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Brischweilerhoff

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Our Ref: ULE90130-SW-LET-00705

11<sup>th</sup> July 2007

tie Limited  
CityPoint, 1<sup>st</sup> Floor  
65 Haymarket Terrace  
Edinburgh  
EH12 5HD

Attention: Tony Glazebrook

Dear Tony

***Critical Issues Meeting 21 June 2007  
Issues and Instructions Arising***

Thank you for your letter dated 26 June 2007. We can confirm that SDS has now remobilised those areas of design activity which have been held awaiting resolution of the Critical Issues. We are also very pleased to be able to acknowledge the collaborative approach taken by tie, TEL, and CEC to the resolution of the Critical Issues.

As part of this response we also acknowledge receipt of the email from David Crawley dated 29 June 2007 containing the clarification relating to the letter of the 26<sup>th</sup>:-

*'For the avoidance of doubt, wherever the letter referenced above provides an instruction to "confirm that the arrangement detailed can be accommodated within the design standards and constraints which form part of the SDS contract" the subsequent use of a "Note" in the text below has the status of information provision and does not form part of the instruction and does not modify the instruction.'*

It is now twelve months since the SDS Preliminary Design was delivered and with the extended consultation on design options through the period since then it is our view that what has been developed is so close to optimum that there is nothing to be gained by delaying the completion of the detailed design while further possible refinements are investigated. In our view the major risk is not that the design may be 99% optimum rather than 100%; it is that further optioneering may delay completion of the programme to the point where cancellation of the scheme results. Interpreting the "Note" as part of the instruction and taking at face value the direction to "... optimise where practicable the design further as a result of observations arising from the modelling exercise..." could have put us back to square one with unacceptable programme prolongation and costs, due either to rework or to delay awaiting CEC modelling results. David's clarification is therefore very welcome and we thank you for it.

For the avoidance of doubt we understand that should it be decided subsequently to revisit the design, (other than for reasons of non-conformance with standards), the risk of programme prolongation and increased costs remains with tie. As we have already suggested, though, we believe the risk to tie of not proceeding on the agreed basis would be substantially higher.

Turning to the individual issues, we have now reviewed the instructions provided and have compiled a detailed response arranged by Critical Issue reference. The response is included here as a separate table.

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We note the request for us to provide revised programme dates for those items previously affected. We will be able to provide a full response when we have concluded our detailed review of the critical path with our Design Team Leaders, (DTLs). We have a meeting scheduled on Wednesday this week with the DTLs to review remobilisation progress and to ensure the remaining design scope is delivered in the most efficient way. We will be in a better position to provide you with accurate completion dates following this meeting.

Should you require further clarification on the issues detailed in this response please do not hesitate to contact either Stephen Reynolds or Jason Chandler. We look forward to working closely with tie on the timely provision of the remaining SDS deliverables.

