard Elliot	Yes	Yes
NWTAR	Adrian Dunning	Yes	Yes
Oldham MBC	Joanne Betts	Yes	Yes
Peel	Peter Nears	Yes	Yes
Rochdale MBC	Lisa Houghton	Yes	Yes
Stagecoach Buses Mcr	Chris Icely	Yes	Yes
Stockport MBC	Sue Stevenson	Yes	Yes
Tameside MBC	Nigel Gilmore	Yes	Yes
TfGM	David Bland	Yes	Yes
TfGM	Moira Percy	Yes	Yes
Trafford Centre	Andrew Douglas	Yes	Yes
Trafford MBC	Dominic Smith	Yes	Yes
Unity/Oldham MBC	David Dalrymple	Yes	Yes

Table C.9 Merseyside

Organisation	Name	Invited	Attended
Cumbria CC	Andrew Moss	Yes	Yes
DfT	Richard Perry	Yes	Yes
Halton MBC	Mick Noone	Yes	Yes
Knowsley MBC	Sean Traynor	Yes	Yes
Merseyside LEP	Claire Delahunty	Yes	Yes
NWTAR	Adrian Dunning	Yes	Yes
Sefton MBC	Stephen Birch	Yes	Yes
Wigan MBC	Dave Round	Yes	Yes

C.2 Notes from Stakeholder Events

C.2.1 The table below sets out the notes taken at the stakeholder events. These have been collated for the South Pennines route

Table C.10 Notes from stakeholder events

Location	Description of Challenge	Type of Challenge	When critical?				Evidence on maps?	HA Evidence on the maps or elsewhere?	If not, what evidence is there to show this is/will become a challenge?	3rd Party Evidence	Promises to provide supporting evidence by...	Raised by	Dots
			Already is	Pre 2018	2018-21	After 2021							
Area wide	Getting the right message to motorway drivers about the scale of delays ahead and what the delay might be if they divert to the local authority network.	Operational	X				No	Yes				AD (WBC)	
Area wide	Availability of suitable diversion routes for motorway traffic in event of an incident.	Operational	X				No	Yes				AD (WBC)	
Area wide	Credibility of VMS information; particularly time for delay signs to clear when motorway is free flowing.	Operational	X				No		Customer Feedback			RW (HLPC)	
M53 J10	Cheshire Oaks and surrounding area – how to accommodate scale of development growth planned given current network problems. (including signing and traffic management)	Capacity Operational	X	X	X	X	Yes					KC (CWAC)	6
A55 / A54 'Vickers Cross' junction	Severe existing congestion particularly on A54 approach.	Capacity Operational	X	X	X	X	Yes					KC (CWAC)	3
M56 J11	How to accommodate planned development associated with Enterprise Zone at Science & Innovation Park (10,000 jobs)	Capacity Operational	X	X	X	X	Yes					ID (Mersey Gateway)	9
M56 / M53	How to access development areas and Cheshire Oaks from the West (inc. Wirral and Merseyside) – missing junction / movement	Capacity Operational	X	X	X	X	No	Yes				KC (CWAC)	
M56 / M53 / M6	How to accommodate / manage new routes taken by motorway traffic once Mersey Gateway opens.	Capacity Operational			X	X	No	Yes				ID (Mersey Gateway)	14
M56 J12	Severe congestion on approaches to J12 towards Manchester in AM peak and reverse in PM.	Capacity Operational	X	X	X	X	Yes					ID (Mersey Gateway)	14
A483 / A55	Severe existing congestion hindering development of Wrexham and surrounding areas.	Capacity Operational	X	X	X	X	Yes					KC (CWAC) & DE (N&MWTRA)	8
A550	Severe congestion	Capacity Operational	X	X	X	X	Yes					KC (CWAC)	2

Location	Description of Challenge	Type of Challenge	When critical?				Evidence on maps?	HA Evidence on the maps or elsewhere?	If not, what evidence is there to show this is/will become a challenge?	3rd Party Evidence	Promises to provide supporting evidence by...	Raised by	Dots
			Already is	Pre 2018	2018-21	After 2021							
Cross Border	Lack of joined up thinking and operational management between authorities on either side of border in respect of development impacts, operational signing and capacity.	Capacity Operational	X	X	X	X	No		Stakeholder Feedback			DE (N&MWTRA)	8
Area wide	Maintenance regime – short lifespan of SMA (7 years) is a false economy due to ongoing need to repairs.	Asset Condition Operational	X	X	X	X	No	Yes				KC (CWAC)	4
Area wide	Maintaining up to date information on status / scale of developments.	Capacity Operational		X	X	X	No		Attempts to retrieve such data have proven unsuccessful. Much of the required data is not collected.			ID (Mersey Gateway)	
M62 J9 to J11	Severe operational problems due to capacity issues. Regular tailbacks onto J9 impacting on local authority network.	Capacity Operational	X	X	X	X	Yes	Yes				AD (WBC)	4
M62 J8	How to accommodate planned growth at Omega.	Capacity Operational			X	X	Partially	Yes				AD (WBC)	2
Area wide	Incident clearance times – balance seems to be biased against operational considerations.	Operational	X				No		Stakeholder Feedback			ID (Mersey Gateway) & KC (CWAC)	3
All	General consensus amongst attendees that the maps are generally accurate and represent existing conditions. RF can provide exact locations of proposed developments in Chester West. Some proposed developments missing from map: • Airport City • Wirral Waters						N/A	N/A	N/A	N/A	N/A	N/A	N/A
M56 J7/A556	Heavy congestion experienced, which is getting worse. Congestion causes queuing onto the local highway network. Proposed A556 by-pass scheme will only help vehicles travel faster between the two congested junctions. Existing Mere and Bucklow Hill crossroads help to slow traffic flow between M56 and M6, which helps to relieve congestion.	Capacity	X				Yes					IH (MPC)	9
Mersey Gateway	Area is currently a pinchpoint. Proposed Mersey Gateway scheme will provide alternative to M6.	Capacity	X	X			No – Mersey Gateway is not marked on maps.	Yes				IH (MPC)	14

Location	Description of Challenge	Type of Challenge	When critical?				Evidence on maps?	HA Evidence on the maps or elsewhere?	If not, what evidence is there to show this is/will become a challenge?	3rd Party Evidence	Promises to provide supporting evidence by...	Raised by	Dots
			Already is	Pre 2018	2018-21	After 2021							
M53 / A550	M53 through the tunnels is a popular route used by commuters. A550 to J5 experiences congestion during the AM and PM peak hours. Dualling of route has been proposed, but not implemented	Capacity	X				Yes (A550)				JB (WMBC)	2	
A55 J8	Congestion experienced during AM and PM peak hours. Pinch point scheme has been proposed for this location.	Capacity	X				Yes				DP (WG)	8	
Deeside	Outline planning permission has been granted for a new development at Deeside Industrial Estate, providing employment for 4,000-5,000 employees. The area currently experiences congestion, which will be made worse by the development.	Capacity		X			No – Deeside is not marked on development map.	Planning Applications			DP (WG)	8 (shared)	
M56 J12-14	High accident rate experienced between these junctions. When accidents occur, queues are formed on the local highway network (A54), which need to be better managed to reduce congestion.	Safety	X				Yes				RF (CWAC)	8	
M56	Traffic growth has been experienced over a number of years, particularly during rush hours	Capacity	X				No – but future growth predictions are shown	Yes			IH (MPC)	8	
M56 J7 M6 J19	Congestion and air pollution experienced between and around these junctions. To improve air quality, congestion needs to be addressed. Noise is less of an issue due to car technology.	Environment Capacity	X				Yes				LB (CPRE/NWTAR)	5	
Deeside Interchange	Feasibility study has been completed into the development of inter-modal corridors in Deeside. Stage 2 appraisal will be undertaken, although the dates for publication are currently unknown.	Operational		X			No		Feasibility Study		DP (WG)		
Cheshire	Poor pavement condition and repair speed, particularly since the new Area 10 contract has been implemented. Potholes are an issue.	Asset condition	X				No	Yes			RF (CWAC)	9	
A556 A55	Verges on A556 are left to grow wild and there is a littering issue. Improved maintenance is required. Road closures to enable verge cutting results in congestion and lane closures.	Asset condition	X				No		Customer Feedback		IH (MPC) & DP (WG)	1	

