Appendix 10

WEBTAG DATA

APPENDIX 10-1

AIR QUALITY WEBTAG

Appraisal Summary Table DRAFT

Date produced:	31	3	17

Contact:	
Name	
Organisation	
Role	Promoter/Official

Name of scheme:	SEMMMS A6-M60
Description of scheme:	

Impacts		Summary of key impacts	Assessment			
			Quantitative	Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers		Value of journey time changes(£) / Net journey time changes (£): 0 to 2min; 2 to 5min; > 5min			
	Reliability impact on Business users					
	Regeneration					
	Wider Impacts					
Environmental	Noise					
	Air Quality	Overall there is a significant net improvement in local air quality due to the Scheme. The scheme does not result in any additional exceedences (there is an exceedance of the AQS objective for annual mean NO2 concentrations, however this occurs both without and with the Scheme i.e. is not caused by the Scheme itself). Regional air quality - there is an imperceptible impact on regional emissions for NOx.	Assessment Score (2024): PM10: -1900.13, NO2: - 4127.79. Assessment Score (2039): PM10: -1746.16, NO2: -2720.72. Change in NOx emissions due to Scheme (tonnes per year): 2024: 10.3 (0.8%), 2039: -2.3 (-0.2%). Less than a 1% change in total NOX emissions as a result of the Scheme.	N/A	Value of Change in PM10 concentration: NPV: £5,192,058. Value of Change in NOx Emissions: NPV: £-11,002. Total value of change in air quality: £5,181,056 (i.e. net positive). Sensitivity Test: Upper estimate of NPV £5,921,181; Lower estimate of NPV£2,722,397	N/A
	Greenhouse gases	Overall there is a significant improvement in CO2 emissions as a result of the Scheme.	Change in non-traded carbon over 60y (CO2e): -11,340; Change in traded carbon over 60y (CO2e): -156,636	N/A	Net Present Value of carbon dioxide equivalent emissions of proposal (£): £6,663,151 (i.e. net positive)	
	Landscape	Introduces traffic into areas of relatively tranquil countryside river valleys of quality and value. Loss of greenbelt land and difficult to integrate into the rural landscape. The reduction of traffic along the A6 into Stockport town centre from the junction with the proposed scheme could create benefits to the tranquility of this area. Impacts on character and visual amenity urban settlements and recreational resources. In part but not wholly mitigable.	N/A	Moderate Adverse effect	N/A	
	Townscape	Comprises discrete areas of mid to late 20th century industrial, commercial and residential development. Ordinary to good quality but lacks local distinctiveness. Direct impacts on a small number of residential properties on the eastern edge of Torkington, the north eastern edge of Norbury Moor and the western edge of Bredbury as a result of the scheme. The scheme will sever a number of well used public footpaths between Torkington and Newbury Moor and the adjoining countryside, but this could be mitigable as the design progresses.	N/A	Slight Adverse effect	N/A	
	Historic Environment	Potential to impact on 3 Grade II listed buildings, one Grade II Registered Park and other non-designated assets, but potentially mitigable. Reduction of traffic along the A6 into Stockport town centre from the junction with the proposed scheme may have a slight beneficial effect on the context of the Grade II listed assets. Potential for adverse impacts on previously unrecorded archaeology from the prehistoric to the modern period.	N/A	Moderate Adverse	N/A	
	Biodiversity	Potential direct impacts, loss of ancient woodland, priority habitats and great crested newt terrestrial and aquatic habitat. Potential for the Scheme to significantly reduce its impact through innovative design, mitigation measures and compensation. Further survey information will be required to inform a detailed assessment of effects on ecological features.	N/A	Moderate Adverse	N/A	
	Water Environment	Direct impacts on two notable areas of flood risk and the crossing of the Poise Brook will require significant realignment and culverting of the watercourse. Measures to manage and mitigate potential impacts to flood risk, flood flow conveyance and biodiversity are unresolved but potentially mitigable. The route is also partially located in a groundwater SPZ.	N/A	Large Adverse Impact	N/A	
Social	Commuting and Other users		Value of journey time changes(£) / Net journey time changes (£): 0 to 2min; 2 to 5min; > 5min			
	Reliability impact on Commuting and Other users					
	Physical activity					
	Journey quality					
	Accidents					
	Security					
	Access to services					
	Affordability					
	Severance					
	Option and non-use values					
Public Accounts	Cost to Broad Transport Budget					
	Indirect Tax Revenues					

APPENDIX 10-2

ECOLOGY WEBTAG

TAG Biodiversity Impacts Worksheet DRAFT

Step 2		Step 3				Step 4	Step 5
Area	**Description of feature/ attribute**	**Scale (at which attribute matters)**	**Importance (of attribute)**	**Trend (in relation to target)**	**Biodiversity and earth heritage value**	**Magnitude of impact**	**Assessment Score**
Badger *Meles Meles*	Records are present **within the scheme extent** within the past 10 years, many of which are sett records. Therefore it is assumed that badgers may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures and/or mitigation undertaken to reduce impacts to badgers. Where required a licence shall be applied for to cover any necessary sett closure or disturbance.	National	Protection of Badgers Act 1992; Wildlife and Countryside Act 1981 (as amended).	Species assumed present until further surveys conducted.	Medium	Intermediate negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
European otter *Lutra lutra*	Records are present within 2km of the scheme extent within the past 10 years. The nearest record of otter is 700m from the scheme extent, on the River Goyt which will be crossed by the proposed Scheme. Therefore it is assumed that otter may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures and/or mitigation undertaken to reduce impacts to otter. Where necessary, an appropriate licence shall be applied for to allow works associated with otter holts.	National	NERC Act 2006; Wildlife and Countryside Act 1981 (as amended) Schedule 5.	Assumed present until further surveys conducted.	Medium	Intermediate negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
Water vole *Arvicola amphibious*	Records are present **within the scheme extent** within the past 10 years. Therefore it is assumed that water vole may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures and/or mitigation undertaken to reduce impacts to water vole. Where necessary, an appropriate licence shall be applied for where crossing will affect water vole burrows.	National	NERC Act 2006; Wildlife and Countryside Act 1981 (as amended) Schedule 5; Greater Manchester BAP.	Assumed present until further surveys conducted. Historical surveys for Macclesfield Canal (1997) and Ochreley Brook (2007) confirmed present. There are seven confirmed absence surveys between 2008 to 2010 for Ochreley Brook, Poise Brook, Poynton Pool, Macclesfield Canal, Jackson's Brickworks and Chadwick LNR (River Goyt tributary) . These are out of date and need to be redone.	Medium	Intermediate negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
Brown hare *Lepus europaeus*	Records are present **within the scheme extent** within the past 10 years. Therefore it is assumed that brown hare may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures and/or mitigation undertaken to reduce impacts.	National	NERC Act 2006; Greater Manchester BAP.	Assumed present until further surveys conducted.	Medium	Intermediate negative impact in the absence of mitigation, although with appropriate avoidance becomes minor negative	Slight adverse
Polecat *Mustela putorius*	Records are present within 2km of the scheme extent within the past 10 years (nearest record 1.2km from scheme extent). Therefore it is assumed that polecats may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures and/or mitigation undertaken to reduce impacts.	National	NERC Act 2006.	Assumed present until further surveys conducted.	Medium	Minor negative	Slight adverse
West European hedgehog *Erinaceus europaeus*	Records present within 2km of the scheme extent within the past 10 years (nearest record 370m from scheme extent). Therefore it is assumed that west European hedgehog may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures and/or mitigation undertaken to reduce impacts.	National	NERC Act 2006	Assumed present until further surveys conducted	Medium	Intermediate negative impact in the absence of mitigation, although with appropriate avoidance becomes minor negative	Slight adverse
Bat species	Records are present within **the scheme extent** within the past 10 years. The following species records are present within 2km: brown long-eared bat *Plecotus auritus;* common pipistrelle *Pipistrellus pipistrellus;* Daubenton's bat *Myotis daubentonii;* pipistrelle species *Pipistrellus sp.* ; whiskered bat *Myotis mystacinus;* myotis species *Myotis sp.;* noctule *Nyctalus noctula;* serotine *Eptesicus serotinus;* soprano pipistrelle *Pipistrellus pygmaeus;* and whiskered/ Brandt's bat *Myotis mystacinus/ brandtii.* Therefore it is assumed that bats may be present within trees or structures throughout the scheme extent. They may also use areas of the scheme extent for foraging and commuting. This will be confirmed through survey effort, and appropriate avoidance measures or roosts and/or mitigation undertaken to reduce impacts. Where necessary appropriate licences shall be sort where any impacts to bat roosts are identified which cannot be avoided.	National	NERC Act 2006; Wildlife and Countryside Act 1981 (as amended) Schedule 5; Greater Manchester BAP.	Assumed present until further surveys conducted.	Medium	Intermediate negative impact in the absence of mitigation, although with appropriate avoidance becomes minor negative	Slight adverse
Kingfisher *Alcedo at this*	Records are present within 2km within the past 10 years (closest record within 100m of scheme extent). Therefore it is assumed that kingfisher may be present within the scheme extent.	National	Birds Directive Annex 1; Wildlife and Countryside Act 1981 (as amended) Schedule 1.	Assumed present until further surveys conducted.	Medium	Minor negative	Slight adverse
Peregrine *Falco peregrinus*	Records are present within 2km within the past 10 years (nearest record 580m from scheme extent). Therefore it is assumed that peregrine may be present within the scheme extent.	National	Birds Directive Annex 1 and Article 4.2; Wildlife and Countryside Act 1981 (as amended) Schedule 1.	Assumed present until further surveys conducted.	Medium	Minor negative	Slight adverse

Bird species	Records are present within 2km of the scheme extent within the past 10 years for the following species: bullfinch *Pyrrhula pyrrhula* ; dunnock *Prunella modularis;* grasshopper warbler *Locustella naevia* ; house sparrow *Passer domesticus* ; lapwing *Vanellus vanellus* ; lesser spotted woodpecker *Dendrocopos minor* ; skylark *Alauda arvensis* ; song thrush *Turdus philomelos* ; spotted flycatcher *Muscicapa striata* ; starling *Sturnus vulgaris* ; yellowhammer *Emberiza citrinella* . Therefore it is assumed that birds may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures or roosts and/or mitigation undertaken to reduce impacts.	National	NERC Act 2006; Birds of Conservation Concern (BoCC).	Assumed present until further surveys conducted.	Medium	Intermediate negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
Great crested newt *Triturus cristatus*	Records are present **within the scheme extent** within the past 10 years. Therefore it is assumed that great crested newt may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures or roosts and/or mitigation undertaken to reduce impacts. Where impacts can not be avoided, a mitigation licence shall be applied for prior to works.	International (European)	Wildlife and Countryside Act 1981 (as amended); Greater Manchester Biodiversity Action Plan (BAP).	Assumed present until further surveys conducted. There are ten ponds surveyed which resulted in confirmed absence in various years between 1989 to 2013. These surveys are out of date, need to be redone.	High	Major negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
Amphibian species	Records are present within 2km of the scheme extent within the past 10 years for common toad *Bufo bufo* (nearest records within 25m of scheme extent). Therefore it is assumed that amphibian species may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures or roosts and/or mitigation undertaken to reduce impacts.	National	NERC Act 2006; Wildlife and Countryside Act 1981 (as amended) Schedule 5.	Assumed present until further surveys conducted.	Medium	Major negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes intermediate negative	Moderate adverse
Reptile species	Records are present within 2km within the past 10 years for Slow worm *Anguis fragilis* (nearest record 860m from scheme extent). Therefore it is assumed that reptile species may be present within the scheme extent. This will be confirmed through survey effort, and appropriate avoidance measures or roosts and/or mitigation undertaken to reduce impacts.	National	NERC Act 2006; Wildlife and Countryside Act 1981 (as amended) Schedule 5.	Assumed present until further surveys conducted.	Medium	Neutral	Neutral
Plant species	Records present within 2km of the scheme extent within the past 10 years for Yellow bird's-nest *Monotropa hypopitys* (nearest record 300m from scheme extent). Therefore it is assumed that protected or notable plants may be present within the scheme extent.	National	NERC Act 2006	Assumed present until further surveys conducted.	Medium	Minor negative	Slight adverse
Notable Invertebrate species	Records are present within 2km of the scheme extent within the past 10 years for the following species: centre-barred sallow *Atethmia centrago* ; cinnabar *Tyria jacobaeae* ; dot moth *Melanchra persicariae* ; grey dagger *Acronicta psi;* a utumnal rustic *Eugnorisma glareosa;* r osy minor *Litoligia literosa;* s mall phoenix *Ecliptopera silaceata* . Therefore it is assumed that notable invertebrates may be present within the scheme extent. his will be confirmed through survey effort, and appropriate avoidance measures or roosts and/or mitigation undertaken to reduce impacts.	National	NERC Act 2006.	Assumed present until further surveys conducted.	Medium	Minor negative	Slight adverse
Rochdale Canal SAC	Special Area of Conservation (SAC) situated 7.9km from scheme extent. The site is designated for its floating water-plantain *Luronium natans* which is a Greater Manchester BAP species.	International (European)	Statutory designated site.	Unknown	Very High	Neutral	Neutral
Rochdale Canal SAC/ SSSI	Site of Special Scientific Interest (SSSI) situated 7.9km from scheme extent. Part of Rochdale Canal SAC. The site contains the important habitats for submerged aquatic plants and emergent vegetation. It contains floating water-plantain *Luronium natans* which is a Greater Manchester BAP species.	National	Statutory designated site.	Unfavourable recovering.	High	Neutral	Neutral
Peak District Moors (South Pennine Moors Phase 1) SPA	Special Protection Area (SPA) 9.5km from scheme extent. The site supports breeding populations of merlin *Falco columbarius,* European golden plover *Pluvialis apricaria* and short-eared owl *Asio flammeus.*	International (European)	Statutory designated site.	Unknown	Very High	Neutral	Neutral
South Pennine Moors SAC	SAC 9.8km from scheme extent. The site is designated for its European dry heaths, blanket bogs and old sessile oak Quercus petraea woods with holly Ilex sp. and fern Blechnum sp.	International (European)	Statutory designated site.	Unknown	Very High	Neutral	Neutral
Dark Peak SAC/ SSSI	SSSI 9.8km from scheme extent. Part of the South Pennine Moors SAC. The main moorland area in the Peak District it is a wild, open and largely less continuous moorland. The moorland supports a regionally and nationally important breeding bird assemblage.	National	Statutory designated site.	93% Unfavourable recovering; <1% Unfavourable declining; 2% Unfavourable no change; 4 % Favourable	High - Very High	Neutral	Neutral
Huddersfield Narrow Canal SSSI	SSSI 5.4km from scheme extent. The site is the best example of a flowing eutrophic water system in Greater Manchester.	National	Statutory designated site.	Unfavourable no change.	High	Neutral	Neutral
Compstall Nature Reserve SSSI	SSSI situated 5.5km from scheme extent. Part of Etherow Country Park. The second best example of clough woodland on base rich soils in Greater Manchester. The site is also of considerable ornithological interest.	National	Statutory designated site.	Unfavourable recovering.	High	Neutral	Neutral
Hollinwood Branch Canal SSSI	SSSI 6.0km from scheme extent. The site is managed as part of Medlock Valley Daisy Nook Country Park. It is the best example of mesotrophic standing water systems in Greater Manchester and Merseyside.	National	Statutory designated site.	Unfavourable declining.	High	Neutral	Neutral
Ludworth Intake SSSI	SSSI and Geological Conservation Review site situated 6.5km from the scheme extent. A prominent meltwater channel on low col. Designated for geological interest only.	National	Statutory designated site.	Favourable.	High	Neutral	Neutral
Toddbrook Reservoir SSSI	SSSI 7.6km from scheme extent. The site is one of very few in Britain which supports an unusual community of short-lived mosses and liverworts.	National	Statutory designated site.	Favourable.	High	Neutral	Neutral

Matley Moor Meadows SSSI	SSSI 8.8km from scheme extent. A nationally important site for lowland unimproved neutral grassland.	National	Statutory designated site.	Favourable.	High	Neutral	Neutral
Goyt Valley SSSI	SSSI 9.4km from scheme extent.. Semi-natural upland and upland fringe vegetation typical of the Southern Pennines which supports nationally important upland breeding bird populations.	National	Statutory designated site.	93% Unfavourable recovering; 5% Unfavourable declining; 1% Unfavourable no change; 1% Favourable	High	Neutral	Neutral
Poise Brook LNR	Local Nature Reserve (LNR) **within the scheme extent**. The site consists of ancient woodland, including oak species, beech *Fagus* sp. and sycamore *Acer pseudoplatanus* , with a variety of flowers including bluebells *Hyacinthoides* sp. Poise Brook flows through the woodland before joining the River Goyt. The site supports woodland bird species including woodpeckers *Picidae* sp. and tree creepers *Certhiidae* sp., as well as insects and fungi.	Regional	Statutory designated site.	Unknown	Medium	Major negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes intermediate negative	Moderate adverse
Reddish Vale LNR	LNR situated 64m from the scheme extent. A reclaimed site which provides habitat to a range of birds and wildlife. The site contains five ponds, a butterfly park and the River Tame which is an important area for sand martins *Riparia riparia* and kingfisher.	Regional	Statutory designated site.	Unknown	Medium	Intermediate negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
Woodbank Park LNR	LNR situated 0.3km from the scheme extent. The sites contains woodland and riverbank habitats that support native wild flowers, trees and animals. The site is known to contain invasive species: Himalayan balsam *Impatiens glandulifera* , Japanese knotweed *Fallopia japonica* and Rhododendron *Rhododendron* sp.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Chadkirk Country Estate LNR	LNR situated 0.7km from the scheme extent. The site comprises meadows, pastures, woodland fringes and gardens which provide suitable habitat for a range of species including birds, invertebrates and small mammals. Kirk Wood and Little Wood within the estate have been classed as Sites of Biological Importance (SBI).	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Hulme's and Hardy Wood and Lower Haughton Meadows LNR	LNR situated 0.7km from the scheme extent. The site comprises ancient woodlands and wildflower meadows with ponds and meadows. The site supports notable bird species. The wet areas of the woods are important for nationally-scarce hoverflies, which attract bats.	Regional - National	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Jackson's Brickworks LNR	LNR situated 1.1km from the scheme extent. The site comprises unimproved grassland, ponds and a lake with growing reed bed. The habitat supports great crested newt, moths and butterflies, as well as several migrating bird species. The grassland/ meadow, pond, woodland and scrub are managed, with three compartments grazed by sheep to aid grassland improvement.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Haughton Dale LNR	LNR situated 1.7km from the scheme extent. The site is located between Peak Forest Canal and Tame valley. The site comprises ancient woodlands, meadows and wetlands. The meadows are managed and cut annually, which supports butterflies and bumblebees. The wetlands provide habitats for frogs, toads, newts and invertebrates. The site is known to support bats and notable bird species.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Happy Valley LNR	LNR situated 2.3km from the scheme extent. The site has some ancient woodland areas and also has Lady Brook flowing through it.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Poynton Coppice LNR	LNR situated 2.7km from the scheme extent. The site contains running water, broadleaved woodland and meadow.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Mersey Vale Nature Park LNR	LNR situated 2.9km from the scheme extent. The Trans Pennine Trail traverses the site which has wildflower meadows and planted trees.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Highfield Country Park LNR	LNR situated 3.0km from the scheme extent. The site comprises marshy grassland, scrub, wet woodland, ponds, relict hedges and plantation woodland. Fallowfield Brook also runs through the site.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Etherow Country Park LNR	LNR situated 3.6km from the scheme extent. The site contains woodland and riverside walks, it also contains Compstall Nature Reserve SSSI and has a diverse assemblage of plant and bird species.	Regional	Statutory designated site.	Unknown	Medium - High	Neutral	Neutral
Heaton Mersey Common LNR	LNR situated 3.9km from the scheme extent. The site contains woodland, grassland and ponds.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Millennium Wood, Disley LNR	LNR situated 4.5km from the scheme extent. The woodland was planted as a regeneration project.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Mousley Bottom LNR	LNR situated 5.1km from the scheme extent. The LNR is a reclaimed site containing woodland and wetland areas with the River Goyt flowing adjacent to the site.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Abney Hall LNR	LNR situated 5.2km from the scheme extent. The site contains landscaped gardens. Due to the LNR being within the historic River Mersey flood plain the LNR supports a rare array of plants that flourish in wetlands.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral

Stenner Woods and Milgate Fields, Didsbury LNR	LNR situated 5.9km from the scheme extent. The site is wet woodland dominated by crack willow *Salix fragilis* .	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Hollinwood Branch Canal LNR	LNR situated 6.0km from the scheme extent. The LNR supports several plant species which are rare in Greater Manchester, and is an important wetland area. The site also supports water vole.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Goytside Meadows LNR	LNR situated 6.0km from the scheme extent. The LNR contributes to the High Peak BAP and includes unimproved and semi-natural acid and neutral grassland, marsh/wet grassland, semi-natural broad leaved woodland, scrub and hedgerows.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Great Wood LNR	LNR situated 6.1km from the scheme extent. This site is one of the few remaining ancient woodlands in Tameside.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Clayton Vale LNR	LNR situated 6.3km from the scheme extent. The site contains four ponds and forms the valley of the River Medlock.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Watford Lodge LNR	LNR situated 6.5km from the scheme extent. The site is designated as a valuable wetland habitat which supports several amphibian and notable bird species.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Hurst Clough LNR	LNR situated 6.8km from the scheme extent. The site contains woodland and wildflower meadows.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Gatley Carrs LNR	LNR situated 7.5k from the scheme extent. The site comprises woodland, scrubland, grassland, ponds, wetland and wildflower meadow.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Brookfield Pond LNR	LNR situated 7.9km from the scheme extent. The site comprises a small mill pond with steep embankments surround by woodland.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Chorlton Water Park LNR	LNR situated 8.1km from the scheme extent. A nationally important site for wildfowl, with a specially planted bullfinch area. The site also contains developing woodland and rough grassland.	Regional - National	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Wythenshawe Park LNR	LNR situated 8.4km from the scheme extent. The site is a local park with several woodland areas, three of which are Sites of Biological Importance (SBI). There are also wildflower meadows and formal flower beds.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Knot Hill Reservoir LNR	LNR situated 8.9km from the scheme extent. The site is a disused reservoir which has had its water level lowered. it comprises open water, marsh, swamp, developing woodland and grassland.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Bluebell Woods LNR	LNR situated 9.2km from the scheme extent. The site features in the High Peak BAP and has upland oak *Quercus* sp./ birch *Betula* sp. woodland with trees approaching veteran status and wet woodland.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Rocher Vale LNR	LNR situated 9.2km from the scheme extent. The LNR comprises riverbanks, woodland, heath and rock outcrops of geological interest.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Chorlton Ess and Ivy Green LNR	LNR situated 9.5km from the scheme extent. A reclaimed site with meadows, wildflowers and woodland walks.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Riverside Park, Macclesfield LNR	LNR situated 9.7km from the scheme extent. The site comprises ancient woodland, plantation woodland and unimproved grassland, as well as a river and some ponds.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Stubbins Park LNR	LNR situated 9.8km from the scheme extent. The site is a local park with woodland and grassland.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Boggart Hole Clough LNR	LNR situated 9.9km from the scheme extent. The site is the largest woodland clough in Manchester, part of the site is ancient woodland.	Regional	Statutory designated site.	Unknown	Medium	Neutral	Neutral
Deciduous woodland	Priority habitat, present **within the scheme extent.**	National	Priority habitat	Assumed present until further surveys conducted.	High	Major negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
Ancient Woodland (within scheme extent/ adjacent to the scheme extent)	There are 12 ancient woodland sites within 2km of the scheme extent, with the closest being Crookilley Wood; Offerton Wood Units 1 & 2 and Carr Wood that are **adjacent to/ within the scheme extent**. Re-routing to avoid impacts to ancient woodland should be considered as appropriate avoidance measures.	National	Priority Habitat. Considered to be Sites of Biological Importance (SBI), protected under local planning policy.	Stable with minor losses. Assumed present until further surveys conducted.	High	Major negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
Ancient Woodland (other)	Remaining ancient woodland sites within 2km include: Horse Close Wood; Torkington / Marple Wood Unit 1; Otters Pool Road Wood; Hardy Wood; Denton Wood Unit 2; Playing Field Wood; Torkington / Marple Wood Unit 2; Denton Wood Unit 1; Kirk Wood / River Wood; Torkington / Marple Wood Unit 3; Turncliff Wood; Ryles and Middlecale Wood; Wood Mill Wood.	National	Priority habitat	Stable with minor losses. Assumed present until further surveys conducted.	High	Minor negative	Slight adverse
Rivers and streams	Rivers and streams are **within the scheme extent**: River Goyt, River Tame, Norbury Brook, Poise Brook and Ochreley Brook.	National	Priority Habitat	Unknown	High	Major negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
Standing open water and canals	Priority habitat **within the scheme extent.** Ponds, lakes and standing water including Macclesfield Canal.	National	Priority Habitat. Ponds and lodges are a Greater Manchester BAP habitat.	Unknown	High	Major negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes minor negative	Slight adverse
Wood pasture and parkland	Priority habitat, present within 0.5km of the scheme extent.	National	Priority habitat	Assumed present until further surveys conducted.	High	Minor negative	Slight adverse

Lowland fen	Priority habitat, present within 0.6km of the scheme extent.	National	Priority habitat	Assumed present until further surveys conducted.	High	Minor negative	Slight adverse
Lowland meadow	Priority habitat, present within 1.1km of the scheme extent.	National	Priority habitat	Assumed present until further surveys conducted.	High	Neutral	Neutral
Traditional orchard	Priority habitat, present within 2km of the scheme extent.	National	Priority habitat	Assumed present until further surveys conducted.	High	Neutral	Neutral
Site of Biological Importance (within scheme extent/ adjacent to the scheme extent)	Sites of Biological Importance (SBI) **within the scheme extent** which are likely to be directly impacted by the scheme: Crookilly Wood SBI, Vernon Road Wood SBI, Poise Brook & Goyt Valley SBI, Foggbrook SBI, Poise Brook Flushes SBI, Torkington Road Meadows SBI, Threaphurst Clough & Ochreley Brook SBI, Norbury Brook and Middlewood SBI; Reddish Vale SBI; and Ox Hey Pasture SBI. Binnington Clay Pits SBI is adjacent to the scheme extent.	Local/ Regional	Protected under local planning policy	Unknown	Medium	Major negative impact in the absence of mitigation, although with appropriate avoidance and mitigation becomes intermediate negative	Moderate adverse
Other locally designated sites	Sites of Biological Importance (SBI) within 2km of the scheme extent but not directly impacted by the scheme: Otterpool Road & Little Woods SBI; Woodland near Unity Mills SBI; Turncliffe Wood SBI; Woodville Drive Wood SBI; Grassland by Denton Wood SBI; Denton Wood SBI; Marsh South of Hyde Hall SBI; Horse Close Wood SBI; Mill Race & Pasture at Haughton Dale SBI; Lower Haughton Meadows SBI; Chudleigh Close Pond SBI; Kirk & River Woods SBI; Peak Forest Canal (South) SBI; Reddish Wood SBI; Disused Railway at Brinnington SBI; Marple & Torkington Woods SBI; Reddish Vale Mill Ponds SBI; Woodbank Memorial Park SBI; Chadkirk Meadows SBI; Nab Top Wood SBI; Botany Mill Wood SBI; Hulme's & Hardy Woods SBI.	Local/ Regional	Protected under local planning policy	Unknown	Medium	Minor negative	Slight adverse

Reference Sources

Greater Manchester Ecology Unit (GMEU)/ Local Record Centre; Greater Manchester Biodiversity Action Plan (http://www.gmbp.org.uk/site/index.php?option=content&task=view&id=9&Itemid=27); Joint Nature Conservancy Council (2004) UK Biodiversity Action Plan (http://jncc.defra.gov.uk/ukbap); National Biodiversity Network Gateway (www.searchnbn.net/); Multi-Agency Geographical Information Committee (MAGIC) (http://www.magic.gov.uk/MagicMap.aspx). Data.gov.uk.

Summary Assessment Score

Moderate adverse

Qualitative Comments

In the absence of more detailed habitat and species-specific survey data, the scheme has been determined to have a range of potential impacts on biodiversity of up to very large adverse, not accounting for any potential specific mitigation considerations. Therefore each feature/attribute has been reviewed in light of the practicalities of mitigation that may be employed through site design (avoidance measures) and/or mitigation where avoidance may not be possible. Should some species be present, and impacts cannot be avoided, there may be a requirement for licences to be applied for prior to works from the relevant statutory body. Further survey of the scheme extent (including a suitable buffer) alongside the addition of suitable sensitive mitigation options is likely to reduce the overall impact of the scheme. There is the potential for the Scheme to significantly reduce its impact through innovative design, mitigation measures and compensation. Without mitigation there is potential to have a very large adverse impact on rivers, streams and standing water and Sites of Biological Importance (SBIs), although this is considered to be moderate adverse once design amendments and mitigation are applied. The majority of remaining receptors within 2km of the scheme extent are likely to be subject to minor or slight adverse impacts, this would include impacting protected species such as otter, water vole, bat species and bird species, but this is dependant on the abundance of these species within or adjacent to the Site. Remaining designated sites within 10km are unlikely to be impacted directly as a part of the scheme. The extent of the scheme's impacts cannot be fully assessed until further ecological assessment including site surveys have been conducted - such surveys should be programmed during the design stage in order establish appropriate mitigation requirements. Impacts on protected species and habitats will have to be reviewed at the detailed assessment/ design stage with consideration given for the results of ecological surveys.

APPENDIX 10-3

HERITAGE WEBTAG

TAG Historic Environment Impacts Worksheet DRAFT

Step 2		Step 3			Step 4
Feature	**Description**	**Scale it matters**	**Significance**	**Rarity**	**Impact**
Form	There are 8 Grade II Listed Buildings, one Grade II Listed boundary stone, one Grade II listed park and garden, Vernon Park and one Scheduled Monument which is a moated site north-west of Broadoak Farm, within the study area. There are also a range of non-designated heritage assets within the proposed scheme area such as public buildings, industrial remains and ridge and furrow. There is also potential for previously unrecorded archaeology from the prehistoric to the modern period.	The Grade II Listed assets are of national importance (high). The non-designated assets vary from regional to negligible. The protection of scheduled Monuments is a national concern (Ancient Monuments and Archaeological Areas Act 1979).	The significance of the listed buildings is likely to be architectural and of national importance (high). The listed park and garden have historical significance as a reflection on the styles and attitudes of the 19th century. It is likely that the gardens also have architectural interest from the style in which they were planned and the historic associations of country houses and their formal gardens. The non-designated assets all have value through their ability to reveal evidence of past societies and the social and economic growth of the region. The significance of the scheduled Monument, lies in its archaeological and historical interest. Surviving moated sites are relatively rare, and as such the most well preserved examples will be identified as being of national importance.	Grade II Listed assets make up the majority of listed buildings and are therefore not rare. In the case of Vernon Park, the fact that the park has an associated museum, makes it rare. The rarity of the non-designated assets is not determined at this stage. With around 6,000 moated sites in the UK surviving, moated sites are not rare nationally, but they are rare locally/regionally.	There will be a neutral effect on the form of the Grade II listed buildings, the Grade II Registered Park and Garden and the Scheduled Monument. The impact on the form of non-designated assets is not determined at this time. There is the potential for previously unrecorded archaeology from the prehistoric to the modern period to be present and there could be a slight to moderate adverse effect on the form depending on their significance.
Survival	The survival of the Grade II listed buildings varies from individual elements to complete buildings. The exact survival is undetermined at this time. The survival of Vernon Park, the non-designated assets and the scheduled monument is not determined at this stage.	The survival of the asset is important to its value. Those in poor condition could have suffered loss to significant elements but those in moderate to good condition could retain such elements. Vernon Park contributes to the character of the local environment. The survival of the non-designated assets is of local importance apart from where assets contribute to the regional research framework in which case they are of regional importance. The survival of the Scheduled Monument is of National (high) importance	The survival of the Listed buildings, Vernon Park and the scheduled monument is of national importance. The significance of the survival of the non-designated assets is not determined at this stage.	The rarity regarding the survival of the Listed Buildings, the Scheduled Monument and the non-designated assets is not determined at this stage. The rarity in regards to the state of survival of Vernon Park, is relatively common.	There is anticipated to be a neutral effect on the survival of the Grade II listed buildings, the Grade II Registered Park and Garden and the Scheduled Monument. The impact on the survival of non-designated assets is not determined at this time. There is the potential for previously unrecorded archaeology from the prehistoric to the modern period to be present and there could be a slight to moderate adverse effect on the form depending on their significance.
Condition	The condition of the listed buildings, Vernon Park, the scheduled monument and the non-designated assets is not determined at this stage.	The condition of the listed buildings, Vernon Park and the scheduled Monument is of national importance The survival of the non-designated assets is of local importance apart from where assets contribute to the regional research framework in which case they are of regional importance	The condition of the listed buildings is of national importance. The significance of the condition of Vernon Park, the Scheduled Monument and the non-designated assets is not determined at this stage.	Not determined at this stage	There will be a no physical impact on the condition of the Grade II listed assets, the Grade II listed Park and garden or the Scheduled Monument. The impact on the condition of the non-designated assets is not determined at this stage.
Complexity	The complexity of the Grade II Listed assets is unknown, however from documentary evidence, all appear to have been had later alterations of some kind with the exception of the boundary stone. From documentary evidence, it was ascertained that there have been some changes to the park, which will affect its complexity. The complexity of the non-designated assets is not determined at this stage. The complexity of Scheduled Monuments is fairly complex - archaeological excavation on the island has revealed artefacts and structural remains dating from the 14th to the 18th centuries. The complexity of the non-designated assets is not determined at this stage.	The scale it matters, regarding the complexity of the listed buildings and the non-designated has not been determined at this stage. The gardens will often exhibit forms of design which can range from simple (of local importance) to the more elaborate and complex (of regional importance). The scale it matters regarding the complexity of the scheduled monument is national (high)	The significance of the complexity of the Listed Buildings, Vernon park and the non-designated assets has yet to be determined. The significance of the Scheduled Monuments, with regard to complexity of the assets has both historical and archaeological significance.	Not determined at this stage	There will be no physical effect upon the Complexity of the Grade II listed buildings Vernon Park or the Scheduled Monument. The impact on the complexity of non-designated assets is not determined at this stage.
Context	The context of the Grade II listed assets ranges from urban setting to a semi-rural setting. The context of Vernon Park is Semi-urban parkland. The context of the non-designated assets is not determined at this stage. The context of the Scheduled Monument is rural.	The scale it matters, regarding the context of the listed buildings, Vernon Park and the non-designated assets has not been determined at this stage. The context of the Scheduled Monument is of national (high) importance.	Not determined at this stage	Not determined at this stage	There will be a neutral effect on the context of the majority of the Grade II listed buildings, with the exception of Ridge cottages, where there is the potential for a moderate adverse effect before any mitigation or design amendments. With appropriate changes to the design this may reduce the effect. For Goyt Hall and Barn to West of Goyt Hall there is the potential for a slight adverse effect to the context before any mitigation or design amendments. With appropriate changes to the design this may reduce the effect. The scheme could have slight adverse impact on the context of Vernon Park heritage asset before any mitigation or design amendments. With appropriate changes to the design this may reduce the effect. The impact on the context of non-designated assets is not determined at this stage. There will be a neutral impact on the context of the Scheduled Monument.
Period	The period of the assets dates from Post-Medieval to Industrial.	N/A	N/A	N/A	N/A

Reference Sources

The Historic Environment Record (HER) held by The University of Salford, Manchester

Step 5 - Summary Assessment Score

Moderate adverse

Qualitative Comments

The scheme has no appreciable impacts, either positive or negative, on the form of listed buildings. There is unlikely to be an impact to the context or setting of the majority of the Grade II Listed Buildings, the reduction of traffic along the A6 into Stockport town centre from the junction with the proposed scheme may have a slight benefcial effect on the context or setting of these assets. However, the scheme has the potential to have a moderate adverse impact before any mitigation or design amendments on Ridge Cottages (a highly significant historic asset) as the scheme would be intrusive in the setting (context) adversely affecting the appreciation and understanding of the asset. In the case of Goyt Hall and the Barn to west of Goyt Hall (locally significant historic assets) the scheme has the potential to have a slight adverse effect to the context, before any mitigation or design amendments.

With regard to Vernon Park the scheme would have a slight adverse impact on the context of highly significant assets, such that their integrity is compromised and an appreciation and understanding of them is diminished. With appropriate changes to the design this may reduce the effect.

The impact of the scheme, with regards to the Scheduled Monument, will not be visually intrusive nor have an adverse effect on the current level of tranquillity of the landscape through which the scheme passes.

The impacts on non-designated assets are not determined at this stage, but could be as high as moderate adverse, although adequate mitigation can be specified.

There is also potential for up to large adverse effects to previously unrecorded archaeology from the prehistoric to the modern period which may be slight to moderate adverse, being a major direct impact on regionally or locally significant historic environment assets, resulting in loss of features, but adequate mitigation can be specified.

APPENDIX 10-4

LANDSCAPE WEBTAG

SEMMMS A6 - M60 Relief Road TAG Landscape Worksheet (Tame Valley LCA, Brinnington East LCA, Goyt Valley LCA, Offerton-Poise Brook LCA and Hazel Grove-High Lane LCA) Landscape Character Area

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	Step 2	Step 3				Step 4
Features	**Description**	**Scale it matters**	**Rarity**	**Importance**	**Substitutability**	**Impact**
Pattern	**Tame Valley-** The narrow sinuous River Tame flows east west to join the River Goyt at Stockport to form the River Mersey. It is an important countryside corridor with areas of woodland along the valley sides that provides a buffer to neighbouring urban development. The wider area is characterised by dense urban and industrial development. Further north the landscape is enclosed by the Pennine hills. The M60 and associated planting are an established feature within the landscape that runs north south bisecting this character area. **Brinnington East-** The landscape pattern has been extensively disrupted by the M60 motorway and the M60/ A560 grade separated junction. The former landscape features have been largely replaced by linear woodland plantations within the highway boundary. It is a relatively small landscape character area and is enclosed by perimeter urban areas including schools, residential and industrial development and the disused Brinnington railway line. **Goyt Valley-** The 'U' shaped Goyt Valley is defined by extensive areas of continuously wooded slopes with a clearly defined and visually cohesive agricultural landscape pattern. The incised river is not generally visible in the wider scene being hidden by its densely wooded banks. **Offerton-Poise Brook-** An offshoot of the Goyt Valley, the northern section of the Poise Brook corridor is a smaller scale intimate landscape defined by the heavily wooded, steeply sloping topography of the valley margins. It forms a Green wedge between areas of urban development where it is valued for recreation. It has an important function as a green space which separates Hazel Grove / Torkington and Offerton from Offerton Green. However, much of the landscape pattern has been altered by sand and gravel workings. Further south the valley opens up into a broader shallow landscape with few distinctive features and comprising small and medium sized fields bounded by gappy hedgerows. **Hazel Grove- High Lane-** This is a large landscape character area lying between the Goyt and Ladybrook valleys draining to the west via a number of brooks, including the Ochreley and Norbury Brooks, from the prominent feature of Marple Ridge in the east. The landscape pattern is dominated by small to medium sized fields, mainly under grass and enclosed by gappy hedgerows and post and wire fences. Two golf courses with their distinctive arrangement of woodland planting contribute to the wooded nature, Stockport Golf Club lying to the north east of Torkington and Hazel Grove Golf Club to the south, bisected by a railway line.	Locally	**Tame Valley, Goyt Valley and Hazel Grove-High Lane-** Commonplace to the locality **Brinnington East and Offerton-Poise Brook-** Locally Abundant	**Tame Valley and Goyt Valley-** High importance at local level in the context of the wider river valleys landscape **Brinnington East and Offerton-Poise Brook-** Low **Hazel Grove-High Lane-** Medium importance at local level	**Tame Valley and Goyt Valley-** The river valley topography could not be replaced **Brinnington East and Offerton-Poise Brook-** Landscape features such as woodland, hedgerows and grassland could be replaced with time. **Hazel Grove-High Lane-** Most landscape elements could be replaced	**Tame Valley-** In the vicinity of the scheme the landscape pattern is heavily influenced by the existing M60 motorway and associated highway planting. The northern limit of the scheme would have a localised effect on a small part of this character area and it is likely the effects will be mitigated by the existing highway planting . Neutral effect **Brinnington East-** The scheme would not quite fit the landform and scale of the landscape. The effect is considered to be Slight Adverse effect. **Goyt Valley-** The scheme would be visually intrusive and will have an adverse impact on this landscape character area. Moderate Adverse localised effect. . **Offerton-Poise Brook-** The scheme would not quite fit the landform and scale of the landscape. The effect is considered to be Slight Adverse effect. **Hazel Grove-High Lane-** The scheme would be visually intrusive from the eastern edge of residential areas at Torkington and Norbury Moor. It will have an adverse impact on this landscape character area. Moderate Adverse localised effect.

Tranquillity	**Tame Valley-** Low level of tranquillity in the vicinity of the M60 and increasing in areas of the river valley in less urban areas. **Brinnington East-** Low level of tranquillity throughout this character area. **Goyt Valley-** Tranquillity levels in less urban areas of the Goyt River valley are high. **Offerton-Poise Brook-** Low level of tranquillity throughout this character area. **Hazel Grove-High Lane**- Tranquillity levels are high in eastern areas further away from urban areas to the west.	Locally	**Tame Valley, Brinnington East, Offerton-Poise Brook-** Rare at the scheme level **Goyt Valley-** Commonplace to the locality **Hazel Grove-High Lane-** Uncommon to the locality	**Tame Valley, Brinnington East and Offerton-Poise Brook-** Low in the immediate vicinity of the scheme **Goyt Valley and Hazel Grove-High Lane-** Medium Importance	**Tame Valley, Goyt Valley and Hazel Grove-High Lane-** Could not be replaced in the vicinity of the scheme **Brinnington East and Offerton-Poise Brook-** N/A	**Tame Valley-** Tranquillity has been lost in the vicinity of the existing M60 and it is unlikely that the scheme would have more widespread impacts in this character area. Neutral effect **Brinnington East-** The scheme is situated in an area which is already part of a busy road network, the effect on tranquillity is likely to be Neutral. **Goyt Valley-** Slight Adverse Effect **Offerton- Poise Brook-** The scheme is situated in an area which is close to urban areas. The effect on tranquillity is likely to be Slight Adverse effect. **Hazel Grove- High Lane-** Slight Adverse Effect. The tranquility of Stockport Town Centre may be increased due to a decrease in traffic along the A6 into Stockport town centre from the junction with the proposed scheme
Cultural	**Tame Valley-** The wider area has a legacy of industrial archaeology relating to the textile industry. Substantial environmental and recreational improvements implemented over many years through joint working and countryside management schemes. The valley includes several environmental designations including Reddish Vale Country Park, Local Nature Reserve and Sites of Biological Importance. Designated Greenbelt which is intended to check the unrestricted sprawl of large built up areas and assist in safeguarding the surrounding countryside from encroachment. **Brinnington East-** Despite its predominant transport uses, the landscape includes several environmental designations including part of the Reddish Vale Country Park, Sites of Biological Importance, designated Greenbelt and public open space. The greenbelt is intended to check the unrestricted spread of adjacent built up areas and to assist in safeguarding the surrounding countryside from encroachment. **Goyt Valley-** The wider area has a legacy of industrial archaeology relating to the textile industry. Substantial environmental and recreational improvements implemented over many years through joint working and countryside management schemes. The valley includes several environmental designations including Reddish Vale Country Park, Local Nature Reserve and Sites of Biological Importance. Designated Greenbelt which is intended to check the unrestricted sprawl of large built up areas and assist in safeguarding the surrounding countryside from encroachment. Notable features include Otterspool Bridge, Bredbury Hall, Goyt Hall and Goyt Hall Farm. **Offerton-Poise Brook-** The landscape includes an area of designated Greenbelt and public open space. The greenbelt is intended to check the unrestricted spread of adjacent built up areas and to assist in safeguarding the surrounding countryside from encroachment. **Hazel Grove-High Lane-** The area contains Sites of Biological Interest and areas of designated Ancient Woodland. All of this character area in the vicinity of the scheme is designated Greenbelt which is intended to check the unrestricted sprawl of large built up areas and assist in safeguarding the surrounding countryside from encroachment.	Locally	**Tame Valley-** Locally commonplace with some distinctive features **Brinnington East, Goyt Valley, Offerton-Poise Brook and Hazel Grove-High Lane-** Commonplace to the locality	**Tame Valley, Goyt Valley and Hazel Grove- High Lane-** Locally abundant at scheme level **Brinnington East and Offerton-Poise Brook-** Low	**Tame Valley and Goyt Valley-** Cultural aspects of this landscapes cannot be replaced. Features such as woodland could be replicated with time. **Brinnington East and Offerton-Poise Brook-** Greenbelt cannot be replaced **Hazel Grove-High Lane-** Greenbelt land cannot be replaced. Features such as woodland (except Ancient Woodland) could be replicated with time.	**Tame Valley-** The scheme would have not have a direct impact on any of the cultural landscape features described if it is constructed within the highway boundary. Neutral effect **Brinnington East-** The scheme would result in the loss of greenbelt land which cannot be replaced. The effect is considered to be Slight Adverse effect. **Goyt Valley-** The scheme would have a Slight Adverse effect on cultural landscape features **Offerton- Poise Brook-** The scheme would result in the loss of greenbelt land which cannot be replaced. The effect is considered to be Slight Adverse effect. **Hazel Grove- High Lane-** The scheme would have a Slight Adverse effect on cultural landscape features

Landcover	**Tame Valley-** The river valley is an important corridor of semi-natural habitats and natural green spaces with open grassland, woodland and wetland that link urban centres with open countryside. Sizeable areas of open grassland and other semi-natural habitats. Grade 2 agricultural land associated with areas of peat within the river valley. M60 motorway comprising hardstanding, lighting / signage / technology infrastructure and highway planting. **Brinnington East-** The M60 and A560 roads and associated engineered cuttings and embankments cover much of this character area. Woodland cover comprises highway planting bordering some sections of the roads, mature broadleaf woodland, and Crookilley Wood, which is designated Ancient Woodland, on the southern boundary of this character area. A few small fields remain to the north west of the M60 and are enclosed by a mix of gappy hedgerows and post and wire fencing. **Goyt Valley-** The valley contains a mixture of agricultural land, Sites of Biological Interest (including a number of areas of Ancient Woodland), developed sites including schools and factories, and extensive mineral workings at Offerton. The steep western slopes of the valley are primarily extensively wooded, substantial tracts of which are designated Ancient Woodland. **Offerton-Poise Brook-** The wooded margins of the Poise Brook merge with the wooded southern slopes of the Goyt Valley and contain an important recreational route providing access from Offerton to the Goyt Valley. The Poise Brook itself cuts a tract through Ancient Woodland close to the western boundary of this character area. An important feature of this zone is a small reservoir that nestles between properties along Clarendon Road and rising landform to the north. **Hazel Grove- High Lane-** The area contains a mixture of agricultural land, Sites of Biological Interest (including a number of areas of Ancient Woodland). Large areas of agricultural land interspersed with designated Ancient Woodland. Semi-ornamental landscape associated with Hazel Grove Golf Club.	Locally	**Tame Valley, Goyt Valley and Hazel Grove- High Lane-** Locally abundant	**Tame Valley, Goyt Valley and Hazel Grove-High Lane-** Medium at local level; the landscape includes several distinctive features **Brinnington East and Offerton-Poise Brook**- Low	Woodland and hedges could be replicated with time.	**Tame Valley-** The northern limit of the scheme would have a small localised effect on landscape elements that could be replaced. Neutral effect **Brinnington East-** The scheme would result in the loss of some areas of highway planting which could be replaced. Neutral effect **Goyt Valley-** The scheme would have a negative effect on landscape elements, some of which could not be replaced. Slight Adverse effect **Offerton- Poise Brook-** The scheme would result in the loss of existing woodland which could be replaced. Neutral effect **Hazel Grove- High Lane-** The scheme would have a negative effect on landscape elements, some of which could not be replaced. Slight Adverse effect
Summary of character	The study area lies within two of Natural England's National Character Areas. Area 55: Manchester Conurbation (Tame Valley, Brinnginton East, Goyt Valley and Offerton-Poise Brook) and 54: Manchester Pennine Fringe (Goyt Valley and Hazel Grove-High Lane). **Tame Valley-** The conurbation, which includes Stockport, is centred on low hills, crossed by river valleys that thread through the urban areas. It includes locally highly valued landscape, environmental and recreational resources which serve urban areas of Stockport. The Tame Valley is one of four river valleys that are collectively valued for their distinctive history and make up the pattern of Stockport's countryside. The visual amenity of the receptors within this LCA, residents, recreational and transient, are important and should be considered further during the scheme progresses. The Council has pursued an integrated approach to environmental protection and recreational provision throughout the river valleys' landscape and the distinctive attributes of these and the wider character are, including visual are protected and enhanced through local planning policy. **Brinnington East-** The landscape is heavily influenced by the network of major roads and associated transport infrastructure. It has no distinct character and contains few features and elements that could not be replaced, with the exception of Ancient Woodland at Crookilley Wood. **Goyt Valley-** The Goyt Valley is a highly valued landscape locally, environmental and recreational resources which serve urban areas of Stockport. It is one of four river valleys that are collectively valued for their distinctive history and make up the pattern of Stockport's countryside. Similarly to the Tame Valley character area the Council has pursued an integrated approach to environmental protection and recreational provision throughout	Locally	Commonplace to the locality	**Tame Valley, Goyt Valley and Hazel Grove-High Lane-** High importance at local level in the context of the wider river valleys landscape **Brinnington East and Offerton-Poise Brook-** Low	**Tame Valley and Goyt Valley-** Cultural aspects of this landscapes cannot be replaced. Features such as woodland could be replicated with time. **Brinnington East and Offerton-Poise Brook-** Landscape features such as woodland could be replicated with time **Hazel Grove-High Lane-** Areas of greenbelt land and Ancient Woodland cannot be replaced. Features such as woodland and hedgerows could	**Tame Valley-** In the vicinity of the scheme the landscape is heavily influenced by the existing M60 motorway. The northern limit of the scheme would have a localised effect on a small part of this character area and it is likely the effects will be mitigated by the existing highway planting. Neutral effect . Although not very visually intrusive in this section ,there is potential for impact on certain views into and across the area. **Brinnington East-** The scheme will have Slight Adverse effect on landscape elements, designated greenbelt, and on views into and across this landscape. The scheme may be visually intrusive and will have an adverse impact on this landscape character area. **Goyt Valley-** The scheme would affect an area of recognised landscape quality and would be visually intrusive . It would not be possible to fully integrate the scheme. Environmental design measures would not prevent the scheme from scarring the landscape in the longer term as some features will be partly destroyed or their setting damaged . Moderate Adverse effect

	approach to environmental protection and recreational provision throughout the river valleys landscape through local planning policy. As well as being a fully functioning agricultural landscape, it contains recreational routes and has considerable amenity value including visual , forming part of the Etherow - Goyt Valley complex. It is an important buffer zone between Bredbury and Offerton. The visual amenity of the receptors within this LCA, residents, recreational and transient, are important and should be considered further as the scheme progresses. **Offerton-Poise Brook-** The narrow nature of the steeply sloping valley, combined with the heavily wooded sides provides a sense of enclosure and a more intimate landscape than the adjacent Goyt Valley , this landscape form ensures views are limited both in and out of the character area. It is a mixture of ordinary to good quality landscape in the vicinity of the Poise Brook, with localised areas of degradation resulting from mineral workings. It provides an important neighbourhood greenspace buffer. **Hazel Grove-High Lane-** Is a locally valued landscape, environmental and recreational resource which serves urban areas of Stockport. As well as being a fully functioning agricultural landscape, it contains golf courses, important recreational routes including Cown Edge Way, Middlewood Way and Ladybrook Valley Interest Trail and a dense network of public footpaths. The visual amenity of this landscape is an important feature due to it recreational land use.				hedgerows could be replicated with time.	setting damaged. Moderate Adverse effect **Offerton-Poise Brook-** The scheme will have a Slight Adverse effect on landscape elements, designated greenbelt,. The scheme has the potential to be visually intrusive and will adversely impact on the landscape. **Hazel Grove- High Lane-** The scheme would affect an area of recognised landscape quality. It would not be possible to fully integrate the scheme. Environmental design measures would not prevent the scheme from scarring the landscape in the longer term as some features will be damaged. The scheme would be visually intrusive from the eastern edge of residential areas at Torkington and Norbury Moor. There is potential for effects upon visual amenity within this character area, including effects on key views from recreational facilities and public footpaths . Moderate Adverse effect

Reference Sources

National Character Area 55: Manchester Conurbation, 54: Manchester Pennine Fringe, Natural England 2013. Stockport Metropolitan Borough Council, Stockport Unitary Development Plan Landscape Character Areas (UDP Policy LCR1.1). TAG Unit A3 Environmental Impact Appraisal, Department for Transport, December 2015. SEMMMS A6-M60 Stage 2 Scheme Corridor (Job No. 70019764) Figure 1 Rev. V5 Pages 1 - 3, WSP Parsons Brinckerhoff.

Step 5 - Summary Assessment Score

Moderate Adverse

Qualitative Comments

The scheme will introduce a major new road and traffic into areas of relatively tranquil countryside which is made up of river valley landscape character areas which are of recognised quality and value. Although it will not be possible to fully integrate the scheme into the rural landscape it could be designed to incorporate environmental design measures that will blend with the surrounding landscape characteristics and landscape elements, and reduce visual impact. The scheme would have a negative effect on landscape character areas, both in terms of character and visual amenity, that are recognised environmental and recreational resources in close proximity to a number of urban settlements that have been protected and enhanced for these purposes over a number of years. Planning policy emphasises the importance of maintaining the countryside character of the river valleys, which includes the Tame Valley and Goyt Valley. The reduction of traffic along the A6 into Stockport town centre from the junction with the proposed scheme could create benefits to the tranquility. The visual amenity of the receptors around the scheme, residents, recreational, educational and transient, are important and should be considered further as the scheme progresses. Mitigation of environmental impact of the scheme will be necessary to protect and enhance the distinctive attributes of the rural landscape adjoining the scheme. Off site landscape enhancement could include tree planting, hedgerow planting / reinforcement and species rich grassland to reinforce the distinctive character of the adjoining landscape, particularly in the river valley character areas and help to screen the scheme where necessary. There would be irreplaceable loss of greenbelt land.

SEMMMS A6-M60 Relief Road TAG Townscape Worksheet (Bredbury, Offerton and Hazel Grove) Townscape Character Area

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	Step 2	Step 3					Step 4
Features	**Description**	**Scale it matters**	**Rarity**	**Importance**	**Substitutability**	**Changes in Without-scheme case**	**Impact**
Layout	**Bredbury**- The townscape comprises large scale industrial units at Bredbury Industrial Estate set out in a tight grid arrangement on relatively flat land to the north of the Manchester to Buxton railway line. The railway separates it from large-scale commercial development to the south. Further south, including Lower Bredbury and Arden Park, the townscape includes a very dense network of residential and commercial properties constructed on a tight local road network. **Offerton-** This large character area on the eastern edge of Stockport includes the local areas of Stepping Hill, Offerton, Offerton Green and the existing A6 road, which is a dominant element in the existing road network. Wide roads, narrow pavements and soft landscaping are distinctive elements in the vicinity of the A6. All three local areas are predominantly residential areas with Stepping Hill Hospital on the south side of the A6. Offerton Green is a small town located to the west of the scheme on the southern fringe of the Goyt Valley. It is separated from the other two areas by a tract of undeveloped landscape reserved for the scheme. **Hazel Grove-** The Hazel Grove character area lies on the south eastern edge of Stockport and includes the local areas of Torkington and Norbury Moor. Torkington forms the eastern townscape fringe of Hazel Grove and is bounded by Norbury Moor to the south and Stepping Hill to the west with extensive agricultural landscapes to the east. Numerous public footpaths provide access for informal recreation in the countryside adjacent to Torkington. Norbury Moor is separated from Torkington by the Stockport to Buxton railway line, and is built around the main routes of the A6, A523(T) and A5143 roads. Norbury Moor lies to the north of the Ladybrook Valley, one of the four protected river valley landscapes.	Local	Local	Low	Could be replaced	The scheme site and surrounding townscape is unlikely to undergo substantial changes to its layout in the short term.	**Bredbury-** Industrial premises on the outskirts of the estate west of A6017 Ashton Road would be removed to accommodate the proposed M60 / A6 / A6017 at junction 25. Residential properties on the western edge of Bredbury adjacent to the reserved line for the scheme would be removed. Slight Adverse effect. **Offerton-** Residential properties on the eastern edge of Offerton and Foggbrook and the north western edge of Offerton Green adjacent to the scheme would be directly impacted by the scheme. Slight Adverse effect. **Hazel Grove-** A small number of residential properties on the eastern edge of Torkington and the north eastern edge of Norbury Moor would be directly impacted by the scheme. Views of the new road would be widely available from the eastern edge of both areas. Slight Adverse effect.
Density and mix	**Bredbury**- Bredbury Industrial Estate contains high density, predominantly two storey industrial units with inadequate car parking. By contrast the commercial area is clearly defined, low density large retail supermarket developments / fast food outlet with extensive car parking areas and perimeter landscaping. The residential areas comprise mainly two storey, semi-detached housing with large gardens and public open space interspersed with some commercial development (primarily local independent retailers). **Offerton-** All three areas that make up the district, comprise comparatively low density, low-rise residential development. The housing types range include detached, semi-detached, terrace, maisonettes and bungalows. Several small areas of public open space exist throughout the residential areas at Stepping Hill and Offerton Green. The areas of older detached housing are relatively low density compared to the late 20th and early 21st century developments. **Hazel Grove-** Torkington comprises residential areas built in the late Victorian era at the turn of the 20th century, 1930's two storey housing detached and semi-detached housing, and modern residential properties served by a local community centre. Residential development at Norbury Moor is similar in composition but with larger gardens and laid out in a series of crescents and cul-de-sacs lined with street trees. it includes a commercial and industrial area to the north east near the railway line.	Local	Local / common	Low	Could be replaced	The density and mix within this townscape is unlikely to undergo substantial changes in the short term.	There would be no changes to the density and mix of the adjacent townscape as a result of the scheme. Neutral effect.

Scale	**Bredbury-** Bredbury Industrial Estate contains smaller scale units to the north adjacent to the M60 and A560 with large scale units on the central and eastern areas of the estate. Large scale commercial development (Morrisons, Homebase etc.) to the south of the railway line. Residential development is small scale, typically two storeys high detached and semi-detached housing. **Offerton-**Small scale residential development interspersed with small commercial outlets. The majority of the dwellings do not exceed two storeys in height. Stepping Hill Hospital is a large scale prominent building complex at Stepping Hill. **Hazel Grove-** Small scale residential development interspersed with small commercial premises. The majority of the dwellings do not exceed two storeys in height.	Local	Local / common	Low	Could be replaced	The scale of the townscape is unlikely to change substantially in the short term.	There would be no changes to the scale of the adjacent townscape as a result of the scheme. The scheme would be a noticeable new feature in the landscape where it adjoins areas of small scale residential development. Slight Adverse effect.
Appearance	**Bredbury-** Established tree, shrub and hedgerow structure planting encloses most of the larger industrial premises in the central and eastern areas of Bredbury Industrial Estate. The smaller units to the north and west do not benefit from perimeter planting and the appearance is dominated by ad-hoc parking, diverse building styles and signage. The commercial development is enclosed by structure planting and lacks local distinctiveness. The residential areas are generally well maintained and their appearance is enhanced by extensive mature tree and shrub planting within the front and rear gardens and adjoining open spaces. **Offerton-** Older residential properties in all areas are generally set back from main roads with abundant mature tree and shrub planting in the front gardens that creates an attractive, well maintained suburban character. Elsewhere housing constructed since the 1970s is less distinctive in appearance. **Hazel Grove-** Residential properties at Torkington are frequently are set close to roads with abundant mature tree and shrub planting in the back gardens that contributes to its well maintained suburban character. Mature trees are common in pockets of open space. Residential properties at Norbury Moor are set well back from main roads behind mature trees/shrubs/ hedges that provide a buffer to the traffic and create an attractive verdant townscape. The townscape is well maintained throughout.	Local	Local / common	Low	Could be replaced	The scheme site and surrounding townscape is unlikely to undergo substantial changes in the short term.	There would be no changes to the appearance of the adjacent townscape as a result of the scheme. The scheme would be a noticeable new feature in the landscape where it adjoins areas of small scale residential development. Slight Adverse effect.
Human interaction	**Bredbury-** Low levels of human interaction throughout Bredbury Industrial Estate. Local shopping facilities that serve the residential areas of Bredbury encourage human interaction. The Etherow and Goyt Valley Way recreational trail and several areas of public open space are accessible to nearby residents. **Offerton-** Local shopping facilities and areas of public open space that serve the residential areas encourage human interaction. The Goyt Valley Way is accessible to nearby residents at Offerton and Offerton Green. **Hazel Grove-** It is likely that local shopping facilities and areas of public open space that serve the residential areas encourage human interaction. The adjoining countryside is accessible to nearby residents via a dense network of public footpaths. Because areas of public open space within the residential areas are small, it is likely that there is widespread use of the adjoining countryside.	Local	Local / common	Low	Could be replaced	The townscape is unlikely to undergo substantial changes in the short term that would affect human interaction.	There would be no changes to human interaction in the adjacent townscape as a result of the scheme. Neutral effect.

Cultural	**Bredbury-** As the older residential areas date from the early/mid 20th century the townscape is comparatively modern and does not contain significant areas of cultural or historical associations. Some older buildings have importance locally and are of a distinctive style in contrast with the modern residential development. **Offerton-** Norbury Hall is a locally important building that dates back to the 1700's. Several older Victorian buildings are of local importance and are of a distinctive style in contrast with the modern residential development. **Hazel Grove-** Norbury Hall is a locally important building that dates back to the 1700's. Several older Victorian buildings are of local importance and are of a distinctive style in contrast with the modern residential development.	Local	Local / common	Low	Could be replaced	Cultural heritage features in the vicinity of the scheme are unlikely to undergo substantial changes in the short term.	**Bredbury-** Few cultural heritage features exist in the vicinity of the scheme. Neutral effect. **Offerton and Hazel Grove-** No cultural heritage features would be affected by the scheme. Neutral effect.
Land use	**Bredbury-** Includes industrial, commercial and residential with clear separation, mainly from transport routes, between the different land uses. **Offerton-** Land use is predominantly residential with several important transport routes including the A6 London Road and A625 Stockport Road. Small retail stores serve the local community. **Hazel Grove-** Land use is predominantly residential with several important transport routes including the A6 London Road and A625 Stockport Road. Small retail stores serve the local community.	Local	Local	Low	Could be replaced	Land use is unlikely to change substantially in the short term.	The scheme is unlikely to affect adjacent land uses. Neutral effect.
Summary of character	**Bredbury-** The townscape comprises discrete areas of industrial, commercial and residential development, most of which dates from the mid to late 20th century. The quality of the townscape is ordinary and lacks local distinctiveness. **Offerton-** The townscape comprises extensive areas of residential development, most of which dates from the mid to late 20th century, interspersed with major roads. The quality of the townscape is ordinary / good. **Hazel Grove-** The townscape comprises extensive areas of residential development, most of which dates from the mid to late 20th century, interspersed with major roads. The quality of the townscape is ordinary / good.	Local	Local	Low	Could be replaced	The scheme site and surrounding townscape is unlikely to undergo substantial changes in the short term.	**Bredbury-** The character of the townscape is unlikely to be affected by the scheme. The nature of the proposals is likely to be in keeping with the existing character of Bredbury industrial estate. There would be a noticeable change to views from some adjacent properties as a result of the scheme. Slight Adverse effect. **Offerton and Hazel Grove-** The character of the townscape is unlikely to be affected by the scheme. There would be direct impacts on a small number of properties and a noticeable change to views from several adjacent properties as a result of the scheme. Slight Adverse effect.

Reference Sources

TAG Unit A3 Environmental Impact Assessment, Impacts on Townscape, Department for Transport, December 2014. Stockport Metropolitan Borough Council Core Strategy DPD March 2011. SEMMMS Major Road Schemes Interim Environmental Assessment Report Volume 2 - Part 6 Townscape Effects, Mouchel Parkman, 2007. Google Earth Pro. SEMMMS A6-M60 Stage 2 Scheme Corridor (Job No. 70019764) Figure 1 Rev. V5 Pages 1 - 3, WSP Parsons Brinckerhoff.

Step 5 - Summary Assessment Score

Slight Adverse

Qualitative Comments

Bredbury- The quality of the townscape is ordinary and lacks local distinctiveness. The scheme will not have a significant effect on the local pattern of the townscape. The new road will be close to residential properties where it will have an adverse impact on views and visual amenity. New planting within the highway boundary will be necessary for landscape mitigation. Consideration should be given to offsite tree and shrub planting, which would require agreement with the relevant landowners.

Offerton- The quality of the townscape is ordinary and lacks local distinctiveness. The scheme will not have a significant effect on the local pattern of the townscape. There will be a direct impact on a small number of residential properties on the eastern edge of Offerton and Foggbrook and the north western edge of Offerton Green adjacent to the scheme. The new road will be close to residential properties in adjoining areas at Offerton, Foggbrook and Offerton Green where it will have an adverse impact on views and visual amenity. New planting within the highway boundary will be necessary for mitigation. Consideration should be given to offsite tree and shrub planting, which would require agreement with the relevant landowners.

Hazel Grove- The quality of the townscape is ordinary to good and contains local distinctiveness. The scheme will not have a significant effect on the local pattern of the townscape. There will be a direct impact on a small number of residential properties on the eastern edge of Torkington and the north eastern edge of Norbury Moor as a result of the scheme. Views of the new road would be widely available from residential properties on the eastern edge of both areas. Adjacent to the scheme where it will have an adverse impact on views and visual amenity. The scheme will sever a number of well used public footpaths between Torkington and Newbury Moor and the adjoining countryside, which will reduce the extent of accessible open space for informal recreation. New planting within the highway boundary will be necessary for landscape mitigation. Consideration should be given to offsite tree and shrub planting, which would require agreement with the relevant landowners.

