

# The Design of a Practical Context



Presented to the  
2009 Partnering Conference

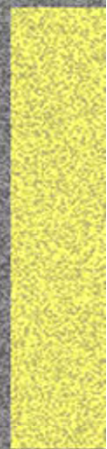
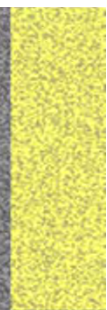
By: Jeff Jasper







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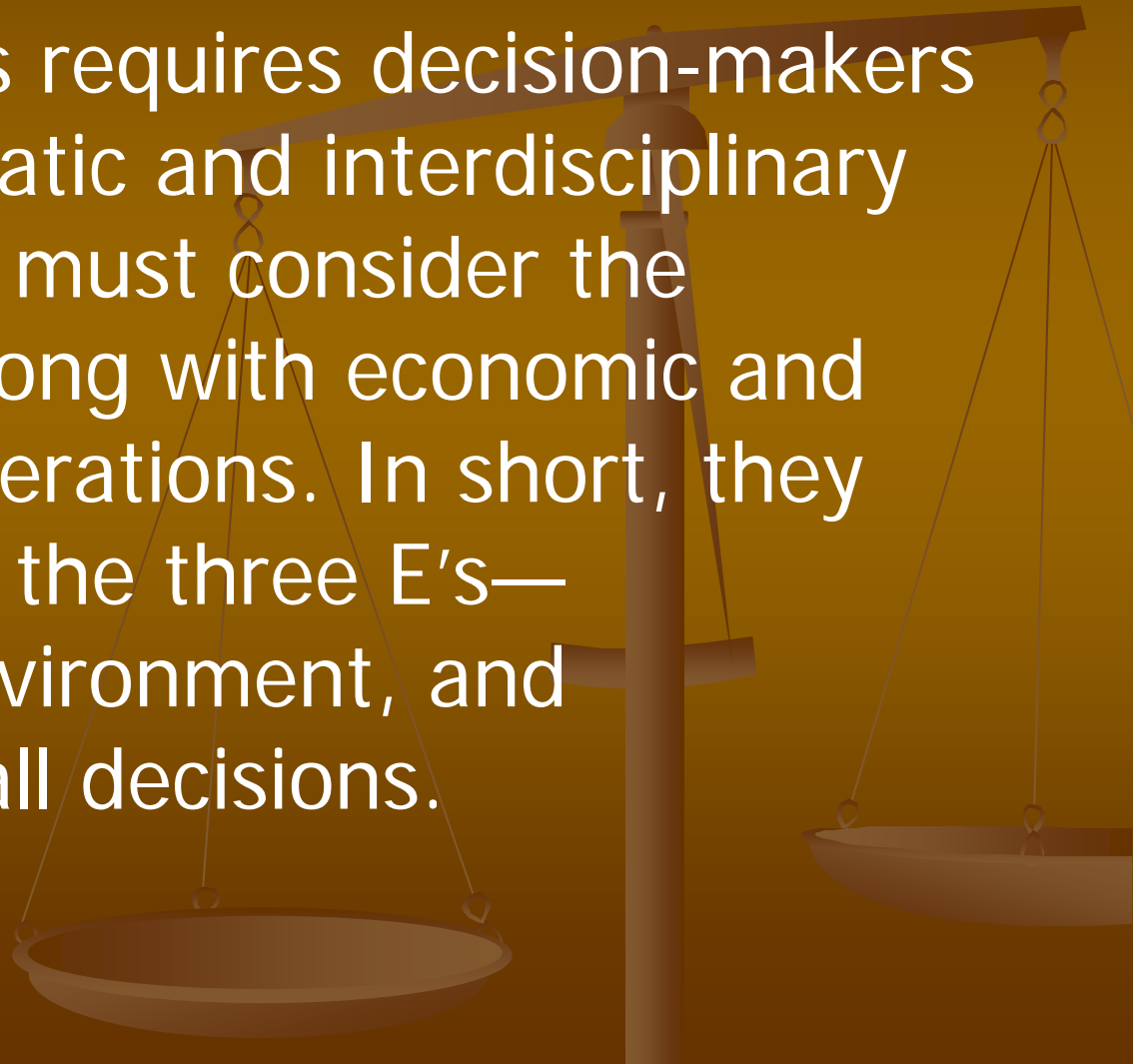
# A little KYTC history...

