



A6 Manchester Airport Relief Road

Departures Report

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CONTENTS

Sect	Contents	Page
1.0	INTRODUCTION	3
2.0	SCHEME WIDE DEPARTURES	5
3.0	SECTION 1 DEPARTURES	6
4.0	SECTION 2 DEPARTURES	8
5.0	SECTION 3 DEPARTURES	9
6.0	SECTION 4 DEPARTURES	13
7.0	DEPARTURES TO BE 'DESIGNED OUT' AND ON HOLD	15
8.0	SUMMARY	17
9.0	APPENDICES	18

1.0 INTRODUCTION

- 1.1 As part of the A6 to Manchester Airport Relief Road (A6MARR) scheme Stockport Metropolitan Borough Council prepared an outline highway design. At the start of the Key Stage 4 Design Development Phase (Spring 2014) the Design Freeze 7 layout was made available to Carillion Morgan Sindall (CMS) and the AECOM / Grontmij Joint Venture.
- 1.2 A Departures Report (ref. 1007/6.12/135) had already been completed by Stockport Metropolitan Borough Council (SMBC) which focussed on the mainline, and excluded the side roads, slip roads and junctions. This report identified only one mainline departure. The SMBC A6 to Manchester Airport Relief Road Transport Assessment (Main Text) (dated October 2013), identified four departures, including that identified in the Departure Report, all listed below:
- Reduction in Weaving Length between A34/A555 and B5358 Wilmslow Road.
 - Sub-standard form of merge provided on the A34 to A555 eastbound sliproad.
 - Sub-standard form of diverge provided on the A555 to A34 westbound sliproad.
 - Over-provision in form of merge provided on the B5358 Wilmslow Road to A555 westbound sliproad.
- 1.3 AECOM / Grontmij Joint Venture (AG) have reviewed the design and identified further departures. AG have applied for the necessary Departures, included within the Design Freeze 7 design prepared by SMBC and the South East Manchester Multi-Modal Scheme (SEMMMS) Project Team. A schedule of all the identified departures is contained within Appendix A.
- 1.4 The Departures identified have been split by route section, with two departures affecting the pavement design which are relevant to the whole scheme.
- 1.5 Where Departures span across the Local Authority boundary the Authority within which the majority of the Departure lies has been designated the “Lead Authority” to determine the Departure. The information has also been issued to the adjacent authority for information. This process is similar to that used for cross boundary Planning Applications. All departures have been issued to SMBC as the Client of AG and CMS.

- 1.6 The format for the Departure submissions was reviewed and accepted as part of the design development stage of the A6MARR, at Highway Working Groups attended by all the Local Highway Authorities.

- 1.7 All Departures have been reviewed by the relevant Local Highway Authorities. They are either Accepted, or Accepted In Principle subject to the provision of additional information and development during the detailed design of the relevant highway location.

2.0 SCHEME WIDE DEPARTURES

2.1 Departure S0-001

2.1.1 This is a departure from standard pavement foundation across the entirety of the scheme, where new construction is required adjacent to existing highway which is being retained. The required standard is to use a bound foundation class 2 (HBM) with a minimum 150mm thickness for pavement loadings greater than 80msa in accordance with HD 26/06, Cl 2.8.

2.1.2 The current proposal is to use an unbound foundation class 2 in areas where the pavement loading is greater than 80msa (foundation is to comprise a thickness of sub-base & capping or sub-base only).

2.1.3 This departure has been proposed as it will ease construction methods when working adjacent to existing carriageways – the placement of un-bound granular foundations can be completed quicker than using bound material. The un-bound granular material will also provide a transition zone between the pavements and structures to minimise the impact of any differential settlement.

2.2 Departure S0-002

2.2.1 This is a departure from standard pavement foundation across the entirety of the scheme. The required standard is to use a performance foundation design as detailed in IAN73/06 (rev1), Section 4, Chapter 4.

2.2.2 The current design is to use a performance foundation design to enable efficient use of resources. Performance foundation designs require a Departure submission as part of the design approval process.