APPENDIX 10-5

NOISE WEBTAG

Noise Workbook - Worksheet 1

DRAFT

Proposal Name: SEMMMS

Present Value Base Year	2010
Current Year	2017
Proposal Opening year:	2024
Project (Road, Rail or Aviation):	road

Net present value of change in noise (£):	-£6,193,879

*positive value reflects a **net benefit** (i.e. a reduction in noise)

Net present value of impact on sleep disturbance (£):	-£2,496,625
Net present value of impact on amenity (£):	-£2,605,903
Net present value of impact on AMI (£):	-£256,945
Net present value of impact on stroke (£):	-£332,166
Net present value of impact on dementia (£):	-£502,240

Quantitative results

Households experiencing increased daytime noise in forecast year:	1098
Households experiencing reduced daytime noise in forecast year:	539
Households experiencing increased night time noise in forecast year:	n/a
Households experiencing reduced night time noise in forecast year:	n/a

Qualitative Comments:

The proposed scheme would give rise to noise benefits and disbenefits outside the adopted noise Study Area that are therefore not reflected in the Net Present Value (NPV) above. It is anticipated that the key routes across this wider area that would benefit from a reduction in traffic noise would be the A34 between Congleton and Manchester and the M60 between J4 and J25. Those wider area routes that would be subject to road traffic noise increase would be A536 Congleton to Macclesfield, Dark Lane, Gawsworth Road, Priory Lane, Macclesfield Road, the A532, New Road, Prestbury Lane and Clifford Lane. The routes that would be subject to noise level decrease pass through / in proximity to a greater number of agglomerations and receptors than the routes that would be subject to noise level increases.

The completed assessment should be considered to represent a worst case on the basis that for each receptor, the greatest noise level increase / least beneficial decrease is considered (lesser increases, or indeed greater decreases on other facades are discounted).

Data Sources:

The assessment has been based on the scheme traffic data as provided by TfGM. Noise level predictions have also drawn upon the following data sources:

- 1m and 2m Lidar Digital Terrain Model (DTM) data
- A site specific topographic survey for the proposed route corridor.
- The 3D topographic design for the scheme as assessed.
- The Buildings and Integrated Transport Network (ITN) layers of Ordnance Survey 1:1250 Master Map.
- Address Base data for the noise study area.

APPENDIX 10-6

WATER WEBTAG

TAG Water Environment Impacts Worksheet

DRAFT

Description of study area/ summary of potential impacts	Key environmental resource	Features	Quality	Scale	Rarity	Substitutability	Importance	Magnitude	Significance
Study area: A6-M60 Relief Road	River Goyt	Water Supply	High	Regional	High	High	High	Slight Adverse	Low
		Transport and dilution of waste products	Low	Local	Low	Low	High	Negligible	Insignificant
		Biodiversity	High	Local	Medium	High	High	Slight Adverse	Low significance
		Aesthetics	Medium	Local	Low	Medium	Medium	Negligible	Insignificant
		Cultural heritage	Low	Local	Low	Low	Low	Negligible	Insignificant
		Recreation	High	Regional	Medium	Medium	High	Negligible	Insignificant
		Value to Economy	High	Regional	High	Medium	Medium	Negligible	Insignificant
		Conveyance of flow and material	High	Regional	Medium	High	High	Negligible	Insignificant
	Poise Brook	Water Supply	Medium	Local	Low	Low	Medium	Slight Adverse	Insignificant
		Transport and dilution of waste products	High	Local	Low	Low	Medium	Negligible	Insignificant
		Biodiversity	High	Local	Medium	High	High	Large Adverse	Highly significant
		Aesthetics	Low	Local	Low	Medium	Low	Moderate Adverse	Insignificant
		Cultural heritage	Low	Local	Low	Low	Low	Negligible	Insignificant
		Recreation	Medium	Local	Medium	Low	Medium	Slight Adverse	Insignificant
		Value to Economy	Low	Local	Medium	Low	Low	Moderate Adverse	Insignificant
		Conveyance of flow and material	High	Local	Medium	Medium	High	Large Adverse	Highly significant
	Threaphurst Brook	Water Supply	Low	Local	Low	Low	Medium	Slight Adverse	Insignificant
		Transport and dilution of waste products	Medium	Local	Low	Low	Low	Negligible	Insignificant
		Biodiversity	High	Local	Low	Low	Medium	Slight Adverse	Low significance
		Aesthetics	Low	Local	Low	Low	Low	Negligible	Insignificant
		Cultural heritage	Low	Local	Low	Low	Low	Negligible	Insignificant
		Recreation	Medium	Local	Low	Low	Low	Negligible	Insignificant
		Value to Economy	Low	Local	Low	Low	Low	Negligible	Insignificant

	Conveyance of flow and material	Medium	Local	Low	Low	Medium	Slight Adverse	Insignificant
Ox Hey Brook	Water Supply	Low	Local	Low	Low	Low	Slight Adverse	Insignificant
	Transport and dilution of waste products	Medium	Local	Low	Low	Low	Negligible	Insignificant
	Biodiversity	High	Local	Low	Low	Medium	Slight Adverse	Low significance
	Aesthetics	Low	Local	Low	Low	Low	Negligible	Insignificant
	Cultural heritage	Low	Local	Low	Low	Low	Negligible	Insignificant
	Recreation	Low	Local	Low	Low	Low	Negligible	Insignificant
	Value to Economy	Low	Local	Low	Low	Low	Negligible	Insignificant
	Conveyance of flow and material	Low	Local	Low	Low	Medium	Slight Adverse	Insignificant
Ochreley Brook	Water Supply	Low	Local	Low	Low	Medium	Slight Adverse	Insignificant
	Transport and dilution of waste products	Low	Local	Low	Medium	Medium	Negligible	Insignificant
	Biodiversity	Medium	Local	Low	Low	Low	Slight Adverse	Insignificant
	Aesthetics	Low	Local	Low	Low	Low	Negligible	Insignificant
	Cultural heritage	Low	Local	Low	Low	Low	Negligible	Insignificant
	Recreation	Medium	Local	Low	Low	Low	Negligible	Insignificant
	Value to Economy	Low	Local	Low	Low	Low	Negligible	Insignificant
	Conveyance of flow and material	Medium	Local	Low	Low	Medium	Slight Adverse	Insignificant
Other main rivers within study area	Water Supply	Low	Local	Low	Low	Medium	Slight Adverse	Insignificant
	Transport and dilution of waste products	Low	Local	Low	Medium	Medium	Negligible	Insignificant
	Biodiversity	Medium	Local	Low	Low	Low	Slight Adverse	Insignificant
	Aesthetics	Low	Local	Low	Low	Low	Negligible	Insignificant
	Cultural heritage	Low	Local	Low	Low	Low	Negligible	Insignificant
	Recreation	Medium	Local	Low	Low	Low	Negligible	Insignificant
	Value to Economy	Low	Local	Low	Low	Low	Negligible	Insignificant
	Conveyance of flow and material	Medium	Local	Low	Low	Medium	Slight Adverse	Insignificant
Other ordinary	Water Supply	Low	Local	Low	Low	Low	Negligible	Insignificant

	watercourses within study area	Transport and dilution of waste products	Low	Local	Low	Low	Low	Negligible	Insignificant
		Biodiversity	Low	Local	Low	Low	Low	Slight Adverse	Insignificant
		Aesthetics	Low	Local	Low	Low	Low	Negligible	Insignificant
		Cultural heritage	Low	Local	Low	Low	Low	Negligible	Insignificant
		Recreation	Low	Local	Low	Low	Low	Negligible	Insignificant
		Value to Economy	Low	Local	Low	Low	Low	Negligible	Insignificant
		Conveyance of flow and material	Low	Local	Low	Low	Medium	Slight Adverse	Insignificant
	Groundwater	Water Supply	Medium	Regional	Low	Low	Low	Slight Adverse	Low significance
		Transport and dilution of waste products	Low	Regional	Low	Low	Low	Negligible	Insignificant
		Value to Economy	High	Regional	Low	Low	Medium	Negligible	Insignificant
	Floodplain	Conveyance of flow and material	High	Regional	Low	Low	High	Moderate Adverse	Significant

Reference Sources

EA WIMBY website - groundwater viewer including source protection zones, superficial and principal aquifer maps and location of abstractions. British Geological Survey Geoindex, BGS Hydro Map Sheet 11 of the Cheshire and Clywyd Basin. BGS geological map 98 Stockport - online version, georecords plus+. All maps were viewed on 27 February 2017.

Environment Agency (EA) Flood Map for Planning, EA Map of Water Abstraction Licences, EA Risk of Flooding from Surface Water Map; EA Groundwater Map, British Geological Survey Geology of Britain viewer, Defra MAGIC map. All the maps were viewed online in March 2017.

Summary Assessment Score

Large Adverse

Qualitative Comments

The route is located within predominantly open greenfield land and will cross a number of watercourses, with the most relevant being the River Goyt (main river), Poise Brook (main river), Threaphurst Brook (main river), Ochreley Brook (main river) and Ox Hey Brook (ordinary watercourse). The proposed scheme also crosses several unnamed ordinary watercourses, field drains, ditches and dykes located throughout the study area. The crossing of the Poise Brook will require significant realignment and culverting. Measures to manage and mitigate potential impacts are still in abeyance hence a significant impact is currently reported. The crossing of the River Goyt will comprise a clear span bridge with relatively minimal impact. Other watercourse crossings are likely to comprise a culvert. The tunnel to the north of the scheme may require the realignment of a minor watercourse.

The route is located within the Poise Brook and the Goyt (Etherow to Mersey) catchments. Both catchments are monitored against the objectives of the WFD. Both are assessed as having 'good' chemical quality. While the River Goyt presents 'moderate' ecological quality, Poise Brook shows a 'poor' ecological classification. Poise Brook flows through a local nature reserve (LNR) to the north-west of Offerton, which is designated an ancient woodland and a priority habitat.

The River Goyt supports four large and medium surface water abstractions within the study area that are used for non-potable purposes.

The following groundwater abstractions have been identified: medium sized groundwater abstraction 2.17km east of the route at its southernmost point, near Hawk Green; medium sized groundwater abstraction 885 metres east of the place where the route splits; medium sized groundwater abstraction 97 metres east of the scheme at Offerton Green; two large groundwater abstractions near the centre of Stockport, approximately 2.65km west of the scheme; large groundwater abstraction approximately 1.5km west of the scheme, near Vernon Park; large groundwater abstraction approximately 2.1km east of the scheme, near Oakwood Mills; medium size groundwater abstraction from the Collyhurst sandstone formation at Hazel Grove, approximately 840 m south of the spur for Stepping Hill.

The route is partially located in a groundwater source protection zone (SPZ). The SPZ relates to the large groundwater abstractions within Stockport town centre at its nearest point.

Bedrock geology is classed as Secondary A aquifer. Superficial Till geology is classed as secondary (undifferentiated) aquifer; and superficial alluvium, glaciofluvial deposits and river terrace deposits are all classed as Secondary A aquifer.

The majority of the scheme and the surrounding area lies within Flood Zone 1, where the annual probability of flood risk from fluvial, tidal and surface water sources is less than 0.1%. However, the schemes passes through two notable areas of flood risk associated with the Poise Brook in the vicinity of Bean Leach Road; and the River Goyt - although flood flows of the River Goyt are mostly confined to the channel. Measures to manage and mitigate potential impacts to flood risk and flood flow conveyance are still in abeyance hence a significant impact is currently reported. Review of surface water mapping indicates overland flow routes associated with the smaller watercourses that are crossed by the scheme. Areas of historical flooding within the proposed scheme include Offerton Road and Marple Road, with plausible flooding in Torkington Road.

It is possible that surface water runoff from the scheme will be discharged to the River Goyt, Poise Brook, Threaphurst Brook, Ochreley Brook or Ox Hey Brook. It is considered unlikely that smaller watercourses will receive surface water runoff. It is assumed that discharge will be limited to the equivalent greenfield runoff rate and that runoff will be treated prior to discharge, although a slight risk to water quality may remain depending on the treatment systems installed.

Appendix 11

2007 ECONOMIC REPORT & TECHNICAL NOTE

APPENDIX 11-1

2007 SEMMMS ECONOMIC UPDATE FOR DFT

Stockport Metropolitan Borough Council
Hygarth House
103 Wellington Road South
Stockport
SK1 3TT

SEMMMS New Relief Road Scheme

Economic Update

Further Information for DfT

15 October 2007

SEMMMS New Relief Road Scheme

Economic Update

Further Information for DfT

This report has been prepared for the specific purpose on behalf of Cheshire County Council, Manchester City Council and Stockport Metropolitan Borough Council

The contact, on behalf of the authorities promoting the Scheme is:

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1. Introduction

1.1. Purpose of Report

This document has been prepared at the request of the Department of Transport (DfT) to provide further information following the submission of the SEMMMS New Relief Road Economic Update Report on 2nd October 2007.

The report seeks to address the issues raised in the email from the DfT on 10th October 2007 by Charlie Sunderland (See Appendix A).

It has not been possible to provide all of the information by the deadline of 15th October 2007.

This document presents the results of the updated economic appraisal using fixed demand matrices for the SEMMMS New Relief Road Complete Scheme and three sections of the Scheme as follows:

- The Northern section from M60 Bredbury to A523 South of Hazel Grove
- The Southern section from the Manchester Airport Link to A6 South East of Hazel Grove and Poynton Bypass
- The Southern section, as above, but excluding Poynton Bypass

The elasticity based variable demand analyses have been completed for the Complete Scheme and the Southern Section excluding Poynton Bypass only. The network and matrices in the SEMMMS computer model are very extensive requiring about 60 hours of computer time to complete the six elasticity assignments for each scenario.

In order to meet the deadline requested by DfT, it has not been possible within the period available to carry out the level of detailed checking that would normally be appropriate.

1.2. Format of Report

This report documents the update of the economic appraisal of the SEMMMS New Relief Road based upon the traffic forecasts derived from the SEMMMS3 traffic model. This report comprises the following Chapters:

1. Introduction
2. SEMMMS3 Traffic Model
3. The Accident Benefits
4. The Economy Objective
5. Conclusions.
6. This report does not reproduce the text contained in the "SEMMMS3 Economic Update Report – September 2007 (amended October 2007)" and is referred to as "the previous report".

2. SEMMMS3 Traffic Model

The traffic assignment model used in the original SEMMMS work and customised for the SEMMMS New Relief Road was the Greater Manchester Sub-Regional Highway Model (SRHM). The Greater Manchester Transportation Unit (GMTU), which operates under the auspices of the Association of Greater Manchester Authorities, holds the SRHM on behalf of the ten Greater Manchester Districts. The model has been used for a variety of purposes including scheme design and consideration of the impact of new developments.

2.1. Traffic Forecasts

The traffic forecasts are the main input to the assessment of economic impacts. Details of these forecasts are included in the SEMMMS3 Forecasting Report which was submitted to the DfT in June 2005.

The updated elasticity based variable demand analyses were produced by assigning, to networks for the each of following scenarios, the SEMMMS3 forecast matrices for each forecast year (2011 and 2026) and for three time periods (weekday morning peak hour, inter peak hour and evening peak hour):

Do-Something: SEMMMS New Relief Road Complete Scheme: Do Minimum **plus** the complete alignment of the SEMMMS New Relief Road scheme

Do-Something: SEMMMS New Relief Road Southern Section exc. Poynton BP: Do Minimum **plus** the section of the SEMMMS New Relief Road scheme from A6 South East of Hazel Grove to Airport M56 Link Road **excluding** Poynton Bypass

2.2. Traffic Implications

Within the available time-scale it has not been possible to assess the realism of the assignments or the impact on the existing highway network adjacent to junctions and feeder routes with the new road. In particular, consequential problems on the existing road network in the vicinity of the interim end points of a partial scheme will need to be addressed.

2.3. Factoring

The methodology adopted for the conversion of the hourly PCU output provided by GMTU from the SEMMMS3 model to the units required in the TUBA analyses is described in Appendix A of the previous report. These factors were derived by GMTU from their database of traffic characteristics across Greater Manchester and from specific count data within the area of interest for the Scheme.

The derivation of the annualisation factors used in the TUBA benefit cost calculations is also presented in that Appendix.

3. The Accident Benefits

3.1. Methodology

The methodology is unchanged from that described in the previous submissions.

3.2. Summary Accident Results

The results from the accident analyses for the SEMMMS New Relief Road Complete Scheme and the sections under consideration are presented in Tables 3.1 and 3.2. The reduction in accidents and casualties and the overall accident cost savings are summarised for two model years and for the whole 60-year appraisal period.

The accident cost savings have been added to the benefits quantified by TUBA and reported in Chapter 4 of this report.

Table 3.1: Summary of Accident Benefits for SEMMMS New Relief Road Complete Scheme and Sections under Consideration – Variable Demand Matrices

Variable Demand Matrices	2011	2026	Total Appraisal Period
Benefits with Complete Scheme			
Number of Personal Injury Accidents	48.5	67.4	3,890.4
Casualties Fatal	0.2	0.3	18.4
Serious	4.9	6.5	377.6
Slight	57.0	80.1	4,623.4
Accident Costs	2,634	2,806	138,397
Benefits with Northern Section not yet available			
Benefits with Southern Section not yet available			
Benefits with Southern Section excluding Poynton Bypass			
Number of Personal Injury Accidents	35.7	47.9	2,775.1
Casualties Fatal	0.3	0.3	20.2
Serious	4.0	5.1	298.4
Slight	43.1	58.0	3,362.3
Accident Costs	2,063	2,110	104,695
Note: Accident costs are in £000's discounted to present values in 2002 prices			

Table 3.2: Summary of Accident Benefits for SEMMMS New Relief Road Complete Scheme and Sections under Consideration – Fixed Demand Matrices

Fixed Demand Matrices	2011	2026	Total Appraisal Period
Benefits with Complete Scheme			
Number of Personal Injury Accidents	79	90	5,300
Casualties Fatal	0	0	32
Serious	8	9	524
Slight	97	109	6,464
Accident Costs	4,401	3,815	194,312
Benefits with Northern Section			
Number of Personal Injury Accidents	45	59	3,194
Casualties Fatal	0	0	23
Serious	5	6	321
Slight	56	73	3,945
Accident Costs	2,582	2,572	128,105
Benefits with Southern Section			
Number of Personal Injury Accidents	48	61	3,578
Casualties Fatal	0	0	24
Serious	5	6	370
Slight	59	75	4,383
Accident Cost Savings	2,710	2,656	132,629
Benefits with Southern Section excluding Poynton Bypass			
Number of Personal Injury Accidents	43	56	3,280
Casualties Fatal	0	0	25
Serious	5	6	351
Slight	53	69	4,023
Accident Costs	2,517	2,496	124,417
Note: Accident costs are in £000's discounted to present values in 2002 prices			

4. The Economy Objective

4.1. Scheme Cost Estimates

The estimates used in this assessment of the SEMMMS New Relief Road and its sections have been updated from those used in previous reports. The capital cost of the Scheme and land reflect increases resulting from Risk Analysis.

Table 4.1 summarises the component costs for New Relief Road used in this updated analysis including adjustment for Optimism Bias.

Optimism bias has been applied to all elements of expenditure except Preparation. Optimism bias has not been applied to items of risk expenditure. 25% optimism bias has been assumed for capital expenditure and 10% for expenditure on maintenance and operation as supported in the previous report. Land, construction, maintenance and operation each have a risk component included in the estimated cost.

The costs for the Complete Scheme and the Northern section include approximately £15 million (excluding additional inflation) for improvements to M60 at junction 25.

Table 4.1: Component Costs of SEMMMS New Relief Road with 25% Optimism Bias

Item	Complete Scheme	Northern Section	Southern Section	Southern Section exc. Poynton BP
Preparation	17,415,238.54	13,398,683.01	7,652,607.79	7,652,607.79
Supervision	14,070,032.56	10,852,137.95	6,207,606.49	6,207,606.49
Land acquisition and compensation	128,348,422.09	87,469,156.14	59,016,514.44	50,016,339.51
Construction	426,641,006.58	278,999,664.54	187,927,076.32	168,654,517.12
Total Capital Cost	**586,474,699.78**	**390,719,641.64**	**260,803,805.04**	**232,531,070.90**
Maintenance and Operation	157,855,647	103,850,692	71,587,395	63,865,983

Note: These estimates are £s at 2003 Q2 prices.

The estimates have been prepared as follows:

- Construction price real inflation has been applied from 2003 using 23.2% up to 2007 (see Appendix B) and 6% p.a. up to construction start.
- The section estimates are summarised in the Bid Profile in Appendix C.
- Deflation has been applied at 3.5% p.a. back to 2007 and 14.3% for 2007-2003 based upon RPI.
- Start of construction 2010 and scheme opening date 2013.
- The section costs have been prepared as agreed at the meeting on 13 August 2007 by splitting the Complete Scheme into sections for the purpose of rough comparisons of costs and benefits of the sections.

- There was an earthworks balance for the complete scheme. Such a balance may not apply to sections of the scheme with consequential cost implications.

- No allowance has been made for additional measures that may be required e.g. at temporary ends of sections.

4.2. Appraisal of Complete Scheme and Sections using Variable Demand Matrices

The results of the economic and financial appraisals obtained from TUBA 1.7 using variable demand matrices are presented in Table 4.2, for the Complete Scheme and the three sections of the SEMMMS New Relief Road scheme considered in this report.

The four time periods described in Appendix A of the previous report have been included.

A 'Developer Contribution' of £10m from Manchester Airport has been included in all tests except for the Northern Section.

Table 4.2: Monetised Costs and Benefits for the SEMMMS New Relief Road – Complete Scheme and Sections – Variable Demand Matrices

Variable Demand Matrices	Complete Scheme	Northern Section	Southern Section	Southern Section (exc. Poynton BP)
Non-Exchequer Impacts				
Consumer User Benefits	1,121,189	N/A	N/A	416,272
Business User Benefits	1,506,709	N/A	N/A	580,430
Private Sector Provider Impacts				
Other Business Impacts	-8,922		-8,922	-8,922
Accident Benefits	138,897	N/A	N/A	104,695
Carbon Benefits	-387	N/A	N/A	504
Present Value of Benefits (PVB)	**2,756,986**	**N/A**	**N/A**	**1,092,792**
Local Government Funding	547,709	372,195	239,315	214,969
Central Government Funding	-485	N/A	N/A	5,735
Present Value of Costs (PVC)	**548,194**	**N/A**	**N/A**	**220,704**
OVERALL IMPACT				
Net Present Value (NPV)	**2,208,792**	**N/A**	**N/A**	**872,275**
Benefit to Cost Ratio (BCR)	**5.03**	**N/A**	**N/A**	**4.95**

Note: All entries are in £ 000s discounted to present values in 2002 prices.
The effect of benefits associated with weekday and weekend night-time periods are not included.
Savings to public transport resulting from reduced traffic levels on existing roads are not included.

4.3. Appraisal of Complete Scheme and Sections using Fixed Demand Matrices

The results of the economic and financial appraisals obtained from TUBA 1.7 using fixed demand matrices are presented in Table 4.3, for the Complete Scheme and the three sections of the SEMMMS New Relief Road scheme considered in this report.

Table 4.3: Monetised Costs and Benefits for the SEMMMS New Relief Road – Complete Scheme and Sections – Fixed Demand Matrices

Fixed Demand Matrices	Complete Scheme	Northern Section	Southern Section	Southern Section (exc. Poynton BP)
Non-Exchequer Impacts				
Consumer User Benefits	1,374,447	512,608	637,287	526,945
Business User Benefits	1,794,242	660,520	864,221	722,856
Private Sector Provider Impacts				
Other Business Impacts	-8,922	0	-8,922	-8,922
Accident Benefits	194,312	128,105	132,629	124,417
Carbon Benefits	11,977	4,544	6,545	5,998
Present Value of Benefits (PVB)	**3,366,056**	**1,305,777**	**1,631,760**	**1,371,294**
Local Government Funding	547,709	372,195	239,315	214,969
Central Government Funding	84,858	31,872	46,060	42,054
Present Value of Costs (PVC)	**632,567**	**404,067**	**285,375**	**257,023**
OVERALL IMPACT				
Net Present Value (NPV)	**2,733,489**	**778,353**	**1,239,636**	**1,037,492**
Benefit to Cost Ratio (BCR)	**5.32**	**3.23**	**5.72**	**5.34**

Note: All entries are in £ 000s discounted to present values in 2002 prices.
The effect of benefits associated with weekday and weekend night-time periods are not included.
Savings to public transport resulting from reduced traffic levels on existing roads are not included.

4.4. Marginal Costs and Benefits of Northern Section and Poynton Bypass

The marginal monetised costs and benefits for the Northern Section and Poynton Bypass have been derived by subtracting the values for the Southern Section (excluding Poynton Bypass) from those for the Complete Scheme. The results using variable demand matrices are shown in Table 4.4 and the fixed matrix results are shown in Table 4.5.

Table 4.4: Marginal Monetised Costs and Benefits for the SEMMMS New Relief Road – Northern Section and Poynton Bypass – Variable Demand Matrices

Variable Demand Matrices	Complete Scheme	Southern Section excluding Poynton Bypass	Northern Section and Poynton Bypass Marginal Effect
Non-Exchequer Impacts			
Consumer User Benefits	1,121,189	416,272	704,917
Business User Benefits	1,506,709	580,430	962,279
Private Sector Provider Impacts			0
Other Business Impacts	-8,922	-8,922	0
Accident Benefits	138,897	104,695	34,202
Carbon Benefits	-387	504	-891
Present Value of Benefits (PVB)	**2,756,986**	**1,092,792**	**1,664,194**
Local Government Funding	547,709	214,969	332,740
Central Government Funding	-485	5,735	-6,220
			0
Present Value of Costs (PVC)	**548,194**	**220,704**	**327,490**
OVERALL IMPACT			
Net Present Value (NPV)	**2,208,792**	**872,275**	**1,336,517**
Benefit to Cost Ratio (BCR)	**5.03**	**4.95**	**5.08**

Note: All entries are in £ 000s discounted to present values in 2002 prices.
The effect of benefits associated with weekday and weekend night-time periods are not included.
Savings to public transport resulting from reduced traffic levels on existing roads are not included.

Table 4.5: Marginal Monetised Costs and Benefits for the SEMMMS New Relief Road – Northern Section and Poynton Bypass – Fixed Demand Matrices

With Fixed Demand Matrices	Complete Scheme	Southern Section excluding Poynton Bypass	Northern Section and Poynton Bypass Marginal Effect
Non-Exchequer Impacts			
Consumer User Benefits	1,374,447	526,945	847,502
Business User Benefits	1,794,242	722,856	1,071,386
Private Sector Provider Impacts			0
Other Business Impacts	-8,922	-8,922	0
			0
Accident Benefits	194,312	124,417	69,894
			0
Carbon Benefits	11,977	5,998	5,979
Present Value of Benefits (PVB)	**3,366,056**	**1,371,294**	**1,994,761**
Local Government Funding	547,709	214,969	332,740
Central Government Funding	84,858	42,054	42,804
			0
Present Value of Costs (PVC)	**632,567**	**257,023**	**375,544**
			0
OVERALL IMPACT			0
Net Present Value (NPV)	**2,733,489**	**1,037,492**	**1,619,217**
Benefit to Cost Ratio (BCR)	**5.32**	**5.34**	**5.31**

Note: All entries are in £ 000s discounted to present values in 2002 prices.
The effect of benefits associated with weekday and weekend night-time periods are not included.
Savings to public transport resulting from reduced traffic levels on existing roads are not included.

5. Conclusions

An update of the economic appraisal for the complete SEMMMS New Relief Road has been undertaken. This provides a context for the economic appraisals that have been produced for the following sections of the Scheme:

- The Northern section from M60 Bredbury to A523 South of Hazel Grove
- The Southern section from the Manchester Airport Link to A6 South East of Hazel Grove and Poynton Bypass
- The Southern section, as above, but excluding Poynton Bypass

This exercise has simply looked at sections of the Scheme as currently designed and not at the impact of building individual sections alone. The results simply reflect the economic aspects and not wider implications. For example, the Scheme provides the potential for good public transport routes in addition to provision for cyclists and pedestrians along the Scheme.

Table 5.1 presents the NPV and BCR values for the complete SEMMMS New Relief Road and the three sections that have been examined.

Table 5.1: Summary of NPV and BCR Results

Variable Demand Matrices	NPV £ million	BCR
Complete Scheme - (25% Optimism Bias)	**2,208**	**5.03**
The Northern section from M60 Bredbury to A523 South of Hazel Grove	N/A	N/A
The Southern section from the Manchester Airport Link to A6 South East of Hazel Grove and Poynton Bypass	N/A	N/A
The Southern section, as above, but excluding Poynton Bypass	872	4.95
The Northern section and Poynton Bypass marginal effect	1,336	5.08
Fixed Demand Matrices		
Complete Scheme - (25% Optimism Bias)	**2,733**	**5.32**
The Northern section from M60 Bredbury to A523 South of Hazel Grove	778	3.23
The Southern section from the Manchester Airport Link to A6 South East of Hazel Grove and Poynton Bypass	1,240	5.72
The Southern section, as above, but excluding Poynton Bypass	1,037	5.34
The Northern section and Poynton Bypass marginal effect	1,619	5.31

This economic appraisal report demonstrates that the SEMMMS New Relief Road is good value for money. It will produce significant overall economic benefits with a substantial Net Present Value of more than £2,200 million and a Benefit to Cost Ratio of 5.03. This complements the SEMMMS3 Forecasting Report (June 2005) which showed that the New Relief Road achieved the Scheme objectives to improve accessibility to local centres and reduce traffic in those centres.

The present value of the benefits (PVB) over the 60 year evaluation period is some £2,757 million including:

- Consumer Benefits exceeding £1,120 million

- Business Benefits approaching £1,510 million

The results demonstrate a robust set of economic results for the SEMMMS New Relief Road. The SEMMMS New Relief Road will provide significant benefits to Stockport and the adjacent areas. It may therefore be concluded that the SEMMMS New Relief Road will produce a significant boost to the local economy and a significant increase in the efficiency of the local transport system.

Appendix A – Email from Charlie Sunderland to Sue Stevenson on 10 October 2007

John Dowie spoke to you this afternoon to warn you that we would shortly be asking you for further information to help us in the short term assessment colleagues are undertaking on a number of schemes including SEMMMS.

Whilst it would be the ideal, we appreciate that it would not be possible to get a proper, webtag compliant, variable demand analysis as we understand that this would take weeks rather than days.

What we would very much like to have is an updated elasticity based variable demand analysis which incorporates all other corrections and amendments which are thought relevant, plus the corresponding fixed demand equivalent. We believe that if you are in a position to do a fixed demand run which includes these corrections (which you may already have done) the elasticity version should be possible.

In addition, most of the recent "problems" - requiring correction and amendment - relate to the cost side or to basic data input, rather than modelling revisions. Separately from the elasticity analysis, we would also like the following:

- Can you ensure that for the economics the start dates for construction and scheme opening are realistic and consistent, and also that the cost profiles in the economics and outturn estimates are consistent (at least to a reasonable degree).
- Confirm that you are now content with the section costs used.
- Can you ensure that all relevant time period benefits are included appropriately. (I assume this only relates to correcting annualisation factors to include weekends.)
- If you have revised the way accident benefits have been calculated and aggregated, please provide the results.
- Please provide all TUBA input and output files. We will be interested in the breakdown of benefits between modelled periods, so it would be helpful if such a breakdown could be provided for us.
- Can you report on any cost changes used in TUBA reflecting risk and inflation assumptions, and confirm you are happy with these. My understanding of the issues here are:

  I. 6% future inflation has been assumed, but as the risk assessment included allowance for possible inflation above recent construction indices, including the full real inflation implied in the 6% assumption would lead to some double counting

  II. the need to ensure that any real inflation assumption (after recognising the above) is fed into TUBA properly. We recognise TUBA is not ideally designed to allow for this. One point to be aware of is that if the 6% nominal construction inflation is in the context of expected rpi of, say, 3.5%, then a real 2.5% pa needs to be built into TUBA. TUBA is currently set up to assume 2.5% rpi - care needs to be taken to ensure the real inflation incorporated is not 6% nominal minus 2.5% rpi = 3.5%, or some other incorrect number.

In undertaking all the above we would not expect you to incorporate the new reliability guidance.

Ideally we would want this information for all four of the options we have been considering - full, northern, southern with Poynton Bp, and southern without Poynton Bp - but I suspect that it will not prove possible to provide this in the available time. Grateful therefore if you could provided us with the information for the full scheme and the southern without Poynton options. We are being asked for this information in a very short timescale so would need the above by early Monday morning (15th Oct). Please let me know whether this is possible.

Appendix B – Calculation of Construction Real Inflation from 2003 to 2007

SMBC HIGHWAYS TERM CONTRACT - CONTRACT PRICE FLUCTUATION

BASE INDEX DATE Jun-03

REQUIRED INDEX DATE Jun-07

Classification	Proportions	Base Index	Required Index	Adjustment
Labour	0.37	1325	1710	10.751
Plant	0.20	965	1136	3.544
Aggregate	0.08	1729	1662	-0.310
Brick & ClayPro.	0.02	1715	2055	0.397
Cement	0.05	1123	1395	1.211
C.I. Products	0.01	1758	1890	0.075
Coated RoadStone	0.09	2935	3650	2.193
Derv.	0.03	1352	1687	0.743
Gas&Oil	0.02	2113	4248	2.021
Timber	0.01	901	1157	0.284
Reinforcement	0.01	360	633	0.758
Structural Steel	0.01	696	1242	0.784
Other Cost	0.10	1	1.08	0.8
			1	**23.251**

Appendix C - SEMMMS Relief Road Bid Profile Rev. C - 14th October 2007

2nd Q 2003 prices - No optimism Bias										
	2008-09	2009-10	2010-11[3]	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total[2]
Whole scheme	6,200,000	10,300,000	120,289,651	152,975,606	114,639,601	6,758,536	5,300,000	5,300,000	5,200,000	426,963,394
North section	5,200,000	9,300,000	92,894,495	100,043,963	75,322,174	3,360,738	1,700,000	1,150,000	550,000	289,521,370
South section without Poynton Bypass	3,100,000	4,100,000	42,743,994	68,855,766	45,794,258	1,396,252	600,000	600,000	400,000	167,590,270
South section with Poynton Bypass	3,100,000	5,200,000	45,687,007	77,918,995	51,991,680	1,523,127	1,600,000	1,600,000	1,100,000	189,720,809
With inflation[1] - No Optimism Bias										
	2008-09	2009-10	2010-11[3]	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total[2]
Whole scheme	8,096,704	14,258,035	176,504,820	237,933,915	189,005,612	11,811,323	9,818,104	10,407,190	10,823,478	668,659,181
North section	6,790,784	12,873,759	136,307,038	155,605,540	124,183,210	5,873,278	3,149,203	2,258,164	1,144,791	448,185,768
South section without Poynton Bypass	4,048,352	5,675,528	62,719,619	107,096,304	75,500,714	2,440,112	1,111,483	1,178,172	832,575	260,602,860
South section with Poynton Bypass	4,048,352	7,198,231	67,037,995	121,192,993	85,718,366	2,661,840	2,963,956	3,141,793	2,289,582	296,253,109

NOTES:

1. Inflation from 2nd Q 2003 to 2nd Q 2007 is assumed to be 23.2% derived from DTI Construction Price Indices.
   Future inflation is assumed to be 6%. TAG Unit 3.5.9 Section 2.1.2 predicts construction inflation at 5% to 7%.
2. North and South Sections overlap. Therefore the sum of North section plus South section with Poynton Bypass is greater than the Whole Scheme.
3. A developer contribution of £10m (at current prices) is included in the figures for 2010-11 (except for North Section to which it would not apply)

APPENDIX 11-2

SCHEME COST ESTIMATES TECHNICAL NOTE

SEMMMS A6-M60 RELIEF ROAD: STAGE 2 SCHEME COST ESTIMATE - DRAFT

TECHNICAL NOTE NO 003: MARCH 2017

QUALITY MANAGEMENT

Job Number	Date	Author
70019764	March 2017	Nasar Malik

1

1 SCHEME COST ESTIMATE

1.1 INTRODUCTION

1.1.1 The original cost estimate for the full SEMMMS Road Scheme was first prepared in 2003 (later updated in 2007) and is contained in Table 4.1 of the SEMMMS New Relief Road Scheme, Economic Update Report, dated 15 October 2007, issued by Stockport Metropolitan Borough Council. The cost estimate was broken down by various sections of scheme, including for the southern section excluding Poynton Bypass and the northern section. The southern section excluding Poynton Bypass is the currently under construction A6MARR scheme for which a robust out-turn cost estimate is now available.

1.1.2 The 2007 cost estimates included a 25% optimism bias allowance and a summary is included in **Table 1** below:

Item	Complete Scheme	Northern Section	Southern Section exc. PBP
	Scheme Total	North 1 to 9	South 7 to 17 exc. PBP
Preparation	17,415,239	11,758,467	6,886,831
Supervision	14,035,293	9,492,043	5,547,716
Land acquisition and compensation	128,351,969	85,472,091	48,841,195
Construction	419,942,800	278,999,665	168,654,517
Total Capital Cost	**579,745,300**	**385,722,265**	**229,930,258**
Maintenance and Operation			
Ratio of Northern Section to Southern Section exc PBP		1.678	

SEMMMS A6-M60 RELIEF ROAD: STAGE 2 SCHEME COST ESTIMATE - DRAFT

TECHNICAL NOTE NO 003: MARCH 2017

Table 1 – Scheme Cost Estimates used in DfT submission 24/10/2007

1.2 UPDATED COST ESTIMATE

1.2.1 The following approach has been adopted to developing the cost estimate for the A6-M60 scheme at the Strategic Outline Business Case stage:

- Use the out-turn cost estimate for A6MARR scheme
- Apply the ratio of Northern Section (A6-M60) to Southern Section exc. PBP (A6MARR) to obtain an equivalent cost for the A6-M60 scheme
- Apply a correction for 44% optimism bias
- Apply inflation from 2017 to out-turn based on the same construction period and profile as the A6MARR scheme

1.2.2 The A6MARR out-turn scheme costs are at present commercially confidential and as such, they are not included within this report. However, they have been made available to this study to provide a robust cost for that scheme that can be used to derive a cost estimate for the A6-M60 scheme.

1.2.3 Based on the assumptions set out above, the out-turn cost estimate for the A6-M60 scheme is £477.25m, and a full cost profile, over the proposed construction period is given in **Table 2** below. This includes an annual rate of inflation of 1.2% and an adjustment for 44% optimism bias.

A6-M60 Construction Period	Pre-constn	2020/21	2021/22	2022/23	2023/24	post 2023/24	TOTAL
Total	£19,751,090	£52,914,021	£90,144,124	£123,343,787	£136,656,722	£54,443,072	£477,252,817

Table 2 – Out-Turn Scheme Cost Estimate

Appendix 12

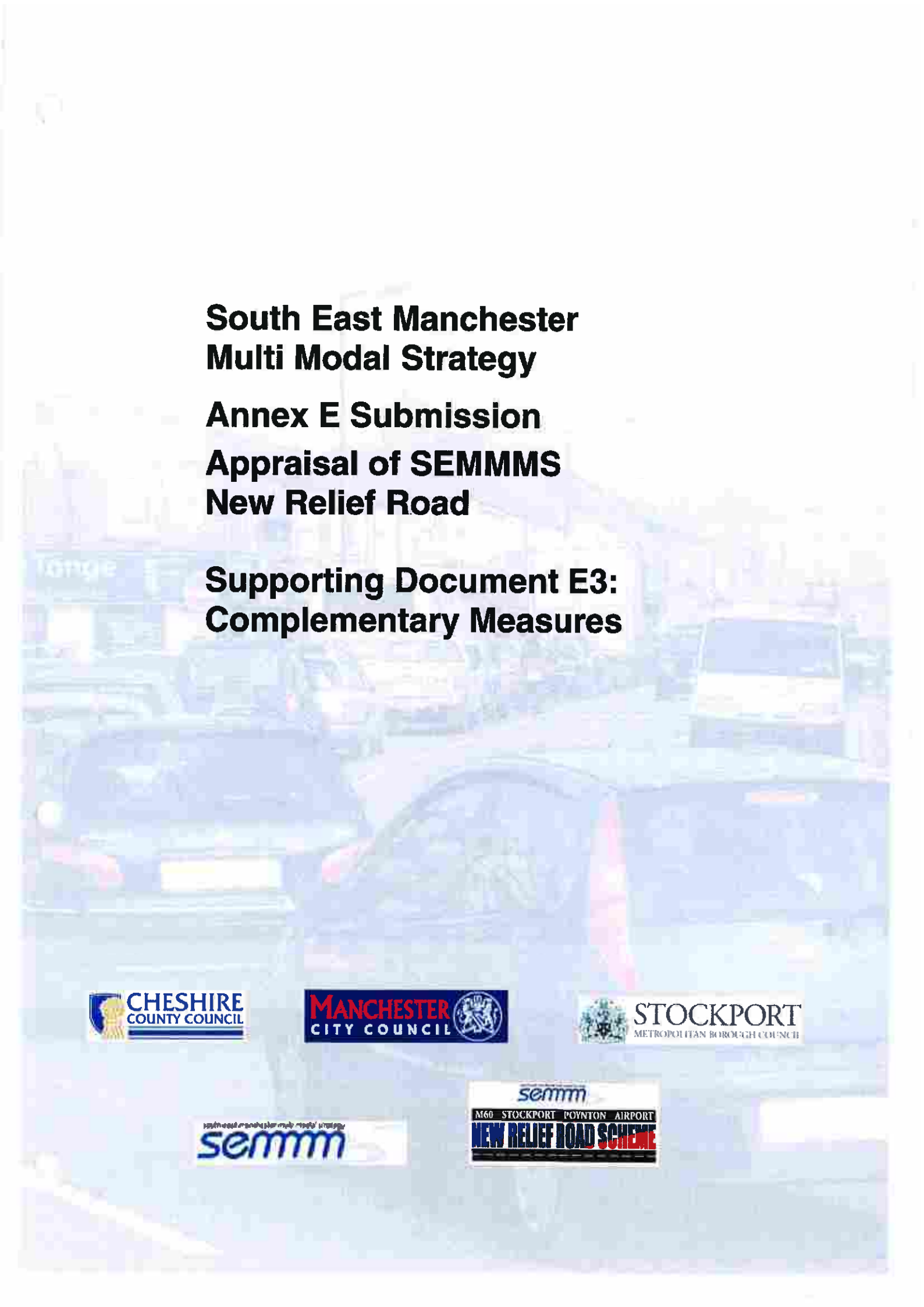
SMBC SUPPORT SCHEMES

South East Manchester Multi Modal Strategy

Annex E Submission

Appraisal of SEMMMS New Relief Road

Supporting Document E3: Complementary Measures

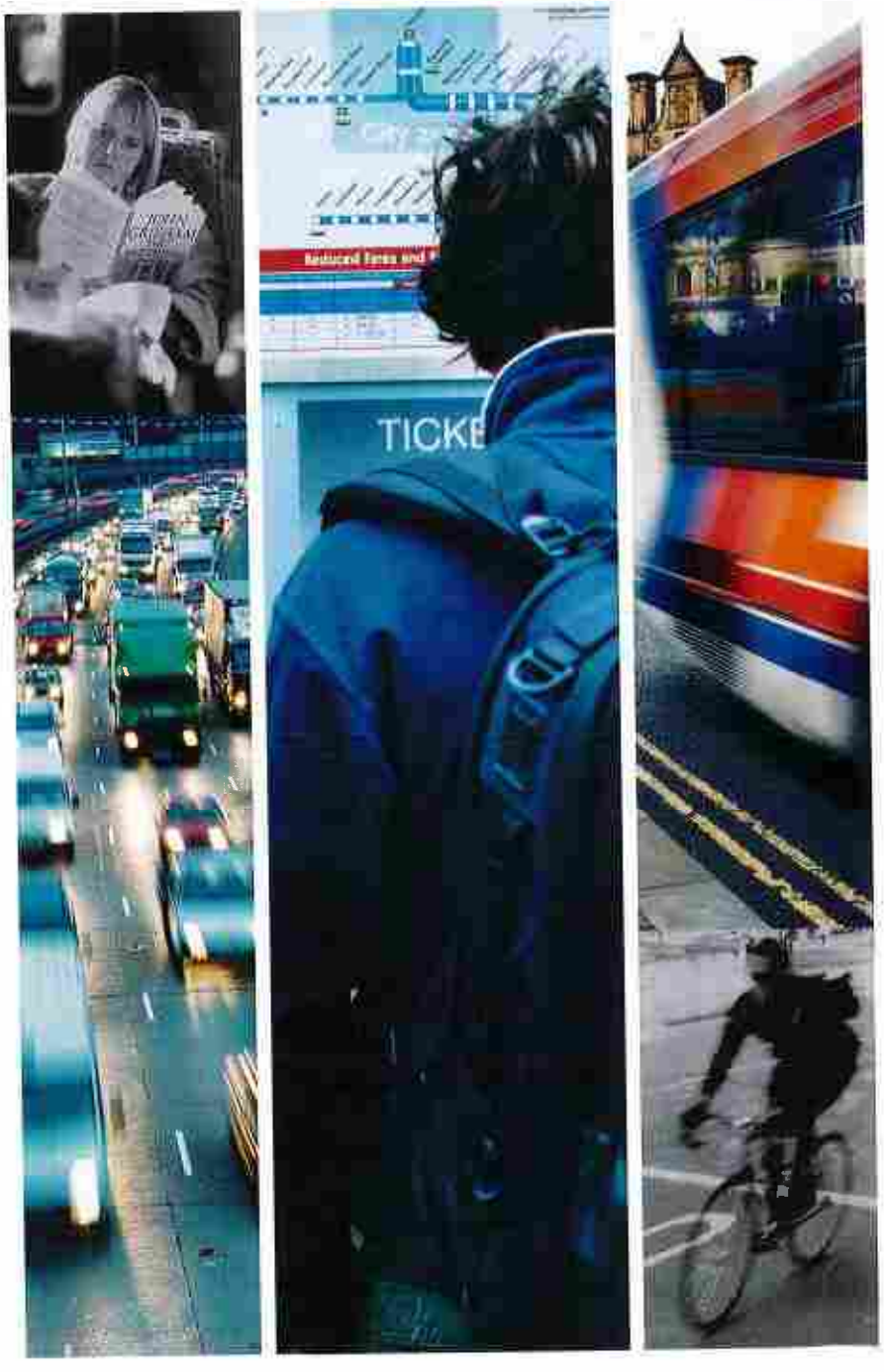


SEMMMS NEW RELIEF ROAD E3: COMPLEMENTARY/ MITIGATORY MEASURES

Cheshire County Council
Manchester City Council
Stockport Metropolitan Borough Council

FINAL REPORT

July 2004



FABER MAUNSELL

Cheshire County Council
Manchester City Council
Stockport Metropolitan Borough Council

SEMMMS New Relief Road

Complementary/Mitigatory Measures

Final Report

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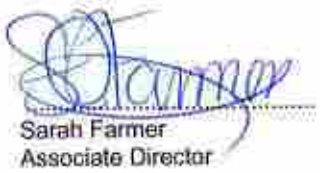

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1 EXECUTIVE SUMMARY

1. Executive Summary

1.1. EXECUTIVE SUMMARY

The SEMMMS Final Report highlighted that the recommended major road scheme would have an impact on the local road network and communities in areas surrounding the scheme, and as a consequence identified an "Area for road space reallocation associated with new roads" in its SEMMMS recommended strategy.

In order to assess the nature of the impacts of the major road and to inform the development of a programme of minor support measures to be introduced as part of the major scheme, traffic flows have been modelled using the Sub Regional Strategic Planning Model and the Greater Manchester Strategic Highway Model, taking into account actual and anticipated changes in the local network, post the SEMMMS study.

The outputs of the model have been used to identify those roads on which an appreciable change in traffic levels could be anticipated as a result of the major road scheme, with all local roads where an increase or decrease in PCUs in excess of 10% was indicated, being assessed for specific treatment.

Following this detailed assessment, a comprehensive programme of minor works has been drawn up for implementation as part of the major road scheme. The minor works package is an essential element of the major scheme, as it will maximise opportunities to secure SEMMMS core objectives. Where traffic is reduced, freeing up road space as a result of the new relief road, schemes will be introduced which support urban regeneration, safety improvements, sustainable travel and environmental enhancement (complementary measures), and where the new road potentially draws traffic through adjacent Local, District and Town Centres and resident communities or where speed may be expected to increase, measures which protect them from adverse traffic impacts are planned (mitigatory measures).

Following the update of the modelling work to assess the impacts of the major road, the area identified for supporting minor schemes can be broadly defined as covering the Wythenshawe area of Manchester; all of Stockport south of the M60 up to its boundary with Cheshire and Derbyshire in the south and east and Manchester to the west; and parts of Cheshire bounded by Stockport and Manchester in the north, its eastern boundary with the peak District in Derbyshire, a line between Alderley Edge and Kettleshulme to the south, and the A538 (Altrincham Road) B5068 (Knutsford Road) to the west.

Covering a large area of south east Greater Manchester and North East Cheshire, the SEMMMS New Relief Road impact area is geographically and economically diverse, ranging from open rural countryside in Cheshire and villages on the fringe of the Peak District, through the south Manchester conurbation/north Cheshire commuter belt dormitory towns, to dense urban areas containing pockets of social exclusion and deprivation with low car ownerships in Manchester and Stockport.

This diversity, combined with wide variations in modelled traffic flows as a result of the new road scheme (ranging from increases in excess of 50% to decreases greater than 50%, which translates into ± 1,000 PCUs on some roads), has given rise to a variety of measures being proposed in the package of minor schemes. These are exemplified in this chapter and set out in more detail in **Appendices A-E** where they can be identified by category (complementary/mitigatory); type (e.g. traffic calming, speed management, pedestrian, cycle, public transport enhancements, urban regeneration); and location.

The predominant impact of the SEMMMS major road scheme is to reduce traffic across much of the adjacent area. This calls for "complementary" measures to be introduced to coincide with its completion, so that the available space does not fill up with road traffic, so that traffic speeds do not increase and to secure environmental, safety, social and regeneration benefits in line with the objectives of the SEMMMS Strategy. These schemes may be site specific, route or centre based and range from very small traffic management and regulation proposals costing no more than a few hundred pounds, to extensive public realm improvements, priorities for public transport or major junction schemes costing upwards of £1million.

The schemes identified as "complementary" to the SEMMMS roads are those where traffic reductions present the opportunity to reduce the time or road space available to motor vehicles in favour of buses, pedestrians and/or cyclists or to improve the quality of life in residential streets or town and district centres. They include: -

- The introduction of gateway entrances to centres such as Heald Green, Poynton or Handforth to narrow approach roads approaching and through them, to provide more space for shoppers, parking and servicing to help sustain those centres, whilst at the same time slowing down traffic where speeds might be expected to rise because of reductions in traffic flows;
- Specific junctions where a substantial drop in through traffic is predicted following the introduction of the relief roads, putting junctions out of scale with need, will be remodelled – roundabouts at Bramhall Green, in the middle of Bramhall District Centre and the signal junction at Poynton Cross are such examples – to be replaced by smaller, signal controlled junctions incorporating pedestrian and cycle facilities; measures which will also help to manage speed; and
- Route treatments in both urban and rural areas where traffic reductions will enable roads to be narrowed to either incorporate cycle lanes, regulate parking via the use of build outs,

widen footways or introduce refuges or additional controlled crossings for pedestrians and, where opportunities exist, introducing horizontal or vertical speed management measures. Such roads include Chester Road, Poynton and Lower Bents Lane/Higher Bents Lane (A6017), Stockport. In some cases, such as the by-passed residential length of Ringway Road in Wythenshawe, a road may be closed altogether as a through route.

There is however a small number of locations where the attraction of the new road will increase traffic beyond acceptable levels on roads, or in centres, via which access to the bypass roads are gained. These locations call for measures to protect residents and centres, accommodate unavoidable traffic increases where possible and, where appropriate, to discourage traffic from using a particular route. Junctions between the existing network and the new roads and the direct approaches to them, are addressed through the design of the new road scheme. However, more remote roads and areas that suffer traffic growth as a consequence of the major road scheme are to be protected by a package of "mitigatory" measures. They include: -

- Disley and High Lane, sitting astride the A6, are both busy Local Centres, which provide important local services and facilities and experience high levels of pedestrian activity. There is no alternative route to the A6, so measures to maximise traffic efficiency through the centres by better/alternative management of parking and servicing, provision of right turn pockets and ensuring efficient traffic signal operation are necessary. Equally, shoppers and traders need improved and safer crossing facilities and an enhanced public realm if the viability of the centres is to be maintained. Improvements also include gateways to identify the change in nature of the road through the centres. The intention of Cheshire County Council, Derbyshire County Council and Stockport Metropolitan Borough Council is to cap growth along the A6 by developing a joint Route Management Strategy in the short term and to ensure that the effect of through traffic on the two centres is minimised;
- Dense urban residential areas such as Woodhouse Park in Wythenshawe and to the east of Bramhall are vulnerable to increases in traffic as a result of the attraction of the new road. Traffic calming, the signing of more suitable routes and gateway features will be used to deter rat running and ensure that traffic travels at safe speeds where it cannot be diverted away;
- Along routes where traffic growth means that side road traffic will encounter difficulty finding gaps in main road traffic flows, or where existing site layouts already cause some difficulty for side road traffic, mini roundabouts or signals will be introduced, together with local kerb realignments and, where appropriate, speed management measures; and
- Specifically, and in line with the recommendations of the final SEMMMS report, significant capacity enhancements are proposed for the A523 south of the Poynton Bypass, between Adlington and the northern end of the Silk Road in Macclesfield, in order to secure the full benefits of the SEMMMS strategy for villages and lanes between the A34 and the A523, north of Macclesfield. In the absence of more detailed design proposals, it is assumed that the improvements, which will be largely on-line with some elements just off-line, will cost in the order of £3.0million.

The predominant impact of the SEMMMS major road scheme is to reduce traffic across much of the adjacent area, which provides an opportunity to enhance public transport infrastructure and services. In terms of its impact on public transport, benefits afforded by the scheme where traffic flow reductions are projected, can be summarised as follows: -

- Increased reliability and efficiency of existing bus services;
- Opportunity to provide sections of bus priority to further enhance bus services;
- Opportunity to provide improved pedestrian and cyclist facilities that can be designed and implemented to promote and increase public transport usage; and
- Opportunity to reassess phasing of signal junctions across the network and consider the introduction of Automatic Vehicle Location (AVL) technology to take advantage of the reduction in traffic flows.

In addition, the decrease in traffic flows along some routes provides an opportunity/ further justification to implement measures suggested in the various Quality Bus Corridor/ Integrated Transport Corridor studies that have been commissioned by the three local authorities.

At the small number of locations where traffic flows are projected to increase, resulting in the need to implement 'mitigatory' measures (such as the signalisation of certain junctions), there could be detrimental impacts on the operation and appeal of public transport. Where such instances occur, it will be necessary to design schemes in a manner that will minimise the effects on the operation of public transport.

The preliminary budget estimate for the "complementary" and "mitigatory" measures identified across the SEMMMS major road impact area is of the order of £27million, assuming that the full scheme is built. This cost is inclusive of land and service costs and design fees and can be broken down into approximately £18.1million in Stockport, £6.6million in Cheshire and £2.3million in Manchester.

Clearly if the full relief road scheme is to be built, all "complementary" and "mitigatory" minor measures will be needed, consequently their combined cost of £27million has been taken into account in the final analysis of benefits. As part of the economic sensitivity testing, partial exclusion tests have been appraised for the major scheme, namely: -

- Exclusion Test North - To build the A6 Stockport Bypass from Junction 25 of the M60,

round the east side of Stockport (including the Stepping Hill Link), connecting into the A6 at Buxton Road, south of Hazel Grove; and

- Exclusion Test South - To build Manchester Airport Eastern Link Road (West) from the Airport, across to the A6 at Buxton Road, south of Hazel Grove, including the whole of the Poynton Bypass up to the Airport Link in the Woodford area, just to the north of Chester Road (A5149).

Under the 'Exclusion Test North' (A6 Bypass and Stepping Hill Link), minor supporting measures identified along the A6 through Disley in Cheshire and through High Lane, Hazel Grove and Great Moor in Stockport, together with Stockport minor measures in Offerton, and along the Marple Corridor (A626) and A560 Corridor, through Bredbury and Woodley, will be needed. No minor measures will be needed in Manchester. The total value of these measures is estimated at £8.2million.

In the 'Exclusion Test South' (MAELR (West) and Poynton Bypass), all Cheshire minor measures, excluding those in Disley along the A6, and all Manchester measures are necessary, together with Stockport minor schemes in the south and south west of the borough. The estimated total value of these measures is £16.6million.

2 INTRODUCTION

2. Introduction

2.1. BACKGROUND

FaberMaunsell were commissioned to provide consultancy services relating to the development of complementary/mitigatory measures for the existing highway network to be implemented as part of the South East Manchester Multi-Modal Study (SEMMMS) relief road scheme.

The new relief road recommended in the SEMMMS study and endorsed by Cheshire County Council, Manchester City Council and Stockport Metropolitan Borough Council, consists of the following new sections as follows: -

- A6(M) Stockport North/South bypass including the Stepping Hill Link;
- A555/A523 Poynton Bypass and Manchester Airport Eastern Link Road (East); and
- A555 Manchester Airport Eastern Link Road (West).

From the modelling, the area identified for supporting minor schemes can be broadly defined as covering the Wythenshawe area of Manchester, the majority of Stockport south of the M60, including Marple to the east and parts of northern Cheshire including Poynton and Wilmslow. **Figure 2.1** shows the area of influence in a regional context.

The proposal for an A6 bypass has arisen from a need to alleviate the pollution and safety problems associated with congestion and excessive volumes of traffic on the A6 corridor between Hazel Grove and Stockport town centre.

The construction of the A34 Wilmslow/ Handforth bypass has adversely altered the traffic levels and speeds within Bramhall, Cheadle Hulme, Heald Green, Woodford and Poynton in Macclesfield. Consequently, it has been recommended that both the A555/A523 Poynton bypass and Manchester Airport Eastern Link Road (East) and A555 Manchester Airport Eastern Link Road (West) be constructed to remove 'non-local' traffic from residential areas and complete the strategic road network.

The construction of the 'MALRW' will provide the 'missing link' and complete the A555 Manchester Airport Eastern Link Road (MAELR), which currently ceases at the B5358 junction, thereby relieving local roads. Manchester Airport is the third largest in the UK offering regular scheduled services to a number of regional airports in the UK, Ireland and Europe and direct flights to a wide range of worldwide locations. It currently handles approximately 20 million passengers per annum and therefore generates a large volume of traffic, which impacts on adjacent residential areas

The construction of the relief road, as recommended in the final SEMMMS report (October 2001), provides an opportunity to consider the use of road space throughout a large swathe of North East Cheshire, South East Manchester and Stockport where traffic flows are to be affected. Where flows are to be alleviated, it may be appropriate to consider reallocating the freed up space to more sustainable modes of transport (i.e. pedestrians, cyclists and public transport), on-street parking/servicing provision at Town, District and Local Centres, and Neighbourhood Parades or public realm improvements/ urban regeneration initiatives (complementary measures). Conversely, where the new road draws traffic through adjacent Town, District and Local Centres and resident communities, measures that protect them from adverse traffic impacts are necessary (mitigatory measures).

An initial public consultation was conducted to assess support for the development of the road scheme and it would appear that there is general consensus for the construction of the relief road, with 92% of respondents in agreement that the scheme is needed to help give traffic relief to local communities and businesses. In addition, a further public consultation was conducted to help determine the exact alignment of the relief road and identify preferences for junction layout at the key links.

The complementary and mitigatory measures have been identified using AM and PM peak hour difference plots, with data obtained from the Greater Manchester Transportation Unit (GMTU). The examination of modelling output is necessary to identify the areas of the network where traffic is reduced, where potential rat runs would be created and where routes are likely to feed the proposed junctions and thus experience traffic growth and resultant adverse traffic conditions.

2.2. PURPOSE OF THE REPORT

The purpose of this report is to identify opportunities for reducing the capacity on the existing network where traffic levels are reduced and to suggest mitigatory measures where traffic flows are projected to increase and to eliminate/ minimise the potential for rat-running. The proposed measures are identified on **Figure 5.1**, which identifies the overall limits of impact and can be used to inform the next phase of the consultation process.

The development of complementary and mitigatory measures associated with the relief road in the work carried out for Stockport was divided into two stages: -

- Stage 1 included the baseline work necessary to identify potential increases or decreases in traffic flows and the identification of a preliminary package of minor measures to mitigate against or complement those changes.
- Stage 2 refined the preliminary package of schemes and identified a number of larger schemes, which were moved forward to the concept design stage. Costings and associated information necessary to subject them to the rigours of assessment using the

Guidance on Methodology for Multi-Modal Studies (GOMMMS) appraisal process were developed.

Given the deadlines for the Annex E submission, it has only been possible to undertake a Stage 1 study for both Cheshire and Manchester. The findings are presented by location in the Appendices, which contains coarse budget estimates for the measures, excluding any design fee, possible costs necessitated by alterations to statutory undertakers equipment or the need to acquire land or enter into agreements with local residents or businesses, none of which could be identified at this stage.

2.3. STRUCTURE OF THE REPORT

Following this introduction, the report is divided into a further four chapters: -

- Chapter 3 provides a background to the data used to determine the projected traffic flows before and after the construction of the relief road as supplied by the GMTU and explains how the data has been used in this study;
- Chapter 4 highlights the existing conditions, current initiatives and future developments that must be considered in determining suggested complementary / mitigatory schemes;
- Chapter 5 provides a summary of the findings along a number of the key routes and areas and presents desirable complementary measures and necessary mitigatory schemes to be implemented in advance of the opening of the relief roads;
- Chapter 6 provides a summary of the workshop with SMBC officers where the findings of the first phase were presented and discussed;
- Chapter 7 presents the schemes that were selected for further development as an indication of schemes that are required/enabled with the construction of the relief roads.
- Chapter 8 provides a summary of the costings of the minor and major schemes identified within the various boroughs; and
- Chapter 9 provides a summary of the report and suggests a way in which the findings of this report may be taken forward in the future.

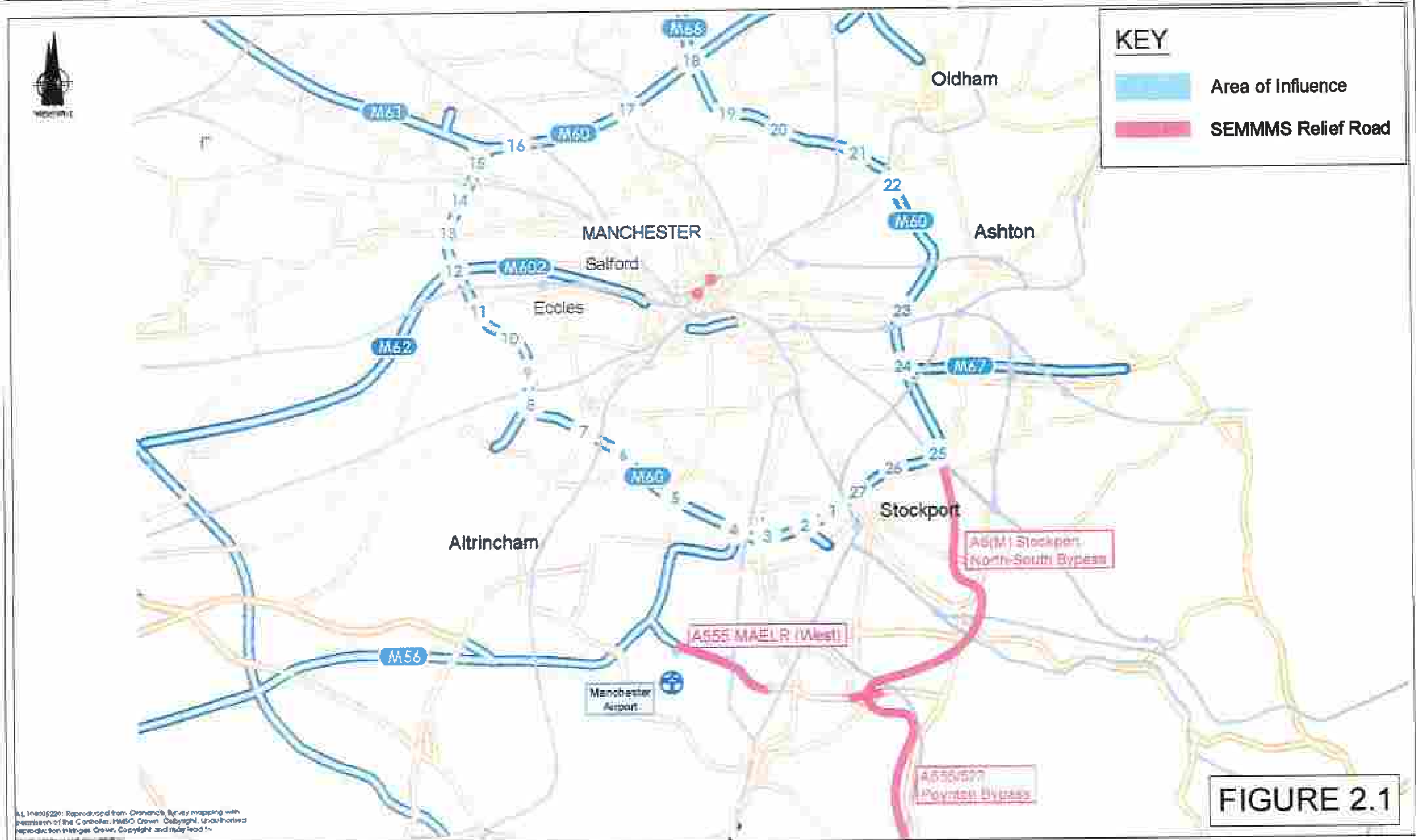

FIGURE 2.1

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL, CHESHIRE COUNTY COUNCIL, MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road Complementary/Mitigatory Measures

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Title: SEMMMS Relief Road Area of Influence

Design: | Date: | Chk'd:
Drawn: | Scale: | App'd:

Sheet Size - A4 (275mm x 195mm)

AutoCAD Location

No. 39292/100/018

Rev:

3 TRAFFIC MODELLING



3. Traffic Modelling

3.1. BACKGROUND

In order to assess the nature of the impacts of the SEMMMS Relief Road and to inform the development of a programme of minor support measures to be introduced as part of the major scheme, traffic flows have been modelled using the Sub Regional Strategic Planning Model and the Greater Manchester Strategic Highway Model, taking into account actual and anticipated changes in the local network, post the SEMMMS study. The network used covered all areas of Greater Manchester, in addition to a buffer network around the edge of the conurbation.

Following Government approval of the SEMMMS recommendations, the scheme was then taken forward for a more detailed GOMMMS assessment. For this assessment, a number of changes to the network were made following changes to junction layout assumptions.

In order to ascertain the impacts of the scheme across the road network in Cheshire, Manchester and Stockport, GMTU provided network plots showing the forecast changes in traffic flow between the 2011 do-minimum and do-something networks.

Networks were supplied for the AM Peak (08:00-09:00) and PM Peak (17:00-18:00). The growth applied to the trip matrices is derived from a combination of the GMSPM (Greater Manchester Strategic Planning Model) and TEMPRO planning data. This growth is variable by area as there are 7 sectors within the GMSPM. In both the AM and PM Peak periods the overall growth in the matrix for this particular area of Greater Manchester and North East Cheshire is between 8% and 8.5%.

The do-minimum network contains committed highway schemes and developments to 2011.

Developments built in to the trip matrices include: -

- Davenport Green;
- Woodhouse Park;
- Manchester Business Park (completion of);
- Portwood Tesco; and
- Bredbury Safeway (expansion).

