AASHTO/ACEC Joint Committee Meeting
Bedford Springs Resort & Spa — REAGAN ROOM
Bedford, Pennsylvania
Thursday, May 14, 2009 FROM 6:00 PM TO 9:00 PM

1. Call to order......................................................... Co-Chairs Paul Mattox, WV and David Oates, ACEC
2. Self Introductions (Roster Enclosed)..............................Joint Committee and Guests
3. Joint Committee Membership Updates..............................Ken Kobetsky – Matt Reiffer
4. Approval of the Minutes October 16, 2008..........................Co-Chairs Mattox and Oates
5. AASHTO Report
   b. Authorization Update..................................................John Horsley, AASHTO
   c. Status of the Highway Trust Fund (HTF)............................Jack Basso, AASHTO
   d. Scan and NCHRP Topics (3 Handouts)..............................Ken Kobetsky, AASHTO
      i. NCHRP Projects Approved for 2010 Program (List Enclosed)
      ii. List of 2009-2010 International Scan Topics(Enclosed)
      iii. List of 2009-2010 Domestic Scan Topics(Enclosed)
6. ACEC Update........................................................................Matt Reiffer, ACEC
7. FWHA Report........................................................................King Gee, FHWA
8. Old Business
   a. OIG Report on Oversight of Design and Engineering Firms’ Indirect Costs Claimed on Federal-Aid Grants (Summary Enclosed).............Jack Basso, AASHTO and Dave Oates, ACEC
   b. AASHTO Uniform Audit and Accounting Guide..........................Jack Basso, AASHTO and Lynda Konomos, ACEC
   d. National Marketing Are We There Yet ................................Sherry Appel, AASHTO
   e. AASHTO’s TRAC Program (Information)..........................................TBA
9. New Business
   a. Overview of the FHWA Workshop on Advancing the State of Practice of Consultant Services.......................................................King Gee, Jack Basso and Matt Reiffer
   b. Joint Statement on Principles of Reauthorization (Enclosed)...............Janet Oakley, AASHTO and Matt Reiffer, ACEC
10. Next Meeting — Thursday, October 22, 2009 Desert Springs, Palm Desert, CA
11. Adjourn
# American Association of State Highway and Transportation AASHTO–ACEC Joint Committee

## AASHTO

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Title</th>
<th>Company/Office Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-Chair</td>
<td>Paul A. Mattox Jr., P.E.</td>
<td>Secretary of Transportation/Commissioner of Highways</td>
<td>West Virginia Department of Transportation, Building 5, Room 110, 1900 Kanawha Boulevard East, Charleston, WV 25305-0440</td>
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</tr>
<tr>
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<tr>
<td>Co-Secretary</td>
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<tr>
<td>Co-Secretary</td>
<td>Vivian Moeglein</td>
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<tr>
<td>Montana (Region 4 SCOH)</td>
<td>Loran Frazier</td>
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<td>Montana Department of Transportation, P.O. Box 201001, Helena, MT 59620-1001</td>
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<td><a href="mailto:lfrazier@mt.gov">lfrazier@mt.gov</a></td>
</tr>
<tr>
<td>New York (Region 1 SCOH)</td>
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</tr>
<tr>
<td>North Carolina (Region 2 SCOP)</td>
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<td><a href="mailto:cleggett@ncdot.gov">cleggett@ncdot.gov</a></td>
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## ACEC

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<tbody>
<tr>
<td>Co-Chair</td>
<td>Matthew Reiffer</td>
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<td>American Council of Engineering Companies, Suite 802, 1015 15th Street, N.W., Washington, DC 20005-2605</td>
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<tr>
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</tbody>
</table>

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1. Meeting called to order by Co-chairs Paul Mattox and Charles Geer

