We’re Practically There!

Presented to the 2010 Partnering Conference

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• Review “Practical Solutions”
• Current Status of “Practical Solutions”
• Examples of Successes
Kentucky has approximately 5000 miles of Interstates, Parkways, and U.S. Routes.
Kentucky has approximately 22,600 miles of State Route Highways.
Kentucky has approximately 8,843 State Maintained Bridges.
The charge to get Practical...

FROM: O. Gilbert Newman, P.E.
State Highway Engineer

DATE: April 22, 2008

SUBJECT: Guidance for the Use of “Practical Solutions” to Project Delivery

The Kentucky Transportation Cabinet (KYTC) is continually challenged with looking for ways to improve the way we conduct business. As a part of that continuous improvement process, efforts are underway to re-emphasize many of the fundamentals that go into the development and delivery of the KYTC’s roadway projects. As many of you are aware, one of the main challenges we face today is to find a way to “do more with less!” While this phrase may begin to sound somewhat “worn out,” this fundamental concept needs to be taken into consideration as an integral part of the decision-making process during all phases of project development and delivery. One of the first steps with any project is to identify the “purpose and need” and the subsequent project scope. It is at this early stage that we have been asked to focus our efforts to ensure that the project scope developed is appropriate and fulfills the initial purpose and need. This initiative, currently labeled “Practical Solutions,” is how the KYTC hopes to use the limited resources available to meet the transportation needs of this state.
Practical Solutions = Context Sensitive Solutions
Context Sensitive Solutions

Engineering, Environment, and Economics
Be Practical!!

SO WHY PRACTICAL SOLUTIONS?
The push was and is the finances…

- More projects with same funds
- Decreased traffic delays
- Improved safety
- Potential for setting system-wide approach and priorities
- Appropriate and contextual design
Practical Definition...
Current Status Nationally of “Practical Solutions”
Using Practical Design and Context Sensitive Solutions In Developing Surface Transportation Projects

Chairman Oberstar's and Subcommittee Chair DeFazio's opening statements from today's Highways and Transit Subcommittee hearing.

JUNE 10, 2010

By Jim Berard 202-226-5064

The Transportation and Infrastructure Subcommittee on Highways and Transit on Thursday heard testimony on how surface transportation projects can complement their communities and environment through better design and sensitivity to the project’s location.
Surface Transportation Authorization Act: “practical design standards” provision

“a collaborative, interdisciplinary approach that involves interested entities to develop a transportation facility that fits its physical setting, balances costs with the necessary scope of the project, and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility.”
Current Status in Kentucky of “Practical Solutions”
“it has become a part of the design process...we don’t say ‘Practical Solutions’ much anymore...there has been such good buy in that everybody is just making it happen.”
“Projects used to come up here & I would ask ‘could you go back and look at this?’...to see if we could trim the costs. Now, the districts are coming to me asking if we can shorten the project or pointing out a potential savings. It’s great!”
“From a cash-flow perspective, we are really seeing success. We have been able to move more projects to construction ...and the needs of the projects are being met! The projects are being ‘right-sized’.”
“Make sure you credit the people...the Location Engineers, the Project Development Branch Managers, Districts and Central Office staff...our Consultants and FHWA. This has been and will continue to be a team effort.”
Examples of Success!!
KY 172 in Morgan County
SYP description: “reconstruct KY 172 from the 2 mile marker to the 10.4”
Functional class = rural collector
Current ADT of 2500 vpd (m.p. 2) and 900 vpd (m.p.10)
Residential/small farms

Success!! Example #1
Success!! Example #1

Spot Improvements

SAVE $22 Million

$42 Million
$20 Million
Success!! Example #2

New Bridges Over Lake Barkley & Kentucky Lake; US 68 / KY 80
Bridge Cross Section Options

ORIGINAL TYPICAL SECTION

REDUCED SECTION
Alternative 6
Basket-Handle Tied Arch

$460 Million
$320 Million

SAVE $140 Million
Success!! Example #3

Harlan County: Bridge Replacement on KY3459 over Martin’s Fork of Cumberland River

Structurally deficient bridge (SR=14.6)

The approach road (KY3459) is a rural local with 10’ lanes & 1’ shoulders. Current ADT of 3730 vpd. Speed limit is 35 mph.
Success!! Example #3

Reduced Section

TYPICAL DECK SECTION

NORMAL SECTION

SECTIONS

$1,075,650
$ 878,000

SAVE $ 197,650

Kentucky Transportation Cabinet
Success!! Example #4

Warren County: Cumberland Trace Road, KY 2158

3.23 mile roadway improvement

A portion of this stretch has commercial development with higher traffic volumes. The remainder of the project is residential and farm land.
KY 2158 Rural Section

KY 2158 Urban Section
Success!! Example #4

11’ Lanes, 2’ Shoulders

$6.6 Million
$4.5 Million
SAVE $2.1 Million
Success!! Example #5

The KY720/Horseshoe Bend Road project was to improve the capacity and safety of the intersection.

The problem was limited visibility through the intersection area.
SAVES $766,500

$780,000

$13,500
Context Sensitive and Practical

Engineering is no challenge where money is no object.

Our community is full of great professionals and staff who are more than up to the challenge.
Project Development Philosophy

And the key to success is...

You!