



# ETHICS FOR TRANSPORTATION PROFESSIONALS

**51<sup>st</sup> Annual International Conference**  
**Highway Engineering Exchange Program**  
Texas Westin Riverwalk Hotel, San Antonio, Texas  
October 1, 2009

**William D. Lawson, P.E., Ph.D.**

TechMRT: Center for Multidisciplinary Research in Transportation  
Texas Tech University, Lubbock, TX

# Learning Objectives

*Upon completion of this course, learners will be able to:*

1. Identify ethical standards relative to professional conduct and ethics for transportation professionals
2. Interpret and apply guidance relative to analyzing typical ethical dilemmas
3. Formulate solution alternatives, analyze and critique them
4. Demonstrate ethical problem solving skills for selected transportation situations.

Learning Objective 1

# **ETHICAL STANDARDS...**

# My Favorite Ethics Quote

“No man can always be right, so the struggle is to do one’s best to keep the brain and conscience clear;  
Never to be swayed by unworthy motives or inconsequential reasons,  
But to strive to unearth the basic factors involved  
And then do one’s duty.”



-Dwight D. Eisenhower

# Institute of Transportation Engineers



# ITE Canons of Ethics

- Preamble
- Relations with the Public
- Relations with Employers and Clients
- Relations with Other Professionals

# Sec. 1.

## ITE Canons of Ethics

The member will have due regard for the safety, health and welfare of the public in the performance of professional duties.

# National Society of Professional Engineers





# NSPE Code of Ethics for Engineers

- Preamble
- Fundamental Canons
- Rules of Practice
- Professional Obligations

# Fundamental Canon 1.

## NSPE Code of Ethics for Engineers

Engineers, in the fulfillment of their professional duties, shall hold paramount the safety, health, and welfare of the public.

# Texas Board of Professional Engineers



# Chapter 137, Subchapter C Professional Conduct and Ethics

Texas Engineering Practice Act And Rules  
Concerning The Practice Of Engineering  
And Professional Engineering Licensure

# §137.51 General Practice

Chapter 137, Subchapter C

In order to safeguard, life, health and property, to promote the public welfare, and to establish and maintain a high standard of integrity and practice, the rules relating to professional conduct in this title shall be binding on every person holding a license authorized to offer or perform engineering services in Texas.

# Texas Department of Transportation



# Texas Department of Transportation Ethics Policy

I. Overview

II. Standards of Conduct

A. An employee shall not:

B. An employee shall:

# Overview

## Texas Department of Transportation Ethics Policy

All employees must abide by applicable federal and state laws, administrative rules, and TxDOT employee conduct policies, including this ethics policy. An employee who violates any provision of this or any other employee conduct policy is subject to disciplinary action up to and including termination...



*Excellence* →

ETHICS: The norms and ideals to which we aspire.

*ETHICS*

*LAW*

← *Adequacy*



Learning Objective 2

**INTERPRET AND APPLY...**

# A Suggested Course of Action When Facing an Ethical Dilemma

*How should you handle an ethical dilemma?*

- This series of slides presents a five-step process to help you work through ethical problems, the central goal being ethical attitudes and actions.



# STEP 1:

Gather the information needed to make a good decision.



- Get the facts. Make sure you have accurate and complete information regarding the situation.
  - Distinguish between what you know from what is uncertain or is based on hearsay.
- Identify the stakeholders. Make a list of every individual, group or organization that has something significant to gain or lose in the resolution of the problem, noting what is at stake for them and the ethical standards that apply to each one.

# STEP 2:

## Determine what ethical standards apply to the situation.

- Review ethics guidance relative to the issue.
- If you are a licensed professional, check the ethics provisions of your licensure law.
- Use other resources available to you including your peers and supervisors.

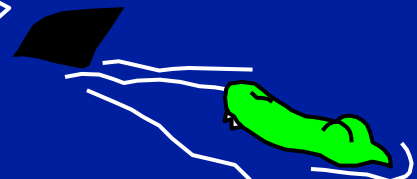
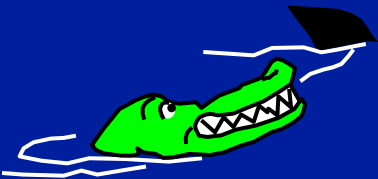


# STEP 3:

## Clarify the key concepts in the ethical dilemma.

- The idea is to reduce the problem to its core ethical issues. An ethical dilemma typically takes the form of one good thing (e.g., keeping your promises) versus another good thing (e.g., preventing harm).
- Both of these – keeping promises and preventing harm – are important ethical obligations.
- This is no easy dilemma to solve

# *If the "Ethics Rope" Breaks*



# STEP 4:

## Prepare to solve the problem.

- Develop at least two possible alternative solutions.
- Systematically evaluate the alternatives using the ethical standards identified, the interests of the major stakeholders in the situation, and related factors.
- Weigh the costs of each possible solution to each stakeholder. The process of evaluation may turn up new questions and problems requiring further investigation.
- Choose the best alternative, using your judgment to balance the competing ethical obligations and goals.
- Develop a strategy to put your solution into action.



