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DATE: 29/09/2014 OUR REF: A6MARR Departures.nd26.9.14 YOUR REF:

Please Contact: Andrew Ross

Dear Adam

A6 MARR Review of Highway Departures - Cheshire East Borough Council.

The following Design Departures have been reviewed by Jacobs UK as appointed design partners of Cheshire East Borough Council.

Departure Reference	Adopting Local Authority	Lead Local Authority	Brief Description of Departure
S0 - 001	SMBC, CEC, MCC	SMBC	Pavement Foundation HD 26/06, Cl.2.8
S0 - 002	SMBC, CEC, MCC	SMBC	Pavement Foundation IAN 73/06 Rev 1
S3 - 002	SMBC, CEC	SMBC	Various Geometry Departures TD51/03
S3 – 003	SMBC, CEC	SMBC	VRS Departure TD 19/06
S3 – 004	SMBC, CEC	SMBC	VRS Departure TD 19/06
S3 - 005	SMBC, CEC	SMBC	Format of Merge TD 22/06
S3 - 006	CEC	CEC	Reduction in Verge Width TD 27/05
S3 - 008	SMBC, CEC	SMBC	Various Geometry Departures TD51/03
S3 - 010	CEC, SMBC	CEC	Format of Diverge TD 22/06
S4 - 001	CEC, SMBC	CEC	Reduction of Weaving Length TD 22

S4 - 002	CEC	CEC	Side Road Junction Location TD 22/06
S4 - 003	CEC	CEC	Departure from Standard Cross Section TD 27/05
S4 - 004	CEC	CEC	Departure from Standard Cross Section TD 27/05
S5 - 005	CEC	CEC	Format of Merge TD 22/06

Departures where Cheshire East Borough Council have been designated the lead Authority

Each of these departures is referenced below with appropriate comment and recommendation.

S3 – 006 Reduction in Verge Width

Location

A34 / Spath Lane

The departure relates to a reduced verge width provision over an existing structure. This appears to tie in with the existing verge width provision on the drawing provided.

Comment

Existing Departure

Recommendation

Departure is ACCEPTED

Further Action

The departure submission indicates that there is potentially sufficient width for a 2.00m verge to the northbound carriageway but that there is only 0.85m available for the southbound verge but this is subject to survey and that up to 1.5m may actually be available.

Layout to be reviewed during detailed design and departure mitigated where possible.

\$3 – 010 Format of Diverge

Location

A555 Westbound Diverge Slip to A34

The Departure refers to the choice of diverge, either a Ghost Island Diverge, or a Parallel Diverge. The Ghost Island Diverge is the preferred option (TD 22/06)

Comment

Existing provision

Recommendation

Departure is ACCEPTED

Further Action

Design Team should investigate the potential of bringing diverge closer to the requirements of Table 4/4 of TD 22/06 during detail design phase.

S4 – 001 Reduction of Weaving Length

Location

A555 to A34 Westbound Offslip Cross Section

The departure refers to the existing route east of the B5358 where the available length is constrained by the junction with the A34.

Comment

Existing provision or at least restricted as a consequence of original A555 design during 1980's

Recommendation

Departure is ACCEPTED

Further Action

None

S4 – 002 Side Road Junction Location

Location

Clay Lane Priority Junction with West bound A555 Slip Road

Comment

The principle of providing a non-standard junction at this location is confirmed

Recommendation

Departure is ACCEPTED

Further Action

The preliminary design is revised to ensure the new highway between Clay Lane and the B5358 roundabout is clearly identified as two-way with the new A555 slip road commencing west of the Clay Lane junction. Given the potential conflicts which will exist at this site the junction must be future proofed to allow easy Traffic Signal installation as a minimum.

S4 – 003 Departures in Standard Cross Section

Location

A555 to Wilmslow Road eastbound slip road Ch550 to Ch600.

Comment

Departure occurs on slip road.

Slip road cross section ought to be single lane with hard shoulder. The slip road to be provided is to this standard but meets a pinch point where the hard shoulder has to be prematurely curtailed.

Recommendation

Departure is ACCEPTED

Further Action

Designer's Departure report should be revised to have greater consideration of the presence of the pedestrian footway / cycleway.

S4 – 004 Departures from Standard Cross Section.

Location

Westbound slip road beyond Clay Lane priority Junction

Comment

Proposed Departure is linked with the Clay Lane Junction provision (S4 -002), the final revised cross section to be confirmed following revision to the geometric design of the new junction.

Recommendation

Departure is ACCEPTED

Further Action

The layout is to be reviewed during Detailed Design process.

