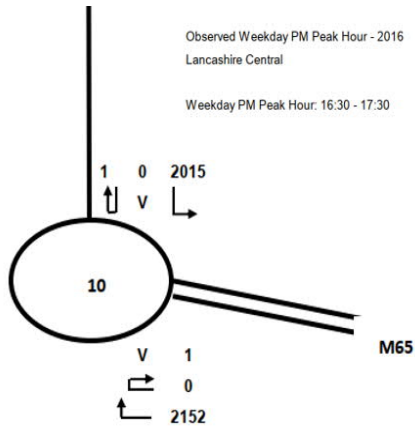
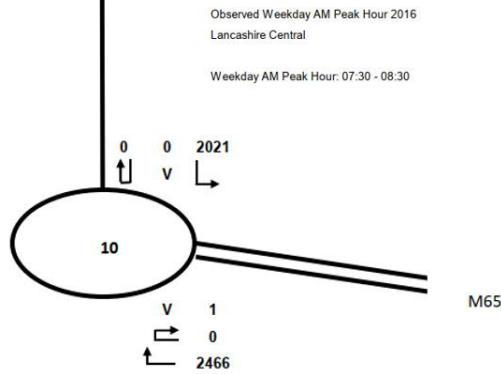


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This form shall be completed by the WCS Project Manager for both internally designed and Developer designed schemes. The purpose is to identify and record where a unique or specific situation with a project requires a non-standard level of design to be implemented, with an assessment of why and the associated risks and benefits. To be used in conjunction with the Departure from Standard procedure contained with the Local Operating Procedures (LOPs) (Sect 9.7.4.5 Departure from Standards)

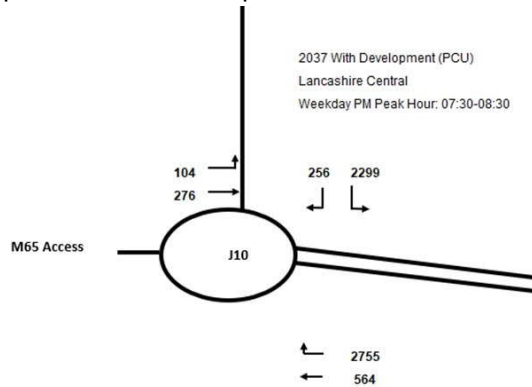
Scheme Title:	M65 Terminus
Location:	M65 Terminus, Preston PR5 6BD
Design Specialism:	Highways

1) Project Details			
Description	<p>The proposed development at Lancashire Central includes a mix of land uses including employment, retail, leisure, health and residential use, with associated parking, green infrastructure, internal highway layout and pedestrian and cycle infrastructure provision. The M65 terminus roundabout is to be modified to provide a safe and suitable access to the proposed Lancashire Central development. An additional separated arm is to be added to the M65 terminus on the western side taking traffic from the M65 and M6 Junction 29 separately, and the roundabout is to become signalised. See drawing 84465-WSP-XX-DR-0004 rev P07 for details.</p> <p>The M65 terminus roundabout adjacent to the site boundary is at the western extent of the M65. The M65 terminus is currently a two-arm roundabout, with the M65 as the eastern arm and the link between the M65 and the A6 / A582 roundabout as the northern arm.</p> <p>There are two circulating lanes, however traversing the northern circulating carriageway is prohibited, with no entry to vehicles between the exit onto the link to the A6, and the entrance from the link from the A6.</p> <p>There is an existing DVSA check site located between the eastbound and westbound carriageways of the M65. Access and egress to and from the DVSA Enforcement check site is from the roundabout with the entrance located between the entrance arm of the M65 and the exit arm of the M65.</p>		
Road No:	M65	Category:	Road Layout
Traffic Flows	<p><u>Observed</u></p> <p>In 2016, the recorded turn count at the M65 terminus roundabout was 4,487 AM peak and 4,167 PM peak.</p>	NMU flows	<u>N/A</u>



Design Year

Future year flow of 2037 with the development traffic incorporated. The recorded turn count at the M65 terminus roundabout was 6,254 AM peak and 5,980 PM peak.