Yours sincerely



**Parsons Brinckerhoff Ltd**  
**Stephen C Reynolds**  
Project Director

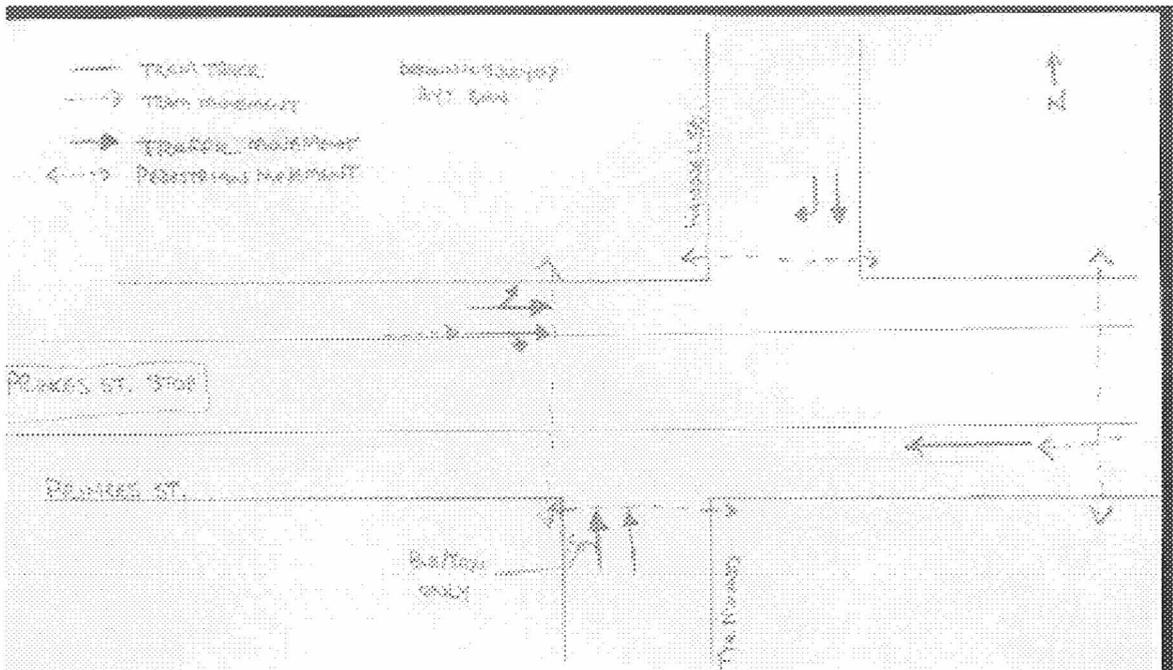
cc. David Crawley, tie  
Greg Ayres  
Jason Chandler  
Kim Dorrington  
SDM's

<p><b>1A /22 Forth Ports Outside Ocean Terminal</b></p>	<p>The drawings provided, together with the continuing close coordination with Forth Ports, provide sufficient information for SDS to develop the required revised design.</p> <p>The work will require a modification to the Forth Ports agreement.</p> <p>SDS notes that at a meeting held on 04 July Forth Ports has indicated some dates for a portion of the work. These dates appear to be unrealistic from the SDS standpoint, and we request that <b>tie</b> reviews expectations with Forth Ports.</p>
<p><b>1A /22 Cont /...</b></p>	<p>Assuming the "outside" tracks will be used for the through movements when a failed tram is to be stabled, there is physical space available to provide this function. However, this situation will not provide passenger ingress / egress for the entire length of the platform (note that the diagram assumes a tram longer than 40m, so 90m total length is used based on previous coordination discussions with <b>tie</b> / Transdev for stabling and coupling a failed tram). Approximately 8.7m of tram extends beyond the platform edge. An additional 3m of tangent length is available assuming that centre running will occur west of Ocean Terminal, which will mitigate a portion of this length. Final impacts cannot be determined until vehicle is selected and door locations are known.</p> <p>The stabled tram will also foul the "normal" pedestrian crossing routes between Ocean Terminal and the future development to the east. This is critical at the south end of the platforms, where sightlines are restricted by the failed tram, and little space is available for a safe detour. This is more easily mitigated on the east end, where sightlines are not compromised by the failed tram, and the pedestrian crossing will be fouled only when a live tram is at the stop. Additional space is more readily available on this end for a detour provision. The failed tram will also restrict to the use of the west crossover at Ocean Terminal, which will reduce the flexibility of the system during any (infrequent) tram vehicle failures.</p>
<p><b>1A /22a Forth Ports - Lindsay Road</b></p>	<p>Based on discussions with <b>tie</b> / CEC on 04 July 2007, and subsequent discussions with <b>tie</b> / CEC on 06 July 2007, SDS understands the requirements to provide a technical feasibility assessment on the Forth Ports proposals. SDS has sufficient information to provide this to <b>tie</b> for consideration. Once the technical feasibility is provided to <b>tie</b>, SDS requires <b>tie</b> to formalise the position to allow SDS to move forward into detailed design. Sufficient information to complete detailed design is not yet available.</p>
<p><b>1A /23</b></p>	<p>The drawings provided together with the continuing close</p>