## Context Sensitive Design / Solutions



# Project Development Philosophy

The NEPA process requires decision-makers to use a systematic and interdisciplinary approach. They must consider the environment, along with economic and technical considerations. In short, they should consider the three E's—Engineering, Environment, and Economics—in all decisions.





# Project Development Philosophy

Juggling the three E's—  
Engineering, Environment, and  
Economics

The Project  
Manager &  
Development  
Team

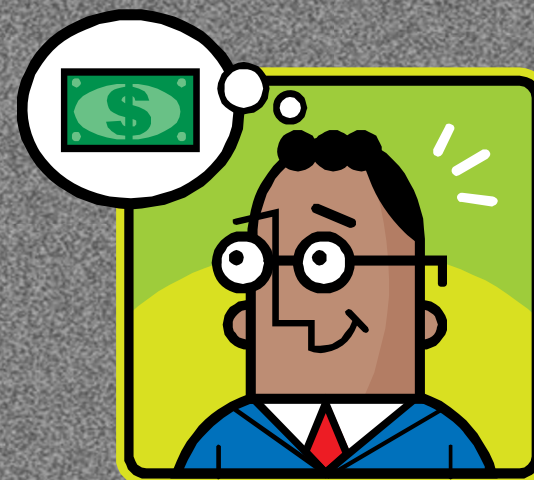




# A little KYTC history...

Our publicizing of CSS  
lead many to conclude...

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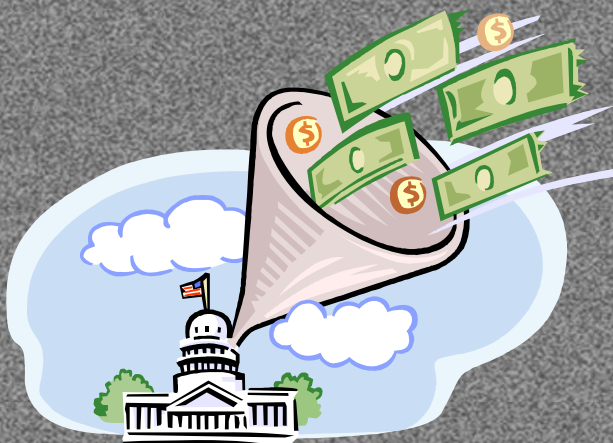




