

SR 16 Westbound Nalley Valley

The ramp to Sprague Avenue (“WBNV”)

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SR 16 WBNV, the ramp to Sprague Avenue

What exactly happened?

- In 2007 the design for Westbound Nalley Valley was changed to include a third lane.
 - The eastbound off ramp to Sprague was revised, but an error was made to the profile.
 - The error was incorporated into the contract plans and built.
- Ramp construction 90% complete when lane/ramp elevation error was discovered.
 - Construction crews noted grade discrepancy in the field
 - WSDOT stopped contractor's work on ramp
 - Design office considered several scenarios to fix error
 - Chose most effective fix (lowering the grade of the first 700 feet of ramp)
- WSDOT negotiated change order
 - Change Order amount \$889,958
 - Extra engineering effort = \$45,600



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How could something like this happen?

- Human Error
- Unique combination of events converged that allowed a design error to proceed to construction
 - Lengthy project design process (1998 through 2007)
 - Changed standards/design year
 - Changed key personnel (WSDOT and GEC)
 - Interchange built in 3 separate phases
 - Ramp moved from EB to WB to honor commitment to city
 - Pressure to meet the delivery date led to concurrent work on key design documents that normally are sequential:
 - Plan for Approval – foundation document
 - Phased approval
 - PS&E and further design – developed from Plan for Approval
 - Review process noted a conflict.
 - Comments are for future review - No action is need by the design office



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Why didn't you inform us when you discovered the problem?

- We should have. We made a mistake not telling you right away.
 - WSDOT's policy is to be the first source of agency news, good or bad.
- We knew about the problem in Fall 2009 and failed to adequately communicate possible implications.
 - We didn't know what the fix was or cost.
 - We reported at the December 2009 QPR but at a high level (awareness) without specifics.
 - Posted on Project Web page in January
- We participated in the June 2010 QPR and again failed to highlight implications.
 - We answered budget question, but failed to mention the rework by change order.
- We knew the Friday before the work began...and did not provide advance notice.



Crews from Guy F. Atkinson construction remove a portion of the ramp to Sprague Avenue.

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What are you doing to make sure this doesn't happen again?

Engineering and technical lessons learned and actions taken include:

On the Pierce County HOV program of projects

- Additional review of all Nalley Valley alignments by 3rd party
- Revised design procedures to include quality checks at tie-in points
- Incorporated construction team into PS&E review
- Revised review process to ensure all comments are resolved before PS&E

Statewide

- The State Design Engineer, State Construction Engineer and Chief Engineer will do a lessons learned review and publish guidance for statewide application by September 2010.

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What are you doing to make sure this doesn't happen again?

Statewide Communication Protocols established for project delivery accountability:

- Performance expectations on project reporting and problem identification for senior managers and agency communicators have been reinforced.
- Notification of significant project delivery problems required to Chief Engineer within 24 hours, and then weekly e-mail updates
- Bi-weekly transportation alerts to notify legislature and public of project issues both at problem identification and again at resolution stage.
- Web alerts published monthly using the new Project Management Reporting System on project delivery details and issues (active within 3-4 weeks).
- Single point of accountability for contract authority and approvals in WSDOT Headquarters (consolidating contract controls for highways, ferries and rail)

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Questions?

