

**IDAHO TRANSPORTATION DEPARTMENT**  
Department Memorandum

**DATE:** JULY 20, 2007

**TO:** DISTRICT ENGINEERS, EXECUTIVE TEAM

**FROM:** PAMELA K. LOWE, P.E.  
DIRECTOR

**RE:** IMPLEMENTATION OF PRACTICAL DESIGN

ITD is implementing the “**Practical Design Initiative**”, effective immediately. The concept of Practical Design supports ITD’s long history and culture that emphasizes innovative, cost-effective solutions. Implementing this initiative will help us renew our focus on efficient solutions while at the same time challenge our processes.

Practical Design is one of the efficiency measures that we are implementing to stretch taxpayer dollars as far as possible during this era of flat revenue. I envision that we will have fewer great projects and more good projects – a concept pioneered by the Missouri Department of Transportation. This will allow us to have a net overall improvement in the safety of our system by allowing our project dollars to address needs on more miles of the highway system.

Specific immediate actions

1. The goal for each district will be to cut 10 percent of the overall project cost dollars.
2. District plans for how this is to be accomplished are due to the Chief Engineer by September 1, 2007.
3. The baseline for measuring our success in cutting our costs and stretching our dollars will be the current Draft STIP.
4. The savings generated by each district will be put into new construction projects in that district.
5. District Engineers will have the authority to approve design exceptions. Note that on the NHS and on the Interstate, all design exceptions will go to FHWA from HQ with the District Engineer’s recommendation.

### General guidelines

1. This memo pertains to implementing Practical Design on the State System. Any decisions about possible implementation of Practical Design on local systems will be at the discretion of LHTAC and local governments.
2. The reduction of projects in each district must be done by revising their scope. Cutting the length of a project to reduce cost is not an option for achieving the goals of Practical Design.
3. Each District will need to assess whether the changes in project scope will require a revision of materials reports, environmental documents, public comment, etc. Revision these items may be the right decision, however, project delivery schedules still need to be met. Any exceptions to delivery schedule will be made only in consultation with the Chief Engineer.

### Future

1. We will expand the concept of Practical Design to include Construction by including streamlined testing and certification processes in our new construction specification book. Ultimately, all of ITD's activities, from Planning to Maintenance, will be conducted with the Practical Design philosophy.
2. We plan to implement Practical Design immediately and follow with standards revisions in the future, based on what we learn from implementation over the next year.
3. Our vision is to have concept reports complete – with the correct project budget and schedule – before projects are placed in the STIP. Depending on the complexity of the project, the environmental document also might need to be completed before to going into a construction year. This will help us better contain costs by identifying, for the public, the project scope and cost, and assuring that it can be delivered as promised.

### Practical Design components

The Missouri Department of Transportation offered the following as examples of how it achieved cost savings through Practical Design:

- Proper selection of design standards, criteria, and context
- Evaluate appropriate shoulder width
- Evaluate the structural sections on shoulders
- Consider bridge rehab instead of bridge replacement
- Consider replacing the bridge deck instead of the entire bridge
- Look at pavement rehab instead of reconstruction
- Look at bridge widths. Match the needed (and anticipated) roadway width
- Consider 11-foot lanes where appropriate
- Consider a lower design speed consistent with context of the project

There are many process changes that we can consider to achieve greater efficiency through Practical Design; MoDOT's list is not inclusive. I am enclosing two manuals from the MoDOT on Practical Design that might give you more ideas.

Good engineering analysis and documentation will be essential in our efforts to achieve cost and resource savings through Practical Design. Be sure to use sound technical principles and

document appropriately all of the decisions you make in implementing Practical Design concepts.

Partnering for success

You know your projects and your communities better than anyone else. Your goal with Practical Design is to use your engineering judgment in designing projects that meet the needs of the people who use the transportation system.

We encourage you to frequently and freely share ideas among your peers, which will help us magnify the benefits of this initiative. We also encourage a renewed partnership approach among each District and Headquarters as we work together to provide efficient transportation services. Enhancing our District/Headquarters partnership will enhance support and processes that help us realize greater efficiencies and timely delivery of our projects.

Please begin planning and implementing Practical Design concepts immediately in your district. We look forward to the results this unique challenge will provide as we better utilize our resources and create a safer transportation system.