Location	Description of Challenge	Type of Challenge	When critical?				Evidence on maps?	HA Evidence on the maps or elsewhere?	If not, what evidence is there to show this is/will become a challenge?	3rd Party Evidence	Promises to provide supporting evidence by...	Raised by	Dots
			Already is	Pre 2018	2018-21	After 2021							
Cheshire	A number of junctions are coming to the end of their life.	Asset condition	X				No		Stakeholder Feedback		RF (CWAC) & IH (MPC)		
A556	Improved liaison required between the HA and Local Authorities. Interaction should also be better timed.	Management	X				No		Stakeholder Feedback		RF (CWAC) & IH (MPC)	3	
A51 / M53 / A55 Littleton	Congestion is experienced along these routes.	Capacity	X				Yes				RF (CWAC)		
M56 Junctions 11 & 12 (and proposed 11a)	Potential for new junction in this location to relieve stress and pressure on existing junctions & local road issues from strategic trips	Capacity / Operational	X				Yes (Pinchpoint locations)				SR (HBC)	14	
Importance of a strategic network for freight	Importance of a reliable network	Operational / Safety	X				No	Yes			MB (FTA)		
Cross-border issues with Wales	A458 predominantly but also to a lesser extent on A55/A483 and A494	Capacity	X				No		Stakeholder Feedback		PJ (WG)	8	
North Wales Strategic Connections	Cheshire / North Wales – M53 / M56 / A55. How best to resolve this? Pinchpoints & environmental impacts to be considered.	Capacity / Operational	X				No		Stakeholder Feedback		AR (C&WLEP/CEC)	8	
M53 (2 lane section)	Deliveries for local business that operate a 'Just In Time' policy – concerns regarding journey reliability.	Operational	X	X	X	X	No	Yes			SR (HBC)	6	
M53 Corridor	Bottlenecks on M53 – impacts on local businesses	Operational	X	X	X	X	No	Yes			MB (FTA)	6	
Airport City	Impact on corridors – M56 / M60 / A34 – South Manchester / North Cheshire	Operational / Capacity		X	X	X	No	Yes			AR (C&WLEP/CEC)	2	
No Rail links on maps	-	-					No				LB (CPRE/NWTAR)		
Freight Interchanges / Multi-modal	Access to freight interchanges and maintaining reliable links to them	Operational	X	X	X	X	N/A				MB (FTA) & AR (C&WLEP/CEC)	1	
North West	Air / noise pollution – Impact on communities	Environmental / Society	X				Yes (Partially)	Yes			LB (CPRE/NWTAR)	5	
North West	Controlling of speed through average speed cameras	Capacity / Environmental / Safety	X	X	X	X	No	Yes	This is a solution to a problem so should be considered further		LB (CPRE/NWTAR)	6	

Location	Description of Challenge	Type of Challenge	When critical?				Evidence on maps?	HA Evidence on the maps or elsewhere?	If not, what evidence is there to show this is/will become a challenge?	3rd Party Evidence	Promises to provide supporting evidence by...	Raised by	Dots
			Already is	Pre 2018	2018-21	After 2021							
									at a later stage				
North West	Incident management and response times. Impact on reliable journey times and investment in diversion routes. Low bridge on Sutton Weaver bridge (diversion route)	Operational	X				Yes	Yes				SR (HBC)	3
Data Issues	Access to the datasets of information as a consequence of incidents and diversions	Operational / Safety	X	X	X	X	N/A					MB (FTA)	2
Incidents on SRN	Use of red diesel as a cause of incidents / accidents. Can the HA enforce sanctions on offenders?	Safety	X				No					LB (CPRE/NWTAR)	4
North West	Ensure growth aspirations are considered	Capacity / Operational		X	X	X	N/A					MW (BISNW)	8
Cheshire & Warrington	Prioritisation of funding in this location due to a thriving economy	Operational	X	X	X	X	N/A					AR (C&WLEP/CEC)	
North West	Potential for more VMS on M53 & M56	Operational	X				No	Yes				SR (HBC)	3
Various (issues with operational performance and safety plans)	Issues with the operational performance plans presented: - seems to show that the A585(T) operates ok – other data is needed to support the true picture. - a need to show the relationship between delay and the queue on the ground: queues are often severe. - stakeholders would like to have seen reference to Journey Time reliability as a key indicator. - stakeholders would like to have seen information relating to junctions (as these are the main throttles). - additional information to support the plans would have been useful (e.g. information behind the safety plot).						Information needs supplementing					Various	N/A
Various (issues with growth plan)	Issues with growth areas on the plans: - some locations not in the right place. - residential growth in Wyre is not referred to	Capacity / Operational					Incorrect information					Various	N/A

Location	Description of Challenge	Type of Challenge	When critical?				Evidence on maps?	HA Evidence on the maps or elsewhere?	If not, what evidence is there to show this is/will become a challenge?	3rd Party Evidence	Promises to provide supporting evidence by...	Raised by	Dots
			Already is	Pre 2018	2018-21	After 2021							
	(Wyre Council identified that this could be 60-70% higher than previously envisaged). - Enterprise Zone missing from the plan.												
M6 / M65 (Preston)	Various future development pressures with additional traffic demands: - Cuerden / Bamber Bridge - City Deal	Capacity / Operational (Economy)		X	X	X	In part	Yes				MP (LCC)	14
M6 / M65 (Preston)	Incidents – high number and long clear up time with lots of motorway closures. Does the area have a greater degree of incidents? The consequences on the operation of the network could impact on economic growth.	Safety / Operational	X				Could be shown better.					MP (LCC) JB (EA)	N/A
M55 J1	Capacity issue – a scheme on site at present. Scheme will provide capacity for a few years but not all cover developments.	Capacity (Economy)	X	X	X	X	No	Yes				DT (WBC)	2
M55 J2	New junction as part of city deal and new link road linked to Enterprise One and residential growth.	Capacity / Operational (Economy)		X	X	X	No	Yes		Yes (Central Lancashire Highways & Transport Masterplan)		MP (LCC)	N/A
M65 all	2 lane issues in the future relating to capacity	Capacity	X	X	X	X	In Part	Yes		Yes		MP (LCC)	13
A585(T)	Pinch point schemes being delivered (e.g. Windy Harbor) may result in consequences at other locations along the corridor (e.g. at Singleton junction).	Capacity		X	X	X	In Part	Yes				JW (BC)	11
A585(T)	BP petrol filling station blocks back on the A585 – a right turn lane would be beneficial	Capacity / Operational	X				No		Stakeholder Feedback			PJ (TAAG)	
A585(T)	Question as to why it is still part of the trunk road network. Identified that the port is still a legal entity even though it is currently closed.	Operational					N/A					MP (LCC)	1
A585(T) Norcross	Issues of queuing on the local road network, which are likely to be exacerbated by future development (particularly associated with the changing nature of an existing site).	Capacity / Operational (Economy)	X				In Part	Yes		Yes		DT (WBC)	8
A585(T) general	Challenge in relation to the interface between the SRN and LRN. Pedestrian / cyclist facilities are poor – routes		X				No	Yes	Stakeholder Feedback			JW (BC)	7

Location	Description of Challenge	Type of Challenge	When critical?				Evidence on maps?	HA Evidence on the maps or elsewhere?	If not, what evidence is there to show this is/will become a challenge?	3rd Party Evidence	Promises to provide supporting evidence by...	Raised by	Dots
			Already is	Pre 2018	2018-21	After 2021							
	across the network need considering. Asset conditions on the A585(T) are poor for non-motorised users (e.g. cycle lanes). Bus priority capability at junctions is limited and no enticement for PT.												
Various (environment)	Water Framework Directive has a 2027 target for watercourses which means that they have to be in a good ecological state. Work is ongoing with EA / HA relationship with outfalls. There is an associated challenge with getting environmental focussed schemes through the Value Management process.		X	X	X	X	No (better data is available)	Yes				JB (EA)	
Various (safety)	Not huge capacity issues relative to other parts of the country. Considered that safety is the primary issue. Issue is getting traffic off the motorway (traffic queuing on the nearside lane).	Safety Capacity (safety)	X X				Yes (safety) No	Yes (safety & Capacity)				JW (BC) 2	
Various (seasonality)	Seasonality is an issue for the network – in some locations this is key to the consideration (e.g. Blackpool illuminations).	Capacity / Operational	X				No	Yes				JW (BC)	
Various (working together)	There is a challenge of organisations working better together. Including integration with rail required. The interface is currently poor particularly in relation to long distance travel. Rail integration would take some pressure of the SRN.	Operational	X				N/A	N/A	Stakeholder feedback			Various	
A585 Fylde Coast	Numerous bottlenecks & accident hotspots. Need to rationalise local and strategic functions & improve usability for non-motorised users	Capacity / Operational / Safety / Environment	X				Yes					AJ (TAAG) 8	
Access to ports	Need to maintain or improve access to ports along Lancashire coast	Operational / Capacity	X				No			Yes		MS (FBC) 5	
Access to Manchester	Noted that the county as a whole depends on access to Manchester via M6, M61 and A56/M66. Congestion in Greater Manchester affects Lancashire	Capacity / Operation	X				Yes					SE (LCC) 4	
M65 / M66 / A56 (2 lane sections)	Concerns that widening may be required to deliver development aspirations	Operational	X	X	X	X	Yes					SP (HBC) 13	