The following committed transport schemes were also included as part of the do-minimum network: -

- Mottram-Tintwistle Bypass;
- Glossop Spur;
- Alderley Edge Bypass;
- M60 J5-J8 widening;
- Ashton Northern Bypass Stages 1 and 2;
- Cadishead Way Stage 2; and
- Metrolink Stage 3.

3.2. MODEL RESULTS

The impacts for AM and PM Peak periods are shown in **Figure 3.1** and **Figure 3.2** respectively.

Each plan shows the % change and absolute change in the number of vehicles (expressed in PCUs) using each link between the do-minimum and do-something networks. It is important to take the absolute figure into account, as the percentage flow can be misleading where the do-minimum flow is low. It should be noted that as the models used are strategic, they cannot be relied upon to provide precise traffic flow data. This is particularly the case in Cheshire where the network is on the 'fringes' of the model. However, they are sufficiently robust to give a broad indication of traffic changes on the network.

In order for the impacts to be interpreted at a glance, links on the network were shaded to reflect the % change in traffic forecast. The key categories used are shown below.

3.2.1. CHESHIRE

As would be expected, overall the scheme results show a large net reduction in traffic across the local road network. However, there are a number of key links where traffic is forecast to increase significantly, particularly on approaches to junctions with the new relief road.

Whilst there are significant differences by direction, the traffic impacts are broadly similar across the AM and PM Peak periods.

The areas of Handforth, Poynton and Wilmslow can expect significant reductions in traffic due to the introduction of the bypass. Locations showing the highest traffic reductions (consistently over 20% decrease in each direction) include: -

- Mill Lane between A523 London Road and Bonis Hall Lane (Adlington);
- Park Lane/Middlewood Road (Poynton); and
- A538 Prestbury Road between A34 and Adlington Road (Wilmslow).

The areas of Adlington, Disley, Kettleshulme and Pott Shrigley are expected to see increases in traffic flow due to the introduction of the bypass. The links where traffic is forecast to increase significantly (consistently over 20% increase in each direction) include: -

- A523 London Road between Mill Lane and the Silk Road north of Macclesfield;
- A6 Buxton Road (through Disley); and
- Bakestonedale Road between Adlington and Kettleshulme.

3.2.2. MANCHESTER

Indications are that the construction of the Manchester Airport Eastern Link Road (West) will have a significant effect on the volume and direction of traffic through Wythenshawe. The scheme results show net reductions in traffic across parts of the local road network, which is predominantly non-strategic. However, there are a number of key links where traffic is forecast to increase, particularly on approaches to junctions with the new relief roads and on local distributor and residential roads in South Wythenshawe.

The results of the modelling exercise suggest that there are significant differences by direction and the traffic impacts are broadly more adverse in the PM Peak period.

Sections showing the highest reductions in traffic include: -

- A560 - Altrincham Road (AM & PM);
- A538 – Wilmslow Road (AM & PM);
- Hollyhedge Road (between Greenwood Road and Newhey Road); and
- Styal Road.

The links to junctions and through residential areas where traffic is forecast to increase include: -

- Shadowmoss Road (Southbound);
- Simonsway (Eastbound);
- Thorley Lane; and
- The Woodhouse Park area.

3.2.3. STOCKPORT

As would be expected, overall the scheme results show a large net reduction in traffic across the local road network in Stockport. However, there are a number of key links where traffic is forecast to increase significantly, particularly on approaches to junctions with the new relief roads.

Whilst there are significant differences by direction, the traffic impacts are broadly similar across the AM and PM Peak periods. This section outlines the traffic impacts during the AM Peak.

Sections showing the highest reductions in traffic (consistently over 30% decrease in each direction) include: -

- A6 (west of junction with the bypass to junction with Bramhall Lane);
- Chester Road (between the A6 and A5143);
- A626 (Hall Street/Offerton Lane);
- A627 (Torkington Road);
- A5143 (Dean Lane);
- A5143 (Jacksons Lane);
- B5094 (Moss Lane south of the existing A555);
- B5358 (Wilmslow Road);
- Bolshaw Road;
- Commercial Road (link to Bean Leach Road be severed); and
- Outwood Lane.

It should be noted that more moderate reductions in traffic are also forecast across the road network in Stockport (see **Figures 3.1 & 3.2**).

The links around junctions where traffic is forecast to increase significantly include: -

- A6 (east of the junction with the bypass to the Stockport boundary);
- A627 (Offerton Lane);
- B5094 (Acre Lane); and
- Windlehurst Road.

The highest forecast increase in traffic is on the existing section of the bypass (A555), for which no change is proposed at it has only recently been built to an appropriate standard.

The outputs of the model have been used to identify those roads on which an appreciable change in traffic levels could be anticipated as a result of the major road scheme, with all local roads where an increase or decrease in PCUs in excess of 10% was indicated, being assessed for specific treatment. Site visits and local knowledge have then determined the nature of the schemes to be considered (see Chapter 5).

4 EXISTING CONDITIONS

4. Existing Conditions

4.1. INTRODUCTION

The key routes within Cheshire, Manchester and Stockport upon which changes will be experienced have been highlighted in the previous chapter of this report.

This section describes the existing conditions and infrastructure that will influence the nature and location of schemes for implementation. This section also considers any existing schemes that will impact on traffic conditions across the area of influence and details any studies that have been completed or are being developed that will need to be considered and incorporated into the development of proposals associated with the construction of the relief road.

The GMTU model indicates that there will be traffic reductions on a number of routes across the study area, presenting opportunities for reallocating road space. However on those routes where there is congestion, care will be taken to ensure that any benefits provided by the relief road will not be negated by any proposed schemes to such an extent that the conditions currently experienced will exist following the introduction of the bypasses.

4.2. BASELINE CONDITIONS

Figure 4.1 illustrates the infrastructure and baseline conditions within the study area and details the location of the following: -

- Strategic road network;
- Rail infrastructure;
- Integrated Transport Corridors (ITCs) completed or identified in SEMMMS major bus scheme bid and GMLTP;
- Town Centres;
- District Centres;
- Local Centres/Neighbourhood Parades;
- Primary/secondary schools & colleges;
- Key trip generating sites, including the Airport and the hospitals;
- Community facilities (health centres, clinics and libraries); and
- Existing/ proposed cycle routes.

The location of the above features is important in the identification of suitable proposals. For example, where reductions in traffic are anticipated, there is a unique opportunity to strengthen key pedestrian and cycle linkages to Town, Local and District Centres, on approaches to key transport nodes and in the vicinity of schools.

4.3. CURRENT INITIATIVES/FUTURE DEVELOPMENTS

4.3.1. CHESHIRE

There are likely to be a number of existing and new proposals over and above those that have been included in the GMTU model that will impact on the traffic conditions within Cheshire. Within the constraints and timescale for the preparation of this report it has not been possible to assess all the implications and precise locations of all schemes proposed by Cheshire in their current and planned highway improvement programmes. Consequently they have not been taken into account when drawing up the attached schedule of preliminary recommendations for major road support measures (see **Appendix A**).

Cheshire is however, now concluding the detailed working up of their planned highway improvement programmes. These include the following: -

- Quality Bus Corridors
  - Handforth - Wilmslow – Macclesfield;
  - Bollington – Poynton; and
  - A523 (Poynton to Macclesfield);
- Highway and Environmental improvements in Handforth;
- Pedestrian crossing improvements at Swan Street/ Station Road junction, Wilmslow;
- Safer Routes to School measures, which include the provision of pedestrian crossing improvements, footway and cycleway improvements and junction improvements;
- Resurfacing of A6 in Disley. Work will also include pedestrian crossing improvements and signing and lining/patching improvements;
- Provision of cycleway/footway through Worms Hill, West Wilmslow; and
- Provision of footway along Park Lane, Poynton.

4.3.2. MANCHESTER

Within Manchester, there are a number of relevant schemes and proposals that have been considered when developing proposals as part of the study: -

- Manchester Airport Quality Bus Corridors (QBCs);
- Manchester Airport/ Wythenshawe Metrolink Extension; and
- Wythenshawe Signing Strategy.

Manchester Airport QBC

There is an extensive coverage of bus services operating in Wythenshawe with some of the key routes included in Greater Manchester's SEMMMS Major QBC. Assessments of need highlighted issues associated with bus movement along the key routes in the study area (Brownley Road, Crossacres Road, Poundswick Lane, Shadowmoss Road and Simonsway).

The bus stop environment is also generally poor and in need of upgrading to a higher standard, which will be undertaken using the limited funds available to implement recommendations made in the QBC report.

Manchester Airport / Wythenshawe Metrolink Extension

Subject to the anticipated Government announcement, the planned Metrolink extension to the Airport will provide a loop through Wythenshawe serving locations including the town centre, Wythenshawe Hospital, Roundthorn Industrial Estate, Manchester Business Park and Davenport Green. The proposal will provide much greater access into Wythenshawe, create stronger

links with the city centre and Manchester Airport and contribute to the regeneration of the area.

Wythenshawe Signing Strategy
FaberMaunsell are currently developing a signage strategy on behalf of the Wythenshawe Regeneration Partnership. Funded through the Neighbourhood Renewal Fund and developed through the Transport Thematic area of the Local Strategic Partnership (LSP), the strategy will provide a combination of directional and identity signage in and around the area to (a) simplify access to Wythenshawe facilities for visitors and new residents, (b) provide clear walk and cycle directions to local people (c) enable choices to be made for alternative travel modes to the car, especially for local journeys.

4.3.3. STOCKPORT
There are a number of existing development proposals over and above those that have been included in the model that will impact on the traffic conditions within Stockport and these will need to be incorporated into the proposals, examples of these include, Cheadle Royal office developments, Stanley Green and IKEA.

There are also a number of projects/studies that have been carried out, the findings of which have been considered when developing proposals as part of the study: -

- Integrated Transport Corridors;
- Network Audit;
- District Centres;
- Local Centres – Transport Audit;
- Community Transport Plans/Civilising Cities;
- Cycling Strategy; and
- Walking Strategies.

Integrated Transport Corridors
The standard of bus services within Stockport is currently being improved as part of the delivery of the SEMMMS Major QBC programme and the ITC project, with FaberMaunsell having recently completed work on various schemes in the Greater Manchester conurbation. The purpose of these schemes is to encourage more people to use public transport by improving reliability and facilities.

Network Audits
FaberMaunsell was commissioned to undertake a comprehensive Highway Network Audit as part of the Stockport Framework. This study involved an assessment of the overall traffic and transportation needs along key routes, including the identification of inefficient junctions, pedestrian facility deficiencies, signing review and clutter, scope for cycling facilities, non-compliance with traffic regulation orders, school time difficulties and maintenance deficiencies of signing and lining. The review led to the identification of a series of outline proposals that aim to resolve issues associated with traffic and transportation along the audited routes.

Local Centres – Transport Audit
FaberMaunsell was commissioned by SMBC to conduct a transport audit for the 25 Local Centres within the Borough. The aim of the study was to review the existing conditions with respect to the provision for pedestrians and cyclists, public transport links, parking and signage and to identify opportunities for improving access. Following a review of existing issues and opportunities, potential measures for further consideration and assessment were identified in order to enhance the vitality of the Local Centres.

Community Transport Plans
The aim of the studies were to identify opportunities for improving local access to jobs, services and leisure opportunities and promoting more sustainable modes of transport such as cycling and walking. The key areas studied were pedestrian and cycling environments, public transport accessibility, traffic environment and safety and security issues. FaberMaunsell were tasked to identify options for appropriate remedial measures, with indicative costs and prioritised in line with the objectives of the Community Transport Plan.

4.4. ACCIDENT DATA

Following the introduction of the SEMMMS Relief Road and the ensuing removal of large volumes of traffic from inappropriate roads, there should be a corresponding reduction in the occurrence of accidents.

This project provides an opportunity to incorporate and implement road safety schemes suggested in previous studies such as the Network Audit and Community Transport Plans conducted in Stockport and in the Wythenshawe Transport Study and Ward Transport Plans in Manchester. Indeed, proposals have been suggested at the junctions with known accident clusters, which will ultimately improve conditions for pedestrians and cyclists.

A summary of the findings along the key routes is provided in the following chapter.

5 OPTION IDENTIFICATION

5. Option Identification

5.1. INTRODUCTION

For each link significantly affected by the introduction of the SEMMMS new relief road, the tables in Appendices A, B, C, D & E provide details regarding the existing conditions experienced on the network, any initiatives or schemes that need to be considered, the likely impact of the bypass on traffic flows, estimated costs and the possible opportunities this presents in terms of improvements to the transport network across the affected area.

Within the Manchester appendix **(Appendix B)**, opportunities marked in italics are to be provided under the proposed Manchester Airport Metrolink extension and have not been taken into account when carrying out coat benefit analyses for Annex A. However, should Metrolink not proceed within the proposed timescale in Wythenshawe, this package of minor improvements would provide an opportunity to improve conditions along parts of the proposed Metrolink route (including key stretches of Brownley Road, Hollyhedge Road and strategic junctions of Brownley Road/ Ruddpark Road/ Simonsway and Hollyhedge Road/Brownley Road).

5.2. KEY AREA/ROUTE DESCRIPTIONS

A summary of the findings along a number of the key routes is provided below: -

5.2.1. CHESHIRE

Adlington area - The Poynton bypass section of the SEMMMS Relief Road commences at the London Road/Brookledge Lane junction. Consequently, links to this point and the adjacent area anticipate a significant increase in traffic levels. The immediate link routes, where increased traffic flows are anticipated, will be dealt with in the bypass design e.g. London Road/Brookledge Lane junction, and are consequently excluded from this report. Roads to the west of Adlington however, such as Mill Lane, can expect decreased traffic flows, which could give rise to higher traffic speeds. In order to mitigate against this, improved signing and carriageway markings are recommended along such links.

Disley area - A large increase in traffic flows is predicted on the A6 Buxton Road through Disley following the introduction of the relief road. The nature of the surrounding land however means that it is not possible to significantly increase network capacity through the construction of a new highway or town centre bypass. Proposals for the Disley area therefore aim to maximise the existing highway capacity through changes to loading and waiting restrictions, parking alterations and optimising signal timings. Concurrently, it will be crucially important to mitigate, as much as possible, the impacts of traffic growth on shoppers and businesses in the town. This will be done through new and upgraded pedestrian crossing facilities and exploring opportunities to expand and relocate some town centre parking. The above proposals should be reviewed in the context of Cheshire County Council's highway improvements proposed for the A6 through Disley. Consideration of support for this improvement scheme could be made to complement the relief road.

Handforth area - A reduction in the number of vehicles on the roads in the Handforth area is expected following the introduction of the relief road. Several of the main routes within Handforth carry significant levels of traffic and experience congestion during peak periods which is exacerbated by echelon parking outside shops fronting the main route through the District Centre. Opportunities do exist to reduce capacity on the road through the centre by reallocating some road space to parking outside shops and additional cycling infrastructure, as well as providing build outs for pedestrians, to reduce the width of road to be crossed.

The careful design of such proposals would not only provide a safer environment for vulnerable road users, but also help to mitigate against any speed increases and provide more and safer parking for shoppers, at the points where it is most needed. Gateway entrances to reinforce driver awareness and slow traffic at the entry to the district centre are also recommended. The above proposals should be reviewed in the context of Cheshire County Council's highway and environmental improvement scheme planned for construction in Spring/Summer 2005. This scheme is aimed at addressing safety, accessibility and environmental issues. Consideration of support for this scheme could be made to complement the bypass.

Many of the rural routes in the study area serve as important links between town and District Centres and the wider south Manchester conurbation. Along rural routes where traffic is projected to fall, improvements to warning signs and speed reduction measures are proposed, in an attempt to combat any possible increase in vehicle speeds.

Pott Shrigley / Kettleshulme area - The route running between Adlington / Kettleshulme / Pott Shrigley is expected to see an increase in traffic flows. Much of the route is rural with isolated villages and covered by the national speed limit. In order to provide for the anticipated change in flows, it is proposed to improve warning signing and introduce physical and regulatory measures to help achieve a speed reduction at appropriate locations along the route.

Poynton area – Whilst the Poynton area is expected to experience a significant reduction in through traffic, many roads within the area will still experience high traffic flows. It is not proposed therefore to substantially reduce the overall capacity of routes, but rather the upgrading of pedestrian and cycle provision is suggested, with the key proposals within this area being improvements to the London Road/Park Lane junction (improved layout and pedestrian facilities), gateways to the approaches to the town centre and in particular, improvements to the shopping frontage along Park Lane which recognise the level

of pedestrian activity and the need to reinforce the nature of the shopping environment in the minds of drivers passing through.

Wilmslow area - Whilst traffic flows across the Wilmslow area are anticipated to fall following the introduction of the relief road, many routes carry significant levels of traffic and are subject to queues and delays at peak times. They also provide essential links to the Greater Manchester conurbation, Airport and national road network to the north, so capacity reductions are inappropriate. It is though recommended that pedestrian and cycle facilities be upgraded along many of the links and at junctions within the area, in particular this report's recommendations for the Station Road/Manchester Road/Alderley Road junction need to be reviewed against Cheshire County Council's Swan Street proposals planned for construction in 2004/2005.

Recommendations are also made that measures to reinforce speed limits be considered in locations where there are already indications that traffic is exceeding the set speed limits, and that speed limits be reviewed where they are felt to be unsuitable for the immediately surrounding area.

Along rural routes within the area, improvements to warning signs and speed reduction measures are proposed in an attempt to combat any possible increase in vehicle speeds due to a fall in traffic flows, following the introduction of the relief road.

A34 Handforth Bypass - The SEMMMS relief road is expected to effect a reduction in traffic levels on the A34 Handforth bypass. The percentage reductions are relatively small though and as the road has only recently been constructed as a purpose built bypass, it was not considered in this study.

The above measures are set out in **Appendix A**.

5.2.2. MANCHESTER

A560 (Altrincham Road) – Whilst there is an anticipated reduction in traffic flows across the route following the introduction of the relief road, the A560 is a strategic route, carrying significant levels of traffic. Therefore, it is not proposed to significantly reduce the capacity along this route, although, the provision of improved facilities for pedestrians and cyclists is suggested along certain sections and at key junctions. Cycling can be encouraged through the introduction of advance stop lines and approach lanes at junctions and through the designation of advisory cycle routes and, where the width of the carriageway permits, the installation of cycle lanes. The A560 in Manchester is wide and uninterrupted for much of its length, which means that there is a tendency to excessive speeds and as such speed reduction measures are recommended.

A538 (Wilmslow Road) – Wilmslow Road provides an important link between Wilmslow and Altrincham and for access to the M56. The route carries a significant amount of traffic throughout the day especially during peak periods. However, the introduction of the relief road is likely to mean a reduction in traffic flows. Speed reduction measures are therefore recommended to curb any potential increase in traffic speeds. Off-road cycle lanes are already installed parallel to large sections of the road and it is recommended that these be upgraded to provide better quality cycling facilities.

B5166 (Styal Road) - The section of the route between the Cheshire boundary and Simonsway will be subject to significant traffic reductions following the introduction of the link road. This route is subject to a combination of national speed and 40mph speed limits, with the 40mph limit frequently exceeded, a situation that may be worsened following the anticipated reduction in traffic levels. Therefore, it is considered that a reduction in the speed limit in association with the installation of speed reduction measures along this route, such as speed roundels, dragons teeth markings, vehicle actuated signage, etc. should be introduced. Improvements to the pedestrian and cycle network are also suggested in the form of segregated cycle/footways where appropriate.

Brownley Road – Brownley Road provides an important north-south route within Wythenshawe. After the introduction of the Manchester Airport Eastern Link Road (West), it is expected that there will be a small increase in the level of traffic using the road. Therefore, it is not proposed to significantly reduce the capacity along this route.

However the carriageway is wide towards the northern end of the route and encourages speeding. It is therefore recommended that provision for cyclists is improved between Hollyhedge Road and the A560 in order to reduce the amount of carriageway available to vehicles in an attempt to curb any excessive speeding that may occur. This will link into the cycle route to the south connecting to Wythenshawe town centre, recommended to be introduced concurrently with planned Metrolink reinstatement works. There are also opportunities to provide enhanced facilities for cyclists through the introduction of advance stop lines and approach lanes at junctions along the route.

In addition, it is recommended that pedestrian facilities be upgraded at the Altrincham Road, Hollyhedge Road, Poundswick Lane and Simonsway junctions in order to improve linkages and reduce severance.

Hollyhedge Road – Hollyhedge Road between Highdales Road and Styal Road consists of a wide single lane carriageway in each direction and is fronted primarily by residential properties interspersed with small scale retail units. This route is a key east-west route, carrying high levels of traffic, however, following the introduction of the relief roads, it is anticipated that there will be a slight reduction in traffic along the route. Therefore, it is proposed to regulate on-street parking, increase footway widths where appropriate, improve pedestrian crossing provision and improve provision for cyclists.

The Metrolink expansion scheme proposes to remove the roundabout at Brownley Road and signalise the junction, which will provide the opportunity to improve pedestrian and cyclist facilities at the junction and improve linkages between Hollyhedge Road East and Hollyhedge Road West. Furthermore, the scheme provides an

opportunity for public realm improvements, as it will reclaim a large area of under-utilised land. If this section of the Metrolink proposal does not get taken forward within the currently planned timescale, it is recommended that the roundabout be removed as part of the SEMMMS relief road work.

Ringway Road (between Styal Road and Shadowmoss Road) – The section of Ringway Road provides an important link to Manchester Airport and Manchester Business Park. With the introduction of Manchester Airport Eastern Link Road (West), which removes the need for this section as a through route, it is proposed to create a cul-de-sac(s) along this stretch, subject to public consultation, and close the road to through traffic. Only cyclists and pedestrians will be able to move along the two roads. The introduction of the two cul-de-sacs will mean that the eastern end of Ringway Road will become a local access road.

Shadowmoss Road – Shadowmoss Road is a local access road that runs between Simonsway and Ringway Road. As the introduction of the Manchester Airport Eastern Link Road (West) is likely to lead to a significant increase in the number of vehicles using both Simonsway and Ringway Road, Shadowmoss Road has potential to be used as a rat run (to avoid the predicted increases in traffic levels along the roads). It is therefore proposed to introduce measures to reduce the attractiveness of this route as a shortcut.

The Ringway Road junction will be signalised as part of the SEMMMS relief road major scheme. As part of the proposed Metrolink extension to Manchester Airport, it is considered necessary to signalise the Simonsway junction however this depends on obtaining funding and may be subject to further delay. Subject to funding decisions and the timing of the Metrolink extension, in order to manage traffic growth and provide priorities for pedestrians and buses, it is considered advisable to signalise the Simonsway junction under the major road scheme.

Simonsway – Simonsway provides an important east-west route within Wythenshawe. After the introduction of the Manchester Airport Eastern Link Road (West), it is expected that there will be increases in the level of traffic using the road. Therefore, it is not proposed to significantly reduce the capacity along this route. Frontage activity along the route consists mainly of residential properties, however, the route does pass adjacent to Wythenshawe town centre. Pedestrian and cycle activity is significant along the route and as such it is proposed to improve connectivity for these modes along the route to strengthen linkages from residential areas to the town centre, between key transport hubs and to schools in the area. This will be achieved through the provision of footway widening, improved crossing facilities, advanced cycle stop lines at junctions, etc.

Although the carriageway is not particularly wide, large sections of the route are straight and open and thus subject to speeding. As the road forms part of the route towards the link road, it is proposed to install speed reduction features along the roads together with speed enforcement measures to ensure that vehicles travel at appropriate speeds.

The above measures are set out in **Appendix B**.

5.2.3. STOCKPORT

Due to the extent of the area impacted within Stockport, the study area was divided into three geographical areas.

5.2.3.1 Area 1 (south/south west)

A560 (west of A6) – Whilst there is an anticipated reduction in traffic flows across the route following the introduction of the relief road, the A560 carries significant levels of traffic and is subject to extensive queues and delays at peak times. Therefore, it is not proposed to significantly reduce the capacity along this route, however, the upgrading of pedestrian and cycle provision is suggested along certain sections and at key junctions. Parts of the route are wide, which means that there is a vulnerability to excessive speeds and as such speed reduction measures have also been recommended. It should also be noted that this route incorporates an Integrated Transport Corridor, is the subject of a CRASH investigation and has also been studied as part of the Network Audit.

A5102 - Whilst there is an anticipated reduction in traffic flows across the route following the introduction of the relief road, the A5102 carries significant levels of traffic and is subject to extensive queues and delays at peak times. Therefore, it is not proposed to significantly reduce the capacity along this route, however it is recommended that certain junctions be upgraded to improve the pedestrian environment. In addition, there are opportunities to provide enhanced facilities for cyclists through the introduction of advance stop lines and approach lanes at junctions and through the designation of advisory cycle routes and where the width of the carriageway permits, the installation of cycle lanes.

A5149 - Whilst there is an anticipated reduction in traffic flows across the route following the introduction of the relief road, the A5149 carries significant levels of traffic and is subject to queues and delays at peak times. Therefore, it is not proposed to significantly reduce the capacity along this route, however it is recommended that certain junctions be upgraded and pedestrian refuges installed to reduce severance and improve the pedestrian environment. In addition, there are opportunities to provide enhanced facilities for cyclists through the introduction of advance stop lines and approach lanes at junctions and through the designation of advisory cycle routes and where the width of the carriageway permits, the installation of cycle lanes. The projected reductions in traffic flows along the route may mean that there are increased instances of speeding and as such it may be necessary to install measures to ensure that the speed limit is adhered to.

B5094 – It is expected that traffic flows will increase on much of this route following the completion of the relief road and as such it will be necessary to install measures to deter rat running and reduce vehicle speeds. In addition, it will be necessary to consider changes to the method of control at a number of key junctions along the route to ease congestion. This will also involve a review of signal timings to maximise flows and ease congestion.

B5095 - Whilst there is an anticipated reduction in traffic flows across the route following the introduction of the relief road, the B5095 carries significant levels of traffic. Therefore, it is not proposed to significantly reduce the capacity along this route, however it is recommended that due to the residential nature of the area, conditions can be improved for pedestrians and cyclists. In addition, the projected reductions provide an opportunity to provide formalised parking opportunities to enhance Smithy Green Local Centre.

B5166 - It is expected that the introduction of the relief road will reduce the level of traffic using this route and as such it appears that it will be necessary to install speed reduction measures to ensure that the speed limit is adhered to. The anticipated reductions provide an opportunity to improve conditions for pedestrians and provide enhanced facilities for cyclists at the northern end of the route in Gatley. Cycling can be encouraged through the introduction of advance stop lines and approach lanes at junctions and through the designation of advisory cycle routes and, where the width of the carriageway permits, the installation of cycle lanes.

B5358 – The B5358 has been the subject of an Integrated Route Treatment and Network Audit study and the anticipated reduction in traffic flows following the completion of the relief roads provides an opportunity to progress with many of the pedestrian and cycling schemes suggested in the report.

The above measures are set out in **Appendix C**.

5.2.3.2 Area 2 (south/south east)

A6 (south of Longshut Lane) – The A6 carries significant levels of traffic throughout the day and is subject to extensive delays with vehicles queuing during both the AM and PM peak periods. The route also incorporates an Integrated Transport Corridor. The introduction of the relief road is likely to bring about a significant reduction in the number of vehicles using the A6 in all areas (except through High Lane where there is predicted to be a significant increase in the number of vehicles using the highway). Consequently, where road space is freed up, as a result of it being bypassed, it is proposed to significantly reduce the capacity of the A6 throughout much of the route. This will allow new cycling facilities, wider footways and parking bay areas to be installed together with opportunities for public realm improvements. Significant pedestrian improvements to reduce severance and improve pedestrian movements along the existing A6 are also proposed.

On the section of the A6 leading into the new road from the south, i.e. through High Lane where traffic is forecast to increase, it is proposed to review and rationalise parking and servicing, improve pedestrian protection, introduce a gateway to the Local Centre and improve capacity at the A6/Windlehurst Lane signalised junction.

A523 – Macclesfield Road provides an important link between Stockport and Macclesfield. The route carries a significant amount of traffic throughout the day especially during peak periods. The introduction of the relief road is likely to mean a reduction in the level of vehicles using the route and due to its wide nature, a possible increase in the speed of vehicles along the route. Cycle lanes are already installed along large sections of the road and it is recommended that these be extended to provide better quality cycling facilities and that measures be introduced to ensure that the speed limit is adhered to.

A627 - The A627 Torkington/Offerton Road provides an important link between Hazel Grove to the south and Offerton to the north. The road is likely to see a significant reduction in the number of vehicles due to the introduction of the relief road. This will mean that traffic conditions along the road are likely to be free flowing throughout the day, potentially leading to an increase in speeding. It is therefore suggested that measures to enforce the speed limit are introduced.

A5143 – The A5143 is a long straight road running in an east/west direction at the southern side of Hazel Grove. The introduction of the relief road is predicted to result in a significant reduction in the level of traffic using the road. This has potential to increase the number of vehicles that exceed the speed limit. Proposed measures to reduce the occurrence of this problem include narrowing carriageway widths through new cycle lanes, widening footways and installation of pedestrian refuges, these would also improve pedestrian crossing facilities.

B6101 – Strines Road runs between Marple and the Stockport borough boundary. Vehicles often travel along the road in excess of the speed limit. With the predicted decrease in the level of traffic using the road the occurrence of vehicles speeding along it has potential to increase. It is therefore recommended that measures to enforce the speed limit be installed along the road.

C412 – Chester Road runs from Hazel Grove District Centre, from A6 London Road, to the Stockport Borough boundary. The road generally provides access to the surrounding residential estate. With the introduction of the relief road, the road is likely to see a significant decrease in the number of vehicles using it. It is therefore intended to install cycle lanes along the road to assist cyclists and install measures to ensure that the speed limit is adhered to.

Hempshaw Lane, Nangreave Road (B6171), Hillcrest Road, Mile End Lane, Cherry Tree Lane and Lisburne Lane – These roads carry significant levels of traffic throughout the day mainly providing local access to residential properties. However, the roads do form a series of rat runs between the A626 Offerton Lane and the A6 Buxton Road. These sections of the existing highway network are predicted to see a reduction in the level of traffic using the roads, though there is likely to be a small increases along a section of the network. As vehicles often travel along the roads at inappropriate speeds and the routes offer rat running opportunities to/from the new bypass it is proposed to install appropriate traffic calming features to discourage any potential rat running and reduce vehicle speeds. A number of schemes along these roads have been suggested as part of the Civilising Cities project and cycling schemes.

Andrew Lane – Andrew Lane is a local access road that runs between the A6 Buxton Road and Windlehurst Road. As the introduction of the relief road is likely to lead to a significant increase in the number of vehicles using the A6 through High Lane and Windlehurst Road, Andrew Lane has potential to be used as a rat run (to avoid the predicted increases in traffic levels along the roads). It is therefore proposed to introduce measures to reduce the potential for motorists to use the route as a rat run.

Banks Lane/Dialstone Lane – Banks Lane/ Dialstone Lane is a long wide and straight section of highway that joins the A626 Offerton Lane and the A6 (Buxton Road). Due to the long and wide nature of the road speeding vehicles can be regularly observed along the route. The introduction of the relief road is predicted to lead to a decrease in the number of vehicles using the route and thus speeding along the route could become worse. An Integrated Route Treatment scheme has already been proposed for Dialstone Lane, which is presently at the planning stage, this will bring benefits for all modes of transport. It is therefore recommended that the proposed scheme or similar be installed to combat any problems that could be created with the introduction of the SEMMMS new relief road.

Bramhall Moor Lane – Bramhall Moor Lane provides an important link between the A6 Buxton Road and A5143. The route is heavily used by HGVs as two large industrial estates are situated along the road. With the introduction of the new relief road, it is predicted that there will be a small increase in the level of traffic using the road. Therefore, it is not proposed to significantly reduce the capacity of this route. However the width of the carriageway along the vast majority of the route encourages vehicles to speed, the opportunity will be therefore be taken to introduce cycle lanes to provide priority for cyclists and reduce the amount of carriageway available to vehicles in an attempt to curb any excessive vehicle speeds that may occur.

Bosdenfolds Road/Hazelwood Road/Clarendon Road – Bosdenfolds Road, Hazelwood Road and Clarendon Road are local access roads that serve the housing estates situated between the A6 London Road and A627 Torkington Road. The relief road will generally result in a significant reduction in the number of vehicles using the roads, however increases along some sections are predicted. As the road forms part of a rat run to/from the new relief road, it is proposed to install traffic calming features along the roads together with speed enforcement measures to ensure that vehicles travel at appropriate speeds.

Commercial Road/Bean Leach Road – Commercial Road and Bean Leach Road provide an important link between Hazel Grove District Centre and Offerton. The roads provide an alternative route between the two areas instead of using the A627 (Torkington Road). With the introduction of the new relief road, it is proposed to close the route to vehicular traffic where it intersects with the new relief road. Only cyclists and pedestrians will be able to move along the two roads. The introduction of the two cul-de-sacs will mean that the roads will have a large reduction in the number of vehicles using them, as they will become local access roads mainly to residential properties.

Windlehurst Road and Hibbert Lane – Windlehurst Road and Hibbert Lane provide an important link between High Lane and Marple carrying a significant amount of traffic throughout the day. The introduction of the relief road is likely to mean a significant reduction in the amount of vehicles using Hibbert Lane but it is expected to result in an increase in the number of vehicles using Windlehurst Road. Therefore, it is not proposed to reduce the capacity along this route. However, measures to enforce the speed limit are recommended.

The above measures are set out in **Appendix D.**

5.2.3.3Area 3 (centre/east)

A6 (north of Longshut Lane) - The A6 carries significant levels of traffic throughout the day forms part of an integrated transport corridor, and is subject to extensive delays with vehicles queuing during both the AM and PM peak periods. The introduction of the new relief road is likely to bring about a significant reduction in the number of vehicles, however, this reduction becomes less further north along the A6. Therefore, whilst it is not proposed to introduce major reductions in capacity along this section of the A6 where the bus lanes begin, it is intended to improve pedestrian connectivity across the A6 through the provision of wide pedestrian crossing facilities. The reduction in demand along this section of the route also presents the opportunity to improve pedestrian facilities on either side of the A6 by narrowing running lanes and increasing footway widths where necessary and applicable.

A560 (east of A6) – The A560, which incorporates an Integrated Transport Corridor, carries significant levels of traffic and is subject to extensive queues and delays at peak times. Whilst there is a reduction in traffic flows across the route following the introduction of the relief road, it should be noted that the introduction of IKEA is likely to generate significant traffic flows in the area. Therefore, it is not proposed to significantly reduce capacity along this route, however, the upgrading of pedestrian and cycle provision is suggested. It is also intended to regulate on-street parking along the route to maintain steady traffic flow and remove obstacles for pedestrians. Speed restraint measures are also recommended as a reduction in traffic could lead to an overall increase in traffic speeds.

A626 – The A626, which incorporates an Integrated Transport Corridor, runs through much of the eastern side of Stockport and as such changes in nature significantly from along its length. The western section from the Portwood roundabout to Hall Street is fronted by large scale retail developments and carries high volumes of traffic between Junction 27 of the M60 and the A6 and is subject to significant queues and delays. Despite an anticipated traffic reduction along this route it is not intended to make any major changes due to the already congested nature of the route and the possible introduction of IKEA development which will increase traffic on this route.

The section of the A626 stretching from St Mary's Way through to Marple carries significant levels of traffic and is subject to extensive peak time delay. It is anticipated that there will be appreciable reductions in traffic along much of this route, although, there are likely to be increases in the immediate vicinity of the proposed junction with the bypass. Frontage along the route consists mainly of residential properties, however, the route does pass through a number of District Centres. Pedestrian and cycle activity is significant along the route and as such it is proposed to improve connectivity for these modes along the route to strengthen linkages from residential areas to District Centres, between key transport hubs and to schools in the area. This will be achieved through the provision of footway widening, improved crossing facilities, cycle lanes, advanced cycle stop lines at junctions, etc. It is also proposed to regulate parking along the route, in particular through the District Centres and in the vicinity of retail developments.

The general reduction in traffic levels along this route may lead to an increase in the number of vehicles travelling in excess of the speed limit. It is therefore suggested that measures to enforce the speed limit are introduced. Gateway features are also recommended on the entrance to residential areas to also help reduce traffic speed.

A627 (between Hyde Road and Marple Road) – The section of the A627 between Hyde Road and Bredbury Green is a relatively wide single carriageway route, extensive lengths of which are uninterrupted and subject to relatively high traffic speeds. The frontage activity along the route is primarily residential and as such pedestrian movement along and across the route is high, in particular around the schools in the area. It is anticipated that the introduction of the relief road will reduce overall traffic flow along the route, therefore, measures such as the regulation of on-street parking, increases in footway width, improvements to pedestrian crossing provision and improvements to cycle provision are being considered. A possible change in the method of control at junctions along the route is also being considered as well as speed reduction measures to prevent increases following a reduction in traffic as a result of the bypass.

The section of the route between Bredbury Green and Marple Road will be subject to significant traffic reductions following the introduction of the relief road. This route is subject to a 40mph speed limit, however, vehicles often travel in excess of this speed and this situation may be worsened following the anticipated reduction in traffic levels. Therefore, it is considered that speed reduction measures along this route such a speed roundels, dragons teeth markings, vehicle actuated signage, etc. should be introduced. Improvements to the pedestrian and cycle network are also suggested in the form of segregated cycle/footways where appropriate.

A6017 – The A6017 between Barrack Hill and Stockport Road East consists of a wide single lane carriageway in each direction and which is fronted primarily by residential properties, interspersed with small scale retail units. This route carries significant levels of traffic and is subject to peak time delays, however, following the introduction of the relief road it is anticipated that there will be a reduction in traffic along the route. Therefore, it is proposed to regulate on-street parking, increase footway widths where appropriate, improve pedestrian crossing provision and improve cycle provision. It is also proposed to signalise the Harrytown and Vernon Road junctions, which will help to provide greater control over traffic flow along the route and will also provide the opportunity to improve pedestrian and cycle facilities at these junctions.

The above measures are set out in **Appendix E**.

5.3. NETWORK ISSUES

A number of issues are applicable across much of the network. These include: -

- Reconfigure signal timings across the network to account for the changes in traffic flows;
- On routes where traffic reductions are anticipated it may be worth considering the removal of bus stops from lay-bys to remove delays on key bus routes; and
- On those routes where traffic reductions may lead to an increase in traffic speeds consideration should be given to introducing or upgrading anti-skid on approach to junctions and pedestrian crossings.

5.4. PUBLIC TRANSPORT ENHANCEMENT

The SEMMMS Final Report highlighted that the recommended major road scheme would have an impact on the local road network and communities in areas surrounding the scheme, and as a consequence identified an "Area for road space reallocation associated with new roads" in its SEMMMS recommended strategy. The predominant impact of the SEMMMS major road scheme is to reduce traffic across much of the adjacent area, which provides an opportunity to enhance public transport infrastructure and services.

In terms of its impact on public transport, benefits afforded by the scheme where traffic flow reductions are projected, can be summarised as follows: -

- Increased reliability and efficiency of existing bus services (e.g. A6 (Wellington Road South/ Buxton Road), A560 (Gatley Road/ High Street/ Stockport Road/ Stockport Road West/ Stockport Road East), A5102 (Bramhall Lane/ Bramhall Lane South), A5149 (Station Road);
- Opportunity to provide sections of bus priority to further enhance bus services (e.g. A6 (south/north of Hazel Grove & Great Moor);
- Opportunity to provide pedestrian and cyclist facilities that can be designed and implemented to improve access to public transport nodes and increase public transport usage (e.g. A560/ A627, A5102/ A5143, Brownley Road/ Ruddpark Road/ Simonsway, Brownley Road/ Crossacres Road/ Poundswick Lane); and
- Opportunity to reassess phasing of signal junctions across the network to account for the changes in traffic flows (e.g. A560/B5166, A560/ A6017, A5102/A5143, A5102/ Garners Lane,

A5149/ Ladybridge Road, B5166 (Styal Road)/ Finney Lane/ Simonsway junctions).

In addition, the decrease in traffic flows along some routes provides an opportunity/ further justification to implement measures suggested in the various Quality Bus Corridor/ Integrated Transport Corridor studies that have been commissioned by the three local authorities.

At the small number of locations where traffic flows are projected to increase, resulting in the need to implement 'mitigatory' measures (such as the signalisation of certain junctions), there could be detrimental impacts on the operation and appeal of public transport. Where such instances occur, it will be necessary to design schemes in a manner that will minimise the effects on the operation of public transport.

5.5. OPTION IDENTIFICATION

The complementary/mitigatory measures identified in the study areas are shown in **Figure 5.1**.

6 PHASE 2

6. Phase 2

6.1. PHASE 2: STOCKPORT

For Stockport, the development of complementary and mitigatory measures associated with the relief road was divided into two stages: -

- Stage 1: Included the analysis of the modelling output and the baseline work, which identified complementary measures for reducing the capacity on the existing network where traffic levels are predicted to reduce and suggested mitigating measures where traffic flows are projected to increase, and to eliminate potential new rat runs;
- Stage 2a: Consultation involved facilitating a workshop, at which SMBC officers were invited to provide feedback on the Stage 1 proposals; and
- Stage 2b: Using feedback from the workshop and consequent discussions with key project officers within SMBC, a strategy of complementary/mitigatory measures to support the development of the relief road schemes was formulated. This stage included the production of concept designs, identifying the need for any additional sensitivity tests for the modelling and producing preliminary costings and the provision of associated information to feed into the Guidance on Methodology for Multi-Modal Studies (GOMMMS) appraisal process.

6.2. OFFICER WORKSHOP

Following the submission of the Stage 1 report a consultation workshop was held with a cross section of SMBC officers on the 6th May 2004.

The workshop involved a short presentation detailing the key aspects of the Stage 1 work (traffic modelling, baseline conditions, current initiatives and future developments and accident data), followed by a workshop session during which the proposals for complementary and mitigating measures were presented for the following three study areas of Stockport: -

- Area 1 – South/South West (Cheadle, Cheadle Hulme, Davenport, Heald Green and Stanley Green);
- Area 2 – South/South East (Bramhall, Hazel Grove, Marple and Woods Moor); and
- Area 3 – Centre/East (Bredbury, Bredbury Green, Marple, Romiley and Offerton).

SMBC officers were invited to provide feedback on the proposals and to discuss the specific schemes that would be most appropriate to take through into Stage 2 of the study.

6.3. SCHEME DEVELOPMENT

Using feedback from the workshop and consequent discussions with key project officers within SMBC, a number of schemes were selected for progression to the next stage.

The chosen schemes/sites were as follows: -

Area 1 – (South/South West)

1. Moss Lane/Acre Lane;
2. A34/A555 & A34 Stanley Green;
3. Heald Green Local Centre;
4. Bramhall District Centre; and
5. Bramhall Green roundabout

Area 2 – (South/South East)

6. High Lane;
7. A6/Windlehurst Road;
8. Hazel Grove District Centre;
9. A6 (north of Hazel Grove); and
10. Dialstone Lane.

Area 3 – (Centre/East)

11. Dooley Lane/Marple Road and Marple Road/Offerton Road;
12. Bredbury/Bredbury Green; and
13. Banks Lane/Offerton Lane.

This process has not been repeated for opportunities identified in Cheshire or Manchester due to the time constraint imposed by the APR process. Nevertheless, it has informed the development of complementary proposals for those authorities and enabled more robust estimates to be applied across the whole programme of complementary and mitigatory measures, as well as providing some worked up examples of the minor schemes necessary to support SEMMMS objectives and maximise the benefits of the SEMMMS relief road scheme.

7 PHASE 2: EXAMPLE MINOR SUPPORT SCHEMES

7. Phase 2: Example Minor Support Schemes

7.1. INTRODUCTION

The following section contains proposal sheets for the thirteen schemes chosen to exemplify the essential programme of minor improvements to be constructed as part of the SEMMMS major road scheme. The sheets include a summary of existing conditions, potential complementary/remedial measures, recommendations and cost estimates.

The drawings included in this chapter refer to the indicative schemes chosen for Stockport (**Figures 7.1 – 7.18**).

SEMMMS New Relief Road – Complementary/Mitigatory Measures			
Location	**Moss Lane - Acre Lane B5094**	Junction	
		Corridor	✓
		Area specific	
Baseline Conditions	Acre Lane is a classified road, but does not form part of Stockport's strategic route network. However, it performs a role within Stockport's road hierarchy as a route for local movement linking the district centre of Bramhall to the A34 on the strategic highway network. Acre Lane is a single carriageway route and subject to a 30mph speed limit. The route has an average annual weekday traffic flow of approximately 6,900 vehicles. Frontage activity is primarily residential with access also provided to housing estates on both sides of the study route. Traffic conditions along the route are free flowing with only minor queues. The wide and uninterrupted nature of this section of the route leads to high traffic speeds. This is supported with information gathered using Stockport's mobile speed camera.	 Acre Lane	
Impact of Bypass	A significant increase in vehicle demand is expected during both the AM and PM peak periods. This could lead to an increase in the number of vehicles speeding along the route and also increasing the potential for incidents involving vulnerable road users. The route could become a rat-run for access to the new link road.		
Potential Options	• Introduce horizontal and vertical traffic calming features to reduce speeds. • Introduce dragon teeth markings on approaches to bends. • Introduce a 20mph zone along Moss Lane.		

Recommendations

It is proposed to introduce traffic calming features along the route. Traffic calming features will consist of a mixture of vertical and horizontal measures.

Parts of Moss Lane and Acre Lane form part of the public transport network, vertical measures would have to be sympathic to the needs of bus operators. Therefore, vertical measures are proposed to be 75mm high speed cushions. Junction speed table are also to be used as a vertical traffic calming measures with a double junction speed table at the junctions with Yew Tree Park Road and Melby Road.

Horizontal features are proposed in the form of mini roundabouts with high friction coloured surfacing on all approaches to increase driver awareness of the features.

By implementing traffic calming along Acre Lane it is felt that Moss Lane could be used by motorists seeking to avoid the above measures whilst still accessing the new link road. Therefoe, it is proposed to implement a 20mph speed limit along Moss Lane between Acre Lane and Hall Moss Lane enforced by 75mm high sinusoidal road humps. Gateway features are also to be installed at the entry junctions to the new 20mph speed zone.

It is felt that above measures will reduce the speed of traffic along the route and make the route less appealing to rat running traffic. This in turn will have a beneficial effect on encourging the use of pedal cycles and other altermatives modes of transport within the area.

Benefits to local community	Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	
	Accessibility – *Employment*	✓	Road Safety – *Cyclists*	✓
	Accessibility – *Public Transport*		Road Safety – *Pedestrians*	✓
	Environmental Impact	✓	Road Safety – *School Children*	✓
	Modal shift	✓	Security – *Personal*	
C or M	Complementary		Mitigation	✓

Cost Estimate

Scheme	Cost
Speed Cushions along Acres Lane	£50,000
Mini Roundabouts	£60,000
Junction Speed Tables with Imprinted Surfacing	£75,000
Dragons Teeth Markings	£ 5,000
20mph Gateway Features	£20,000
Sinusoidal Road Humps	£45,000
Total estimated cost	**£255,000**

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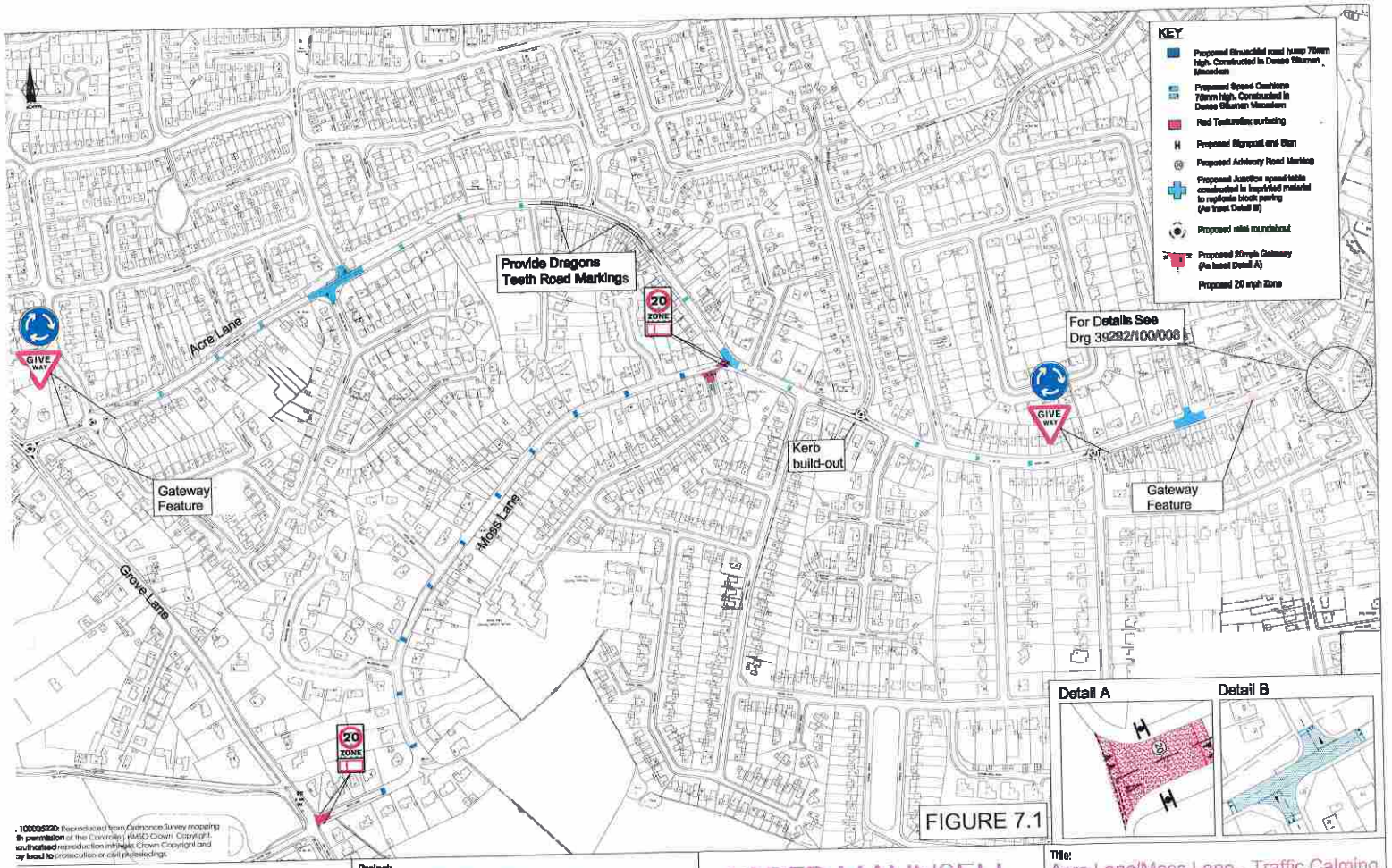
Contri' 'tion to Appraisal Summary Table

Option: Moss Lane – Acre Lane	Description: Could be implemented prior to completion of the SEMMMS Relief Road. Measures focus on traffic calming measures to reduce potential rat running traffic from within the residential area	Problems: Wide straight sections of carriageway encouraging high traffic speeds along an undesirable access route to the bypass	Present Value Cost to Government £255,000

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Landscape	N/A	Neutral
	Townscape	Gateway features and junction speed tables will enhance the townscape of the area.	Slight Benefit
	Heritage of Historic Resources	Reduction in traffic impact on some listed residential properties	Slight Benefit
	Physical Fitness	Junction tables will improve pedestrian facilities along the route	Slight Benefit
	Journey Ambience	No clear impact	Neutral
SAFETY	Accidents	The scheme is likely to reduce accident risk and severity along the route. This will be achieved through proposed speed management measures.	Beneficial
	Security	No clear impact	Neutral
ECONOMY	Reliability	Journey times along the route will increased deterring rat running traffic	Beneficial
	Wider Economic Impacts	No Clear impact	Neutral
ACCESSIBILITY	Severance	The increased traffic flows resulting from the bypass will increase severance and environment issues along the route	Negative
	Access to the transport system	No clear impact	Neutral
	Transport Interchange	No clear impact	Neutral
INTEGRATION	Land-Use Policy	No clear impact	Neutral
	Other Government Policies	Best Value Performance Indicator 99	Beneficial



Client:

STOCKPORT METROPOLITAN BOROUGH COUNCIL

CHESHIRE COUNTY COUNCIL

MANCHESTER CITY COUNCIL

Project:

SEMMMS Relief Road - Complementary/Mitigatory Measures

Design: AB	Date: June 04	Chk'd:
Drawn: MD	Scale: NTS	App'd:

Sheet Size - A3 (400mm x 275mm)

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Title:

Acre Lane/Moss Lane - Traffic Calming

AutoCAD Location: F:\PROJECTS\39292\100\CAD\Final Rep\39292_100_005.dwg

No. 39292/100/005

Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures

Location	**A34/A555 & A34/Stanley Road Junction Improvements**	Junction	✓
		Corridor	
		Area specific	

Baseline Conditions

A34/A555

The A34/A555 junction is a grade separated 4 arm junction with limited pedestrian facilities. Significant levels of queues and delays build during the peak periods and at weekends.

A34/Stanley Road

The A34/Stanley Road roundabout is a 4-arm roundabout carrying significant levels of traffic leading to peak time congestion. Cycle and pedestrian facilities are limited to Toucan crossings on both the northern and southern arms of the junction. However, the operation of these crossing facilities can lead to queues building up on the circulatory carriageway.

A34/Stanley Road Roundabout

Impact of Bypass

A34/A555

There is an overall increase in traffic on approach to this junction. This will intensify queues and increase the number of accidents at this junction.

A34/Stanley Road

There is an overall reduction in vehicles within the AM peak, however, there is an increase in demand during the PM peak. This will intensify queues in this area and increase the level of accidents at the junction.

Potential Options

- Signalise existing A555/A34 roundabout with incorporated pedestrian crossing facilities.
- Signalise A34/Stanley Road junction (remove existing roundabout) with incorporated pedestrian and cycle facilities.

Recommendations

A34/A555

It is recommended that traffic signals be installed at the existing roundabout with 3 lane approaches on all arms. This will provide a necessary increase in capacity and will help to control the demand and conflicts at this junction thus reducing potential accident rates. This will also provide the opportunity for improved pedestrian and cycle facilities.

A34/Stanley Road

It is recommended that the existing roundabout be replaced with a traffic signal controlled junction. This should provide additional capacity to cater for the potential increases in demand and will enable a greater level of control over queues and conflicts at the junction. This will also provide the opportunity for improved pedestrian and cycle facilities.

Indicative illustrations of the above schemes are attached in the figure attached, however, it should be noted that detailed traffic modelling would be required to determine the final layout of the junctions.

Benefits to local community	Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	✓
	Accessibility – *Employment*	✓	Road Safety – *Cyclists*	✓
	Accessibility – *Public Transport*		Road Safety – *Pedestrians*	✓
	Environmental Impact		Road Safety – *School Children*	✓
	Modal shift		Security – *Personal*	
C or M	Complementary		Mitigation	✓

	Scheme	**Cost**
Cost Estimate	Signalise A34/A555 roundabout	-
	Create Traffic signal junction in place of A34/Stanley Road roundabout	£750,000
	Total estimated cost	**£750,000**

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Contrib ion to Appraisal Summary Table

Option: A34/A555 & A34/Stanley Road junction	**Description: Could be implemented after completion of the SEMMMS Relief Road. Measures focus on replacing the existing roundabout with traffic signals to improve capacity at the junction**	**Problems:** Traffic congestion and limited facilities for vulnerable road users	**Present Value Cost to Government £750,000**

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Landscape	N/A	Neutral
	Townscape	Traffic signal installation will provide an opportunity for accessible of townscape to be developed	Benefit
	Heritage of Historic Resources	N/A	Neutral
	Physical Fitness	It is anticipated that the measures will encourage a modal shift through the area	Beneficial
	Journey Ambience	Better traffic management through the signals will increase the flow traffic having a positive effect on journey times	Beneficial
SAFETY	Accidents	The scheme is likely to reduce accident risk and severity at the junction. This will be achieved through proposed measures such as new pedestrian facilities and reallocating road space to cyclists	Beneficial
	Security	Better visibility across the junction and accessibility will improve the pedestrian safety and perception	Beneficial
ECONOMY	Reliability	No significant changes to car journey times are anticipated.	Neutral
	Wider Economic Impacts	No Clear impact	Neutral
ACCESSIBILITY	Severance	Pedestrian facilities will increase pedestrian links across the junction	Beneficial
	Access to the transport system	Improvements for pedestrians and cyclists will facilitate access to the transport system.	Beneficial
	Transport Interchange	No clear impact	Neutral
INTEGRATION	Land-Use Policy	No clear impact	Neutral
	Other Government Policies	Best Value Performance Indicator 165	Beneficial

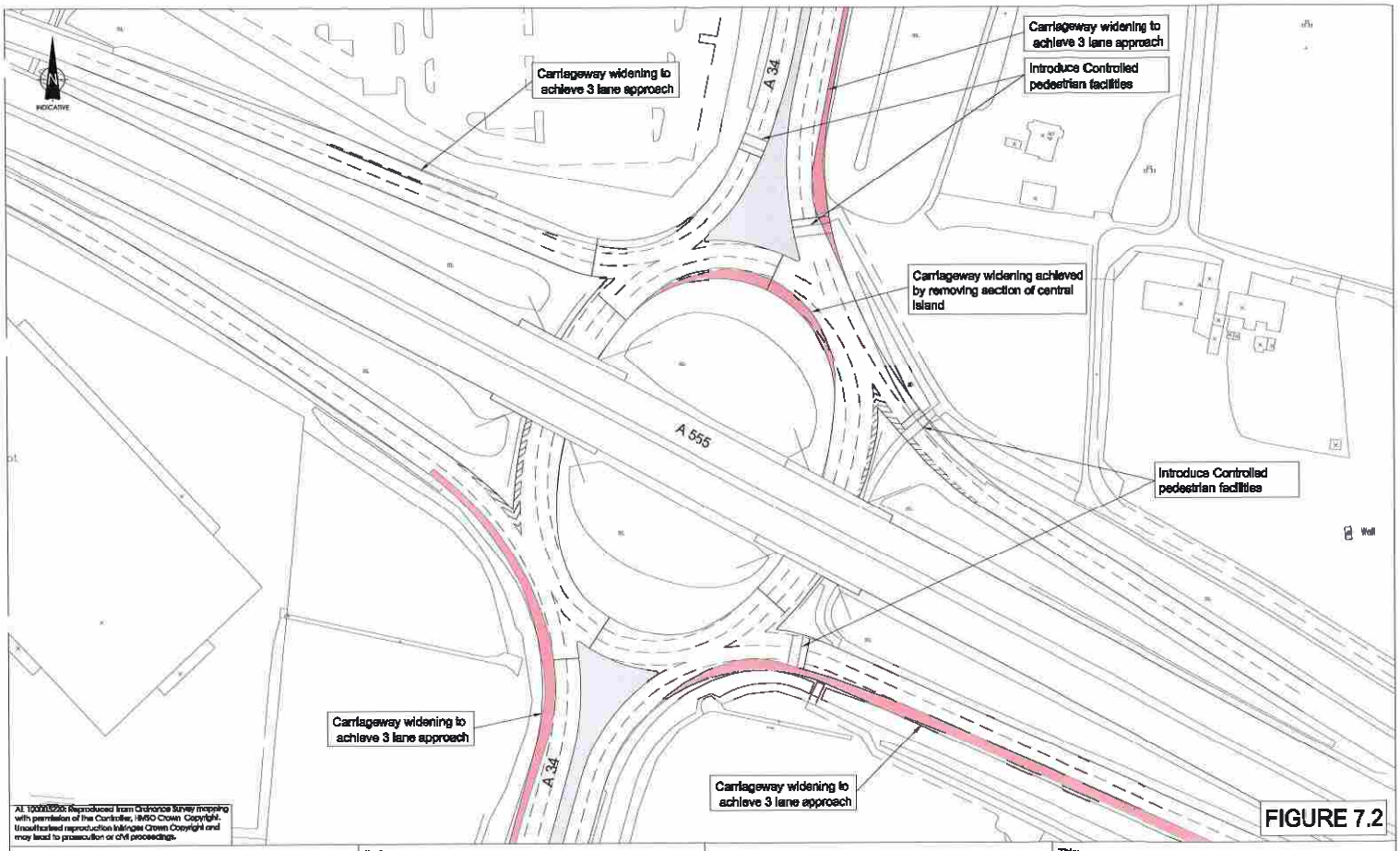

FIGURE 7.2

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

Design: AB	Date: June 04	Chk'd:
Drawn: MD	Scale: NTS	App'd:

Sheet Size - A3 (400mm x 275mm)

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Title: A34/A555 Roundabout

AutoCAD Location: F:\PROJECTS\39292\100\CAD\Final Rep\39292_100_006_1.dwg

No. 39292/100/006/1

Rev:

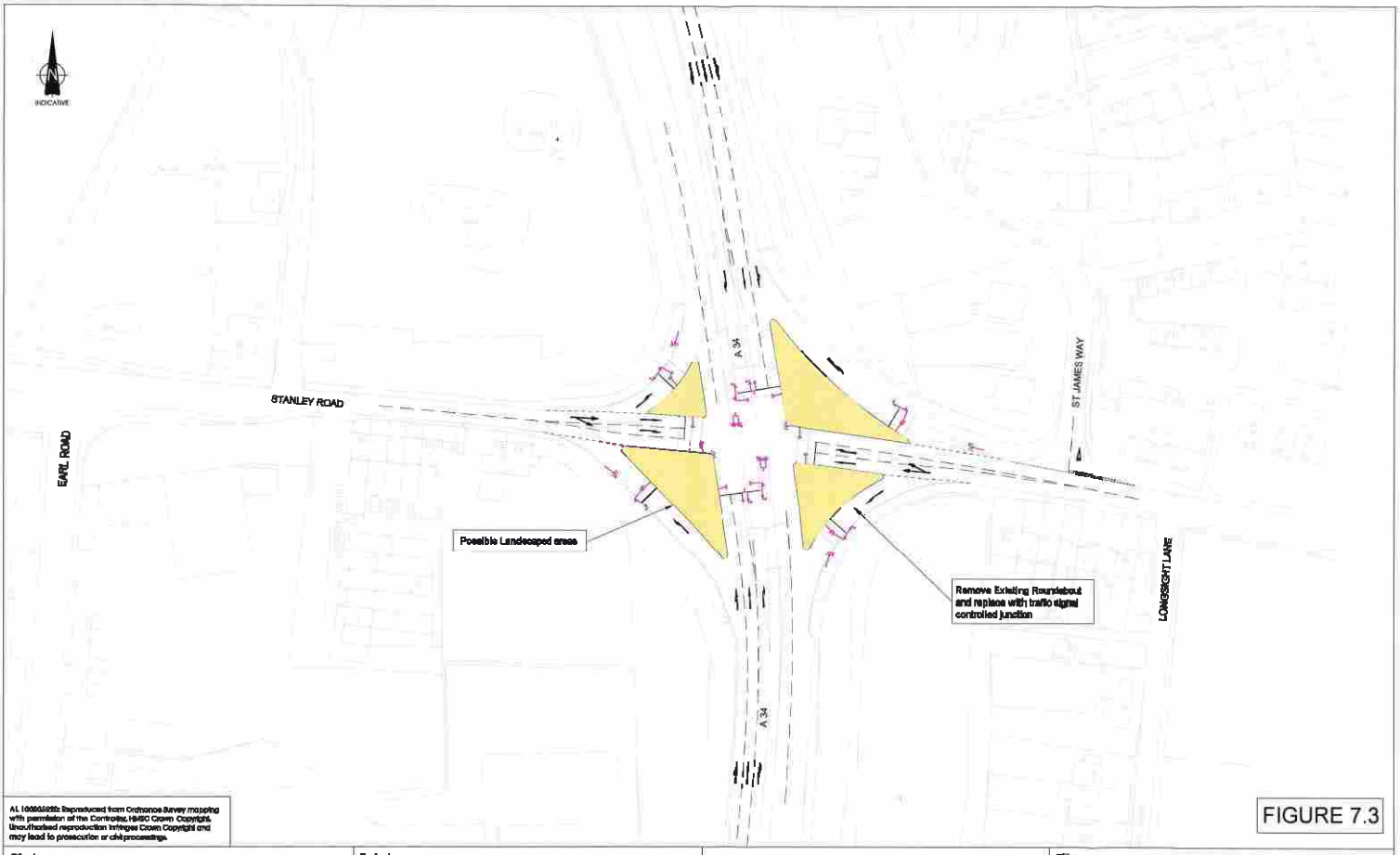

FIGURE 7.3

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

Design:	AR	Date:	June 04	Chk'd:
Drawn:	MD	Scale:	NTS	App'd:

Sheet Size - A3 (400mm x 276mm)

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Title: A34/B5094 Road Roundabout

AutoCAD Location: F:\PROJECTS\39292\100\CAD\Final Rep\39292_100_006_2.dwg

No. 39292/100/006/2

Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures

Location	**Heald Green Local Centre**	Junction	
		Corridor	
		Area specific	✓

Baseline Conditions

Heald Green is a thriving Local Centre with a wide variety of retail outlets shops and services and is therefore a focus for pedestrian activity. Many of the businesses cater for people living beyond the immediate catchment area and therefore Heald Green Local Centre attracts a significant volume of additional traffic.

Heald Green Local Centre is well served by buses operating to a variety of destinations and routed on Finney Lane. Also off Finney Lane is a local rail station, which has services to Manchester and Manchester Airport.

Finney Lane should be a focus for pedestrian improvements as part of a strategic walking route and because of the concentration of local shops and public transport as identified.

Heald Green Local Centre

Impact of Bypass

The bypass is forecast to reduce traffic flows through Heald Green by between 350 vehicles and 750 vehicles depending on time period and direction. This traffic reduction provides the opportunity to create significant environmental improvements through re-allocation of road space required by general traffic.

Potential Options

- Raised speed tables.
- Widen existing footways
- Enhanced pedestrian crossing points.
- Upgraded pelican crossing to toucan.
- Widen existing footways.
- Public realm enhancements.
- Improved parking design.
- Gateway entry treatments to Local Centre.

Recommendations

The scheme proposes to introduce a series of speed tables at junctions within the Local Centre to ensure that vehicle speeds are reduced, and in turn these tables can be used to assist pedestrians walking through the Local Centre. Existing pelican crossings will be built out to narrow the road, and the existing pelican crossing outside the Local Centre will be upgraded to a toucan crossing to provide facilities for cyclists. The footways within the centre will be widened where possible to provide an upgraded pedestrian environment, with improved bus lay-by facilities to aid with public transport interchange. A gateway feature will be introduced at either end of the Local Centre, in addition to slowing vehicle speeds, the gateway will make drivers aware they are entering a more pedestrian friendly environment.