2. Self Introductions

3. Minutes from May 2008 meeting approved

4. AASHTO Report
   a. John Horsley
      • Outlined authorization policy recommendations that will be considered by the AASHTO Board of Directors
      • 10 teams have been working on these recommendations; 2 teams (safety and research) had recommendations approved at the AASHTO 2008 Spring Meeting
      • 80% of the buying power for transportation will have been lost by the time the current bill expires
      • Recommending that funding be increased by 80% just to stay even
      • Emphases on performance management and project delivery
      • Newly approved pooled fund will address the issue of global climate change as it relates to transportation with greenhouse gases and carbon emissions being the front and center of the national policy scene; 20 states have signed up thus far for the $10,000 technical service program; AASHTO has employed a full-time engineer to fill that position.
   b. Jack Basso
      • Highway Trust Fund funding shortfall of $8 Billion was finally corrected by Congress near the end of September
      • Need to watch over the next year as it could fall short again
      • VMT is declining and could continue to do so
      • What can we look for this fiscal year?
        o OMB in July – will suggest that at the end of this next fiscal year we will have 2 to 2.8B left in the Highway Trust Fund. But, the variables that went into those numbers are stagnant (VMT, etc) so we see there is a potential for another crash in the trust fund – possibly another $100m in the hole. We will know more in January when the budget is updated.
        o Bad news – the subsequent fiscal year we'll be seeing a 46-48 percent decrease in highway funding. Transit suffers a loss about a year later.
      • The real question is how to fund the 80% increase that we are asking for to fund the program at an acceptable level
      • Transportation is seen as a small bump in the much larger overall economic picture and the future of transportation investment is on the line
   c. Janet Oakley
      • Stimulus package would most likely come about in January 2009
      • 49 of 50 states have submitted a list of ready-to-go projects.
      • With a lame duck Congress, it is hard to tell how large the stimulus might be
      • States need to be prepared if this comes about
      • AASHTO testifies in late October 2008 to talk about transportation investments

5. ACEC Report – Matt Reiffer
   • ACEC is in lock-step with the AASHTO proposals and mirrors much of what AASHTO has
   • Increase funding
   • Improve project delivery and environmental streamlining
   • Support the economic stimulus package

6. FHWA Report, King Gee
   a. Reauthorization
• Congress cannot punt their responsibility in 09! The Highway Trust Fund has been drawn down.
• Reauthorization – Secretary has released a blueprint
• FHWA has written a white paper with key issues related to climate change adaptation and conducted a survey of states
  1. 13 states are developing a program
  2. 15 states are at least in the talking stages
• Removes barriers to nontraditional funding
• Benefit-cost for proposals
• Performance based measures
• Funding isn’t mentioned in the blueprint because that is for the new administration
• Will hold a joint session with SCOH and SCOP at the Friday meeting this week
b. OIG audit on Executive Compensation – in final stages
• FHWA expects a draft audit report before the end of the year – next month or two
• King commits that before FHWA makes any responses to the audit report, they will be collaborating with AASHTO and ACEC (industry)
• FHWA ceded their audit capabilities to OIG back in the 70’s
• No capabilities to second guess the OIG’s methodology
• When IG will issue a final report is still to be determined
c. FHWA has established a new office of innovative program delivery that reports to the administrator’s office
d. Quality assurance and quality control
• Construction engineering being done more by firms
• FHWA has been doing a rolling review of QA/QC – released a report in January of this year on use of consultant services
• FHWA did an internal program review
• National quality assurance program – tools to be used with the states and how we can improve program effectiveness.
• Eliminate chances for abuse – not saying there is abuse, but there is great potential
e. Climate control – FHWA Gulf Coast study – devastating impacts
• TRB report earlier this year
• FHWA – white paper looking at transportation-related issues – mitigation actions and key issues for adaptation – surveyed the states and 13 states have begun undertaking actions on this issue – 15 states have begun talking about it
• FHWA will engage SCOH at this conference on this issue.