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			Already is	Pre 2018	2018-21	After 2021							
M65 Corridor	Several strategic sites located along this corridor and its effective operation is vital	Operational	X	X	X	X	Yes				DC/SE (LCC) SP (HBC)	13	
Fylde	Lack of capacity on A585 causing significant local opposition to strategic housing developments	Operational / Capacity	X	X	X	X	No		Stakeholder Feedback		MS (FBC)	11	
Fylde	Area expected to receive significant amounts of housing but little employment. Means increase in commuting on already congested A585.	Operational / Capacity	X	X			Yes				AJ (TAAG)		
A56	Accidents & at-grade junction along A56 causes operational delay along strategic route between East Lancashire and Greater Manchester	Operational / Safety	X	X	X	X	Yes				SP (HBC)	10	
County wide	Impact of Preston City Deal upon wider county	Operational / Capacity	X	X			No	Yes		Yes	SE (LCC)		
County wide	County has a "physical" economy with strong manufacturing sector hence movement of goods and people is crucial.	Capacity / Operational	X	X	X	X	Yes				SE (LCC)		
A585	Concern regarding maintaining status as SRN	Operational	X				No				MS (FBC)	1	
Burnley & Blackburn	No Local Plan – unchecked development may adversely impact SRN.	Capacity	X				Partly	Yes		Yes	DC (LCC)		
County wide	Huge unknown regarding the potential for shale gas extraction to provide employment & hence demand for housing	Capacity / Operational			X	X	No				SE (LCC)		
Nationwide	Lack of landscaping & vegetation reduces journey ambience. Indication that improved landscaping of routes would help journeys	Operational	X				No			Stakeholder feedback	SP (HBC)		
Need to grow Warton Enterprise Zone	New Ribble crossing is very important in providing access from the south	Operational	X				Yes			Yes	SE (LCC)	3	
North West	AQMA and Railway Stations not shown on maps	Environment	X				No				LB (CPRE & NWTAR)	N/A	
Pendle	Local road impacts at M65 junctions	Operational	X				Yes & No				NW (PBC)	3	
Burnley & Rossendale	Quantum of development on the maps - not fully represented	N/A	-	-	-	-	No	Yes			AS (RBC)	N/A	

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			Already is	Pre 2018	2018-21	After 2021							
North West	LEP Growth & LPA aspirations – how will this growth be considered?	Capacity		X	X	X	No					(PBC)	N/A
Heritage sites	What are the parameters used for the heritage sites on the maps?	-	-	-	-	-	Yes & No					AS (RBC)	N/A
Burnley Bridge (M65 Junction 9)	Future development pressures	Operational	X	X	X	X	No	Yes				ST (BC)	3
M65 Junction 5, Junction 9 and Junction 13	Operational issues at junctions / interface with the local road network	Operational / Capacity	X	X	X	X	No	Yes				(PBC)	3
M65 Junctions 10 - 14	Trade-off between HA and LHA ownership of different sections – drivers not necessarily aware of who owns what.	Operational	X	X	X	X	No		Stakeholder feedback			DC (LCC)	1
Freight in the North West (Heysham & Port of Liverpool)	How has this be taken into account of within the evidence? Access to ports needs to be maintained. Legacy issues with HA and LHA ownership of access routes into NW ports.	Operational / Asset Condition	X				Yes					WM (PP)	2
M6 / M61 Merge Northbound	AM Peak congestion issues – due to the layout of the merge / driver behaviour issues (+13 dots for the M6/M61/M65 area)	Capacity / Operational	X				No	Yes				DC (LCC)	5
M58 / M6	Junction issues & issues for freight accessing Port of Liverpool & distribution sites in East Lancs	Capacity / operational	X				No	Yes				WM (PP)	2
A5036 / Switch Island	Junction issues / access to Port of Liverpool	Capacity / Operational	X				-	Yes				WM (PP)	
A56 Corridor / Public Transport journey time reliability issues	Issues on the A56 / M66 corridor through pinchpoints at M66 (Bury) & Simister Island. This entire route should be treated as a corridor to ensure East Lancs access to Manchester.	Capacity / Operational	X				No	Yes				DC (LCC) & AS (RBC)	11
M66	Accidents on the M66 cause severe congestion & delay. Diversion routes through Rawtenstall can cause localised congestion.	Operational / Safety	X				Yes					AS (RBC)	10
Warrington	Network resilience – Diversion routes when incidents on the M6 / M62 cause conflicts with the use of the Ship Canal	Operational	X				No		Stakeholder Feedback	Yes (C&WSEP)		WM (PP)	2
M61 / M60 Interface	Growth in Central Lancs City Region may compromise access to Manchester Airport & M60	Operational		X	X	X	No	Yes				DC (LCC)	3

Location	Description of Challenge	Type of Challenge	When critical?				Evidence on maps?	HA Evidence on the maps or elsewhere?	If not, what evidence is there to show this is/will become a challenge?	3rd Party Evidence	Promises to provide supporting evidence by...	Raised by	Dots
			Already is	Pre 2018	2018-21	After 2021							
A56 – Todmorden & Rossendale (Rawtenstall)	Signage issues on the SRN	Asset Condition	X				No		Stakeholder Feedback		AS (RBC)	1	
East Lancs	Perception of congestion on the M65	Operational	X		X		No	Yes	M65 Transport Study	Yes	(PBC)	13	
M65 Junction 5	Issues on the local road network close to the junction	Operational	X				No	Yes	Local Pinch Point Submission		Lancs Police	0	
Access to North Yorkshire / West Yorkshire	Congestion on routes to Keighley & Skipton	Operational (Non HA Network)	X				N/A	N/A			(PBC)	1	
M65	Gateway to East Lancashire – perceived as being congested & a ‘dead end’	Capacity / Operational	X				No	Yes		Yes	DC (LCC)	13	
SRN across NW Region	Maps do not show structural maintenance condition issues	Asset Condition	X	X	X	X	No						
National / all NW	LEP growth strategies and Single Pot bids	Society & Environment	X	X			No		SEPs produced in draft Dec 13		ST (KMBC)		
M6 Junction 26	Capacity and operation post-proposed improvements schemes	Capacity / Operational		X			No	Yes			DR (WMBC)	4	
M57/M62 Tarbock Island	Impact on local road access of signal operation on roundabout	Capacity / Operational	X				No	Yes			ST (KMBC)	3	
M62 Junctions 8 to 10 (Warrington)	Omega and Birchwood	Capacity / Operational	X		X		Yes	Yes			ST (KMBC)	1	
M57 Junctions 4 to 6	Network resilience due to high numbers of weaving-related accidents on closely-spaced junctions with lots of HGV trips	Safety / Capacity	X				Yes				ST (KMBC)	2	
M61 corridor (Bolton-Mcr)	Potential for commuter trips to transfer on to rail is not being realised due to lack of trains	Capacity	X	X	X	X	No				AD (NWTAR)	1	
National	Lack of consistent funding and objectives over time for all modes limits the co-ordination	Capacity / Society & Environment				X	No		Stakeholder Feedback		AM (CCC)	2	
M60	Potential for junction closures	Capacity / Operational	X		X	X	No	Suggested Solution to a problem and therefore more appropriate			AD		

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			Already is	Pre 2018	2018-21	After 2021							
Merseyside area SRN	LEP SuperPort aspirations will increase local and strategic HGV movements across SRN	Capacity / Operational/Society & Environment		X	X	X	Partial	Yes				ST (KMBC)	3
M56 Junction 12	Known hot spot for delays and unreliable journey times for users with no obvious source.	Operational / Asset Condition	X				Yes	Yes				ST (KMBC)	1
Sefton	Have the AQMAs within Sefton been captured on the maps?	Environment	X				Yes					SB (SC)	N/A
Sefton	Have all of the proposed development sites in Sefton appeared on the 'developments' map?	-	-	-	-	-	-		Plans will be updated			SB (SC)	N/A
A5036	Potential to be over-capacity post-2020	Capacity / Operational			X	X	No	Yes (mainly junction issues)				RP (DfT)	5
Mersey Gateway	Not included in the future year / growth maps	Operational		X	X	X	No	Yes				MN (HBC)	6
M56 Junction 11 & 12 (plus potential 11A)	Congestion issues, issues ensuring the appropriate infrastructure supports the Mersey Gateway as well as facilitating flows south of Liverpool	Operational / Capacity	X				No	Yes				MN (HBC)	6
Halton / 3MG	Development pressures in this location	Capacity			X	X	No					CD (MLEP)	
Sefton / A5036 / Switch Island	Development pressures & existing congestion	Operational / Capacity	X	X	X	X	Yes					SB (SMBC)	5
M58 Junction 1	South-facing slips would enable development to come forward in this location	Asset Condition / Operational	X				No			Yes		SB (SMBC)	2
North West	AM Peak / PM Peak Hour congestion	Capacity / Operational	X				Yes					MN (HBC)	1
M53	Dual-two lane sections - capacity issues, as well as Junction 5 issues	Capacity		X		X	No	Yes				RP (DfT)	1
Ports	Trip patterns from movements in and out of expanded Ports, impact on the SRN – A5036 /	Capacity	X	X	X	X	No	Yes				RP (DfT)	