Benefits to local community				
	Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	✓
	Accessibility – *Employment*	✓	Road Safety – *Cyclists*	✓
	Accessibility – *Public Transport*	✓	Road Safety – *Pedestrians*	✓
	Environmental Impact	✓	Road Safety – *School Children*	✓
	Modal shift	✓	Security – *Personal*	✓
C or M	Complementary	✓	Mitigation	

Cost Estimate	**Scheme**	**Cost**
	Local Centre works	£225,000

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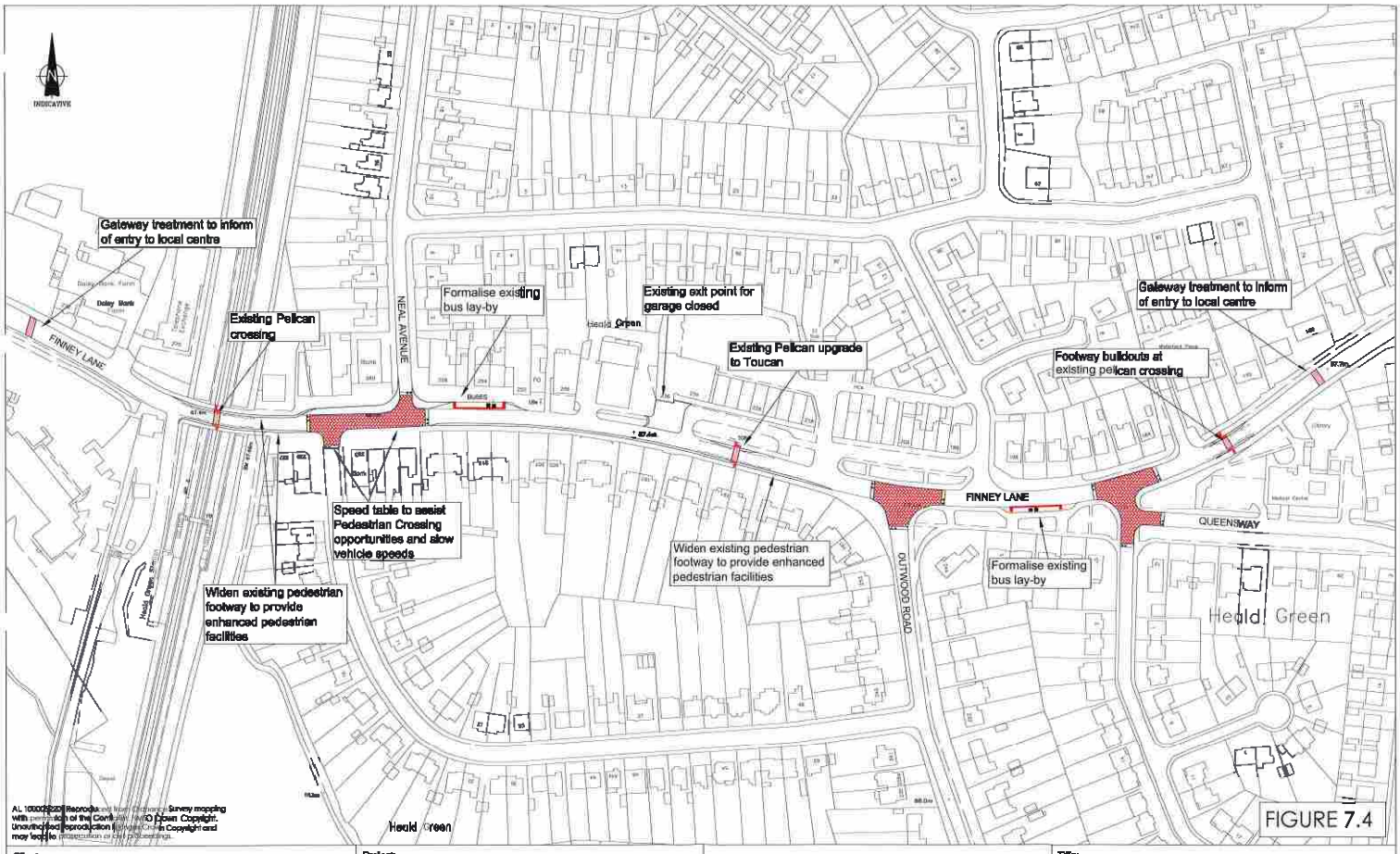
	Total estimated cost	**£225,000**	

Contri ion to Appraisal Summary Table

Option: Heald Green Local Centre Improvements	Description: This scheme could be implemented following the completion of the SEMMMS Relief Road. The measures focus on the re-allocation of roadspace for improved pedestrian facilities and speed reducing traffic calming features.	Problems: The area currently suffers from severance between the two sides of the local centre which is split by Finney Lane	Present Value Cost to Government: £255,000

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Physical Fitness	It is anticipated that the features incorporated into the Heald Green Scheme will encourage walking and cycling and thereby enhancing the physical fitness of the local residents.	Beneficial
	Journey Ambience	The slower vehicle speeds will lead to less stress suffered by drivers, and the enhanced public realm and possible associated landscaping will add to the positive driving experience.	Beneficial
SAFETY	Accidents	The scheme is likely to reduce the risk of accidents through the local centre. This will be achieved through proposed measures such as new pedestrian crossing points, reduced traffic speeds and widened pedestrian footways.	Beneficial
	Security	Any lighting improvements implemented, as part of the scheme would improve personal security. The slower car speeds through the centre will allow pedestrians to be more visible to drivers improving the surveillance of the centre.	Slight Beneficial
ECONOMY	Reliability	Reduced traffic flows along the route will reduce congestion levels.	Slight Beneficial
	Wider Economic Impacts	The scheme will help to improve the economic vitality of the local centre through the improved access to parking, enhanced pedestrian facilities and improved public realm, which all helps to reduce the current levels of severance within the local centre.	Beneficial
ACCESSIBILITY	Severance	The reduced traffic flows resulting from the bypass will reduce the severance of the local centre, which will be reduced further through measures such as improved pedestrian and cycle crossing facilities.	Beneficial
	Access to the transport system	Improvements for pedestrians and cyclists will facilitate access to the transport system.	Beneficial
	Transport Interchange	Reductions in traffic flow will aid the reliability of buses and therefore encourage transport interchange.	Slight Beneficial
INTEGRATION	Land-Use Policy	The scheme incorporated the reallocation of land to public realm and sustainable transport uses such as walking and cycling.	Beneficial
	Other Government Policies	Best Value Performance Indicator BVPI 165	



Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

Design: CH	Date: June 04	Chkd:	
Drawn: JBJ	Scale: NTS	Appd:	

Sheet Size - A3 (400mm x 275mm)

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Title: Heald Green Local Centre Improvements

AutoCAD Location: P:\PROJECTS\39292\100\CAD\Final Rep\39292_100_007.dwg

No. 39292/100/007 Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures			
Location	**Bramhall District Centre**	Junction	✓
		Corridor	
		Area specific	
Baseline Conditions	The Ack Lane East/Bramhall Lane South junction is located at the heart of Bramhall District Centre. The junction is a 3-arm mini-roundabout with uncontrolled crossing facilities located on each arm of the roundabout. Immediately adjacent to this junction lies the Ack Lane East/Moss Lane 3-arm priority junction. Slow moving traffic can be seen between Bridge Lane and Ack Lane East during both the AM and PM peaks. On the southbound approach to the Ack Lane East roundabout there are significant queues and delays during both peak periods, whereas, queues on other arms of the junction are comparatively low. The Woodford Road/Meadway 3 arm priority junction also lies within the District Centre. The lack of pedestrian facilities at this junction makes pedestrian movement difficult and unsafe in this area. Additionally, vehicles exiting the public car parks on Meadway also have difficulty exiting at peak times.	 Bramhall District Centre – Ack Lane East / Bramhall Lane South mini-roundabout	
Impact of Bypass	A significant reduction in vehicle demand will be experienced in both the AM and PM peak periods. This may lead to an increase in vehicle speeds and a generation of additional trips under current arrangements.		
Potential Options	• Signalise the Ack Lane East/Bramhall Lane South (removing the existing mini-roundabout). • Signalise the Woodford Road/Meadway junction with all round pedestrian facilities.		
Recommendations	It is proposed to signalise the Ack Lane East/Bramhall Lane South junction, which will provide a greater control over the development of queues within the District Centre. The signalisation of this junction will incorporate the provision of full pedestrian crossing facilities which will enhance the pedestrian movement through the heart of the District Centre. The reduction in capacity resulting from the introduction of controlled pedestrian facilities will mitigate against the generation of additional trips through this section of the highway. As part of the proposals it is intended to reconstruct the highway with brindle block paving or similar and to use flag paving in the footway, enhancing the overall pedestrian environment and generally slow traffic speed through the District Centre. It is also intended to signalise the Woodford Road/Meadway junction incorporating all round pedestrian movements. This will not only improve pedestrian movement in this area but will also help to control vehicle speeds on approach to the District Centre and enable improved accessibility to the car park. The reduction in capacity resulting from the introduction of controlled pedestrian facilities will mitigate against the generation of additional trips through this section of the highway. Indicative illustrations of the scheme are attached, however, it should be noted that detailed traffic modelling and traffic surveys would be required to determine the final layout of the junctions.		

Benefits to local community	Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	
	Accessibility – *Employment*	✓	Road Safety – *Cyclists*	
	Accessibility – *Public Transport*		Road Safety – *Pedestrians*	✓
	Environmental Impact	✓	Road Safety – *School Children*	✓
	Modal shift		Security – *Personal*	
C or M	Complementary	✓	Mitigation	✓

	Scheme	**Cost**
Cost Estimate	Signalise Ack Lane East/Bramhall Lane South junction	£110,000
	Re-pave footways and provide Brindle block paving on carriageway	£180,000
	Signalise Woodford Road/Meadway junction	£100,000
	Total estimated cost	**£390,000**

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Contri tion to Appraisal Summary Table

Option: Bramhall District Centre	Description: Could be implemented after completion of the SEMMMS Relief Road. Measures focus on the introduction of traffic signals and improvements to public realm	Problems: High Traffic flows and insufficient pedestrian/cycle provision	Present Value Cost to Government £390,000

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Landscape	N/A	Neutral
	Townscape	Measures such as widened footways will result in significant improvements to the townscape	Beneficial
	Heritage of Historic Resources	Improve environment within District shopping centre	Limited Benefit
	Physical Fitness	It is anticipated that the measures incorporated in the scheme will encourage more walking and cycling and thereby enhance physical fitness.	Beneficial
	Journey Ambience	Traffic signals will better manage the flow of vehicles improving the journey	Beneficial
SAFETY	Accidents	The scheme is likely to reduce accident risk and severity at the junction. This will be achieved through proposed measures such as new pedestrian facilities being incorporated into the signals	Beneficial
	Security	No clear impact	Neutral
ECONOMY	Reliability	No significant changes to car journey times are anticipated.	Neutral
	Wider Economic Impacts	No clear impact	Neutral
ACCESSIBILITY	Severance	Traffic signals and public realm works will reduce the current severance within the district centre	Beneficial
	Access to the transport system	Improvements for pedestrians will facilitate access to the transport system.	Beneficial
	Transport Interchange	No clear impact	Neutral
INTEGRATION	Land-Use Policy	No clear impact	Neutral
	Other Government Policies	Best Value performance Indicator 165	

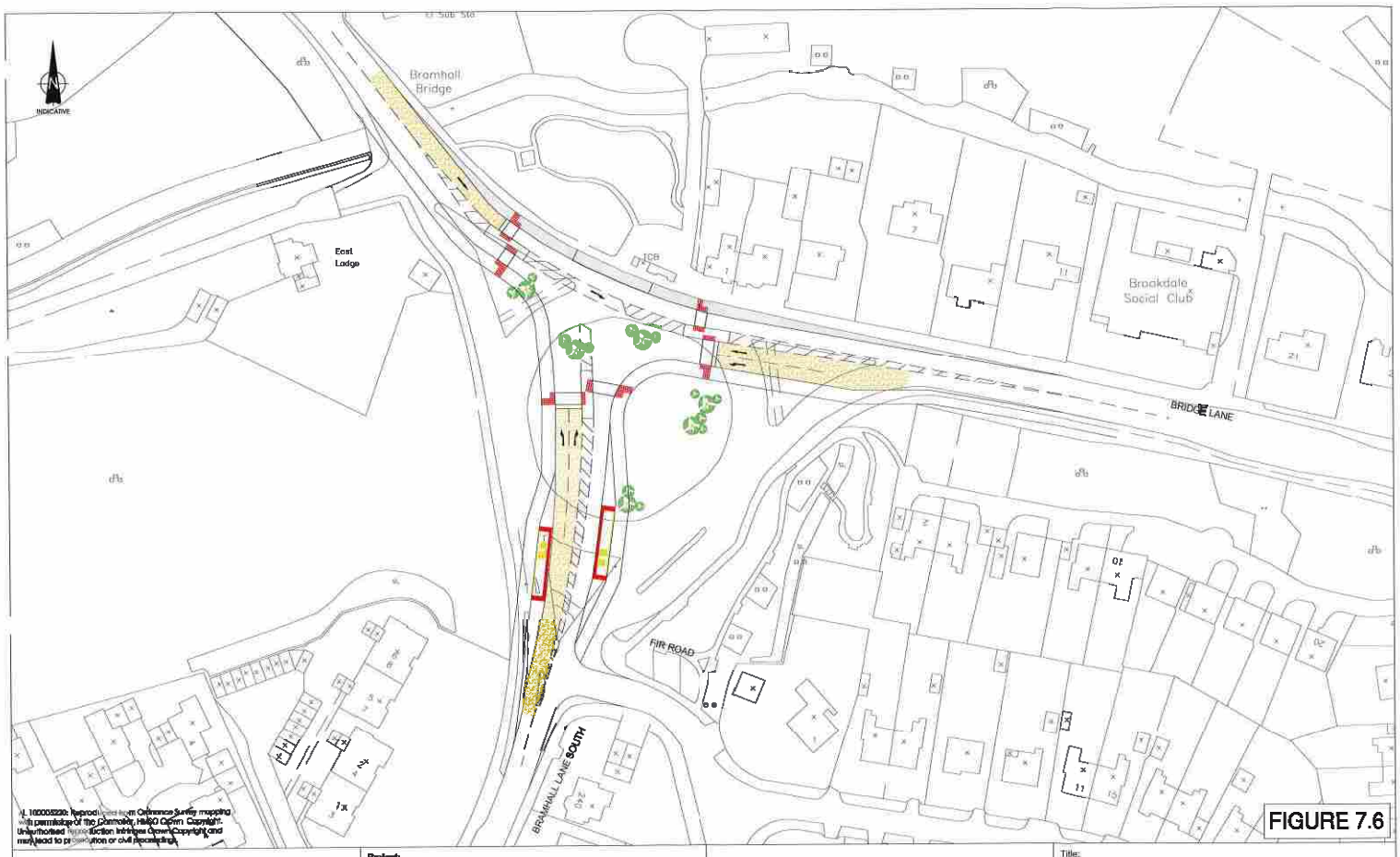

FIGURE 7.6

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

Design: AB	Date: June 04	Chk'd:
Drawn: MD	Scale: NTS	App'd:

Sheet Size - A3 (400mm x 276mm)

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Title: Bramhall Green Roundabout

AutoCAD Location: F:\PROJECTS\39292\100\CAD\Final Rep\39292_100_009.dwg

No. 39292/100/009 Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures

Location	**A6 Buxton Road (Threaphurst Lane to Borough Boundary)**	Junction	
		Corridor	✓
		Area specific	

Baseline Conditions

The A6 Buxton Road forms part of Stockport's strategic route network and as such performs an important role within Stockport's road hierarchy as a link from Buxton to Stockport Town Centre.

The route has an average annual weekly flow of approximately 26,200 vehicles and carries a significant proportion of HGV's.

Frontage activity is a mixture of open field frontages and residential with access also provided to housing estates on both sides of the study route. Some commercial properties existing along the route with limited waiting parking provision provided.

A 30mph speed limit is enforced along the route. Although this increases to 40mph either side of the above identified route. A gateway feature has been installed informing motorists of the change in speed limit.

A constant high level of traffic movement creates an intimidating environment for vulnerable road users.

3no controlled pedestrian crossing points currently exist along the route.

Buxton Road, High Lane

Impact of Bypass

An increase in traffic levels of over 20% is predicted along the route which will increase the level of intimidation presently experienced by vulnerable road users and make crossing the carriageway more onerous.

Potential Options

- Increase the number of central refuges along the route.
- Provide more formalised on street parking provision.
- Increase the prominence of speed limit gateways.
- Improve the prominence of controlled crossing by extending the footways.
- Provide bus cages at all public transport stops.
- Break up the straight nature of carriageway by building out footway.
- Provide speed enforcement measures.
- Increase levels of carriageway markings at the Carr Brow bend.

<table>
<tr><td>Recommendations</td><td colspan="4">Proposals are to compliment the existing carriageway markings and coloured surfacing that has been implemented along the route.

To increase the prominence of the existing controlled crossings along the route it is intended to build out the footways at these points, which reduces the length of the crossing for pedestrians and also increases driver awareness of the crossings.

An additonal 5no central reservations could be provided along the route to assist pedestrians. The island could also accommodate additonal road safety signing to increase adherence of the speed limit.

The carriageway alignment is to be ammended adjacent to No 177 Buxton Lane. This will provide an opportunity for an additional gateway feature before the Carr Brow Bend.</td></tr>
<tr><td rowspan="5">Benefits to local community</td><td>Accessibility – Community Facilities</td><td>✓</td><td>Public Transport – Reliability</td><td>✓</td></tr>
<tr><td>Accessibility – Employment</td><td>✓</td><td>Road Safety – Cyclists</td><td>✓</td></tr>
<tr><td>Accessibility – Public Transport</td><td>✓</td><td>Road Safety – Pedestrians</td><td>✓</td></tr>
<tr><td>Environmental Impact</td><td>✓</td><td>Road Safety – School Children</td><td>✓</td></tr>
<tr><td>Modal shift</td><td>✓</td><td>Security – Personal</td><td></td></tr>
<tr><td>C or M</td><td>Complementary</td><td></td><td>Mitigation</td><td>✓</td></tr>
<tr><td rowspan="8">Cost Estimate</td><td colspan="2">Scheme</td><td>Cost</td><td rowspan="8">STOCKPORT</td></tr>
<tr><td colspan="2">New Traffic Islands</td><td>£45,000</td></tr>
<tr><td colspan="2">Gateway Features</td><td>£50,000</td></tr>
<tr><td colspan="2">Carriageway marking and surfacing</td><td>£50,000</td></tr>
<tr><td colspan="2">Footway Surfacing and carriageway widening</td><td>£60,000</td></tr>
<tr><td colspan="2">Speed Cameras</td><td>£20,000</td></tr>
<tr><td colspan="2">Total estimated cost</td><td>£225,000</td></tr>
</table>

Contribution to Appraisal Summary Table

Option: A6 Buxton Road	**Description: Could be implemented prior to completion of the SEMMMS Relief Road. Measures focus on speed reduction and driver awareness measures**	**Problems:** Wide straight carriageway encouraging high traffic speeds along an undesirable volume of traffic accessing the bypass	**Present Value Cost to Government £225, 000**

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Landscape	N/A	Neutral
	Townscape	Additional gateway features and footways build outs at existing crossings will increase the townscape along the route	Slight Beneficial
	Heritage of Historic Resources		
	Physical Fitness	No clear benefit	Neutral
	Journey Ambience	No clear impact	Neutral
SAFETY	Accidents	The scheme is likely to reduce accident risk and severity through the route. This will be achieved by increasing pedestrian island and increasing footway widths at controlled crossings	Beneficial
	Security	No clear impact	Neutral
ECONOMY	Reliability	No clear benefit (see also Windlehurst Road)	Neutral
	Wider Economic Impacts	No clear impact	Neutral
ACCESSIBILITY	Severance	The increased traffic flows resulting from the bypass will increase severance and environment issues along the route	Negative
	Access to the transport system	No clear impact	Neutral
	Transport Interchange	No clear impact	Neutral
INTEGRATION	Land-Use Policy	No clear impact	Neutral
	Other Government Policies		

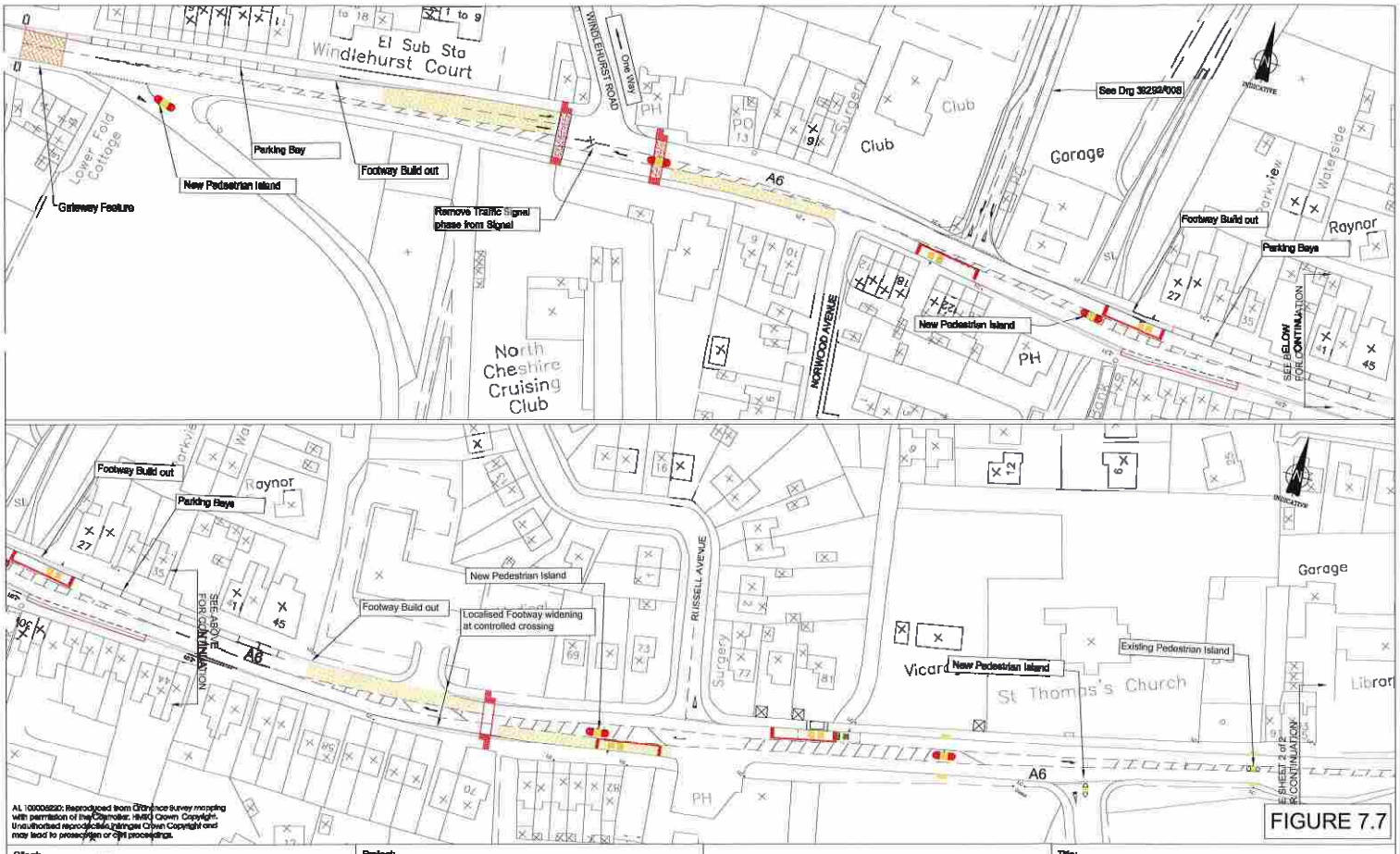

FIGURE 7.7

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

Design: MW	Date: June 04	Chk'd:
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Title: A6 - High Lane Route Treatment

AutoCAD Location: F:\PROJ\39292\100\CAD\Final Rep\39292_100_010_1 and 2.dwg

Rev:

No. 39292/100/010/1

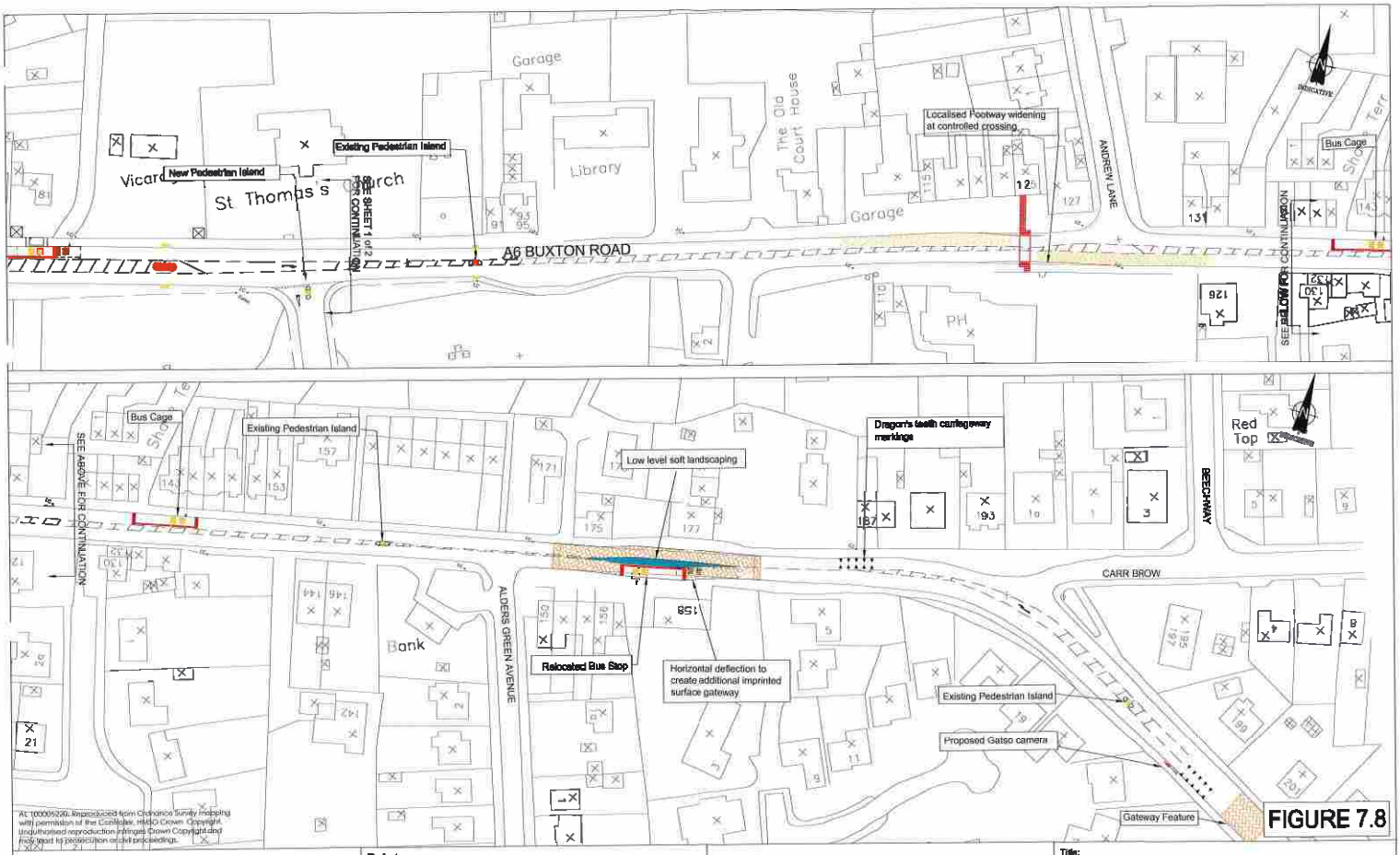

FIGURE 7.8

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

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Title: A6 - High Lane Route Treatment

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Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures			
Location	**Windlehurst Road**	Junction	
		Corridor	✓
		Area specific	
Baseline Conditions	Windlehurst Road provides a route onto the A6 from Marple. Providing an alternative route than the A627. Frontage activity is a mixture of semi detached residential properties with off street parking provision and open field . Windlehurst Road is a single lane carriageway in each direction with a speed limit of 30 mph. Traffic congestion during peak times is common at its signalised junction with the A6 Buxton Road High vehicle speeds have been witnessed along the route.	 Windlehurst Road	
Impact of Bypass	As a result of the bypass, southbound traffic levels along the route are expected to increase. The increase is over 70% in certain sections. Conversely, northbound traffic levels are expected to decrease slightly. The change in vehicle flows could lead to higher vehicle speeds along the route.		
Potential Options	• Construction of a new carriageway from Windlehurst Road onto the A6 Buxton Road.		
Recommendations	Proposals are to construct a new section of carriageway between Windlehurst Road and the A6 Buxton Road. The section of carriageway will be one way for Southbound traffic. The existing carriageway on Windlehurst Road between the new carriageway and the signalised junctuion of Windlehurst Road/ A6 will be made one way in the Northbound direction. This will provide an opportunity to remove a signal stage from the existing traffic signals, therefore, increasing the flow of vehicles through the junction reducing conjestion problems. There are two possible options for the new carriageway: - **Option A** To mitigate against the additional flows in the southbound direction, the new section of carriageway is to be controlled at its junction with the A6 by a priority junction east of its present location, replacing the traffic signal facility provide at the existing junction. **Option B** The new section of carriageway will rejoin the A6 to the west of its current location. Traffic signals will control traffic movements at the new junction. For optium capacity along the route, the traffic signals will need to linked into the existing signalised junction.		

Benefits to local community	Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	✓
	Accessibility – *Employment*	✓	Road Safety – *Cyclists*	✓
	Accessibility – *Public Transport*	✓	Road Safety – *Pedestrians*	✓
	Environmental Impact	✓	Road Safety – *School Children*	✓
	Modal shift	✓	Security – *Personal*	
C or M	Complementary		Mitigation	✓

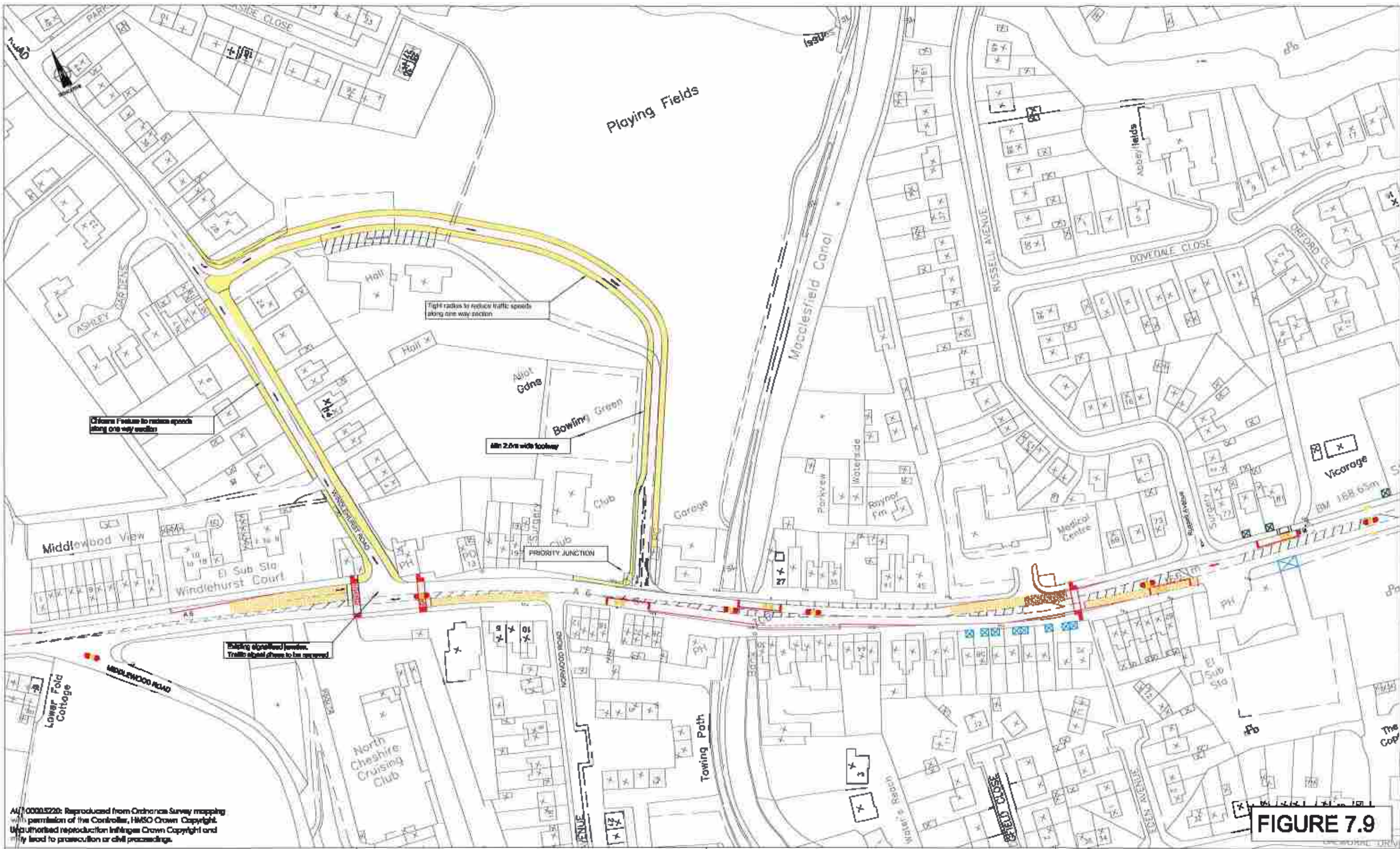
	Scheme	**Cost**
Cost Estimate	New carriageway and footway construction	£750,000
	Traffic signals	£150,000
	Landscaping	£ 30,000
	Total estimated cost	**£930,000**

STOCKPORT

Contribution to Appraisal Summary Table

Option: Windlehurst Road	**Description: Could be implemented prior to completion of the SEMMMS Relief Road. Measures focus the construction of a new section carriageway from Windlehurst onto the A6 Buxton Road.**	**Problems:** Increase in traffic accessing the bypass	**Present Value Cost to Government £930,000**

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Landscape	New carriageway construction will cross open field sites	Negative
	Townscape	Deterring rat running traffic and removing traffic from sections of Windlehurst Road will provide opportunities to improve the townscape	Beneficial
	Heritage of Historic Resources	Limit impact of increased volumes of traffic on High Lane Community	Slight Benefit
	Physical Fitness	N/A	Neutral
	Journey Ambience	The new section of carriageway will enable the flow of traffic through the existing signalised junction of Windlehurst Road/A6 Buxton Road to be improved	Slight Benefit
SAFETY	Accidents	N/A	Neutral
	Security	N/A	Neutral
ECONOMY	Reliability	Removing traffic from the existing signalised junction will increase reliability	Slight Benefit
	Wider Economic Impacts	No clear impact	Neutral
ACCESSIBILITY	Severance	Removal of traffic from sections of Windlehurst Road will reduce the impact of severance	Slight Benefit
	Access to the transport system	Slight improvement in reliability	Slight Benefit
	Transport Interchange	No clear impact	Neutral
INTEGRATION	Land-Use Policy		
	Other Government Policies	Best Value Performance Indicators 99 and 165	Slight Benefit



Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL, CHESHIRE COUNTY COUNCIL, MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

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Title: A6/ Windlehurst Road - Alternative Route - Option 1

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No. 39292\100\011\1

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FIGURE 7.10

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

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Title: A6/ Windlehurst Road - Alternative Route - Option 2

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SEMMMS New Relief Road – Complementary/Mitigatory Measures			
Location	**Hazel Grove District Centre**	Junction Corridor Area specific	 ✓
Baseline Conditions	The A6 runs through Hazel Grove District Centre. The road currently carries high volumes of traffic, which includes a large proportion of HGV's. This generates a number of problems including noise, severance, vibration, and poor air quality. All of these factors impact on the vitality of the District Centre. The road layout through the District Centre generally comprises of two lanes in each direction, but widens to 3 lanes at some junctions. Many of the footways are narrow and crossing facilities are inadequate. There is also a shortage of parking provision. Given the current traffic flows, it is not possible to accommodate on-street parking at present.	 London Road	
Impact of Bypass	The bypass is forecast to reduce traffic flows through Hazel Grove by between 30%-55%, depending on the time period and direction. This provides the opportunity to create significant environmenal improvements through reallocation of roadspace currently required by general traffic.		
Potential Options	A combination of measures listed below: - • Provision of on-street parking bays. • Bus lanes. • Public realm enhancements. • Footway widening. • Improved pedestrian crossing facilities.		

Recommendations

Rising Sun junction
Gateway features would be implmented on the approaches from Buxton Road and Macclesfield Road. Given the reduction in traffic flows forecast, it is recommended that bus lanes be introduced on Buxton Road and Macclesfield Road, and London Road approaches. These could be tapered on the immediate apporach to the junction with all lanes available for use by general traffic.

Rising Sun – Torkington Road
This section has a park to the east, church to the south and a number of residential properties. The proporities appear to have sufficient off-street parking. It is recommended that one lane in each direction could be used as a bus lane, and a central hatched area implemented. A new pedestrian crossing facility is proposed close to St Thomas's Church.

Torkington Road - Brook Street
This section is not insufficient length to warrant bus lanes, but it is recommended that parking could be marked out to serve the properties on east side of the road.

Brook Street – Grundey Street
The number of lanes could be reduced to one in each direction. Parking bays could be implemented on the eastern side, central hatching incorporating right turn pockets and bus laybys. A new pedestrian crossing facilitiy is also recommended just south of the junction with Spring Vale.

Grundey Street – Vine Street
It is recommended that the carriageway is reduced to one lane in each direction to allow the incorporation of a central hatched area, bus laybys, parking bays (east side) widened footways and right turn pockets. The pelican crossing in place just south of the Civic Hall could be upgraded to a touchan in order to facilitate connections between cycle routes. A new pedestrian crossing facility could also be implemented just south of property 192.

Vine Street – Commercial Road
The number of lanes could be reduced to one in each direction. Parking bays could be implemented on the eastern side, central hatching incorporating right turn pockets and bus laybys. A new pedestrian crossing could also be implemented just south of the junction with Cooke Street.

Commercial Road – Mill Street
A Gateway feature could be implemented just south of the junction with Mill Street. In addition, it is recommended that the carriageway is reduced to one lane in each direction to allow the incorporation of a central hatched area, bus laybys, parking bays (east side) widened footways and right turn pockets.

Benefits to local community	Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	✓
	Accessibility – *Employment*	✓	Road Safety – *Cyclists*	✓
	Accessibility – *Public Transport*	✓	Road Safety – *Pedestrians*	✓
	Environmental Impact	✓	Road Safety – *School Children*	✓
	Modal shift	✓	Security – *Personal*	
C or M	Complementary	✓	Mitigation	

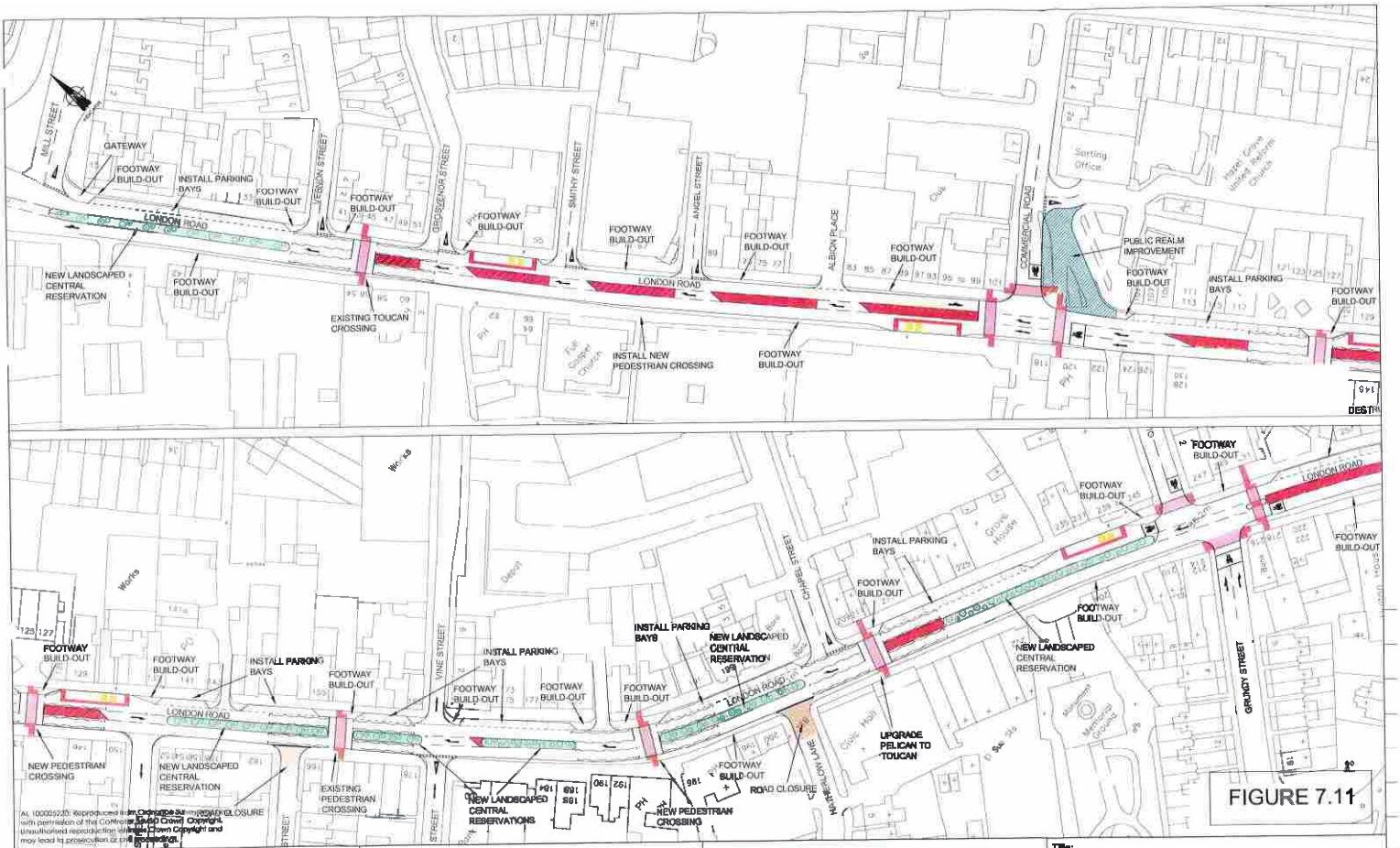
Cost Estimate	**Scheme**	**Cost**
	Hazel Grove District Centre	£1,500,000
	Total estimated cost	**£1,500,000**

STOCKPORT

Contrib 'on to Appraisal Summary Table

Option: Hazel Grove District Centre	**Description: Could be implemented following completion of the SEMMMS Relief Road. Measures focus on re-allocating road space for improved pedestrian facillties, parking provision and priority for buses.**	**Problems:** The area currently suffers from high levels of noise, vibration and poor air quality.	**Present Value Cost to Government £1,500,000**

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Physical Fitness	It is anticipated that the measures incorporated in the scheme will encourage more walking and cycling and thereby enhance physical fitness.	Slight Beneficial
	Journey Ambience	The scheme will improve the road layout such that journey ambience is enhanced.	Slight Beneficial
SAFETY	Accidents	The scheme is likely to reduce accident risk through the district centre. This could be achieved through proposed measures such as new pedestrian crossings, reducing the number of lanes for general traffic and widened footways.	Beneficial
	Security	Any lighting improvements implemented as part of the scheme would improve security, otherwise no clear impact.	Slight Beneficial
ECONOMY	Reliability	Bus priority measures will improve journey time reliability for buses. No significant changes to car journey times are anticipated.	Slight Beneficial
	Wider Economic Impacts	The scheme will help improve the economic vitality of the district centre through the provision of parking, pedestrian facilities and improved public realm.	Beneficial
ACCESSIBILITY	Severance	The reduced traffic flows resulting from the bypass will reduce severance, and this will be reduced further through measures such as improved crossing facilities.	Beneficial
	Access to the transport system	Improvements for pedestrians and cyclists will facilitate access to the transport system.	Slight Beneficial
	Transport Interchange	Bus priority measures will result in a higher level of service for bus passengers and thereby facilitate better integration with other modes.	Slight Beneficial
INTEGRATION	Land-Use Policy	Scheme incorporates some re-allocation of land to public realm.	Beneficial
	Other Government Policies	Aligns well with best value indicators to provide crossings at junctions to the correct standard.	Beneficial



Project:
SEMMMS Relief Road - Complementary/Mitigatory Measures

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Hazel Grove District Centre

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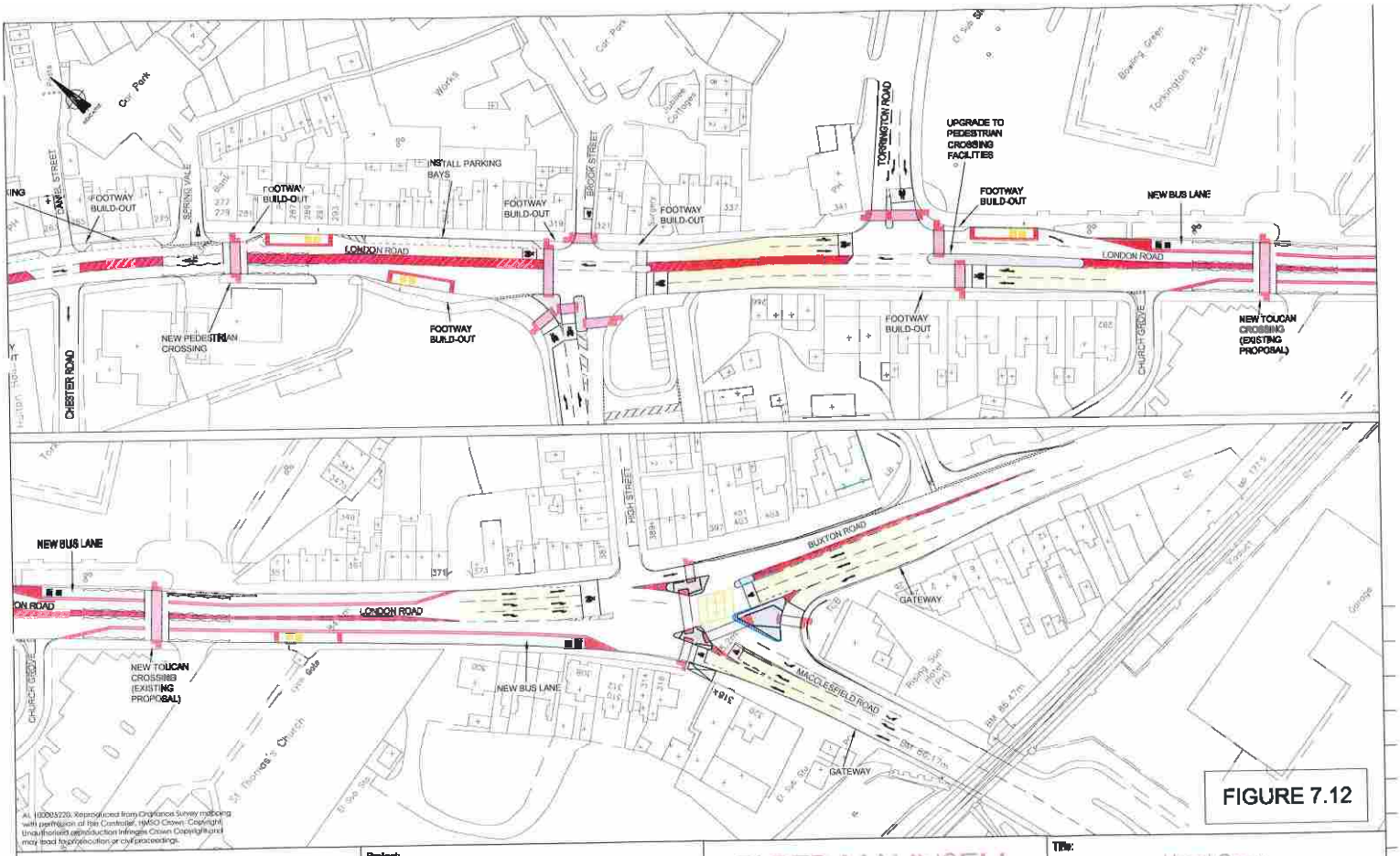

FIGURE 7.12

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

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Title: Hazel Grove District Centre

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Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures

Location	**A6 North of Hazel Grove**	Junction	
		Corridor	✓
		Area specific	
Baseline Conditions	This section of the A6 runs north-south between Hazel Grove and Stockport Town Centre and passes through the local centre of Great Moor. The road currently carries large volumes of traffic, which includes a high proportion of HGV's. This generates a number of problems including noise, severance, vibration, and poor air quality. All of these factors impact on the vitality of the District Centre. The road layout generally comprises of two lanes in each direction, but widens to 3 lanes at some junctions. Many of the footways are narrow and crossing facilities are inadequate. There is also a shortage of parking provision for local businesses in Great Moor Local Centre. Given the current traffic flows, it is not possible to accommodate on-street parking at present.	 Buxton Road – Between Kennerley Road and Mile End Lane	
Impact of Bypass	The bypass is forecast to reduce traffic flows by between 30%-55%, depending on the time period and direction. This provides the opportunity to create significant environmenal improvements through reallocation of road space currently required by general traffic.		
Potential Options	A combination of measures listed below: - • Provision of on-street parking bays. • Bus lanes. • Public realm enhancements. • Widen footways. • Improved pedestrian crossing facilities.		

Recommendations

Given the forecast reductions in traffic flow, it is recommended that the number of lanes for general traffic is reduced from two to one in each direction.

Dialstone Lane – Cherry Tree Lane
It is recommended that the spare road space generated should be used for the provision of parking bays, bus lanes and footway widening. A bus lane could be implemented in the northbound direction as far as Winbolt Street. It is recommeded that parking bays should be provided where approproate to serve shop frontages on the southbound carriageway. Footways could be widened where the parking bays are not required. A new pedestrian crossing could also be introduced to the south of the junction with Boothby Street.

Cherry Tree Lane – Moorland Road
It is recommended that parking bays should be implemented to serve businesses on the section between Cherry Tree Lane and Great Moor Street. A new pedestrian crossing could be implemented to the north of Great Moor Street through to the junction with Moorland Road. Parking bays could also be implemented between Dysart Street and Alldis Street if the bus lane is operates during peak periods only and parking is off peak only.

Moorland Road – Kennerley Road
There are few businesses across this section and no great demand for parking provision. It is therefore recommended that bus lanes should be provided in each direction and taper just prior to the junction with Kennerley Road. A new pedestrian crossing could also be implemented just south of the junction with Corbar Road. The existing signalised junction with Kennerley Road requires upgrading with tactile paving and pedestrian phases at signals.

Kennerley Road – Nangreave Road
Bus lanes could be provided in each direction for the southern part of this section and taper just south of the junction with Regent Road. It is recommended that parking bays should be provided where appropriate to the north of the junction with Regent Road. There is also potential to provide a new pedestrian crossing just north of the parking bays.

Nangreave Road – Bramhall Lane
Bus lanes could be provided north of Nangreave Road and taper south of the junction with Bramhall Lane. A pedestrian crossing could be implemented around St Georges Church and parking bays provided to serve businesses south of the junction with Bramhall Lane.

Benefits to local community

Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	✓
Accessibility – *Employment*	✓	Road Safety – *Cyclists*	✓
Accessibility – *Public Transport*	✓	Road Safety – *Pedestrians*	✓
Environmental Impact	✓	Road Safety – *School Children*	✓
Modal shift	✓	Security – *Personal*	

C or M

Complementary	✓	Mitigation	

Cost Estimate

Scheme	Cost
A6 (North of Hazel Grove)	£1,080,000
Total estimated cost	**£1,080,000**

STOCKPORT

Contri ion to Appraisal Summary Table

Option: A6 north of Hazel Grove	Description: Could be implemented following completion of the SEMMMS Relief Road. Measures focus on re-allocating road space for improved pedestrian facilities, parking provision and priority for buses.	Problems: The area currently suffers from high levels of noise, vibration and poor air quality.	Present Value Cost to Government £1,080,000

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Physical Fitness	It is anticipated that measures such as improved crossing facilities will encourage more walking and cycling and thereby enhance physical fitness.	Slight Beneficial
	Journey Ambience	The scheme will improve the road layout such that journey ambience is enhanced.	Slight Beneficial
SAFETY	Accidents	The scheme is likely to reduce accident risk throughout this section of the A6. This could be achieved through proposed measures such as new pedestrian crossings, reducing the number of lanes for general traffic and widened footways.	Beneficial
	Security	Any lighting improvements implemented as part of the scheme would improve security, otherwise no clear impact.	Slight Beneficial
ECONOMY	Reliability	Bus priority measures will improve journey time reliability for buses. No significant changes to car journey times are anticipated.	Slight Beneficial
	Wider Economic Impacts	The scheme will help improve the economic vitality of the local centre of Great Moor in particular. This could be achieved through the provision of parking, pedestrian facilities and improved public realm.	Beneficial
ACCESSIBILITY	Severance	The reduced traffic flows resulting from the bypass will reduce severance, and this will be reduced further through measures such as improved crossing facilities.	Beneficial
	Access to the transport system	Improvements for pedestrians and cyclists will facilitate access to the transport system.	Slight Beneficial
	Transport Interchange	Bus priority measures will result in a higher level of service for bus passengers and thereby facilitate better integration with other modes.	Slight Beneficial
INTEGRATION	Land-Use Policy	Scheme incorporates some re-allocation of land to public realm.	Beneficial
	Other Government Policies	Aligns well with Best Value Performance Indicator 165 to provide improved pedestrian facilities	Beneficial

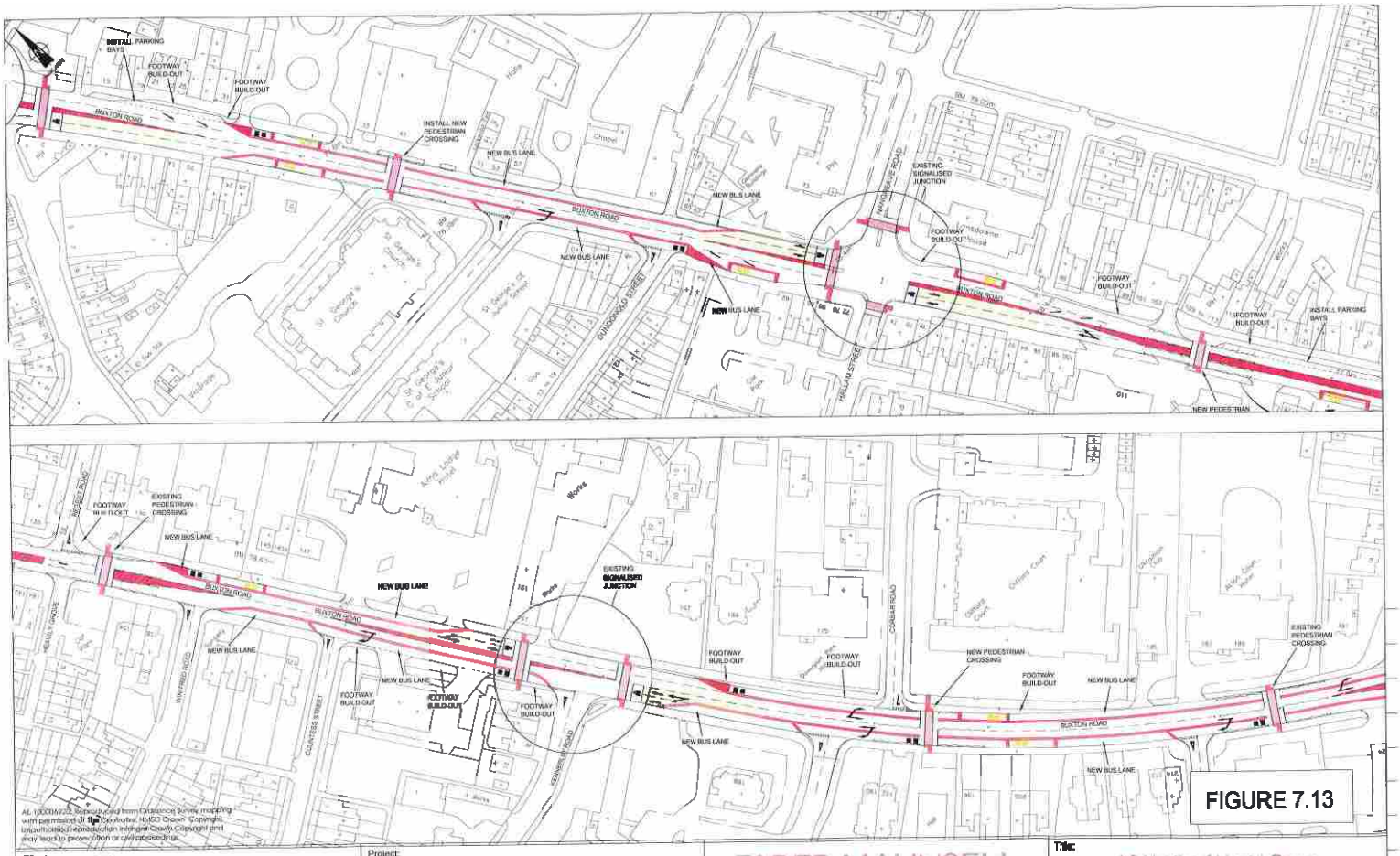

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FIGURE 7.13

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

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Title: A6 North of Hazel Grove

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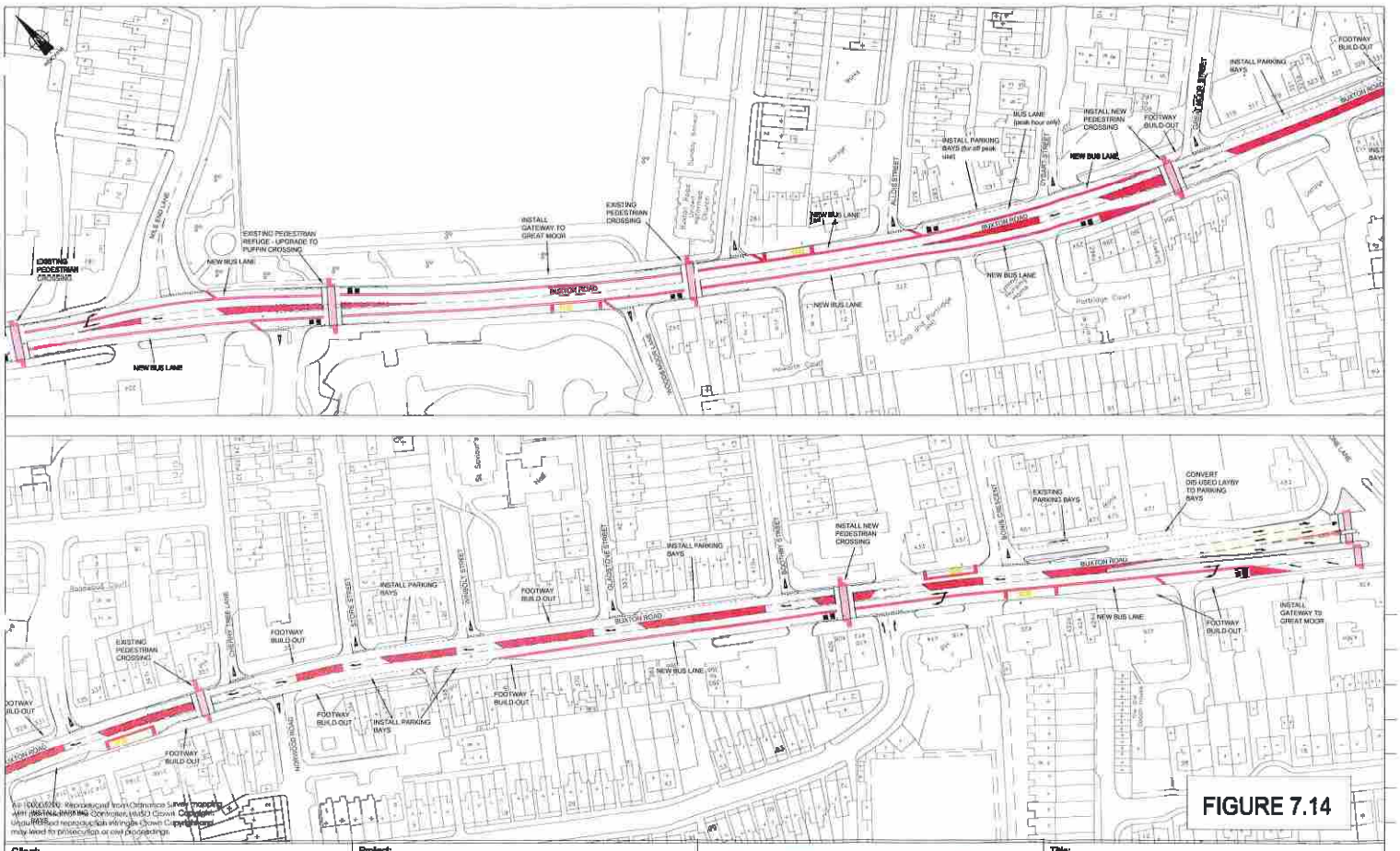

FIGURE 7.14

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

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Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures

Location	**Dialstone Lane**	Junction	
		Corridor	✓
		Area specific	

Baseline Conditions

Dialstone Lane provides a route between the A626 Offerton Lane and A6 Buxton Road, traffic from the B6171 also crosses the route.

Frontage activity is a mixture of semi detached residential properties with off street parking provision and terraced properties the majority of which have no off street parking provision. Limited commercial properties are also situated close to its junction with Nangreave Road

Dialstone Lane is a single lane carriageway in each direction with a speed limit of 30 mph. In sections of the carriageway the running lanes are wide with relatively straight sections of carriageway. This situation can lead to high vehicle speeds resulting in difficulties for vulnerable road users wishing to cross the carriageway. Particularly when access/egressing public transport facilities on the route.

Between Buxton Rd and Nangreave Rd

Between Nangreave Rd and Hempshaw Lane

Impact of Bypass

There is an anticipated reduction of between 35% and 60% in traffic flows along the route, which could potentially increase the incidences of speeding and difficulties accessing public transport.

Potential Options

- Reallocate carriageway space to create cycle lanes.
- Install additional pedestrian islands.
- Introduce horizontal deflection along the route.
- Install traffic signals with pedestrian facilities at its junction with Cherry Tree Lane.

<table>
<tr><td>Recommendations</td><td colspan="4">It is proposed to introduce with-flow cycle lanes along the length of Dialstone Lane that will segregate motor traffic from cyclists, providing greater safety for cyclists and a sense of route continuation. Due the changing characteristic of the road along the route, it is proposed to introduce Integrated Route Treatment measures in 3 stages along the route.

Phase 1 – Nangreave Road to Buxton Road
Phase 2 – Nangreave Road to Hempshaw Lane
Phase 3 – Hempshaw Lane to Offerton Lane

Improved pedestrian crossing points are proposed adjacent to existing bus stops. These improvements are in the form of central refuges where possible. The central refuges will assist speed reduction by reducing opportunities for overtaking along the route.

