June 2008

Employee Highlights

Ted Focke, Design Policy and Standards

Congratulations Ted! Ted was awarded 2nd place in the Veteran Senior 60+ category for consistency in bicycle commuting. View the list of the 2008 Bicycle Commuter Contest champions.

Design Policy and Standards

Design Manual

With the May 2008 updates distributed to designers, the Design Policy Team is actively working on Design Manual updates to be published in November 2008.

Our Team: Ted Focke, Jim Klinck, Rod Erickson, and Chris Schroedel author the revisions and coordinate with subject matter experts, and run the revisions through reviews.

Sharon Dana maintains the Design Policy webpage and is a key liaison with our partner office (right here in the building), Engineering Publications, at the start and end of the revision cycle.

Becky Nichols is our team editor and plain talk expert, working with authors throughout the process for clarity and brevity.

Assistant State Design Engineers have an oversight role for chapter revisions. They also provide a wealth of improvement suggestions for future design policy revisions, as they are on the front lines, experiencing firsthand how design policy is applied; they see how it either helps or hinders getting the design jobs done well.

Our Projects for November Publication:

Chapter 100 Manual Description. Jim Klinck is updating this overview of the manual. It provides the designer with a brief description of each division and chapter. Status: on track for approval and publication.

Chapter 150 Project Development Sequence. Jim's collaborated with the Systems Analysis & Program Development office to provide designers with updated information on planning and programming. Jim's also using this chapter to emphasize WSDOT's emerging Strategic Plan 2009-2015 and to further promote the application of Context Sensitive Design solutions on projects. Status: on track; statewide review through July 11.

Chapter 325 Design Matrix Procedures. Chris Schroedel is clarifying the stated purpose for creating a Corridor Analysis or Project Analysis, so designers know it can be used to not only select design levels but also to justify the selection of appropriate design elements for their project. Status: narrative revision is on track for statewide review in July.

Chapter 330 Design Documentation, Approval, and Process Review. Coordinating with the System Analysis & Program Development Office, Chris is working on this minor revision to a statement in the chapter about the Design Variance inventory System. This revision keeps up with changes on the new Design Decisions Summary form, stating all variations have been input to the DVIS. Status: on track for statewide review in July.

Chapter 640 Geometric Cross Slope. Our Geometrics Support Engineer, Ted Focke, is clarifying notes in the Cut Selection Tables to imply building the flattest slope is preferred, even though a Geotech Report might say the native soils can stand at a steeper angle. Status: on track for state review in July or August.

Chapter 710 Traffic Barriers. Rod Erickson, a resident expert on safety barriers, is making revisions to remove reference to the "generic" cable barrier system, and other spot changes. Status: work underway and on track for state review in July or August.

Chapter 900 Intersection Control (NEW). Ted Focke has created a new chapter that will lead off Division 9 in the manual. Section topics include: intersection traffic control objectives, common types of intersection control, procedures and documentation. Larry Frostad, Eastern Region Asst Traffic Engineer, has been an energetic contributor to this effort. Much of the material is new (Larry's and Ted's) and some taken from existing chapters listed below. This project will result in a fundamental chapter that designers will use to help determine the control type needed. After selection is made, designers will use policy and guidance in the related chapters (traffic signals, at grade intersections, roundabouts) to design and coordinate their project. Status: good; Ch 900 Peer review just ended and Ted will modify the document based on comments and move to statewide review.

Chapter 910 Intersections At Grade. Incidental changes related to Ch 900.

Chapter 915 Roundabouts. Incidental changes related to Ch 900.

Chapter 940 Interchanges. Ted's prepared a new figure illustrating spacing requirements for crossroads and ramp on/off connections. We'd also like to improve the narrative related to Interchange Plans and the related figure. Status: good on the former, TBD on the latter (July 7 Policy Meeting discussion item, serving as a peer review.)

Chapter 850 Traffic Control Signals. Ted revising sections on signal Warrants and Permits by deletion (material moved to new Ch 900).
Chapter 1020 Bicycle Facilities. Chris is updating the design guidance on bollards. WSDOT settled a tort claim with a bicyclist who offered some improvement ideas on the "dos" and "don'ts" of bollard applications, and we're aiming to incorporate most of these suggestions. Status: good, in statewide review through July 25.

Chapter 1025 Pedestrian Design Considerations. ADA is a big deal. Jim Klinck has responded to heightened needs to improve our ADA-related facilities by improving our design guidance. He's revised this chapter with input from Sally Anderson and Kurt Sielbach, Design office members of WSDOT's ADA Ad-Hoc Committee. Jim's discovered improvement opportunities to better guide designers on the applications and importance of ADA requirements. Status: good. Peer review ended June 27. Jim will work his way through the comments, adjust the draft chapter during July and send back out for state review in August.

Chapter 1130 Retaining Walls and Steep Reinforced Slopes. Jim's prepared a revision to the narrative to conform to updated L&I regulations on fall protection railing height. Changed: 36" to 42" rail height to be 42" plus or minus 3", as well as info on intermediate rail and toe boards. Status: good; in statewide review through July 11.

