

Submission for a Departure/Relaxation from Standard

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DEPARTURE REF:	DP002	
PROJECT NAME:	Dunsbury Hill	
DEVELOPERS DETAILS:	Name:	Portsmouth City Council
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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 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 4.5 and Table 3

2.3 DETAILS OF DEPARTURE / RELAXATION FROM STANDARD

MCS1 Vertical Alignment – Centre line MCS1 between chainages 25 and 45 has a crest curve into the roundabout with a maximum achievable K value of 13.152. The design speed for this approach to the proposed roundabout is based on 85%ile speeds of 42mph, therefore giving a design speed of 70kph to DMRB TD 9/93 Table 3. Table 3 states that the absolute minimum crest K value should be 17. A departure in standards is requested for a design speed of 60kph given that the crest curve is located on the approach to the roundabout where it is anticipated that vehicles will be decelerating. This departure would allow a one step below desirable minimum crest K value of 10.

2.4 REASON FOR DEPARTURE / RELAXATION

The reason for the undulating alignment on the centre line is due to the need to maintain and follow the existing western channel alignment in order to minimise changes in levels to protect the mature trees in the SINC behind the verge and to avoid the need for carriageway reconstruction.

2.5 RELATED DEPARTURES:

Departure ref:	Effects on this departure
DP003 and DP004	Similar departures along the same section of road.

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

3.1 SAFETY: Road Safety Audits comments to be included

The Design Speed is based upon existing speeds with no roundabout on Hulbert Road. With the introduction of the proposed roundabout lower speeds would be anticipated and thus the use of a lower Design Speed would seem reasonable. This departure relates to a crest curve and this may have an impact upon forward visibility to the Give Way line and circulatory carriageway. It is recommended that measures to ensure driver awareness of the presence of the 'Give Way' requirements at the roundabout and to encourage reduced speed be included as mitigations.

3.2 ENVIRONMENTAL/SUSTAINABILITY:

As mentioned in paragraph 2.4 there are numerous mature trees whose canopies currently overhang the carriageway. In order not to cause distress or damage to the trees the carriageway levels follow the existing alignment as closely as possible.

3.3 ACCESSIBILITY:

N/A

3.4 MAINTENANCE:

N/A

3.5 CONSTRUCTION PROGRAMME:

The design is for planning approval so a construction programme has not been considered at this stage.

3.6 COST:

The area in question is approximately 700m² and the cost savings is the difference between resurfacing and reconstruction. Allowing £25 per m² for resurfacing and £100 per m² for reconstruction the cost saving is around £52,500. This does not include the additional traffic management costs or road closures a reconstruction would entail so the savings may be in the region of £100,000.

3.7 CONSULTANTS MITIGATION

The crest curve is located on the approach to the proposed roundabout where it is anticipated that vehicles will be decelerating, thus allowing a relaxation to a design speed of 60kph.

Mitigating measures could be considered to reinforce the need for vehicles approaching the proposed roundabout to decelerate. These measures could 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.

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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Job Title

Job Title

Date

Date