It is also proposed to install traffic signals at the junction of Cherry Tree Lane. The signals will incorporate pedestrian and cycle facilities to encourage increased usage along the route by vulnerable road users.</td></tr>
<tr><td rowspan="6">Benefits to local community</td><td>Accessibility – Community Facilities</td><td>✓</td><td>Public Transport – Reliability</td><td>✓</td></tr>
<tr><td>Accessibility – Employment</td><td>✓</td><td>Road Safety – Cyclists</td><td>✓</td></tr>
<tr><td>Accessibility – Public Transport</td><td>✓</td><td>Road Safety – Pedestrians</td><td>✓</td></tr>
<tr><td>Environmental Impact</td><td>✓</td><td>Road Safety – School Children</td><td>✓</td></tr>
<tr><td>Modal shift</td><td>✓</td><td>Security – Personal</td><td></td></tr>
<tr><td>Complementary</td><td>✓</td><td>Mitigation</td><td>✓</td></tr>
<tr><td rowspan="5">Cost Estimate</td><td colspan="3">Scheme</td><td>Cost</td></tr>
<tr><td colspan="3">Phase 1: Nangreave Road to Buxton Road</td><td>£180,000</td></tr>
<tr><td colspan="3">Phase 2: Nangreave Road to Hempshaw Lane</td><td>£110,000</td></tr>
<tr><td colspan="3">Phase 3: Hempshaw Lane to Offerton Lane</td><td>£ 10,000</td></tr>
<tr><td colspan="3">Total estimated cost</td><td>£300,000</td></tr>
</table>

Contri .tion to Appraisal Summary Table

Option: Dialstone Lane	Description: Could be implemented prior to completion of the SEMMMS Relief Road. Measures focus on re-allocating roadspace for improved pedestrian facilities, cycling facilities, parking provision and public transport.	Problems: Wide straight sections of carriageway encouraging high traffic speeds with little or no cycle/pedestrian provisions	Present Value Cost to Government £300,000

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Landscape	N/A	Neutral
	Townscape	Measures such as widened footways will result in significant improvements to the townscape.	Beneficial
	Heritage of Historic Resources	Limited traffic impact on adjacent Cheery Tree Hospital site and Great Moor Playing fields.	Beneficial
	Physical Fitness	It is anticipated that the measures incorporated in the scheme will encourage more walking and cycling and thereby enhance physical fitness.	Beneficial
	Journey Ambience	Reducing vehicle speed and improving the streetscape of the route will have a positive effect on the journey ambience	Slight Beneficial
SAFETY	Accidents	The scheme is likely to reduce accident risk and severity through the route. This will be achieved through proposed measures such as new pedestrian facilities, reallocating road space to cyclists and widened footways.	Beneficial
	Security	No clear impact	Neutral
ECONOMY	Reliability	No significant changes to car journey times are anticipated.	Neutral
	Wider Economic Impacts	No Clear impact	Neutral
ACCESSIBILITY	Severance	The reduced traffic flows resulting from the bypass will reduce severance, and this will be reduced further through measures such as improved crossing facilities.	Beneficial
	Access to the transport system	Improvements for pedestrians and cyclists will facilitate access to the transport system.	Beneficial
	Transport Interchange	Improved bus stop provision and pedestrian facilities adjacent to the stops will improve public transport provision and increase usage	Beneficial
INTEGRATION	Land-Use Policy	Scheme incorporates some re-allocation of road space to other modes of transport within the road hierarchy	Beneficial
	Other Government Policies	Best Value Performance Indicator 99	Beneficial

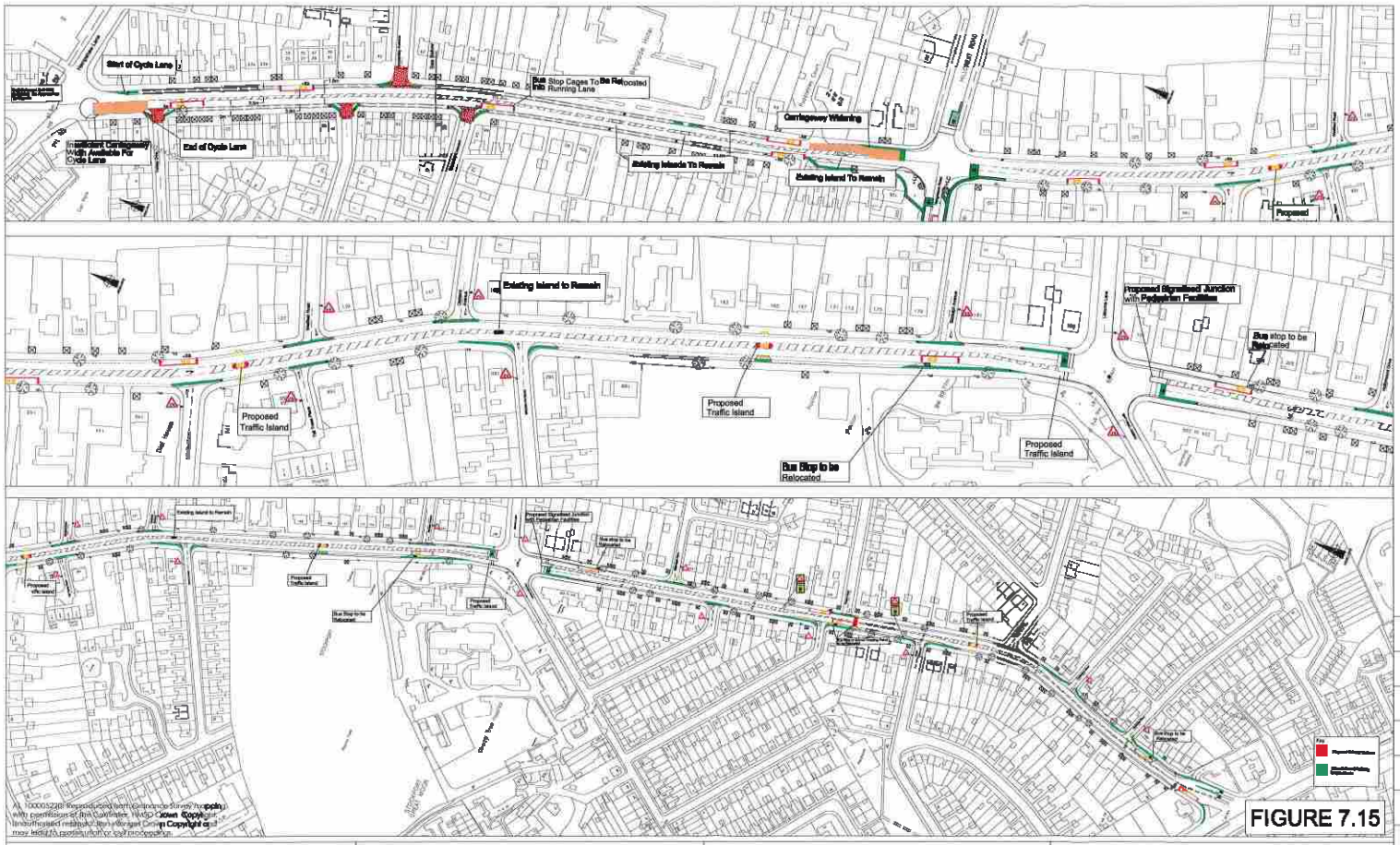

FIGURE 7.15

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

Design: MW	Date: June 04	Chk'd:
Drawn: MD	Scale: NTS	App'd:

Sheet Size - A3 (400mm x 275mm)

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Title: Dialstone Lane Phase 2 Integrated Route Treatment

AutoCAD Location: F:\39292\100\CAD\Final Report\39292_100_014.dwg

No. 39292\100\014

Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures

Location	**Marple Road/Offerton Road & Stockport Road/Dooley Lane**	Junction	✓
		Corridor	
		Area specific	

Baseline Conditions

The Marple Road/Offerton Road and Stockport Road/Dooley Lane junctions are two three arm traffic signal controlled junctions that carry significant levels of traffic throughout the day and are subject to peak hour congestion. There is no frontage activity in this area except for one residential property facing Offerton Road. Pedestrian facilities are limited at these junctions and the footways are very narrow in the area, however, these junctions form an important route for children accessing the Marple Hall High School from Offerton Green either as pedestrians or accessing public transport. As such there may be a level of suppressed demand at this junction, which could be released should pedestrian improvements be made at these junctions. There are also limited cycle facilities at these junctions.

Marple Road/Offerton Road

Stockport Road/Dooley Lane

Impact of Bypass

It is anticipated that the introduction of the bypass will reduce overall traffic flow through this section of the network. However, it is not intended to make radical changes to the highway as this is already a congested route. However, it is felt that the provision of improved pedestrian and cycle facilities are vital in this area to improve this link between Marple Hall High School and Offerton Green and encourage a modal shift for the school trip being made in this area.

Recommendations

- Provide pedestrian facilities at both the Marple Road/Offerton Lane and Stockport Road/Dooley Lane junctions with advance cycle stop lines where necessary.
- Provide a segregated cycle footway between the two junctions protected by pedestrian guardrail.

Indicative illustrations of the above schemes are contained within this report, however it should be noted that detailed traffic modelling and traffic surveys would be required to determine the final layout of these schemes.

Benefits to local community

Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	
Accessibility – *Employment*	✓	Road Safety – *Cyclists*	✓
Accessibility – *Public Transport*		Road Safety – *Pedestrians*	✓
Environmental Impact		Road Safety – *School Children*	✓
Modal shift	✓	Security – *Personal*	

C or M	Complementary ✓		Mitigation
Cost Estimate	**Scheme**	**Cost**	STOCKPORT
	Marple Road/Offerton Road & Stockport Road/Dooley Lane	£475,000	
	Total estimated cost	**£475,000**	

Cont' ution to Appraisal Summary Table

Option: Marple Road/Offerton Road & Dooley Lane/Stockport Road	**Description: Could be implemented prior to completion of the SEMMMS Relief Road. Measures focus on re-allocating roadspace for improved pedestrian facilities.**	**Problems:** Congested signalised junction with little or no pedestrian provision	**Present Value Cost to Government £475,000**

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Landscape	N/A	Neutral
	Townscape	Measures such as widened footways and introduced central reservations with impact on the existing townscape	Slight Benefit
	Heritage of Historic Resources	N/A	Neutral
	Physical Fitness	It is anticipated that the measures will encourage a modal shift through the area	Beneficial
	Journey Ambience	No Clear impact	Neutral
SAFETY	Accidents	The scheme is likely to reduce accident risk and severity at the junction. This will be achieved through proposed measures such as new pedestrian facilities and reallocating road space to cyclists	Beneficial
	Security	No clear impact	Neutral
ECONOMY	Reliability	No significant changes to car journey times are anticipated.	Neutral
	Wider Economic Impacts	No Clear impact	Neutral
ACCESSIBILITY	Severance	Pedestrian facilities will increase pedestrian links across the junction	Beneficial
	Access to the transport system	Improvements for pedestrians and cyclists will facilitate access to the transport system.	Beneficial
	Transport Interchange	No clear impact	Neutral
INTEGRATION	Land-Use Policy	No clear impact	Neutral
	Other Government Policies		

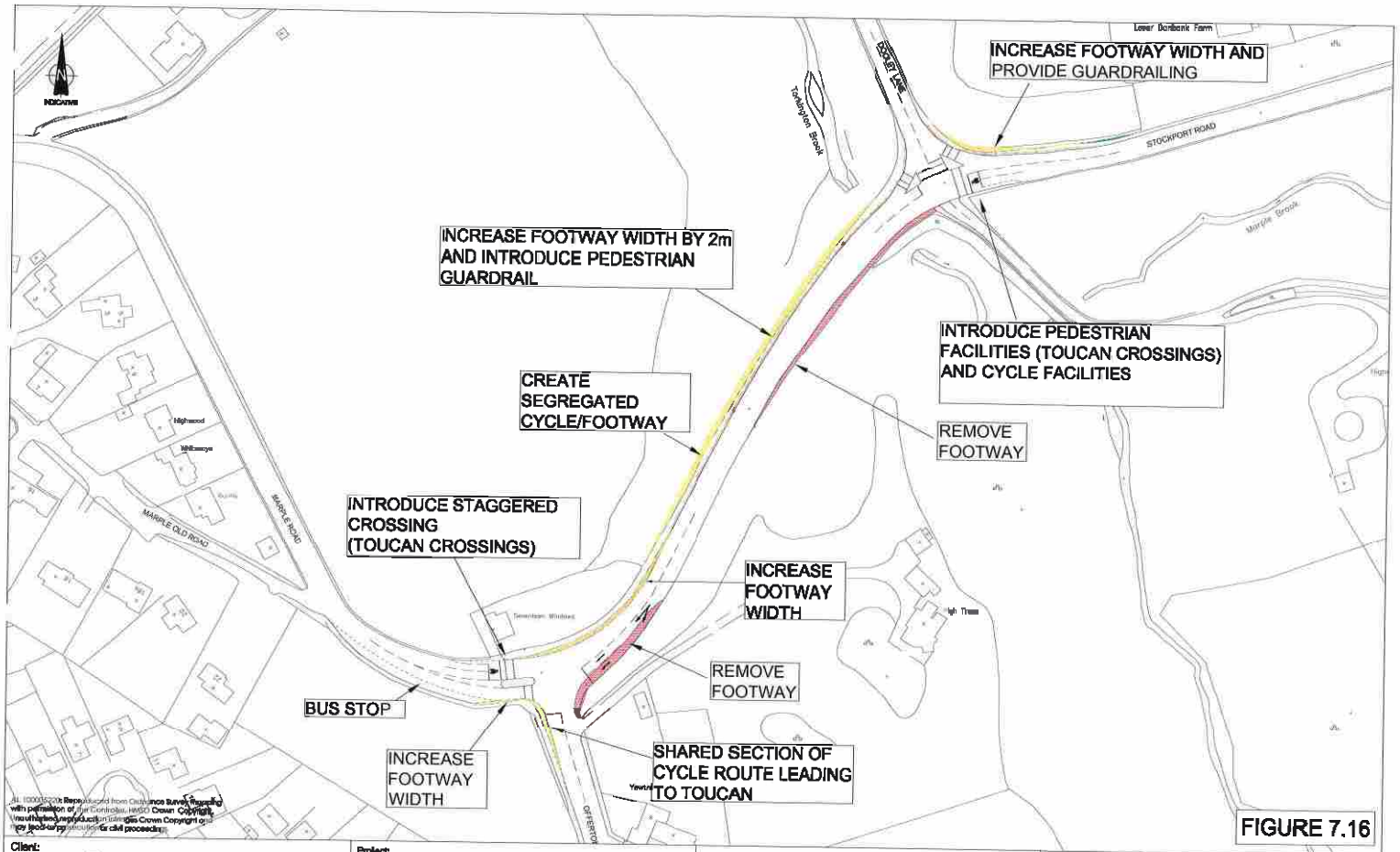

FIGURE 7.16

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

Design: AB	Date: June 04	Chkd:
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Sheet Size - A3 (400mm x 275mm)

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Title: Dooley Lane/Stockport Road & Marple Road/Offerton Road

AutoCAD Location: F:\PROJECTS\39292\100\CAD\Final Rep\39292_100_015.dwg

No. 39292/100/015 Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures

Location	**Bredbury/Bredbury Green**	Junction	
		Corridor	
		Area specific	✓

Baseline Conditions

A627 between Hyde Road and Bredbury Green
The section of the A627 between Hyde Road and Bredbury Green is a relatively wide single carriageway route, considerable lengths of which are uninterrupted and subject to relatively high traffic speeds. The frontage activity along the route is primarily residential and as such there are significant levels of pedestrian activity along and across the route, in particular around the schools in the area.

A6017 Lower Bents Lane – Higher Bents Lane
The A6017 between Barrack Hill and Stockport Road East consists of a wide single lane carriageway in each direction and is fronted primarily by residential properties interspersed with small scale retail units. This route carries significant levels of traffic and is subject to peak time delays.

A560 Stockport Road East (between Lower Bents Lane and George Lane)
This is a single lane carriageway in each direction at the narrowest section carrying significant levels of traffic throughout the day. There are high levels of unregulated parking, which can lead to vehicles blocking the footway and causing a disturbance to the natural flow of traffic.

Barrack Hill/School Brow

Lower Bents Lane

A560 Stockport Road East

Impact of Bypass	**A627 between Hyde Road and Bredbury Green** It is anticipated that the introduction of the bypass will reduce overall traffic flow along the route, therefore, measures such as the regulation of on-street parking, increases in footway width, improvements to pedestrian crossing provision and cycle provision are being considered. A possible change in the method of control at junctions along the route is also being evaluated, as well as speed reduction measures to prevent increases in speed. The reduction in capacity resulting from the introduction of controlled pedestrian facilities and a restriction in lane widths will mitigate against the generation of additional trips through this section of the highway. **A6017 Lower Bents Lane – Higher Bents Lane** Following the introduction of the bypass it is anticipated that there will be a reduction in traffic along the route. Therefore, it is proposed to regulate on-street parking, increase footway widths where appropriate, improve pedestrian crossing provision and cycle provision. It is also proposed to signalise the Harrytown and Vernon Road junctions, which will help to provide greater control over traffic flow along the route and also provide the opportunity to improve pedestrian /cycle facilities at these junctions. The reduction in capacity resulting from the introduction of controlled pedestrian facilities and a reduction in lane widths will mitigate against the generation of additional trips through this section of the highway following the anticipated traffic reduction following the introduction of the bypass. **A560 Stockport Road East (between Lower Bents Lane and George Lane)** Whilst there will be overall reductions in flow at the both the A560/Lower Bents Lane and A560/George Lane junctions there is an increase in traffic during the PM peak in the eastbound direction. Therefore, it is recommended that these two junctions should both be upgraded in terms of pedestrian and cycle facilities, however, the signal timing should be such that priority is given to the flow along the A560. Additionally, it is suggested that the parking on this section of the network should be regulated to maintain steady vehicle flow and maximise capacity, whilst preventing vehicles from mounting the footway.

Recommendations

A627 between Hyde Road and Bredbury Green

- Reconfigure the George Lane/Hyde Road junction and incorporate additional pedestrian crossing facilities. (£100,000)
- Between Hyde Road and Gilbert Bank widen western footway, regulate parking and provide southbound cycle lane. (cycle lane - £17,000, parking - £20,000, increase footway width – £3,000)
- Provide public realm improvements on Kings Road following road closure (£15,000)
- Provide cycle lanes between Gilbert Bank and School Brow. (£60,000)
- Provide full pedestrian facilities and advance cycle stop lines at George Lane/Barrack Hill signal junction. (£60,000)
- Provide speed reduction measures on southbound carriageway (on a downhill gradient) between School Brow and Gorsey Brow. (Dragons teeth and slow markings - £5,000)
- Signalise the existing priority junction at Barrack Hill/Gorsey Brow junction. Incorporate full pedestrian facilities and advance cycle stop lines to enhance both pedestrian and cycle movement. (£100,000)

A6017 Lower Bents Lane – Higher Bents Lane

- Introduce pedestrian crossing facilities on the southern and eastern arms of the Stockport Road East/Lower Bents Lane junction and introduce advance cycle stop lines. (£50,000)
- Regulate parking and provide additional crossing facilities between Lower Bents Lane and Redhouse Lane and introduce cycle lanes. (£40,000 – cycle lanes, bays - £100,000)
- Signalise the Redhouse Lane/Lower Bents Lane junction with incorporated pedestrian and cycle facilities. (£100,000)
- Provide additional crossing facilities on Higher Bents Lane (pedestrian refuge islands on key pedestrian desire lines). (2xrefuges – £15,000)
- Signalise the Higher Bents Lane/Harrytown junction incorporating full pedestrian crossing facilities. (£100,000)

Harrytown/Bredbury Green

- Provide 20mph zone on Harrytown (£50,000)
- Provide traffic calming in the form of speed cushions (bus route) (£25,000)

Redhouse Lane

- Introduce closure on Redhouse Lane to prevent rat running traffic incl. streetscene improvements. (£70,000)

A560 Stockport Road East (between Lower Bents Lane and George Lane)

- Introduce pedestrian facilities on the southern and eastern arms of the junction. (£50,000)
- Regulate on-street parking around residential properties. (£40,000)

Indicative illustrations of the above schemes are contained within this report, however, it should be noted that detailed traffic modelling and traffic surveys would be required to determine the final layout of these schemes.

Benefits to local community	Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	
	Accessibility – *Employment*	✓	Road Safety – *Cyclists*	✓
	Accessibility – *Public Transport*		Road Safety – *Pedestrians*	✓
	Environmental Impact		Road Safety – *School Children*	✓
	Modal shift		Security – *Personal*	
C or M	Complementary	✓	Mitigation	✓

Cost Estimate

Scheme	Cost
A627	£380,000
A6017 Lower Bents Lane	£405,000
Harrytown & Redhouse Lane	£145,000
A560 Stockport Road East (between Lower Bents Lane and George Lane)	£ 90,000

STOCKPORT

	Total estimated cost	**£1,020,000**	

Contribution to Appraisal Summary Table

Option: Bredbury/Bredbury Green	**Description: Could be partially implemented prior to completion of the SEMMMS Relief Road. Measures focus on re-allocating roadspace for improved pedestrian facilities, cycling facilities, parking provision and public transport. Including closure of Redhouse Lane to remove rat running traffic**	**Problems:** encouraging High Traffic speeds with little or no cycle/pedestrian provisions Parked vehicles also create problems to the free flow of vehicles	**Present Value Cost to Government £1,020,000**

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT
ENVIRONMENT	Landscape	N/A	Neutral
	Townscape	Measures such as widened footways will result in significant improvements to the townscape	Beneficial
	Heritage of Historic Resources	N/A	Neutral
	Physical Fitness	It is anticipated that the measures incorporated in the scheme will encourage more walking and cycling and thereby enhance physical fitness.	Beneficial
	Journey Ambience	No clear impact	Neutral
SAFETY	Accidents	The scheme is likely to reduce accident risk and severity through the route. This will be achieved through proposed measures such as new pedestrian facilities, reallocating road space to cyclists and introduced parking bays.	Beneficial
	Security	No clear impact	Neutral
ECONOMY	Reliability	No significant changes to car journey times are anticipated.	Neutral
	Wider Economic Impacts	No clear impact	Neutral
ACCESSIBILITY	Severance	The reduced traffic flows resulting from the bypass will reduce severance, and this will be reduced by the introduction of traffic management measures	Beneficial
	Access to the transport system	Improvements for pedestrians and cyclists will facilitate access to the transport system.	Beneficial
	Transport Interchange	No clear impact	Neutral
INTEGRATION	Land-Use Policy	No clear impact	Neutral
	Other Government Policies	Best Value Performance Indicators	Beneficial

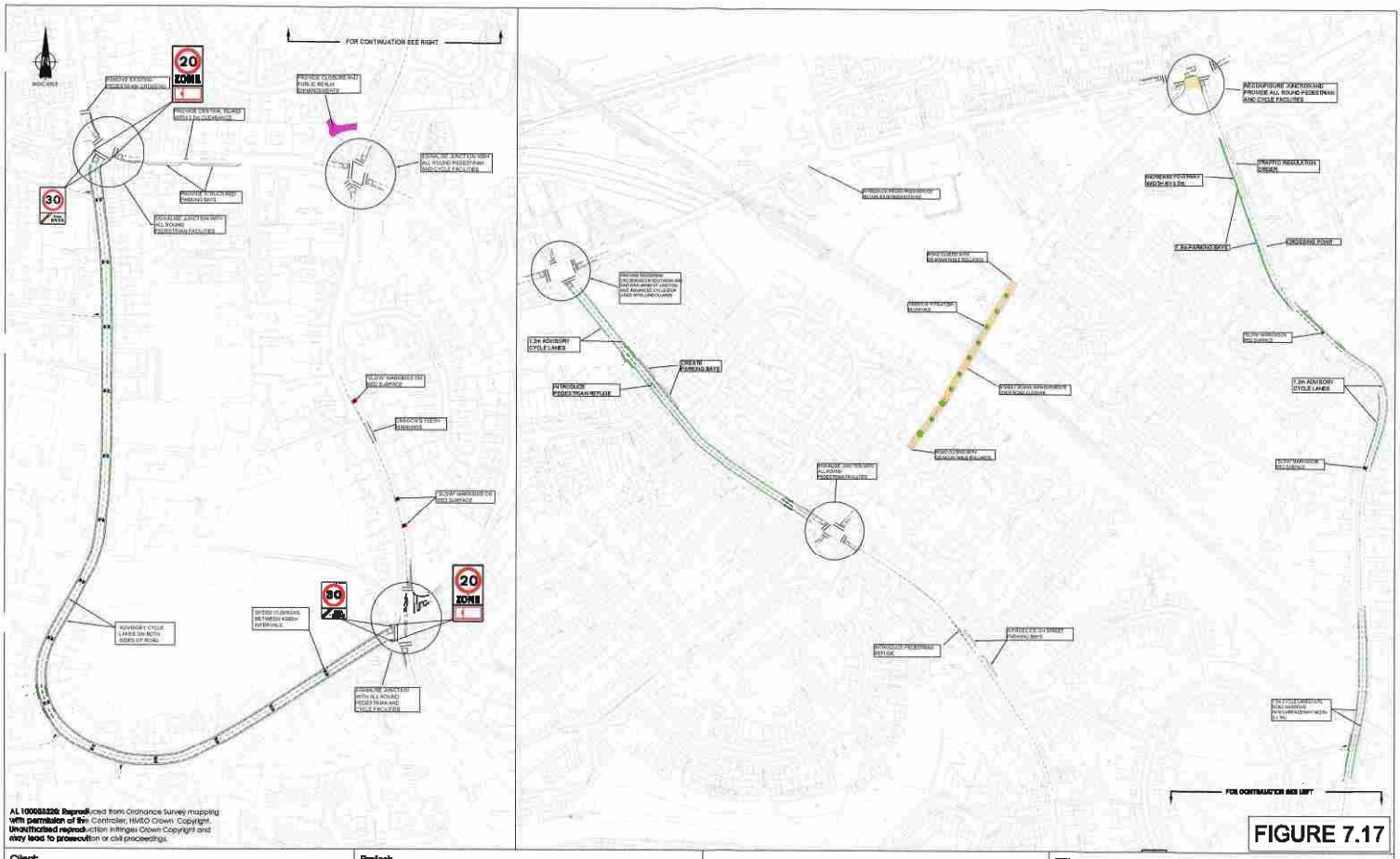

FIGURE 7.17

Client:
STOCKPORT METROPOLITAN BOROUGH COUNCIL
CHESHIRE COUNTY COUNCIL
MANCHESTER CITY COUNCIL

Project:
SEMMMS Relief Road - Complementary/Mitigatory Measures

Design: AB	Date: June 04	Chk'd:
Drawn: MD	Scale: NTS	App'd:

Sheet Size - A3 (400mm x 275mm)

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Title:
Bredbury/Bredbury Green

AutoCAD Location: P:\PROJECTS\39292\100\CAD\Final Rept\39292_100_016.dwg

No. 39292/100/016

Rev:

SEMMMS New Relief Road – Complementary/Mitigatory Measures

Location	**A626 Offerton Lane/Banks Lane**	Junction	✓
		Corridor	
		Area specific	

Baseline Conditions

A626 Offerton Lane forms part of Stockport's strategic route network and as such performs an important role within Stockport's road hierarchy as a link from Derbyshire to Stockport Town Centre and the A6.

The junction is a 3 arm signalled controlled junction that is linked to a 3 arm signalised junction at the junction of Turncroft Road.

The junction currently operates over capacity during the AM and PM peaks. A number of rat running vehicles turning right at the Turncroft Road traffic signals from Offerton Lane to avoid congestion along St Marys Way.

Pedestrian facilities around the junction are limited with no provision currently made for cyclists.

A626 Offerton Lane
(Looking towards Marple Road)

Impact of Bypass

A significant decrease in vehicle demand will be experienced in both the AM and PM peak periods. Additional, decreases in traffic volume will also be experienced on St Marys Way.

Potential Options

- Provide improved pedestrian facilities.
- Close the right turn movement into Turncroft Lane.
- Provide Advance Stop Lines for cyclists.

Recommendations

It is proposed to prohibit the right turn movement into Turncroft Lane from Offerton Lane. This will effectively remove the rat running traffic from the residential area between Offerton Lane and Woodlands Park. Prohibiting the right turn also enables the carriageway space to be reallocated over to the public realm within the area. The reduction in movements at the junction will also enable the implementation of ASLs for cyclists, increase the area available for pedestrians and reduce the distance pedestrian have to cross the carriageway.

Following the introduction of the new link road and the reduction in traffic along St Marys Way vehicles utilising Turncroft Lane will be encouraged onto St Marys Way.

Benefits to local community				
	Accessibility – *Community Facilities*	✓	Public Transport – *Reliability*	✓
	Accessibility – *Employment*	✓	Road Safety – *Cyclists*	✓
	Accessibility – *Public Transport*		Road Safety – *Pedestrians*	✓
	Environmental Impact	✓	Road Safety – *School Children*	✓
	Modal shift		Security – *Personal*	
C or M	Complementary	✓	Mitigation	

Cost Estimate

Scheme	Cost
Carriageway markings	£ 3,000
Traffic signals	£75,000
Footway buildouts	£25,000
Enhanced public realm	£22,000
Improved islands	£25,000
Total estimated cost	**£150,000**

STOCKPORT

Contribution to Appraisal Summary Table

Option: Offerton Lane/Banks Lane		**Description: Could be implemented after implementation of the SEMMMS Relief Roads. Measures focus on prohibiting right turning vehicles from access Turncroft Road.**	**Problems:** Traffic	**Present Value Cost to Government £150,000**
OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	ASSESSMENT	
ENVIRONMENT	Landscape	Reducing Areas of carriageway will enable landscaped areas to be introduced	Neutral	
	Townscape	Reducing Areas of carriageway will enable Townscape areas to be increased	Slight Benefit	
	Heritage of Historic Resources	Reduced traffic flow past Vernon Park and Stockport Museum	Slight Benefit	
	Physical Fitness	Improved pedestrian and cycle facilities will encourage increased usage	Slight Benefit	
	Journey Ambience	N/A	Neutral	
SAFETY	Accidents	Increased pedestrian facilities at the junction will improve safety for vulnerable road users	Benefit	
	Security	N/A	Neutral	
ECONOMY	Reliability	A decrease in the movements/conflicts at the junction will increase reliability	Slight Benefit	
	Wider Economic Impacts	No clear impact	Neutral	
ACCESSIBILITY	Severance	Traffic signals will improve accessibility at the junction	Slight Benefit	
	Access to the transport system	Slight improvement in reliability	Slight Benefit	
	Transport Interchange	No clear impact	Neutral	
INTEGRATION	Land-Use Policy	No clear impact	Neutral	
	Other Government Policies	Best Value Performance Indicator 165 and 99		

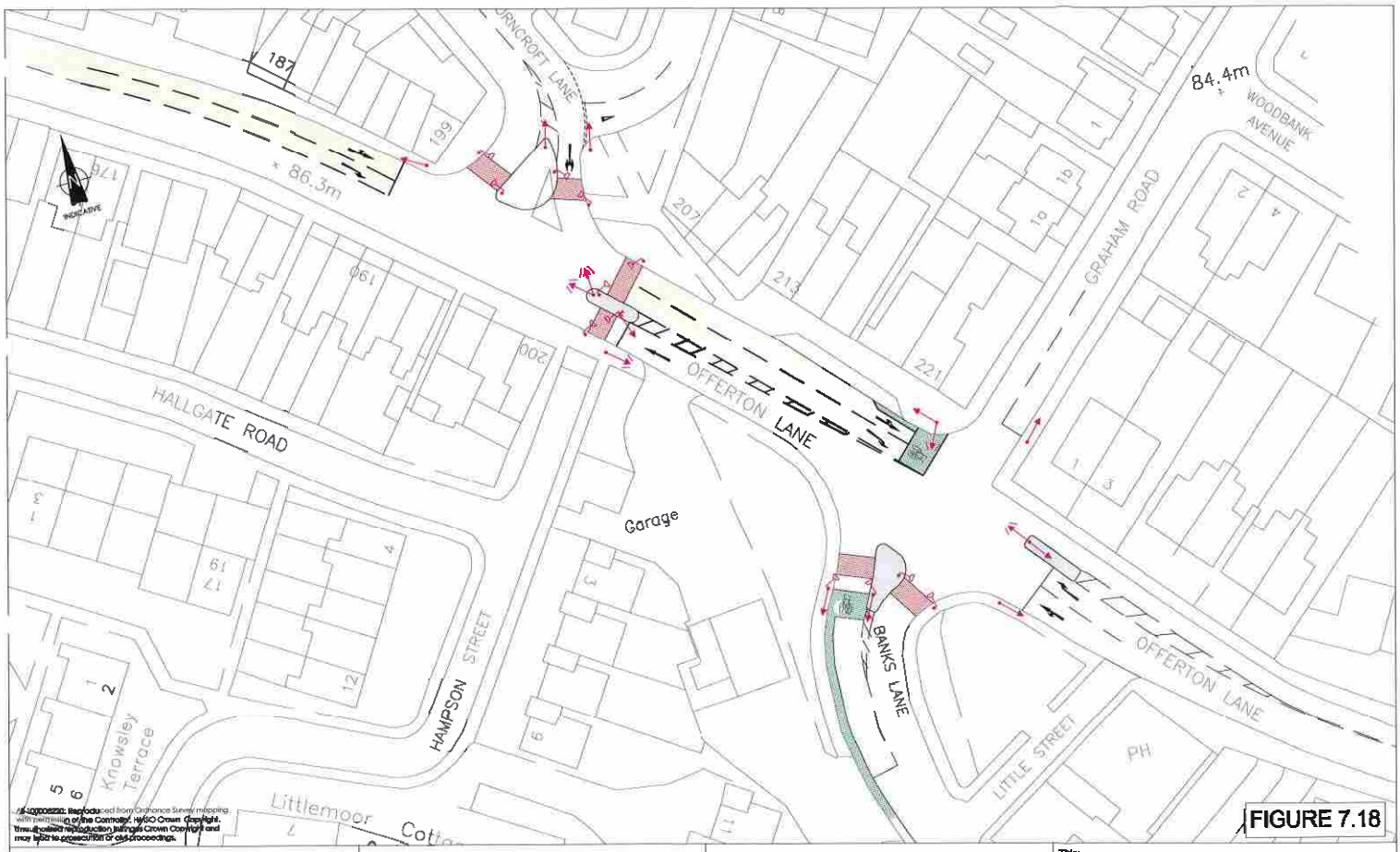

FIGURE 7.18

Client: STOCKPORT METROPOLITAN BOROUGH COUNCIL; CHESHIRE COUNTY COUNCIL; MANCHESTER CITY COUNCIL

Project: SEMMMS Relief Road - Complementary/Mitigatory Measures

Design: AB	Date: June 04	Chk'd:
Drawn: MD	Scale: NTS	App'd:

Sheet Size - A3 (400mm x 275mm)

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Title: Banks Lane/Offerton Road Traffic Signals

AutoCAD Location: F:\PROJECTS\39292\100\CAD\Final Rep\39292_100_017.dwg

No. 39292/100/017 Rev:

8 COSTINGS

8. Costings

8.1. INTRODUCTION

The new relief road recommended in the SEMMMS study and endorsed by Cheshire, Manchester and Stockport consists of the following new sections as follows: -

- Entire scheme - To build the A6 Stockport Bypass from Junction 25 of the M60, round the east side of Stockport (including the Stepping Hill Link), connecting into the A6 at Buxton Road, south of Hazel Grove and the Manchester Airport Eastern Link Road (West) from the Airport, across to the A6 at Buxton Road, south of Hazel Grove, including the whole of the Poynton Bypass to meet the Airport Link in the Woodford area, just to the north of Chester Road (A5149).

Clearly if the full relief road scheme is to be built, all "complementary" and "mitigatory" minor measures will be needed, however as part of the economic sensitivity testing, partial exclusion tests have been appraised for the major scheme, namely: -

- Exclusion Test North: M60 to High Lane - To build the A6 Stockport Bypass from Junction 25 of the M60, round the east side of Stockport (including the Stepping Hill Link), connecting into the A6 at Buxton Road, south of Hazel Grove; and
- Exclusion Test South: A6 High Lane to Manchester Airport - To build Manchester Airport Eastern Link Road (West) from the Airport, across to the A6 at Buxton Road, south of Hazel Grove, including the whole of the Poynton Bypass to meet the Airport Link in the Woodford area, just to the north of Chester Road (A5149).

8.2. CHESHIRE

Entire scheme

Total Cost = £6.6million

Exclusion Test North: M60 to High Lane

Total Cost = £0.5million

Exclusion Test South: A6 High Lane to Manchester Airport

Total Cost = £6.1million

The estimated total of proposed schemes is £6.6 million.

8.3. MANCHESTER

Entire scheme

Total Cost = £2.3million

Exclusion Test North: M60 to A6 (High Lane)

N/a

Exclusion Test South: A6 (High Lane) to Manchester Airport

Total Cost = £2.3million

N.B The estimated total cost of proposed schemes is £2.3 million. However, should Metrolink not proceed within the current timeframe, the Manchester minor works estimate will need to be increased by £1.7million to £4million.

8.4. STOCKPORT

Entire scheme

Total Cost = £18.1million

Exclusion Test North: M60 to A6 (High Lane)

Total Cost = £7.7million

Exclusion Test South: A6 (High Lane) to Manchester Airport

Total Cost = £8.2million

8.5. COST ESTIMATE

The preliminary budget estimate for the "complementary" and "mitigatory" measures identified across the SEMMMS major road impact area is of the order of £27million, assuming that the full scheme is built. This cost is inclusive of land and service costs and design fees and can be broken down into approximately £18.1million in Stockport, £6.6million in Cheshire and £2.3million in Manchester.

Under the 'Exclusion Test North', minor supporting measures identified along the A6 through Disley in Cheshire and through High Lane, Hazel Grove and Great Moor in Stockport, together with Stockport minor measures in Offerton, and along the Marple Corridor (A626) and A560 Corridor, through Bredbury and Woodley, will be needed. No minor measures will be needed in Manchester. The total value of these measures is estimated at £8.2million.

In the 'Exclusion Test South' (MAELR (West) and Poynton Bypass), all Cheshire minor measures, excluding those in Disley along the A6, and all Manchester measures are necessary, together with Stockport minor schemes in the south and south west of the borough. The estimated total value of these measures is £16.6million.

9 CONCLUSION



9. Conclusion

9.1. CONCLUSION

The predominant impact of the SEMMMS major road scheme is to reduce traffic across much of the adjacent area. This calls for "complementary" measures to be introduced to coincide with its completion, so that the available space does not fill up with road traffic, so that traffic speeds do not increase and to secure environmental, safety, social and regeneration benefits in line with the SEMMMS Strategy. These schemes may be site specific, route or centre based and range from very small traffic management and regulation proposals costing no more than a few hundred pounds, to extensive public realm improvements or major junction schemes costing upwards of £1million.

The schemes identified as "complementary" to the SEMMMS major road scheme are those where traffic reductions present the opportunity to reduce the time or road space available to motor vehicles in favour of pedestrians and/or cyclists or to improve the quality of life in residential streets, Local Centres and District Centres.

Conversely, at a small number of locations the major road scheme is forecast to increase traffic beyond acceptable levels on roads, or through centres, via which access to it is gained. These locations call for measures to protect residents and centres, accommodate unavoidable traffic increases and, where appropriate, to discourage traffic from rat running or using a particular route. Junctions between the new road and the existing network and the direct approaches to them, are addressed through the design of the new road scheme, however, more remote roads and areas which suffer traffic growth as a consequence of the major road scheme are to be protected by a package of "mitigatory" measures. Some speed restraint measures introduced to curb the potential for speeding as a result of significant reductions in traffic on certain routes are also considered to be 'mitigatory' measures.

These complementary / mitigatory measures are an essential component of the major road scheme and need to be in place in advance of it opening to traffic. Without them neither the full benefits of the relief road, nor the SEMMMS strategy can be achieved. For the analysis of benefits, it is assumed that the full cost of the minor measures, estimated at £27million, will need to be met in the final year of construction of the major scheme.

9.2. THE WAY FOWARD

Stockport MBC has conducted a Stage 2 study developing selected schemes. From which, a series of conceptual scheme designs have been developed together with more detailed scheme costs for implementation in the Borough in conjunction with the bypass.

However, there was insufficient time to undertake a Stage 2 study in Cheshire and Manchester prior to the Annex E submission, but it should be noted that this study provides sufficient information to satisfy GOMMMS and inform the Annex E submission.

APPENDICES

Appendix A (Cheshire)

DISLEY AREA

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A6 Buxton Road					
Buxton Road (between Stockport/ Cheshire boundary and Buxton Old Road)		- Single lane carriageway in each direction with central hatching and some right turning pockets - High traffic flow levels throughout the day - Primarily residential frontages with driveways - 30mph and 40mph speed limits with gateway features where speed limit changes (signs and roundels)	- High %age of large vehicles - Some vehicles appear to travel in excess of the 30mph speed limit - Absence of pedestrian crossing facilities close to two rail station platform access points	**AM** Westbound – +29% (+245) Eastbound – +21% (+161) **PM** Westbound – +25% (+226) Eastbound – +23% (+178)	- **(M)** Upgrade the 30mph gateway features to further reinforce change in speed limit e.g. dragons teeth, roundels, etc - **(M)** Install pedestrian refuges close to station access point to assist pedestrian movements - **(M)** Improve visibility at station car park access APPROXIMATE COST - £33,000
A6 Buxton Road West/Buxton Old Road junction		- 4 arm signal controlled junction with left 'slip' from east on Market Street into Buxton Old Road - Controlled pedestrian crossing facilities on western arm with tactile paving - Northern arm of junction has dropped kerbs only (absence of tactile paving) - Southern and eastern arm have dropped kerbs with tactile paving and refuge islands	- Absence of controlled pedestrian phase on northern, eastern and southern arm makes crossing difficult (high level of demand due to close vicinity to rail station, surgery, shops and dental practice etc.) - Push button for controlled crossing phase incorrectly positioned in relation to tactile paving	**AM** Increase of approx. 400 vehicles on approach to the junction **PM** Increase of approx. 400 vehicles on approach to the junction	- **(M)** Optimise/reconfigure signal timings following introduction of the bypass to maximise vehicle flows - **(M)** Install controlled pedestrian crossing facilities on all arms of junction - **(M)** Relocate pedestrian phase push button on northern arm to recommended position in relation to tactile paving APPROXIMATE COST - £70,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A6 Market Street (between Buxton Old Road and point in line with Disley Primary School)		- Single lane carriageway in each direction - Primarily shop frontages - High level of pedestrian activity - Pelican crossing located outside Co-op Village shop (tactile paving wrong shape on southern side and push buttons located in correct position in relation to tactile paving) - Limited waiting parking bays on southern side (parking allowed for 2 hours, no return allowed within 1 hour) within shopping centre area - 8am to 8pm waiting restriction on northern side within shopping centre area	- Absence of pedestrian crossing facilities in centre of main shopping area - Limited waiting parking restriction (2 hours) is too long - Limited waiting restriction is too late during AM peak period for predicted traffic increases - Absence of loading restriction on northern side (vehicles loading observed during site visit causing severe delays) - Absence of gateway features to highlight entrance to shopping area - Poor public realm in shopping area - Absence of cycle parking facilities - Poor bus stop facilities for shopping area	**AM** Westbound – +43% (+238) Eastbound – +35% (+154) **PM** Westbound – 33% (+221) Eastbound – 39% (+173)	- **(M)** Upgrade Pelican to Puffin crossing (reposition push buttons and relay tactile paving as required) - **(M)** Assess demand for new pedestrian crossing in centre of shopping area - **(C)** Reduce length of time parking is allowed (increase turnover of vehicles) - **(M)** Change limited waiting restriction on northern side so starts at 7:30am and finish at 6:30pm - **(M)** Install loading restriction on northern side of road for peak periods (consider converting some of parking area on southern side into loading area) - **(C)** Install gateway feature at entrance to shopping areas - **(C)** Improve public realm within shopping area - **(C)** Install cycle parking facilities - **(C)** Upgrade bus stop facilities e.g. raised boarding and alighting platform - **(C)** Sign presence of parking at rail station and improve pedestrian links as outlined above) APPROXIMATE COST - £220,000
A6 Buxton Road between point in line with Disley Primary school and Redhouse Lane)		- Single lane carriageway in each direction with central hatching and solid white line carriageway marking on bend area - Marked parking bays outside properties to east of bend area	- Parking observed on southern side just west of bend is extremely dangerous for westbound vehicles (must move onto opposite side of carriageway)	**AM** Westbound – +43% (+238) Eastbound – +35% (+154) **PM** Westbound – 33% (+221) Eastbound – 39% (+173)	- **(M)** Although vehicles should not park adjacent to solid white centre line, this is unlikely to be known by most drivers. Install no waiting and loading at anytime restriction and/or hatching to discourage parking to west of bend area on southern side of road APPROXIMATE COST - £3,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A6 Buxton Road (between Redhouse Lane Cheshire/ Derbyshire boundary		- Primarily residential frontages on northern side and houses and fields on southern side - Pelican crossings installed adjacent to Arnold Rodes Playground and to west of Meadow sides junction - Some on street parking bays marked along link - Speed limits of 30mph and 40mph. Gateway features (signs and roundel) located at changes in speed limit	- Some vehicles appear to be travelling in excess of 30mph close to change in speed limit. This could possible be made worse with introduction of bypass - Potential to mark out parking bays on southern side between Overdale Road and Meadow Banks Road	AM Westbound – +43% (+238) Eastbound – +35% (+154) PM Westbound – 33% (+221) Eastbound – 39% (+173)	- **(M)** Upgrade the 30mph gateway features to further reinforce speed limit e.g. dragons teeth, roundels, etc. - **(M)** Upgrade Pelicans to Puffin crossings - **(M)** Mark out parking bays on southern side between Overdale Road and Meadow Banks Road APPROXIMATE COST - £104,000
Hague Bar Road					
Strines Road/Hague Bar Road (section contained within Cheshire boundary)		- Single lane carriageway in each direction - Several 'bend ahead' signs and no overtaking carriageway markings in sections (some carriageway markings are worn on bends) - National speed limit within Cheshire (40mph limit in Derbyshire and 30mph in Stockport)	- Isolated section of National speed limit carriageway - Inappropriate speed limit for narrow, winding carriageway conditions	AM Westbound – -24% (-70) Eastbound – -14% (-39) PM Westbound – -19% (-55) Eastbound – -4% (-10)	- **(C)** Lower speed limit to 40mph - **(C)** Remark worn no overtaking centre line marking on bend areas APPROXIMATE COST - £3,000

POYNTON AREA

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Middlewood Road/Correction Brow/Park Lane					
Middlewood Road (between Buxton Road and Green Lane)		- Tree frontages - Sections of carriageway are narrow - National speed limit - Series of 'SLOW' markings on carriageway - Narrow carriageway and rail crossing at far northern end of link	- Speed limit inappropriate for width, windiness of road and use by cyclists	AM Northbound – -34% (-105) Southbound – -37% (-153) PM Northbound – -45% (-110) Southbound – -31% (-198)	- **(M)** Reduce speed limit to 40mph - **(M)** Sign narrow carriageway and presence of rail crossing at far northern end of road APPROXIMATE COST - £7,000
Middlewood Road (between Green Lane and Towers Road)		- Tree frontages with isolated residential properties - National speed limit along vast majority of link	- Speed limit inappropriate for width, windiness of road and use by cyclists	AM Westbound – -44% (-151) Eastbound – -44% (-199) PM Westbound – -39% (-138) Eastbound – -51% (-227)	- **(M)** Reduce speed limit to 40mph APPROXIMATE COST - £7,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Park Lane (between Towers Road and Bulkeley Road)		- Primarily terraced residential frontages - High occurrence of on-street parking along majority of link - Puffin crossing located just west of Park Lane junction outside Post Office	- None relating to SEMMMS Bypass	**AM** Westbound – -40% (-281) Eastbound – -42% (-223) **PM** Westbound – -36% (-174) Eastbound – -40% (-263)	- None – maintain existing infrastructure APPROXIMATE COST - nil
Park Lane (between Bulkeley Road and London Road)		- Single lane carriageway in each direction - Primarily shop frontages - High levels of pedestrian activity due to shops - Pelican crossing located just west of Bulkeley Road junction - 11 echelon parking bays located on southern side adjacent to junction with London Road	- Footpaths/shop frontage areas are composed of a variety of materials making the area unattractive - Poor public realm for shopping area - High number of pedestrians cross between Pelican crossing and London Road - Very high pedestrian demand at existing Pelican crossing due to vicinity to Clinic, Church, Schools etc. - Echelon parking bays mean vehicles are reversing into carriageway close to vehicles approaching/queuing at junction - Absence of feature to highlight entry to shopping area	**AM** Westbound – -40% (-281) Eastbound – -42% (-223) **PM** Westbound – -36% (-174) Eastbound – -40% (-263)	- **(C)** Resurface footpaths and consider partnerships with shop owners to allow a uniform paving type - **(C)** Improve public realm - **(C)** Consider installation of new pedestrian crossing between existing Pelican and London Road junction - **(C)** Upgrade existing Pelican to Puffin crossing - **(C)** Convert echelon parking bays to parallel parking (will remove parking spaces but parking available at rear of Co-op store) - **(C)** Install gateway feature at entrance to shopping area (consider raised mini roundabout at Bulkeley Street junction with 'identity feature') APPROXIMATE COST - £215,000
A5149 Chester Road					
Chester Road (between London Road and Burton Drive)		- Single lane carriageway in each direction - Shop frontages on northern side and church located on southern side - Parallel parking bay installed on northern side	- None relating to SEMMMS Bypass	**AM** Westbound – -34% (-331) Eastbound – -17% (-80) **PM** Westbound – -10% (-56) Eastbound – -19% (-126)	- None – maintain existing infrastructure APPROXIMATE COST - £nil
Chester Road (between Burton Road and Clifford Road)		- Single lane carriageway in each direction with advisory cycle lane installed on both sides - Primarily residential frontages	- None relating to SEMMMS Bypass	**AM** Westbound – -34% (-331) Eastbound – -17% (-80) **PM** Westbound – -10% (-56) Eastbound – -19% (-126)	- None – maintain existing infrastructure APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Chester Road (between Clifford Road and Merton Road)		- Single lane carriageway in each direction with cycle lanes installed on both sides between Poynton Station and Merton Road (section of segregated pedestrian and cycle footpath on eastern end close to station) - Pelican crossing installed just west of Clifford Road junction - Pedestrian refuges installed at various locations along link	- None relating to SEMMMS Bypass	**AM** Westbound – -24% (-291) Eastbound – -5% (-40) **PM** Westbound – -19% (-122) Eastbound – -18% (-191)	- (C) Upgrade Pelican to Puffin crossing - (C) Assess opportunity to remove central reservation and introduce cycle lane APPROXIMATE COST - £65,000
Chester Road (between Merton Road and Stockport/ Cheshire boundary)		- Single lane carriageway in each direction - Primarily residential frontages on southern and fields on northern side	- None relating to SEMMMS Bypass	**AM** Ranges from: Westbound – -22% to -24% (-291 to -321) Eastbound – -5% to -20% (-40 to -184) **PM** Ranges from: Westbound – -19% to -32% (-122 to -262) Eastbound – -18% to -32% (-191 to –428)	- (C) Assess opportunity to remove central reservation and introduce cycle lane APPROXIMATE COST - £15,000
A523 London Road					
London Road North (between Stockport/ Cheshire boundary and Vicarage Lane)		- Single lane carriageway along majority of link, with short section of dual carriageway on approach to/from Poynton - Field frontages on both sides - Wide carriageway along whole of link - 30 and 40mph speed limits with gateway features (signs and roundel) located just north of Vicarage Lane	- Absence of cycling facilities	**AM** Northbound – -19% (-179) Southbound – -42% (-583) **PM** Northbound – -36% (-375) Southbound – -21% (-218)	- (C) Install cycle lanes on carriageway (cycle lanes already installed on A523 within Stockport) - (C) Consider lowering speed limit to 30mph in coordination with introduction of cycle lanes APPROXIMATE COST - £15,000
London Road North (between Vicarage Road and Chester Road/Park Lane junction)		- Single lane carriageway in each direction - Primarily residential frontages with driveway on eastern side and no driveways on western side - Wide carriageway with two pedestrian refuges installed along link	- Absence of cycling facilities	**AM** Northbound – -17% (-165) Southbound – -40% (-579) **PM** Northbound – -36% (-375) Southbound – -21% (-218)	- (C) Install cycle lanes on eastern side (relocate centre line and pedestrian refuges as required) APPROXIMATE COST - £25,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
London Road/ Chester Road/Park Lane junction		- Large 4 arm signal control junction with left 'slip' on western arm and two lanes for approaching vehicles on all other arms - Controlled pedestrian phase installed on northern arm - No pedestrian facilities on southern arm and dropped kerbs with absence of tactile paving on eastern and western arms	- Poor pedestrian crossing facilities - Absence of cycling facilities - Heavy queuing observed on southern approach to junction throughout day	**AM** Decrease of approx. 1150 vehicles on approach to the junction **PM** Decrease of approx. 1000 vehicles on approach to the junction	- **(C)** Optimise/reconfigure signal timings including introducing TOUCAN facilities following introduction of the bypass - **(C)** Install controlled pedestrian crossing facilities on all arms of junction and reduce junction size - **(C)** Consider removing 'slip' on western arm and make landscape area for use by pedestrians/deliveries - **(C)** Consider changes to junction layout to allow installation of advanced cycle stop lines with lead in cycle lanes on London Road arms APPROXIMATE COST - £180,000
London Road South (between Chester Road/Park Lane junction and Dickens Lane)		- Single lane carriageway in each direction - Primarily residential frontages with some business frontages, resulting in parking on carriageway - Parking bays installed on eastern side of carriageway south of Georges Road West to service terraced houses and local businesses - Puffin crossing installed just north of Queensway junction	- None relating to SEMMMS Bypass	**AM** Northbound – -18% (-224) Southbound – -32% (-435) **PM** Northbound – -37% (-458) Southbound – -24% (-281)	- **(C)** Construct build outs to define car parking and reduce carriageway width to assist pedestrians and help reduce traffic speeds APPROXIMATE COST - £25,000
London Road South (between Dickens Lane and First Avenue)		- Single lane carriageway in each direction - Variety of frontage activities (factories, car garage and houses) - Some on-street parking observed along link - 30mph speed limit on northern half and 40mph on southern end. Gateway feature (signs and roundel) separate different speed limit	- Some vehicles observed travelling in excess of 30mph speed limit close to change in speed limit. This could possible be made worse with introduction of bypass	**AM** Northbound – -26% (-234) Southbound – -38% (-445) **PM** Northbound – -48% (-478) Southbound – -37% (-301)	- **(M)** Upgrade existing gateway feature with additional signing and carriageway markings and physical speed restraint measures to help reduce traffic speeds APPROXIMATE COST - £40,000
London Road South (between First Avenue and Street Lane)		- Single lane carriageway in each direction with 40 and 50mph speed limits - Primarily field/tree frontages	- None relating to SEMMMS Bypass	**AM** Northbound – -26% (-234) Southbound – -38% (-445) **PM** Northbound – -48% (-478) Southbound – -37% (-301)	- None – maintain existing infrastructure APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
London Road South (south of Street Lane junction)	Area not modelled – impact unknown	Area not modelled – impact unknown	Area not modelled – impact unknown	Area not modelled – impact unknown	Area not modelled – impact unknown APPROXIMATE COST - £nil

WOODFORD AREA

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Woodford Road					
Woodford Road (between Stockport/ Cheshire boundary and Chester Road)		- Open field frontages with isolated residential properties - Single lane carriageway in each direction with 40mph speed limit - Some narrow sections of carriageway - Several 'SLOW' carriageway markings and 'bend ahead' signs installed	- 'SLOW' carriageway markings and 'bend ahead' signs are too close to bends	**AM** Northbound – -48% (-168) Southbound – -12% (-53) **PM** Northbound – -57% (-280) Southbound – -61% (-214)	- **(M)** Review signing and carriageway markings on bend areas, especially on narrow sections of carriageway - **(M)** Consider lowering speed limit to 30mph - **(M)** Improve carriageway alignment at Mill Hill Farm - **(M)** Reduce carriageway width and introduce shuttle signal operation over railway line APPROXIMATE COST - £385,000
Woodford Road (between Lees Lane and Stockport/ Cheshire boundary		- Primarily open field/tree frontages - National speed limit along majority, with 40mph limit on western end	- None relating to SEMMMS Bypass	**AM** Northbound – +6% (+62) Southbound – -12% (-86) **PM** Northbound – +8% (+85) Southbound – +30% (+153)	- None – maintain existing infrastructure APPROXIMATE COST - £nil

POTT SHRIGLEY/KETTLESHULME

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Brookledge Lane/Bakestonedale Road/Macclesfield Road					
Brookledge Lane (between Sugar Lane and Spuley Lane)		- Single lane carriageway in each direction - Field/tree frontages - National speed limit with short section of 30mph limit on approach to Pott Shrigley (gateway feature in place) - Some narrow sections of carriageway	- None relating to SEMMMS Bypass	**AM** Westbound – +89% (+125) Eastbound – +11% (+14) **PM** Westbound – +14 (+20) Eastbound – +21% (+20)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Brookledge Lane/ Shrigley Road/ Bakestone Road junction (centre of Pott Shrigley)		- 3 arm priority junction - Priority for vehicles travelling along Brookledge Lane/Shrigley Road	- Extremely poor visibility at junction for vehicles turning right off Spurly Lane Road	**AM** Increase of approx. 140 vehicles on approach to the junction **PM** Increase of approx. 40 vehicles on approach to the junction	- **(M)** Install mini roundabout with 'identity' feature at junction to increase visibility and reduce vehicle speeds APPROXIMATE COST - £10,000
Bakestone Dale Road (between Spuley Lane and Macclesfield Road)		- Single lane carriageway in each direction - Primarily field frontages with isolated farms and local craft centre - National speed limit along whole link except 30mph on approach to Pott Shrigley (gateway feature in place) - Series of 'SLOW' carriageway markings installed along link - Narrow carriageway between Brink Farm and Macclesfield Road	- 60mph speed limit through Brink Farm and local craft centre area is inappropriate - Absence of signing to indicate presence of Brink Farm and local craft centre area - Very narrow carriageway width through Brink Farm	**AM** Westbound – +89% (+125) Eastbound – +11% (+14) **PM** Westbound – +21% (+20) Eastbound – +14% (+21)	- **(M)** Introduce speed management measures in various locations including through Brink Farm to lower speeds and implement 40mph through local craft centre area, complemented by appropriate signing, carriageway markings and gateway features e.g. rumble strips - **(M)** Review signing and carriageway markings along link, especially on bend and junction areas APPROXIMATE COST - £40,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Macclesfield Road (between Bakestone Dale Road and Cheshire/ Derbyshire boarder)		- Single lane carriageway in each direction - Primarily field frontages with isolated residential properties - National speed limit along majority of link, 30mph speed limit through Kettleshulme - White count down signs and vehicle actuated sign in place on approaches to Kettleshulme - Several 'SLOW' carriageway markings in place and 'sharp deviation of route' signs on bend between Bakestone Dale Road and Higher Lane	- 'Sharp deviation of route' signing on bend between Bakestonedale Road and Higher Lane is poor	AM Westbound – +21% (+80) Eastbound – -14% (-34) PM Westbound – -13% (-32) Eastbound – +0% (+1)	- **(M)** Improve 'sharp deviation of route' signing on bend between Bakestonedale Road and Higher Lane - **(M)** Review signing and carriageway markings along link, especially on bend and junction areas APPROXIMATE COST - £12,000

ADLINGTON AREA

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Brookledge Lane/Mill Lane					
Brookledge Lane (between London Road and Sugar Lane)		- Single lane carriageway in each direction - Primarily field frontages with residential estate on far western end - 40mph speed limit along link (40mph signs installed either sides of link) - Some narrow sections of carriageway - 'Bend ahead' and 'SLOW' carriageway markings installed along link	- 40mph speed limit poorly signed on either side of link (signs only) - Several vehicles travelling in excess of speed limit. This could possible be made worse with introduction of bypass	AM Ranges from: Westbound – +82% to +89% (+125 to +182) Eastbound – +7% to +11% (+14) PM Westbound – +12% to +21% (+20 to +21) Eastbound – +8% to +14% (+21 to +24)	- **(M)** Install 40mph roundels on carriageway adjacent to 40mph signs APPROXIMATE COST - £1,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Brookledge Lane/Mill Lane/ London Road junction	To be dealt with in SEMMMS major road scheme design	- To be dealt with in SEMMMS major road scheme design	- To be dealt with in SEMMMS major road scheme design	**AM** Increase of approx. 120 vehicles on approach to the junction **PM** Decrease of approx. 40 vehicles on approach to the junction Very large increases on northern approach	- To be dealt with in SEMMMS major road scheme design APPROXIMATE COST - £nil
Mill Lane (between London Road and Bonis Hall Lane)		- Single lane carriageway in each direction - Field/tree frontages - National speed limit - Narrow sections of carriageway	- Absence of 'SLOW' markings and 'bend ahead' signs on tight bends	**AM** Westbound – -34% (-131) Eastbound – -82% (-254) **PM** Westbound – -23% (-132) Eastbound – -14% (-118)	- **(M)** Install appropriate signing and carriageway markings on bends as required APPROXIMATE COST - £8,000
London Road (A523)					
London Road (between Mill Lane and Bonis Hall Lane)		- Primarily field frontages - 50mph speed limit along majority of link, with 40mph at far southern end	- To be dealt with in SEMMMS major road scheme design	**AM** Ranges from: Northbound – +76% to +81% (+528 to +556) Southbound – +12% to +22% (+115 to +199) **PM** Ranges from: Northbound – +25% to 27% (+200 to +201) Southbound – +31% to +33% (+178 to +191)	- To be dealt with in SEMMMS major road scheme design APPROXIMATE COST - £nil
London Road/Bonis Hall Lane junction		- 3 arm signal controlled junction - Right turn pocket for 3/4 vehicles for right off London Road into Bonis Hall Lane	- High increase in north/southbound traffic expected	**AM** Decrease of approx. 60 vehicles on approach to the junction **PM** Increases of approx. 70 vehicles on approach to the junction	- **(C)** Change signal priorities to favour north/southbound movement on London Road APPROXIMATE COST - £1,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Wilmslow Road/Bonis Hall Lane (B5358)					
Wilmslow Road (between Woodford Lane and Bonis Hall Lane)		- Open field frontages with isolated residential and garden centre frontages - National speed limit - Series of 'SLOW', 'bend ahead' and 'sharp deviation of route' signs installed along link	- None relating to SEMMMS Bypass	**AM** Westbound – -52% (-273) Eastbound – -24% (-430) **PM** Westbound – -40% (-337) Eastbound – -32% (-377)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Bonis Hall Lane (between Mill Lane and London Road)		- Open field frontages - National speed limit - Series of 'SLOW' markings and 'bend ahead' signs installed along link - Some narrow sections of carriageway	- None relating to SEMMMS Bypass	**AM** Northbound – -19% (-141) Southbound – -34% (-176) **PM** Northbound – -23% (-132) Southbound – -14% (-118)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil

HANDFORTH AREA

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Wilmslow Road/Handforth Road/Dean Row Road/Lees Lane (B5358)					
Wilmslow Road (between A555 and Grangeway)		- Single lane carriageway in each direction - Constant traffic flows throughout the day - Primarily residential frontages - Pedestrian crossing installed close to Kingstone Road junction - Segregated pedestrian and cycle surface installed on and between both A555 slip road roundabouts	- Isolated section of cycling facilities	**AM** Northbound – +7% (+41) Southbound – -10% (-109) **PM** Northbound – -22% (-147) Southbound – +7% (+59)	- **(M)** Upgrade Pelican crossing to Puffin - **(M)** Extend pedestrian/cycle footway on eastern side south of A555 slip roundabout APPROXIMATE COST - £51,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Wilmslow Road (between Grangeway and Station Road)	 	- Single lane carriageway in each direction - High traffic flows throughout day - Primarily shop frontages - High levels of pedestrian movements due to shops - Pelican crossing installed close to Meriton Road junction - 2 Sheffield cycle stands installed outside Cheshire Building Society	- CCC commencing traffic/environmental improvements in early 2005 - Absence of features to highlight entrances to Handforth shopping centre - Absence of facilities to assist pedestrian movements at northern end of shopping area - Poor cycle parking facilities - Echelon parking results in vehicles reverse onto busy carriageway with very poor visibility - Shopping area has poor aesthetic appearance - Several junctions joining Wilmslow Road lack dropped kerbs or dropped kerbs are narrow and/or lack tactile paving - Footways on western side between School Road and Meriton Road are unattractive and areas are in poor condition (appear to be private forecourt) - Poor bus stop facilities	**AM** Northbound – +7% (+41) Southbound – -10% (-109) **PM** Northbound – -22% (-147) Southbound – +7% (+59)	- **(C)** Install gateway feature at northern and southern approaches - **(C)** Install dropped kerbs at all junction within shopping centre together with appropriate tactile paving - **(C)** Upgrading Pelican crossing to Puffin - **(C)** Consider installation of new pedestrian crossing at northern end of shopping area - **(C)** Convert echelon parking area to parallel parking and widen adjacent footway. Consider alternating from one side to the other with buildouts to narrow crossing area and create 'sinuous' vehicle route through centre - **(C)** Install additional cycle parking facilities - **(C)** Consider public realm improvements in partnership with businesses - **(C)** Upgrade bus stop waiting facilities - **(C)** Extend cycle routes through shopping centre **THE ABOVE MEASURES NEED TO BE ADDRESSED AGAINST CCCs PLANNED SCHEME FOR HANDFORTH CENTRE.** APPROXIMATE COST - £325,000
Wilmslow Road/ Station Road junction		- 4 arm signal controlled junction - Advanced cycle stop lines with lead in cycle lanes installed on Wilmslow Road and Manchester Road arms - Controlled pedestrian crossing facilities on eastern arm - Uncontrolled dropped crossing point on western arm - Absence of any pedestrian facilities on northern and southern arms	- Limited pedestrian facilities - Significant pedestrian demand at junction due to vicinity to Handforth Library, Clinic and rail station	**AM** Reduction of approx. 210 vehicles on approach to the junction **PM** Reduction of approx. 180 vehicles on approach to the junction	- **(C)** Optimise/reconfigure signal timings following introduction of the bypass - **(C)** Assess demand for installation of controlled pedestrian crossing facilities on other arms of junction and install as required - **(C)** As a minimum dropped crossing points with appropriate tactile paving should be installed on all uncontrolled arms APPROXIMATE COST - £70,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Station Road/Dean Road/ Handforth Road		- Single lane carriageway in each direction - Low traffic flows during off peak period - Residential and field frontages	- Some vehicle observed travelling at inappropriate speeds. This could possible be made worse with introduction of bypass	**AM** Ranges from: Northbound – -5% to –6% (-26 to -29) Southbound – -33% to -38% (-157 to -160) **PM** Ranges from: Northbound – -27% to 33% (-122 to -135) Southbound – -0% to –2% (-5 to -18)	- **(M)** Introduce measures to reduce traffic speed (e.g. dragon teeth, speed roundels etc.) APPROXIMATE COST - £12,000
Dean Row Road (between Handforth Road and A5102 Adlington Road)		- Single lane carriageway in each direction - Pedestrian and cycle footway on southern side along majority of link	- None relating to SEMMMS Bypass	**AM** Westbound – -8% (-120) Eastbound – -35% (-381) **PM** Eastbound – -% (-) Westbound – -% (-)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Lees Lane (between Woodford Road (A5102) roundabout and Woodford Lane)		- Open field frontages - National speed limit - Series of 'SLOW', 'bend ahead' and 'sharp deviation of route' signs installed along link	- None relating to SEMMMS Bypass	**AM** Northbound – -12% (-109) Southbound – -22% (-220) **PM** Northbound – -22% (-170) Southbound – -10% (-143)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Manchester Road					
Manchester Road (between Station Road and Stanney-lands Road)		- Single lane carriageway in each direction - 30mph speed limit on northern end and 40mph limit on southern end - Business estate, garden centre and residential frontages - Advisory cycle lane installed on both sides of carriageway	- 40mph speed limit - Some vehicles observed travelling in excess of speed limit (deters cycling)	**AM** Northbound – -31% (-70) Southbound – -11% (-89) **PM** Northbound – -35% (-123) Southbound – -7% (-33)	- **(M)** Consider lowering speed through introduction of physical speed restraint measures APPROXIMATE COST - £50,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Manchester Road/ Stanney-lands Road junction		- 4 arm signal controlled junction with advanced cycle stop lines and lead in cycle lanes on northern and southern arms (Manchester Road) - Controlled pedestrian crossing facilities installed on north, east and southern arms of junction and uncontrolled dropped crossing point on western arm	- Some of the pedestrian push buttons are positioned in incorrect position in relation to tactile paving - High level of queuing during peak periods on eastern approach to junction	**AM** Reduction of approx. 300 vehicles on approach to the junction **PM** Reduction of approx. 260 vehicles on approach to the junction	- **(C)** Reconfigure signal timing following introduction of the bypass - **(C)** Relocated push buttons for pedestrian facilities to recommended position in relation to tactile paving APPROXIMATE COST - £5,000
Manchester Road (between Stanney-lands Road and Styal Road		- Single lane carriageway in each direction - 40mph speed limit north of and 30mph to south of Copperfields junction (signs installed to illustrate change in speed limit) - Primarily residential frontages with graveyard halfway along link - Advisory cycle lanes installed on both sides of carriageway along link	- 40mph speed limit in part. - Some vehicles observed travelling in excess of 30mph speed limit close to change to 40mph limit. This could possibly be made worse with introduction of bypass	**AM** Northbound – -17% (-10) Southbound – -11% (-64) **PM** Northbound – -22% (-33) Southbound – +12% (+27)	- **(C)** Consider lowering speed through introduction of physical speed restraint measures. - **(M)** Install 30mph roundel adjacent to 30mph signs APPROXIMATE COST - £50,000
Station Road/Stanneylands Road					
Station Road (between Hollin Lane and Stanney-lands Road)		- Single lane carriageway in each direction - Narrow carriageway widths in sections - National speed limit - Primarily tree/field frontages and small amount of new residential properties on far western side	- 60mph speed limit on far western end is inappropriate for residential frontages	**AM** Westbound – -10% (-24) Eastbound – -64% (-174) **PM** Westbound – -5% (-8) Eastbound – -44% (-135)	- **(M)** Introduce traffic calming measures to reduce speed and consider introducing 30mph speed limit at western end of road to include the railway station and newly constructed residential properties, in keeping with the 30mph limit along Hollin Lane through the Styal Village/National Trust section. Install appropriate carriageway markings on approach to properties e.g. rumble strips, to help reinforce the proposed speed limit APPROXIMATE COST - £18,000
Stanney-lands Road (between Station Road and Manchester Road)		- Single lane carriageway in each direction - Section to north of Stannleylands Hotel has national speed limit and tree/field frontages - Section to south of Stannleylands Hotel has 30mph speed limit and residential frontages (signs installed to illustrate change in speed limit)	- Some vehicles observed travelling in excess of 30mph speed limit close to change in speed limit. This could possibly be made worse with introduction of bypass - Bends and narrow sections of carriageway on National speed limit sections are poorly signed	**AM** Northbound – -13% (-55) Southbound – -38% (-167) **PM** Northbound – -5% (-15) Southbound – -25% (-137)	- **(M)** Install 30mph roundel adjacent to existing sign to further illustrate change in speed limit - **(M)** Install new signs for bends and narrow sections of carriageway along National speed limit section APPROXIMATE COST - £7,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Dean Row Road					
Dean Row Road (between Manchester Road and A34)		- Single lane carriageway in each direction - Segregated pedestrian/cycle footways installed on both sides between Wolverton Drive to A34 - Toucan crossing installed to east of Wolverton Drive junction - Primarily residential frontages along link	- None relating to SEMMMS Bypass	**AM** Westbound – -20% (-36) Eastbound – -7% (-114) **PM** Westbound – -13% (-56) Eastbound – -21% (-150)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Dean Row Road/ Pinewood Road junction		- 3 arm signal controlled junction - Controlled pedestrian crossing facilities installed on eastern and southern arms - Uncontrolled pedestrian facilities installed on western arm (dropped kerbs and tactile paving installed)	- None relating to SEMMMS Bypass	**AM** Reduction of approx. 160 vehicles on approach to the junction **PM** Reduction of approx. 200 vehicles on approach to the junction	- **(C)** Reconfigure/optimise signal timings to maximise vehicle flows following introduction of the bypass - **(C)** Consider installing controlled pedestrian crossing facilities on western arm APPROXIMATE COST - £70,000
Dean Row Road (between A34 and B5358 Dean Road)		- Single lane carriageway in each direction - 30mph to south of Brown's Lane and 40mph speed limit to east of Brown's Lane - Signs installed to illustrate changes in speed limit - Segregated pedestrian and cycle footway installed on southern side to east of Pinewood Road junction	- Some vehicles observed travelling in excess of 30mph speed limit close to change in speed limit. This could possible be made worse with introduction of bypass	**AM** Westbound – -19% (-48) Eastbound – -58% (-143) **PM** Westbound – +0% (+4) Eastbound – -51% (-127)	- **(M)** Install 30mph roundel adjacent to existing sign to further illustrate change in speed limit APPROXIMATE COST - £1,000
B5166 Hollin Lane/Styal Road					
Hollin Lane (between Manchester/ Cheshire boundary and Holly Lane)		- Single lane carriageway in each direction - Field frontages with isolated residential properties - National speed limit	- None relating to SEMMMS Bypass	**AM** Ranges from: Northbound – -18% to –22% (-226 to -230) Southbound – -11% to –16% (-133 to 158) **PM** Ranges from: Northbound – +6% to +8% (+53) Southbound – -17% to –20% (-242 to -254)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Hollin Lane (between Holly Lane and Station Road)		- Single lane carriageway in each direction - Some narrow sections of carriageway - Field frontages on western side and residential frontages on eastern side - 30mph speed limit	- Some vehicles observed travelling in excess of 30mph speed limit. This could possible be made worse with introduction of bypass	**AM** Northbound – -29% (-233 to 240) Southbound – -24% (-184 to 188) **PM** Northbound – -6% to -25% (-37 to -263) Southbound – -30% to +12% (-359 to +56)	- **(M)** Install features to reduce vehicle speeds e.g. roundels, dragons teeth etc APPROXIMATE COST - £5,000
Styal Road (between Station Road and Cliff Road)		- Single lane carriageway in each direction - Some narrow sections of carriageway - National speed limit to north and 30mph speed limit to south of Grange Park Avenue - Pelican crossing installed to west of Cliff Road junction - Series of 'SLOW' carriageway markings, 'bend ahead', 'sharp deviation of route' and 'junction on bend' signs installed along link	- Some vehicles observed travelling in excess of 30mph speed limit close to change in speed limit. This could possibly be made worse with introduction of bypass - Some signs obscured by foliage making them difficult to see - Push buttons at Pelican crossing located in incorrect position in relation to tactile paving	**AM** Ranges from: Northbound – -31% to -37% (-215 to -239) Southbound – -2% to –4% (-14 to -35) **PM** Ranges from: Northbound – -9% to 11% (-30 to -51) Southbound – -20% to -26% (-244 to -225)	- **(M)** Prune foliage overhanging onto signs as required - **(M)** Review signing/warning for Carrs Country Park - **(M)** Install features to reduce vehicle speeds (e.g. roundels, dragons teeth etc.) close to change in speed limit - **(C)** Upgrade Pelican to Puffin crossing and relocate push buttons as required APPROXIMATE COST - £57,000
Styal Road (between Cliff Road and Manchester Road)		- Single lane carriageway in each direction - Residential frontages	- None relating to SEMMMS Bypass	**AM** Westbound – -35% (-184) Eastbound – -3% (-14) **PM** Westbound – -20% (-60) Eastbound – -23% (-164)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil

WILMSLOW AREA

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A538					
Altrincham Road (between Manchester/ Cheshire boundary and Altrincham Road roundabout)		- Dual and single lane carriageway - Field frontages - 50mph speed limit - Shared pedestrian/cycle footways on both sides of carriageway	- None relating to SEMMMS Bypass	**AM** Northbound – -28% (-334) Southbound – -11% (-146) **PM** Northbound – -25% (-244) Southbound – -9% (-146)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Altrincham Road (between Altrincham Road roundabout and Nansmoss Lane)		- Single lane carriageway in each direction - Field frontages - 50mph speed limit - Shared pedestrian/cycle footways on western sides of carriageway	- None relating to SEMMMS Bypass	**AM** Northbound – -28% (-334) Southbound – -11% (-146) **PM** Northbound – -25% (-244) Southbound – -9% (-146)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Altrincham Road (between Nansmoss Lane and King's Road)		- Single lane carriageway in each direction - Field frontages with isolated residential/farm frontages - 40mph speed limit from Nansmoss Lane junction southwards (sign to illustrate change in speed limit)	- Some vehicles observed travelling in excess of 40mph speed limit close to change from 50mph. This could possibly be made worse with introduction of bypass	**AM** Northbound – -28% (-334) Southbound – -11% (-146) **PM** Northbound – -25% (-244) Southbound – -9% (-146)	- **(M)** Install roundel adjacent to 40mph sign - **(M)** Reduce speed limit to 30mph just west of King's Road junction APPROXIMATE COST - £4,000
Altrincham Road (between King's Road and Hawthorn Street)		- Single lane carriageway in each direction - Primarily residential frontages - 40mph speed limit to west of Gorsey Road and 30mph to east (sign and roundel installed to illustrate change in speed limit) - High level of on-street parking on both sides between Buckingham Road and Hawthorne Street - Puffin crossing installed to west of Buckingham Road junction	- None relating to SEMMMS Bypass - Absence of feature to highlight entrance to shopping area	**AM** Northbound – -28% (-334) Southbound – -11% (-146) **PM** Northbound – -25% (-244) Southbound – -9% (-146)	- **(C)** Formalise parking bays between Buckingham Road and Hawthorn Street, consider buildout and hatching to slow traffic approaching shopping area - **(C)** Install gateway with 'identity' feature to highlight entrance to shopping area; - **(C)** Improve crossing opportunities/facilities for pedestrians APPROXIMATE COST - £35,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Water Lane (between Hawthorne Street and Alderley Road)		- Single lane carriageway in each direction - High traffic flows throughout day - Primarily shops and restaurant frontages - High level of parking all along southern side in limited waiting parking bays - Pelican crossing located to east of Hawthorn Road junction	- Difficult to cross road by pedestrians due to parked vehicles, wide carriageway and moving traffic along link	**AM** Westbound – -31% (-285) Eastbound – -43% (-138) **PM** Westbound – -26% (-156) Eastbound – -12% (-48)	- (C) Upgrade existing Pelican crossing to Puffin - (C) Introduction of bypass is likely to reduce the levels of traffic on the link, opportunity therefore exists to install a new pedestrian crossing approximately halfway between Hawthorn Road and Alderley Road - (C) Increase opportunities for pedestrians to cross and rationalise parking by the introduction of build outs – consider alternate side parking to create "sinuous" route for drivers to slow traffic entering shopping centre APPROXIMATE COST - £140,000
Water Lane/ Alderley Road junction		- 3 arm signal controlled junction with high traffic flows throughout day - Primarily shops and restaurant frontages - Controlled pedestrian crossing facilities on all arms of junction - 2 lanes on approach to junction on all arms - Absence of tactile paving at dropped kerbs on all arms - 1.5m pedestrian islands on south and western arms of junction	- High pedestrian demand throughout day	**AM** Reduction of approx. 400 vehicles on approach to the junction **PM** Reduction of approx. 200 vehicles on approach to the junction	- (C) Optimise/reconfigure signal timings following introduction of the bypass - (C) Consider removal of lane on approach to signals allowing installation of advanced cycle stop lines with lead in cycle lanes on all arms of junction - (C) Install appropriate tactile paving on all arms of junction - (C) Consider changes to junction layout to allow refuges on western and southern arms to be made wider APPROXIMATE COST - £25,000
Alderley Road (between Water Lane and Station Road)		- Wide carriageway on north/south section with two lanes for northbound traffic, one lane for southbound traffic and traffic islands in centre of carriageway - Constant flow of traffic throughout the day - Shop frontages on western side - Pelican crossing installed close to Broadway junction	- Wide carriageway difficult to cross by pedestrians and creates severance between opposite sides of road - Wide carriageway allows potential for cycling facilities - Absence of features to highlight entrance to Wilmslow shopping centre	**AM** Northbound – -18% (-134) Southbound – -12% (-170) **PM** Northbound – -5% (-57) Southbound – -12% (-151)	- (C) Consider removing one lane for northbound traffic and install cycle lanes on both sides of carriageway - (C) Convert existing traffic islands to pedestrian refuges - (C) Install gateway features with identity feature at entrance to shopping area - (C) Upgrade Pelican to Puffin crossing APPROXIMATE COST - £100,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Manchester Road/ Station Road junction		- 4 arm signal controlled junction with left turn 'slip' on eastern arm and two lane approach on southern arm - Poor pedestrian crossing facilities. Only uncontrolled dropped crossing points in place on northern and western arms - Absence of tactile paving at dropped kerbs on northern and western arms	- Absence of cycling facilities at junction - Pedestrians struggle to cross the road	**AM** Reduction of approx. 260 vehicles on approach to the junction **PM** Reduction of approx. 300 vehicles on approach to the junction	- (C) Consider removal of left slip from eastern arm of junction to allow introduction of pedestrian refuge and advance cycle stop line with lead in cycle lane - (C) Remove one lane on southern arm of junction to allow introduction of pedestrian refuge and advance cycle stop line with lead in cycle lane - (C) Review and upgrade overall pedestrian facilities round junction, introducing refuges and controlled facilities where possible **THE ABOVE MEASURES NEED TO BE ASSESSED AGAINST CCCs SWAN STREET SCHEME.** APPROXIMATE COST - £95,000
Alderley Road (between Station Road and Mill Street roundabout)		- Single lane carriageway in each direction - Primarily office frontages	- None relating to SEMMMS Bypass	**AM** Northbound – -29% (-118) Southbound – -10% (-105) **PM** Northbound – -15% (-96) Southbound – -19% (-170)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Manchester Road/Mill Street roundabout		- 4 arm roundabout - Dropped crossing points on northern and southern arms - Absence of crossing facilities on western arm - Pelican crossings with 'sheep pen' arrangement installed on eastern arm	- Absence of pedestrian crossing facilities on western arm restricts pedestrian movements - Tactile paving incorrect shape on northern and southern dropped crossing points - Absence of tactile paving on 'sheep pen' arrangement - Roundabout is large for predicted decrease in traffic due to installation of bypass	**AM** Reduction of approx. 490 vehicles on approach to the junction **PM** Reduction of approx. 500 vehicles on approach to the junction	- (M) Redesign roundabout and its approaches to reduce overall size and deflect traffic entering it - (C) Review and enhance pedestrian facilities APPROXIMATE COST - £150,00
Bollin Link (between Manchester Road and A34 Handforth bypass)		- Single lane carriageway in each direction - Office frontage on northern side	- None relating to SEMMMS Bypass	**AM** Westbound – -28% (-296) Eastbound – -24% (-191) **PM** Westbound – -33% (-275) Eastbound – -23% (-246)	- Maintain existing infrastructure APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
B5086					
Alderley Road (between Water Lane and Bedells Lane)		- Single lane carriageway in each direction - High levels of traffic movement throughout day - Primarily shop and office frontages at northern end and residential frontages at southern end - High levels of pedestrian movement at northern end - Pelican crossings installed north of Victoria Road and south of Albert Road	- Shopping area has poor public aesthetic appearance - Poor cycle parking facilities - Absence of gateway feature for entrance into shopping area - Poor bus stop facilities	**AM** Northbound – -11% (-85) Southbound – +3% (+24) **PM** Northbound – -1% (-14) Southbound – 0% (0)	- (C) Install gateway feature at entrance to shopping area - (C) Install new cycle parking facilities - (C) Upgrade Pelican crossings to Puffins - (C) Upgrade bus stop facilities e.g. raised boarding and alighting platforms APPROXIMATE COST - £130,000

OTHER ROADS IN NORTHERN END OF WILMSLOW

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Other Roads in Northern end of Wilmslow Area					
Manchester Road (between B5166 Styal Road and A538)		- Single lane carriageway in each direction - Tree/residential frontages	- None relating to SEMMMS Bypass	**AM** Northbound – -33% (-188) Southbound – -7% (-71) **PM** Northbound – -19% (-79) Southbound – -13% (-123)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Cliff Road/ Chancel Lane		- Single lane carriageway in each direction - Northern end has tree frontages and southern end has park frontage on western side and terraced house frontages on eastern side	- None relating to SEMMMS Bypass	**AM** Northbound – -24% (-57) Southbound – -6% (-22) **PM** Northbound – +6% (+9) Southbound – -14% (-61)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Church Street		- Primarily business/shopping frontages on both side - Parking bays with limited waiting restrictions on both sides	- None relating to SEMMMS Bypass	**AM** Northbound – -24% (-57) Southbound – -6% (-22) **PM** Northbound – +6% (+9) Southbound – -14% (-61)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Swan Street		- Single lane carriageway in each direction - Residential and business frontages	- None relating to SEMMMS Bypass	**AM** Northbound – -24% (-57) Southbound – -6% (-22) **PM** Northbound – +6% (+9) Southbound – -14% (-61)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil

OTHER ROAD IN SOUTHERN END OF WILMSLOW

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Other Roads in Southern end of Wilmslow Area					
Alderley Road (between Knutsford Road and A34 Handforth Bypass)		- Primarily open field frontages - Cycle lanes on both sides of carriageway north of Royal London offices, except on eastern side close to signalised junction at Royal London offices - 40mph speed limit along majority of link (30mph at far northern end) - Wide carriageway south of Royal London Offices	- 40mph speed limit (deters cycling) - Absence of cycling facilities south of Royal London Offices	**AM** Ranges from: Northbound – -5 % to 32% (-63 to -71) Southbound – +2% to +5% (+11 to +18) **PM** Ranges from: Northbound – -1% to +0% (-14 to +1) Southbound – -0% (-1 to -16)	- **(C)** Consider lowering speed limit - **(C)** Remove left turn lane on southbound approach to junction for Royal London offices and install cycle lane with advanced cycle stop line - **(C)** Install cycle lanes south of Royal London Offices on western side up to A34 roundabout APPROXIMATE COST - £6,000
Wilmslow Road (between A34 Handforth Bypass and Brook Lane)		- Single lane carriageway in each direction - Tree frontages at northern end and residential frontages at southern end - High levels of slow moving/queuing traffic during peak periods - Cycle lanes installed around A34 roundabout and on both sides of carriageway between A34 roundabout and Harden Park	- None relating to SEMMMS Bypass	**AM** Northbound – -3% (-29) Southbound – -1% (-24) **PM** Northbound – -3% (-26) Southbound – -0% (-13)	- None – Maintain existing infrastructure APPROXIMATE COST - £

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Hawthorne Street/ Bedells Lane		- Single lane carriageway in each direction - Primarily residential frontages	- Some rat running observed to avoid Water Lane/Alderley Road junction - Some vehicles observed travelling at inappropriate speeds	**AM** Northbound – -1% (-10) Southbound – +3% (+32) **PM** Northbound – -3% (-16) Southbound – -1% (-26)	- (M) Consider installation of speed management features to reduce vehicle speeds and discourage rat running e.g. chicanes APPROXIMATE COST - £20,000
Brook Lane (B5085)					
Brook Lane (between Knutsford Road and Wilmslow Road)		- Single lane carriageway in each direction - Low traffic levels throughout day - Primarily field and residential frontages on south western side - Parking regularly occurs on south western side outside residential properties	- Some vehicles observed travelling at inappropriate speeds. . This could possible be made worse with introduction of bypass - Some carriageway markings are worn e.g. SLOW, centreline etc.	**AM** Westbound – -19% (-82) Eastbound – -23% (-48) **PM** Westbound – -12% (-34) Eastbound – -16% (-25)	- (M) Introduce features to reduce traffic speeds e.g. dragons teeth, speed roundels etc APPROXIMATE COST - £4,000

OTHER ROADS EAST OF WILMSLOW

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A5102					
Adlington Road (between Dean Row Road and Prestbury Road)		- Single lane carriageway in each direction - Primarily field frontages with isolated residential properties - 40mph speed limit to north and 30mph speed limit to south of Macclesfield Road. (sign install to illustrate change in speed limit - Some 'SLOW' carriageway markings, 'bend ahead' and 'sharp deviation in route' signs installed along link	- Some vehicles observed travelling in excess of 30mph close to change in speed limit. This could possible be made worse with introduction of bypass	**AM** Ranges from: Northbound – -25% to 27% (-100 to -163) Southbound – -5% to –7% (-57 to -65) **PM** Ranges from: Northbound – -25% to –27% (-100 to -163) Southbound – -5% -7% (-57 to -65)	- (M) Install roundel adjacent to 30mph speed limit sign APPROXIMATE COST - £1,000
A5102 (between 2 sections of B5358)		- Single lane carriageway in each direction - Open field frontages with petrol station	- None relating to SEMMMS Bypass	**AM** Northbound – -27% (-86) Southbound – -0% (0) **PM** Northbound – -2% (-36) Southbound – -11% (-131)	- None – maintain existing infrastructure APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A538					
A538 Prestbury Road (between A34 and Adlington Road)		- Single lane carriageway in each direction - Field frontages with small residential estate on north western side - Wide carriageway with central hatching and a series of pedestrian refuges installed at various locations along link	- None relating to SEMMMS Bypass	**AM** Westbound – -54% (-353) Eastbound – -39% (-97) **PM** Westbound – -41% (-151) Eastbound – -22% (-82)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Prestbury Road/ Wilmslow Road (between Adlington Road to Wilmslow Old Road)		- Single lane carriageway in each direction - Residential frontages on western side and field frontages on eastern side - National speed limit on eastern side and 30mph section on western side	- None relating to SEMMMS Bypass	**AM** Westbound – -28% (-329) Eastbound – -8% (-48) **PM** Westbound – -11% (-79) Eastbound – -9% (-71)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Blackhurst Brow (between Wilmslow Old Road and Mill Lane)		- Field frontages - National speed limit - Several 'SLOW' carriageway markings, 'bend ahead' signs and 'sharp deviation in route' signs on bend areas	- None relating to SEMMMS Bypass	**AM** Westbound – -30% (-323) Eastbound – -4% (-29) **PM** Westbound – -0% (-10) Eastbound – -9% (-63)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Blackhurst Brow (between Mill Lane and Mottram Hall entrance road)		- Field frontages - National speed limit - Several 'SLOW' carriageway markings, 'bend ahead' signs and 'sharp deviation in route' signs installed on bends	- None relating to SEMMMS Bypass	**AM** Westbound – -30% (-323) Eastbound – -4% (-29) **PM** Westbound – -0% (-10) Eastbound – -9% (-63)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Blackhurst Brow (between Mottram Hall entrance road and Smithy Lane)		- Single lane carriageway in each direction - Field frontages - National speed limit - Several 'SLOW' carriageway markings, 'bend ahead' and 'sharp deviation of route' signs installed on bends	- None relating to SEMMMS Bypass	**AM** Northbound – -31% (-321) Southbound – -5% (-29) **PM** Northbound – -8% (-50) Southbound – -1% (-9)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Mill Lane					
Mill Lane (between Wilmslow Road and Mill Farm)		- Single lane carriageway in each direction - Field frontages with isolated residential properties/farms - National speed limit	- None relating to SEMMMS Bypass	**AM** Northbound – -32% (-61) Southbound – -2% (-16) **PM** Northbound – -27% (-70) Southbound – -0% (-3)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Mill Lane (between Mill Farm and Blackhurst Brow)		- Single lane carriageway in each direction - Field frontages with isolated residential properties/farms - National speed limit	- None relating to SEMMMS Bypass	**AM** Northbound – -71% (-66) Southbound – -3% (-19) **PM** Northbound – -47% (-85) Southbound – -0% (-5)	- None – Maintain existing infrastructure APPROXIMATE COST - £nil
Station Road					
Beneath rail bridge		- Narrow road under rail bridge with minimal footways	- Opposing traffic passes with difficulty - Very poor pedestrian facilities/protection on key pedestrian route to railway station	**AM** Westbound - -45% (-123) Eastbound -13% (-40) **PM** Westbound -27% (-35) Eastbound -18% (-84)	- **(C)** Reduce carriageway width on approaches to railway bridge, construct footways on each side of road and introduce traffic signals for 2 way shuttle working APPROXIMATE COST - £80,000
Other Roads					
Hough Lane (Presbury Road to Heyes Lane)		- Single lane carriageway in each direction - Residential frontages at northern end and fields on southern end - 30mph speed limit at northern end and National speed limit on southern end - Several 'bend ahead' and 'sharp deviation of route' signs installed on bends	- None relating to SEMMMS Bypass	**AM** Ranges from: Northbound – -6% to -27% (- 42 to -86) Southbound – +1% to +2% (+4 to +32) **PM** Ranges from: Northbound – +7% to +18% (+25 to +48) Southbound – -0% to +1% (-5 to +18)	- None – maintain existing infrastructure APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Hough Lane (Heyes Lane to Moss Road)		- Single lane carriageway in each direction - Open fields with isolated farm frontages - National speed limit - Absence of carriageway markings	- None relating to SEMMMS Bypass	**AM** Northbound – 0% (0) Southbound – +75% (+4) **PM** Northbound – 0% (0) Southbound – -2% (-4)	- None – maintain existing infrastructure APPROXIMATE COST - £nil
Heyes Lane (between Hough Lane and Moss Road)		- Single lane carriageway in each direction - 30mph on eastern end and National speed limit on western end. Gateway entrance feature at change in speed limit (signing and roundel) - Residential frontages on western end and open fields on eastern end	- None relating to SEMMMS Bypass	**AM** Northbound – -27% (-86) Southbound – -0% (0) **PM** Northbound – 18% (+25) Southbound – -0% (-1)	- None – maintain existing infrastructure APPROXIMATE COST - £nil

Appendix B (Manchester)

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Altrincham Road (A560)						
Junction of Altrincham Road/ A560/ Sharston Road		- Large roundabout - Queues build up on all arms of this junction during peak periods	- Poor pedestrian facilities – threatening environment - Poor linkages to Sharston Industrial Estate - No facilities for cyclists	- Manchester Airport QBC	**AM** Reduction of approx. 90 vehicles on the approach to the junction **PM** Reduction of approx. 90 vehicles on the approach to the junction	- **(C)** Replace existing subway arrangement with full pedestrian facilities at ground level, linked to a new pedestrian crossing at Leestone Road junction - **(C)** Install advance stop lines and approach lanes for cyclists APPROXIMATE COST - £300,000
Altrincham Road (between M56 Junction and Brownley Road)		- Single lane carriageway in each direction - Queues build up at signals - Predominantly residential frontage	- High level of traffic movement throughout the day especially during peak periods - Lack of designated cycling routes	- Manchester Airport QBC – Bus stop upgrades	**AM** Northbound – -11% (-78) Southbound – -8% (-82) **PM** Northbound – -7% (-51) Southbound – -14% (-161)	- **(C)** Install cycle lanes APPROXIMATE COST - £3,000
Altrincham Road (between Brownley Road and Park Road)		- One lane carriageway in each direction - Residential frontages - Traffic is generally free flowing throughout the day	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities - There are no cycle facilities	-	**AM** Westbound – -20% (-119) Eastbound – -53% (-34) **PM** Westbound – -32% (-22) Eastbound – -28% (-165)	- **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching, dragons teeth) - **(C)** Install gateway entrance for Manchester - **(C)** Install pedestrian refuges - **(C)** Install cycle lanes APPROXIMATE COST - £30,000
Junction of Altrincham Road/ Longley Lane/ Park Road		- The junction is a four-arm signal junction - Significant pedestrian demand around this junction	- Limited pedestrian facilities - No cycle facilities - Accident cluster	-	**AM** Reduction of approx. 360 vehicles on the approach to the junction **PM** Reduction of approx. 320 vehicles on the approach to the junction	- **(C)** Provide full pedestrian facilities across all arms of the junction - **(C)** Provide advance stop lines and approach lanes for cyclists - **(C)** Reconfigure the signal timings to maximise junction operation APPROXIMATE COST - £72,000
Brownley Road						
Junction of Brownley Road and Altrincham Road		- 3 arm signal controlled junction - Minor queues build up on all arms of this junction during peak periods	- Pedestrian facilities limited to two arms only - No facilities for cyclists	- Manchester Airport QBC	**AM** Reduction of approx. 230 vehicles on the approach to the junction **PM** Reduction of approx. 230 vehicles on the approach	- **(C)** Provide full pedestrian facilities across all arms of the junction - **(C)** Provide advance stop lines and approach lanes for cyclists - **(C)** Optimise/reconfigure signal timings to maximise flows

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
					to the junction	APPROXIMATE COST - £72,000
Brownley Road (between Altrincham Road and Longley Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- High level of traffic movement throughout the day especially during peak periods - Lack of crossing opportunities - No cycle facilities	- Manchester Airport QBC – Bus stop upgrades	**AM** Northbound – -4% (-29) Southbound – -13% (-119) **PM** Northbound – -7% (-47) Southbound – -2% (-15)	- **(C)** Consider introduction of cycle lanes due to the reduction of traffic flow during the peaks - **(C)** Regulate on-street parking through formalised bays incorporating build outs to improve crossing conditions - **(C)** Implement central hatching and install pedestrian refuges APPROXIMATE COST - £66,000
Brownley Road (between Longley Road and Hollyhedge Road		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontage	- High level of traffic movement throughout the day especially during peak periods - Lack of crossing opportunities - No cycle facilities	- Manchester Airport QBC – Bus stop upgrades	**AM** Northbound – -5% (-30) Southbound – -14% (-122) **PM** Northbound – -5% (-36) Southbound – -0% (-0)	- **(C)** Consider introduction of cycle lanes due to the reduction of traffic flow during the peaks - **(C)** Implement central hatching and install pedestrian refuges APPROXIMATE COST - £24,000
Brownley Road (between Hollyhedge Road and Nuffield Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Residential frontages	- High level of traffic movement throughout the day especially during peak periods - High traffic speeds - Lack of crossing opportunities - Lack of cycle routes	- Proposed Metrolink Extension - Manchester Airport QBC – Bus stop upgrades	**AM** Northbound – +4% (+23) Southbound – -3% (-35) **PM** Northbound – -1% (-12) Southbound – +16% (+85)	- ***(M) Introduce traffic calming measures (e.g. central hatching)*** - ***(M) Install pedestrian build outs*** APPROXIMATE COST - £16,000
Brownley Road (between Nuffield Road and Poundswick Lane)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Residential frontages	- High level of traffic movement throughout the day especially during peak periods - High traffic speeds - Lack of crossing opportunities - Lack of cycle routes	- Proposed Metrolink Extension - Manchester Airport QBC – Bus stop upgrades - New housing development	**AM** Northbound – +14% (+24) Southbound – -8% (-34) **PM** Northbound – -4% (-15) Southbound – +60% (+88)	- ***(M) Introduce traffic calming measures (e.g. central hatching)*** - ***(C) Install pedestrian build outs*** APPROXIMATE COST - £16,000
Junction of Brownley Road/ Cross Acres Road/ Poundswick Lane		- The junction is a four-arm signal junction - Significant pedestrian demand around this junction - Wythenshawe Fire Station is located on SW corner of	- Accident cluster (including several involving pedestrians) - Limited pedestrian facilities - No cycle facilities	- Proposed Metrolink Extension - Transport & Open Spaces Action Plan (TOSAP)	**AM** Increase of approx. 10 vehicles on the approach to the junction **PM** Increase of approx. 120	- **(C)** Provide full pedestrian facilities across all arms of the junction - **(C)** Provide advance stop lines and approach lanes for cyclists - **(M)** Reconfigure the signal timings to maximise junction operation

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
		junction			vehicles on the approach to the junction	APPROXIMATE COST - £72,000
Brownley Road (between Poundswick Lane and Simonsway)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- High traffic speeds - Lack of crossing opportunities - Lack of cycle routes	- Manchester Airport QBC – Bus stop upgrades	**AM** Northbound – +8% (+41) Southbound – -0% (-3) **PM** Northbound – -8% (-46) Southbound – +19% (+79)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. central hatching) - **(C)** Install pedestrian refuges APPROXIMATE COST - £20,000
Cornishway						
Cornishway (between Shadowmoss Lane and Ravenscar Crescent)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential area	- Limited pedestrian facilities - Significant pedestrian movement in the area - Road potentially used as part of shortcut for access to proposed road	-	**AM** Westbound – +12% (+50) Eastbound – +18% (+45) **PM** Westbound – -7% (-36) Eastbound – +25% (+86)	- **(M)** Install gateway feature to highlight calmed entry and denote Neighbourhood Parade - **(M)** Install junction table at Shadowmoss Road junction in order to reduce speeds of through traffic and improve pedestrian linkages to Neighbourhood parade - **(M)** Install pedestrian/bus stop build outs to improve the pedestrian environment APPROXIMATE COST - £25,000
Cornishway (between Ravenscar Crescent and Portway)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages interspersed with retail units	- Limited pedestrian facilities - Significant pedestrian movement in the area - Road potentially used as part of shortcut for access to proposed road	- SEMMMS minor Neigbour-hood Centre works	**AM** Westbound – +15% (+36) Eastbound – +27% (+37) **PM** Westbound – -9% (-31) Eastbound – +52% (+90)	- **(M)** Install junction table at Portway junction in order to reduce speeds of through traffic and improve pedestrian linkages to Neighbourhood parade - **(M)** Install pedestrian/bus stop build outs to improve the pedestrian environment APPROXIMATE COST - £16,000
Crossacres Road						
Crossacres Road (between Hollyhedge Road and Brownley Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Residential frontages	- Lack of crossing opportunities - Significant pedestrian movement, particularly children due to schools in the area - Road potentially used as rat-run from Stockport to Wythenshawe town centre	- Manchester Airport QBC	**AM** Westbound – +1% (+4) Eastbound – +1% (+3) **PM** Westbound – -+48% (+68) Eastbound – -0% (-2)	- **(M)** Create informal crossing points in vicinity of school and to serve pedestrian desire lines across the route - **(M)** Install junction tables at key junctions, including Ashhurst Road, Croftlands Road, Peel Hall Road & Solway Road - **(M)** Create 20mph school zone and install school warning road markings APPROXIMATE COST - £70,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Hollyhedge Road						
Hollyhedge Road (between Southmoor Road and Greenbrow Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Primarily residential frontages	- Lack of crossing opportunities at junctions - Lack of facilities for cyclists	- Proposed Metrolink Extension - Manchester Airport QBC	**AM** Westbound – +21% (+45) Eastbound – +4% (+19) **PM** Westbound – +5% (+20) Eastbound –+17% (+54)	- **(M)** *Improve pedestrian crossing opportunities at junctions with Southmoor Road and Greenbrow Road* - **(M)** *Create off-carriageway cycle route* APPROXIMATE COST - £90,000
Hollyhedge Road (between Greenbrow Road and Highdales Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Primarily residential frontages	- Lack of crossing opportunities - Lack of facilities for cyclists	- Proposed Metrolink Extension - Manchester Airport QBC	**AM** Westbound – +4% (+37) Eastbound – +2% (+16) **PM** Westbound – +1% (+7) Eastbound – +5% (+32)	- **(M)** Increase provision of informal crossing opportunities - **(M)** *Create off-carriageway cycle route* APPROXIMATE COST - £24,000
Junction of Highdales Road/ Hollyhedge Road/ Wendon Road		- The junction is a staggered junction - Significant pedestrian demand around this junction	- Pedestrian facilities are limited to dropped kerbs only - There are no cycle facilities at this junction - Delays to buses	- Proposed Metrolink Extension - Manchester Airport QBC	**AM** Increase of approx. 50 vehicles on the approach to the junction **PM** Increase of approx. 60 vehicles on the approach to the junction	- **(M)** *Enhance pedestrian facilities across all arms of the junction (tactile paving etc)* APPROXIMATE COST - £2,000
Junction of Hollyhedge Road/ Greenwood Road		- 4 arm roundabout	- High traffic flows, particularly at peak times - Wide crossing distance and limited pedestrian facilities - No cycle facilities - Accident cluster	- Proposed Metrolink Extension	**AM** Reduction of approx. 10 vehicles on the approach to the junction **PM** Reduction of approx. 20 vehicles on the approach to the junction	- **(C)** Provide enhanced pedestrian facilities across all arms of the junction (dropped kerbs and tactile paving as a minimum) - **(C)** *Consider signalisation of junction with full pedestrian and cyclist facilities* APPROXIMATE COST - £72,000
Hollyhedge Road (between Greenwood Road and Woodhouse Lane)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Predominantly residential area - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities - There are no cycle facilities	- Proposed Metrolink Extension	**AM** Westbound – -7% (-13) Eastbound – -10% (-7) **PM** Westbound – -20% (-25) Eastbound – -20% (-27)	- **(M)** *Introduce traffic calming measures to reduce traffic speed (e.g. central hatching)* - **(M)** *Consideration could also be given to using vehicle actuated signage in appropriate locations* - **(C)** *Install pedestrian refuges* APPROXIMATE COST - £40,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Hollyhedge Road (between Woodhouse Lane and Brownley Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Primarily residential area interspersed with local retail units - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Poor pedestrian facilities - There are a lack of designated cycle routes in the area	- Neighbourhood Parade - Proposed Metrolink Extension	**AM** Westbound – -7% (-19) Eastbound – -6% (-11) **PM** Westbound – -6% (-16) Eastbound – -5% (-14)	- **(C)** *Introduce gateway entrance to denote Neighbourhood Parade, and promote a sense of place* - **(C)** *Localised footway widening and install build outs at existing crossing* - **(C)** *Create advisory cycle route* APPROXIMATE COST - £16,000
Junction of Hollyhedge Road/ Brownley Road		- Large 4 arm roundabout	- Under utilised land - Poor pedestrian facilities - Poor linkages between Neighbourhood Parades - Accident cluster - No cycle facilities	- Neighbourhood Parade - Proposed Metrolink Extension/ station at junction - Willow Park/NHS LIFT development	**AM** Reduction of approx. 50 vehicles on the approach to the junction **PM** Reduction of approx. 30 vehicles on the approach to the junction	- **(C)** *Consider removing roundabout and signalising junction with full pedestrian and cyclist facilities* - **(C)** *Opportunity for public realm improvements* APPROXIMATE COST - £500,000
Hollyhedge Road (between Brownley Road and Cross Acres Road		- Single lane carriageway in each direction - Traffic flows are high in each direction - Primarily residential area interspersed with local retail units - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - There are limited crossing facilities in the vicinity of retail units and instances of on-street parking - Poor pedestrian facilities - There are a lack of designated cycle routes in the area	- Neighbourhood Parade	**AM** Westbound – +27% (+37) Eastbound – +10% (+11) **PM** Westbound – -2% (-3) Eastbound – -24% (-63)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. central hatching) - **(C)** Introduce gateway entrance to denote Neighbourhood Parade, and promote a sense of place - **(C)** Formalise on-street parking at retail units - **(C)** Install pedestrian refuge to provide for pedestrians walking to Hollyhedge East Neighbourhood Parade - **(C)** Create advisory cycle route and link in to existing route through Hollyhedge Park APPROXIMATE COST - £125,000
Hollyhedge Road (between Cross Acres Road and Styal Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Primarily residential area	- High traffic speeds	- Manchester Airport QBC	**AM** Westbound – +6% (+30) Eastbound – +1% (+3) **PM** Westbound – +24 (+62) Eastbound – -10 (-68)	- **(M)** Install gateway entrance for Wythenshawe and Manchester - **(M)** Upgrade zebra crossing to a Puffin APPROXIMATE COST - £50,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Hollyhedge Road and Styal Road		- The junction is a 3-arm priority junction	- Minor queues caused by right turning vehicles - Limited pedestrian facilities - High traffic speeds on Styal Road - Poor visibility	- Manchester Airport QBC proposal for junction	**AM** Reduction of approx. 60 vehicles on the approach to the junction **PM** Reduction of approx. 180 vehicles on the approach to the junction	- **(M)** Install mini-roundabout to reduce speeds on Styal Road and anti-skid surfacing on approach to junction from Hollyhedge Road APPROXIMATE COST - £10,000
Longley Lane						
Longley Lane (between Moor End and Royle Green Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Residential frontages interspersed with retail units	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities - Significant pedestrian movement	-	**AM** Northbound – +14% (+13) Southbound – -10% (-34) **PM** Northbound – -14% (-6) Southbound – -16% (-101)	- **(M)** Introduce traffic calming speed reduction measures - **(C)** Create informal crossing points in vicinity of school and to serve pedestrian desire lines across the route APPROXIMATE COST - £35,000
Longley Lane (between Royle Green Road and Sharston Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities	- Manchester Airport QBC - NWDA Sharston scheme - GMWDA refuse disposal proposals	**AM** Northbound – +3% (+23) Southbound – -3% (-36) **PM** Northbound – -1% (-9) Southbound – -6% (-85)	- **(C)** Introduce crossing facilities to serve pedestrian desire lines across the route - **(C)** Signalise junction with full pedestrian and cyclist facilities - **(C)** Alternatively, consider installing mini roundabout at Sharston Road junction to reduce traffic speeds Review options to bring forward elements of NWDA scheme APPROXIMATE COST - £72,000
Longley Lane (between Sharston Road and Leestone Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities	- NWDA Sharston scheme - GMWDA refuse disposal proposals	**AM** Northbound – - (0) Southbound – -6% (-26) **PM** Northbound – -0% (-102) Southbound – -12% (-2)	- **(C)** Introduce crossing facilities to serve pedestrian desire lines across the route APPROXIMATE COST - £10,000
Longley Lane (between Leestone Road and Altrincham Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Longley Lane/Leestone Road junction to be signalised as part of GMWDA scheme	- GMWDA refuse disposal proposals	**AM** Northbound – -2% (-12) Southbound – -9% (-36) **PM** Northbound – -3% (-11) Southbound – -14% (-118)	- **(M)** Create gateway entrance to Wythenshawe & Manchester APPROXIMATE COST - £80,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Poundswick Lane						
Poundswick Lane (between Brownley Road and Rowlandsway)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Predominantly residential frontage	- High level of traffic movement throughout day especially during peak periods - There are limited crossing opportunities - High accident link	- Proposed Metrolink Extension - SRF - Manchester Airport QBC	**AM** Westbound – -18% (-14) Eastbound – -1% (-1) **PM** Westbound – +19% (+13) Eastbound – +37% (+7)	- **(M)** Enhance pedestrian crossing opportunities in line with aspirations of Strategic Regeneration Framework - **(M)** Create gateway entrance to Wythenshawe Town Centre APPROXIMATE COST - £40,000
Junction of Poundswick Lane and Rowlandsway		- The junction is a 3-arm priority junction	- Poor pedestrian facilities at key town centre junction - Heavy footfall generated by town centre - High accident link	- Proposed Metrolink Extension - SRF - Manchester Airport QBC	**AM** Reduction of approx. 10 vehicles on the approach to the junction **PM** Increase of approx. 50 vehicles on the approach to the junction	- **(M)** Enhance pedestrian crossing opportunities in line with aspirations of Strategic Regeneration Framework APPROXIMATE COST - £2,000
Poundswick Lane (between Rowlandsway and Broadoak Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Mixture of residential and retail frontage	- High level of traffic movement throughout day especially during peak periods - High accident link	- SRF - Manchester Airport QBC	**AM** Westbound – -6% (-19) Eastbound – +20% (+18) **PM** Westbound – -6% (-9) Eastbound – +39% (+60)	- **(M)** Enhance pedestrian crossing opportunities in line with aspirations of Strategic Regeneration Framework - **(M)** Prohibit / formalise on-street parking opportunities APPROXIMATE COST - £20,000
Poundswick Lane (between Broadoak Road and Simonsway)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Mixture of residential and retail frontage	- High level of traffic movement throughout day especially during peak periods - High accident link - Lack of crossing opportunities	- SRF - Manchester Airport QBC	**AM** Westbound – -14% (-36) Eastbound – +6% (+8) **PM** Westbound – -15% (-44) Eastbound – -7% (-14)	- **(M)** Enhance pedestrian crossing opportunities in line with aspirations of Strategic Regeneration Framework APPROXIMATE COST - £20,000
Portway						
Portway (between Cornishway and Ruddpark Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages, interspersed with retail units	- Relatively high traffic speeds during off peak	- Recent traffic calming scheme	**AM** Westbound – +8% (+28) Eastbound – +5% (+16) **PM** Westbound – -10% (-55) Eastbound – +12% (+37)	- **(M)** Create gateway entrance to denote Neighbourhood Parade and promote a sense of place - **(M)** Review and possibly reinforce recent traffic calming scheme APPROXIMATE COST - £10,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Portway (between Austell Road and Cornishway)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages, interspersed with retail units	- There are limited instances of on-street parking through the Neighbourhood Parade, which causes disruption to the traffic flow - Relatively high traffic speeds during off peak - Limited provision for pedestrians	- SEMMMS minor Neigbour-hood Centre works - Recent traffic calming scheme	**AM** Northbound – +14% (+36) Southbound – +24% (+37) **PM** Northbound – -9% (-31) Southbound – +48% (+90)	- **(C)** Regulate on-street parking through the introduction of parking bays - **(M)** Create gateway entrance to denote Neighbourhood Parade and promote a sense of place - **(M)** Provide informal crossing opportunities - **(M)** Review and possibly reinforce recent traffic calming scheme APPROXIMATE COST - £50,000
Ringway Road						
Ringway Road (between Shadowmoss Lane and Styal Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Residential frontage - 40 mph speed limit	- High level of traffic movement throughout day - Relatively high traffic speeds during off peak - Limited provision for pedestrians	- Ringway Road links in and runs parallel to proposed MALRW alignment	**AM** **PM**	- **(C)** Create cul-de sac, consider installing two cul-de-sacs retaining access to the nursery from both sides, maintaining through access for cyclists and pedestrians - **(C)** Lower speed limit to 30mph APPROXIMATE COST - £6,000
Rowlandsway						
Rowlandsway (between Simonsway and Poundswick Lane)		-	-	- SRF	**AM** Northbound – -2% (-6) Southbound – +17% (+19) **PM** Northbound – -31% (-22) Southbound – +37% (+53)	- No proposals – Rowlandsway is being considered in the broader context of Wythenshawe town centre expansion opportunities
Ruddpark Road						
Ruddpark Road (between Simonsway and Portway)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages - Existing calming scheme	- High level of traffic movement throughout day	-	**AM** Northbound – +9% (+28) Southbound – +5% (+16) **PM** Northbound – -12% (-55) Southbound – +15% (+37)	- **(M)** Create gateway entrance to denote Neighbourhood Parade and promote a sense of place APPROXIMATE COST - £10,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Shadowmoss Lane						
Shadowmoss Lane (between Simonsway and Cornishway)		- Single lane carriageway in each direction - Mixture of retail and business frontage - Existing traffic calming scheme	- M56 and M60 traffic are signed down Shadowmoss Lane - Projected southbound increase in traffic volumes	- Proposed Metrolink Extension - Manchester Airport QBC - Signing Strategy	**AM** Northbound – -49% (-201) Southbound -+38% (+210) **PM** Northbound – -30% (-173) Southbound – +25% (+91)	- **(M)** Install junction table at Cornishway junction - **(M)** Install signage on Simonsway directing traffic via Styal Road APPROXIMATE COST - £1,000
Shadowmoss Lane (between Cornishway and Ringway Road)		- Single lane carriageway in each direction - Mixture of residential frontage and open space - Existing traffic calming scheme	- Parked cars hinder bus movement - Projected southbound increase in traffic volumes	- Proposed Metrolink Extension/ Station - Manchester Airport QBC	**AM** Northbound – -15% (-112) Southbound -+43% (+294) **PM** Northbound – -20% (-190) Southbound – +34% (+196)	- **(C)** Regulate on-street parking through formalised bays - **(M)** Install junction table at Cornishway & Threapwood Road junctions APPROXIMATE COST - £80,000
Junction of Shadowmoss Lane/ Ringway Road		- The junction is a 3-arm priority junction	- Limited pedestrian facilities	- Proposed signalisation of junction as part of possible Metrolink Extension - Subject to detailed design proposal as part of MALRW - Manchester Airport QBC	**AM** N/A **PM** N/A	- **(C)** Enhance pedestrian facilities - **(C)** Install SVD as part of design of junction with proposed MALRW To be implemented as part of major road scheme APPROXIMATE COST - nil
Styal Road (B5166)						
Styal Road (between Simonsway and Cunningham Drive)		- Single lane carriageway in each direction - 40mph speed limit - Open space frontage	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - High accident link	-	**AM** Northbound – +23% (+177) Southbound – -30% (-468) **PM** Northbound – -24% (-369) Southbound – -1% (-20)	- **(M)** Introduce traffic calming speed reduction measures (central hatching, dragons teeth etc) - **(M)** Lower speed limit to 30mph to reduce accident potential - **(M)** Consider installing speed cameras APPROXIMATE COST - £31,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Styal Road (between Cunningham Drive and Ringway Road)		- 40mph dual carriageway - Business frontages	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - High accident link	-	**AM** Northbound – +18% (+158) Southbound – -42% (-488) **PM** Northbound – -28% (-324) Southbound – +3% (+25)	- **(M)** Introduce traffic calming speed reduction measures (central hatching, dragons teeth etc) - **(M)** Lower speed limit to 30mph to reduce accident potential APPROXIMATE COST - £16,000
Styal Road (between Ringway Road and proposed MALRW alignment)		- 40mph dual carriageway/ De-restricted single lane carriageway in each direction - Mixture of business frontage and open space	- High traffic speeds (which could possibly be made worse by reductions in traffic levels)	-	**AM** Northbound – -13% (-158) Southbound – -60% (-443) **PM** Northbound – -13% (-122) Southbound – -32% (-435)	- **(M)** Introduce traffic calming speed reduction measures (central hatching, dragons teeth etc) - **(M)** Lower speed limit to 30mph APPROXIMATE COST - £16,000
Styal Road (between proposed MALRW alignment and Cheshire boundary)		- De-restricted dual carriageway - Open space frontage	- High traffic speeds (which could possibly be made worse by reductions in traffic levels)	-	**AM** Northbound – -19% (-226) Southbound – -12% (-133) **PM** Northbound – +6% (+53) Southbound – -18% (-242)	- **(M)** Reduce speed limit to 40mph (buffer zone) - **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching) - **(C)** Install gateway entrance for Wythenshawe & Manchester APPROXIMATE COST - £26,000
Tuffley Road/Simonsway						
Junction of Tuffley Road & Firbank Road		- The junction is a 3-arm priority junction - Significant pedestrian demand around this junction - Existing zebra crossing	- Accident cluster - No facilities for cyclists - Heavy footfall generated by local schools	- Manchester Airport QBC	**AM** Increase of approx. 70 vehicles on the approach to the junction **PM** Increase of approx. 100 vehicles on the approach to the junction	- **(M)** Remove zebra crossing, signalise Tuffley Road & Firbank Road junction and Simonsway/Greenbrow Road junction and provide full pedestrian facilities across all arms of the junction - **(M)** Provide advance stop lines and approach lanes for cyclists APPROXIMATE COST - £72,000
Tuffley Road (between Greenbrow Road and M56 slip road)		- Single lane carriageway in each direction - Traffic flows are high in each direction, particularly during peak hours - Predominantly residential area	- High traffic speeds, particularly vehicles exiting at M56 junction 4 - Heavy footfall generated by local schools	- Manchester Airport QBC	**AM** Westbound – +4% (+54) Eastbound – +3% (+35) **PM** Westbound – +2% (+30) Eastbound – +6% (+78)	- **(M)** Create gateway entrance at M56 (southbound slip)/Simonsway junction and install speed roundels - **(M)** Reinforce speed limit by installing speed reduction measures - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations APPROXIMATE COST - £25,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Simonsway (between M56 slip road and Portway)		- Single lane carriageway in each direction - Traffic flows are high in each direction, particularly during peak hours - Predominantly residential area	- High traffic speeds, particularly vehicles exiting at M56 junction 4	- Manchester Airport QBC	**AM** Westbound – -4% (-56) Eastbound – +5% (+40) **PM** Westbound – -9% (-103) Eastbound – +12% (+118)	- **(M)** Create gateway entrance at M56 (southbound slip)/Simonsway junction and install speed roundels - **(M)** Reinforce speed limit by installing speed reduction measures - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations APPROXIMATE COST - £25,000
Junction of Simonsway and Portway		- The junction is a 3-arm priority junction - Predominantly residential area - Significant pedestrian demand around this junction	- Accident cluster - Limited facilities for pedestrians - Heavy footfall generated by local schools and park	- Manchester Airport QBC	**AM** Reduction of approx. 10 vehicles on the approach to the junction **PM** Increase of approx. 40 vehicles on the approach to the junction	- **(M)** Enhance pedestrian facilities APPROXIMATE COST - £2,000
Simonsway (between Portway and Greenwood Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction, particularly during peak hours - Predominantly residential area - Significant pedestrian movements in the area	- High traffic speeds - Heavy footfall generated by local schools and park - Existing crossing	- Manchester Airport QBC	**AM** Westbound – -4% (-49) Eastbound – +8% (+40) **PM** Westbound – -10% (-86) Eastbound – +14% (+104)	- **(M)** Introduce speed reduction measures to reduce traffic speeds (e.g. central hatching, school warning road markings) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations APPROXIMATE COST - £15,000
Junction of Simonsway/ Greenwood Road		- The junction is a 3-arm priority junction - Predominantly residential area - Significant pedestrian demand around this junction	- Limited pedestrian facilities - No cycle facilities - Heavy footfall generated by local schools and park	- Manchester Airport QBC	**AM** Increase of approx. 110 vehicles on the approach to the junction **PM** Increase of approx. 390 vehicles on the approach to the junction	- **(M)** Consider relocating existing crossing and install full pedestrian facilities across all arms of the junction - **(M)** Provide advance stop lines and approach lanes for cyclists APPROXIMATE COST - £72,000
Simonsway (between Greenwood Road and Poundswick Lane)		- Single lane carriageway in each direction - School and open space frontage - Significant pedestrian movements in the area	- High level of traffic movement throughout day especially during peak periods - Heavy footfall generated by local schools and park	- Manchester Airport QBC	**AM** Westbound – -4% (-41) Eastbound – +7% (+38) **PM** Westbound – +29% (+196)	- **(C)** Opportunity for Wythenshawe town centre gateway - **(M)** Introduce traffic calming measures to reduce traffic speeds (e.g. central hatching, speed roundels)

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
					Eastbound – -10% (-86)	APPROXIMATE COST - £20,000
Simonsway (between Poundswick Lane and Rowlandsway)		- Single lane carriageway in each direction - Significant pedestrian movements in the area	- High level of traffic movement throughout day especially during peak periods - High accident link	- Manchester Airport QBC - SRF	**AM** Westbound – -0% (-5) Eastbound – +7% (+30) **PM** Westbound – -8% (-43) Eastbound – +42% (+211)	- **(M)** Reconfigure the signal timings to maximise operation APPROXIMATE COST - £1,000
Junction of Fleming Road and Simonsway		- 3 arm signal controlled junction - Minor queues build up on all arms of this junction during peak periods - Significant pedestrian demand around this junction	- Pedestrian facilities limited to one arm only - High accident link	- Proposed Metrolink Extension - Manchester Airport QBC	**AM** N/A **PM** N/A	- **(C)** Provide full pedestrian facilities across all arms of the junction APPROXIMATE COST - £70,000
Simonsway (between Rowlandsway and Brownley Road)		- Single lane carriageway in each direction with right turn pockets on approaches to junctions - Traffic is generally free flowing throughout the day - Significant pedestrian movements in the area	- High level of traffic movement throughout day especially during peak periods - High accident link	- Proposed Metrolink Extension - Manchester Airport QBC	**AM** Westbound – -0% (-12) Eastbound – +9% (+49) **PM** Westbound – -11% (-65) Eastbound – +41% (+263)	- **(C)** Opportunity for Wythenshawe town centre gateway - **(M)** Introduce traffic calming measures to reduce traffic speeds & address accident record (e.g. central hatching) APPROXIMATE COST - £25,000
Junction of Brownley Road/ Ruddpark Road/ Simonsway		- Large 4 arm roundabout	- Under utilised land - Poor pedestrian facilities - Accident cluster	- Proposed Metrolink Extension/ station - Manchester Airport QBC	**AM** Increase of approx. 80 vehicles on the approach to the junction **PM** Reduction of approx. 230 vehicles on the approach to the junction	- **(C)** *Consider removing roundabout and signalising junction with full pedestrian facilities* - **(C)** *Opportunity for public realm improvements* - **(C)** *Provide advance stop lines and approach lanes for cyclists and link into existing off carriageway routes* APPROXIMATE COST - £500,000
Simonsway (between Brownley Road and Shadowmoss Lane)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Significant pedestrian movements in the area	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - There are insufficient crossing facilities	- Proposed Metrolink Extension - Manchester Airport QBC	**AM** Westbound – +0% (+1) Eastbound – +4% (+30) **PM** Westbound – -8% (-58) Eastbound – +40% (+303)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. central hatching) - **(C)** Install pedestrian refuges - **(M)** Install signage on Simonsway to direct airport traffic via Styal Road as opposed to Shadowmoss Lane APPROXIMATE COST - £50,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Simonsway/ Shadowmoss Lane		- The junction is a 3-arm priority junction	- Poor pedestrian facilities considering it is a strategic junction on route to Heald Green station - No cycle facilities	- Proposed signalisation of junction as part of possible Metrolink Extension - Manchester Airport QBC	**AM** Reduction of approx. 100 vehicles on the approach to the junction **PM** Reduction of approx. 160 vehicles on the approach to the junction	- **(C)** *Signalise junction and provide full pedestrian facilities across all arms of the junction* - **(C)** Provide advance stop lines and approach lanes for cyclists APPROXIMATE COST - £72,000
Simonsway (between Shadowmoss Lane and Styal Road)		- One lane carriageway in each direction - Traffic is generally free flowing throughout the day	- High traffic speeds (which could possibly be made worse by reductions in traffic levels)	- Manchester Airport QBC	**AM** Westbound – +6% (+76) Eastbound – -31% (-308) **PM** Westbound – -30% (-287) Eastbound – -14% (-192)	- **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations - **(C)** Install gateway entrance for Wythenshawe & Manchester APPROXIMATE COST - £30,000
Junction of Finney Lane/ Simonsway & Styal Road		- 4 arm signal controlled junction - Minor queues build up on all arms of this junction during peak periods	- Poor pedestrian facilities considering it is a strategic junction to Heald Green station - No cycle facilities - High levels of slow moving/queuing vehicles along Finney Lane on approach to signals during peak periods - Accident cluster	- Manchester Airport QBC	**AM** Reduction of approx. 670 vehicles on the approach to the junction **PM** Reduction of approx. 1160 vehicles on the approach to the junction	- **(C)** Provide full pedestrian facilities across all arms of the junction - **(C)** Provide advance stop lines and approach lanes for cyclists - **(C)** Optimise/reconfigure signal timings to maximise flows APPROXIMATE COST - £72,000

Appendix C (Stockport Area 1 – South/South West)

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A560						
Altrincham Road/ Northenden Road (between Park Road and Church Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Primarily residential area interspersed with local retail units - Significant levels of pedestrian activity	- Relatively high traffic speeds during off peak - Discontinued cycle lane provision	- Network Audit	**AM** Westbound – -54% (-341) Eastbound – -16% (-59) **PM** Westbound – -25% (-302) Eastbound – -18% (-36)	- (C) Introduce traffic calming measures to reduce traffic speed (e.g. central hatching, dragons teeth) - (C) Consideration could also be given to using vehicle actuated signage in appropriate locations - (C) Install pedestrian refuges - (C) Continue cycle lanes APPROXIMATE COST - £20,000
Gatley Road (between Church Road and Delamere Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction with peak hour queuing in the easterly direction - Primarily residential area interspersed with local retail units - Significant levels of pedestrian activity	- Queues and delays in peak periods - Delays to buses - Relatively high traffic speeds during off peak - Narrow pedestrian footway on north side (key route to Gatley station)	- Network Audit	**AM** Westbound – -31% (-366) Eastbound – -5% (-58) **PM** Westbound – -0% (-3) Eastbound – -22% (-335)	- (C) Reconfigure the signal timings to maximise junction operation - (M) Introduce traffic calming speed reduction measures - (C) Localised footway widening APPROXIMATE COST - £2,000
Gatley Road (between Delamere Road and A34- Kingsway)		- Single lane carriageway in each direction - Traffic flows are high in each direction with peak hour queuing in the easterly direction - Residential frontages - Significant levels of pedestrian activity	- Queues and delays in peak periods - Delays to buses	- Network Audit	**AM** Westbound – -28% (-389) Eastbound – -5% (-69) **PM** Westbound – -1% (-17) Eastbound – -20% (-358)	- (C) Reconfigure the signal timings to maximise junction operation - (M) Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - (M) Consideration could also be given to using vehicle actuated signage in appropriate locations APPROXIMATE COST - £5,000
Junction of A34 and A560		- The junction is a four-arm signal junction - Significant queues build up throughout the day - Significant pedestrian demand around this junction	- Pedestrian facilities are limited to two arms only - There are no cycle facilities at this junction - Congestion problems - Delays to buses	- Network Audit	**AM** Reduction of approx. 600 vehicles on the approach to the junction **PM** Reduction of approx. 600 vehicles on the approach to the junction	- (C) Provide full pedestrian facilities across all arms of the junction - (C) Provide advance stop lines and approach lanes for cyclists - (C) Reconfigure the signal timings to maximise junction operation APPROXIMATE COST - £72,500

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
High Street (between Wilmslow Road and Manchester Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction with slow moving traffic at peak periods - Primarily retail frontages - Significant levels of pedestrian activity	- Queues build up at peak times - Delays to buses	- Network Audit - Integrated Transport Corridor - Cheadle District Centre Study	**AM** Westbound – -11% (-161) Eastbound – -5% (-92) **PM** Westbound – -5% (-76) Eastbound – -4% (-70)	- **(C)** Introduce gateway features to denote District Centre, and promote a sense of place APPROXIMATE COST - £20,000
Stockport Road (between Manchester Road and Councillor Lane)		- Single lane carriageway in each direction - Traffic flows are high in each direction with peak hour queuing in both directions - Primarily residential area interspersed with local retail units - Significant levels of pedestrian activity	- There are limited crossing facilities in the vicinity of retail units and instances of on-street parking - Relatively high traffic speeds during off peak	- Cheadle District Centre - Civilising Cities – Cheadle Hulme North - Network Audit	**AM** Westbound – -14% (-171) Eastbound – -5% (-44) **PM** Westbound – -8% (-85) Eastbound – -10% (-91)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations - **(C)** Formalise on-street parking at retail units to the west of Councillor Lane junction APPROXIMATE COST - £10,000
Junction of A560 and Councillor Lane		- The junction is a three-arm signal junction - Queues build up at peak times - Significant pedestrian demand around this junction	- Queues build up at peak times - Limited pedestrian facilities - No approach cycle lanes to advance stop lines	- Civilising Cities – Cheadle Hulme North - Network Audit - Integrated transport corridor proposal for junction	**AM** Reduction of approx. 200 vehicles on the approach to the junction **PM** Reduction of approx. 200 vehicles on the approach to the junction	- **(C)** Provide full pedestrian facilities across all arms - **(C)** Install advance stop lines and approach lanes for cyclists APPROXIMATE COST - £72,500
Stockport Road (between Councillor Lane and M60)		- Single lane carriageway in each direction - Traffic flows are high in each direction with peak hour queuing in both directions - Primarily residential area interspersed with office accommodation	- Relatively high traffic speeds during off peak	- Network Audit - Integrated Transport Corridor	**AM** Westbound – -13% (-) Eastbound – -20% (-) **PM** Westbound – -% (-) Eastbound – -% (-)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations APPROXIMATE COST - £15,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Stockport Road (between M60 junction and Edgeley Road)		- Two lane carriageway in each direction - Predominantly residential frontage	- High level of traffic movement throughout day especially during peak periods	- Network Audit - Integrated Transport Corridor - Cheadle Heath Local Centre Action Plan	**AM** Westbound – -9% (-149) Eastbound – -11% (-126) **PM** Westbound – -4% (-55) Eastbound – -11% (-195)	- (C) Reduce carriageway to one lane in each direction to allow installation of parking bays, cycle lanes, wider footways APPROXIMATE COST - £30,000
Stockport Road (between Edgeley Road and Northgate Road)		- Wide single lane carriageway in each direction - Mixture of residential and retail frontage	- High level of traffic movement throughout day especially during peak periods	- Network Audit - Integrated Transport Corridor	**AM** Westbound – -9% (-132) Eastbound – -11% (-139) **PM** Westbound – -16% (-86) Eastbound – -7% (-202)	- (C) Consider introduction of cycle lanes due to the reduction of traffic flow during the peaks - (C) Enhance pedestrian crossing opportunities APPROXIMATE COST - £20,000
Brinksway (between Northgate Road and Wood Street)		- Wide single lane carriageway in each direction - Mixture of residential and light industrial frontage	- High level of traffic movement throughout day especially during peak periods	- Network Audit - Integrated Transport Corridor	**AM** Westbound – -7% (-102) Eastbound – -9% (-177) **PM** Westbound – -14% (-197) Eastbound – -6% (-73)	- (C) Consider widening footways to provide an improved pedestrian environment - (C) Consider introduction of cycle lanes due to the reduction of traffic flow during the peaks APPROXIMATE COST - £5,000
A5102						
Bramhall Lane (Between Buxton Road and Adswood Lane East)		- Single lane carriageway in each direction - There is a mixture of residential and retail frontage activity - Significant pedestrian movements in the area - Traffic flows are high in each direction with queuing occurring in the northbound direction during peak hours	- There are limited instances of on-street parking at northern end, which causes disruption to the traffic flow	- Network Audit	**AM** Northbound – -8% (-91) Southbound – -10% (-95) **PM** Northbound – -12% (-117) Southbound – -8% (-102)	- (C) Regulate on-street parking through the introduction of parking bays to the west of Bramhall Lane and prevent parking to the east APPROXIMATE COST - £5,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Bramhall Lane (Between Adswood Lane East and Kennerley Road)		- Single lane carriageway in each direction - There is a mixture of residential and retail frontage activity - Significant pedestrian movements in the area - Traffic flows are high in each direction with queuing occurring in the northbound direction during peak hours	- There are limited instances of on-street parking through the Local Centre, which causes disruption to the traffic flow - No cycle facilities	- Network Audit - Davenport Local Centre Action Plan	**AM** Northbound – -11% (-102) Southbound – -13% (-72) **PM** Northbound – -10% (-82) Southbound – -9% (-87)	- **(C)** Regulate on-street parking through the introduction of parking bays to the east of Bramhall Lane and restrict parking on the east - **(C)** Create advisory cycle route and cycle lanes where width permits APPROXIMATE COST - £5,000
Junction of Bramhall Lane and Kennerley Road		- 3 arm signal controlled junction - Minor queues build up on all arms of this junction during peak periods - Significant pedestrian demand around this junction	- No pedestrian facilities - No cycle facilities	- Network Audit - Davenport Local Centre Action Plan	**AM** Reduction of approx. 200 vehicles on the approach to the junction **PM** Reduction of approx. 200 vehicles on the approach to the junction	- **(C)** Introduce pedestrian facilities at this junction on all arms - **(C)** Introduce cycle facilities in the form of advanced cycle stop lines and lead in lanes - **(C)** Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £72,500
Bramhall Lane (Between Kennerley Road and Garners Lane)		- Single lane carriageway in each direction - Predominantly residential frontage - Significant pedestrian movements in the area - Traffic flows are high in each direction with queuing occurring in the northbound direction during peak hours	- No cycle facilities	- Network Audit	**AM** Northbound – -2% (-45) Southbound – -9% (-90) **PM** Northbound – -12% (-86) Southbound – -9% (-78)	- **(C)** Create advisory cycle route and cycle lanes where width permits APPROXIMATE COST - £2,000
Junction of Bramhall Lane and Garners Lane		- 3 arm signal controlled junction - Minor queues build up on all arms of this junction during peak periods - Significant pedestrian demand around this junction	- Limited pedestrian facilities - No cycle facilities - High levels of slow moving/queuing vehicles along Bramhall Lane on approach to signals during peak periods	- Network Audit	**AM** Reduction of approx. 300 vehicles on the approach to the junction **PM** Reduction of approx. 300 vehicles on the approach to the junction	- **(C)** Introduce pedestrian facilities at this junction on all arms - **(C)** Introduce cycle facilities in the form of advanced cycle stop lines and lead in lanes - **(C)** Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £72,500

