

ACTT - Fitting the “New” Definition of Construction Management

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“New” Definition of CM

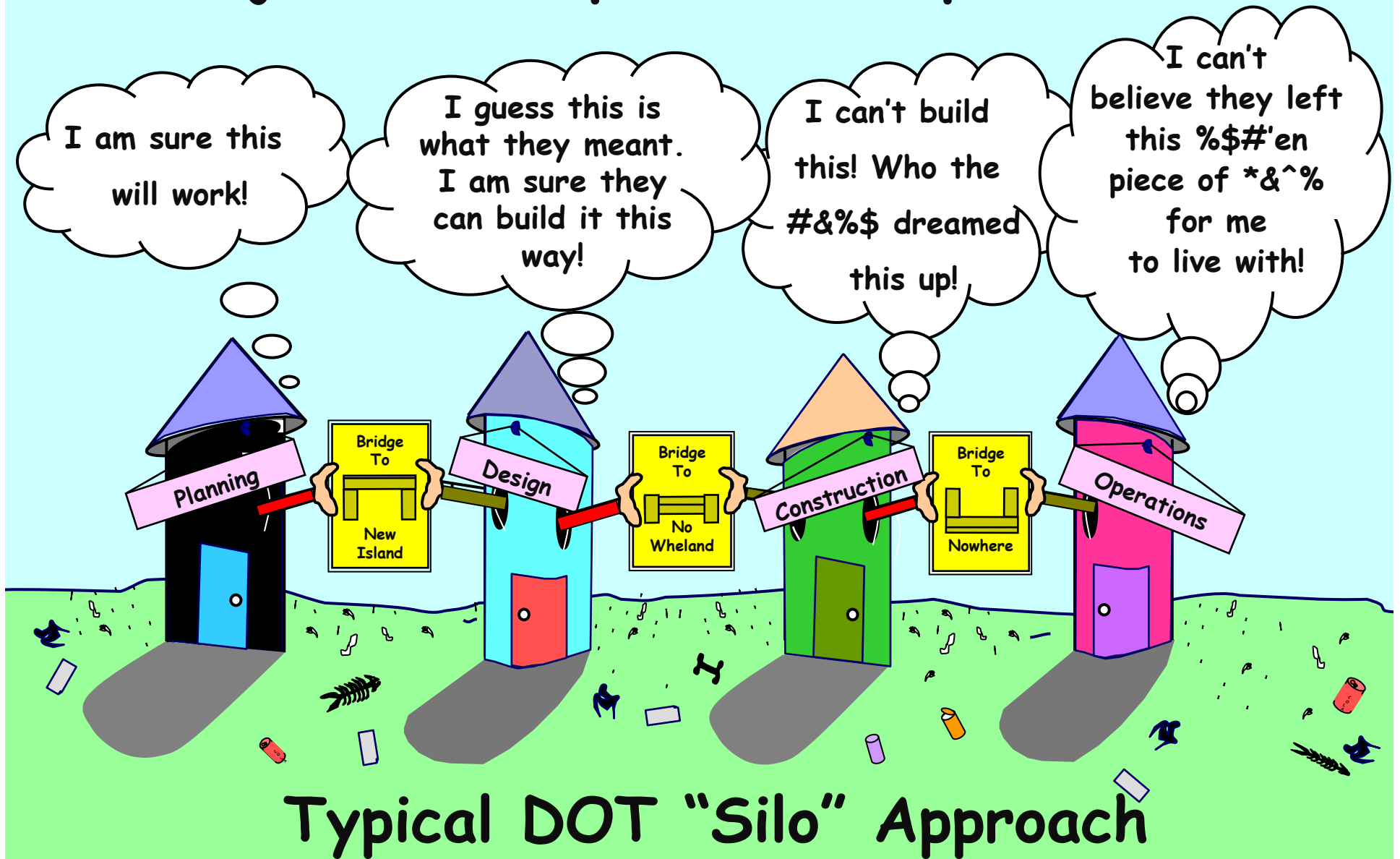
The totality of activities that address the management and technology aspects of highway construction, conducted during the planning, design, construction, and post-construction phases of a project for the purpose of achieving scope, quality level, cost, schedule and other project performance objectives.