3.0 SECTION 1 DEPARTURES

3.1 Departure S1-001

- 3.1.1 This is a departure from standard for the superelevation of the mainline carriageway from chainage 9448 to 9640. The required standard in accordance with TD 9/93 is to provide 3.5%.
- 3.1.2 The current proposal is a 2.5% superelevation. This departure is illustrated on drawing A6MARR-1-W-01-500-DR-001.
- 3.1.3 This design has been developed in order to tie in to the local boundary conditions, primarily the junction with Macclesfield Road.

3.2 Departure S1-002

- 3.2.1 This is a departure from standard of the horizontal geometry of the realigned A6 with regard to transition curves at various locations. The required standard is to provide transition curves between horizontal elements in accordance with TD 9/93, Table 3.
- 3.2.2 The current design is no transition curves. This departure is illustrated on drawing A6MARR-1-W-01-500-DR-002,.
- 3.2.3 Transition curves have been omitted due to the low speed of this road, and due to the urban nature of the road. The omission of the transition curves also ensures that the road stays within the Limits of Land Made Available, and provides the required clearances to local constraints such as residences, the golf course and reservoir.

3.3 Departure S1-003

- 3.3.1 This is a departure from standard of the horizontal geometry on the A6 bus overbridge between chainage 10 to 53. The required standard is to provide a 255m length with a superelevation of 5% in accordance with TD 9/93, Table 3.
- 3.3.2 The current design is a 70m length with varying superelevation. This departure is illustrated on drawing A6MARR-1-W-01-500-DR-003.
- 3.3.3 Use of the sub-standard radius enables a greater length of the existing A6 to be retained than would otherwise be possible. This limits the impact of the works on the surrounding area.

3.4 Departure S1-004

3.4.1 This is a departure from standard cross-section on the A6 bus overbridge. The required standard is to provide a 7.3m wide carriageway in accordance with figure 4-4a, TD 27/05.

3.4.2 The current design is a 3.65m wide carriageway. This departure is illustrated on drawing A6MARR-1-W-01-500-DR-004.

3.4.3 The use of the narrow cross section over the bridge provides a traffic calming measure to reduce the speed of the bus through traffic. The use of the bridge will be limited to non-motorised users and buses by a Traffic Regulation Order, however, the reduced cross section will act as a further deterrent to traffic considering the use of this route as a “rat run”.

4.0 SECTION 2 DEPARTURES

4.1 Departure S2-001

4.1.1 It is envisaged that this departure is to be designed out as design progresses and is therefore discussed further in Section 7 of this report.

4.2 Departure S2-002

4.2.1 This Departure from Standard Cross-Section is located on Woodford Road Bridge (Bramhall) between Chainage 128 to 170. The proposed design speed is 60kph.

4.2.2 The required standard would be to provide a dual carriageway requiring 2no. 3.65m wide lanes and 1.8m wide central reserve. However, the area has been designed as a junction. Width should be permitted between kerbs to allow vehicle to pass in the case of an emergency or breakdown. This width is 5.5m in accordance with Manual for Streets. The approaches to the junction have 90m horizontal radii curves which TD42/95, Table 7/2 requires a width of approximately 6.4m for a single lane width to pass a stationary vehicle, including hardstrip provision

4.2.3 The current proposal is dual carriageway with a 2.0m wide central reserve. The southbound south and right turn lanes are 3.65m wide. The northbound single lane is 4.5m wide. The western verge is typically 3.0m wide to cater for a shared use cycleway / footway.

4.2.5 The departure is for a limited length and is close to a signal controlled junction, where vehicle speeds will be relatively low. Vehicles coming to a sudden halt would be clearly visible to vehicles behind and those queuing at traffic signals. It is proposed that the central reserve be replaced at detailed design by physical islands at either end of the bridge, and hatch in the centre.