7. Performance Measures – Tony Kane, AASHTO
• New Committee to be established on Performance Management
• Handout distributed

• Most firms are diversified
• Firms have been able to re-deploy people
• We do a lot of things and we can use our skills in many ways
• Examples – DOD work, work with utilities, etc.
• Utilization of firms’ staff is high
• Work with DOTs – we’re doing things differently with DOTs then we were 5-10 years ago. For example, planning is very busy – how can we do work with the money that is available – do more with less. Traffic management is busy.
• We don’t know what is lying beyond 2009 – we have re-allocated for now
• Economic stimulus – firms need to be working on things so there are plans in hand and ready to go. Infrastructure won’t be a short term stimulus unless we have plans that are ready to go.
• Decline of production of young engineers
  o Michael Baker has started a program called Next Gen – listening to young engineers and finding out what motivates them. Encouraging them to get involved – cross train people.
Discussion:

J. Horsley – (excerpt)

- We’re all observing the shock of what’s happening on Wall Street.
- Hard to even think about asking congress for an increase in the program. But we need to be firm and strong - we need to be thinking on a strategic basis.
- Is infrastructure what’s needed to rebuild our economic strength?
- Asked ACEC for help in making this case. So we can decide – hunker down and go along or be firm and make the case for building infrastructure to build the economy.
- To keep America competitive in the international community we need a freight network that works for the 21st century.

9. NCHRP 20-7 Design Errors and Omissions – Mike Ryan

- Study – panel of 10 people
- Two ACEC members – Jack Beemer and Bob Fogle
- Study meant to compile best practices among DOTS and other agencies and create a model policy organizations could follow
- ACEC feels it’s a very good report and could advance the issues
- Some tweaks could be made to make it an excellent report
  - Report as titled addresses errors and omissions
  - More in depth discussion needed on negligence and standards of care
  - Report cites an ACEC white paper – need to cite other report – Cost of Perfection – page 2 graph should be included
  - More emphasis on spirit of teamwork and cooperation
  - The report has a reference to Corps of Engineers and that could be expanded upon
  - Fail to resolve dispute at project level – want more emphasis on mediation before expensive cost of litigation.
- ACEC members on panel will submit comments in writing to NCHRP
- Have confidence in Mike Markow – researcher
- AASHTO will work with ACEC on how to distribute report

10. Audit report – Jack Basso and Vivian Moeglein

- OIG report not yet issued and waiting for the report to become available
- Concerns about methodology still exist
- AASHTO and ACEC still working together on this issue

11. Uniform audit guide – Jack Basso and Lynda Konomos

- ACEC working together with AASHTO audit committee – we’re all working to control costs
- Need uniform rules
- Example – internal control questionnaire, cognizance
- Other issues we will be working on – executive compensation, allowability, allocatability
- Audit Guide is such a resource for smaller firms
- AASHTO and ACEC are working together – monthly conference calls, face-to-face meetings
- Other issues – CPA Work Papers – will be re-done for CPAs who don’t know how to calculate an overhead
- Want to work together for standardization – uniformity – brings efficiencies for firms and DOTs

12. AASHTO’s National Transportation Marketing Campaign – Pete Rahn

- Pitch for additional co-sponsors
- Main purpose is to get the message out on transportation
- Area of emphasis for AASHTO
- Moved $1 million into this area
- Some methods are very successful, e.g. Bridging the Gap
- Need to tell people we made good use of SAFETEA LU funds before we can ask for more $ - America’s Best Projects (need official name for this)
- Next step – what does the new president and the new congress need to know?
• AASHTO has hired a campaign manager and Fleishman Hilliard to assist them in getting this message out.
• Need cosponsors for this effort – asked for support of the firms.

13. Membership update – Ken Kobetsky and Vivian Moeglein
• AASHTO short on member from Planning, Region 3 – Mississippi Valley
• ACEC has full membership

14. Old business
• None

15. New business
• Kevin Chesnik, WI — chair of the Technology Implementation Group (TIG), which helps promote new technologies – form partnerships, look for new involvement – get website for dissemination to ACEC transportation committee meeting
  • J. Horsley – vacant AASHTO TRAC staff position – TRAC is in 23 states and thousands of schools.
    o Not scratching the surface of getting people to enter civil engineering.
    o Need to look at improving TRAC.
    o Mississippi is looking at paying to get TRAC in every junior high in the state.
    o ACEC and AASHTO can work together and do a better job of getting out there – career days, etc.
    o Need to improve flow of people into engineering schools.
    o What further steps can we do beyond TRAC program?