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			Already is	Pre 2018	2018-21	After 2021							
	M6												
M53	Age of structures on the M53 & need for repair and maintenance	Asset Condition	X	X	X	X	Yes					RP (DfT)	
M62 (Liverpool section) Junctions 6 to 4	Difference in maintenance between SRN and LHA owned sections. Possible candidate for re-runking.	Asset Condition	X				No					MN (HBC)	
A5036	Poor maintenance / lack of recognition of its urban nature	Asset Condition / Society / Environment	X				No	Stakeholder Feedback	Stakeholder Feedback			SB (SMBC)	2
Deeside	Cross-border issues / connectivity between England & Wales	Operational	X				No		Stakeholder Feedback			RP (DfT)	1
Liverpool	Cruise Terminal growth & access to Liverpool via the SRN – accessibility / reliability	Operational	X				No	Yes				CD (MLEP)	2
M62	OMEGA – Junction 8 – impact of development pressures Congestion issues at Junction 7 (Rainhill)	Capacity / Operational	X	X	X	X	Potential that the maps have underestimated congestion in this area	Yes				MN (HBC)	1
North West	Freight capacity on rail is limited – impact on the SRN	Operational	-	-	-	-	No					MN (HBC)	
North West	Importance of quick and reliable access to and from the SRN. Important for businesses to have a reliable SRN.	Operational	X	X	X	X	-			Yes		SB (SMBC)	4
North West	Importance of maintaining network resilience in tandem with incident management and diversion routes. A562 / A5300 (Huyton) can get congested when used as a diversion route	Operational	X	X	X	X	-			Yes		MN (HBC)	
M58	Skelmersdale – development pressures	Capacity			X	X	No					SB (SMBC)	
M62 & M60 NW Quadrant	Diversions on to LA network as a consequence of peak period congestion or incident based congestion	Capacity / Operational	X				No		Stakeholder feedback			DD (OMBC) & LH (RMBC)	1

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			Already is	Pre 2018	2018-21	After 2021							
General	Access to funding routes for LAs to improve network to accommodate growth – hindering development potential	Capacity / Operational Also Funding	X				N/A				DD (OMBC) & LH (RMBC)	3	
General	Co-ordination of operational and development information. At least “20 development sites not shown on plans”	Capacity / Operational	X	X	X	X	No – highlighting shortcomings of information on development locations					N/A	
General	Lack of completed Local Plans identifying sites – leads to underprovision of network	Capacity / Operational	X	X	X	X					PN (Peel)	5	
General	Changes in consumer habits (e.g. click & collect) impacting on consumer and freight patterns. Concern that forecasting not accurate enough in dealing with this.	Capacity / Operational		X	X	X	N/A				PN (Peel), LH (RMBC), AD (NWTAR)	2	
General	Lack of interaction with Network Rail particularly in respect of freight opportunities.	Capacity / Operational	X				N/A		Stakeholder Feedback		LH (RMBC)		
M60	Dealing with conflict of various roles of M60: Ring Road vs Strategic vs Local movements	Capacity / Operational	X				N/A				AD (NWTAR)	8	
General	Asset maintenance – particularly obscuring of critical sign information by vegetation.	Safety / Operational / Asset Condition	X					Yes	Stakeholder Feedback		DD (OMBC)	1	
A663 Broadway	Impact of SRN traffic on a route which serves a lot of residential areas and which is perceived, by those residents, as a suburban corridor.	Operational / Safety	X				No		Stakeholder/Customer Feedback		DD (OMBC)	3	
M60 J18 Simister Island	Key node on the SRN whose poor performance in peak periods has significant impacts on flows / conditions over a wide (LA) area.	Operational / Capacity	X					Yes			LH (RMBC)	2	
M60 Bredbury	Impact of reduced speed section on capacity of M60	Operational / Capacity	X				No				DD (OMBC)		
M60 General	Apparent lack of pro-active management of route choice around M60 i.e. CW vs. ACW	Operational	X				No		Stakeholder Feedback		AD (NWTAR)		
M60 J24 Denton	Tailing back of traffic onto M60 ACW mainline in peak periods	Operational / Capacity	X				No	Yes			DD (OMBC)		

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			Already is	Pre 2018	2018-21	After 2021							
A57 / A628 Glossop	Major bottleneck for NW traffic – significant impact on transpennine traffic	Operational / Capacity	X				Yes	Yes			PN (Peel)	7	
M60 J24 – J23	Poor lane marking due to wearing out of lining	Asset Condition / Safety	X				No		Stakeholder Feedback		DD (OMBC)	2	
General	Importance of clear & unambiguous marking (signing and lining) particularly at the many complex motorway junctions in M60 vicinity	Operational / Safety	X				N/A				AD (NWTAR)	2	
M6 / M62 Croft	Key node on the SRN – capacity and safety concerns over operation.	Operational / Safety / Capacity	X				No	Yes			LH (RMBC)		
M56 to M6 South	Lack of direct link at this point – preferable to A556 scheme	Operational / capacity	X				No	Previous HA study discounted this option			PN (Peel), DD (OMBC)	4	
All of Greater Manchester	Development in City Centre and on Oxford Road Corridor	Capacity		X	X	X	Yes	Yes			RE (MCC)	3	
All of Greater Manchester	M60 operates as primarily a local traffic distributor not as a carrier of strategic traffic	Capacity	X				No		Studies ongoing		DB (TfGM)	2	
Tameside	Lack of growth evidence on maps	Society & Environment			X	X	No	Yes			NG (TMBC)		
East and South of M60 Greater Manchester	Change in travel patterns in East Manchester and around the Airport post-Airport City	Society & Environment / Operational		X		X	Yes				RE (MCC)	5	
A628	Manchester-Sheffield travel	Capacity / Society & Environment	X				No	Yes			NG (TMBC)	7	
M60 various	Stressed locations and local road interaction/knock-on delay	Capacity / Operational	X	X	X	X	Yes				DB (TfGM)	10	
M60 Junction 18	M60 through route issues with alignment of Simister Island	Capacity / Operational	X				Yes				DB (TfGM)	2	
M60 South	No access towards city centre for eastbound traffic via the A5103 or A34 due to junctions	Capacity / Operational	X				Yes				DB (TfGM)	3	
M60 J8-J10	Growth around Trafford Centre plus Port Salford and wider Atlantic Gateway plans	Capacity	X		X	X	Yes	Yes			DB (TfGM)	14	

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			Already is	Pre 2018	2018-21	After 2021							
South Pennine RBS (all of)	Competing demands of growth /capacity East and West of the Pennines – how to balance it?	Capacity / Society & Environment	X		X	X	N/A					RE (MCC)	
All of Greater Manchester	Lack of network resilience due to all available capacity being used most of the time all day	Operational	X				Yes (incident duration maps)					DB (TfGM)	2
Woodford	Development of unallocated site for housing (some parts not served by public transport)	Operational /Capacity		X	X		No		Stakeholder Feedback			RE (MCC), NG (TMBC)	2
M602 J2-3	Development in Salford Quays (and in East Manchester) may cause greater orbital demand	Capacity	X		X	X	Yes	Yes				DB (TfGM)	5
M60 all	Junctions too close together / have too many by road length	Operational /Capacity	X				Yes					DB (TfGM)	1
M56 & M60 in Greater Manchester	Dual role of the SNR – commuter role and strategic role – clash of roles. Also a lack of capacity.	Capacity / Operational	X				Yes					JB (MAG), SS (SMBC)	2
M60	Constraint to growth in Stockport. Preventing access to employment sites and retail opportunities	Capacity / Operational	X				Yes					SS (SMBC)	1
M60 in Stockport	Severance issues for pedestrians and cyclists	Society	X				No		Stakeholder/Customer Feedback			SS (SMBC)	5
M60	Complicated network with no simple junctions to navigate / use	Operational	X				No					JB (MAG)	1
Wigan / Tameside	Committed development and land allocations not shown on the maps	-	-	-	-	-	No	Yes				SS (SMBC)	
Cheshire East / A34	2000 dwellings proposed close to the A34 – potential for impacts	Capacity / Operational		X	X	X	No					SS (SMBC)	
Stockport	40% of traffic within Stockport is vehicles passing through the Borough rather than accessing it	Operational	X				No					SS (SMBC)	
Manchester Airport	Has a wide catchment area (Northern England & Midlands) – needs a reliable network to ensure access	Operational	X				No	Yes	Stakeholder/LEP Feedback			JB (MAG)	1
Airport City & HS2	Need to access opportunities at Airport City via public transport	Operational / Environment		X	X	X	Yes					MP (TfGM)	2