4.2.6 This departure is illustrated on drawing A6MARR-2-W-01-500-DR-002.

4.2.7 The lane widths were set as such in order to limit the width of bridge required.

5.0 SECTION 3 DEPARTURES

5.1 Departure S3-001

- 5.1.1 This departure from standard cross-section, provision of hardstrips, is located on the A34 Wilmslow Handforth Bypass, Ch900 to Ch1+150. The proposed design speed is 70kph.
- 5.1.2 The required standard in accordance with TD27/05 is to provide a dual carriageway, rural all-purpose road mainline cross-section with 1.0m wide hardstrips and 2.5m verge. The current provision is dual carriageway, urban all purpose road mainline cross-section, which is kerbed, no hardstrips and 2.0m wide verge with 3.0m wide footway / cycleway.
- 5.1.4 The area will be adequately lit and widening works to the southbound side would reduce the level of screening to adjacent properties.
- 5.1.3 This departure is illustrated on drawing A6MARR-3-W-01-500-DR-001.
- 5.1.4 The design has been completed as such in order to permit the re-use of as much of the existing carriageway as practicable, without extending the works beyond the Limits of Land Made Available, and also to limit the impact on the adjacent earth bund which screens residential properties.

5.2 Departure S3-002

- 5.2.1 This is a departure from standard for the highway alignment on the southbound approach to the A34/A555 roundabout. The departure includes entry, approach, exit and end taper lengths, physical island into the exit road and the SSD being impaired by existing vegetation.
- 5.2.2 This departure is illustrated on drawing A6MARR-3-W-01-500-DR-002.
- 5.2.3 The design of this junction has been carried out in order to remain within the Limits of Land Made Available; to limit the impact on existing earthworks, and to limit the requirement for new earthworks.

5.3 Departure S3-003

- 5.3.1 This departure is for insufficient length of VRS on the southern arm of the A34 roundabout at chainage 740. The required standard is typically full height VRS

required for a minimum of 30m in advance of the hazard (gantry) and 7.5m beyond in accordance with TD 19/06.

5.3.2 The site layout and traffic requirement at this location fix the gantry location and relocating southwards would reduce the available queue length for traffic and adversely affect the capacity of the junction.

5.3.3 The current proposal is to provide the maximum length of VRS permissible by the physical island layout.

5.4 Departure S3-004

5.4.1 This departure is for a reduction in VRS containment level on the southern arm of the A34 roundabout at chainage 740. The required standard is to provide containment level H4a (typically concrete) in accordance with TD 19/06 para 3.34.

5.4.2 The current proposal is containment level H2 but this is subject to be subject to a detailed design review.

5.4.3 In support of the use of steel barriers, their use will maintain visibility at junction area and also, vehicle speed should be considerably lower than 70mph due to the close proximity to the roundabout, traffic signals and the high volume of traffic.

5.5 Departure S3-005

5.5.1 This departure is for a sub-standard merge layout on the A555 eastbound on slip from the A555. The required standard is to provide a Lane Gain with Ghost Island Merge in accordance with TD 22/06, para 2.29, figure 2/3, Layout F.

5.5.2 The standard provided is a parallel merge in accordance with Layout B of the aforementioned design manual. This departure is illustrated on drawing A6MARR-3-W-01-500-DR-005.

5.5.3 In support of the departure, construction of Layout F merge would require increasing the carriageway footprint, removing existing trees thus negatively affecting on the project's environmental impact.

5.6 Departure S3-006

- 5.6.1 This is a departure for the reduction in verge width on the A34 southbound over Spath Brook. The required standard is to provide a 2.0m verge width in accordance with TD 27/05, figure 4.3c.
- 5.6.2 The current proposal is 1.5m (locally across existing structure) based upon the current design information and available topographical survey information. This departure is illustrated on drawing A6MARR-3-W-01-500-DR-006.
- 5.6.3 The Departure from Standard is over a very limited length and its inclusion in the design will enable the re-use of an existing structure, limit the extents of work required in this area, and reduce the impact on existing road users. It will also ensure that the proposed works remain within the Limit of Land Made Available.