16. Next meeting May 14, 2009, Bedford Springs, PA

17. Adjourn
# Recommendations to the AASHTO Board of Directors

From the AASHTO Standing Committee on Research

## National Cooperative Highway Research Program

**NCHRP FY 2010**

### Project Continuations

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<td>03-62</td>
<td>Guidelines for Accessible Pedestrian Signals (APS)</td>
<td>$170,000</td>
<td>Parker</td>
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<td>Research for the AASHTO Standing Committee on Planning: Support for Improved Transportation Planning and Project Development</td>
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<td>Beta Testing and Validation of HMA PRS</td>
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<td>Context Sensitive Solutions: Quantification of the Benefits in Transportation</td>
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<td>Production of the First Edition of the Highway Safety Manual</td>
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<td>Synthesis of Information Related to Highway Problems</td>
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<td>Legal Problems Arising Out of Highway Programs</td>
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<td>Highway Research and Technology - International Information Sharing</td>
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<td>Longer-Term Strategic Issues Facing the Transportation Industry</td>
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<td>Abutment Scour in Cohesive Materials (w/ Project 24-20 Prediction of Scour at Bridge Abutments)</td>
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<td>LRFD Metal Loss and Service-Life Strength Reduction Factors for Metal-Reinforced Systems in Geotechnical Applications</td>
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<td>Quick-Response Research for the AASHTO Standing Committee on the Environment</td>
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**Continuations Subtotal $11,135,000**
### NEW PROJECTS

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<td>Integrating Pavement Preservation into the Design Process</td>
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<td>Guidelines for Forensic Evaluation of Highway Pavements</td>
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<td>B-03</td>
<td>Developing Regional Historic Contexts for Post-World War II Housing</td>
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<td>Develop Bicycle/Pedestrian Demand Model to Measure Bicycle/Pedestrian Activity and Relationship to Land Use</td>
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<td>Long Term Field Performance of Warm Mix Asphalt Technologies</td>
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<td>10-80</td>
<td>C-01</td>
<td>Conversion of the AASHTO &quot;Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals&quot; to the Load and Resistance Factor Design (LRFD) Methodology</td>
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<td>Dekelbab</td>
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<td>10-81</td>
<td>D-13</td>
<td>Evaluation of Fuel Usage Factors in Highway Construction</td>
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<td>10-82</td>
<td>D-16/ F-06</td>
<td>Performance Related Specifications (PRS) for Pavement Preservation Treatments</td>
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<td>D-24</td>
<td>Alternative Quality Systems for Application in Highway Construction</td>
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<td>12-85</td>
<td>C-02</td>
<td>Roadway Bridges Fire Hazard Assessment</td>
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<td>12-86</td>
<td>C-03</td>
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<td>14-20</td>
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<td>Optimization of Resource Allocation for Highway Preservation Needs</td>
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<td>14-22</td>
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<td>Effective Removal of Pavement Markings</td>
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<td>15-39</td>
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<td>Superelevation Criteria for Sharp Horizontal Curves on Steep Grades</td>
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<td>Designing the Roadway Transition from Rural Highways to Urban/Suburban Highways or Streets</td>
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<td>15-41</td>
<td>C-13</td>
<td>Updated Headlamp Design Criteria for Sag Vertical Curves</td>
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<td>15-42</td>
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<td>Use of Bicycle Lanes for Various Roadway Characteristics</td>
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<td>Evaluation of the Methodologies for Visual Impact Assessments</td>
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New Projects Subtotal $16,650,000
Grand Total (including continuations) $27,785,000

PROJECT CONTINGENT ON THE AVAILABILITY OF FUNDS

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<th>Identification</th>
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<td>Modulus-Based Construction Specifications and Issues for Highway Earthwork and Unbound Base Materials</td>
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Contingent Projects Subtotal $500,000
The FY 2010 International Scans are as follows:

- Flexible Geometric Design Practices to Improve the Performance of Freeway Facilities
- Understanding the Policy and Program Structure of National and International Freight Corridor Programs
- Successful Infrastructure Countermeasures to Mitigate Motorcycle Fatalities
- Outdoor Advertising Control: Best Practices Policy and Implementation
- Contingency Scan: Pavement Management: Whole-Life Management

The current Domestic Scans are as follows (more detail can be found on pages 30-40 of the document on the following site http://www.trb.org/NotesDocs/20-68A_Prospectus.pdf):

- 09-01, Best Practices in QC/QA of Design Plans, will examine policies and procedures used to ensure high quality highway and bridge designs.
- 09-02, Best Practices in Project Delivery Responding to Sudden Program Acceleration, will examine how agencies select projects to be accelerated, how they deploy their personnel and other resources in developing these projects, and how they resolve the tensions and conflicts among accelerating activities and between accelerated activities overall and other components of the agency's normal business.
- 09-03, Best Practices in Solutions for Lane Departure Avoidance and Traffic Calming, will review innovative traffic-calming and speed-reducing measures deployed on non-freeway highways at or approaching locations and situations where lower speeds are critical to safety.
- 09-04, Best Practices In Successful Strategies for Motorcycle Safety, will examine infrastructure- and behavior-related countermeasures and program strategies that reduce motorcycle fatalities.
- 09-05, Best Practices for Roadway Tunnel Design, Construction and Maintenance, will identify specialized technology and standards (such as NFPA 502 standards and others) used in monitoring or inspecting structural elements and operating equipment to ensure optimal performance and minimize downtime during maintenance or rehabilitation.
This report provides the results of our audit of the implementation of Section 307 of the National Highway Systems Designation Act (NHSDA). These provisions are intended, in part, to ensure that design and engineering (D&E) firms’ indirect cost rates do not contain unallowable costs.1 We began this audit because of concerns expressed by state transportation officials regarding the allowability of executive compensation and other indirect costs at some D&E firms. Our audit objectives were to evaluate the implementation of NHSDA Section 307 audit requirements, and test the allowability of executive compensation and other high risk indirect cost elements billed by D&E firms on state departments of transportation (DOT) contracts. The Federal Highway Administration (FHWA) is responsible for providing direction for, and overseeing the implementation of, the audit provisions in Section 307.

During the 7-year period ending 2004, under the Transportation Equity Act for the 21st Century, FHWA awarded an average of $30.6 billion, annually, in Federal-aid highway grants (Federal-aid) to state DOTs. Of that amount, state DOTs paid about $4 billion to more than 3,500 D&E firms for the design of highways, bridges, and related infrastructure; and construction inspection and management. About $1.4 billion, 35 percent, was paid for indirect costs, the balance for direct-charge engineering work.

1 Unallowable costs are those that under the provisions of any pertinent law, regulation, or contract cannot be included in price, cost reimbursement, or settlement under a Government contract.
In conjunction with the Defense Contract Audit Agency (DCAA), we examined 41 D&E firms for executive compensation out of the statistically sampled universe of 3,580 firms. We also examined other indirect costs at 9 of the 41 firms. Exhibit A details our audit scope and methodology. We performed this audit in accordance with generally accepted government auditing standards as prescribed by the Comptroller General of the United States.

BACKGROUND

The provisions of Section 307 of NHSDA, passed by Congress in 1995: (1) require the use of the Federal Acquisition Regulation (FAR) as criteria to determine cost allowability when performing indirect cost rate audits of D&E firms; (2) eliminate duplicate audits of D&E firms by multiple audit entities; and (3) remove ceilings established by certain states for indirect rates, salaries, and bonuses. Regulatory requirements for implementing Section 307 are found in 23 Code of Federal Regulation (CFR) 172.

Indirect rates are comprised of costs such as executive compensation; employee fringe benefits and wages; facilities charges; and insurance, legal, consultant, and travel costs. State DOTs use indirect cost rates, in part, for reimbursing D&E firms for allowable costs incurred. Also, these rates are used when establishing final contract costs, and they provide the historical cost basis for estimating and negotiating new contracts.