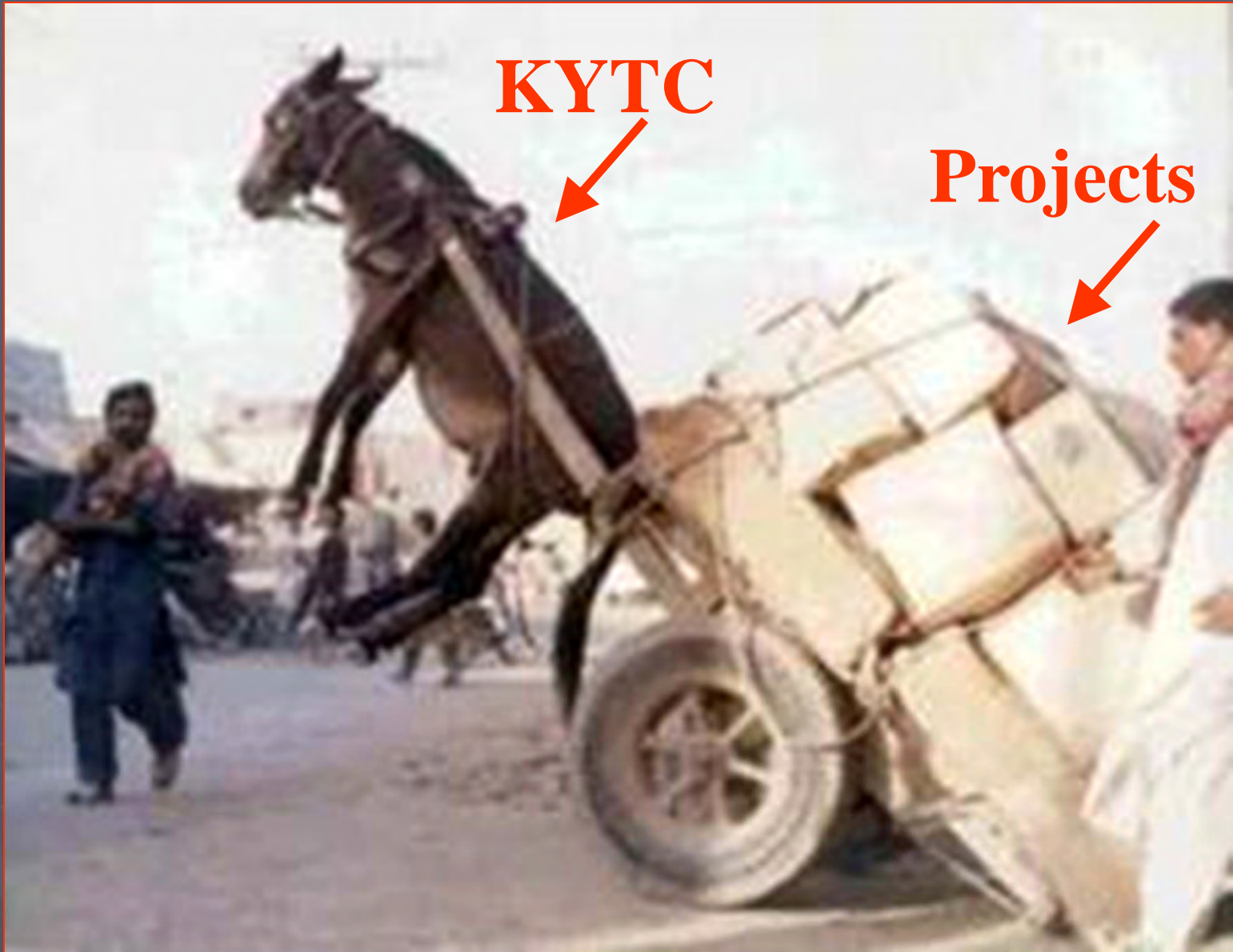


# A little more KYTC history...

The tax that never was...







**KYTC**

**Projects**



# 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.









# The charge to get Practical...

- Began marketing Practical Solutions to Project Development Staff.
- Immediately identified “over-designed” projects.
- Reworked some projects to get the practical solution into the construction plans.



# The challenges of getting Practical...



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"And then...  
depression set in."

- Change in personnel
- Massive retirements



# The challenges of getting Practical...



## The American Recovery and Reinvestment Act (ARRA):

Kentucky received \$368 million in stimulus funding for statewide highway improvements.







# The challenges of getting Practical...

Resistance to change...

The only person who likes change is a wet baby. *Mark Twain*





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**BUT I WANT MY  
4-LANE!!!!**





# Practical Solutions = Context Sensitive Solutions?







# Context Sensitive Solutions

Engineering, Environment, and  
Economics



# Context Sensitive Solutions

Now the Context has changed.  
Now Economics is going to factor in  
heavily when choosing a solution.  
Engineering and Environment still  
contribute to the context.





# Practical Solutions

Not Something Completely  
New to KYTC





# Practical Solutions

Practical Solutions philosophy  
is a subset to  
Context Sensitive Solutions.








# What “Practical Solutions” has added to our philosophy?

An approach to transportation in which an improvement is considered on the basis of its contribution to the entire system instead of its individual perfection.





# What “Practical Solutions” has added to our philosophy?

Consider all possible options and alternatives...and weigh the benefit cost.

(Essentially, it's a risk assessment.)





# The Keys to Success for our Practical Context

- ▶ Aggressively Control the Purpose & Need of our Projects.



# The Keys to Success for our Practical Context

- ▶ Start at the design minimums and look at the design exceptions.





# The Keys to Success for our Practical Context

- ▶ Challenge our existing policies.



# The Keys to Success for our Practical Context

► You!





# Be Context Sensitive!!

SO WHAT DEFINES THE CONTEXT?

The "push" was the environment...