Chapter 1420 Access Control. Working with the Access and Hearings Unit, Chris is updating RCW references, definitions, resource links and other minor changes. Status: No peer review needed just minor updates. Will do statewide review in July.

Chapter 1425 IJRs. Chris and Barb de Ste Croix revised this chapter to better emphasize benefits of preparing an IJR Assumptions Document and organizing a support team. Status: good in Peer review through July 18; then statewide in August.

Chapter 1430 Limited Access Chris is making minor revisions per Barb and LeRoy Patterson. Each of these division 14 chapters will have updated links to Barb's Access & Hearings web

page (moving to CMS), specifically the “Access Tracking System” database marketing. Status: good statewide review planned for July.

Design Manual Errata. Becky Nichols is taking on these chapters so we can reduce (or completely eliminate) all known technical errata listed on our web page. One errata per chapter listed (unless number shown.)

Chapters: 530, 642, 720 (2), 830, 1040 (3), 1140 (2)
New tools under development: The Design Policy Team (with superb technical support from Adonis Lara, a temporary WSDOT HQ employee) is working out new tools for receiving and tracking revision comments, prioritizing chapters for change, tracking the work during our revision cycles, and collaborating with reviewers.

CAE
Bentley BE Conference
Baltimore, MD, May 27-30, 2008
Trip report by Kate Severson, Scott Soper and Jeff Graham

The 2008 BE conference was an international event with over 2000 delegates from 50 countries. This year’s theme of Best Practices for Sustaining Infrastructure focused on providing software for the project lifecycle as well as the infrastructure’s impact on society, the environment and our profession. The keynote addresses from Bentley executives repeated this topic of environmental efficiency, data preservation and technological innovation.

One of the keynote speakers was Andrew Winston, author of Green to Gold. This book describes the successes and challenges for companies that go green. Andrew’s premise details how smart organizations use environmental strategies to innovate and create value as well as build a competitive advantage. This keynote offered an intriguing argument for environmentally sustaining design and construction scenarios, and motivated the conference attendees to think green as a more economic and efficient work flow.

Scott, Jeff and Kate attended tracks for Roads, Bridges, Cadastral and Geospatial. They attended case study presentations for MicroStation, Survey, InRoads and ProjectWise platforms and applications. They also attended peer group discussions and DOT roundtables about agency issues and concerns. A series of roundtable sessions on Tuesday provided the opportunity to be involved in Bentley’s programming options and to actively steer the direction of the key platforms, MicroStation and ProjectWise, to better serve WSDOT’s needs.

The 2008 BE conference was a worthwhile opportunity to explore best practices concepts, as well as to network with DOT and consultant professionals for mutual ProjectWise, MicroStation, Survey and InRoads topics. The conference provided a detailed preview of Athens, the next MicroStation version. It also presented the opportunity to discuss specific WSDOT issues with Bentley staff, as well as to explore digital design environments, electronic signing and certification, paperless work flows and construction technologies including machine control grading.

Value Engineering
A VE study was held May 19-22 in Seattle on the I-5, 196th Street Braided Ramps project. The current project estimate is $54.3 M. Twelve subject matter experts led by Mitch Reister, NCR, came up with 8 recommendations for the project totaling $5.49 M in project savings.
A VE study was held May 26-29 in Seattle on the I-5 - Boeing Access Rd to I-90 I/C - ATM project. The current project estimate is $24.8 M. Eleven subject matter experts facilitated by Fanning & Company, came up with 12 recommendations for the project. Since the project was in the early stages there was no estimate of savings.

A VE study was held June 3-5 in Tumwater on the I-5, Grand Mound to Maytown Stage 2 – Replace Interchange project. The current project estimate is $41.8 M. Ten subject matter experts led by Blane Long, HQ Design came up with 7 recommendations for the project totaling $3.15 M in project savings.

A VE study was held June 15-19 in Vancouver on the SR 502, Widening from I-5 to Battle Ground project. The current project estimate is $91.0 M. Nine subject matter experts led by Blane Long, HQ Design, came up with 9 recommendations for the project totaling $1.49 M in project savings.

A VE study was held June 15-20 and June 23-25 in Vancouver on the I-5, Columbia River Crossing project. The current project estimate is $4.2 B. Forty five subject matter experts facilitated by HDR came up with 36 recommendations for the project totaling $268.4 M in project savings.

A VE study was held June 23, 25-26 in Burlington on the SR 530, Sauk River CED Bank Erosion project. The current project estimate is $9.2 with a budget of $6.91 M. Nine subject matter experts led by Blane Long, HQ Design, came up with 4 recommendations for the project totaling $3.8 to $4.6 M in added costs to the project.

A VE study was held June 30 to July 2 in Bellevue on the I-405, NE 8th St to SR 520 Braided Ramps project. This is a Design-Build project with a current construction estimate is $151.0 M. Thirteen subject matter experts facilitated by HDR, came up with 48 recommendations for the project totaling $34.85 M in added costs to the project.

Utilities, R/R and Agreements