Audits of D&E firms’ indirect cost rates are critical to detect fraud and protect taxpayer funds as the firms’ Federal-aid contracts are exempt from price competition. D&E firms must be selected on qualifications alone; price and other contract terms are negotiated only with the most highly qualified firm. Similar audits on indirect cost rates of Federal contracts save, on average, more than four times their cost.

FHWA is responsible for establishing an oversight program to monitor the effective use of Federal-aid funds and, since the passage of the Intermodal Surface Transportation Equity Act in 1991, has increasingly delegated this responsibility to state DOTs. FHWA, regardless of the project responsibilities delegated to the states (or other Federal agencies), is ultimately responsible for all Federal highway programs and provides assurances that Federal-aid funds are expended in a manner consistent with applicable Federal laws and regulations.

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2 The Brooks Act, 40 United States Code 1101 through 1104, requires that contracts for architectural and engineering services be negotiated on the basis of demonstrated competence and qualification at fair and reasonable prices.
RESULTS IN BRIEF

We found that indirect cost rate claims from 21,3 of our sample of 41, D&E firms included unallowable costs—some expressly unallowable4—totaling about $15.7 million. Of that amount, state DOT contracts were charged about $5.5 million, of which about $4.4 million—the Federal share—was reimbursed with Federal-aid funds.5 Examples of unallowable costs we found were:

- $301,667 for 45 automobile leases—5 of which were luxury class including Mercedes, BMW, and Lexus—with no documented business purpose.
- $280,609 in executive compensation in excess of the Federal statutory cap.6
- $247,685 for items such as social dinners with clients; dining club memberships; outings to professional and college sporting events; theme and holiday parties; and trips to Atlantic City, a city zoo, and a county expo fair.

Lack of accountability at D&E firms and insufficient transaction testing by Certified Public Accountant (CPA) firms were the immediate causes of unallowable costs we found. Further, FHWA and state DOT oversight did not ensure effective monitoring of D&E firms’ indirect cost rate claims or indirect cost rate audits performed by CPA firms. FHWA relies on state DOTs to implement Section 307 but has not collected sufficient information to properly evaluate the states’ implementation efforts. For example, FHWA did not know how well states performed oversight or whether indirect cost rate audits met the intent of Section 307 requirements. FHWA must improve its monitoring of state DOTs to identify and resolve implementation problems.

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3 The 21 firms include 20 that had “unallowable executive compensation” costs, of which 7 also had “other unallowable costs.” One of the 21 firms just had “other unallowable costs.”
4 An expressly unallowable cost is one that is specified by statute or regulation as being unallowable.
5 The $5.5 million represents the portion of D&E firms’ unallowable costs allocated to all state DOT contracts, both federally and non-federally funded. Most Federal-aid projects are reimbursed 80 percent with states or other allowable sources being responsible for the balance. Federal participation on projects such as Federal Lands and Emergency Relief can go as high as 100 percent. To conservatively estimate the Federal share of the unallowable costs, we used 80 percent of the $5.5 million, which is approximately $4.4 million.
6 Section 808 of Public Law 105–85, Fiscal Year (FY) 1998 Defense Authorization Act, directed that the Office of Federal Procurement Policy set an annual cap for executive compensation costs that will be allowable under Federal contracts. For D&E firms’ FY 2003, the cap was set at $405,273.
EXECUTIVE SUMMARY

All of the U.S. state DOTs have been determined to have written procedures regarding errors and omissions by consultant design professionals, as required by federal regulation. Nonetheless, as of 2005, the FHWA noted that implementation and enforcement of these procedures was more a case-by-case approach rather than a systematic process. At about the same time, AASHTO found that in more than one-quarter of the states, the written procedures appeared to be limited to contract provisions and professional liability insurance requirements.