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			Already is	Pre 2018	2018-21	After 2021							
A-Roads in Greater Manchester	A-Roads – severance issues / safety for cyclists	Society / Environment	X				No		Stakeholder/Customer Feedback		MK (BC), SS (SMBC)	1	
Barton / Worsley	Development pressures on the SRN / M60	Capacity / Operational	X	X	X	X	Yes				MP (TfGM)		
A34	Development pressures in Stockport & Cheshire East	Capacity		X	X	X	No	Yes			SS (SMBC)		
Manchester Airport / Airport City	Need for public transport routes and infrastructure to access the Airport / Airport City	Capacity / Operational		X	X	X	No			Manchester Airport Public Transport Study due Dec 13	JB (MAG)	2	
Business Parks around the M60	Changing nature in land uses within business parks resulting in changeable impacts on the SRN at different times of day	Operational	X				No				SS (SMBC)	1	
M60	M62 / M60 section. Diversion routes through Bredbury cause delay. Also impacts in Stockport.	Safety / Operational	X				No		Stakeholder Feedback		JB (MAG), MP (TfGM), SS (SMBC)	1	
M60	How does the local road network and SRN work together. Potential for better use of VMS on the local road network to advise drivers.	Operational / Asset Condition	X				No				JB (MAG)		
Greater Manchester	Only radial public transport routes in GM, lack of orbital public transport routes mean that M60 is a more viable option for orbital journeys. Does PT use the M60 enough? (issue not just related to PT)	Operational	X				No		Stakeholder Feedback		SS (SMBC)		
A34 / M60 Junction	No A34 northbound movement from the M60 limits route choice	Operational	X				Yes				SS (SMBC)	3	
M60 Junctions	Are junctions on the M60 performing the correct role?	Operational	X				No				JB (MAG)		
M60	Noise pollution issues. Replacement of carriageway with noise sensitive surfaces	Environment	X				No	Yes			SS (SMBC)	3	
M60 / M602	Noise area 'failure' – especially in Stockport	Environment	X				No	Yes			MK (BC)	3	
SRN in Greater Manchester	Noise / Air pollution – impact of HGVs on noise and air	Environment	X				No	Yes			MP (TfGM)	3	

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			Already is	Pre 2018	2018-21	After 2021							
SRN in Greater Manchester	Use of the SRN on a 24-hour basis for freight / HGVs to avoid peak hour travel	Operational	X				No				SS (SMBC)		
M60 Junctions	<ul style="list-style-type: none"> Bredbury: Impact with local road network Worsley M60/M62 M60 J12 M60 J3 Trafford Centre Simister Island A34/M60 M56 J6 		X				Yes & No				All	10	
M60 J17 / 18 & M61 J2	Junction operation & wide spread issues at LRN when incidents propagate across wider SRN	Capacity	X				Yes				IL (BMBC)	1	
M60 J9 & 10	Peak journey time reliability	Capacity	X				Yes				DS (TMBC), AD (TC)	1	
M60 J7	Operation during match day (Manchester United) events	Operation / Management	X				No (outside of traditional weekday peaks)	Yes			DS (TMBC)	1	
M60 J12 / M62 / M602	Multiple SRN connections resulting in wide spread issues when incident(s) occur on any connection occurs and propagates across wider network	Capacity	X				Yes	Yes			DS (TMBC), AD (TC)		
M60 west (var)	Junction spacing / interaction of flow (weaving) / route function & differing use / mix of purpose during different periods	Capacity / function	X				Yes	Yes			IL (BMBC), AR (FPD/CPRE)	7	
A663	Urban route through residential area yet signed SRN route (specifically in relation to HGV movements)	Safety / Environmental / Asset Condition (maintenance)	X				No	A663 is a trunk road and therefore part of the SRN. The route also serves distribution and commercial premises adjacent to it.	Stakeholder Feedback		JB (OMBC)	3	
A663	New junction required to deliver site promoted through LDF	Capacity / Operation		X			No	Yes			JB (OMBC)		
Whole network / RBS process	Air Quality <ul style="list-style-type: none"> Existing & Future 	Environmental	X				Yes	Yes			AR (FPD/CPRE)	6	

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			Already is	Pre 2018	2018-21	After 2021							
				X									
RBS process	Concern that RBS process a return to 'predict and provide' & need to outcome to be in context of wider transport planning	Var	X				N/A				DS (TMBC)		
M56 / M60 interchange	Existing operation & impact of: <ul style="list-style-type: none"> A556 'link' SEMMMS link HS2 	Capacity		X			No	Yes			DS (TMBC)	1	
M56 J6	Junction and LRN capacity	Capacity		X			No	Yes			DS (TMBC)		
M60 J22 / 21 (A6104)	Junction layout(s) & mix of traffic at Hollinwood Ave & Victoria Ave East	Capacity / operation	X				No				JB (OMBC)		
M60 west (clockwise) evening peak	Existing operational issues and journey time reliability	Capacity / Safety	X				Yes				AD (TC), IL (BMBC), DS (TMBC)		
M60 J13 - 12 & J 11 -12 M60 J2 – 3 anti-clockwise	Weaving / junction spacing (as above, but less so)	Safety & Operation (journey time reliability)	X				Yes				DS (TMBC)	3	
A628 (proposals)	Impact upon Peak District National Park	Environmental		X			No	Remitted to feasibility			AR (FPD/CPRE)	8	
M62	Concrete Road	Environment	X					Y					
M62	Peak period effectively lasts throughout the working day – journey time reliability is a significant issue	Capacity	X				No	Y			WYPTE		
M62	Poor air quality where the road interacts with built up areas	Environment	X				Yes	Y			CoC		
M62 and A63	Capacity of the M62 and A63 to ensure there is suitable future provision for the port traffic	Capacity			X	X	Future challenge	Y			ABP Ports	2	
M62 J 24	Currently an issue, Development pressures will exacerbate	Capacity	X					Y			KMBC	5	
M62 J 25	Currently an issue, Development pressures will exacerbate	Capacity	X					Y				5	

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			Already is	Pre 2018	2018-21	After 2021							
M62 J 26	Currently an issue, Development pressures will exacerbate, Poor lane designation	Capacity, Safety	X					Y			CoC	4	
M62 J 29 Lofthouse	Currently an issue, Development pressures will exacerbate	Capacity	X					Y			KMBC	11	
M1 to M62 west	Insufficient capacity on this link – need extra link	Capacity	X					Y			CoC	3	
M621	Defining role and influence this has on future upgrades etc	Capacity, Operational				X		Y					
M621	Slow peak hour speeds and long delays, partly as a result of access constraints to Leeds City Centre. Currently an issue. Development pressures will exacerbate.	Capacity	X				Yes	Y			LCH, WYPTE	7	
A628	Public footpaths crossing A628	Severance, Safety	X					Y					
A628	Capacity and reliability along whole link especially at junction with M60	Capacity, Operational, Safety			X			Y				1	
A628	The A628 is poor for cyclists to cross yet this should be an environment where cyclists should have more freedom	Safety	X				No –not applicable	Y			Sustrans, CS, CPRE	7	
A628	There is poor route choice from South Manchester to the M1	Operation	X				No –not applicable				SCC	9	
A628	Link capacity, especially for freight. Lack of resilience	Capacity	X					Y			CoC	2	
A628	The route is through a sensitive area including residents close to the route and impact on the National Park	Environment	X				Yes	Y			Peak District National Park CPRE	12	
A628	The poorly maintained and little resilience on the A57 means that the A628 is becoming a more important route	Operation	X				No –not applicable				SCC	1	
A628 Mottram	Connectivity issues	Operation	X				No	Y			TMBC ABMP	6	
A628 / A616	Congestion issues at A628 and A616 ends and connectivity issues in the middle, considered preferred route to Manchester due to lesser distance	Capacity / Operational	X				Yes for congestion on the A616	Y			TMBC, ABMP, TS, R3	11	
A628 / A616	Improvements to the route drawing more traffic and creating additional problems	Capacity / Operation			X		No	Y			TMBC ABMP	7	
A628 / A616	Connectivity at a local scale and severance issues	Society & Environment / Safety	X		<input type="checkbox"/>	<input type="checkbox"/>	No	Y			CS CPRE		
M1/A616	There are few diversion routes when the M1 is shut –the A616 does not have sufficient capacity to cope with the flow	Operation	X				No –not applicable	Y			SCC	1	
A63	Few complementary networks (road and rail) to share the freight flow	Capacity	X				Yes –traffic delay as a	Y			Hull CC		