5.7 Departure S3-007

- 5.7.1 This departure from standard cross-section is located on the A555 eastbound on-slip. The required standard, in accordance with TD 27/05, is to provide a rural all purpose road mainline, with 2.5m verge, 1.0m hardstrip, lanes at 3.65m (lane drop), 3.7m and 3.65m (running lanes) and 1.0m hardstrip.
- 5.7.2 The current proposal, based on currently available topographical data, is a 2.6m verge (incorporating a 2.5m footway / cycleway and 1.4m high pedestrian guardrail), 0.6m hardstrips and 3no. 3.3m lanes. This departure is illustrated on drawing A6MARR-3-W-01-500-DR-007.
- 5.7.3 The inclusion of this departure enables the inclusion of the shared use footway/cycleway (which is a high level project requirement) without extending beyond the Limit of Land Made Available, or requiring significant alterations to existing structures.

5.8 Departure S3-008

- 5.8.1 These are various departures from the required geometry located on the A555 westbound diverge to the A34. There are various required standards for the physical island location and length, exit & entry taper length and SSD to be in accordance with TD 51/03.

5.8.2 The standard provided is an insufficient entry and exit taper length, insufficient SSD and the physical island does not extend sufficiently into the exit road. This departure is illustrated on drawing A6MARR-3-W-01-500-DR-008.

5.8.3 The design of this junction has been carried out in order to remain within the Limits of Land Made Available; to limit the impact on existing earthworks, and to limit the requirement for new earthworks.

5.9 Departure S3-009

5.9.1 It is envisaged that this departure is to be designed out as design progresses and is therefore discussed further in Section 7 of this report.

5.10 Departure S3-010

5.10.1 This departure is for a sub-standard merge layout on the A555 westbound diverge slip road onto the A34. The required standard is to provide a Ghost Island Diverge / Parallel Diverge in accordance with TD 22/06, figure 2/5, Layout B.

5.10.2 The standard provided is a taper diverge in accordance with Layout A of the aforementioned design manual. This departure is illustrated on drawing A6MARR-3-W-01-500-DR-010.

5.10.3 In support of this departure, any bridge works would require additional traffic management on the scheme, increasing the level of disruption to users. Also, the use of Layout B would require increasing the carriageway footprint, removing adjacent trees and adversely affecting the environmental impacts on the scheme.

6.0 SECTION 4 DEPARTURES

6.1 Departure S4-001

6.1.1 This departure is a reduction in weaving length between the A34/A555 and B5356 Wilmslow Road, which is an existing road. The required standard is to achieve a weaving length of 1100m, including 100m due to lane drop in accordance with TD22/06, Rural all Purpose Roads.

6.1.2 The current proposal is a weaving length of 425m westbound and 450m eastbound. This departure is illustrated on drawing A6MARR-4-W-01-500-DR-001.

6.1.3 In support of the departure adequate visibility is currently available for existing traffic and closure of one of the existing slip roads would result in a significant pressure being placed on the existing local road network.

6.2 Departure S4-002

6.2.1 This departure is currently on hold and is therefore discussed further in Section 7 of this report.

6.3 Departure S4-003

6.3.1 This departure from standard cross-section is located on A555 to Wilmslow road eastbound slip road between chainage 550 to 600. The proposed design speed is 85kph.

6.3.2 The required standard is to provide a hard shoulder on the slip road in accordance with TD27/05 and the current provision is a hard shoulder for the majority of the slip road (180m) but not for the final 45m. This departure is illustrated on drawing A6MARR-4-W-01-500-DR-003.

6.3.3 In support of the departure, the 7.3m kerb to kerb width that has been provided for the first 220m is sufficient for two vehicles to pass in an emergency. Also, the slip road is restricted by a pinch point at an existing building, however there is an opportunity to increase the kerb to kerb through the pinch point from 4.5m to 5.5m which would be sufficient for vehicles to pass.

6.3.4 Removal of the pinch point would require the purchase of additional land beyond the Limit of Land Made Available. In this instance this would require the purchase and removal of a property, which it is preferable to avoid.