The review performed in this study indicates, however, that this situation is beginning to change. Since 2005, there have been several new E&O processes put into place as well as updates of previous policies and procedures. These current developments have gained from past DOT experience as well as from industry recommendations for improved practice. As a result, they share a number of important principles in common: e.g., defined objective and procedures, a focus on problem solution as the first priority, early engagement of the consultant design professional, access to impartial technical experts when needed, maintenance of a process fair to both agency and consultant, effective documentation and communication throughout, and clear decision points for review and analysis, problem resolution, appeal, and internal and external communication of findings and decisions. This is not to say that state DOTs are becoming uniform in their E&O policies and procedures. Variability in current practice stems from different management, legal, and institutional approaches to addressing design errors and omissions by consultants. Most of these differences, however, are in procedure and detail rather than in fundamental principles. These recent developments thus establish a basis for describing the evolving state of practice in errors and omissions processes and recommending a best-practice template for future process development.

FHWA guidance on the subject focuses on two considerations: 1) the philosophy that consultants should not be held responsible for additional construction costs resulting from errors and omissions unless gross negligence or carelessness are involved; and 2) the need for each DOT to have a written procedures, approved by the FHWA, for determining the cost-related liability of consultants that results from their design errors and omissions. [23 CFR 172.9 (a) (6)] Current AASHTO guidance recommends several practices, including contracting language that clearly spells out consultant responsibilities for professional work performance, early involvement of the consultant when a design problem arises, giving the consultant the opportunity to help resolve the matter and mitigate effects on project cost and time, and allowing for alternate methods of dispute resolution to reduce the time and cost burdens of litigation. The American Council of Engineering Companies (ACEC) has developed a model E&O process that likewise recommends preferred practices, many of them similar to the AASHTO recommendations.
This study reviewed the E&O processes of 12 state DOTs: those in Arizona, California, Florida, Georgia, Illinois, Massachusetts, New Jersey, New Mexico, North Dakota, Oregon, Texas, and Washington State. These processes have been developed or updated since 2005, thus reflecting current thinking on the subject. The state DOT descriptions of their E&O policy, procedures, contract provisions, insurance requirements, and linkages to consultant evaluation were distilled to produce synopses of each of the 12 cases. These synopses were then compared, topic by topic, to develop conclusions and recommendations of a best-practice approach. The recommendation is presented as a template or framework to establish key concepts and methods, but also to allow considerable flexibility by agencies in tailoring this template to their engineering, legal, and institutional setting.

The results indicate that there is no standard definition of “errors and omissions” used by these 12 state DOTs, but a number of definitions share common ideas. Many of these definitions incorporate concepts of standard of care and of negligence, although specific definitions of these terms can vary by agency. Some agencies also blend a description of negligence (from tort law) with that of breach of duty (from contract law). One agency focuses exclusively on the breach of contract approach, avoiding standards of negligence entirely.

Whether they are short and succinct or comprehensive and detailed, state DOT policies and procedures documents accomplish several useful functions in guiding an agency’s business processes and consultant relationships with respect to design errors and omissions.

- They can be used to define an agency’s objectives and philosophy in managing errors, omissions, and resulting project risks, and to communicate these policies internally and externally among all interested parties.

- They help clarify relevant contract provisions, emphasize important priorities, and flesh out the procedures, milestones, evaluation criteria, and supporting documents that relate to managing errors and omissions.

- They consolidate and unify a variety of procedures -- e.g., pre-certification of design consultants; avoiding, identifying, and resolving errors and omissions; pursuing cost recovery; evaluating consultant performance; and integrating E&O mitigation and administration within overall project design and construction.

Several agencies have developed their guidelines and procedural requirements in conjunction with the private sector. Private sector experts may also be called upon to serve as consultants to an agency for projects of technical complexity, or as members of panels or committees in determining consultant liability and financial responsibility.