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	<p>2037 With Development (PCU) Lancashire Central Weekday PM Peak Hour: 16:30-17:30</p>	
	<p>The AM and PM traffic flows used in the 2037 with development LinSig modelling for this junction is as per the below;</p> <p>AM PEAK M65 east approach (from M65) – 2,136 PCU M65 east approach (from M6) - 1,183 PCU</p> <p>PM PEAK M65 east approach (from M65) – 1,030 PCU M65 east approach (from M6) – 1,737 PCU</p>	
Design speed and speed limit	<p>The existing speed limit on the M65 westbound is 70mph on the approach to the area, falling to 50mph just prior to the merge between M65 westbound traffic and traffic approaching from the M6 northbound and M6 Junction 29 roundabout.</p> <p>As part of the proposed scheme, the extent of 50mph limit would be extended to begin approximately 350m prior to the merge of the M65 and M6 traffic. There will also be a further reduction in speed limit to 40mph on approach of the traffic signals.</p> <p>The Design Speed of the M65 and M6 traffic has therefore been assessed as 85kph.</p>	
Mean and 85 th Speeds	Not available at current design stage.	

2) Departure Details	
Relevant Standards affected (reference must be made to the specific & relevant paragraphs). <i>If "Approval in Principle" documentation is used, supply document reference</i>	
Clause no.:	CD 146 Clause 3.9
<p>CD 146 provides the positioning requirements of signalling and advance direction signs for motorways. Clause 3.9 states: <i>Gantries shall only be used for mounting direction signs where one or more of the following criteria are met:</i></p> <ol style="list-style-type: none"> 1) <i>the carriageway has or is due to have 4 or more running lanes;</i> 2) <i>the carriageway has 3 running lanes and carries (or is due to carry within 15 years of opening) 33,000 vehicles per day (1-way) (high growth estimate) and the proportion of HGVs is greater than 20%;</i> 3) <i>the number of lanes available to a driver going ahead reduces after the junction;</i> 4) <i>a series of junctions are (an average of) less than 3 km apart measured between centres of junctions;</i> 5) <i>the road is on a structure but does not have a hard shoulder;</i> 	

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- 6) the road is on a steep embankment or in a deep cutting;
7) an assessment of the cost has confirmed that it is cheaper to provide gantry mounted signs rather than mounting direction signs on the left-hand side of the road.

The design proposal is to incorporate gantry mounted directional signage on the approach to the M65 terminus roundabout. This does not meet the design criteria defined above as the separated carriageways the gantries would span only have two running lanes. A departure from standard is required for non-compliant gantry mounted signs.

The provision of gantries has been incorporated into the separated approach to help with any potential road user confusion. The gantries at the stop line meet the criteria outlined in CD 146 Clause 3.9 as they cover 3 running lanes. However, the design incorporates another pair of gantries over the approaches. Although in total this is 4 running lanes it is proposed these gantries are separated and staggered to assist with any potential driver confusion, meaning the separated gantries would cover 2 running lanes and hence the application for a departure.

Difference between standard and proposed design:

The proposed design is shown on drawing 84465-WSP-XX-DR-0004 P07. The relevant point in the above clause requires gantries to be proposed on carriageways with '3 or more running lanes and carries 33,000 vehicles per day and the proportion of HGV's to be greater than 20%'. This criterion is not met for the gantries on the approach of the junction. There will only be two running lanes where the gantries are proposed.

The design rationale for proposing gantries in this location is due to the proximity of the two separated approaches, offside and nearside advanced directional signage may lead to driver confusion. Although the ADS would look similar there is a risk that this could result in mis-leading signage and lead to late lane changes, and increased risk of side-swipe accidents.

The gantries will be staggered circa 10m to further assist any potential driver confusion as it will clarify the two approaches are separate and do not conjoin after the first set of gantries.

The gantries will be located circa 170m from the two stop lines on both approaches, in advance of a third lane being introduced. The forward visibility to the proposed gantries is in excess of the stopping sight distance for vehicles as a design speed of 50mph/85kph (160m – Table 2.10, CD 109).

Reason for Departure (overview):

Gantry mounted signs are required to ensure drivers on approach of the junction do not mistake Advanced Directional Signage on the alternative approach for their own, resulting in potential for late lane changes and confusion.

Gantry mounted advanced directional signs will allow road users to position themselves appropriately in advance of the junction and understand the lane designation for the upcoming roundabout.