6.4 Departure S4-004

6.4.1 This departure is currently on hold and is therefore discussed further in Section 7 of this report.

6.5 Departure S4-005

6.5.1 This departure from prescribed merge format is located on the Wilmslow Road to A555 westbound merge, Ch900 to Ch1060. The required standard is Option A, taper merge and the standard provided is option B, parallel merge.

6.5.2 In support of the departure, the estimated traffic flows for the merge taper can be accommodated by the current design. The current design is an over provision which can be constructed within the Limit of Land Made Available, which the local authority would like to provide now as contingency for future growth.

6.5.3 This departure is illustrated on drawing A6MARR-4-W-01-500-DR-005.

7.0 DEPARTURES TO BE ‘DESIGNED OUT’ AND ON HOLD

7.1 Departures to be Designed Out

7.1.1 Following an assessment of each Departure it was determined that the DF7 could be modified slightly to remove two of the Departures. These are discussed in detail below.

7.2 S2-001: Lack of Hard Shoulder at the Start of Woodford Road to A555 On-Slip

7.2.1 Under an earlier design freeze the road alignment over Woodford Road provided two right turn lanes off Woodford Road, onto the westbound sliproad. Two corresponding lanes were provided at the top of the sliproad, before the road markings indicated a reduction down to a single lane with sliproad.

7.2.2 Under DF7 there is only a single right turn lane off Woodford Road and onto the sliproad. The top section of the sliproad layout has been revised to show only a single lane, and the kerb lines set out to suit this revised alignment. To comply with standards the hardshoulder should have been extended up towards Woodford Road; however this element of the design appears to have been overlooked.

7.2.3 Extension of the proposed hardshoulder back towards Woodford Road can be accommodated without extending beyond the Limit of Land Made Available, or requiring the design and construction of significant additional infrastructure. It will therefore be included as part of the Detailed Design.

7.3 S3-009: Insufficient Lane Width on the Exit From the A34 Roundabout Onto the A555 Westbound Sliproad

7.3.1 The existing westbound exit from the A34 roundabout, onto the A555 sliproad is marked as a single, wide lane. However, traffic modelling based on the DF7 layout indicates that two lanes are required. The DF7 design minimises new construction, making use of the existing highway layout as far as practicable, resulting in two narrow lanes at this location.

7.3.2 With minimal alteration to the DF7 design, and without extending beyond the Limits of Land Made Available a design conforming with standard can be achieved. The necessary modification will be incorporated to the detailed design.

7.4 Departures On Hold

- 7.4.1 Within Cheshire East (Section 4) the DF7 design indicates a priority junction from Clay Lane, linking to the start of the B5358 Wilmslow Road to A555 westbound on-slip, linking to the existing southern roundabout on Wilmslow Road. This design was developed by the SEMMMS project team following consultation with Cheshire East Council.
- 7.4.2 The AG review of DF7 highlighted the position of a priority junction on a slip road as a departure from standard, listed as S4-002 on the Departure schedule. Furthermore the Stage 1 Road Safety Audit recommended that this junction be removed.
- 7.4.3 In addition a further departure was identified within the junction, S4-004 relating to lane and kerb to kerb widths. As the design of the junction is currently under review these departures are not being submitted at this time.

8.0 SUMMARY

- 8.1 A total of twenty three departures were identified within the DF7 design, two of which are to be designed out and two are on hold. The nineteen departures remaining are required for various reasons, including limiting the land take and constraints from existing highway layout.
- 8.2 Within the Compensatory Measures section of each form proposals have been put forward to reduce the safety implications of these departures. These proposals shall be incorporated into the detailed design.
- 8.3 All Departures have been reviewed by the relevant Local Highway Authorities. They are either Accepted, or Accepted In Principle subject to the provision of additional information and development during the detailed design of the relevant highway location. This development covers both the Compensatory Measures indicated on the submissions and additional measures suggested by the Local Highway Authority.