Based on these findings of current practice, the study has recommended a template for a best-practice E&O process. This template responds to FHWA and AASHTO guidance, is consistent with the model process recommended by ACEC, and reflects current agency thinking on methods to address errors and omissions fairly while keeping the project on track. This process is guided by stated goals and objectives, and entails several steps that 1) provide early notification to the consultant of a design problem, 2) engage the consulting in advising on a potential solution and mitigation of adverse effects on the project, 3) allow for agency analysis.
of the problem while maintaining communication with the consultant, 4) allow for an analysis of the benefit of potential cost recovery versus the administrative cost of obtaining that recovery, including non-monetary effects on this decision when appropriate, 5) multiple levels of negotiation, review, decision, and appeal at different organizational levels and with potentially different panel composition, 6) a provision for alternative dispute resolution if desired, and 7) documentation of key events, decisions, and communications. Specific organizational, methodological, and contractual recommendations accompany this process framework:

- Discussion of the potential membership of panels and assignment of decision-making responsibility. Panels may include agency staff as well as outside personnel: e.g., from FHWA, the ACEC and other professional organizations in the design consultant community, the attorney general’s office, and academia.

- Need to identify the decision-maker at each step, whether a senior individual or a panel.

- The desirability of appointing a facilitator to act as a point of contact for all parties, handle coordination and communication tasks, provide administrative support, and in general to make the process run smoothly and efficiently. Several different examples of this capability exist among the agencies reviewed.

- Insurance limits recommended to be flexible, reflecting project size and complexity. This recommendation is consistent with the AASHTO guidelines.

- Optional threshold values that serve as a guide in determining whether or not to pursue cost recovery. Such thresholds can be useful, but should be applied as a guide, not a rigid or arbitrary break point. Agencies should reserve the option to pursue a claim in any amount.
WHEREAS, Federal investment in transportation infrastructure has been proven to promote job creation and foster economic growth by facilitating the safe and efficient movement of people and goods across the country;

WHEREAS, The American Recovery and Reinvestment Act of 2009 provided a necessary infusion of capital for transportation programs and is being used on a wide variety of deferred maintenance, repair and construction projects, but is no replacement for a timely surface transportation program reauthorization;

WHEREAS, Multi-year federal funding guarantees provide the necessary certainty and stability to allow state departments of transportation to plan and implement long-range transportation maintenance and improvement programs;

WHEREAS, Current funding commitments for surface transportation from all levels of government fall well short of the amount necessary to maintain the existing transportation system in a state of good repair and to improve the system to meet future demands;

WHEREAS, The Highway Trust Fund is nearly depleted and state transportation programs will face a 35 percent or greater cut in funding in the next fiscal year without new revenues;

WHEREAS, State departments of transportation are and should remain at the forefront of federal surface transportation program implementation;

WHEREAS, Private sector engineering companies play a vital role in helping states deliver their transportation programs in innovative and cost-effective ways;

WHEREAS, Private sector engineering companies provide state DOTs additional capacity to deliver transportation programs, particularly during peak workloads, and provide states immediate access to technical expertise and specialized services when necessary;

WHEREAS, Highway and transit projects currently take too long to complete due to inefficient project delivery requirements, lengthy environmental reviews and other regulatory hurdles, increasing project costs and delaying necessary improvements;

WHEREAS, Americans, U.S. citizens, have a right to demand that transportation investments meet community needs, are spent wisely and accountably, and improve their quality of life;

THEREFORE, BE IT RESOLVED, That the AASHTO-ACEC Joint Committee endorses the following principles for the next authorization of federal surface transportation programs:

- Federal programs should be simplified and refocused on objectives of national interest, including preservation and renewal, interstate commerce, safety, congestion reduction and connectivity, system operations, and the environment.
- Federal programs should be primarily funded through dedicated user fees into the Highway Trust Fund, which should not be diverted for non-transportation purposes.
- Funding for federal surface transportation programs should be increased significantly through a wide array of financing mechanisms to keep the Highway Trust Fund solvent and to ensure...
adequate and stable funding sources for meeting future transportation maintenance and improvement needs.

- A transition from current financing mechanisms to a vehicle-miles-travelled or other direct user fee should be reviewed through advanced research, development and demonstration programs.
- Passage of a timely reauthorization bill before the current authorization expires is vital to the stability of the federally-funded, state-administered surface transportation program.
- State DOTs must have unrestricted ability to contract with the private sector.
- To improve the timeliness and efficiency of project delivery, new surface transportation authorizing legislation should expand state roles and responsibilities in environmental processes, further streamline the environmental review process, and promote integrated planning and programmatic environmental approaches.