



2013 Traffic Roadway Conference

Presenter: Tracy White, Access Management Unit



ACCESS MANAGEMENT RESEARCH



Introduction

- 3 research problem statements submitted to ODOT Research Unit were funded
 - 2 completed within the last year
 - 1 started in August 2013

 - All 3 projects conducted by nationally known transportation research engineer and safety expert
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Karen Dixon, PhD, P.E.,

- Chaired the TRB Research Subcommittee developing the AASHTO Highway Safety Manual
 - Chair of the CMF Subcommittee for the TRB Safety Performance Committee
 - Co-PI for NCHRP 15-43: Developing the 2nd Edition of the TRB Access Management Manual
 - Much more
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Access Management

Access /ak, ses/

A means of approaching or entering a place

Management /manijment/

A process of dealing with or controlling things or people

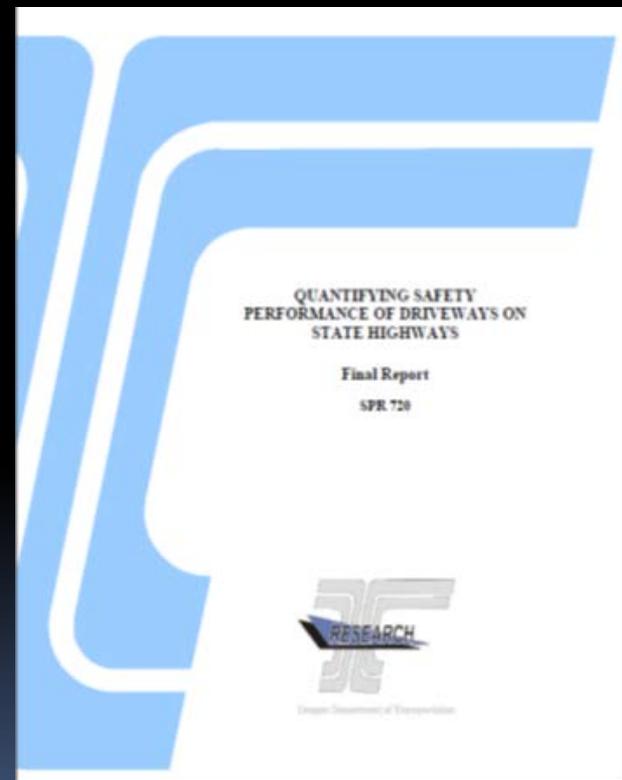
Access Management

The process of dealing with or controlling the means by which vehicles approach or enter a highway



1. Quantifying Safety Performance of Driveways on State Highways

- **Problem** - A need to quantify the safety of private road approaches (driveways)
- This research focused on road approaches connected to urban and rural principal arterial highways



August 2012



Research Results

1. Safety performance functions (SPFs) to evaluate safety impacts of various access management and driveway-related configurations on arterial highway corridors
2. Safety metrics using statistical models and methods similar to AASHTO Highway Safety Manual (HSM)
3. Full model SPFs that don't require additional adjustments
4. A separate model for urban vs. rural conditions
5. A companion "smart spreadsheet" to assist readers in implementing the procedure