The ACTT Workshop

- Centerpiece of the ACTT process
- National experts teamed with local counterparts
- Skill sets from a national resource pool utilized
 - Construction
 - Environmental
 - Geotechnical & Materials
 - Innovative Contracting/
Financing
 - Pavement/ Maintenance
 - Public Relations
 - RW/ Utilities/ RR
Coordination
 - Roadway Design/
Geometrics
 - Structures
 - Traffic Safety/ ITS
 - Worker Health and Safety

Project Development & Implementation

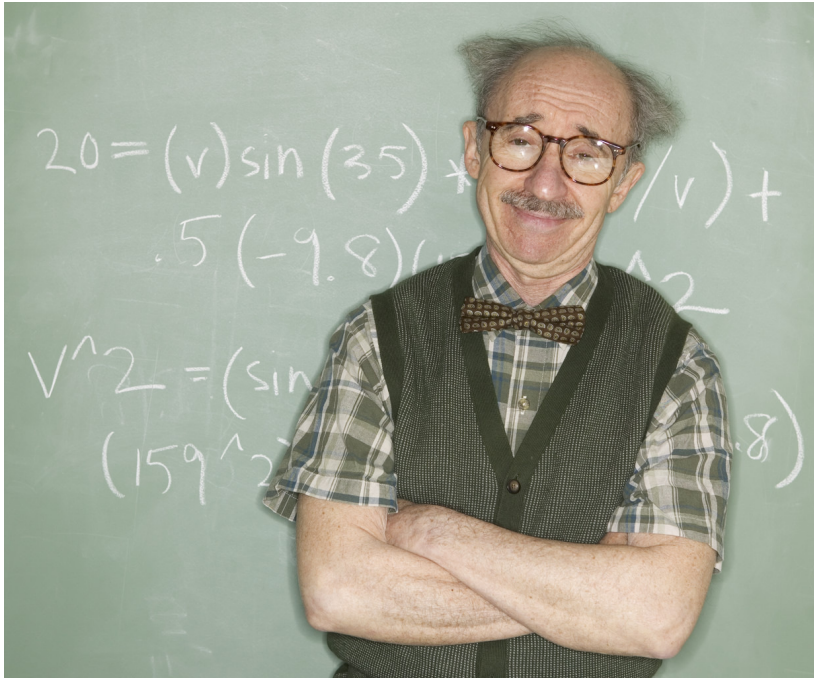




ACTT Breaks Down the “Silos”

- Facilitates better communication within the DOT
- Model initiated early in the planning process
- Brings together the various DOT offices early in the planning & design phases to:
 - discuss project ideas and design strategies
 - possible conflicts and barriers for the project
 - develop a set of recommendations to enhance the project
- DOTs report improved communications between offices as a result of their workshops
- Can drive organizational change

Subject Matter Experts Do Add Value!

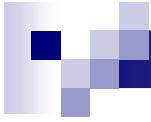


- Objective and independent
- Experts in their field
- Help facilitate discussion
- Aware of similar projects being planned or executed throughout the country



Benefits of ACTT for Construction

- Early in the planning & design phases:
 - Catch low-hanging fruit early
 - ✓ Identify construction phasing & staging issues early
 - ✓ Identify potential material demands and sources
 - ✓ Other constructability issues that can be identified early
 - Get contracting community engaged early
 - ✓ Gives local and national contractors advance warning of the project
 - ✓ Gets them engaged in design process
 - ✓ Allows craft unions, at local and national levels, ability to better plan for resource requirement surges