APPENDIX A

Schedule of Proposed Departures from Standard

A6MARR Schedule of Departures

A6MARR-0-W-01-503-SC-001

Rev. P8

Departure Reference	Location	Local Highway Authority (LHA)	Lead LHA	Chainage	Proposed Design Speed	Departure Type	DMRB Volume Reference	Required Standard	Standard Provided	Associated Departure References	Departure Submitted (date)	Comments on Departure Returned by LHA (Date)	Departure Resubmitted (date)	Departure Accepted (Date)
S0-001	Scheme wide	SMBC , CEC , MCC	SMBC	-	Varies	Pavement Foundation	HD 26/06, Cl. 2.8	Use of a bound Foundation Class 2 (HBM) with a minimum 150mm thickness for pavement loadings greater than 80msa	Unbound Foundation Class 2 (comprising appropriate thicknesses of sub-base and capping or sub-base only) in areas where the pavement loading is greater than 80msa	S0-002	Jul-14			
S0-002	Scheme wide	SMBC , CEC , MCC	SMBC	-	Varies	Pavement Foundation	IAN 73/06 Rev 1 Sect. 3	Use of a performance foundation design as detailed in Chapter 4 of Section 4 of the IAN 73/06 Rev 1	Performance foundation design in accordance with IAN 73/06 Rev 1 Section 4 Chapter 4	S0-001	Jul-14			
S1-001	Mainline	SMBC	SMBC	CH9448 to 9640	85kph	Superelevation	TD 9/93 Table 3	3.50%	2.50%		Jul-14			
S1-002	Realigned A6	SMBC	SMBC	CH537, 584, 728, 1011, 1042, 1188, 1248 and 1335	Varies, 60 - 70kph	Horizontal Geometry	TD 9/93 Table 3	Transition curves required between horizontal elements	No transition curves		Jul-14			
S1-003	A6 Bus Overbridge	SMBC	SMBC	CH10 to 53	60kph	Horizontal geometry	TD 9/93 Table 3	255m with 5% SE	70m with varying SE	S1-004	Jul-14			
S1-004	A6 Bus Overbridge	SMBC	SMBC	CH80 to 160	60kph	Cross section	TD 27/05	SU2 with 7.3m c/way	SU2 with 3.65m c/way	S1-003	Jul-14			
S2-001 DEPARTURE NOT SUBMITTED: TO BE DESIGNED OUT	Woodford Road	SMBC	SMBC	CH13280-13370	85km/hr	Departure from standard cross section	TD27/05	Hard shoulder to be provided on slip road	Hard shoulder provided for majority of slip road, however no shoulder provided for the first 75m					
S2-002	Woodford Road	SMBC	SMBC	CH150	60km/hr	Departure from standard cross section	TD27/05	Sufficient width should be permitted between kerbs to allow vehicles to pass in the case of breakdown / emergency.	4.5m		Jul-14			
S3-001	A34 / Stanley Green Road	SMBC	SMBC	CH900-1150	70km/hr	Departure from standard cross section	TD27/05	Hard strips in line with DMRB cross sections, to be consistent with adjacent sections of A34	Lane widths to standard, but no hard strip		Jul-14			
S3-002	A34 southbound on slip to the A555	CEC / SMBC	SMBC	Centred around CH275	70kph	Various departures from required geometry	TD51/03, 2.26	Various, including segregating left turn island to be extended into roundabout exit	Island terminates prior to the roundabout give way line.		Jul-14			
S3-003	Southern arm of A34 roundabout	CEC / SMBC	SMBC	CH740	120km/hr	Insufficient length of VRS can be accommodated	TD19/06	Typically full height VRS required for a min. of 30m in advance of obstructions and 7.5m beyond.	1.5m beyond the obstruction	S3-004	Jul-14			
S3-004	Southern arm of A34 roundabout	CEC / SMBC	SMBC	CH740	120km/hr	Reduction in VRS containment level	TD19/06	H1 typically for gantries	To allow visibility through the junction a steel barrier is required, H2 containment level.	S3-003	Jul-14			
S3-005	A555 eastbound onslip from A34	CEC / SMBC	SMBC	(existing road)	120km/hr	Format of merge	TD22/06	Layout F - Lane Gain with Ghost Island Merge	Layout B - Parallel Merge		Jul-14			
S3-006	A34 southbound over Spath Brook	CEC	CEC	CH550	120km/hr	Reduction in verge width	TD27/05	2.0m	1.5m within the design, however the currently available topographical survey of southbound side of carriageway suggests 0.85m		Jul-14			