S4 – 005 Format of Merge

Location

A555 Westbound merge slip from Wilmslow Road.

Comment

DMRB Procedures results in a merge type to Layout A of TD22/06₁, a Taper Merge. The submitted Merge is to Layout B of TD22/06, a Parallel Merge, resulting in an 'overprovision' at this location.

Recommendation

Departure is ACCEPTED

Further Action

None

In summary all Departures where Cheshire East Borough Council have been highlighted as the lead Highway Authority have been considered and are confirmed as ACCEPTABLE subject to further detailed design work.

Departures where Cheshire East have been invited to comment although they are not lead Highway Authority.

Each of these departures is referenced below with appropriate comment and recommendation.

S0 – 001 Pavement Foundation

Comment

There are no design issues, the resulting carriageway design will be in accordance with IAN73/06 so there is no structural integrity compromise.

With the ease of construction methods bringing potential safety improvements as well as reduced construction time.

Departure is recommended for ACCEPTANCE

S0 – 002 Pavement Foundation

Comment

Use of a performance foundation design as detailed in Chapter 4 of the IAN 73/06 Rev1 (2009).

It is the intention to publish the guidance as a Standard in the DMRB in the future and this design process will then become a standard procedure. In the interim period the approval of the Overseeing Organisation must be sought.

Departure is recommended for ACCEPTANCE

S3 – 002 A34 Southbound On-Slip A555 Various Geometry Departures.

Comment

Departures submitted are:

- 1 Physical island does not extend sufficiently into the exit road
- 2 Entry taper insufficient length (nb supplied drawing has approach taper labelled entry taper and vice versa)
- 3 Approach taper insufficient length
- 4 Exit taper insufficient length
- 5 End taper insufficient length
- 6 SSD impaired by existing vegetation

It is recommended that the Junction is reviewed against TA 86 and TD 50 as the number of departures would most likely be reduced.

Cheshire East Borough Council raises no objection to the Lead Authority Accepting these departures.

S3 – 003 A34 Roundabout Sothern Arm. VRS provision.

Comment

It is not unusual for VRS to terminate on offside approaches to roundabouts without the required full height barrier beyond the object, often associated with the signals. It is impossible to provide this standard in many instances and this is one of those.

Departure is recommended for ACCEPTANCE

S3 – 004 A34 Northbound approach to A555 Roundabout. VRS Containment Level.

Comment

Departure submission is for a reduced Containment level of VRS from recommended H4a to H2 as H2 is readily available in steel and allows greater visibility for the approach to the traffic signals and the roundabout beyond.

HA list of approved VRS systems now includes a number of H3 systems, some of these seem to be manufactured in steel. Whether or not they provide sufficient visibility is unknown. But H3 systems should be considered during Detailed Design phase.

Cheshire East Borough Council raises no objection to the Lead Authority Accepting this departure.

S3 – 005 A555 Eastbound Merge from A34 onto A555. Sub-standard merge.

Comment

Departure submission is for a reduced provision of slip road merge onto the A555 eastbound from the A34.

Given the traffic figures a Layout B parallel merge arrangement becomes the best compromise.

Departure is recommended for ACCEPTANCE

S3 – 008 A555 Westbound diverge to A34 give way line at roundabout.

Comment

Departure from Standard TD51/03 Segregated Left Turn Lanes and Subsidiary Deflection Islands at Roundabout.

Departures submitted are:

- 1 Physical island does not extend sufficiently into the exit road, TD 51/03 para 2.26
- 2 Entry taper insufficient length, TD 51/03 para 2.41 & Table 2/5
- 3 Exit taper insufficient length, TD 51/03 para 2.49 & Table 2/5
- 4 SSD insufficient, TD 51/03 para 2.18 and Table 2/1

Cheshire East Borough Council raises no objection to the Lead Authority Accepting these departures.

In summary all Departures where Cheshire East Borough Council have been asked to comment but are not designated lead Highway Authority have been considered and no objections have been raised preventing the designated lead Authority (SMBC) from accepting these departures.

Jacobs have prepared a brief report; the report provides a more detailed review all the proposed departures, a copy of this report can be provided upon request.

Report Reference
A6 Manchester Airport Relief Road
Comments on Schedule of Proposed Departures from Standard
(Rev A. dated 25th September 2014)

Yours Sincerely

Andrew Ross

Head of Strategic Infrastructure Cheshire East Council

Cc Martin Houghton – Aecom Rosie Simon – Morgan Sindall Bill Edwards – Stockport MBC Naz Huda – Stockport MBC