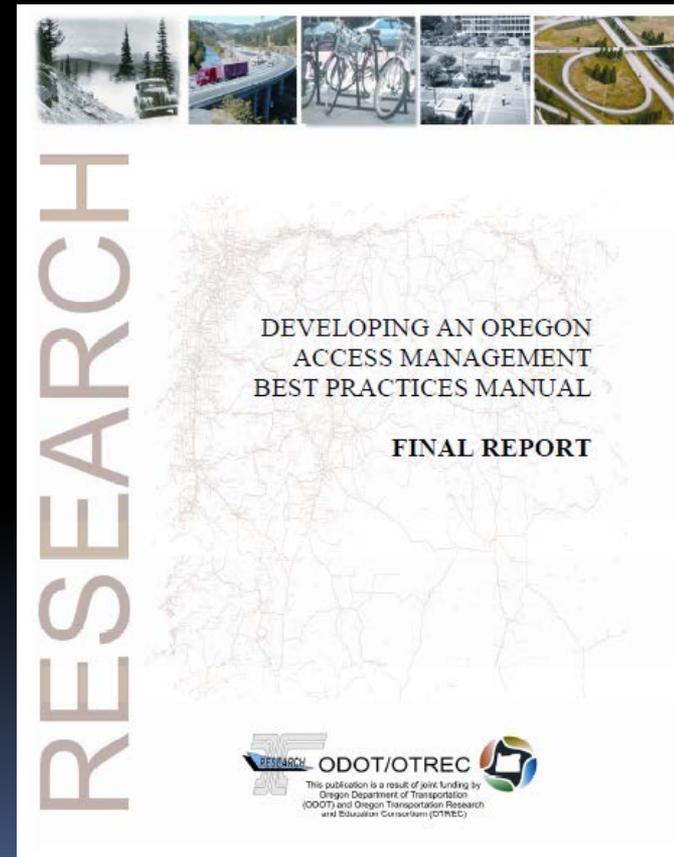


Validation

- The research team is in the process of validating the Safety Performance Functions (SPF)
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2. ODOT Access Management Best Practices Manual

- **Problem** – A need for access management performance measures; there are none in OHP, Goal 3
- Project 1, Quantifying Safety Performance of Driveways, is rolled into this manual



February 2013



Research Results

1. A manual to help quantify the expected benefits of various access management applications, with a focus on safety and operations
 2. Best practices for signalized intersections, un-signalized intersections, roundabouts and interchange areas
 3. Performance measures based on analysis of practical data for each category of intersection
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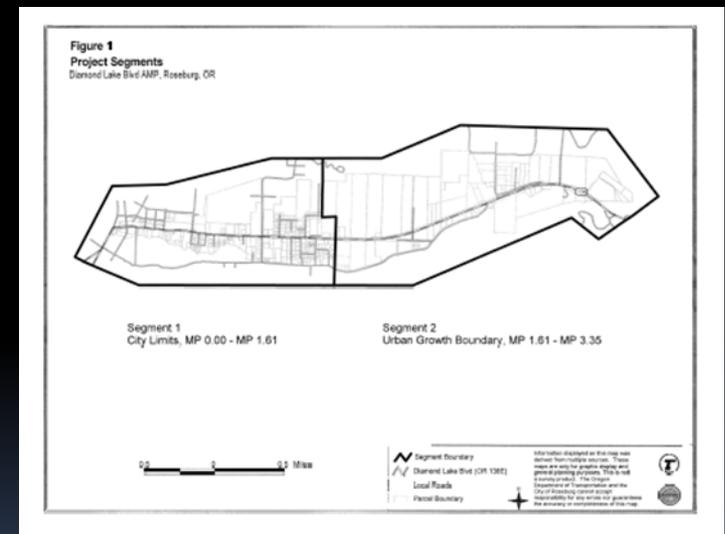
Relationship to SB 408

- Both projects 1 and 2 apply best to evaluating safety on highway sections and corridors, typical of transportation planning and project delivery
- SB 408 requires ODOT to collaborate with various stakeholders:
 - To develop principles and methods
 - for dealing with public and private approaches
 - in transportation planning and project delivery

The Question is:

How can we use the results of projects 1 and 2 to implement sections of SB 408 that require ODOT to:

- develop principles and methods
- for dealing with road approaches
- in planning and project delivery?



Relationship to SB 408

3. Effective Measures to Restrict Turning Movements

- SB 264 (2012) changed state law to say:

ODOT “may not impose non-traversable medians as a mitigation measure for approach permit applications unless the department first establishes that no other mitigation measures are effective or available under the circumstances”
- **Problem** - A need for objective data about other effective mitigation measures



Project 3 Started August 2013

- The research includes field observations, driver simulation and safety evaluation
- **The results will recommend:**
 - Alternative driveway treatments, other than just use of a non-traversable median, for various prevailing traffic conditions; and
 - Guidelines for their selection and application in Oregon



ODOT Research Unit Publications
on www.oregon.gov

http://www.oregon.gov/ODOT/TD/TP_RES/pages/researchreports.aspx



THE END