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Bramhall Lane (between Garners Lane and The Crescent)		- Single lane carriageway in each direction - Predominantly residential frontage with cluster of retail units south of Garners Lane - Significant pedestrian movements in the area - Traffic flows are high in each direction with queuing occurring in the northbound direction during peak hours	- High levels of slow moving/queuing vehicles along Bramhall Lane on approach to signals during peak periods - No cycle facilities	- Network Audit	**AM** Northbound – -4% (-67) Southbound – -8% (-88) **PM** Northbound – -9% (-97) Southbound – -11% (-170)	- (C) Optimise/reconfigure signal timings to maximise flows - (C) Create advisory cycle route and cycle lanes where width permits APPROXIMATE COST - £1,000
Bramhall Lane (between The Crescent and Woods Moor Lane)		- Single lane carriageway in each direction - Residential frontages - Traffic flows are high in each direction with queuing occurring in the northbound direction during peak hours	- High levels of slow moving/queuing vehicles along Bramhall Lane on approach to signals during peak periods - No cycle facilities	- Network Audit	**AM** Northbound – -8% (-129) Southbound – -9% (-92) **PM** Northbound – -12% (-105) Southbound – -13% (-178)	- (C) Optimise/reconfigure signal timings to maximise flows - (C) Create advisory cycle route and cycle lanes where width permits APPROXIMATE COST - £1,000
Bramhall Lane (between Woods Moor Lane and Midland Road)		- Single lane carriageway in each direction - Residential frontages - Traffic flows are high in each direction with queuing occurring in the northbound direction during peak hours	- High levels of slow moving/queuing vehicles along Bramhall Lane on approach to signals during peak periods - No cycle facilities	- Network Audit	**AM** Northbound – -16% (-179) Southbound – -22% (-203) **PM** Northbound – -9% (-68) Southbound – -18% (-197)	- (C) Optimise/reconfigure signal timings to maximise flows - (C) Create advisory cycle route and cycle lanes where width permits APPROXIMATE COST - £1,000
Junction of Bramhall Lane/ Grange Road/ Midland Road		- The junction is currently uncontrolled	- Right turn movements disrupt the traffic flow	- Network Audit - Residential Development	**AM** Reduction of approx. 400 vehicles on the approach to the junction **PM** Reduction of approx. 300 vehicles on the approach to the junction	- (C) Consider controlling junction (signalisation or mini-roundabout) APPROXIMATE COST - £nil – Scheme likely to be implemented as part of residential development

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Bramhall Lane (between Handley Road and Bridge Lane)		- Single lane carriageway in each direction - Residential frontages - Traffic flows are high in each direction with queuing occurring in the northbound direction during peak hours	- High levels of slow moving/queuing vehicles along Bramhall Lane on approach to signals during peak periods - No cycle facilities	- Network Audit - Proposed cycle routes between Broadway and Bramhall Park Road	**AM** Northbound – -23% (-186) Southbound – -18% (-212) **PM** Northbound – -6% (-52) Southbound – -24% (-189)	- (C) Optimise/reconfigure signal timings to maximise flows - (C) Create advisory cycle route and cycle lanes where width permits APPROXIMATE COST - £2,000
Junction of Bridge Lane/ Bramhall Lane and Bramhall Lane South		- 3 arm roundabout - Traffic flows are high in the north direction with queuing occurring during peak hours	- High levels of slow moving/queuing vehicles along Bramhall Lane on approach to signals during peak periods - Under utilised land - Limited pedestrian facilities - No cycle facilities - There is a full bus lay-by, which causes delays to buses when emerging	- Network Audit - Fir Road Local Centre Action Plan	**AM** Reduction of approx. 800 vehicles on the approach to the junction **PM** Reduction of approx. 600 vehicles on the approach to the junction	- (C) Consider signalising junction to free up space for public realm improvements - (C) Provide pedestrian facilities across all arms as a minimum - (C) Provide cycle lanes through the roundabout and link to existing cycle lanes on Bridge Lane - (C) Create ½ bus lay-by APPROXIMATE COST - £n/a, considered as part of major schemes
Bramhall Lane South (between Bridge Lane and Grasmere Crescent)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Residential frontages	- Relatively high traffic speeds during off peak - No cycle facilities	- Network Audit - Proposed cycle route	**AM** Northbound – -20% (-180) Southbound – -30% (-340) **PM** Northbound – -21% (-194) Southbound – -25% (-210)	- (M) Introduce anti-skid surfacing on downward approach to junctions - (C) Create advisory cycle route and cycle lanes where width permits APPROXIMATE COST - £4,000
Bramhall Lane South (between Grasmere Crescent and Ack Lane East)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day, although minor queues occur in the southbound direction at the Ack Lane East/ Woodford Road junction - Residential frontages	- There are limited instances of on-street parking through the Local Centre, which causes disruption to the traffic flow - Relatively high traffic speeds during off peak - No cycle facilities	- Bramhall District Centre - Network Audit - Proposed cycle route	**AM** Northbound – -8% (-78) Southbound – -16% (-223) **PM** Northbound – -6% (-74) Southbound – -7% (-86)	- (C) Regulate on-street parking through the introduction of parking bays - (M) Introduce traffic calming speed reduction measures (e.g. dragons teeth, gateway entrance) - (C) Create advisory cycle route and cycle lanes where width permits APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Ack Lane East/ Bramhall Lane South/ Woodford Road		- The junction is a three-arm mini-roundabout - Significant pedestrian demand around this junction	- There are limited pedestrian facilities at this junction - There are no cyclist facilities at this junction	- Network Audit	**AM** Reduction of approx. 500 vehicles on the approach to the junction **PM** Reduction of approx. 500 vehicles on the approach to the junction	- (C) Consider signalisation of junction with full pedestrian facilities - (C) Provide advance stop lines and approach lanes for cyclists APPROXIMATE COST - £n/a, considered as part of major schemes
Woodford Road (between Ack Lane East and A555)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- No cycle facilities	- Network Audit	**AM** Northbound – +14% (+68) Southbound – -5% (-87) **PM** Northbound – +21% (+179) Southbound – +8% (83)	- (C) Create advisory cycle route APPROXIMATE COST - £n/a, considered as part of major schemes
Woodford Road (between Jenny Lane and Moorend Farm)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- No cycle facilities	- Network Audit	**AM** Northbound – -56% (-536) Southbound – -25% (-358) **PM** Northbound – -21% (-186) Southbound – -36% (-511)	- (C) Create advisory cycle route APPROXIMATE COST - £1,000
Woodford Road (between Moorend Farm and Chester Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- No cycle facilities	- Network Audit	**AM** Northbound – -54% (-480) Southbound – -25% (-336) **PM** Northbound – -21% (-170) Southbound – -38% (-488)	- (C) Create advisory cycle route APPROXIMATE COST - £1,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Chester Road/ Woodford Road		- The junction is a three-arm mini-roundabout - Limited pedestrian demand around this junction	- There are no pedestrian facilities at this junction - Low volume of queuing observed during peak periods	- Network Audit	**AM** Reduction of approx. 700 vehicles on the approach to the junction **PM** Reduction of approx. 100 vehicles on the approach to the junction	- (C) Enhance provision for pedestrians APPROXIMATE COST - £3,000
Chester Road (between Woodford Road and BAE Aircraft Factory)		- Single lane carriageway in each direction - 40mph speed limit - Traffic is generally free flowing throughout the day - Residential frontages	- High level of traffic movement throughout the day especially during peak periods - No cycle facilities	- Network Audit	**AM** Northbound – +11% (+45) Southbound – +7% (+89) **PM** Northbound – +30% (+215) Southbound – +28% (+190)	- (M) Reduce speed limit to 30mph and install features to enforce speed limit - (C) Create advisory cycle route APPROXIMATE COST - £10,000
Chester Road (between BAE Aircraft Factory and Moor Lane)		- Single lane carriageway in each direction - 40 mph speed limit - Traffic is generally free flowing throughout the day - Residential frontages	- High level of traffic movement throughout the day especially during peak periods - No cycle facilities	- Network Audit	**AM** Northbound – -13% (-73) Southbound – -3% (-29) **PM** Northbound – +44% (+161) Southbound – +20% (+135)	- (M) Reduce speed limit to 30mph and install features to enforce speed limit - (C) Create advisory cycle route APPROXIMATE COST - £2,000
Chester Road/ Wilmslow Road (between Moor Lane and Macclesfield boundary)		- Single lane carriageway in each direction - 40 mph speed limit - Traffic is generally free flowing throughout the day - Mixture of residential frontages and open field frontage	- High level of traffic movement throughout the day especially during peak periods - Lack of crossing opportunities - Narrow footway in places - No cycle facilities	- Network Audit	**AM** Northbound – -12% (-86) Southbound – +6% (+62) **PM** Northbound – +30% (+153) Southbound – +8% (+85)	- (M) Reduce speed limit to 30mph and install features to enforce speed limit - (M) Implement central hatching and install pedestrian refuges - (C) Localised footway widening using adjacent grass verges - (C) Create advisory cycle route APPROXIMATE COST - £30,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A5149						
Wilmslow Road (Between A560 and Schools Hill)		- Single lane carriageway in each direction - Traffic flows are high in each direction with queuing occurring in the northbound direction during peak hours - Primarily residential area interspersed with local retail units - Significant levels of pedestrian activity	- There are limited crossing facilities in the vicinity of retail units - Relatively high traffic speeds during off peak - Wide footway and on-street parking to the east on approach to the A560 - Northbound and southbound cycle lanes	- Cheadle District Centre - Civilising Cities – Cheadle Hulme North - Network Audit	**AM** Northbound – -8% (-131) Southbound – -3% (-46) **PM** Northbound – -7% (-83) Southbound – -11% (-204)	- (C) Introduce crossing facilities to serve pedestrian desire lines across the route - (M) Introduce traffic calming measures to reduce traffic speed (e.g. central hatching, dragons teeth) - (C) Regulate on-street parking through formalised bays APPROXIMATE COST - £35,000
Cheadle Road (Between Schools Hill and Albert Road/ Turves Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day, but queuing occurs at the southern end during peak hours - Primarily residential area interspersed with local retail units - Significant levels of pedestrian activity	- There are limited crossing facilities in the vicinity of the retail units and at Ridge Danyers College - There are limited instances of on-street parking - Relatively high traffic speeds during off peak - No cycle facilities	- Civilising Cities – Cheadle Hulme North - Network Audit	**AM** Northbound – -14% (-177) Southbound – -14% (-87) **PM** Northbound – -10% (-86) Southbound – -16% (-210)	- (M) Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - (M) Consideration could also be given to using vehicle actuated signage in appropriate locations - (C) Formalise or prevent on-street parking at retail units around Buckingham Road junction - (C) Where width permits introduce cycle lanes - (C) Possibility for off-road cycle route north of Ridge Danyers College APPROXIMATE COST - £25,000
Junction of Cheadle Road/ Orrishmere Road		- Priority junction	- Right turn movements disrupt the traffic flow - There are no pedestrian facilities at the junction, although there is a pelican crossing south of the junction - Ridge Danyers College is located adjacent to the junction and significant numbers of pedestrians do not use the crossing - Accident hotspot	- Civilising Cities – Cheadle Hulme North - Network Audit	**AM** Reduction of approx. 300 vehicles on the approach to the junction **PM** Reduction of approx. 300 vehicles on the approach to the junction	- (C) Signalise junction with full pedestrian facilities - (C) Realign Cheadle Road and install right turning pocket APPROXIMATE COST - £72,500

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Albert Road/ Cheadle Road/ Hulme Hall Road/ Turves Road		- The junction is a four-arm signal junction - Queues build up at peak times - Significant pedestrian demand around this junction	- There are limited pedestrian and cycle facilities at this junction - Accident hotspot - Congestion problems - Delays to buses	- Civilising Cities – Cheadle Hulme North - Cheadle Hulme South Community Transport Plan - Network Audit - Integrated transport corridor proposal for junction	**AM** Reduction of approx. 600 vehicles on the approach to the junction **PM** Reduction of approx. 500 vehicles on the approach to the junction	- (C) Provide pedestrian facilities at the junction - (C) Provide advance stop lines and approach lanes for cyclists - (C) Reconfigure the signal timings to maximise junction operation APPROXIMATE COST - £72,500
Albert Road (Between Cheadle Road and Station Road)		- Single lane carriageway in each direction - Queuing occurs at the junctions at either end - Residential frontages	- No cycle facilities - Limited pedestrian crossing facilities	- Civilising Cities – Cheadle Hulme North - Cheadle Hulme South Community Transport Plan - Network Audit - Integrated transport corridor	**AM** Westbound – -17% (-217) Eastbound – -20% (-146) **PM** Westbound – -14% (-126) Eastbound – -16% (-183)	- (C) Install cycle lanes in both directions - (C) Install pedestrian refuges APPROXIMATE COST - £15,000
Junction of Albert Road/ Ladybridge Road/ Queens Road/ Station Road		- The junction is a four-arm signal junction - Queues build up at peak times - Significant pedestrian demand around this junction	- Recent modification to provide pedestrian and cyclist facilities have exacerbated congestion within the ward - No approach lanes to advance stop lines	- Civilising Cities – Cheadle Hulme North - Cheadle Hulme South Community Transport Plan - Network Audit - Integrated transport corridor	**AM** Reduction of approx. 600 vehicles on the approach to the junction **PM** Reduction of approx. 600 vehicles on the approach to the junction	- (C) Reconfigure the signal timings to maximise junction operation - (C) Create one way system on Queens Road to alleviate congestion problem - (C) Install approach lanes to advance stop lines for cyclists

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
				proposal for junction		APPROXIMATE COST - £10,000
Station Road (Between Albert Road and Manor Road)		- Single lane carriageway in each direction - There is a mixture of residential and retail frontage activity - Significant pedestrian movements in the area - Two lanes on approach arms to Albert Road/Ladybridge Road and Manor Road/Ravenoak Road junctions	- Relatively high traffic speeds during off peak - There are limited instances of on-street parking - There are no crossing points at desire lines between Cobden House car park, Oak Meadow and the shopping precinct	- Cheadle Hulme District Centre Civilising Cities - Cheadle Hulme South CTP - Network Audit - Integrated transport corridor	**AM** Northbound – -29% (-361) Southbound – -31% (-246) **PM** Northbound – -25% (-178) Southbound – -37% (-364)	- **(M)** Introduce traffic calming speed reduction measures (central hatching) - **(C)** Create gateway feature for Cheadle Hulme District Centre - **(C)** Formalise or prevent on-street parking at retail units - **(C)** Install pedestrian refuges APPROXIMATE COST - £30,000
Junction of Manor Road/ Ravenoak Road/ Station Road		- The junction is a three-arm mini-roundabout - Significant pedestrian demand around this junction	- There are no pedestrian or cycle facilities at this junction	- Cheadle Hulme South Community Transport Plan - Network Audit - Integrated transport corridor proposal for junction	**AM** Reduction of approx. 500 vehicles on the approach to the junction **PM** Reduction of approx. 400 vehicles on the approach to the junction	- **(C)** Consider signalisation of junction with full pedestrian facilities - **(C)** Revise junction alignment and improve pedestrian facilities - **(C)** Provide advance stop lines and approach lanes for cyclists APPROXIMATE COST - £72,500
Ravenoak Road (Between Station Road and Church Road)		- One lane carriageway in each direction - Residential frontages - Two lanes on approach arms to Manor Road/Station Road and Ack Lane West/Church Road junctions	- High level of traffic movement throughout the day especially during peak periods - Relatively high traffic speeds during off peak - There are limited instances of on-street parking at northern end, which causes disruption to the traffic flow - Lack of crossing opportunities - There are no cycle facilities	- Cheadle Hulme South Community Transport Plan - Network Audit - Integrated transport corridor	**AM** Northbound – -4% (-28) Southbound – -24% (-119) **PM** Northbound – +11% (+32) Southbound – -21% (-122)	- **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching) - **(C)** Formalise or prevent on-street parking at retail units with a view to maximising traffic flows - **(C)** Install pedestrian refuge to provide for pedestrians walking to the District Centre - **(C)** Where the width permits Install cycle lanes APPROXIMATE COST - £20,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Beechfield Road/ Ravenoak Road/ Swann Lane		- The junction is currently uncontrolled	- Right turn movements disrupt the traffic flow - Wide crossing distance at Swann Lane arm of junction	- Cheadle Hulme South Community Transport Plan - Network Audit	**AM** Reduction of approx. 100 vehicles on the approach to the junction **PM** Reduction of approx. 200 vehicles on the approach to the junction	- **(C)** Install pedestrian refuge at Swann Lane arm of junction - **(C)** Install right turning pockets (ghost islands) at junctions APPROXIMATE COST - £10,000
Junction of Ack Lane West/ Church Road/ Ravenoak Road/		- The junction is a three-arm mini-roundabout - Significant pedestrian demand around this junction	- There are no pedestrian or cycle facilities at this junction	- Cheadle Hulme South CTP - Network Audit - Integrated Transport Corridor proposal for junction	**AM** Reduction of approx. 400 vehicles on the approach to the junction **PM** Reduction of approx. 300 vehicles on the approach to the junction	- **(C)** Consider signalisation of junction with full pedestrian facilities - **(C)** Revise junction alignment and improve pedestrian facilities - **(C)** Provide advance stop lines and approach lanes for cyclists APPROXIMATE COST - £72,500
Ack Lane West (Between Church Road and Yew Tree Park Road)		- One lane carriageway in each direction - Residential frontages - Traffic is generally free flowing throughout the day - Two lanes on approach arms to Church Road/ Ravenoak Road junctions	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities - There are no cycle facilities	- Cheadle Hulme South Community Transport Plan - Network Audit	**AM** Northbound – -% (-) Southbound – -% (-) **PM** Northbound – -17% (-78) Southbound – -29% (-239)	- **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching) - **(C)** Install pedestrian refuges - **(C)** Install cycle lanes APPROXIMATE COST - £50,000
Ack Lane West (Between Yew Tree Park Road and Robins Lane)		- One lane carriageway in each direction - Residential frontages - Traffic is generally free flowing throughout the day	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities - There are no cycle facilities	- Network Audit	**AM** Westbound – -30% (-203) Eastbound – -29% (-125) **PM** Westbound – -18% (-178) Eastbound – -37% (-238)	- **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching) - **(C)** Install pedestrian refuges - **(C)** Install cycle lanes APPROXIMATE COST - £30,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Ack Lane East (Between Robins Lane and Bramhall Lane South)		- One lane carriageway in each direction - Residential frontages - Traffic is generally free flowing throughout the day	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities - There are no cycle facilities	- Bramhall District Centre - Network Audit	**AM** Northbound – -32% (-227) Southbound – -30% (-164) **PM** Northbound – -12% (-68) Southbound – -35% (-234)	- **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching, dragons teeth) - **(C)** Install pedestrian refuges - **(C)** Install cycle lanes APPROXIMATE COST - £35,000
B5094 Stanley Road (between Wilmslow Road and Earl Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Mixture of residential frontages and open field frontage	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities - There are no cycle facilities	- Network Audit - Orbit office development	**AM** Westbound – +20% (+29) Eastbound – -20% (-60) **PM** Westbound – +9% (+18) Eastbound – -45% (-189)	- **(M)** Implement central hatching and install pedestrian refuges - **(C)** Incorporate cycle crossing in any scheme developed for Earl Road/Stanley Road junction as part of North-South cycle route APPROXIMATE COST - £60,000
Stanley Road (between Earl Road and A34)		- Single lane carriageway in each direction - High level of traffic movement throughout the day generated by Stanley Green Industrial Estate/Retail Park	- Queues often build up between Earl Road and A34	- Network Audit	**AM** Westbound – -0% (-4) Eastbound – -12% (-93) **PM** Westbound – +2% (+13) Eastbound – -20% (-195)	- **(M)** Consider alternative method of control at junctions at Earl Road and A34 to ease congestion APPROXIMATE COST - £n/a, considered as part of major schemes
Junction of Earl Road/ Stanley Road		- The junction is a 3 arm signal junction - Queues and delays often build up during peak hours on all arms of the junction	- High level of traffic movement throughout the day generated by Stanley Green Industrial Estate/Retail Park - No cycle or pedestrian facilities	- Network Audit	**AM** Reduction of approx. 100 vehicles on the approach to the junction **PM** Reduction of approx. 200 vehicles on the approach to the junction	- **(M)** Consider changes to the method of control to ease congestion - **(M)** Optimise/reconfigure signal timings to maximise flows - **(C)** Incorporate pedestrian facilities into any proposals APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of A34 (Kingsway South)/ Stanley Road		- The junction is a large 4 arm roundabout - Queues and delays build up during peak hours on all arms of the junction	- High level of traffic movement throughout the day in all directions - Cycle and pedestrian facilities limited to two arms of the roundabout	- Network Audit	**AM** Reduction of approx. 100 vehicles on the approach to the junction **PM** Increase of approx. 200 vehicles on the approach to the junction	- **(M)** Consider changes to the method of control to ease congestion - **(C)** Provide full pedestrian facilities across all arms of the junction - **(M)** Optimise/reconfigure signal timings to maximise flows APPROXIMATE COST - £n/a, considered as part of major schemes
Stanley Road/ Grove Lane (between A34 and Acre Lane)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- High traffic speeds - There are no crossing points at desire lines between residential area and Cheadle Hulme Cricket Club, Manchester Rugby Club, South Park and footpath to Stanley Green Retail Park and Handforth Dean	- Network Audit - Integrated Transport Corridor (Grove Lane terminus) - Possible office dev. adjacent to A34	**AM** Westbound – -38% (-68) Eastbound – +55% (+80) **PM** Westbound – +12% (+17) Eastbound – +51% (+64)	- **(M)** Create gateway entrance on Stanley Road for traffic coming off A34 - **(M)** Introduce traffic calming speed reduction measures (dragons teeth, speed roundels) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations - **(M)** Implement central hatching and install pedestrian refuges at desire lines (South Park and Spath Lane East) APPROXIMATE COST - £35,000
Junction of Acre Lane/ Grove Lane		- The junction is a 3-arm priority junction	- Queuing occurs during peak periods on the Acre Lane arm of the junction	- Network Audit	**AM** Increase of approx. 100 vehicles on the approach to the junction **PM** Increase of approx. 200 vehicles on the approach to the junction	- **(M)** Consider creating a mini roundabout to alleviate queuing on Acre Lane and reduce traffic speeds on Grove Lane APPROXIMATE COST - £n/a, considered as part of major schemes
Acre Lane/ Moss Lane (between Grove Lane and Ack Lane East		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- High level of traffic movement throughout the day - Route could be used as part of rat run to access new Link Road - High traffic speeds - No cycle or pedestrian facilities	- Network Audit - Proposed cycle route between Ashley Drive and Athol Road	**AM** Westbound – +55% (+79) Eastbound – -38% (-62) **PM** Westbound – +173% (+51) Eastbound – +33% (+120)	- **(M)** Introduce traffic calming speed reduction measures (dragons teeth, speed roundels) - **(M)** Consider installing mini roundabouts to reduce traffic speeds on Acre Lane/ Moss Lane APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
B5095						
Hulme Hall Road (between Albert Road and Church Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- High traffic speeds - Heavy footfall generated by local schools - Lack of crossing opportunities	- Network Audit	**AM** Northbound – -12% (-145) Southbound – -11% (-80) **PM** Northbound – -8% (-56) Southbound – -14% (-142)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(C)** Create 20mph school zone - **(C)** Install pedestrian crossing points APPROXIMATE COST - £25,000
Junction of Church Road/ Gill Bent Road/ Hulme Hall Road		- The junction is a three-arm mini-roundabout - Significant pedestrian demand around this junction	- There are limited pedestrian facilities at this junction - There are no cycle facilities at this junction	- Network Audit - Integrated transport corridor - Local Centre Action Plan	**AM** Reduction of approx. 300 vehicles on the approach to the junction **PM** Reduction of approx. 200 vehicles on the approach to the junction	- **(C)** Revise junction alignment and improve pedestrian facilities - **(C)** Consider signalisation and provide advance stop lines and approach lanes for cyclists APPROXIMATE COST - £72,500
Church Road (between Hulme Hall Road and Ack Lane West)		- Single lane carriageway in each direction - Predominantly retail frontages - Significant pedestrian movements in the area	- Heavy footfall generated by local schools - Narrow footway outside church	- Network Audit - Integrated transport corridor - Smithy Green Local Centre Action Plan	**AM** Westbound – -39% (-222) Eastbound – -28% (-59) **PM** Westbound – -27% (-86) Eastbound – -21% (-93)	- **(C)** Reduce footway width on south side and provide formalised parking opportunities at retail units - **(C)** Increase visibility of existing pedestrian crossing (build outs, use of texturegrip etc) - **(C)** Localised footway widening outside church APPROXIMATE COST - £35,000
B5166						
Park Road (between A560 and Church Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction with queuing occurring in the northbound direction during the AM peak - Primarily residential area interspersed with local retail units - Significant levels of pedestrian activity	- There are limited crossing facilities in the vicinity of retail units - Relatively high traffic speeds during off peak - No cycle facilities	- Network Audit	**AM** Northbound – +84% (+54) Southbound – -34% (-51) **PM** Northbound – +5% (+4) Southbound – +11% (+11)	- **(C)** Introduce crossing facilities to serve pedestrian desire lines across the route - **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. central hatching) - **(C)** Regulate parking to the east of the route - **(C)** Introduce cycle lanes APPROXIMATE COST - £45,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Styal Road (between Church Road and Hollyhedge Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels)	- Network Audit - Integrated Transport Corridor	**AM** Northbound – +14% (+80) Southbound – -19% (-159) **PM** Northbound – -6% (-41) Southbound – +6% (+28)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) APPROXIMATE COST - £15,000
Styal Road (between Hollyhedge Road and Firs Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Mixture of residential and field frontage - Low numbers of pedestrians and cyclists	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels)	- Network Audit - Integrated Transport Corridor	**AM** Northbound – +23% (+97) Southbound – -27% (-177) **PM** Northbound – -51% (-136) Southbound – -41% (-197)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(M)** Consider installing mini roundabouts to reduce traffic speeds APPROXIMATE COST - £10,000
Styal Road (between Firs Road and Finney Lane)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Mixture of residential and field frontage - Low numbers of pedestrians and cyclists	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels)	- Network Audit - Integrated Transport Corridor	**AM** Northbound – +23% (+97) Southbound – -27% (-177) **PM** Northbound – -15% (-96) Southbound – -18% (-134)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(M)** Create gateway entrance for Stockport at southern end of Styal Road - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations - **(M)** Consider installing mini roundabouts to reduce traffic speeds APPROXIMATE COST - £10,000
B5358						
Wilmslow Road (between Cheadle Royal and Etchells Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Predominantly retail frontage	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - Queues often build up on northbound approach to Cheadle Royal/Wilmslow Road roundabout at peak times	- Network Audit - Integrated Route Treatment	**AM** Northbound – -6% (-94) Southbound – +1% (+10) **PM** Northbound – -5% (-57) Southbound – -9% (-174)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. central hatching, speed roundels) - **(M)** Projected reduction in traffic flows may alleviate some difficulties, however could be negated by possible future developments at Cheadle Royal APPROXIMATE COST - £15,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Etchells Road/ Finney Lane/ Turves Road		- Staggered signalised junction - Queues and delays build up during peak hours on all arms of the junction	- Limited pedestrian facilities - No cycle facilities	- Network Audit - Integrated Transport Corridor proposal for junction	**AM** Reduction of approx. 600 vehicles on the approach to the junction **PM** Reduction of approx. 600 vehicles on the approach to the junction	- **(C)** Provide full pedestrian facilities across all arms of the junction - **(C)** Provide advance stop lines and approach lanes for cyclists - **(C)** Reconfigure the signal timings to maximise junction operation APPROXIMATE COST - £140,000
Wilmslow Road (between Etchells Road and Merwood Avenue)		- Single lane carriageway in each direction - Traffic flows are high in each direction with queuing occurring in the northbound direction during the AM peak - Predominantly residential frontage - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - Retail units situated at Merwood Avenue generate unregulated on-street parking and pedestrian movements - No cycle facilities	- Network Audit - Integrated Route Treatment	**AM** Northbound – -31% (-392) Southbound – -24% (-243) **PM** Northbound – -22% (-172) Southbound – -17% (-274)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(C)** Cycle route proposed as part of IRT APPROXIMATE COST - £50,000
Wilmslow Road (between Merwood Avenue and Outwood Road)		- Single lane carriageway in each direction - 40mph speed limit from Sydall Avenue southbound - Traffic flows are high in each direction with queuing occurring in the northbound direction during the AM peak - Mixture of residential, retail and open field frontage - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - Retail units situated either side of Merwood Avenue junction generate unregulated on-street parking and pedestrian movements	- Network Audit - Integrated Route Treatment	**AM** Northbound – -60% (-333) Southbound – -31% (-241) **PM** Northbound – -35% (-158) Southbound – -32% (-278)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(M)** Speed limit reduction from 40mph to 30mph as suggested in IRT study - **(C)** Create formalised parking bays north of Merwood Avenue junction - **(C)** Cycle route proposed as part of IRT APPROXIMATE COST - £90,000
Wilmslow Road (between Outwood Road and Bolshaw Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Predominantly residential frontage	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - No cycle facilities	- Network Audit - Integrated Route Treatment	**AM** Northbound – -48% (-330) Southbound – -21% (-264) **PM** Northbound – -18% (-143) Southbound – -46% (-602)	- **(M)** Speed limit reduction from 40mph to 30mph as suggested in IRT study - **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(M)** Consider installation of mini roundabouts at key junctions to discourage excessive speeding APPROXIMATE COST - £25,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Wilmslow Road (between Bolshaw Road and Stanley Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Predominantly residential frontage	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - No cycle facilities	- Network Audit - Integrated Route Treatment	**AM** Northbound – -58% (-568) Southbound – -34% (-527) **PM** Northbound – -41% (-472) Southbound – 53% (-866)	- **(M)** Speed limit reduction from 40mph to 30mph as suggested in IRT study - **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations - **(M)** Consider installing mini roundabouts to reduce traffic speeds APPROXIMATE COST - £30,000
Junction of Wilmslow Road/Stanley Road		- 3-arm signalised junction	- Limited pedestrian facilities - Proposed Manchester Link Road West would significantly reduce north south flow - No cycle facilities	- Network Audit - Integrated Route Treatment	**AM** Reduction of approx. 1000 vehicles on the approach to the junction **PM** Reduction of approx. 1200 vehicles on the approach to the junction	- **(C)** Consider alternative method of control at the junction (e.g. roundabout) - **(C)** Provide enhanced pedestrian and cycling facilities APPROXIMATE COST - £50,000
Wilmslow Road (between Stanley Road and A555 junction)		- Single lane carriageway in each direction - Traffic flows are high in each direction	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels)	- Network Audit - Integrated Route Treatment	**AM** Northbound – -56% (-461) Southbound – -34% (-331) **PM** Northbound – -32% (-313) Southbound – -11% (-500)	- **(M)** Speed limit reduction from 40mph to 30mph as suggested in IRT study - **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations APPROXIMATE COST - £20,000
B5465						
Edgeley Road (between Stockport Road and Huntley Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction, especially during the peaks and at school opening and closing times	- High pedestrian flows due to presence of school and Morrison's Supermarket	- Network Audit - Integrated Transport Corridor - Cheadle Heath Local Centre Action Plan	**AM** Westbound – -25% (-255) Eastbound – -25% (-221) **PM** Westbound – -10% (-74) Eastbound – -27% (-326)	- **(C)** Upgrade existing pedestrian crossing outside school and supermarket APPROXIMATE COST - £50,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Edgeley Road (between Huntley Road and Birdhall Lane)		- Single lane carriageway in each direction - Traffic flows are high in each direction, especially during the peaks and at school opening and closing times	- High pedestrian flows due to presence of school and Morrison's Supermarket	- Network Audit - Integrated Transport Corridor	**AM** Westbound – -25% (-255) Eastbound – -25% (-221) **PM** Westbound – -11% (-91) Eastbound – -27% (-340)	- **(C)** Upgrade pedestrian crossing facilities at roundabout junction with Birdhall Lane APPROXIMATE COST - £72,500
Edgeley Road (between Birdhall Lane and Cheadle Old Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction, especially during the peaks and at school opening and closing times	- Heavy footfall generated by local schools - High levels of on-street parking due to residential frontage	- Network Audit - Integrated Transport Corridor	**AM** Westbound – -17% (-133) Eastbound – -14% (-124) **PM** Westbound – -3% (-30) Eastbound – -19% (-198)	- **(C)** Upgrade informal and formal crossing opportunities - **(C)** Formalise existing on-street parking into dedicated parking bays APPROXIMATE COST - £35,000
Edgeley Road (between Cheadle Old Road and Northgate Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction, especially during the peaks and at school opening and closing times	- Heavy footfall generated by local schools - Pedestrian desire lines across Edgeley Road due to the presence of the park	- Network Audit - Integrated Transport Corridor	**AM** Westbound – -16% (-133) Eastbound – -20% (-124) **PM** Westbound – -4% (-198) Eastbound – -21% (-32)	- **(C)** Upgrade informal and formal crossing opportunities APPROXIMATE COST - £50,000
Edgeley Road (between Northgate Road and Dale Street)		- Single lane carriageway in each direction - Traffic flows are high in each direction, especially during the peaks and at school opening and closing times	- Heavy footfall generated by local schools - Pedestrian desire lines across Edgeley Road due to the presence of the park	- Network Audit - Integrated Transport Corridor	**AM** Westbound – -20% (-103) Eastbound – -12% (-129) **PM** Westbound – -5% (-40) Eastbound – -24% (-206)	- **(C)** Upgrade existing traffic signal junction to include full pedestrian provision on all arms APPROXIMATE COST - £72,500
Mercian Way (between Dale Street and Booth Street)		- Wide single lane carriageway in each direction	- Heavy footfall generated by District Centre	- Network Audit - Integrated Transport Corridor	**AM** Westbound – -20% (-103) Eastbound – -12% (-129) **PM** Westbound – -0% (-11) Eastbound – -17% (-163)	- **(C)** Improve pedestrian crossing opportunities at Booth Street Junction APPROXIMATE COST - £20,000
C454 Grove Lane/ Hall Moss Lane (between Acre Lane and Dairy House Lane)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- High traffic speeds - There are no crossing points at desire lines between residential area and South Park, Stanley Green Retail Park and Handforth Dean via Spath	- Network Audit	**AM** Northbound – -54% (-64) Southbound – -2% (-1) **PM** Northbound – -18% (-12) Southbound – -46% (-35)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(M)** Implement central hatching and install pedestrian refuges at desire lines (South Park and Spath Lane East)

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
			Lane East			APPROXIMATE COST - £35,000
Hall Moss Lane (between Dairy House Lane and Blossoms Lane)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly field frontage - Low numbers of pedestrians and cyclists	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels)	- Network Audit	**AM** Northbound – -21% (-9) Southbound – -60% (-65) **PM** Northbound – -21% (-13) Southbound – -42% (-35)	- **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching) APPROXIMATE COST - £20,000
Hall Moss Lane (between Blossoms Lane and Jenny Lane)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- High traffic speeds - Lack of crossing points	- Network Audit	**AM** Northbound – -94% (-8) Southbound – -36% (-30) **PM** Northbound – +415% (+10) Southbound – -19% (-17)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(M)** Where width permits implement central hatching and install pedestrian refuges APPROXIMATE COST - £20,000
Moor Lane (between Jenny Lane and Chester Road)		- Single lane carriageway in each direction - Traffic is generally free flowing throughout the day - Predominantly residential frontages	- High traffic speeds - Lack of crossing points	- Network Audit	**AM** Northbound – -7% (-14) Southbound – +26% (+90) **PM** Northbound – -4% (-12) Southbound – -12% (-28)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(M)** Where width permits implement central hatching and install pedestrian refuges APPROXIMATE COST - £20,000
C455						
Councillor Lane (between Stockport Road and Calderbrook Drive)		- Single lane carriageway in each direction - Traffic flows are high in each direction with queuing occurring in the northbound direction at the Stockport Road junction - Mix of frontage activity ranging from retail, residential and educational - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are a lack of crossing points - There are no cycle facilities	- Network Audit - Councillor Lane Local Centre Action Plan	**AM** Westbound – -11% (-185) Eastbound – -19% (-79) **PM** Westbound – -14% (-85) Eastbound – -15% (-176)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(C)** Where width permits implement central hatching and install pedestrian refuges - **(C)** Create advisory cycle route APPROXIMATE COST - £10,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Councillor Lane (between Calderbrook Drive and Birdhall Lane)		- Single lane carriageway in each direction - Traffic flows are high in each direction with queuing occurring during AM Peak towards Stockport Road junction - Mix of frontage activity ranging from retail and residential - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are a lack of crossing points - There are no cycle facilities	- Network Audit	AM Westbound – -11% (-185) Eastbound – -19% (-79) PM Westbound – -33% (-126) Eastbound – -19% (-164)	- (M) Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - (M) Where width permits implement central hatching and install pedestrian refuges - (C) Create advisory cycle route APPROXIMATE COST - £50,000
C458 Birdhall Lane (Between Edgeley Road and Shaftesbury Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction with minor queues at the Edgeley Road junction - Predominantly residential frontages - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - Lack of cycle facilities	- Network Audit	AM Northbound – -23% (-123) Southbound – -20% (-143) PM Northbound – -20% (-91) Southbound – -27% (-174)	- (M) Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - (M) Where width permits implement central hatching and install pedestrian refuges - (C) Create advisory cycle route APPROXIMATE COST - £10,000
Birdhall Lane (between Shaftesbury Road and Adswood Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Predominantly residential frontages with industrial units at northern end - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are a lack of crossing points - Lack of cycle facilities	- Network Audit - Proposed cycle route	AM Northbound – -23% (-123) Southbound – -20% (-143) PM Northbound – -19% (-94) Southbound – -28% (-183)	- (M) Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - (M) Where width permits implement central hatching and install pedestrian refuges - (C) Create advisory cycle route APPROXIMATE COST - £30,000
Ladybridge Road (between Adswood Road and Station Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Predominantly residential frontages - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are a lack of crossing points - Lack of cycle facilities - Bridge over Lady Brook is overdue maintenance work	- Network Audit - Integrated Transport Corridor	AM Northbound – -8% (-111) Southbound – -8% (-72) PM Northbound – -6% (-68) Southbound – -14% (-202)	- (M) Introduce traffic calming speed reduction measures (e.g. speed cameras) - (C) Create informal crossing points - (C) Create advisory cycle route - (C) Remove temporary Bailey bridge structure and replace with formal/informal crossing to connect footpaths APPROXIMATE COST - £50,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Turves Road/ Etchells Road (between Hulme Hall Road and Wilmslow Road		- Single lane carriageway in each direction - Residential frontages - Traffic flows are high in each direction - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are a lack of crossing points - Lack of cycle facilities	- Network Audit - Integrated Transport Corridor - Turves Road Local Centre Action Plan	**AM** Westbound – -12% (-118) Eastbound – -19% (-163) **PM** Westbound – -14% (-110) Eastbound – -13% (-124)	- **(M)** Introduce traffic calming speed reduction measures (e.g. speed camera) - **(C)** Create informal crossing points - **(C)** Create advisory cycle route APPROXIMATE COST - £35,000
Junction of Etchells Road/ Finney Lane/ Turves Road		- Staggered signalised junction - Queues and delays build up during peak hours on all arms of the junction	- Limited pedestrian facilities - No cycle facilities	- Network Audit - Integrated Transport Corridor proposal for junction	**AM** Reduction of approx. 600 vehicles on the approach to the junction **PM** Reduction of approx. 600 vehicles on the approach to the junction	- **(C)** Provide full pedestrian facilities across all arms of the junction - **(C)** Provide advance stop lines and approach lanes for cyclists - **(C)** Reconfigure the signal timings to maximise junction operation APPROXIMATE COST - £nil (covered under B5358)
Finney Lane (between Wilmslow Road and Outwood Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Residential frontages - Significant pedestrian movement, particularly children due to schools in the area	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are a lack of crossing points	- Network Audit - Integrated Transport Corridor - Heald Green Local Centre Action Plan - Heald Green cycle routes Phase II	**AM** Westbound – -19% (-161) Eastbound – -21% (-85) **PM** Westbound – -28% (-151) Eastbound – -20% (-150)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(C)** Create informal crossing points - **(C)** Create advisory cycle route APPROXIMATE COST - £n/a, considered as part of major schemes
Finney Lane (between Outwood Road and Styal Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Mixture of residential and retail frontages - Significant pedestrian movements	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are a lack of crossing points - Existing advisory cycle route	- Network Audit - Integrated Transport Corridor - Heald Green Local Centre Action Plan - Heald Green cycle routes Phase II	**AM** Westbound – -22% (-363) Eastbound – -54% (-375) **PM** Westbound – -49% (-461) Eastbound – -39% (-752)	- **(M)** Create gateway feature for Heald Green on Finney Lane to highlight residential area and promote Local Centre APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
C470						
Garners Lane (between Adswood Road and Rostrevor Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction with queuing occurring in the westbound direction during the AM peak - Residential frontages - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are a lack of crossing points, particularly in vicinity of Adswood Primary School and recreation ground - Existing advisory cycle route	- Network Audit - Integrated Transport Corridor - Adswood Local Centre Action Plan	**AM** Westbound – -19% (-176) Eastbound – -18% (-95) **PM** Westbound – -19% (-87) Eastbound – -20% (-176)	- **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching, dragons teeth) - **(C)** Install cycle lanes - **(M)** Where width permits implement central hatching and install pedestrian refuges APPROXIMATE COST - £35,000
Garners Lane (between Rostrevor Road and Bramhall Lane South)		- Single lane carriageway in each direction - Traffic flows are high in each direction - Residential frontages - Significant levels of pedestrian activity	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are a lack of crossing points - Existing advisory cycle route	- Network Audit	**AM** Westbound – -28% (-97) Eastbound – -27% (-140) **PM** Westbound – -24% (-73) Eastbound – -28% (-162)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(C)** Install cycle lanes - **(M)** Where width permits implement central hatching and install pedestrian refuges APPROXIMATE COST - £35,000
Miscellaneous						
Cross Road/ Bolshaw Road (between Outwood Road and Wilmslow Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction as road used as rat run between Wilmslow Road and Finney Lane - Mixture of residential and field frontage - Significant pedestrian movements	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - Existing calming is not a sufficient deterrent to rat running - There are a lack of crossing points - Existing advisory cycle route - There are significant number of pedestrians generated by local primary schools	- Heald Green cycle routes Phase I	**AM** Westbound – -76% (-238) Eastbound – -85% (-263) **PM** Westbound – -86% (-329) Eastbound – -79% (-264)	- **(M)** Introduce alternative traffic calming speed reduction measures (e.g. chicanes, road narrowings) - **(C)** Create informal crossing points in vicinity of school - **(C)** Install junction table at junction of Cross Road and Outwood Road APPROXIMATE COST - £25,000
Gill Bent Road (between Church Road and Grove Lane)		- Single lane carriageway in each direction - Predominantly residential frontage with retail clusters at northern and southern end - Significant pedestrian	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are limited instances of illegal parking at northern end of Gill	- Integrated Transport Corridor - Smithy Green Local Centre Action Plan	**AM** Northbound – -% (-) Southbound – -% (-) **PM** Northbound – +11% (+54) Southbound – -1% (-17)	- **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations - **(C)** Formalise or prevent on-street

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
		movements in the area - Traffic is generally free flowing throughout the day, although heavy during the peaks	Bent Road, which causes disruption to the traffic flow - No cycle facilities			parking at retail units at northern end of Gill Bent Road APPROXIMATE COST - £30,000
Manor Road/ Carr Wood Road (between Ravenoak Road and Bramhall Lane South)		- One lane carriageway in each direction - Residential frontages - Traffic is generally free flowing throughout the day	- High traffic speeds (which could possibly be made worse by reductions in traffic levels) - Lack of crossing opportunities - There are no cycle facilities		**AM** Westbound – -35% (-254) Eastbound – -11% (-49) **PM** Westbound – -15% (-75) Eastbound – -23% (-107)	- **(M)** Introduce traffic calming speed reduction measures (e.g. central hatching, dragons teeth) - **(C)** Where width permits install pedestrian refuges, alternatively install pedestrian build outs - **(C)** Create advisory cycle route APPROXIMATE COST - £20,000
Outwood Road (between Finney Lane and Cross Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction as road used as rat run between Wilmslow Road and Finney Lane - Residential frontage - Significant pedestrian movements	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - Existing calming is not a sufficient deterrent to rat running - There are a lack of crossing points - Existing advisory cycle route - There are significant number of pedestrians generated by local primary schools	- Heald Green cycle routes Phase I	**AM** Northbound – -72% (-238) Southbound – -83% (-267) **PM** Northbound – -81% (-329) Southbound – -87% (-600)	- **(M)** Introduce alternative traffic calming speed reduction measures (e.g. chicanes, road narrowings) - **(C)** Install junction table at junction of Cross Road and Outwood Road APPROXIMATE COST - £15,000
Outwood Road (between Cross Road and Wilton Avenue)		- Single lane carriageway in each direction - Traffic flows are high in each direction as road used as rat run between Wilmslow Road and Finney Lane - Mixture of residential and field frontage - Significant pedestrian movements	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - Existing calming is not a sufficient deterrent to rat running - There are a lack of crossing points - Existing advisory cycle route - There are significant number of pedestrians generated by local primary schools	- Heald Green cycle routes Phase I	**AM** Westbound – -% (-) Eastbound – -% (-) **PM** Westbound – -2% (-12) Eastbound – -97 (-339)	- **(M)** Introduce alternative traffic calming speed reduction measures (e.g. chicanes, road narrowings) APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Outwood Road (between Wilton Avenue and Wilmslow Road)		- Single lane carriageway in each direction - Traffic flows are high in each direction as road used as rat run between Wilmslow Road and Finney Lane - Mixture of residential and field frontage - Significant pedestrian movements	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - Existing calming is not a sufficient deterrent to rat running - There are a lack of crossing points - Existing advisory cycle route - There are significant number of pedestrians generated by local primary schools	- Heald Green cycle routes Phase I	**AM** Westbound – -% (-) Eastbound – -% (-) **PM** Westbound – +5% (+15) Eastbound – -73% (-325)	- **(M)** Introduce alternative traffic calming speed reduction measures (e.g. chicanes, road narrowings) - **(C)** Create informal crossing points in vicinity of school APPROXIMATE COST - £10,000
Shaw Heath (between Chatham Street and Bengal Street)		- Single lane carriageway in each direction - Heavy flows in the approaches to the Shaw Heath roundabout - Residential Frontages on northbound side of road	- Queues and delays in peak periods - Relatively high speeds during off peak period - Poor alignment of existing parking spaces		**AM** Northbound – -23% (-238) Southbound – -18% (-167) **PM** Northbound – -21% (-190) Southbound – -20% (-199)	- **(C)** Formalise on-street parking at existing residential properties on northbound side of road APPROXIMATE COST - £5,000
Shaw Heath (between Greek Street and Gilmore Street)		- Wide single lane carriageway in each direction - Heavy flows in the approaches to the Shaw Heath roundabout - Little residential frontage	- Queues and delays in peak periods - Relatively high speeds during off peak period - Poor provision for both pedestrians and cyclists		**AM** Northbound – -9% (-127) Southbound – -13% (-160) **PM** Northbound – -14% (-148) Southbound – -17% (-239)	- **(C)** Consider introducing formalised cycle route to link Shaw Heath and Stockport train station - **(C)** Introduce informal pedestrian crossing points APPROXIMATE COST - £30,000

Appendix D (Stockport Area 2 – South/South East)

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A6						
Buxton Road – Between Longshut Lane West and Bramhall Lane		- Offices/shop frontages - 2 lane carriageway in each direction - 2 existing parking bay areas outside shops (1 hour waiting restriction) on both sides of carriageway between Daisy Street and Lowfield Grove) - Significant levels of pedestrian activity	- High level of traffic movement throughout the day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of cycling facilities	- ITC - Network Audit	**AM** Northbound – -29% (-486) Southbound – -41% (-364) **PM** Northbound – -29% (-293) Southbound – -31% (-446)	- **(C)** Reduce carriageway to one lane in each direction. This will allow installation of parking bays (with short waiting restriction) and cycle lanes or wider footways - **(C)** Consider installation of bus lane on approach to signal controlled junctions at either end of link to provide bus priority - **(C)** Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road/ Bramhall Lane junction		- Large 4 arm signal controlled junction - Controlled pedestrian crossing facilities on junction - Significant levels of pedestrian activity - Advanced cycle stop lines installed at junction	- High level of traffic movement throughout day especially during peak periods - A6 traffic serves the properties on either side of road Absence of cycling facilities	- ITC - Network Audit	**AM** Reduction of approx. 1100 vehicles on approach to the junction **PM** Reduction of approx. 840 vehicles on approach to the junction	- **(C)** Consider changes to junction layout - **(M)** Reconfigure signal timing to maximise junction operation following introduction of the bypass - **(C)** Upgrade existing crossing points to 5m wide with coloured/textured surface to strengthen links and reduce severance - **(C)** Bus priority on junction if bus lane in place on approach to signals APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Bramhall Lane and Nangreave Road		- 2 lane carriageway in each direction - Existing parking bays on eastern sides of carriageway between War Memorial and Bramhall Lane - Predominantly shops and residential frontages - Significant levels of pedestrian activity	- High level of traffic movement throughout the day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of pedestrian crossing facilities - Absence of cycling facilities	- ITC - Network Audit	**AM** Northbound – -37% (-648) Southbound – -42% (-341) **PM** Northbound – -32% (-277) Southbound – -44% (-623)	- **(C)** Reduce carriageway to one lane in each direction. This will allow installation of parking bays on both sides (with short waiting restriction) and wider footways (cycle lanes could be installed on both sides if parking bay installed only on one side) - **(C)** Alternative to maintain existing carriageway layout with parking bay areas and install bus lane in each direction - **(C)** Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels - **(C)** Consider installation of new pedestrian crossing along link. This

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
						should be 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road/ Nangreave Road junction		- 4 arm signal controlled junction - Controlled pedestrian crossing facilities on junction - Significant levels of pedestrian activity - Advanced cycle stop lines installed at junction	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Reduction of approx. 1100 vehicles on approach to the junction **PM** Reduction of approx. 900 vehicles on approach to the junction	- **(C)** Consider changes to junction layout - **(C)** Reconfigure signal timing to maximise junction operation following introduction of the bypass - **(C)** Upgrade existing crossing to 5m wide with coloured/textured surface to strengthen links and reduce severance - **(C)** Consider bus priority at signals with short bus lane on approach to signals APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Nangreave Road and Countess Street		- 2 lane carriageway in each direction - Primarily shops/business frontages and minimal level of residential frontages - Puffin crossing located over Buxton Road near Regent Road junction - Significant levels of pedestrian activity	- High level of traffic movement throughout the day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of cycling facilities	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Northbound – -55% (-609) Southbound – -74% (-420) **PM** Northbound – -65% (-245) Southbound – -57% (-539)	- **(C)** Reduce carriageway to one lane in each direction. This will allow installation of parking bays (with short waiting restriction/residential permit system) and wider footways. An alternative is to install cycle lanes in both directions if parking bays are installed only on one side - **(C)** Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels - **(C)** Upgrade existing crossing to 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Countess Street and Kennerley Road		- 2 lane carriageway in each direction - Hotel/petrol station frontage	- High level of traffic movement throughout the day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Northbound – -52% (-659) Southbound – -48% (-451) **PM** Northbound – -46% (-320) Southbound – -45% (-624)	- **(C)** Reduce carriageway to one lane in each direction. This will allow installation of parking bays (with short waiting restriction/residential system) and cycle lanes or wider footways. Alternative to maintain existing carriageway layout on eastern side to allow installation of bus lane on

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
			movements and high levels of noise - Absence of cycling facilities			allow installation of bus lane on approach to signals allowing bus priority - (C) Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road/ Kennerley Road junction		- 4 arm signal controlled junction - No controlled pedestrian crossing facilities on junction - Significant levels of pedestrian activity	- High level of traffic movement throughout day especially during peak periods - Poor pedestrian facilities restricts pedestrian movements - Absence of cycling facilities	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Reduction of approx. 1080 vehicles on approach to the junction **PM** Reduction of approx. 860 vehicles on approach to the junction	- (C) Consider changes to junction layout - (C) Reconfigure signal timings to maximise junction operation following introduction of the bypass - (C) Install pedestrian phase on all arms of junction (consider 5m crossing points with coloured/textured surface to strengthen links and reduce severance) - (C) Bus priority if bus lane in place on approach to signals - (C) Install advanced cycle stop lines at junction APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Kennerley Road and Mile End Lane		- 2 lane carriageway in each direction - Primarily residential and business frontages - Existing Puffin crossing located over Buxton Road just north of Mile End Lane - Significant levels of pedestrian activity	- High level of traffic movement throughout the day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Northbound – -52% (-659) Southbound – -48% (-451) **PM** Northbound – -46% (-320) Southbound – -45% (-624)	- (C) Reduce carriageway to one lane in each direction. This will allow installation of parking bays on both sides (with short waiting restriction/residential system) and cycle lane on one side or wider footway. Alternative option to have cycle lanes on both sides if parking bays were installed only on one side - (C) Upgrade existing crossing to 5m wide with coloured/textured surface to strengthen links and reduce severance - (C) Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels - (C) Optimise layout at Buxton Road/Mile End Lane junction APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Buxton Road – Between Mile End Lane and Woods Moor Lane		- 2 lane carriageway in each direction - School frontages on both sides and small park area on northern side - Significant levels of pedestrian activity	- High level of traffic movement throughout the day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of cycling facilities	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Northbound – -52% (-720) Southbound – -54% (-586) **PM** Northbound – -48% (-304) Southbound – -45% (-605)	- (C) Reduce carriageway to one lane in each direction. This will allow installation of parking bays one side (with short waiting restriction/ residential system), cycle lanes in both directions or a wider park area on the eastern side. Alternative exists to maintain existing carriageway layout and install bus lanes direction - (C) Maintain ghost islands at entrance to school to maintain traffic movements/reduce accident level APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Woods Moor Lane and Cherry Tree Lane		- 2 lane carriageway in each direction - Predominantly shops/residential frontages - Existing Puffin crossing located just east of Woods Moor Lane - Existing Puffin crossing located just west of Cherry Tree Lane - Significant levels of pedestrian activity	- High level of traffic movement throughout the day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of cycling facilities	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Northbound – -50% (-553) Southbound – -40% (-355) **PM** Northbound – -40% (-303) Southbound – -45% (-540)	- (C) Reduce carriageway to one lane in each direction. This will allow installation of parking bays on both sides to service shops (should have short waiting restriction) and cycle lane on one side. Alternative option available to have parking bays on one side and cycle lanes in both directions - (C) Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels - (C) Upgrade existing crossings to 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Cherry Tree Lane and Bonis Crescent		- Two lane carriageway in each direction - Predominantly shop frontages - Significant levels of pedestrian activity	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of pedestrian crossing facilities - Absence of cycling facilities	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Northbound – -53% (-554) Southbound – -31% (-274) **PM** Northbound – -45% (-298) Southbound – -46% (-549)	- (C) Reduce carriageway to one lane in each direction. This will allow installation of parking bays on both sides to service shops (should have short waiting restriction) and cycle lane in one direction. Alternative option available to have parking bays on one side and cycle lanes in both directions - (C) Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels - (C) Consider installation of new

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
						pedestrian crossing facilities (5m wide with coloured/textured surface to strengthen links and reduce severance) APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Bonis Crescent and Dialstone Lane		- Two lane carriageway in each direction - Predominantly residential frontages - Significant levels of pedestrian activity	- High level of traffic movement throughout the day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of pedestrian crossing facilities	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Northbound – -40% (-525) Southbound – -23% (-275) **PM** Northbound – -29% (-270) Southbound – -35% (-519)	- **(C)** Reduce carriageway to one lane in each direction. This will allow installation of cycle lanes or wider footways or bus lane on approach to Dialstone Lane signals - **(C)** Consider new pedestrian crossing facilities in the area APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road/ Dialstone Lane junction		- Large 4 arm signal controlled junction - Controlled pedestrian facilities installed on junction - Significant levels of pedestrian activity - Advanced cycle stop lines installed at junction	- High level of traffic movement throughout day due to Hospital access point - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Reduction of approx. 1400 vehicles on approach to the junction **PM** Reduction of approx. 1400 vehicles on approach to the junction	- **(C)** Consider changes to junction layout - **(C)** Reconfigure signal timing to maximise junction operation following introduction of the bypass - **(C)** Upgrade existing pedestrian crossing points to 5m wide with coloured/textured surface to strengthen links and reduce severance - **(C)** Bus priority if bus lane in place on approach to signals APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Dialstone Lane and New Moor Lane		- Two lane carriageway in each direction - Predominantly residential frontages	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of cycling facilities	- ITC - Network Audit - Civilising Cities - Great Moor Local Centre Action Plan	**AM** Northbound – -41% (-848) Southbound – -26% (-509) **PM** Northbound – -29% (-486) Southbound – -36% (-847)	- **(C)** Reduce carriageway to one lane in each direction. This will allow installation of parking bays on both sides and cycle lanes on both sides. Alternatives exist to install wider footways or retain existing carriageway layout and install bus lanes - **(C)** Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels APPROXIMATE COST - £n/a, considered

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
						as part of major schemes
London Road/New Moor Lane junction/Mill Lane junction		- Newly constructed junction with access to Sainsburys store - High level of pedestrian crossing provision provided at junction - Advanced cycle stop lines installed at junction together with dedicated cycle area on the footway	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise	- Network Audit - New link road to/from bypass to join existing junction	**AM** Reduction of approx. 1200 vehicles on approach to the junction **PM** Reduction of approx. 1300 vehicles on approach to the junction	- **(C)** Consider changes to junction layout - **(C)** Reconfigure signal timing to maximise junction operation following introduction of the bypass - **(C)** Bus priority if bus lane in place on approach to signals - **(C)** Upgrade existing pedestrian crossings to 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
London Road – Between New Moor Lane and Commercial Road		- Two lane carriageway in each direction - Predominantly shop frontages - Significant levels of pedestrian activity - Toucan crossing installed just west of Grosvenor Street junction - Significant levels of pedestrian activity	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of cycling facilities	- Network Audit - New four arm signalised junction for allow access to/from Co-op store on A6 at planning stage	**AM** Northbound – -38% (-725) Southbound – -29% (-483) **PM** Northbound – -29% (-425) Southbound – -41% (-917)	- **(C)** Install gateway features at entrance to Hazel Grove District Centre - **(C)** Reduce carriageway to one lane in each direction. This will allow installation of parking bays on both sides and wider footways. Alternative to install parking bay on one side and cycle lanes in both directions - **(C)** Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels - **(C)** Upgrade existing pedestrian and cycle crossing points to 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
London Road/ Commercial Road junction		- Signal controlled junction with controlled pedestrian crossing facilities - Predominantly shop frontages - Significant levels of pedestrian activity at junction - Advanced cycle stop lines installed at junction	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise	- Hazel Grove District Centre - ITC - Network Audit	**AM** Reduction of approx. 1200 vehicles on approach to the junction **PM** Reduction of approx. 1550 vehicles on approach to the junction	- **(C)** Consider changes to junction layout - **(C)** Reconfigure signal timing to maximise junction operation following introduction of the bypass - **(C)** Widen pavement surrounding junction if carriageway area decreased - **(C)** Upgrade existing pedestrian crossing points to 5m wide with

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
						coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
London Road – Between Commercial Road and Chester Road		- Two lane carriageway in each direction - Predominantly shop frontages - Several controlled pedestrian crossings installed along the link - Significant levels of pedestrian activity	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of cycling facilities	- Hazel Grove District Centre - ITC - Network Audit	**AM** Northbound – -37% (-505) Southbound – -24% (-318) **PM** Northbound – -31% (-340) Southbound – -34% (-494)	- (C) Reduce carriageway to one lane in each direction. This will allow installation of parking bays on both sides. Alternative exists to install wider footways instead of parking bays - (C) Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels - (C) Upgrade existing pedestrian crossing points to 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
London Road – Between Chester Road and McDonalds access junction		- Two lane carriageway in each direction - Predominantly shop frontages - Several pedestrian crossings located in area	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of cycling facilities	- Hazel Grove District Centre - ITC - Network Audit	**AM** Northbound – -55% (-812) Southbound – -45% (-591) **PM** Northbound – -41% (-460) Southbound – -44% (-686)	- (C) Reduce carriageway to one lane in each direction. This will allow installation of parking bays on both sides. Alternative exists to install wider footways or cycle lanes - (C) Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels - (C) Upgrade existing pedestrian crossing points to 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
London Road/ McDonald's access junction		- Signal controlled junction with controlled pedestrian crossing facilities - Predominantly shop frontages - Significant level of pedestrian activity	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels	- Hazel Grove District Centre - ITC - Network Audit	**AM** Reduction of approx. 1400 vehicles on approach to the junction **PM** Reduction of approx. 850 vehicles on approach to	- (C) Consider changes to junction layout - (C) Widen pavement if carriageway area decreased - (C) Reconfigure signal timing to maximise junction operation following introduction of the bypass - (C) Upgrade existing pedestrian

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
			of noise		the junction	crossing points to 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
London Road – Between McDonalds access junction and Torkington Road		- Two lane carriageway in each direction - Predominantly shop frontages	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of cycling facilities	- Hazel Grove District Centre - ITC - Network Audit	**AM** Northbound – -55% (-812) Southbound – -45% (-591) **PM** Northbound – -41% (-460) Southbound – -44% (-686)	- **(C)** Reduce carriageway to one lane in each direction. This will allow installation of parking bays. Alternative exists to install wider footways or cycle lanes APPROXIMATE COST - £n/a, considered as part of major schemes
London Road/ Torkington Road junction		- Signal controlled junction with controlled pedestrian facilities installed on some arms of junction - Variety of frontage activities - Advanced cycle stop line in place on western arm	- High level of traffic movement throughout day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Poor cycling facilities	- Hazel Grove District Centre - ITC - Network Audit	**AM** Reduction of approx. 1560 vehicles on approach to the junction **PM** Reduction of approx. 1470 vehicles on approach to the junction	- **(M)** Install gateway feature on entrance to Hazel Grove District Centre area to further enforce speed change and mitigate changes in traffic flow - **(C)** Consider changes to junction layout - **(C)** Reconfigure signal timing to maximise junction operation following introduction of the bypass - **(C)** Bus priority if bus lane in place on approach to signals - **(C)** Install pedestrian crossing points to 5m wide with coloured/textured surface to strengthen links and reduce severance on all arms of junction - **(C)** Install advanced cycle stop lines on all arms of junction APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
London Road – Between Torkington Road and Macclesfield Road		- Two lane carriageway in each direction - Predominantly shop and residential frontages	- High level of traffic movement throughout the day especially during peak periods - A6 creates severe severance between different sides of road due to traffic movements and high levels of noise - Absence of pedestrian crossing point to allow access to/from Torkington Park - Absence of cycling facilities	- Hazel Grove District Centre - ITC - Network Audit	**AM** Northbound – -38% (-667) Southbound – -32% (-546) **PM** Northbound – -38% (-540) Southbound – -30% (-556)	- (C) Retain existing carriageway layout and install bus priority lanes also usable by cyclists - (C) Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels - (C) Install new pedestrian crossing 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes
London Road/ Macclesfield Road junction		- Large signal controlled 4 arm junction - Poor pedestrian facilities	- High level of traffic movement throughout the day especially during peak periods - Severe severance between opposite sides of road - Absence of cycling facilities	- ITC proposal for junction – includes upgrading pedestrian facilities - Network Audit	**AM** Reduction of approx. 1400 vehicles on approach to the junction **PM** Reduction of approx. 1300 vehicles on approach to the junction	- (C) Consider changes to junction layout - (C) Widen pavement if carriageway area decreased - (C) Reconfigure signal timing to maximise junction operation following introduction of the bypass - (C) Install pedestrian crossing points 5m wide with coloured/textured surface to strengthen links and reduce severance - (C) Install advanced cycle stop lines at junction APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Macclesfield Road and Yew Tree Avenue		- 40mph speed limit - Single lane carriageway in each direction - Predominantly residential frontages	- High level of traffic movement throughout the day especially during peak periods - Absence of cycling facilities - Some vehicles travel at high speed along the road. This could potentially be made worse with the introduction of the bypass	- Network Audit	**AM** Northbound – -72% (-791) Southbound – -53% (-369) **PM** Northbound – -55% (-437) Southbound – -49% (-676)	- (M) Lower speed limit to 30mph - (C) Install cycle lanes on both sides of carriageway APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Buxton Road – Between Yew Tree Avenue and Mill Lane		- 40mph speed limit - Single lane carriageway in each direction - Predominantly residential frontages	- High level of traffic movement throughout the day especially during peak periods	- Network Audit	No data available	- **(M)** Lower speed limit to 30mph - **(M)** Install features to enforce speed limit - **(C)** Introduction of bypass will mean existing road becomes part of a cul-de-sac resulting in a significant reduction in traffic levels, potential for Homezone area APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between point just east of Mill Lane and Norbury Hollow Road		- 40mph speed limit - Single lane carriageway in each direction - Predominantly open field frontages with some residential	- High level of traffic movement throughout the day especially during peak periods	- Network Audit	No data available	- **(M)** Lower speed limit to 30mph - **(M)** Install features to enforce speed limit APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Norbury Hollow Road and Windlehurst Road		- 30mph and 40mph speed limits - Gateway feature at entrance to High Lane to decrease speed limit from 40mph to 30mph - Single Lane carriageway in each direction - Predominantly residential and open field frontages	- Some parking observed on carriageway restricting traffic flows	- Network Audit	**AM** Northbound – +32% (+395) Southbound – +24% (+174) **PM** Northbound – +38% (+330) Southbound – -2% (-39)	- **(M)** Upgrade gateway feature at entrance to High Lane area to further enforce change in speed limit - **(M)** Consider waiting and loading restrictions to maximise flows (or clearway order) - **(M)** Consider installation of ghost islands at junctions to maintain traffic movements/reduce accident levels APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road/ Windlehurst Road junction		- 3 arm signal controlled junction - Controlled pedestrian crossing facilities installed on junction - Advanced cycle stop lines only installed on eastern arm of junction	- High levels of slow moving/ queuing vehicles along Buxton Road on approach to signals during peak period	- Network Audit	**AM** Increase of approx. 600 vehicles on approach to the junction **PM** Increase of approx. 310 vehicles on approach to the junction	- **(M)** Consider changes to junction layout - **(M)** Reconfigure signal timing to maximise junction operation following introduction of the bypass - **(C)** Install pedestrian crossing points 5m wide with coloured/textured surface to strengthen links and reduce severance APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Buxton Road – Between Windlehurst Road and Andrew Lane		- Single lane carriageway in each direction - Predominantly shop frontages - Two pedestrian crossings in place over Buxton Road	- Congestion on the A6 through High Lane, especially during peak periods - Significant levels of pedestrian activity - Absence of cycling facilities	- Network Audit	**AM** Eastbound – +21% (+192) Westbound – +31% (+191) **PM** Eastbound – +31% (+214) Westbound – +19% (+197)	- **(M)** Consider removal of on-street parking east of the junction with Windlehurst Road - **(M)** Review loading restrictions east of junction with Windlehurst Road - **(M)** Install ghost islands at junctions to maintain traffic movements/reduce accident levels - **(C)** Redesign existing pedestrian crossing points so are 5m wide with coloured/textured surface to strengthen links and reduce severance - **(M)** Consider installation of new uncontrolled crossing points to assist pedestrians movements due to predicted increases in traffic flow APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Andrew Lane and Carr Brow		- Single lane carriageway in each direction - Predominantly residential frontages - No waiting at anytime restriction along link ends east of the junction with Alders Green Avenue	- Congestion on the A6 during peak periods - Absence of cycling facilities	- Network Audit	**AM** Eastbound – +26% (+162) Westbound – +29% (+242) **PM** Eastbound – +19% (+179) Westbound – +36% (+226)	- **(M)** Install ghost islands at junctions to maintain traffic movements/reduce accident levels - **(M)** Consider installing of new waiting restriction along link APPROXIMATE COST - £n/a, considered as part of major schemes
Buxton Road – Between Carr Brow and Stockport/ Macclesfield Border		- Single lane carriageway in each direction - Predominantly residential frontages	- Congestion on the A6 during peak periods - Absence of cycling facilities	- Network Audit	**AM** Eastbound – +25% (+162) Westbound – +30% (+242) **PM** Eastbound – +23% (+178) Westbound – +35% (+226)	- **(M)** Introduction of bypass is likely to increase traffic levels significantly, install ghost islands at junctions to maintain traffic movements/reduce accident levels - **(M)** Consider installing of new waiting restriction along link APPROXIMATE COST - £n/a, considered as part of major schemes

Note

1. All options shown are based on keeping the existing footway the same width. There is a wide range of other options available other than those suggested above for the A6.
2. There are opportunities for public realm improvements all along the A6.