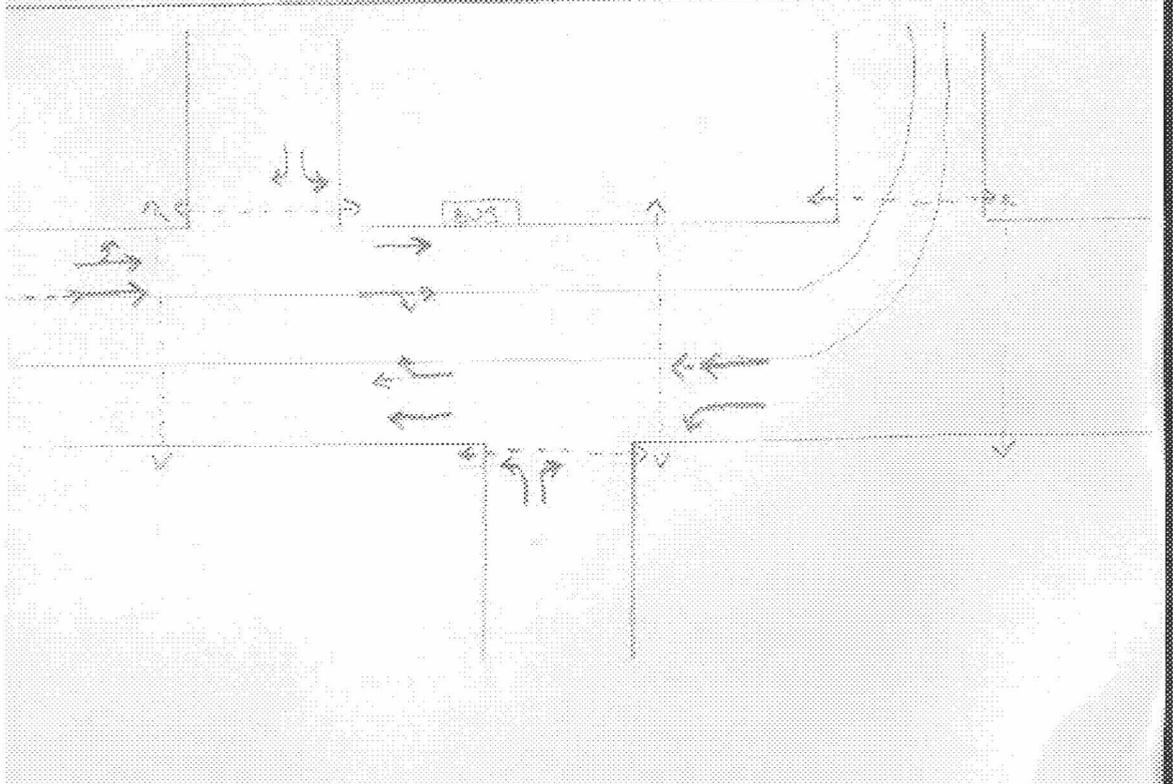
<p><b>Forth Ports Bypass Road</b></p>	<p>coordination with Forth Ports, provide sufficient information for SDS to develop the required revised design.</p> <p>The work will require a modification to the Forth Ports agreement.</p> <p>SDS notes that at a meeting held on 04 July Forth Ports has indicated some dates for a portion of the work. These dates appear to be unrealistic from the SDS standpoint, and we request that <b>tie</b> reviews expectations with Forth Ports.</p>
<p><b>1A /23 Cont /...</b></p>	<p>Note that SDS will require <b>tie</b> to define how the work is to be procured, as it will have a fundamental impact on how the tram design is presented, and how the packaging of drawings will be completed. In order to assist, the outline construction programme is as follows:</p> <p>The construction of the new road is envisaged to be broken down in to 4 phases:</p> <ol style="list-style-type: none"> <li>1. the renewal of the junction with Ocean Drive;</li> <li>2. the renewal of the old Ocean Drive alignment to be used (currently access to car park);</li> <li>3. the new roadway to be constructed adjacent to the Scottish Executive building; and</li> <li>4. the new junction / tie-in with the Scottish Executive drive way.</li> </ol> <p>It its envisaged that the construction of these phase's will be in series from Ocean Drive to the junction with the Scottish Executive driveway and take approximately 14 weeks. The duration of 14 weeks has been based on a single lane carriageway, working a standard 8 hour day 5 days a week within the Code of Construction Practise. Note that this information is outline and should only be utilised or referenced in this light, as no final scope, design or site investigation has been undertaken, and as such, the durations provided above need to be verified with the actual design that will be completed.</p>
<p><b>1B /7 Foot of the Walk Junction</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER, and detailed design is being progressed based upon the agreed layout. The arrangement shown is deemed feasible based upon the level of design completed. Further design refinement will occur as the detailed design is developed.</p>
<p><b>1C /4 York Place</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Detailed design is being progressed based upon the layout discussed and agreed at the Roads Design Working group of 28 June 2007. Further design refinement will occur as the detailed design is developed.</p>

