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1:30 PM – 3:00 PM

SESSION 50: Balancing Highway Development and the Environment through Design-Build Delivery

Balancing Highway Development and the Environment through Design-Build Delivery - Alan Black, HNTB Corporation, Bellevue, WA

HNTB Corporation has partnered with Washington State Department of Transportation (WSDOT) in a General Engineering Consultant (GEC) role, co-located and engaged in the I-405 Corridor Program to improve the second-most traveled corridor in Washington carrying over 600,000 people and averaging up to 12 hours of congestion every day. The WSDOT created a comprehensive strategy to reduce congestion and improve mobility along this 30 mile corridor. In 2003, the project's construction and land acquisition cost was estimated at more than \$10 Billion. Since funding has not been available for the full master plan vision, specific projects have been identified for construction through design build contracts. This presentation will kick off this special session highlighting the program development, contracting, and oversight strategies that are being employed for successful delivery of these contracts. We will begin with the partnership between stormwater engineering and environmental team and conclude with a case example presented from a design-build contractor's perspective. This stormwater presentation will provide an overview of the corridor program's approach from the initial strategy sessions through contracting and experiences on the first three design-build contracts. This includes consideration of • Exploring watershed alternatives; • Specialized analyses to assure that designs fit the context of the receiving water bodies; • Applying available science to understand the effects on ESA list species; • Knowing what to leave for the design-builders; and • Packaging for design-build contracts As the transportation community turns to the design-build contracting for fast and efficient project delivery, the proper focus and planning can realize results that go beyond simply protecting the environment. The I-405 project experience proves to be an excellent example of how to adapt a government program for success in meeting the tough regulations. These techniques have been particularly well suited to the I-405 projects, but they could apply on many projects across the country.

NEPA/SEPA/ESA Clearance and Permit Acquisition for Design Build Projects in Washington State - William Jordan, WSDOT I-405 Project Office, Bellevue, WA

The I-405 project team has delivered a total of 6 design build projects for the WSDOT along the I-405 project corridor. These projects were cleared through both NEPA/SEPA/ESA and permitted prior to AD date based on a 15 to 30% project design. Completion of NEPA/SEPA and its associated public involvement can be challenging enough on a 100% designed job. However, innovative methods pioneered by WSDOT and the I-405 team using the reader friendly format has facilitated easy and seamless public understanding of WSDOT's engineering plans. The I-405 corridor has approached NEPA through a tiered NEPA process. The I-405 corridor ROD has had numerous Environmental Assessments/Findings of No Significant Impact documentation as well as Documented Categorical Exclusions as the second Tier of NEPA. ESA clearance remains a challenge with design build projects. However through close coordination with the resource agencies, innovative stormwater design elements, and an analysis of possible storm water impact pathways has lead the I-405 team to success in achieving ESA clearance. These clearances have required performance based pollutant reductions based a complex and innovative storm water model. Permit acquisition was also challenging given the basis of a starting point of a 15 to 30% design. However, the I-405 project team relied upon close contact with our permitting agencies, offering site visits and numerous opportunities for comments and input prior to formal submission of our JARPA permit application. The team also responded quickly for additional information. In addition, extensive use of graphics, pictures, and other aids to understanding the engineering behind

the permit need, reduced the normal amount of comment and responses and lead to a fairly streamlined permitting process.

Adaptive Management for Environmental Compliance and Design-Build Projects - Eric Wolin,
WSDOT Environmental Services Office, Olympia, WA

In 2004 WSDOT held a series of Design-Build workshops with the regulatory agencies to document concerns they had regarding environmental compliance and the Design-Build approach. WSDOT then developed strategies to address their concerns. This presentation will share some of the strategies that were implemented by the I-405 Project Team to ensure compliance. The talk will cover specific compliance strategies that have led to successful project delivery. Early design and contracting included environmental commitments database; cross-discipline coordination; contact development and scoring; and development of environmental incentives and disincentives. Pre-construction and construction included wetland confirmation; just in time training; environmental preconstruction meeting; environmental task force meetings; over the shoulder reviews; hold points; and environmental commitments close out report. As the transportation community turns to the design-build contracting method for fast and efficient project delivery, we don't have to compromise environmental protection. The I-405 project experience has been an excellent example of how to adapt a government program for success in meeting tough environmental regulations. These techniques have been particularly well suited to the I-405 projects, but the lessons learned can be applied to a wide variety of projects across the country.

I405 Kirkland – Environmental Compliance - Jim Shellooe, AMEC Earth and Environmental, Bothell, WA

AMEC Earth and Environmental has partnered as the environmental compliance consultant with Kiewit Pacific in providing Washington State Department of Transportation (WSDOT) with Design-Build services on Urban Corridors projects in the Seattle, WA area. One of the projects, the Kirkland I405 project, was touted by the Governor and then-Secretary of the Department of Transportation as an environmental project, partly because of its setting, and partly because of the many environmental improvements included in the construction. The project included freeway widening for approximately two miles along I405, demolition and replacement of bridge structures, removal of fish passage barriers, construction of wetland mitigation areas offsite, and full landscaping for the length of the project. The Design Builder's compliance tools included an Environmental Task Force, TESC and SPCC Plans, Water Quality Monitoring Plans and a 3-tiered training program. This presentation will provide an overview, from the perspective of the Design Build Contractor's Environmental Compliance Manager of the lessons learned during construction of the many environmental features (physical and administrative) included in the project. The project features included: • Fish Passage innovations along Forbes Creek; • Stream restoration and creation; • Construction of Wetland enhancements and new wetland areas in neighborhood areas; • Noise Walls; • Acknowledgement of Environmental Commitments and successful resolution; • An Environmental Task Force, dedicated to compliance issue resolution; • Access to a multi-agency permitting (MAP) team to expedite approvals; • Communication of commitments to all levels of the Design Builder's team; • Environmental review throughout the project, including both design and construction phases. The Design Build process results in many advantages, including efficiency of design and construction, schedule compression, and enhanced environmental protection during both the design and construction phases, because the activities from the two phases are interwoven. The I-405 Kirkland project serves as an example of an integrated approach by government agencies and Contractors to meet environmental commitments and comply with regulatory requirements.