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A627 (Torkington Road/ Offerton Road)						
Torkington Road – Between A6 London Road and Hazel Wood Road		- Single lane carriageway in each direction - Residential frontages	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Network Audit	**AM** Northbound – -39% (-408) Southbound – -45% (-308) **PM** Northbound – -50% (-452) Southbound – -27% (-243)	- **(M)** Install measures to ensure speed limit is adhered to APPROXIMATE COST - £15,000
Torkington Road – Between Hazelwood Road and Torkington Road		- Single lane carriageway in each direction - Residential frontages	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Network Audit	**AM** Northbound – -39% (-307) Southbound – -46% (-407) **PM** Northbound – -51% (-466) Southbound – -37% (-318)	- **(M)** Install measures to ensure speed limit is adhered to APPROXIMATE COST - £15,000
Torkington Road – Between Torkington Road and Brinkburn Road		- Single lane carriageway in each direction - Residential frontages - Some sections of narrow footway	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Network Audit	**AM** Northbound – -35% (-220) Southbound – -49% (-296) **PM** Northbound – -51% (-342) Southbound – -32% (-191)	- **(M)** Install measures to ensure speed limit is adhered to APPROXIMATE COST - £15,000
Offerton Road – Between Sanderling Road and Marple Road		- Single lane carriageway in each direction - Residential and open field frontages	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Network Audit	**AM** Northbound – -8% (-76) Southbound – +26% (+167) **PM** Northbound – +20% (+188) Southbound – -23% (-149)	- **(M)** Install measures to ensure speed limit is adhered to APPROXIMATE COST - £15,000
A523 (Macclesfied Road)						
Macclesfield Road – Between A6 London Road and Chatsworth Road		- Single lane carriageway in each direction - Residential frontages - Cycle lanes in place on either side of carriageway south of railway bridge - Pedestrian crossing located just south of Chatsworth	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Absence of cycling facilities	- Network Audit	**AM** Northbound – -7% (-76) Southbound – -25% (-356) **PM** Northbound – -23% (-285) Southbound – -12% (-141)	- **(C)** Opportunity to reduce width of the carriageway through widening of footways, and central hatching. Cycles lanes are currently in place south of the railway bridge. These could be extended north of the bridge to the junction with the A6

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
		Road				APPROXIMATE COST - £2,500
Macclesfield Road – Between Dean Lane and Chatsworth Road		- Single lane carriageway in each direction - Residential frontages - Cycle lanes in place on either side of carriageway	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Network Audit	**AM** Northbound – -10% (-102) Southbound – -29% (-386) **PM** Northbound – -28% (-299) Southbound – -14% (-141)	- **(M)** Implement measure to ensure speed limit adhered to APPROXIMATE COST - £15,000
Macclesfield Road/Dean Lane junction		- 4 arm signal controlled junction - Controlled pedestrian crossing facilities on junction - Advanced cycle stop lines installed on both Macclesfield Road arms of junction	- None	- Network Audit	**AM** Reduction of approx. 570 vehicles on approach to the junction **PM** Reduction of approx. 660 vehicles on approach to the junction	- **(C)** Consider changes to junction layout - **(C)** Optimise/reconfigure signal timings to maximise flows following introduction of bypass - **(C)** Install advanced cycle lanes on Dean Lane and Mill Lane arms APPROXIMATE COST - £2,000
Macclesfield Road – Between Dean Lane and bypass		- Single lane carriageway in each direction - Residential frontages	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Network Audit	**AM** Northbound – -3% (-27) Southbound – -19% (-271) **PM** Northbound – -25% (-308) Southbound – -16% (-185)	- **(M)** Implement measure to ensure speed limit adhered to APPROXIMATE COST - £15,000
A5143 (Bridge Lane/ Jacksons Lane/ Dean Lane)						
Bridge Lane		- Single lane carriageway in each direction - Residential frontages - Cycle lanes installed along both side of carriageway	- There is only a single controlled pedestrian crossing located close to the Valley Road junction. This makes it difficult for pedestrians to cross	- Network Audit	**AM** Eastbound – -5% (-54) Westbound – -39% (-380) **PM** Eastbound – -20% (-229) Westbound – -7% (-71)	- **(C)** Consider implementation of pedestrian refuges at appropriate locations APPROXIMATE COST - £20,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Jackson's Lane – Between Bramhall Moor Lane and Arundel Avenue		- Single lane carriageway in each direction - Primarily residential frontages to north and open field frontages to south	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Network Audit	**AM** Eastbound – -30% (-167) Westbound – -60% (-337) **PM** Eastbound – -41% (-278) Westbound – -28% (-144)	- **(M)** Measures to ensure speed limit is adhered to APPROXIMATE COST - £15,000
Jackson's Lane – Between Arundel Avenue and Chester Road		- Single lane carriageway in each direction - Residential frontages	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Network Audit	**AM** Eastbound – +7% (+34) Westbound – -34% (-155) **PM** Eastbound – +0% (+7) Westbound – -23% (-141)	- **(M)** Potential to reduce width of carriageway through widening of footways and central hatching to reduce occurrence of speeding APPROXIMATE COST - £22,500
Dean Lane		- Single lane carriageway in each direction - Residential frontages	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Network Audit	**AM** Eastbound – -35% (-158) Westbound – -52% (-191) **PM** Eastbound – -8% (-213) Westbound – -24% (-92)	- **(M)** Potential to reduce width of carriageway through widening of footways, central hatching and introduction of pedestrian refuges APPROXIMATE COST - £38,750
C412 (Chester Road)						
Chester Road – Between Stockport/ Macclesfield border and Dean Lane		- Single lane carriageway in each direction - Residential frontages	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	None	**AM** Northbound – -48% (-168) Southbound – -12% (-53) **PM** Northbound – -57% (-280) Southbound – -61% (-214)	- **(M)** Install measures to ensure speed limit adhered to APPROXIMATE COST - £15,000
Chester Road/Dean Lane junction		- 4 arm signal controlled junction - Absence of controlled pedestrian facilities at junction - Absence of cycling facilities	- As no pedestrian phase is provided in the signal timings. Pedestrians find it difficult to cross - High level of pedestrian movement at junction at school start/finishing times (due to vicinity to Hazel Grove High School) - Absence of cycling facilities	Pedestrian phase added to signal timings proposed as part of A5143/A523 Network Audit	**AM** Reduction of approx. 530 vehicles on approach to the junction **PM** Reduction of approx. 600 vehicles on approach to the junction	- **(C)** Consider changes to junction layout - **(C)** Optimise/reconfigure signal timings to maximise flows following introduction of bypass - **(C)** Install controlled pedestrian facilities at junction as outlined in A523/A5143 Network Audit report - **(C)** Implement advance stop lines for cyclists at junction

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
						APPROXIMATE COST - £72,500
Chester Road – Between Dean Lane and Cavendish Road		- Single lane carriageway in each direction - Residential frontages - Wide carriageway width - On street parking occurs along link	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Absence of cycling facilities	None	**AM** Northbound – -65% (-168) Southbound – -55% (-209) **PM** Northbound – -77% (-308) Southbound – -79% (-229)	- **(C)** Opportunity to formalise/mark out parking area - **(C)** Implement cycle lanes and narrow carriageway with central hatching and pedestrian refuges to attempt to reduce occurrence of speeding vehicles APPROXIMATE COST - £18,500
Chester Road – Between Cavendish Road and A6 London Road		- Single lane carriageway in each direction - Residential frontages - Wide carriageway widths south of rail bridge	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	None	**AM** Northbound – -35% (-146) Southbound – -35% (-179) **PM** Northbound – -43% (-250) Southbound – -35% (-177)	- **(C)** Opportunity to implement cycle lanes south of the railway bridge - **(M)** Implement measure to ensure speed limit adhered to APPROXIMATE COST - £17,500
C462 (Banks Lane/Dialstone Lane)						
Banks Lane – Between Harold Street and Hempshaw Lane		- Single lane carriageway in each direction - No waiting anytime restriction in place on eastern sides of carriageway - Parking often on western side	- Inefficient use of carriageway space by parked vehicles	None	**AM** Northbound – -34% (-133) Southbound – -50% (-268) **PM** Northbound – -45% (-242) Southbound – -63% (-390)	- **(C)** Mark out parking bays to formalise parking on western side APPROXIMATE COST - £500
Hempshaw Lane/ Banks Lane junction		- 4 arm signal controlled junction - Controlled pedestrian crossing facilities on junction	- Absence of cycle facilities at junction - High level of pedestrian accidents	- Civilising Cities	**AM** Reduction of approx. 720 vehicles on approach to the junction **PM** Reduction of approx. 960 vehicles on approach to the junction	- **(C)** Consider changes to junction layout with view to decreasing occurrence of pedestrian accidents - **(C)** Optimise/reconfigure signal timings to maximise flows following introduction of bypass - **(C)** Install advance cycle stop lines on junction APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Dialstone Lane – Between Hempshaw Lane and Nangreave Road		- Single lane carriageway in each direction - Primarily residential frontages - High level of on street parking observed in marked parking bay areas - Series of pedestrian refuge islands installed along road	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Absence of cycling facilities	- Civilising Cities - Integrated route treatment scheme presently at planning stage	**AM** Northbound – -39% (-249) Southbound – -52% (-362) **PM** Northbound – -41% (-237) Southbound – -61% (-464)	- **(C)** Implement proposed integrated route treatment scheme or similar APPROXIMATE COST - £n/a, considered as part of major schemes
Dialstone Lane/ Nangreave Road junction		- 4 arm signal controlled junction - No controlled pedestrian crossing facilities provided at junction	- Absence of cycling facilities at junction - Significant levels of pedestrian activity	- Civilising Cities - Integrated route treatment scheme presently at planning stage	**AM** Reduction of approx. 700 vehicles on approach to the junction **PM** Reduction of approx. 700 vehicles on approach to the junction	- **(C)** Consider changes to junction layout - **(C)** Optimise/reconfigure signal timings to maximise flows following introduction of bypass - **(C)** Install controlled pedestrian crossing facilities at junction - **(C)** Install advance cycle stop lines at junction APPROXIMATE COST - £n/a, considered as part of major schemes
Dialstone Lane – Between Nangreave Road and Mile End Lane		- 30mph speed limit - Wide carriageway area - Residential frontages - Minimal amount of parking observed on both side of carriageway - Poor level of pedestrian crossing facilities	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Poor level of pedestrian crossing facilities - Absence of cycling facilities	- Civilising Cities - Integrated route treatment scheme presently at planning stage	**AM** Northbound – -18% (-262) Southbound – -25% (-323) **PM** Northbound – -16% (-199) Southbound – -32% (-479)	- **(C)** Implement proposed integrated route treatment scheme or similar APPROXIMATE COST - £n/a, considered as part of major schemes
Dialstone Lane – Between Mile End Lane and Cherry Tree Lane		- Wide carriageway area - Residential and playing field frontage - Minimal amount of on street parking	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Poor level of pedestrian crossing facilities - Absence of cycling facilities	- Civilising Cities - Integrated route treatment scheme presently at planning stage	**AM** Northbound – -33% (-334) Southbound – -37% (-310) **PM** Northbound – -32% (-287) Southbound – -50% (-562)	- **(C)** Implement proposed integrated route treatment scheme or similar APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Dialstone Lane – Between Cherry Tree Lane and A6 London Road		- Wide carriageway area - Residential frontages - Some pedestrian refuge island in place along road - On street parking observed all along link - Parking bay area marked on carriageway on eastern side south of Dial Park Road junction	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Poor level of pedestrian crossing facilities - Absence of cycling facilities	- Civilising Cities - Integrated route treatment scheme presently at planning stage	**AM** Northbound – -41% (-323) Southbound – -32% (-235) **PM** Northbound – -28% (-216) Southbound – -38% (-328)	- **(C)** Implement proposed integrated route treatment scheme or similar APPROXIMATE COST - £n/a, considered as part of major schemes
Andrew Lane						
Andrew Lane – Between Buxton Road and Bowfell Drive		- 20mph zone around High Lane School - Single lane carriageway in each direction - Residential frontages	- Potential rat run to avoid predicted increased traffic levels on southern end of Windlehurst Lane and A6 through High Lane area	None	**AM** Northbound – 0% (0) Southbound – -14% (-14) **PM** Northbound – -0% (-2) Southbound – -16% (-19)	- **(M)** Consider extending 20 mph zone throughout to discourage potential rat running APPROXIMATE COST - £25,000
Andrew Lane – Between Bowfell Drive and Windlehurst Road		- Single lane carriageway in each direction - Residential frontages - 20mph zone outside school	- Potential rat run to avoid predicted increased traffic levels on southern end of Windlehurst Lane and A6 through Windlehurst Lane area	None	**AM** Northbound – +9% (+14) Southbound – -45% (-6) **PM** Northbound – +23% (+19) Southbound – +1% (+2)	- **(M)** Consider extending 20 mph zone throughout to discourage potential rat running APPROXIMATE COST - £25,000
Bosdenfolds Road/ Hazelwood Road and Clarendon Road						
Bosdenfold Road		- Single lane carriageway in each direction - Residential frontages	- None	None	**AM** Eastbound – -91% (-151) Westbound – -74% (-120) **PM** Eastbound – -95% (-445) Westbound – -188% (-95)	- **(M)** Potential rat run to/from new bypass, install traffic calming features to discourage rat running and ensure speed limit is adhered to APPROXIMATE COST - £4,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Hazelwood Road		- Single lane carriageway in each direction - Residential frontages	- None	None	AM Northbound – +15% (+1) Southbound – -5% (-1) PM Northbound – +226% (+14) Southbound – +339% (+75)	- (M) Potential rat run to/from new bypass, install traffic calming features to discourage rat running and ensure speed limit is adhered to APPROXIMATE COST - £10,000
Clarendon Road – Between Hazelwood Road and Berkeley Road		- Single lane carriageway in each direction - Residential frontages	- None	None	AM Eastbound – -89% (-144) Westbound – -68% (-112) PM Eastbound – -89% (-427) Westbound – -49%(-109)	- (M) Potential rat run to/from new bypass, install traffic calming features to discourage rat running and ensure speed limit is adhered to APPROXIMATE COST - £2,000
Clarendon Road/ Brinkburn Road east of Berkeley Road		- Single lane carriageway in each direction - Residential frontages	- None	None	AM Eastbound – +18% (+44) Westbound – +16% (+34) PM Eastbound – -28% (-120) Westbound – -138% (-187)	- (M) Potential rat run to/from new bypass, install traffic calming features to discourage rat running and ensure speed limit is adhered to APPROXIMATE COST - £2,000
Bramhall Moor Lane						
Bramhall Moor Lane – Between Bridge Lane and Marsham Road		- Single lane carriageway in each direction - Residential frontages - Wide carriageway encourages vehicles to speed	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Absence of cycling facilities	- Cycle lanes proposed along road as part of existing cycling scheme	AM Northbound – +31% (+112) Southbound – -9% (-43) PM Northbound – +12% (+50) Southbound – +18% (+73)	- (C) Potential to narrow carriageway with central hatching, pedestrian refuges and implementation of proposed cycle lanes APPROXIMATE COST - £32,500
Bramhall Moor Lane – Between Marsham Road and A6 London Road		- Single lane carriageway in each direction - Residential frontages - Wide carriageway encourages vehicles to speed (between Marsham Road and Aldwyn Crescent) - Narrow carriageway width north of Aldwyn Crescent	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Parking outside entrance to Stepping Hill Hospital affects traffic flows and makes crossing by pedestrians problematic	- Cycle lanes proposed along road as part of existing cycling scheme	AM Northbound – +4% (+21) Southbound – -21% (-125) PM Northbound – +0% (+2) Southbound – +3% (+18)	- (C) Potential to narrow carriageway with central hatching and implementation of proposed cycle lanes between Marsham Road and Aldwyn Crescent - (M) North of Aldwyn Crescent – Consider waiting restriction to prevent parking outside entrance to Stepping Hill Hospital (presently restricts traffic flow)

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
			- No cycling facilities			APPROXIMATE COST - £32,500
Commercial Road/Bean Leach Road						
Commercial Road		- Single lane carriageway in each direction - Shops/residential frontages - Provides a key link between Offerton and Hazel Grove	- High level of queuing back from junction with A6 during peak periods - Proposed cycle route currently at planning stage runs along road		**AM** Northbound – -91% (-159) Southbound – -84% (-215) **PM** Northbound – -95% (-502) Southbound – -96% (-252)	- **(M)** Introduction of bypass will mean large reduction in traffic levels due to closure of road to vehicles at intersection with bypass, Install measures to ensure speed limit is adhered to APPROXIMATE COST - £8,000
Bean Leach Road – Between junction with Commercial Road and A626 Marple Road		- Single lane carriageway in each direction - Largely residential frontages	- Some vehicles travel at high speeds along road this could potentially be made worse with introduction of the bypass - Proposed cycle route currently at planning stage runs along road		No data available	- **(M)** Introduction of bypass will mean large reduction in traffic levels due to closure of road to vehicles at intersection with bypass, Install measures to ensure speed limit is adhered to APPROXIMATE COST - £45,000
Nangreave Road (B6171), Cherry Tree Lane, Hempshaw Lane, Hillcrest Road, Lisburne Lane & Mile End Lane						
Hempshaw Lane – Between St Mary's Way and Dialstone Lane		- Single lane carriageway in each direction - Narrow carriageway width - Residential/School/industrial estate frontages	- High level of parking on northern side of road on approach to Dialstone Lane signals (outside shops) affects traffic flow on approach to signals - Some vehicles travel in excess of speed limit this could be made worse with introduction of bypass	- Civilising Cities	**AM** Eastbound – -4% (-12) Westbound – -26% (-234) **PM** Eastbound – -35% (-281) Westbound – -18% (-51)	- **(M)** Install measures to enforce speed limit - **(M)** Consider waiting restriction outside shops to prevent parking on approach to signals APPROXIMATE COST - £15,000
Hempshaw Lane – Between Dialstone Lane and Sydney Street		- Single lane carriageway in each direction - Narrow footways - Residential frontage on southern side. Industrial estate frontage on northern side - No waiting restriction at anytime along both sides of carriageway along most of the link	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Some contravention of TRO	- Civilising Cities	**AM** Eastbound – +3% (+7) Westbound – -24% (-194) **PM** Eastbound – -29% (-202) Westbound – -18% (-50)	- **(M)** Install measures to enforce speed limit - **(C)** Ensure TRO is enforced APPROXIMATE COST - £15,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Hempshaw Lane – Between Sydney Street and Filey Road		- Single lane carriageway in each direction - Narrow footway - Residential frontage - On street parking occurs on both sides of carriageway (some vehicles parked mounting footway) - Small parking bay area outside shops	- Footway parking obstructs pedestrian movements	- Civilising Cities	**AM** Eastbound – +7% (+8) Westbound – -39% (-195) **PM** Eastbound – -22% (-50) Westbound – -42% (-203)	- **(C)** Formalise parking on one side of carriageway and consider waiting restriction on other side to prevent footway parking APPROXIMATE COST - £10,000
Hempshaw Lane – Between Filey Road and Offerton Lane		- Single lane carriageway in each direction - Residential frontage - On street parking occurs on southern side of carriageway outside houses	- Parked vehicles inefficiently using carriageway space	- Civilising Cities	**AM** Eastbound – +7% (+8) Westbound – -39% (-195) **PM** Eastbound – -22% (-50) Westbound – -42% (-203)	- **(C)** Formalise parking on southern side outside houses - **(M)** Install no waiting restriction on northern side of carriageway APPROXIMATE COST - £10,000
Nangreave Road – Between A6 Buxton Road and Dialstone Lane		- Single lane carriageway in each direction - Residential frontages - High level of on street parking outside College and Cemetery area - Parking bays marked on both sides of carriageway - High level of parking observed on approach to Dialstone Lane signals affecting traffic movements at signals	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass - Absence of cycling facilities	- Civilising Cities - IRT	**AM** Eastbound – -6% (-28) Westbound – -17% (-144) **PM** Eastbound – -13% (-80) Westbound – -5% (-29)	- **(C)** Consider installation of pedestrian refuge(s) to assist pedestrians crossing outside College - **(M)** Implement proposed cycling and traffic calming scheme or similar, to decrease vehicle speeds and discourage usage as a rat run - **(M)** Ban parking on approach to Dialstone Lane junction APPROXIMATE COST - £25,000
Hillcrest Road – Between Dialstone Lane and Broadway		- Single lane carriageway in each direction - Wide carriageway area - Primarily residential frontages - Some on street parking observed	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Civilising Cities - IRT	**AM** Eastbound – +9% (+24) Westbound – -7% (-40) **PM** Eastbound – +12% (+43) Westbound – +10% (+41)	- **(M)** Install traffic calming measure to decrease vehicle speeds and discourage usage as rat run APPROXIMATE COST - £25,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Hillcrest Road – Between Broadway and Offerton Lane		- Single lane carriageway in each direction - Wide carriageway area - Primarily residential frontages - Some on street parking observed	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Civilising Cities - IRT	**AM** Eastbound – +47% (+34) Westbound – -16% (-34) **PM** Eastbound – +29% (+40) Westbound – +24% (+43)	- **(M)** Install traffic calming measure to decrease vehicle speeds and discourage usage as rat run APPROXIMATE COST - £25,000
Mile End Lane		- Single lane carriageway in each direction - Primarily residential frontages - 20mph zone and speed cushions in place south of Sandhurst Road (outside school) - High traffic speeds observed during site visit outside of 20mph zone - On street parking regularly occurs along road	- Some vehicles travel at high speed outside of 20mph zone, this could potentially be made worse with introduction of bypass	- Civilising Cities - IRT	**AM** East bound – -10% (-45) West bound – -27% (-119) **PM** Eastbound – -5% (-22) Westbound – -4% (-19)	- **(M)** Consider extending 20mph zone - **(M)** Install traffic calming measure to decrease vehicle speeds and discourage usage as rat run outside existing 20mph zone APPROXIMATE COST - £25,000
Cherry Tree Lane – Between A6 London Road and St Saviour's		- Single lane carriageway in each direction - Residential frontages - A series of chicanes are installed along road and a width restriction is in place	- Rat-running observed, despite existing traffic calming	- Civilising Cities	**AM** Northeast bound – -97% (-57) Southwest bound – -21% (-26) **PM** Northeast bound – -16% (-5) Southwest bound – -12% (-19)	- None APPROXIMATE COST - £nil
Cherry Tree Lane – Between St Saviour's and Dialstone Lane		- Single lane carriageway in each direction - Residential frontages - A series of chicanes are installed along road and a width restriction is in place	- Rat-running observed, despite existing traffic calming	- Civilising Cities	**AM** Northeast bound – -67% (-43) Southwest bound – -99% (-11) **PM** Northeast bound – 0% (0) Southwest bound – -99% (-21)	- None APPROXIMATE COST - £nil

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Lisburne Lane – Between Dialstone Lane and Blackstone Road		- Single lane carriageway in each direction - Residential frontages - On street parking occurs along road	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Civilising Cities	**AM** Eastbound – -77% (-145) Westbound – -18% (-47) **PM** Eastbound – -82% (-222) West bound – -52% (-81)	- **(M)** Install traffic calming measure to decrease vehicle speeds and discourage usage as rat run - **(C)** Consider formalising on street parking APPROXIMATE COST - £25,000
Lisburne Lane – Between Blackstone Road and Offerton Drive		- Single lane carriageway in each direction - Residential frontages - On street parking observed	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Civilising Cities	**AM** Eastbound – -77% (-144) Westbound – -55% (-45) **PM** Eastbound – -36% (-53) Westbound – 0% (0)	- **(M)** Install traffic calming measure to decrease vehicle speeds and discourage usage as rat run APPROXIMATE COST - £25,000
Lisburne Lane – Between Offerton Drive and Offerton Lane		- Single lane carriageway in each direction - Residential frontages - On street parking observed	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	- Civilising Cities	**AM** Eastbound – -30% (-137) Westbound – +10% (+30) **PM** Eastbound – -8% (-39) Westbound – +86% (+121)	- **(M)** Install traffic calming measure to decrease vehicle speeds and discourage usage as rat run APPROXIMATE COST - £25,000
Strines Road						
Strines Road		- Single lane carriageway in each direction - Residential/ open field frontages	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	None	**AM** Northbound – -24% (-70) Southbound – -14% (-39) **PM** Northbound – -19% (-55) Southbound – -4% (-10)	- **(M)** Install features to ensure 30mph speed limit adhered to APPROXIMATE COST - £60,000
Windlehurst/ Hibbert Lane						
Windlehurst Road – Between Buxton Road and Windermere Road		- Single lane carriageway in each direction - Residential frontages - Sections of narrow footway	- Traffic queues back from junction with A6 during peak periods	None	**AM** Northbound – -15% (-14) Southbound – +76 (+224) **PM** Northbound – +19% (+48) Southbound – +80% (+136)	- **(M)** Install features to ensure speed limit adhered to - **(M)** Consider waiting restriction on eastern side of road to ensure free flow of southbound traffic APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Windlehurst Road – Between Windermere Road and Andrew Lane		- Single lane carriageway in each direction - Residential frontages - Sections of narrow footway	- Some vehicles travel at high speeds along road this could potentially be made worse with introduction of the bypass	None	**AM** Northbound – -29% (37) Southbound – +40 (+135) **PM** Northbound – +9% (+28) Southbound – +45% (+101)	- **(M)** Install features to ensure speed limit adhered to APPROXIMATE COST - £n/a, considered as part of major schemes
Windlehurst Road – Between Andrew Lane and Barnsfold Road		- Single lane carriageway in each direction - Residential and open field frontages	- None	None	**AM** Northbound – -38% (-69) Southbound – +33% (+84) **PM** Northbound – -5% (-15) Southbound – +17% (+42)	- **(M)** Install features to ensure speed limit adhered to APPROXIMATE COST - £n/a, considered as part of major schemes
Hibbert Lane – Between Barnsfold Road and Church Lane		- Single lane carriageway in each direction - Residential frontages - Wide carriageway north of junction with Goyt Avenue - High level of parking outside Ridge Danyers College	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	None	**AM** Northbound – -79% (-190) Southbound – -14% (-55) **PM** Northbound – -38% (-94) Southbound – -14% (-35)	- **(M)** Narrow carriageway through central hatching and introduce of pedestrian refuges to assist crossing - **(C)** Formalise parking arrangements outside Ridge Danyers College APPROXIMATE COST - £n/a, considered as part of major schemes
Hibbert Lane – Between Church Lane and Stockport Road		- Single lane carriageway in each direction - Residential frontages - Pedestrian crossing in place close to Derby Street junction	- Some vehicles travel at high speed along road this could potentially be made worse with introduction of bypass	None	**AM** Northbound – -47% (-215) Southbound – -26% (-52) **PM** Northbound – -24% (-129) Southbound – -16% (-27)	- **(M)** Install features to ensure speed limit adhered to APPROXIMATE COST - £n/a, considered as part of major schemes

Appendix E (Stockport Area 3 – Centre/East)

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A6 (Wellington Road South)						
The A6 between Andrew Street and Longshut Lane		- Single carriageway with two lanes in each direction subject to congestion at peak times - Frontage ranges between residential and retail properties	- The traffic dominated A6 severs the properties on either side of the road - The speed of traffic is high in places (this may be made worse following a reduction in traffic levels)	- ITC - Network Audit	AM Ranges from Northbound – -13% (-166) Southbound – -11% (-126) to the north of the route Northbound – -24% (-648) Southbound – -23% (-341) to the south of the route PM Ranges from Northbound – -5% (-96) Southbound – -13% (-175) to the north to of the route Northbound – -14% (-155) Southbound – -25% (-381) to the south of the route	- (C) Reduce lane widths and increase footpath widths where possible APPROXIMATE COST - £50,000
Junction of A6 / St Petersgate		- Single carriageway with two lanes in each direction - Congestion experienced on, and on approach to the A6, particularly at peak times - Frontage ranges between residential and retail properties - Significant pedestrian movements	- Pedestrian facilities are not provided on all arms of the junction - The traffic dominated A6 severs properties on either side of the road	- ITC - Network Audit - A6 Access/ St Peters Square Area Imps	AM Reduction of approx. 500 vehicles on approach to the junction PM Reduction of approx. 480 vehicles on approach to the junction	- (C) Provide pedestrian crossing on northern arm of junction - (C) Upgrade all controlled crossings to 5m wide with coloured/textured surface to strengthen links and reduce severance - (M) Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £75,000
Junction of A6 / Wellington Street		- Single carriageway with two lanes in each direction - Congestion experienced on, and on approach to the A6, particularly at peak times - Frontage ranges between residential and retail properties - Significant pedestrian movements	- Pedestrian facilities are not provided on all arms of the junction - The traffic dominated A6 severs properties on either side of the road	- ITC - Network Audit	AM Reduction of approx. 500 vehicles on approach to the junction PM Reduction of approx. 480 vehicles on approach to the junction	- (C) Provide pedestrian crossing facilities on southern arm of junction - (C) Upgrade all controlled crossings to 5m wide with coloured/textured surface to strengthen links and reduce severance - (M) Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £75,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of A6 / Greek Street		- Single carriageway with two lanes in each direction - Congestion experienced on, and on approach to the A6, particularly at peak times - Frontage ranges between residential and retail properties - Significant pedestrian movements	- Pedestrian facilities are not provided on all arms of the junction - The traffic dominated A6 severs properties on either side of the road	- ITC - Network Audit	AM Reduction of approx. 800 vehicles on approach to the junction PM Reduction of approx. 500 vehicles on approach to the junction	- (C) Provide controlled pedestrian crossing facilities - (C) Upgrade all controlled crossings to 5m wide with coloured/textured surface to strengthen links and reduce severance - (M) Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £75,000
A6 in front of Stockport College		- Single carriageway with two lanes in each direction - Congestion experienced on, and on approach to the A6, particularly at peak times - Frontage is dominated to the west by Stockport College and by office buildings to the east - Significant pedestrian movements	- Taxis and mini-buses are currently blocking the bus lane at the entrance to Stockport College. These taxis are often carrying out a u-turn manoeuvre to access this area.	- ITC - Network Audit	AM Northbound – -24% (-648) Southbound – -23% (-341) PM Northbound – -14% (-155) Southbound – -25% (-381)	- (C) Dual the section of the A6 between Greek Street and Longshut Lane - (C) Provide taxi bays in front of College (possibly drop off and pick up bays as well) APPROXIMATE COST - £50,000
Junction of A6 / Longshut Lane		- Single carriageway with two lanes in each direction - Congestion experienced on, and on approach to the A6, particularly at peak times - Frontage ranges between residential and retail properties - Significant pedestrian movements	- Pedestrian facilities are not provided on all arms of the junction - The traffic dominated A6 leads severs properties on either side of the road	- ITC - Network Audit	AM Reduction of approx. 900 vehicles on approach to the junction PM Reduction of approx. 950 vehicles on approach to the junction	- (C) Provide pedestrian facilities on the northern arm of junction - (C) Upgrade all controlled crossings to 5m wide with coloured/textured surface to strengthen links and reduce severance - (M) Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £75,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
A560						
Junction of Lancashire Hill / Knightsbridge		- Queues build up at peak times - Frontage activity consists of car parks and retail developments	- There are limited pedestrian and cycle facilities at this junction	- ITC - Network Audit	AM Reduction of approx. 100 vehicles on approach to the junction PM Reduction of approx. 100 vehicles on approach to the junction	- **(C)** Provide pedestrian crossing facility and cycle facilities on all arms of junction - **(M)** Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £100,000
Junction of Great Portwood Street / Knightsbridge		- Queues build up at peak times - Significant pedestrian demand around this junction - Frontage activity around this junction is predominantly retail	- There are limited pedestrian and cycle facilities at this junction	- ITC - Network Audit	AM Reduction of approx. 100 vehicles on approach to the junction PM Reduction of approx. 280 vehicles on approach to the junction	- **(C)** Provide pedestrian facilities at the junction - **(C)** Provide advance cycle stop lines and feeder lanes on approaches to the junction - **(M)** Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £100,000
Great Portwood Street between Knightsbridge and the Portwood Roundabout		- Single lane carriageway in each direction with flaring at junctions and right turn ghost islands - Frontage activity consists of retail and car parking	- Congestion along the route slows down bus movements - The mini-roundabout junction with the Peel Centre provides a potential difficulty for pedestrians and cyclists - Development control has expressed an aspiration to provide a westbound bus lane from Marsland St to the Knightsbridge junction (A560 route audit produced by Mott MacDonald). As part of the ITC proposals it is also suggested that an eastbound bus lane be introduced on approach to the Portwood roundabout	- ITC - Network Audit	AM Westbound – +1% (+8) Eastbound – -10% (-27) PM Westbound – -26% (-118) Eastbound – -6% (-36)	- **(C)** Consider replacing mini-roundabout with traffic signals to provide better control over traffic flows in the area and provide the opportunity to introduce improved pedestrian and cycle facilities APPROXIMATE COST - £150,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Great Portwood Street in the vicinity of Marsland Street		- Single lane carriageway in each direction with flaring at junctions and right turn ghost islands - Frontage activity consists of retail and car parking	- No connection to the new TESCO's from the Peel development - TESCO and IKEA developments will generate significant vehicular and pedestrian movements in the area	- ITC - Network Audit	AM Westbound – +1% (+8) Eastbound – -10% (-27) PM Westbound – -26% (-118) Eastbound – -6% (-36)	- (C) Introduce pedestrian crossing to provide link to new TESCO's development APPROXIMATE COST - £50,000
Portwood Roundabout		- This is a large 7 arm partially signalised roundabout - There is significant traffic congestion at this junction, particularly during peak times - Frontage activity consists of retail developments	- Significant congestion, particularly at peak times - Delays to buses - Poor pedestrian and cycle provision - This junction is currently being upgraded. The scheme at this junction is the signalisation of all approaches and the improvement of facilities for pedestrians, cyclists and buses - TESCO and IKEA developments will generate significant vehicular and pedestrian movements in the area	- ITC - Network Audit	AM Reduction of approx. 850 vehicles on approach to the junction PM Reduction of approx. 600 vehicles on approach to the junction	- Whilst there is an anticipated reduction in traffic it is suggested that no capacity reduction should be considered as there will be considerable traffic generated by the proposed developments in the area APPROXIMATE COST - £nil
Junction of Crookilley Way / M60 (Junction 26)		- This is a 3 arm signal controlled junction - Traffic flows are heavy at peak times, however, queues generally clear during one or two signal cycles	- None	- ITC - Network Audit	AM Reduction of approx. 192 vehicles on approach to the junction PM Reduction of approx. 30 vehicles on approach to the junction	- (M) Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £5,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Stockport Road West / Ashton Road		- A 3-arm traffic signal controlled junction - Traffic flows are high with queues and delays, particularly during peak hours - Pedestrian and cycle facilities are provided at the junction	- GMUTC have informed Stockport MBC that this junction is operating at its optimum (Source: A560 Route Audit report – Mott MacDonald's)	- ITC - Network Audit	AM Increase of approx. 62 vehicles on approach to the junction PM Reduction of approx. 180 vehicles on approach to the junction	- **(C)** The highway layout will alter significantly, as the bypass will pass through this area. However, attempts should be made to ensure there is sufficient capacity at this junction and maintain a good level of pedestrian and cycle provision APPROXIMATE COST - £nil
Stockport Road West between Ashton Road and The Broadway		- There is a single lane carriageway in each direction at the narrowest section - There are queues and delays on the A560, particularly during peak periods	- Queues and delays during peak periods - Safeway are planning to extend their store on Broadway. As part of this it is hoped to secure funding to dual this section of the A560 (source: A560 Route Audit – Mott MacDonald's)	- ITC - Network Audit	AM Westbound – -1% (-21) Eastbound – -35% (-730) PM Westbound – -10% (-142) Eastbound – +1% (+17)	- **(C)** Despite reductions in flow it is suggested that this section of the route is dualled to assist in uniform traffic flow and reduce the number of merge collisions APPROXIMATE COST - £150,000
Junction of A560 / Broadway		- 4-arm signal junction - There are queues and delays on the A560 particularly during peak times - Frontage activity consists or residential and retail properties - Significant pedestrian movement	- Pedestrian and cycle facilities are not provided on all arms of the junction	- ITC - Network Audit	AM Reduction of approx. 1400 vehicles on approach to the junction PM Reduction of approx. 200 vehicles on approach to the junction	- **(C)** Provide pedestrian and cycle facilities on all arms of the junction APPROXIMATE COST - £75,000
Junction of A560 / Lower Bents Lane		- 4-arm signal junction - There are queues and delays on the A560 particularly during peak times - Frontage activity consists or residential and retail properties - Significant pedestrian movement	- There are no pedestrian facilities on the southern and eastern arms of the junction - Cycle facilities are not provided on all arms of the junction	- ITC - Network Audit	AM Reduction of approx. 1400 vehicles on approach to the junction PM Reduction of approx. 200 vehicles on approach to the junction	- **(C)** Introduce pedestrian crossing facilities on the southern and eastern arms of the junction - **(C)** Provide cycle facilities on all arms of the junction - **(M)** Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Stockport Road East between Lower Bents Lane and George Lane		- There is a single lane carriageway in each direction at the narrowest section - There are queues and delays on the A560, particularly during peak periods	- Significant amount of unregulated on-street parking which can lead to vehicles blocking the footway - Narrow footway in the vicinity of Bredbury Train Station	- ITC - Network Audit	**AM** Westbound – -39% (-302) Eastbound – -21% (-61) **PM** Westbound – +5% (+17) Eastbound – +21% (+157)	- **(C)** Widen footway over bridge in the vicinity of Bredbury Train Station - **(C)** Regulate on-street parking APPROXIMATE COST - £n/a, considered as part of major schemes
Junction of Stockport Road East / George Lane		- 4-arm signal junction - Queues build up during peak hours - Significant pedestrian movement as a result of the school in the area	- Pedestrian facilities provided on the Redhouse Lane and on the A560 west arms only - No cycle facilities through the junction	- ITC - Network Audit	**AM** Reduction of approx. 500 vehicles on approach to the junction **PM** Reduction of approx. 31 vehicles on approach to the junction	- **(C)** Provide controlled crossing facilities on the southern and eastern arms of the junction - **(C)** Provide advance cycle stop lines and lead in lanes - **(M)** Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £ n/a, considered as part of major schemes
Hyde Road between George Lane and Tameside boundary		- Single lane carriageway in each direction - The route carries significant levels of traffic throughout the day - Frontage activity consists primarily of residential properties	- Relatively high traffic speeds as a result of the wide uninterrupted nature of the route - Narrow footway width in the vicinity of the railway bridge - No cycle facilities - Significant amount of unregulated parking blocking the footway in places	- ITC - Network Audit	**AM** Westbound – -10% (-86) Eastbound – - 0% (-8) **PM** Westbound – -8% (-64) Eastbound – +3% (+47)	- **(C)** Provide cycle lanes where width permits - **(C)** Regulate parking (could be used to provide horizontal deflection to reduce speeds) - **(M)** Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - **(C)** Increase footway width in the vicinity of the railway bridge and east of Wyecroft Close on the southern side of Hyde Road - **(M)** Create gateway effect on approach to the Stockport boundary APPROXIMATE COST - £200,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Hyde Road / Smithy Green		- 3-arm priority junction - Traffic is generally free flowing although queues can build up at peak times on Smithy Green	- Significant pedestrian movements in the area particularly at school times - No cycle facilities in the area	- ITC - Network Audit	AM Reduction of approx. 100 vehicles on approach to the junction PM Reduction of approx. 2 vehicles on approach to the junction	- **(C)** Signalise junction - **(C)** Improve pedestrian facilities to cater for demand in the area - **(C)** Introduce advance cycle stop lines and lead in lanes at the junction APPROXIMATE COST - £100,000
A626						
Junction of Marple Road/ Offerton Road		- 3-arm signal junction with 2 lane approaches on each arm - Significant conflicting traffic movements causing significant delay at peak times - Limited frontage activity - Significant pedestrian movements at school peak times	- High volumes of traffic - No pedestrian facilities - Threatening pedestrian environment which may be suppressing pedestrian demand - No cycle facilities	- ITC - Network Audit	AM Reduction of approx. 80 vehicles on approach to the junction PM Reduction of approx. 90 vehicles on approach to the junction	- **(C)** Introduce pedestrian facilities at the junction in the form of either pedestrian refuges or controlled facilities - **(C)** Introduce cycle facilities in the form of advanced cycle stop lines and lead in lanes APPROXIMATE COST – n/a, considered as part of major schemes
Marple Road between Marple Old Road and Offerton Road		- Single lane carriageway in each direction subject to a 30mph speed limit - Limited frontage activity - Traffic flows are high throughout the day leading to congestion at peak times	- High volumes of traffic - High traffic speeds, particularly down the hill	- ITC - Network Audit	**AM** Northbound – +2% (+17) Southbound – -19% (-128) **PM** Northbound – +13% (+66) Southbound – -19% (-174)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations - **(M)** Introduce gateway features at the top of the hill upon entering residential area in order to reduce traffic speeds APPROXIMATE COST - £80,000
Junction of Shearwater Road/ Marple Road		- 3 arm priority junction - Residential frontage - Traffic flows are high throughout the day leading to congestion at peak times	- Wide open junction mouth leads to long crossing distance for pedestrians	- ITC - Network Audit	AM Reduction of approx. 200 vehicles on approach to the junction PM Reduction of approx. 200 vehicles on approach to the junction	- **(C)** Signalise A626/Shearwater Road junction or improve pedestrian crossing facilities by introducing a central refuge on Shearwater Road APPROXIMATE COST - £100,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Marple Road between Shearwater Road and Bean Leach Road		- Single lane carriageway in each direction subject to a 30mph speed limit - Residential frontage - Traffic flows are high throughout the day leading to congestion at peak times	- The carriageway is wide in places leading to relatively high traffic speeds (which could possibly be made worse by any reductions in traffic levels) - There are no cycle facilities	- ITC - Network Audit	AM Westbound – -7% (-83) Eastbound – -34% (-227) PM Westbound – -5% (-42) Eastbound – -25% (-286)	- (M) Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - (C) Introduce cycle lanes - (C) Widen footways and provide crossing facilities APPROXIMATE COST - £40,000
Junction of Marple Road/Bean Leach Road		- 3 arm priority junction with right turn pocket from mainline - Traffic flows are high with minor queues building up at peak times for vehicles on side roads and on the mainline waiting to turn right	- Vehicles on Bean Leach Road struggle to turn onto Marple Road - Vehicle approach speeds from the east are high due to the gradient - There are no pedestrian or cycle facilities at this junction	- ITC - Network Audit	AM Reduction of approx. 300 vehicles on approach to the junction PM Reduction of approx. 300 vehicles on approach to the junction	- (C) Introduce traffic signals at this junction - (C) Introduce pedestrian and cycle facilities APPROXIMATE COST - £75,000
Marple Road between Bean Leach Road and Brookside Avenue		- Single lane carriageway in each direction subject to a 30mph speed limit - Limited frontage activity - Traffic flows are high throughout the day leading to congestion at peak times	- The steep gradients in the area and the lack of frontage activity results in high traffic speeds in the area - The footways are narrow, discontinuous and unprotected in places. This combined with the high traffic speeds can be intimidating for pedestrians - There are no cycle facilities in this area - There is no clear gateway feature on approach to Bean Leach Road.	- ITC - Network Audit	AM Westbound – -35% (-63) Eastbound – +19% (+142) PM Westbound – -30% (-390) Eastbound – +41% (+329)	- (C) The highway layout will alter significantly, as there will be a junction with the bypass located here. However, attempts should be made to increase capacity, improve pedestrian and cycle provision and control traffic speeds in this area - (M) Introduce gateway effects on approach to residential areas east of Bean Leach Road in order to reduce traffic speeds APPROXIMATE COST - £60,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Marple Road between Old Hall Drive and Lisburne Lane		- Wide single lane carriageway in each direction subject to a 30mph speed limit - Primarily residential frontage - Traffic flows are high throughout the day leading to congestion at peak times - Significant pedestrian movements in this area	- Due to the wide nature of the route traffic speeds are high - There are limited crossing facilities - There are limited cycle facilities	- ITC - Network Audit - Civilising Cities	AM Westbound – -5% (-63) Eastbound – +19% (+142) PM Westbound – -30% (-329) Eastbound – +41% (+329)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(C)** Provide pedestrian crossing facilities in the form of pedestrian refuges (so as not to disrupt traffic flow) APPROXIMATE COST - £50,000
Junction of Offerton Lane / Hempshaw Lane		- 3 arm priority junction - Residential frontage - Traffic flows are high throughout the day leading to congestion at peak times - Significant pedestrian movements in the area	- It is difficult to exit Hempshaw Lane throughout the day and particularly at peak times - The crossing facilities in this area are limited to a pedestrian refuge to the east of the junction - There are no cycle facilities in this location - The angle of entry into Hempshaw Lane for westbound traffic is shallow and conducive to high speeds	- ITC - Network Audit - Civilising Cities	AM Reduction of approx. 220 vehicles on approach to the junction PM Reduction of approx. 550 vehicles on approach to the junction	- **(C)** Signalise the junction - **(C)** Provide controlled pedestrian facilities - **(C)** Provide cycle facilities in the form of advanced cycle stop lines and lead in lanes - **(M)** Install anti-skid surfacing on the approaches to the junction APPROXIMATE COST - £100,000
Woodlands Drive to Hempshaw Lane		- Wide single lane carriageway in each direction subject to a 30mph speed limit - Primarily residential frontage - Traffic flows are high throughout the day leading to congestion at peak times - Significant pedestrian movements in this area	- Due to the wide nature of the route traffic speeds are high (which could possibly be made worse by any reductions in traffic levels) - There are limited crossing facilities - There are limited cycle facilities	- ITC - Network Audit - Civilising Cities	AM Westbound – -18% (-115) Eastbound – -19% (-127) PM Westbound – -13% (-84) Eastbound – -25% (-158)	- **(C)** Introduce cycle lanes - **(C)** Provide pedestrian crossing facilities at key locations APPROXIMATE COST - £50,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Offerton Lane in the vicinity of St Albans Church		- Wide single lane carriageway in each direction subject to a 30mph speed limit	- There are high traffic speeds around this corner (which could possibly be made worse by any reductions in traffic levels)	- Network Audit	AM Westbound – -34% (-204) Eastbound – -21 (-198) PM Westbound – -27% (-152) Eastbound – -9% (-73)	- **(M)** Introduce traffic calming measures to reduce traffic speed - **(C)** Introduce cycle lanes - **(M)** Provide skid resistant surfacing on approach to the pedestrian crossing APPROXIMATE COST - £110,000
Hall Street, Offerton Local Centre		- One through lane in each direction with two lanes between Banks Lane and Turncroft Lane to accommodate right turners making these movements - Primarily retail frontage - Significant level of pedestrian movements	- Limited crossing facilities at the junctions of Hall Street/Banks Lane and Hall Street/ Turncroft Lane - There are no cycle facilities on this section of the route	- Network Audit	AM Westbound – -18% (-227) Eastbound – -44% (-372) PM Westbound – -37% (-238) Eastbound – -21% (-322)	- **(C)** Improve pedestrian crossing facilities and introduce advance cycle stop lines and lead in lanes at the junctions of Hall Street/Banks Lane and Hall Street/ Turncroft Lane APPROXIMATE COST - £100,000
Hall Street between Turncroft Lane and St Mary's Way		- Single lane carriageway in each direction subject to a 30mph speed limit - Primarily residential frontage	- High traffic speeds, particularly for vehicles leaving the local centre and dropping down the hill on approach to a pedestrian crossing and St Mary's Way - Significant levels of on-street parking west of Turncroft Lane blocking through movement and presenting a hazard to pedestrians	- Network Audit	AM Westbound – -14% (-225) Eastbound – -35% (-372) PM Westbound – -28% (-253) Eastbound – -18% (-253)	- **(M)** Introduce traffic calming measures to reduce traffic speed - **(M)** Provide anti-skid surfacing on approaches to the pelican crossing - **(C)** Regulate the parking through the provision of bays which allow suitable crossing opportunities for pedestrians APPROXIMATE COST - £110,000
Junction of Longshut Lane / Higher Hillgate		- 4-arm signal junction carrying significant levels of traffic throughout the day - Frontage consists of light industrial	- No pedestrian crossing facility on western arm of junction - No cycle facilities	- Network Audit	AM Reduction of approx. 120 vehicles on approach to the junction PM Reduction of approx. 100 vehicles on approach to the junction	- **(C)** Provide pedestrian facility on western arm of the junction - **(C)** Provide advanced cycle stop lines and lead in lanes all round the junction APPROXIMATE COST - £75,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Junction of Hempshaw Lane / St Marys Way		- 3-arm signal junction subject to queues and delays at peak times - Frontage consists of light industrial and residential	- No pedestrian crossing facilities - No cycle facilities at this junction	- Network Audit	AM Reduction of approx. 400 vehicles on approach to the junction PM Reduction of approx. 400 vehicles on approach to the junction	- **(C)** Provide pedestrian crossing facilities - **(C)** Provide advance cycle stop lines and lead in lanes APPROXIMATE COST - £80,000
St Mary's Way between Hall Street and the Portwood roundabout		- Single through lane in each direction with additional flared lanes at the junctions on the route - High traffic levels use this corridor throughout the day resulting in queues and delays particularly at peak times	- Congestion at peak times - IKEA and TESCO developments intended at the end of St Mary's Way off the Portwood roundabout. There are proposals to increase the capacity along the St Mary's Way corridor to accommodate traffic generated by these developments	- Network Audit	**AM** Northbound – -14% (-203) Southbound – -8% (-136) **PM** Northbound – -9% (-138) Southbound – -13 (-212))	- Whilst there is an anticipated reduction in traffic it is suggested that the capacity enhancement schemes proposed for this route remain appropriate as there will be considerable traffic generated by the proposed developments in the area APPROXIMATE COST - £nil
Junction of Dooley Lane/ Stockport Road		- 3-arm signal junction - Significant conflicting traffic movements causing significant delay at peak times - No frontage activity - Significant pedestrian movements at school peak times	- High volumes of traffic - No pedestrian facilities - Threatening pedestrian environment which may be suppressing pedestrian demand - No cycle facilities	- Network Audit	AM Reduction of approx. 280 vehicles on approach to the junction PM Reduction of approx. 360 vehicles on approach to the junction	- **(C)** Introduce pedestrian facilities at the junction in the form of either pedestrian refuges or controlled facilities - **(C)** Introduce cycle facilities in the form of advanced cycle stop lines and lead in lanes APPROXIMATE COST - £n/a, considered as part of major schemes
Stockport Road in the vicinity of Marina Drive		- Single lane carriageway in each direction - High traffic levels use this corridor throughout the day resulting in queues and delays particularly at peak times - Residential frontage activity - Significant pedestrian	- Significant pedestrian demand generated by school in the area (supported by school crossing patrol located at pedestrian refuge) - Significant traffic speeds - No clear gateway features for eastbound traffic on entrance to residential area	- Network Audit	**AM** Westbound – -4% (-41) Eastbound – -6% (-48) **PM** Westbound – -14% (-128) Eastbound – +2% (+28)	- **(C)** Introduce controlled pedestrian facility west of Marina Drive to support school crossing patrol and to break up flow on approach to Dooley Lane signalised junction - **(M)** Introduce gateway features upon entering residential area

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
		movements				APPROXIMATE COST - £100,000
Stockport Road east of Marina Drive		- Single lane carriageway in each direction - High traffic levels use this corridor throughout the day resulting in queues and delays particularly at peak times - Residential frontage activity - Significant pedestrian movements	- Wide carriageway in this area is conducive to high vehicle speeds - Northern footway narrow in places - No cycle facilities	- Network Audit	**AM** Westbound – +4% (+41) Eastbound – -6% (-48) **PM** Westbound – -14% (-128) Eastbound – +2% (+28)	- **(C)** Introduce cycle lanes east of Marina Drive on approach to Marple district centre. This will also reduce lanes widths and therefore speed of vehicles - **(C)** Widen northern footway where necessary APPROXIMATE COST - £45,000
Stockport Road in the vicinity of Rose Hill Station		- Single lane carriageway in each direction - High traffic levels use this corridor throughout the day resulting in queues and delays particularly at peak times - Residential frontage activity around the station - Significant pedestrian movement in the area	- High vehicle speeds in the area - Narrow pedestrian footway over the bridge - Absence of pedestrian island in the vicinity of the bridge	- Network Audit	**AM** Westbound – +4% (+41) Eastbound – -6% (-48) **PM** Westbound – -14% (-128) Eastbound – + 2% (+28)	- **(C)** Increase footpath width over bridge - **(C)** Introduce pedestrian island to assist crossing movements in this area APPROXIMATE COST - £40,000
Junction of Stockport Road / Station Road		- 4 arm signal junction subject to delays at peak times - Frontage activity in this area consists of retail, residential and a petrol station - Significant pedestrian movement	- Delays at peak times - Relatively high speeds on some approaches to the junction	- Network Audit	AM Reduction of approx. 100 vehicles on approach to the junction PM Increase of approx. 50 vehicles on approach to the junction	- **(M)** Reconfigure the signal timings to maximise junction operation following the introduction of the bypass - **(M)** Introduce anti-skid surfacing on all approaches to the junction APPROXIMATE COST - £5,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Between Oldham Drive and Police Station		- Single lane carriageway in each direction - Primarily residential area - Traffic is generally free flowing throughout the day, however queues do build up at peak times on approach to the A560 - Significant levels of pedestrian activity	- The western footway is very narrow - There is a significant amount of unregulated on-street parking - No cycle facilities	- Network Audit	AM Northbound – -52% (-215) Southbound – -23% (-51) PM Northbound – -25% (-110) Southbound – -31% (-77)	- (C) Regulate on-street parking through the introduction of parking bays to the west of George Lane and prevent parking to the east - (C) Increase footpath width to the west of George Lane, or - (C) Introduce southbound cycle lane (uphill) APPROXIMATE COST - £n/a, considered as part of major schemes
Between Police Station and Gillbert Bank		- Single lane carriageway in each direction - Primarily residential area - Traffic is generally free flowing throughout the day, however queues do build up at peak times on approach to the A560 - Significant levels of pedestrian activity	- There is a significant amount of unregulated on-street parking - No cycle facilities	- Network Audit	AM Northbound – -52% (-215) Southbound – -23% (-51) PM Northbound – -25% (-110) Southbound – -31% (-77)	- (C) Regulate on-street parking through the introduction of parking bays to the west of George Lane and prevent parking to the east - (C) Introduce southbound cycle lane (uphill) APPROXIMATE COST - £n/a, considered as part of major schemes
Between Gillbert Bank and School Brow		- Single lane carriageway in each direction - Primarily residential area - Traffic is generally free flowing throughout the day - Significant levels of pedestrian activity	- No cycle facilities - Relatively high traffic speeds (which could possibly be made worse by any reductions in traffic levels) - On-street parking around Bredbury Sorting Office	- Network Audit	AM Northbound – -39% (-207) Southbound – +2% (+58) PM Northbound – -27% (-125) Southbound – - 20% (-88)	- (C) Introduce cycle lanes - (M) Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - (C) Formalise or prevent on-street parking around Bredbury Sorting Office APPROXIMATE COST - £n/a, considered as part of major schemes
Junction of School Brow / Barrack Hill		- Minor queues build up on all arms of this junction during peak periods - There is a mix of residential and retail frontage activity around this junction. There is also a school located on the corner of the	- No pedestrian facilities - No cycle facilities	- Network Audit	AM Reduction of approx. 1100 vehicles on approach to the junction PM Reduction of approx. 600 vehicles on approach to the junction	- (C) Introduce pedestrian facilities at this junction on either all or a selection of the arms - (C) Introduce cycle facilities in the form of advanced cycle stop lines and lead in lanes - (M) Reconfigure the signal timings to maximise junction operation following the introduction of the bypass

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
		junction.				APPROXIMATE COST - £n/a, considered as part of major schemes
Barrack Hill		- Single Lane carriageway in each direction subject to a 40mph speed limit - Residential frontage activity - Traffic is generally free flowing throughout the day - Significant pedestrian movement (particularly children due to schools in the area. There is a school crossing patrol at this location)	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - No cycle facilities	- Network Audit	AM Northbound – -57% (-468) Southbound – -19% (-124) PM Northbound – -36% (-272) Southbound – –30% (-211)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels), particularly down the hill - **(C)** Introduce cycle facilities - **(C)** Introduce pedestrian crossing facilities, possibly refuges APPROXIMATE COST - £n/a, considered as part of major schemes
Junction of Barrack Hill/ Bredbury Green		- Staggered priority junction with single lane approaches and right turn pockets on mainline - Traffic flows are high but generally free flowing with minor queues building up at peak times for vehicles on side roads and on the mainline waiting to turn right - Residential frontage with a number of schools in the area - Significant pedestrian movement (particularly children due to schools in the area. There is a school crossing patrol at this location)	- Large number of pedestrian movements a school times with limited crossing facilities - High approach speeds on the mainline - No cycle facilities	- Network Audit	AM Reduction of approx. 650 vehicles on approach to the junction PM Reduction of approx. 500 vehicles on approach to the junction	- **(C)** Introduce traffic signals at the junction with pedestrian and cycle facilities - **(M)** Introduce speed reduction measures on approaches to the junction APPROXIMATE COST - £75,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Hatherlow, Otterspool Road and Dooley Lane		- Single Lane carriageway in each direction subject to a 40mph speed limit - Limited frontage activity - Low numbers of pedestrians and cycles	- High traffic speeds (which could possibly be made worse by any reductions in traffic levels) - Poor pedestrian and cycle provision - No clear gateway features on entering Bredbury Green residential area	- Network Audit	**AM** Northbound – -45 (-541) Southbound – -6% (-61) **PM** Northbound – -21% (-283) Southbound – -25% (-225)	- **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(M)** Consideration could also be given to using vehicle actuated signage in appropriate locations - **(C)** Improve pedestrian and cycle provision along the route through the creation of segregated pedestrian and cycle route where possible. Improved crossing facilities in the form of refuge islands could be used to aid this and also to assist with speed reduction - **(M)** Introduce gateway features on approach to Bredbury APPROXIMATE COST - £150,000
A6017 (Lower Bents Lane/ Higher Bents Lane/ Berrycroft Lane)						
Lower Bents Lane		- Single lane carriageway in each direction - Traffic flows are high in each direction with queuing occurring in the northbound direction during the AM peak - Primarily residential area interspersed with local retail units - Significant levels of pedestrian activity	- There is difficulty exiting Vernon Road and Redhouse Lane. Pedestrian movement at this junction is uncontrolled except for the crossing on the northern arm - There are limited crossing facilities in the vicinity of retail units and instances of on-street parking - Relatively high traffic speeds during off peak - Wide footway and on-street parking to the east on approach to the A560 - No cycle facilities	- Network Audit	**AM** Northbound – -50% (-488) Southbound – -23% (-142) **PM** Northbound – -32% (-180) Southbound – -16% (-161)	- **(C)** Signalise Vernon Road/Redhouse Lane junction - **(C)** Introduce crossing facilities to serve pedestrian desire lines across the route - **(M)** Introduce traffic calming measures to reduce traffic speed (e.g. dragons teeth, speed roundels) - **(C)** Regulate parking to the north of the route - **(C)** Introduce cycle lanes where width permits APPROXIMATE COST - £n/a, considered as part of major schemes

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Higher Bents Lane		- Single lane carriageway in each direction - Traffic flows are high in each direction with queuing occurring in the northbound direction during the AM peak - Primarily residential to the north interspersed with local retail units with a higher concentration of retail units to the south - Significant levels of pedestrian activity	- The footpath north of Bents Avenue is narrow - There are significant numbers of both pedestrian and vehicle movement at the Harrytown junction - Relatively high traffic speeds during off peak - No cycle facilities	- Network Audit	**AM** Northbound – -38% (-488) Southbound – -19% (-142) **PM** Northbound – -34% (-267) Southbound – -15% (-199)	- **(C)** Signalise the Harrytown junction and provide pedestrian facilities - **(C)** Increase width of pedestrian footway north of Bents Avenue - **(M)** Introduce traffic calming measures to reduce traffic speed (dragons teeth, speed roundels) - **(C)** Introduce cycle lanes where width permits APPROXIMATE COST - £n/a, considered as part of major schemes
Berrycroft Lane		- Single lane carriageway in each direction - Traffic flows are high in each direction with queuing occurring in the northbound direction during the AM peak - Mix of frontage activity from ranging from retail, residential to educational and medical - Significant levels of pedestrian activity	- Significant pedestrian movements around school - Retail units situated between Warwick Road and Harrytown generating unregulated on-street parking and pedestrian movements - Relatively high traffic speeds during off peak - No cycle facilities	- Network Audit - Berrycroft Lane Local Centre Action Plan	**AM** Westbound – -23% (-157) Eastbound – -51% (-489) **PM** Westbound – -33% (-233) Eastbound – -18% (-168)	- **(C)** Introduce crossing facility to serve pedestrian movements in the vicinity of Barrack Hill School (pedestrian refuge) - **(M)** Introduce traffic calming measures to reduce traffic speed (dragons teeth, speed roundels) - **(C)** Introduce cycle lanes where width permits APPROXIMATE COST - £50,000
A627 to Ridgeway		- Single lane carriageway in each direction congested during peak hours and at school times - Frontage activity consists primarily of residential properties - Significant pedestrian movement	- Large numbers of conflicting traffic and pedestrian movements - Rat running traffic avoiding Barrack Hill traffic signals	- Network Audit	**AM** Westbound – -27% (-15) Eastbound – +4% (+2) **PM** Westbound – +44% (+26) Eastbound – 0% (0)	- **(C)** Introduce traffic calming on route to reduce numbers of rat running vehicles and to reduce traffic speeds which will improve pedestrian safety APPROXIMATE COST - £50,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Ridgeway to Higher Bent Lane		- Single lane carriageway in each direction congested during peak hours and at school times - Frontage activity consists primarily of residential properties - Significant pedestrian movement	- Large numbers of conflicting traffic and pedestrian movements - Rat running traffic avoiding Barrack Hill traffic signals	- Network Audit	AM Northbound – -11% (-35) Southbound – -2% (-4) PM Northbound — -5% (-9) Southbound – -7% (-25)	- (C) Introduce traffic calming on route to reduce numbers of rat running vehicles and to reduce traffic speeds which will improve pedestrian safety APPROXIMATE COST - £50,000
B6104						
Carrington Road between the Portwood Roundabout and New Zealand Road		- Single lane carriageway in each direction - Traffic flows are heavy with queuing at peak times - Primarily residential frontage with some light industrial - Significant pedestrian movements	- Significant amount of unregulated on-street parking - Pedestrian facilities limited to pelican crossing at Werneth Street	None	AM Westbound – -34% (-393) Eastbound – -14% (-67) PM Westbound – -37% (-328) Eastbound – -33% (-293)	- (C) Install pedestrian refuges along Carrington Road - (C) Regulate on-street parking APPROXIMATE COST - £40,000
Junction of Carrington Road / New Bridge Lane		- 4 arm signal junction - Traffic flows are heavy with queuing and delay during peak periods	- There is no pedestrian facility on the western arm of the junction	None	AM Reduction of approx. 450 vehicles on approach to the junction PM Reduction of approx. 473 vehicles on approach to the junction	- (C) Possibly introduce controlled pedestrian crossing facilities on western arm (however this will involve providing a footway on the southern side of Carrington Road around the corner) - (M) Reconfigure the signal timings to maximise junction operation following the introduction of the bypass APPROXIMATE COST - £100,000
New Bridge Lane/ Stockport Road West between Carrington Road and Welkin Road		- Single Lane carriageway in each direction - Traffic flows are heavy - There is very little direct frontage activity	- No cycle facilities - Due to the uninterrupted nature of this route high traffic speeds have been observed - There is a full bus lay-by in the eastbound direction from which buses may have trouble leaving	There is a proposed off road cycle route south of New Bridge Lane. It may be applicable to introduce a Toucan crossing here when this is introduced	AM Westbound – -21% (-384) Eastbound – +3% (+23) PM Westbound – -16% (-180) Eastbound – -4% (-62)	- (C) Provide cycle lanes - (M) Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) - (C) Create ½ bus lay-by APPROXIMATE COST - £50,000

LOCATION	PHOTOGRAPH	EXISTING CONDITIONS	CURRENT ISSUES	CURRENT INITIATIVES/ FUTURE DEVELOPMENTS	ANTICIPATED CHANGES IN FLOW	OPPORTUNITIES C – Complementary M - Mitigating
Stockport Road West between Welkin and Ashton Road		- Single Lane carriageway in each direction - Traffic flows are heavy with queues building during peak times at the junctions - Residential properties front this section of the route	- There is a significant amount of unregulated on-street parking in this area - There are limited crossing opportunities along large sections of the route - The footway width to the east of the route is narrow on the northern side of the road - There are no cycle facilities	None	AM Westbound – -23% (-342) Eastbound – +8% (+65) PM Westbound – -13% (-148) Eastbound – -2% (-50)	- (C) Regulate on-street parking (the footway is wide in certain sections, therefore parking bays may be applicable) - (C) Provide pedestrian refuges to improve north-south connectivity - (C) Increase pedestrian footway width to the east of the route (the parking bays in this area are wide and could be reduced in size to provide more width to the footway) - (C) Where width permits introduce cycle lanes APPROXIMATE COST - £175,000
Junction of School Brow / Stockport Road		- Priority junction subject to high flows, particularly during peak hours	- Difficulty in turning out of Gorsey Brow - Uncontrolled pedestrian crossing movements at this junction	None	AM Reduction of approx. 152 vehicles on approach to the junction PM Reduction of approx. 50 vehicles on approach to the junction	- (C) Signalise this junction to provide improved control over traffic flow and assist pedestrian movements in this area. The signalisation of this junction also provides the opportunity to improve cycle facilities at the junction. APPROXIMATE COST - £100,000
Compstall Road between Springwood Lane and Glossop Road		- Single lane carriageway in each direction - Vehicles are generally free flowing throughout the day but can be slow moving at peak times - Limited frontage activity	- There is no clear gateway as you pass from the more rural area to the residential areas west of Springwood Lane - Speed can be an issue on this section of the route (could be made worse by reductions in traffic)	None	AM Northbound – -21% (-144) Southbound – -23% (-95) PM Northbound – -9% (-44) Southbound – -13% (-80)	- (M) Create gateway on approach to Springwood Lane in order to reduce traffic speeds - (M) Introduce traffic calming speed reduction measures (e.g. dragons teeth, speed roundels) APPROXIMATE COST - £50,000