A6MARR Schedule of Departures

A6MARR-0-W-01-503-SC-001

Rev. P8

Departure Reference	Location	Local Highway Authority (LHA)	Lead LHA	Chainage	Proposed Design Speed	Departure Type	DMRB Volume Reference	Required Standard	Standard Provided	Associated Departure References	Departure Submitted (date)	Comments on Departure Returned by LHA (Date)	Departure Resubmitted (date)	Departure Accepted (Date)
S3-007	A555 to A34 westbound offslip Cross Section	SMBC	SMBC	CH120	120km/hr	Departure from standard cross section	TD27/05	Rural All Purpose Mainline: 2.5m verge; 1.0m nearside hardstrip; lanes at 3.65m (lane drop), 3.7m and 3.65m (running lanes); 1.0m offside hardstrip.	Based on currently available topographical survey: 2.6m verge (incorporating a 2.5m footway/cycleway and 1.4m high guardrail); 0.6m nearside hardstrip; 3No. 3.3m lanes; 0.6m offside hardstrip.		Jul-14			
S3-008	A555 Westbound diverge to A34	CEC / SMBC	SMBC	(existing road)	70kph	Various departures from required geometry	TD51/03, 2.26	Various, including the segregating left turn island to be extended into roundabout exit.	Island terminates prior to the roundabout give way line.		Jul-14			
S3-009 DEPARTURE NOT SUBMITTED: TO BE DESIGNED OUT	A555 west bound merge slip road from A34	SMBC	SMBC	(existing road)	70kph	Departure from standard cross section	TD27/05	2x3.65m Lanes, 1.0m hardstrips and 2.5m Verges (curve widening on lanes exiting the roundabout)	2x3.0m Lanes, 1.0m hardstrip to nearside only, 2.0m verge to nearside and 2.5m verge to offside. Insufficient curve widening on exit from roundabout)					
S3-010	A555 west bound diverge slip road onto A34	CEC / SMBC	CEC	(existing road)	120km/hr	Format of diverge	TD 22/06, fig 2/5	Option B: Ghost Island Diverge / Parallel Diverge	Option A: Taper Diverge	S3-008	Jul-14			
S4-001	A34/A555 to B5358 Wilmslow Road	CEC / SMBC	SMBC	(existing road)	85km/hr	Reduction in weaving length	TD22	1100m (1000m weaving length plus 100m due to lane drop)	650m		Jul-14			
S4-002 DEPARTURE ON HOLD	Wilmslow Road to A555 westbound slip road	CEC	CEC	CH570	85km/hr	Proposed junction position contradicts standard	TD22/06	No junctions are permitted on slip roads	Road layout indicates a minor junction at the head of the A555 west bound on slip	S4-004				
S4-003	A555 to Wilmslow Road eastbound slip road	CEC	CEC	CH550-600	85km/hr	Departure from standard cross section	TD27/05	Hard shoulder to be provided on slip road	Hard shoulder provided for majority of slip road, however no shoulder provided for the final 50m		Jul-14			
S4-004 DEPARTURE ON HOLD	Wilmslow Road to A555 (Westbound exit form the southern roundabout on the approach to the slip road)	CEC	CEC	CH550	85km/hr	Departure from standard cross section	TD27/05	Sufficient width should be permitted between kerbs to allow vehicles to pass in the case of breakdown / emergency.	4.5m	S4-002				
S4-005	A555 west bound merge slip road from Wilmslow Road	CEC	CEC	CH900 - 1060	85km/hr	Format of merge	TD 22/06, fig 2/3	Option A: Taper Merge	Option B: Parallel Merge (Overprovision)		Jul-14			