- Cost
- Safety
- Mobility
- Human Environment
- Natural Environment
- Public/Stakeholder Involvement

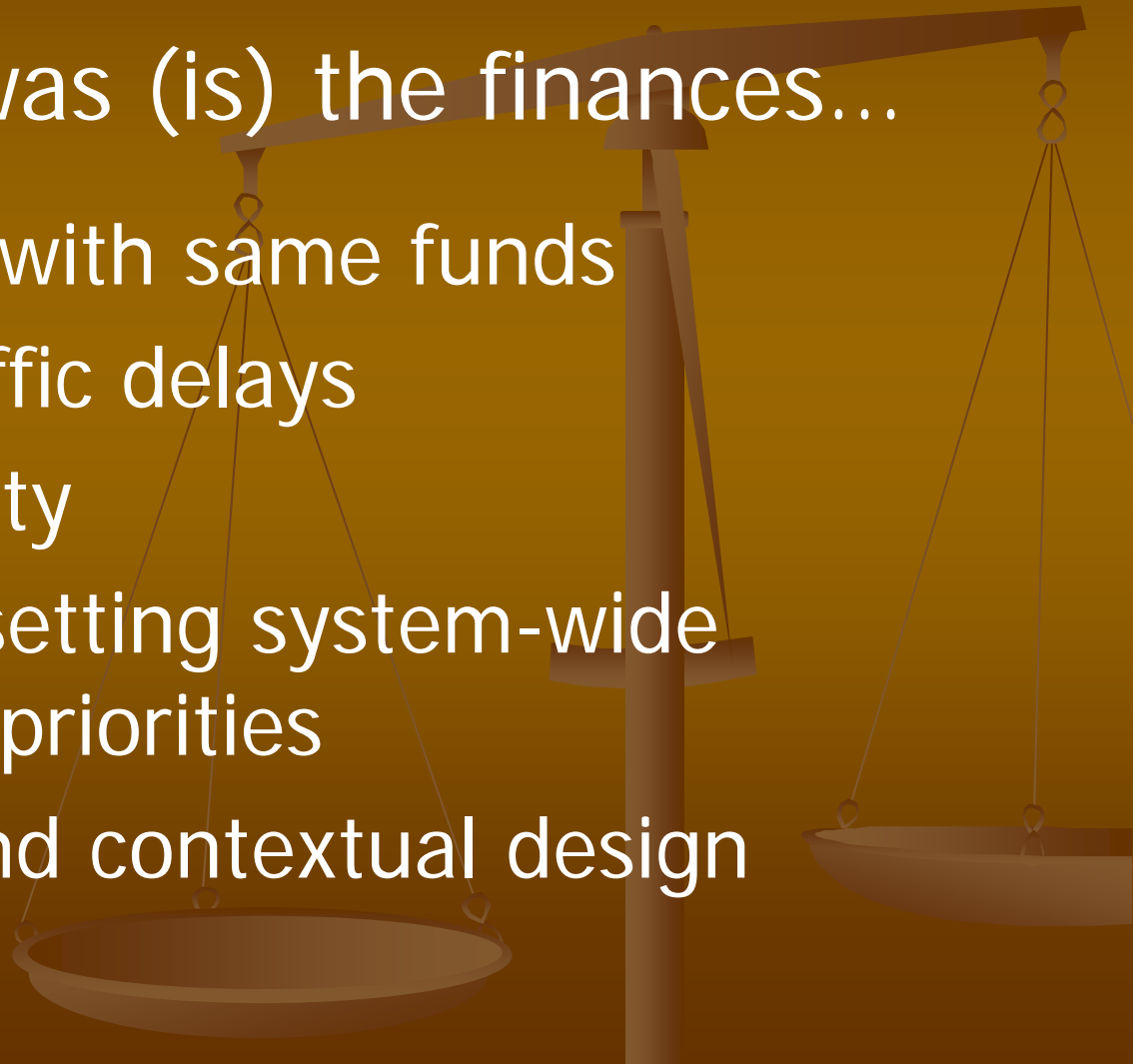


# Be Practical!!

SO WHY PRACTICAL SOLUTIONS?