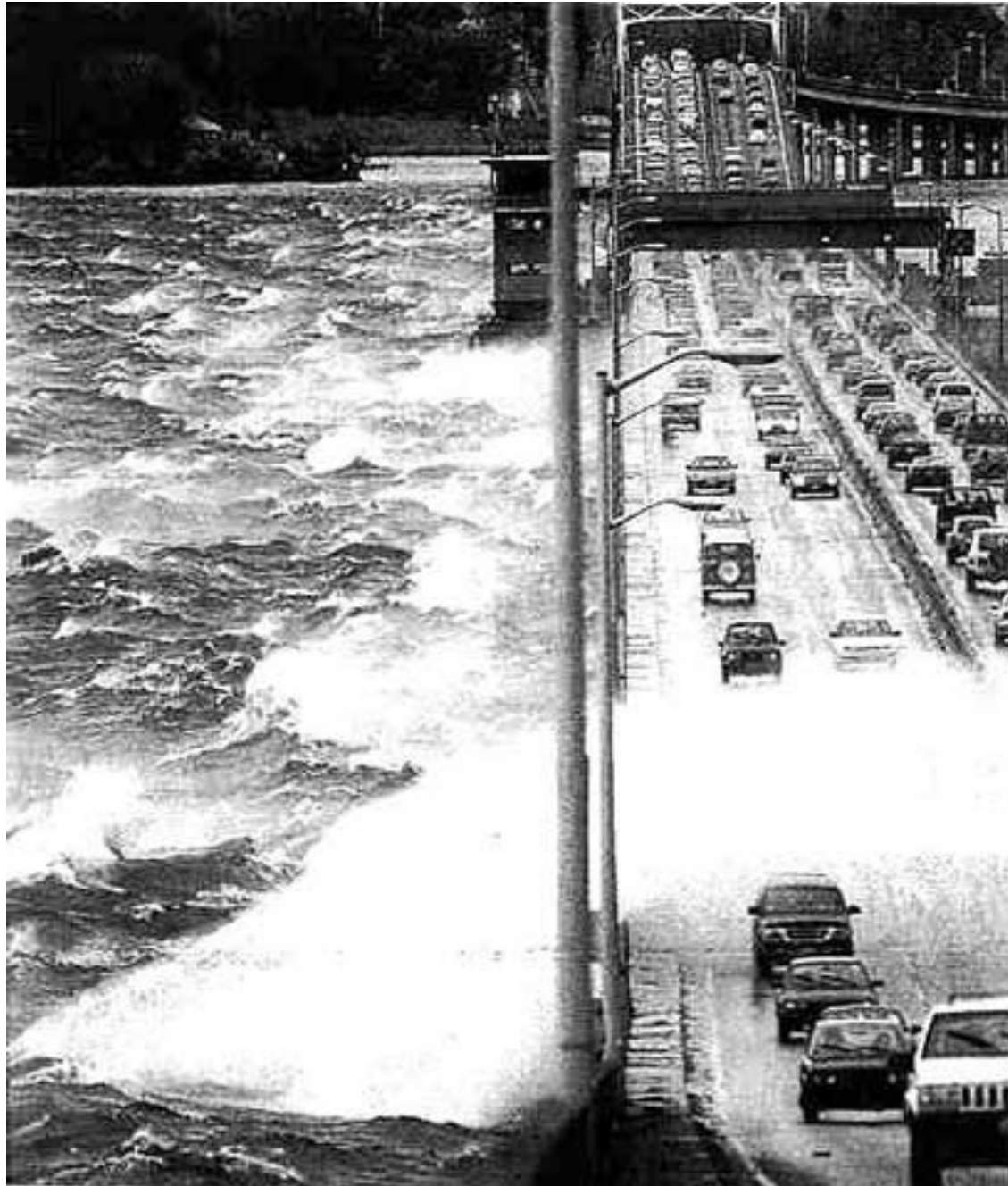
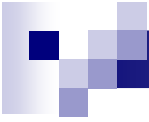
ACTT Project Results

Big Traffic Problems on SR 520!



- Major Puget Sound route
- Congestion 13 hrs – weekdays
- 50/50 East/West commute
- High congestion costs
- Quality of life issues
- One accident stops traffic for many hours
- \$3 - \$5 billion project







SR-520 ACTT Workshop

- Workshop held March 2004
- Construction-related SME Recommendations:
 - Integrate Constructability Reviews with CEVP process
 - Build a temporary bypass bridge on west end
 - Pursue Design-Build for approach sections
 - Tolling of existing bridge to finance new bridge
- As of today, all recommendations are being implemented or still considered. Still working on EIS and funding.

Congestion and Accidents on the I-35W/Hwy 62 Crosstown Project



- Minneapolis/St. Paul Area
- The project area currently experiences severe congestion
- Accident rates up to five times the average for the metropolitan urban freeway system



