CSS & UNIVERSITY EDUCATION

Nikiforos Stamatiadis, Ph.D., P.E.
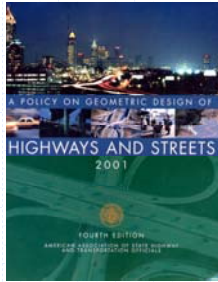University of Kentucky

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UK

What Should we Teach?

- w Importance of CSS
- w CSS and Project development
- w Multi-disciplinary teams
- w Multi-modal solutions
- w Communication skills

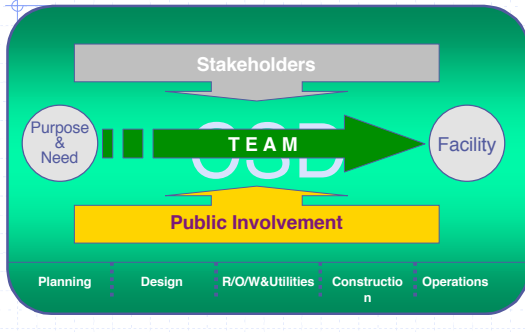**UK**

Purpose & Learning Objectives

- w To introduce the concept of CSS
- w To demonstrate the process of context sensitive transportation solutions
- w To understand reliance on other experts
- w To experience the process through case studies and projects

Basic Tenets: Flexible Design

w Guidance
w Final design more than formulas
w Starting point for designs
w Understand area context

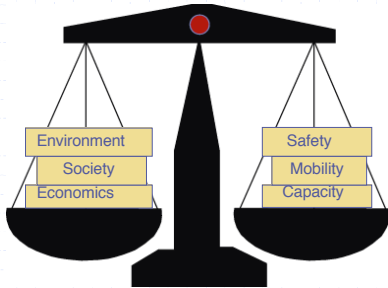A POLICY ON GEOMETRIC DESIGN OF
HIGHWAYS AND STREETS
2001

FOURTH EDITION
AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

Basic Tenets: Collaboration

Stakeholders

Purpose & Need

T E A M

Facility

Public Involvement

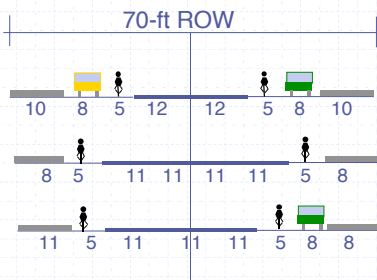| Planning | Design | R/O/W&Utilities | Construction | Operations |

Basic Tenets: Design Principle

Well designed transportation facilities
w Handle traffic efficiently and safely
w Fit nicely into their surroundings
w Address community's needs and desires

Basic Concepts: Balancing

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Environment
Society
Economics

Safety
Mobility
Capacity

Basic Tenets: Different Answers

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70-ft ROW

| 10 | 8 | 5 | 12 | 12 | 5 | 8 | 10 |

| 8 | 5 | 11 | 11 | 11 | 11 | 5 | 8 |

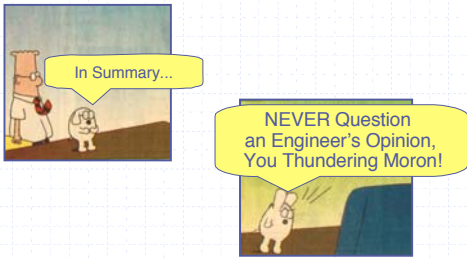| 11 | 5 | 11 | 11 | 11 | 5 | 8 | 8 |

Basic Tenets: Listen to the Public

UK

Basic Tenets: Team Work

Basic Tenets: Open Mindness

from DILBERT by Scott Adams
4/14/96

To Whom Should we Teach What?

CE/LA/UP/PAD/HP/GEO

Undergraduate

Graduate

Awareness
Discipline specific skills
Communication skills
Teamwork skills
Collaboration

Teamwork
Cross-discipline skills
Communication skills
Management skills
Innovative design

Case studies/Project
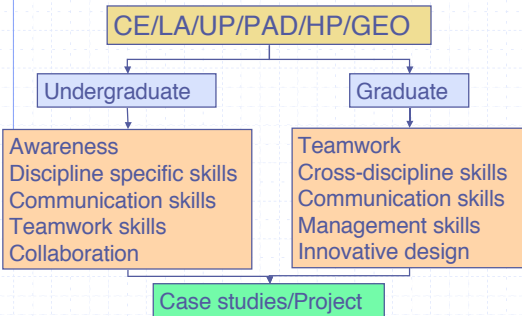
Univ. of Kentucky Example

wUndergraduate CE
- Two courses
- CSD emphasis
- Case studies/design project

wGraduate
- Two courses, year-long program
- Multi-discipline
- Case studies/community project

Obstacles

wAcademic structure
- Discipline oriented education
- Credit hours for degree programs

wResources
- Faculty
- Time

wFaculty