

**January 14, 2011 Meeting**

**CH2MHill Office  
Bellevue, WA**

**Attendees:**

<b>WSDOT</b>	<b>ACEC</b>	<b>Guests</b>
Geoff Swett	Paul W. Guenther (CH2M HILL)	None
Eric Schultz	Paul Bott (HDR)	
<del>Jesse Beaver</del>	Yuhe Yang (PB)	
<del>Scott Sargent</del>	<del>David Goodyear (TY Lin)</del>	
Jeri Bernstein	Jim Schettler (Jacobs)	
	Jake Menard (DEA)	
	Bill Elkey (Parsons)	
	<del>Richard Patterson (AECOM)</del>	
	Chester Werts (HDR)	
	Paul W. Guenther (CH2M HILL)	

**Agenda:**

1. Review meeting minutes from the November 19, 2010 meeting at WSDOT Bridge and Structures.
2. Revise and Finalize Team Charter
3. Continue Balanced Stiffness Discussion
4. Discuss MSE supported abutment walls (tabled)
5. WSF H-Span LL Design Criteria Presentation
6. Review and Discuss D/B Structural Issues & Outcomes Matrix.
7. Assign Action Items.

9:00 to 9:15		<ul style="list-style-type: none"> <li>• Meeting Minutes and Agenda Review</li> </ul>
<p>The meeting minutes for the November 19, 2010 meeting were reviewed and accepted as prepared. The agenda for the meeting today was to cover items 1, 2, 3, 5 and 6.</p>		
9:15 to 10:00		<ul style="list-style-type: none"> <li>• Revise and Finalize Team Charter</li> </ul>
<p>The Team Charter for 2011 was revised and finalized at the meeting. Jim Schettler will confirm the ACEC Team Sponsor for Bill Garrity, ACEC. The Team Charter will then be e-mail to the Team Members and posted to the committee's website.</p>		
10:00 to 11:15		<ul style="list-style-type: none"> <li>• Continue Balanced Stiffness Discussion</li> </ul>
<ul style="list-style-type: none"> <li>• The team engaged in general discussion of the balanced stiffness approach to bridge seismic design. For a Design-Bid-Build project, a reasonable decision(s) on balanced stiffness can be arrived at on a case by case basis where it's strict application may be problematic and costly. The difficulties arise in the Design-Build projects where the seismic design is not typically advanced enough, nor is the substructure type selected to allow for "reasonable" case-by-case resolution of potential issues brought about by the application of the balanced stiffness approach. The team reviewed the e-mail sent by David Goodyear during the discussion. The idea of providing the designers more flexibility was generally</li> </ul>		

<p>embraced by the team. There was support for 55% as the low end of the range. It was also noted that some the problems with relative stiffness are made more complex due to the accuracy of the traditional relative stiffness models.</p> <ul style="list-style-type: none"> <li>• The concept of a penalty on the demand displacement was discussed. If a factor such as 1.2 was to be recommended, as basis for the factor should be identified or defined. Future investigation is warranted (TBD)</li> <li>• The IBC addresses relative stiffness. The principles used may be applicable to bridge design. Future investigation is warranted (Bill Elkey)</li> <li>• Future investigation is warranted to investigate the effect that stiffness has on the demand capacity. Search for existing parametric studies that have been performed in the past. (Paul Guenther)</li> <li>• Future investigation is warranted to look at an example bridge for effect of the 1.2 factor. (Eric Schultz)</li> <li>• A discussion with Roy Ibsen about the basis of the relative stiffness recommendation and his perspective of a blanket mandatory requirement would be helpful. He is coming to WSDOT on Jan 20, 2011. (TBD)</li> <li>• Method limitations guidance in the BDM warrant further discussion, particularly in regard to Design-Build. (f'c variations within bridge substructure elements; the use of column silos below grade, 1 diameter? 15 feet ? can the maximum increased with camera inspection?; etc.)</li> </ul>		
11:15 to 12:15		<ul style="list-style-type: none"> <li>• WSF H-Span LL Design Criteria Presentation</li> </ul>
<p>Jeri Bernstein gave a presentation on WSF H- Span LL Design Criteria . Jeri to forward the presentation to the team.</p>		
12:15 to 1:00		<ul style="list-style-type: none"> <li>• Review and Discuss D/B Structural Issues &amp; Outcomes Matrix</li> </ul>
<p>General discussions of some specific items from the Matrix were reviewed with some action items for future discussion.</p>		
<p><b>Action Items:</b></p>		
<ul style="list-style-type: none"> <li>• Ask Prof. Stanton if we can put his presentation on the ACEC/WSDOT website (Geoff Swett)</li> <li>• Develop draft for abutment on MSE for BDM (text and figures) (Jim Schettler)</li> <li>• Verify ACEC sponsor for the Team Charter(Jim Schettler)</li> <li>• Post Team Charter to the Committee's website (Geoff Swett)</li> <li>• Look at new standard plans for:             <ul style="list-style-type: none"> <li>○ Moment Slabs (TBD)</li> <li>○ Sign Bridges (TBD)</li> <li>○ Drilled Shafts for Sign Bridges (TBD)</li> </ul> </li> <li>• D/B Matrix Item #12 – Load Distribution on 100” girders (Paul Guenther)</li> <li>• D/B Matrix Item #14 – Guidance on bridge skews greater than 30 degrees (TBD)</li> <li>• SW Line Bridge Nalley Valley PT Seg PC Conc Box Design &amp; Constr Presentation – Eric Schultz (during lunch)</li> </ul>		

**Action Items: (continued)**

- **Balanced Stiffness Discussion:**
  - Penalty on the demand displacement ID a factor (such as 1.2) and suggest a basis for the factor (TBD)
  - The principles used in the IBC for relative stiffness may be applicable to bridge design. Future investigation is warranted (Bill Elkey)
  - Future investigation is warranted to investigate the effect that stiffness has on the demand capacity, including a search for existing parametric studies that have been performed in the past. (Paul Guenther)
  - Future investigation is warranted to look at an example bridge for effect of the 1.2 factor. (Eric Schultz)
  - A discussion with Roy Ibsen about the basis of the relative stiffness recommendation and his perspective of a blanket mandatory requirement would be helpful. He is coming to WSDOT on Jan 20, 2011. (TBD)
  - Identify and lead a discussion on proposed method limitation guidance for the BDM, particularly in regard to Design-Build. (f'c variations within bridge substructure elements; the use of column silos below grade, 1 diameter? 15 feet ? can the maximum increased with camera inspection?; etc.) (TBD)
- Forward WSF H-Span LL Design Criteria Presentation to WSDOT / ACEC team (Jeri Bernstein)

1:00		Adjourn
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Next meetings: February 11 <sup>th</sup> , 2011 – WSDOT March 25 <sup>th</sup> , 2011 – DEA – Bellevue April 22 <sup>nd</sup> , 2011 – WSDOT May 20 <sup>th</sup> , 2011 – Parsons - Seattle
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