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			Already is	Pre 2018	2018-21	After 2021							
							proxy						
A63	Incident management and reliability of journey times. As you move towards the centre of Hull the flows get higher yet the quality of the route gets poorer. Reduced from 3 to 2 lanes, removal of hard shoulder and no longer covered by HA traffic officers. Need to make best use of the existing infrastructure. Resilience of the network to incidents is poor. Journey time is more important than journey speed. Particular relevance linked to ports including sail times. The perception of reliability on the A63 is very poor and this has significant implications in terms of rat running on the local network. Lack of technology to advise travellers.	Operational	X				Yes safety information	Y	MAC team could provide information on incident frequency.	Y	GH to try and find some.	Hull CC, MI, JN, GH	41
A63 (through centre of Hull)	Severance and balancing the needs of a variety of users. The A63 is used by commercial, visitor and local traffic. Through the urban area severance by the A63 has a significant impact on pedestrians and cyclists and results in some accidents. The severance of the Fruit Market area from the rest of the city is a major economic issue.	Operational / Society / Environmental / Safety	X				Y	Y				Hull CC, MI, JN, GH	13
A63 / A1033	Although cycle provision is made there are lots of accesses and therefore cyclists have to stop regularly. Therefore routes are not convenient.		X										
A63 and A180	Development and growth opportunities. The A63 corridor provides all the best development sites and opportunities due to the attractive water front location and proximity to the port, alongside the transport connection. Can development be accommodated at junctions on the A180? Perception is that the link capacity is fine. What improvements are required to the network to facilitate the development?	Operational, Congestion	X	X				Y	There is an evidence gap here with regards the A180.			Hull CC, MI, MS	

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			Already is	Pre 2018	2018-21	After 2021							
A63 and M180/A180	Gateway, The route provides a linkage to the rest of the network. It therefore has an important function in terms of acting as the gateway to the sub region. It is important in providing the first impression of the area, this is especially relevant to the areas which attract tourists and visitors from outside of the sub region, but is also relevant to investors. Potential to act as an attractor in terms of image, visitors and developers – issues such as grass cutting and soft estate management.	Society and Environment	X				To some extent on the environment maps	Y				North East Lincs, MS, JN, MI	9
A63 Brough	Congestion and an accident spot	Capacity and safety	X				Yes	Y				Hull CC	2
A63 Castle Street	Existing capacity and development pressures – the current scheme only moves the problem	Capacity	X					Y					1
A63 Castle Street	Once improvements have been complete this will attract traffic and therefore issues will start again.	Capacity					Future Issue	Y				Hull CC GH	4
A63 Castle Street	Local traffic using A63. Need to keep capacity for strategic trips.	Capacity	X				No evidence	Y					1
A63 Castle Street	Poor air quality due to queuing traffic	Environment	X				Yes	Y				Hull CC	
A63 Castle Street	Poor traffic light syncing on the approaches to Castle Street causes queuing	Capacity	X				No –local road issue, but Castle Street is shown as congested and to have slow speeds					Hull CC	
A63 Castle Street Mytongate junction	Congestion	Capacity	X				Yes	Y				Hull CC	
A63 Clive Sullivan Way	Poor journey time reliability	Operation	X				Yes	Y				Chamber of Commerce	
A63 Elloughton / Brough	Short slip roads giving short acceleration / deceleration lengths	Safety	X					Y				East Riding JD	
A63 Priory Park	Lorry park not used as drivers have to pay. Lorries park in laybys.	Environment	X				No	Y				Hull CC, GH	
A63 Victoria Dock to Castle Street	Congestion	Capacity	X				Yes	Y				Hull City Council	

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			Already is	Pre 2018	2018-21	After 2021							
A63, A180 Routes from Ports to A15 Humber bridge	Congestion issues giving inconsistent journey times.	Capacity	X				Yes	Y			MG		
A63, St Andrew's Quay to Hessle	Drainage issue. Need to keep gullies unblocked	Maintenance	X										
A63/A1033	Consistency of approach along the route. The focus of improvements is Castle Street including removal of traffic signals to improve the flow but to the east of Castle Street the HA are still putting in traffic signals as a demand management measure however there is still congestion at this location.	Operational	X				N	Y			Hull CC, MI		
A63/M62 junction	The junction capacity will not support growth in the future	Capacity			X		No –a future challenge	Y			Hull City Council	4	
M1 and M18	Liable to flooding	Environment	X				Yes	Y			SCC		
M18	Possible capacity issues due to development	Capacity				X		Y					
M18	East merging problems at FARRRS	Safety						Y					
M18	Bottleneck on M18 @ Thorne, Doncaster. The two lane section of the M18 around Thorne, Doncaster. This section is already something of a bottleneck and likely to become significantly worse in future years when Humber development comes forward alongside Doncaster and wider South Yorkshire development.	Congestion	X	X				Y			Hull CC, MI, MS	4	
M18 / A639	Difficult to cross this junction for a cyclist	Safety	X				No				CS		
M18 J2-5	Lack of capacity causing delay	Capacity	X				No	Y			TS, R3	2	
M180	Concrete Road	Environment	X					Y					
M180	Two lane section past Scunthorpe will become constrained as Lincolnshire Lakes is developed	Capacity			X		No –a future challenge	Y			North Lincs Council		
M180	The road is straight and dull causing drivers to lose concentration	Safety	X				Yes	Y			North Lincs Council		
M180	Lack of alternatives when the M180 is closed	Operation	X				No –not applicable	Y			North Lincs Council	1	
M180 Barnetby Top	Growth of Humberside Airport Business Park will increase congestion at this junction and the local roads links to the airport	Capacity		X			No –a future challenge	Y			North Lincs Council	4	
M180 JN 4 & 5	Maintenance / drainage and road sinkage	Asset condition	X				Known issue	Y			North Lincs JB		
M181	Limited number of accesses into Scunthorpe causes congestion at the existing junctions	Capacity	X				Yes	Y			North Lincs Council	3	

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			Already is	Pre 2018	2018-21	After 2021							
M181	Lincolnshire Lakes, Detrunking M181 maintenance and surface issues already present	Asset condition	X				Through application	Y				North Lincs JB	
A15 (Local network)	Local Strategic Routes (A15) and connectivity. Importance of A15 as a strategic route – connecting the north and south. Because the A15 is not part of the strategic network it does not form part of the strategic diversion routes. Yet it provides a good diversion route for incidents on the M180, M62 and A1. Recognition of the potential of the Humber Bridge and maximise the use of the A15.	Operational	X				No	Y	Strategic diversion route plans	Y		Humber Bridge Board, JW	1
A15 leading onto the M180	Future growth aspirations in the area will cause congestion at the junction	Capacity				X	Future challenge	Y				North Lincs Council	1
A160	Poor air quality in Killingholme due to queuing lorries on the network	Environment	X				Yes	Y				ABP Ports	
A160 / A180	Large developments proposed and need improvements to cater for traffic.	Capacity		X			No	Y	Emerging issue therefore lack of evidence.			North Lincs Council JB	1
A160 / A180	Incident Management. No technology to advise of diversion routes.	Operation	X				No, only anecdotal.	Y	MAC team could provide information on incident frequency.	Y		North Lincs, JB	
A160 / A180	Road works. Traffic travels through local villages.	Operation / Society	X				No, only anecdotal.		MAC team could provide information on frequency of road works. A160 consultation.	Y		North Lincs, JB	
A160 / A180	Currently no NMU usage and no provision for NMUs. In order to encourage provision required for both travelling along the road and crossing. Contradicts with HA policy on requiring TP's and driving down traffic generation.	Safety / Environmental	X				No evidence of safety as not currently used.	Y					1
A160 / A180	Poor junction design causing accidents	Operation	X				Yes	Y				Chamber of Commerce	2
A160 / A180 Grimsby	Foreign drivers do not understand road layout	Safety	X				Yes	Y				North Lincs JB	
A160 / A180 Laybys	Litter / usage with no facilities. Truck stops already full and laybys free.	Environment	X				No	Y	DfT truck stop report	Y		North Lincs, JB	3
A180	Patchwork of surface material on the A180 – concrete/ tarmac. Noise issue associated with concrete.	Society and Environment	X					Y				North East Lincs, MS	