<p><b>1C /6 Junction Mound / Princes Street</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Information available in these drawings is not suitable to complete the design. However, based on the continuing discussions with CEC and TEL (after the Roads Design Working Group meeting referenced), and the additional advance modelling that SDS has undertaken to resolve this issue, the attached sketch shows SDS' understanding of the up-to-date concept that CEC prefers over the layout / signal phasing in the drawing referenced in your letter for this issue. It is understood that this will introduce fundamental changes to the traffic patterns outwith the tram scope to accommodate bus movements, however, CEC agreed that the modification to laneage and signal staging would benefit the overall operations at this location over the preliminary design concept.</p> <p>Consequently, based on the discussions to date, SDS is moving forward with the detailed design and traffic modelling based on this more optimal solution.</p>
<p><b>1C /12 Waverley Bridge</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Information available in the referenced drawings is not suitable to complete the design, as the drawing noted did not contain details for the junction. However, based on the continuing discussions with CEC, and the additional advance modelling that SDS has undertaken to resolve this issue, the attached sketch shows SDS' understanding of the up-to-date concept that CEC prefers. CEC agreed that the SDS proposed laneage and signal staging would benefit the overall operations at this location over the preliminary design concept.</p> <p>Consequently, based on the discussions to date, SDS is moving forward with the detailed design and traffic modelling based on this more optimal solution.</p>
<p><b>1C /13 &amp; 1C /15 Picardy Place</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Information available in the sketches referenced and subsequent discussions with CEC is suitable to complete the design.</p>
<p><b>1C /14 The Mound Junction</b></p>	<p>As per 1C/6 above.</p>
<p><b>1D /7 &amp; 1D /8 Haymarket</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Information available in the sketches referenced and subsequent discussions with CEC is suitable to complete the design.</p>
<p><b>3A /2 Coltbridge Viaduct</b></p>	<p>The instruction to proceed is sufficient.</p>
<p><b>3A /10 System Wide</b></p>	<p>The instruction to proceed is sufficient. SDS confirms that design is proceeding on the basis of the quantitative</p>

	information received from the only one of the two tram bidders to have responded with full information.
<b>3A /14 Coltbridge Viaduct</b>	The instruction to proceed is sufficient.
<b>5A /1 SRU Training Pitches</b>	The instruction is sufficient for SDS to proceed with detailed design. SDS takes this opportunity to confirm that the Tram design will proceed as instructed by <b>tie</b> at the CI meeting of 21st June, with an embankment design (as per Preliminary Design) for Structure S21D.
<b>7A /2 RBS “Landmark Stop”</b>	The instruction is sufficient for SDS to proceed with detailed design.
<b>7A /3 Delta at Newbridge Branch</b>	SDS acknowledges the instruction from <b>tie</b> . SDS now requests a letter removing the 'red' status for this area to supersede the RFI response.
<b>7A /9 Eastfield Avenue</b>	Please note that the drawings listed were not attached to the letter however Kate Shudall has received these from the EARL team via Lindsay Murphy. The meeting on the 25th took place (with KS and Gavin Murray) and KS noted that the drawings listed were incorrect because EARL had added the incorrect track alignment for tram. This does not give SDS confidence that the Eastfield Avenue Bridge design is progressing considering tram correctly. SDS requested revised plans to be sent to <b>tie</b> and SDS from the EARL team. This issue remains open.
<b>7A /10 Airport Stop</b>	The instruction is sufficient for SDS to proceed with detailed design.
<b>7A /11 Burnside Road</b>	Please note that the drawings listed were not attached to this letter however SDS has received these from <b>tie</b> via letter from Lindsay Murphy. SDS has replied to the letter - ULE90130-07-LET-00295.



10/6 - The Main Concept Sketch



10/12 - Various Bridges Concept Sketch