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	<p>The gantries cannot be located where the approaches widen into three lanes as this would be too close to the proposed stop lines resulting in the potential for late lanes changes and excessive braking.</p>
<i>Associated Project Departures:</i>	<p>Departure 5 – Roundabout Entry Path Radii</p> <p>The M6 approach to the M65 terminus roundabout does not meet the criteria set out in CD 116 Clause 3.26 that <i>‘the entry path radius shall not exceed 100m’</i>. This is due to the restricted land available to the north of the scheme because of the existing DVSA Check site. The junction is to be signalised as a mitigation measure for this non-compliance.</p>
<i>Other options considered:</i>	<p>There is a separate design option of this scheme which consists of a merged approach to the roundabout from the M65 and M6. This omits any confusion as the M6 / M65 traffic merges prior to the roundabout, where it follows the same advanced directional signage.</p> <p>The proposed alternative drawing arrangement is shown on drawing number 84465-WSP-XX-DR-0019 P04.</p> <p>This option is being progressed in parallel to this design option.</p>

3) Justification (Positive and Negative Impacts and Risk)	
<i>Safety</i>	<p>The omission of gantries would have the potential to create confusion to road users. The Advanced Directional Signage may have to be placed in between the two carriageways and it may not be clear to users which carriageway the sign relates to. This could lead to driver hesitation and late lane changes.</p> <p>The separation of the gantries will clarify to road users that the two carriageways are separate throughout the junction. If a single gantry were to be proposed spanning four running lanes there may be confusion and anticipation that the two carriageways merge in advance of the junction.</p> <p>A Stage 1 Road Safety Audit has been undertaken and no problems were identified with respect to the use of gantry mounted signage. An addendum to the road safety audit was received 23/07/23 and the design drawing (84465-WSP-XX-DR-004) has been updated to incorporate the safety concerns raised in the audit report.</p>
<i>Congestion/delay</i>	<p>The proposed layout of the M65 terminus has been tested using both LinSig and VISSIM modelling software for the AM and PM peak hours with the proposed development traffic and a future assessment year of 2037.</p> <p>Traffic modelling suggests that with the development traffic and the proposed scheme, there is a forecast queue of</p>

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	approximately 70–110m on each of the separated approaches on the M65 arm (eastern approach), in the AM and approximately 60-70m on the eastern approaches in the PM peak periods.
<i>Environmental/Sustainability</i>	N/A
<i>Cost saving or benefit for departure: (Capital and Whole life Cost/Value)</i>	N/A
<i>Accessibility</i>	N/A
<i>Integration</i>	N/A
<i>Structural</i>	N/A
<i>Network Resilience & Maintenance</i>	N/A

4) Compensatory Measures	
<i>Included Measures</i>	Advanced signage details can be found on drawing 84465-WSP-XX-DR-0004 rev P07.
<i>Rejected Options</i>	N/A

5) Attachments and other information																																									
<i>List of Attachments</i>	GA / Visibility splays shown on drawing 84465-WSP-XX-DR-0004 rev P07.																																								
<i>Consultations</i>	Stage 1 RSA, appended to departure application.																																								
<i>Other Information</i>	<p>Transport Assessment.</p> <p>Accident data below:</p> <p>Collision data for this junction is included within Appendix B of TA (Table 36) - Only one slight collision has occurred at this junction in the five-year period of collision data:</p> <p style="text-align: center;">Table 36: Severity & Year of Collision on Junction 10 M65 Roundabout</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="color: red;"> <th>Severity</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td><i>Slight</i></td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>1</td> </tr> <tr> <td><i>Serious</i></td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td><i>Fatal</i></td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr style="font-weight: bold;"> <td>Total</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>1</td> </tr> </tbody> </table> <p>Source: Lancashire Central PIA Stats</p>	Severity	2016	2017	2018	2019	2020	2021	Total	<i>Slight</i>	0	0	0	1	0	0	1	<i>Serious</i>	0	0	0	0	0	0	0	<i>Fatal</i>	0	0	0	0	0	0	0	Total	0	0	0	1	0	0	1
Severity	2016	2017	2018	2019	2020	2021	Total																																		
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Total	0	0	0	1	0	0	1																																		

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	Observed Traffic data has been appended to Transport Assessment (Appendix G).
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6) Design Organisation's concluding remarks

To conclude the above, the departure application has been submitted due to the proposal to put gantries over 2No carriageways with two running lanes. CD 146 Clause 3.9 states gantries shall be proposed over carriageways with 3 or more lanes. The gantries have been proposed to reduce driver confusion and improve destination clarity. The omission of the gantries would create confusion with the Advanced Directional Signage and which carriageway they relate to resulting in driver hesitation and late braking.