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			Already is	Pre 2018	2018-21	After 2021							
A180 & M180	Growth of car transporter industry will create congestion in the future on the A180 into and out of Grimsby & M180	Capacity		X			No –a future challenge	Y			North Lincs Council	15	
A180 Concrete Road	Concrete road means high noise levels both outside and inside vehicles.	Environment	X				Yes	Y			Chamber of Commerce	4	
A180 Great Coates Interchange	Local scheme being progressed but further pressure from development likely	Capacity		X			Future issue	Y				3	
A180 Lock Hill Roundabout	Increased HGV movements due to increased imports of cars at the docks lead to safety issues	Safety, capacity	X					Y				5	
Humber Bridge	Low sun when travelling on Slip Road	Safety	X									1	
Humber Bridge Head	Capacity issues and potentially could get a lot worse with proposed developments	Capacity	X					Y			East Riding JD		
A64	The Dogger Bank Offshore Wind Farm could bring job opportunities to Whitby and Scarborough; however, constraints along the A64 will increase the competition with Middlesbrough.	Capacity	X	X			N				DH of Scarborough		
A64	The attractiveness of the A64 as a route could impact upon the development potential of the Potash development within 2021 period.	Capacity	X	X			N	Y			DH of Scarborough		
A64	Derwent Park development site has constraints to growth. There are already constraints in the town centre so accessing the A64 along this route will not be feasible, a new access to the A64 would therefore be necessary beyond 2020.	Capacity				X	N	Y			HW of Ryedale		
A64	Flooding - management and maintenance of rivers	Environmental	X				N				Farmers Union JC		
A64	Improvements needed to promote economic growth, relieve congestion, improve safety and encourage modal shift						N		Challenge for HA along with LHA's				
A64	Bus Stops and Pedestrian Crossings	Capacity, Safety	X										
A64	Single carriageway sections	Safety	X				N	Y				3	
A66 and A64	Agricultural vehicle turns	Safety	X				N				Farmers Union JC		
A66 Ravensworth, A64 non-dual sections	Agricultural vehicles travelling slower	Capacity	X				N	Y			Farmers Union, JC		
A64 dual carriageway sections	Improve junctions	Safety	X				N	Y					
A64 single carriageway sections	Number of junctions, impact of right turners and where changes from dual to single carriageway	Safety and Capacity	X					Y					

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			Already is	Pre 2018	2018-21	After 2021							
A64 / A1(M)	If improvements are delivered elsewhere on the A64 will this become a bottle neck?	Capacity				X	N						
A64 Tadcaster	Limited access	Capacity	X				-					North Yorkshire County Council	7
A64 Oxton and Catterton junctions	NMU crossing issues	Safety & Severance	X				N	Y				TR of Cycle Touring Club	
A64 Fulford / Copmanthorpe	Development pressures. York Council continuing to develop south of York, putting pressure on A19 northbound & at Fulford and Copmanthorpe junctions with A19	Capacity				X	N	Y				Selby DC	3
A64 Grimston Bar	Capacity issues.	Capacity	X				Issue well known	Y				East Riding JD	
A64 Hopgrove	Congested and further development pressure. There is continuing congestion at the Hopgrove Roundabout with a bottleneck joining the A64 Eastbound and blocking back across roundabouts. Further developments at Monks Cross could exacerbate the problem further. Cars coming on / off cause delay. Dualling east of junction is recommended.	Capacity	X			X	N	Y	Development plans for the area including at Monks Cross and the planned stadium	Y		Selby DC, ITS	5
A64 Stockton on Forest Jn	Safety	Safety	X				Need HA evidence to support observations	Y				HW of Ryedale	
A64 FERA Site	Growth in existing and new uses. 850 to 1700 employees. New/upgraded junction with A64 at Sand Hutton would facilitate major redevelopment. Also require PT improvements	Capacity	X			X	N	Y				North Yorkshire County Council, HW of Ryedale	
A64 Malton and York	Air quality and AQMAs	Environmental	X				Y	Y					
A64 York / Malton	Predicted congestion	Capacity				X	N	Y				Ryedale, DW	
A64 E/B to Welburn	Safety, Uphill, particularly slow section EB	Safety	X				Y	Y				HW of Ryedale	
A64 Hopgrove to Castle Howard	Bottlenecks	Capacity	X				N	Y				North Yorkshire County Council	3
A64 Castle Howard	Right Turns on A64	Safety	X				N	Y				Castle Howard, NS	3

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			Already is	Pre 2018	2018-21	After 2021							
A64 Castle Howard	Number of accesses on single carriageway	Operation	X				N		Real time info e.g. CCTV, Weather updates etc		Castle Howard, NS		
A64 Huttons Ambo Junction	Barnygate Lane Junction, Brow of hill, visibility to right when intending to travel eastbound onto A64.	Safety	X				N				HW of Ryedale		
A64 Musley Bank	Capacity	Capacity	X				N	Y				4	
A64 Musley Bank	Safety, Interaction with York Industrial Estate. U-turns and queuing for EB movements	Safety	X				Y	Y			HW of Ryedale	2	
A64 / A169 near Eden Camp	Predicted congestion with future development					X	N				Selby DC		
A64 Bramling Fields	Improvements needed to improve accessibility and reduce LHN congestion		X				N		Strategic Transport Assessment	Y	Ryedale, DW		
A64 Welburn to Malton	There is a good level of cycle provision along the A64 between Sand Hutton and Welburn, but gaps between Welburn and Malton. The turn off and route from the A64 into Malton contains physical pinch points which are a safety issue for cyclists.	Safety & Severance	X				N				HW of Ryedale		
A64 Malton to Seamer	Cycling provision	Safety	X				N				Cycling Touring Club, TR		
A64 East of Malton	Busy road passes through villages	Safety	X				N				North Yorkshire County Council		
A64 Rillington and Staxton	Archaeology	Environmental	X				N				North Yorkshire County Council		
A64 Sherburn	Development pressure. Potential access issues to A64.	Capacity				X	Y	Y			HW of Ryedale		
A64 near Seamer	Potential major development near Seamer could cause capacity issues	Capacity				X	Y	Y			DH of Scarborough		
A64 to Scarborough	Journey time reliability, overtaking, constraining growth. Lack of dual or 2 +1 sections. Slow moving agricultural vehicles	Capacity	X				N	Y	A64 Connectivity Study .	Y	North Yorkshire County Council, DH of Scarborough and HW of Ryedale DW	8	
A64 to Scarborough	Business and tourist pressure. Tourist traffic – traffic speeds are affected outside peak times which affects access to Markets.	Capacity	X				No	Y			Ryedale / Scarborough Council, HW, DH	1	
A64 York to Scarborough	Poor quality road	Asset condition				X							

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			Already is	Pre 2018	2018-21	After 2021							
A168 Sowerby Gate	Capacity	Capacity	X				N						
A170	Acting as trunk road when it isn't.	Capacity	X				-						
North west of Bradford	Need a strategic link	Capacity	X								CoC, YCM	1	
Scarborough and Ryedale	Deprivation	Capacity	X				-				Ryedale, HW		
Scarborough and Ryedale	Growth impacted by connectivity problems	Capacity	X				N				Ryedale / Scarborough Council, HW, DH	20	
Alternative Routes	Capacity and sustainability issues	Capacity	X				-				IS, City of York Council		
EDR's	Diversion routes when innocents occur pass large volumes of traffic through villages and local roads which are not designed for them.	Safety, Environmental, Society	X				N						
None SRN alternative routes	Local Authority restrictions affect use of non-SRN alternatives	Capacity	X				-				Farmers Union, JC		
Managed Motorways	Managed Motorways improve link capacity but not junction capacity	Capacity		X			n						
Signage Policy	Inconsistency in policy implementation	Policy					N						
Transpennine resilience issues	Ability to keep M62, A66 and A69 open in bad weather	Operational						Y					
Various	Lack of park and ride sites	Operational	X				n	Y			CoC	5	
Various	Lack of resilience	Operational	X				n	Y			Ar, CoC	6	
Various	Lack of journey time reliability.	Operational	X				n	Y			CoC, YCM	4	
Various	Noise (as a result of surfacing). Low noise surfacing currently only being introduced in a piecemeal fashion rather than across the network	Society and environment	X				n		Location/extent of surfacing introduced across the network	Y	ITS	2	
Where applicable	Transition / Lane reduction (3-2, 2-1)	Safety	X				N				British Motorcycle Federation, BB	2	
Whole network	Most of current network was and still is rural A roads. Upgrading to motorway needs to consider how SRN is feeder to local network rather than a bypass. Improvements need to ensure economic viability rather than leave the area bypassed.						N						
Whole network	The SRN is used for short trips because it is often quicker than the local road alternative	Operation	X				No – not applicable				Unknown	1	

