FHWA-NHI-380095 GEOMETRIC DESIGN APPLYING FLEXIBILITY AND RISK MANAGEMENT

Baystate Roads Program

Sharing the Best in Transportation Technology

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If you are a person with a disability who requires accommodation, please contact the Baystate Roads Program so that we may reserve services.

If applicable, make checks payable to: **University of Massachusetts**
Please include course name and full name of attendee on check

Mail to: Baystate Roads Program,
214 Marston Hall, 130 Natural Resources Rd., Amherst, MA 01003

FHWA-NHI-380095
GEOMETRIC DESIGN

July 17 & 18, 2013
The Beechwood Hotel
Worcester, MA

REGISTRATION FEE
$120.00 municipal/
$240.00 private sector.

Light breakfast, lunch and course materials are included.
Cancellations must be received 4 days prior to the workshop or you will be invoiced.

Why Register Online?

- Instantly confirm registration!
- View how many seats are left!
- View all courses currently accepting registrations!
- View workshop flyers as well as Newsletters and Tech Notes!
- Save paper and time!

FHWA-NHI-380095 GEOMETRIC DESIGN

Applying flexibility and risk management

July 17 & 18, 2013

The Beechwood Hotel,
363 Plantation St., Worcester, MA

This is a 2 Day Course.

Description

Designers often face complex trade-offs when developing projects. Applying flexibility and risk management in roadway design requires more than simply assembling geometric elements from the available tables, charts and equations of design criteria. This course provides participants with knowledge of the functional basis of critical design criteria to enable informed decisions when applying engineering judgment and flexibility. The course exercises and case studies provide practical applications of current knowledge from research and operational experience of human factors and safety effects for various design elements.

Upon completion of the course, participants will be able to:

- Define the relationship among design criteria, design guidelines and design standards
- Describe the concepts of design speed, target speed, posted speed and operating speed
- Describe the FHWA Policy for Design Standards and Design Exceptions
- List the 13 controlling geometric design criteria that require a formal written design exception from FHWA
- Evaluate the safety effects and qualitative risk of proposed design exceptions
- Evaluate the effectiveness and appropriateness of mitigation strategies for design exceptions
- Describe the relationship between safety and key geometric features of roadway alignment and cross section
- Describe the applicability of a human-centered approach to geometric design considerations

Contact the Baystate Roads Program for additional information at: cindy@baystateroads.org

Maximum class size is 30
This Course counts towards 1 Roads Scholar Credit/ 1.5 IACET CEUs. AICP Credits Pending

Who Should Attend

This National Highway Institute (NHI) course is targeted toward engineers and highway department superintendents who are involved in applying engineering judgment in the selection of design criteria and in the assessment of design exceptions. It is most practical for practicing engineers and highway department decision makers who may be involved in Transportation Improvement Projects (TIP) in their municipality.

Speaker

KEITH J. HARRISON, P.E., *Safety/Geometric Design Engineer, Federal Highway Administration Resource Center.*

Keith, a Massachusetts native, holds engineering degrees from Worcester Polytechnic Institute and from the Polytechnic Institute of New York. He has more than 30 years of highway engineering experience, all with the Federal Highway Administration (FHWA).

This Baystate Roads Program (LTAP) workshop is a cooperative effort of the Federal Highway Administration, MassDOT and the University of Massachusetts Transportation Center.

Day One Agenda

8:00 - 8:30	Introduction/Registration
8:30 – 9:00	Module A – Course Overview and Introduction
9:00 – 10:15	Module B – Design Policies & Standards
10:15 – 10:30	Break
10:30 – 11:45	Module C – Primary Design Controls
11:45 – 12:00	Questions and Discussion
12:00 – 1:00	Lunch
1:00 – 2:15	Module D – Perspectives on Safety and Elements of Design
2:15 – 2:45	Module E - Sight Distance, Horizontal and Vertical Alignment
2:45 – 3:00	Break
3:00 – 3:45	Module E, Continued
3:45 – 4:00	Questions and Discussion
4:00 – 4:15	Day One Wrap-up HIGHWAY DESIGN: Applying Flexibility & Risk Management Participant Workbook

Day Two Agenda

8:30 – 8:45	Review of day one material
8:45 – 9:45	Module F – Cross Section Elements
9:45 – 10:00	Break
10:00 – 10:30	Module F – Continued
10:30 – 11:45	Module G – Freeways and Interchanges
11:45 – 12:00	Questions and Discussion
12:00 – 1:00	Lunch
1:00 – 2:00	Module H – Mitigation Strategies
2:00 – 2:30	Module I – Best Practices for Applying Flexibility
2:30 – 2:45	Break
2:45 – 3:45	Module I – Case Study Discussions
3:45 – 4:00	Questions and Discussion
4:00 - 4:30	Course Wrap-up, Exam, Course Evaluations