The “push” was (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

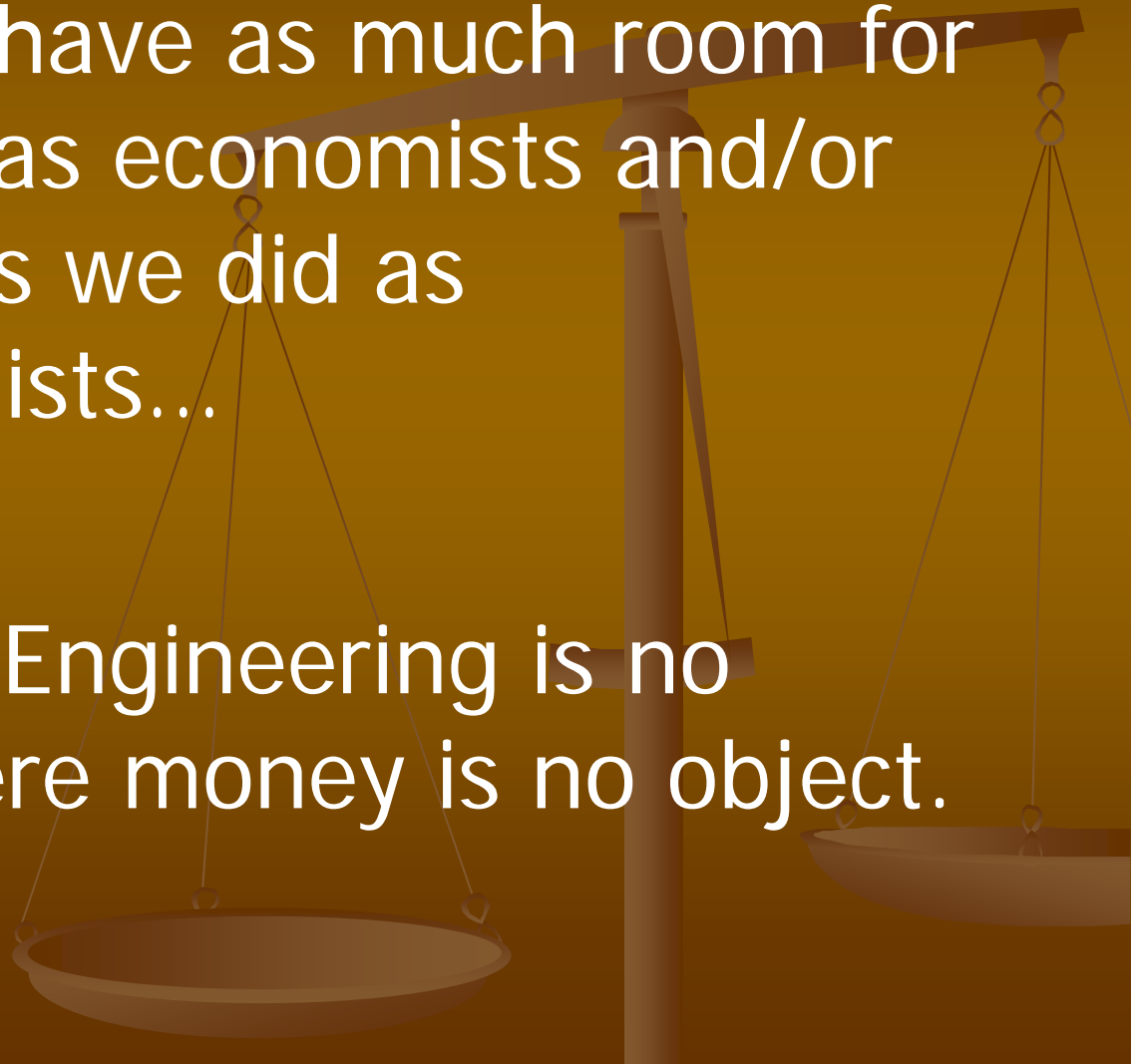




# Context Sensitive and Practical

It turns out we have as much room for improvement as economists and/or accountants as we did as environmentalists...

But remember: Engineering is no challenge where money is no object.



# Project Development Philosophy

## In Summary:

- Know the Context. Remember the system.
- Find the Right Balance of the 3 E's.
- Find Best Practical Solution for the Particular Context.





# Project Development Philosophy

That equals...

**Good Design**



# Project Development Philosophy

And the key to success is...

**You!**