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			Already is	Pre 2018	2018-21	After 2021							
Whole network	There is a lack of realistic alternatives to replace SRN trips, for example park and ride	Operation	X				No – not applicable				Unknown	2	
Whole network	There is no charge for developers adding trips to the network and making the environmental pressures worse	Environment	X				No – not applicable				Unknown	3	
Whole network	There is a need to link route strategies to growth plans. Need to align with economic strategies. Should RBS drive local growth or respond to it? Which drives which and will RBS be flexible to changing circumstances?	Operation, Policy	X				No – not applicable				Unknown	13	
Whole network	The transport issues in the area are multi modal	Operation	X				No – not applicable				Unknown	8	
Whole network	Uncertainty about future development and growth (where, when, what, how much?)	Capacity		X	X	X	Yes, but uncertain	Y	Best estimate, but may change in future. Also - plans do not include developments identified in previous development plans, but not yet brought forward. NE Independent Economic Review (April 2013)		CoC, LCH	7	
Whole network	Co-ordination of works, Diversions onto LRN.	Operational	X				n		Journey time data available for dates when incidents / works	Y	P Mitchell, LCC	18	
Whole Network	Concentration on operation of the mainline not sufficient, consideration of junction operations and interaction with LRN required – lack of holistic approach	Operation, Capacity, Policy	X								RMBC	30	
Whole network	Lack of integration with LRN, other forms of transport. Public transport links focused on access to key centres – reliance on car based travel for journeys elsewhere.	Operational	X				n				CoC	9	
Whole network	Lack of technology / real time information to inform drivers	Operational	X				n	Y			CoC	22	

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			Already is	Pre 2018	2018-21	After 2021							
Whole network	Population growth, ageing population, increased journeys	Society and environment				X						FoE, ITS	1
Whole network	Impact of growth on traffic flows	Capacity				X	No	Y	Background Growth Dynamics			Richmondshire, JH	
Whole network	Interference with local road network. Connectivity / Rat Running	Operation	X				-					Richmondshire, JH	3
Whole network	Restricted access for agricultural vehicles. Need access to encourage business	Operation	X				N					Farmers Union, JC	
Whole network	Need to remember multi-purpose nature of routes	Operation	X				N					North Yorkshire County Council	
Whole network	Street furniture	Safety	X				N					British Motorcycle Federation, BB	1
Whole network	Crossing movements of Trunk Roads not connecting to local routes	Safety	X				N						21
Whole network	Managing network during peak months	Safety	X				N						
Whole network	Resurfacing / Reconstruction to benefit vulnerable users	Safety, Operation	X				N					IS, City Of York Council, British Motorcycling Federation, BB	
Whole network	None slip manhole covers	Safety	X				N					British Motorcycle Federation, BB	
Whole network	Road furniture on outside of bend	Safety	X				N					British Motorcycle Federation, BB	
Whole Network	Better use of shared opportunities for NMUs alongside wildlife corridors. Dual use could be best for everyone.	Environmental	X				N					CB, British Horse Society	
Whole Network	More space for cyclists and horse riders required at access roads to trunk roads	Operation	X				N					British Motorcycle Federation, BB	
Whole Network	Lack of provision for cyclists and pedestrians at junctions causes barrier (existing and improvement schemes)	Safety	X	X	X	X	n		Description of ped and cycle issues at improvement works	Y	M Babbit, Sus	Sus	6
Whole network	Horse Riders contribute £750m/year to North Yorkshire Economy. Severance and safety of public network by fast vehicles	Safety	X				N		North Yorkshire County Council Right of Way Statistics	Y		CB, British Horse Society	
Whole network	Make best use of existing infrastructure for NMUs	Operation	X				-					Cycling Touring Club, TR	1
Whole network	Segregation for NMUs away from grade and grade separated crossings	Safety	X				N					CB, British Horse Society	7

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			Already is	Pre 2018	2018-21	After 2021							
Whole network	NMU Safety and prevention of severance of local network and reconnection. Minor Roads replaced and severed. Although diversion is small for vehicles they can be long for NMU's. NMU's need to be considered within the design process.	Safety	X				N	Y			CB, British Horse Society	10	
General	Ongoing HA monitoring of NMU issues at crossing points	Other, Severance					N				Cycle Touring Club, TR	0	
General	COBA Assessment doesn't favour NMUs. Leaves cycle improvement schemes undervalued. Better scoring system needed.	Severance	X				N				Cycle Touring Club, TR		
General	Signage to draw attention to smaller areas, Also sign national parks to encourage economy	Other					N					2	
General	Connectivity between towns and sub regional centres	Other					N					2	
General	Maximise opportunity to improve other modes, e.g. Rail and cycle	Other, Environmental					N				IS. City of York Council, Cycle Touring Club, TR	0	
General	There is trouble gaining an evidence base of cyclist accidents as no data is available from 20 years ago. More data is available now but there are fewer cycle movements now due to higher traffic volumes on the network.	Other, Evidence Base	X				N				Cycle Touring Club, TR		
General	Guidance documents commonly talk of parallel routes along the trunk road network; however, it is more important to provide better crossing facilities across the trunk road and keep cyclists on the local road network.	Other, Policy	X				N				Cycle Touring Club, TR		
General	Opportunity to combine resurfacing of carriageway with small improvements to reduce cost	Other					N						
General	HA and Local Authorities must use same evidence base otherwise different evidence at interface between SRN and LHN.	Policy					N						
General	Development locations not correct.						LP have correct information				East Riding, JD		
General	Interface between LP's, LEP and RBS	Other					N				Ryedale, DW	2	
General	Traditional modelling techniques do not give a picture of who is coming to Scarborough and when. Unaware of how much business they are losing due to delay and journey time reliability issues outside of the peak hours	Other	X				N				DH of Scarborough		

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General	Use of national / average datasets. The average speed data presented by the HA focuses on the morning and evening peak hours; however, a key concern of businesses in Scarborough is any delay on the A64 Eastbound that occurs after the morning peak hour. Summer peak flows on A64.	Other					N		Look at seasonality, special events, rural nature. Also true on Friday evening in Richmondshire as Army leaves barracks for weekend.			Ryedale, DW, DH, Scarborough, HW, Richmondshire, JH	0
General	HAPMS does not accurately reflect pavement condition	Asset Condition											
General	Depot / winter maintenance provision	Operational											1
General	Flooding off adjacent land	Environment, Operation											1
General	Arrangements to funding improvements	General											1
General	Prior knowledge of improvements. Need to understand when and where improvements will be happening in advance to plan vehicle movements from large generators	Operational	X										
Northern part of network	Depot capacity	Operational						Y					
Trunk road	Poor drainage and lack of drainage data on trunk road network	Asset condition, Environment	X				n	Y	Further information could be provided By Environment Agency	Y			
Various locations	Asset condition	Asset condition	X	X	X	X	n	Y	No account of other assets; the pavement condition is only as important as other structures, drainage and barriers for keeping the road open				
Various locations	Flooding	Environment	X				n	Y	The A66 should show greater areas as at risk of flooding				
Whole Network	Impact of HS2, HS2 will impact on junctions in Sheffield and Leeds	Capacity				X							2

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Whole Network	Junction need to be improved. Main line improvements are no good if junctions are not improved.	Capacity	X				n		Maps only show main line capacities				
Whole network	Improving safety	Safety	X				Not fully		The map should include operatives as well as users – are the locations considered as safe to enter the network really safe?				4
Whole network	Accommodating freight traffic	Capacity, Safety, Operational	X										1
Whole network	More data / more consistent data	Capacity, Safety, Operational	X						Traffic data for Darrington to Dishforth	Y	Alistair Snart, RMS		
Whole network	More / improved technology (to measure delay), ITS not considered to be 'real time' with SATNAV companies giving better information than overhead gantries	Capacity, operation	X									BL, TS, R3	10
Whole network	Large sections of pavement will require replacement before 2020	Asset condition		X	X		Y	Y					
Whole network	Keeping network moving, Journey time reliability	Operational	X										6
Whole Network	Abnormal loads. Could be changes to vehicles allowing different weight, height and width.	Operational				X							
Whole Network	Joints failing on viaducts	Maintenance	X					Y					
Whole Network	Pavement Condition	General Condition					N	Y	Maps show theoretical design life rather than how it is coping on the ground.				
Whole network	Delivering results (not just asking questions / collecting data)	All	X										3
Whole network	Defining role of the route	All	X										19
Whole network	Trunk roads should be built to the same standard as Motorways if they have similar level of vehicles	Asset management	X				No					ABMP	1
Whole network	Areas of traffic management appear too long in distance and duration compared with other countries	Operation, Safety, Capacity	X				No – not applicable					R3	1
Whole network	Traffic brakes heavily for average speed cameras causing safety and capacity problems	Safety, Capacity	X				No – not applicable					TS, BL	

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