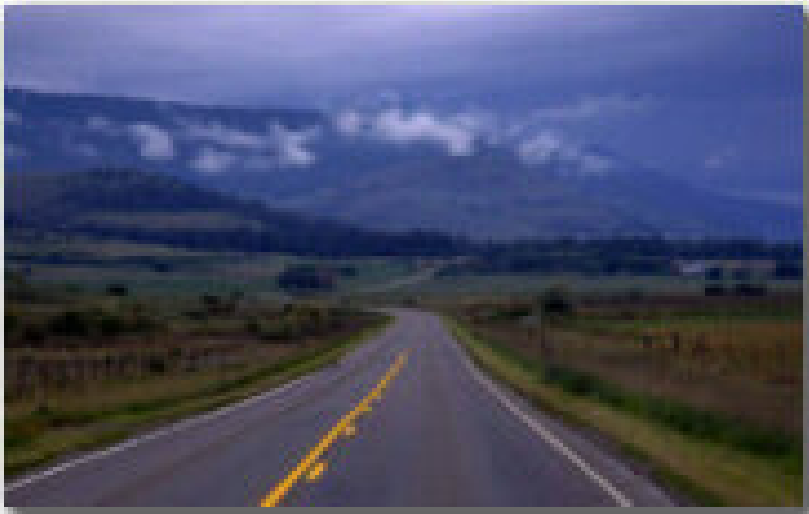


I-35W/Hwy 62 Crosstown Project ACTT Workshop

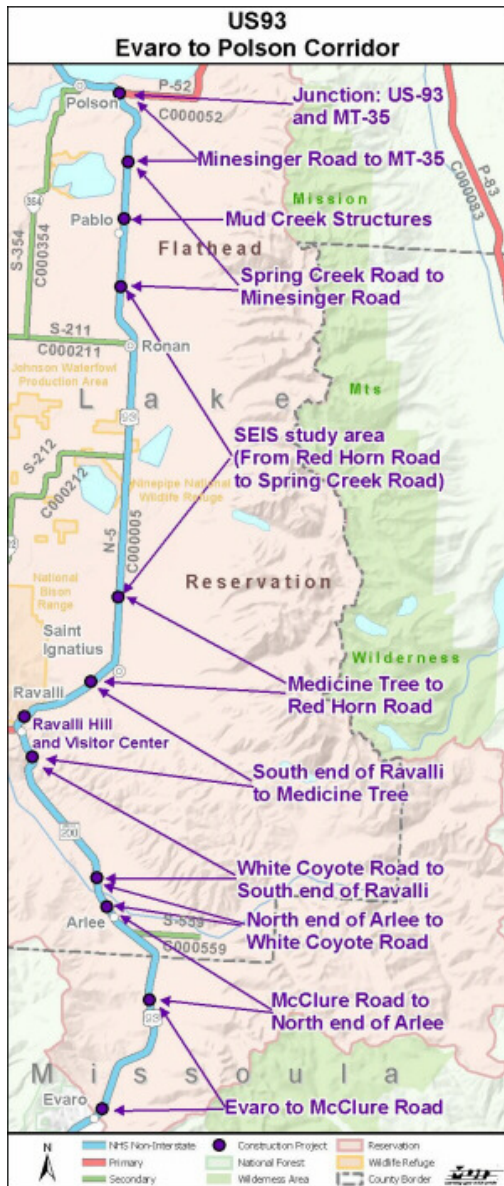
- Workshop held June 2004
- \$200 million estimated value at time of workshop
- Design was 60% complete at time of workshop
- Big limitation on new ideas for design
- Some great ideas came out for construction
 - Significantly changed bridge staging
 - Construction of MSC walls in tight Right of Way
- Currently under construction; \$ savings not quantified yet.

US 93 Upgrade ACTT Workshop

- From Evaro to Polson, Montana
- 56.3 mile corridor
- Design upgrade and capacity increase
- Project entirely within Flathead Indian Reservation
- Biggest challenge: accommodate traffic demands while minimizing impact on wildlife and other culturally sensitive issues



US 93 Upgrade ACTT Workshop



- Workshop held January '04
- Design 60% complete at date of workshop
- Several SME recommendations were used:
 - Improve county roads used as haul routes
 - Secure aggregate sources early
 - Prioritized ROW purchases to fast-track utility relocations
- Total Savings as a result of ACTT workshop was \$10 to \$15 million.

MD97 & Randolph Rd Interchange (Maryland)



- New Interchange replacing an at-grade intersection
- \$76.9 million project
- On hold due to funding challenges
- Design 60%-75% complete at date of workshop

MD97 & Randolph Rd Interchange



- Workshop held September '07
- SME recommendations used:
 - Utility Relocation Plan – saved about \$1M
 - Change in Bridge Foundation Design; from spread footing to secant piles. Saved \$2-4 M mostly in MOT.
- Savings of at least \$3 to \$5 million as a result of ACTT workshop recommendations
- Design too far along to use many other good recommendations.

Marquette Interchange, Milwaukee



- \$1.2 Billion Estimate prior to ACTT
- Constructability Review with SME's from around country
- Most recommendations were accepted
- Project cost estimate reduced to \$820 million
- Only 2% contract growth
- Coming in under budget and on schedule





Thank You!