# STEP 5:

## Act!

The previous steps are directed toward helping you with this critical aspect of ethical problem solving.

However, once you know the right thing to do, the other critical aspect is to actually DO THE RIGHT THING! For many of us, this is the hard part.

Here, moral courage comes into play. If left unattended, ethical problems rarely solve themselves. The key is to take well-considered action. Ultimately, you must do this, relying on the assistance of your coworkers, supervisors, friends and others.

***“Run towards the roar...”***



Learning Objective 3

# **FORMULATE SOLUTION ALTERNATIVES ...**



WEIGHT  
LIMIT  
10  
TONS



BEAVER BRIDGE  
CLOSED FOR REPAIR  
7:30 AM. 4:30 P.M.  
MON. THRU THURS

# CASE STUDY 1

Public Welfare - Bridge Structure

# CASE STUDY 1



Source: *Opinions of the NSPE Board of Ethical Review*

**Case 00-5**

**Public Welfare – Bridge  
Structure**

# CASE STUDY 1

## Public Welfare - Bridge Structure

### FACTS:

Engineer A was an engineer with a local government. Engineer A learned about a critical situation involving a bridge 280 feet long, 30 feet above the stream. This bridge was a concrete deck on wood piles built in the 1950's by the state. It was part of the secondary roadway system given to the counties many years ago...

# CASE STUDY 1

Public Welfare – Bridge Structure

QUESTION:

What is Engineer A's ethical obligation under these circumstances?





# CASE STUDY 2

Ye Olde Water Main

12/19/2007



# CASE STUDY 2



Source: *NIEE Applied Ethics in Professional Practice*

**Case 1033**

**Ye Olde Water Main**

# CASE STUDY 2

## Ye Olde Water Main

### FACTS:

Shadyvale, a picturesque town in upstate New England, is having water problems. Three years ago an engineering consultant issued a report which stated, among other things, that the existing water main in Shadyvale was generally in good condition but was extremely old. Further, the water main no longer is large enough for all of the properties served. Since that time, the Town Selectmen have been trying to secure the funds needed to replace the old main with a new main of larger diameter, but they still cannot afford to do so. ...

# CASE STUDY 2

Ye Olde Water Main

QUESTION:

How should Dianne proceed with this matter?

# CASE STUDY 3

Conflict of Interest -- Engineer Retained by State



# CASE STUDY 3



Source: *Opinions of the NSPE Board of Ethical Review*

**Case 94-1**

**Conflict of Interest --  
Engineer Retained by  
State**

# CASE STUDY 3

## Conflict of Interest -- Engineer Retained by State

### FACTS:

Engineer A is retained by a developer in the early stages of a project to perform site and engineering studies in connection with a major development project. Later, Engineer A is selected by the state's department of transportation to oversee numerous sub-consultants in the preliminary design work for the proposed widening of eight miles of an interstate highway and proposed construction of a new interchange to serve the major development project....

# CASE STUDY 3

Conflict of Interest -- Engineer Retained by State

QUESTION:

Was it unethical for Engineer A to accept the contract with the state's department of transportation?





# CASE STUDY 4

Gifts—State Department of Transportation Employees



# CASE STUDY 4



Source: *Opinions of the NSPE Board of Ethical Review*

**Case 05-6**

**Gifts—State Department of  
Transportation Employees**

# CASE STUDY 4

Gifts—State Department of Transportation Employees

## FACTS:

Engineer A performs engineering services as an employee of the State Department of Transportation. Part of Engineer A's responsibilities is to serve as liaison with the consulting engineers and contractors that perform design and construction work for SDOT. Over the years, following completion of various successful projects, consulting engineering companies (including Engineer B's company) and contractors have from time to time offered the following to Engineer A...

# CASE STUDY 4

Gifts—State Department of Transportation Employees

## QUESTIONS:

- Would it be ethical for Engineer A to accept such gifts as described in 1, 2, 3, or 4?
- Would it be ethical for Engineer B to offer such gifts described in 1, 2, 3, or 4?

Learning Objective 4

# **ETHICAL PROBLEM SOLVING...**



FILM:  
*“Ethics in  
the  
Workplace”*

SPEAKER:

**Carl M. Skooglund**

Former Vice President and Ethics Director

Texas Instruments, Incorporated



# TRUST

*“Trustworthiness is  
the first virtue of professional life.”*

# THANK YOU!

**William D. Lawson, PE, PhD**

Assistant Professor

Department of Civil & Environmental  
Engineering

TEXAS TECH UNIVERSITY

Lubbock, TX

806.742.3521 (phone)

[william.d.lawson@ttu.edu](mailto:william.d.lawson@ttu.edu)

