



**Washington State
Department of Transportation**

ACEC

American Council of Engineering Companies
of Washington

WSDOT/ACEC Bridge & Structures Sub-Committee Report

WSDOT Co-Chair

Jeri Bernstein, PE / SE, WSF

ACEC Co-Chair

Paul Brallier, PE / SE, HNTB Corp.

June 13, 2017



2017 Members

- **Jeff Carpenter**
Team Sponsor – State Design Engineer
- **Jeri Bernstein – PE, SE**
Co-Chair – WSF Structures Manager
- **Michael Rosa – PE**
Bridge Design Office
- **Jed Bingle – PE, SE**
Bridge Design Office
- **Luong Tran – PE**
Bridge Design Office
- **Brian Aldrich – PE, SE**
Construction Office
- **Bijan Khaleghi – PE, SE**
Team Mentor - Bridge Design Office
- **Lindsay Yamane – PE, PMP**
Team Sponsor – Parsons
- **Paul Brallier – PE, SE**
Co-Chair – HNTB Corp.
- **Bill Elkey – PE, SE**
Parsons
- **Richard Patterson – PE, SE**
Stantec
- **Chester Werts – PE, SE**
HDR, Inc.
- **Paul Guenther – PE, SE**
COWI
- **Matthew Lengyel- PE, SE**
Figg Bridge Engineers, Inc.



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2016-2017 Outgoing Members

Mark Gaines – PE, SE
Co-Chair - Bridge Construction Office

Glen Scroggins – PE, SE
WSDOT – Bridge Preservation Office

What we do!

Team Vision:

“PROVIDE A PLATFORM FOR THE EXCHANGE OF STRUCTURAL ENGINEERING IDEAS BETWEEN WSDOT AND THE CONSULTANT COMMUNITY.”

- **Promote cost-effective, constructible, quality projects**
- **Share best practices, lessons learned, and new engineering innovations**
- **Establish design guidelines for all delivery methods**



What We Do!

(continued)

- **Enhance understanding of WSDOT and consultant business**
- **Promote innovation**
- **Provide value to engineering and construction communities**

2016-2017: SUB-COMMITTEE ACTIVITIES

(Continued)

Enhance Understanding of WSDOT and Consultant Business

Team Members reviewed/discussed Design Codes and Specifications

- **WSDOT Special Provisions**
Prestressed Girder Delivery Requirements; Concrete Construction Tolerances; As Built Drawing Review Requirements; Revised Reinforcing Bar Field Bending Requirements
- **WSDOT Bridge and Structures Office Updates**
Updated Earthquake Hazard Maps 2014; Bridge Design Software part of one Software package-Softlink



2016-2017: SUB-COMMITTEE ACTIVITIES

(Continued)

Enhance Understanding of WSDOT and Consultant Business

Review design guidelines for all delivery methods

- WSDOT's D/B BDM
- DRAFT GC/CM Contract Language
- D/B for small jobs
- Progressive D/B
- D/B for Rehabilitation & Repair
- GCCM

2016-2017: SUB-COMMITTEE ACTIVITIES

(Continued)

Promote Innovation

Individual members presented on current design engineering issues and presented on unique solutions to engineering problems

- Emergency Replacement of Chambers Way Bridge
- Alaskan Way Seawall Replacement
- Rehabilitation of Columns in a Marine Environment
- Repair of Tiebacks with Voids
- Kingston Ferry Terminal Scour



2016-2017: SUB-COMMITTEE ACTIVITIES

(Continued)

Provide Value to Engineering Communities

- WEBSITE DEVELOPMENT:
<http://www.wsdot.wa.gov/bridge/acec/>
- DESIGN REVIEW SERVICES: “Ask a Question” & “Request a Project Review”
- Post-earthquake Bridge Safety Assessment Training Program for Local Agencies – APWA Spring 2017 Conference



Post EQ Bridge Safety Assessments Training Program

2. & 3. Railing and Curb

Bending but no separation or spalling



WSDOT

5. Abutment Damages

Cracks, but
No Separation



WSDOT



Large cracks spalling,
but still supporting and
no separation

6. Bearings (cont'd)

Steel Pin Bearing and Others

Substantial Girder End Spalling above Bearing



WSDOT

9. Bent or Column (cont'd)

Shear Cracks & Cover Spall



WSDOT



SUB-COMMITTEE FUTURE TOPICS

- Integrate Geotechnical Engineers into the Committee
- Determine how the Role of Structural and Geotechnical Engineers can be elevated in D/B Contracts such that both cost efficient and quality designs are constructed