

Submission for a Departure/Relaxation from Standard

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DEPARTURE REF:	DP005	
PROJECT NAME:	Dunsbury Hill	
DEVELOPERS DETAILS:	Name:	Portsmouth City Council
	Address:	Portsmouth City Council Civic Offices Guildhall Square Portsmouth PO1 2AS
	Telephone No:	02392 822251
CONSULTANTS DETAILS:	Name:	Atkins
	Address:	Woodcote Grove, Ashley Road, Epsom, Surrey KT18 5BW
	Telephone No:	01372 726140
DATE SUBMITTED:	02/03/2012	
STAGE: PRELIMINARY DESIGN CHECK		

1.1 SITE LOCATION (inc plan):

The site is located between Havant and Waterlooville in Hampshire. The western extent of the site is located on the B2150 Hulbert Road which links Havant and Waterlooville via a gyratory at Junction 3 of the A3(M). The site also encompasses a 'green field' area to the east of Hulbert Road with the eastern extents of the site connecting to Woolston Road.

1.2 BRIEF DESCRIPTION OF SCHEME:

The works involve the construction of a new development within the 'green field' area of the site with a main alignment linking Hulbert Road to Woolston Road. A new roundabout is to be constructed on Hulbert Road to provide a link to the new development area. This will involve re-alignment of Hulbert Road to provide suitable highway geometry for the approaches to the proposed roundabout location. A smaller compact roundabout is to be constructed at the 'gateway' to the development which will form an access hub for the main alignment and future development phases to the north and south.

2.1 RELEVANT STANDARD(S):

TD 9/93

2.2 CLAUSE(S):

Clause 3.3 and Table 3.

2.3 DETAILS OF DEPARTURE / RELAXATION FROM STANDARD

MCN1 Horizontal Alignment – Centre line MCN1 has a horizontal radius of 75m for the curve required to link from the A3(M) gyratory to the proposed Hulbert Road roundabout gyratory location. The design speed is based on recorded 85%ile speeds of 43mph for this section of Hulbert Road, giving a design speed of 70kph to DMRB TD 9/93 Table 3. Horizontal curvature requirements set out in Table 3 cannot be met given the site constraints and geometry required on the approach to the proposed roundabout. The existing section of Hulbert Road into the A3(M) gyratory has an existing centre line radius of approximately 80m and Superelevation in the region of 6%. Given the existing carriageway does not conform to standards and the site constraints encountered, a departure from standards is requested for this section of carriageway.

2.4 REASON FOR DEPARTURE / RELAXATION

There are severe geometric constraints imposed on the alignment by the position of the Hulbert Road Roundabout, which prevents the use of a radius to meet the requirements of DMRB TD 9/93. Even using a two step below desirable minimum radius with Superelevation of 7% and a V^2/R calculation based on the 70kph design speed, a minimum radius of 173.3m is required. It is also noted that the existing situation is little better and accident records for this location indicate that the existing radius does not appear to be the cause of any accidents.

2.5 RELATED DEPARTURES:

Departure ref:	Effects on this departure
DP008	The SSD in DP008 is 90m, which is one step below the required 120m SSD. This will have no effect on this departure.

3. JUSTIFICATION FOR DEPARTURE (INCLUDE POSITIVE AND NEGATIVE IMPACTS)

3.1 SAFETY: Road Safety Audits comments to be included

This is a minimal change from the existing horizontal radius and thus the general recommendation of measures to ensure driver awareness of the presence of the roundabout and to encourage reduced speed should be included as mitigations.

It is expected that northbound vehicle speeds should be controlled by the introduction of the new roundabout on Hulbert Road. The southbound situation should be little different upon exit from the A3(M) roundabout but warning of the proposed roundabout should assist in controlling speeds. During detailed design, we suggest considering street furniture location/protection/passive safety on the outside of the bend in the likely strike zone for an errant vehicle.

3.2 ENVIRONMENTAL/SUSTAINABILITY:

N/A

3.3 ACCESSIBILITY:

N/A

3.4 MAINTENANCE:

N/A

3.5 CONSTRUCTION PROGRAMME:
N/A as a design to standard is impossible.

3.6 COST:

The existing alignment makes it impossible to provide a design to standard so cost savings are not applicable.

3.7 CONSULTANTS MITIGATION

Mitigating measures would be considered to reinforce the need for vehicles approaching both the proposed roundabout and the A3(M) gyratory to decelerate. These measures would include signage to warn drivers of the proximity of the roundabout and appropriate road markings to TSRGD 2002, in conjunction with anti-skid surfacing. Such measures will be explored further at the detailed design stage. Superelevation of 6% has been applied to the curve to tie in with the existing Superelevation on this section of Hulbert Road, which at lower design speeds will aid vehicles in negotiating the horizontal curvature.

4.0 SUPPORTING DOCUMENTATION

Reference	Title

5.1 DESIGN CHECK APPROVERS COMMENTS & RECOMMENDATIONS

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5.2 HEAD OF ENGINEERING CONSULTANCY COMMENTS

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APPROVED ☐ APPROVED WITH COMMENTS ☐ REJECTED ☐

Signed

Signed

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Print

Job Title

Job Title

Date

Date