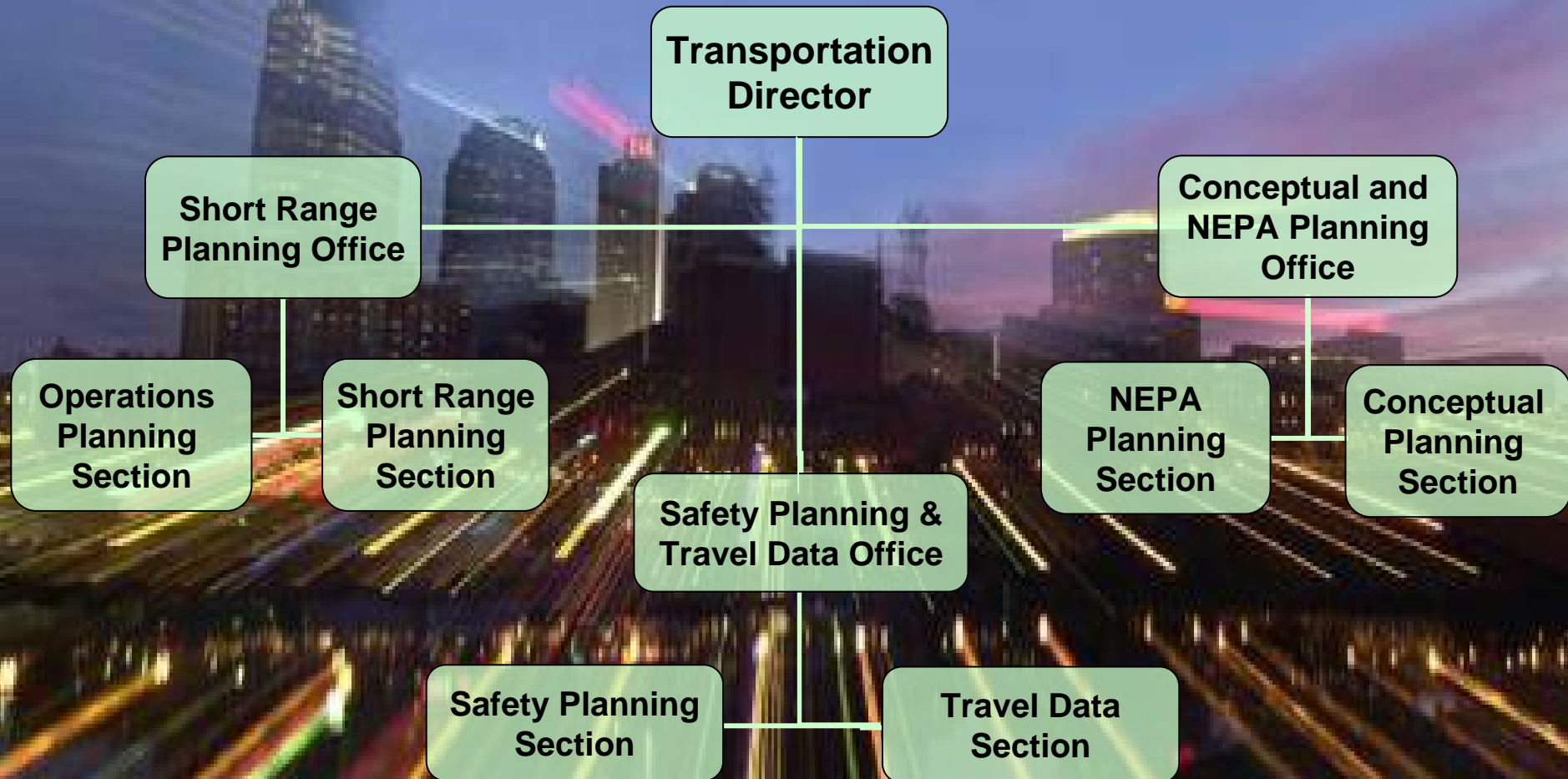




TDOT Project Planning RSAR Process

Project Planning Division





TDOT Initiates Road Safety Audit Review Program 2 miles ahead

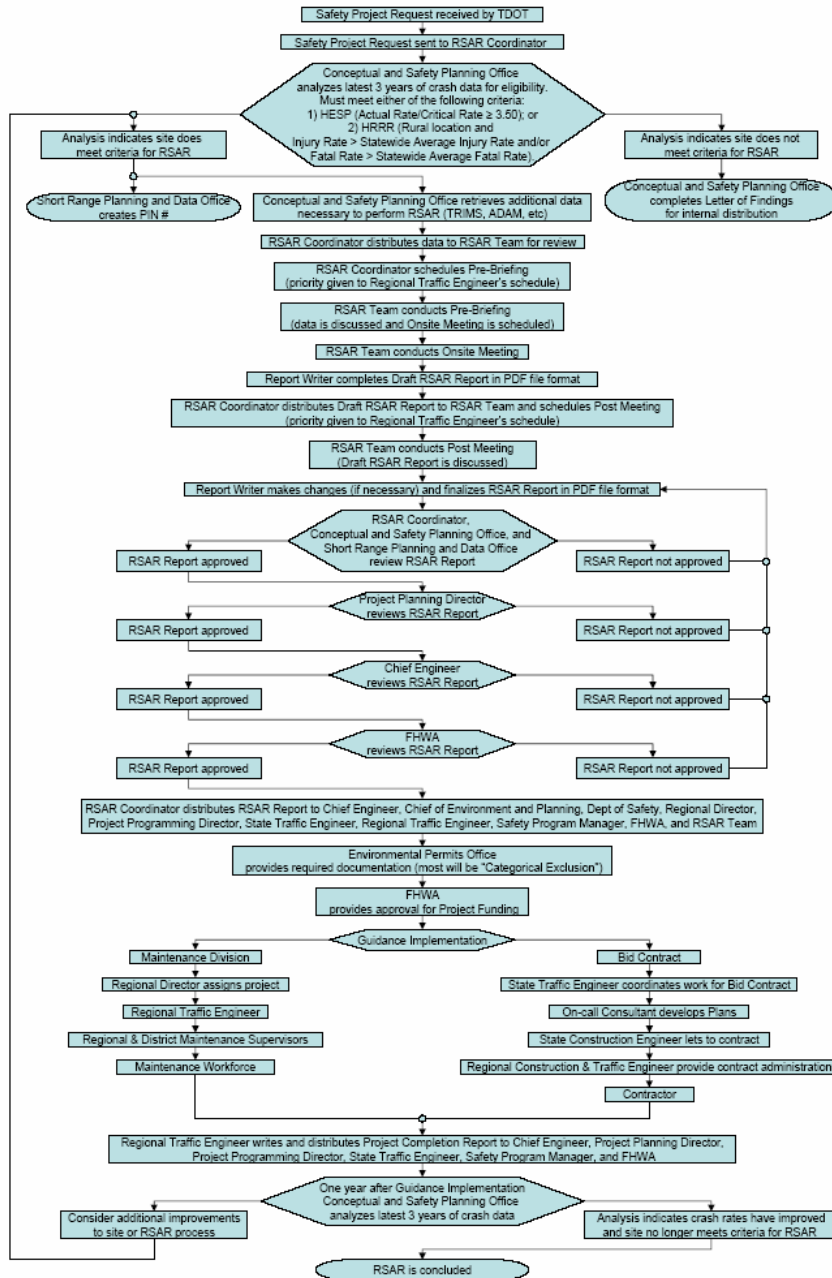
The passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), resulted in the Highway Safety Improvement Program (HSIP) to be elevated to a core program to achieve the significant reduction of roadway hazards. Additionally, it introduced a new set-aside provision known as High Risk Rural Roads Program (HRRRP). The purpose of the HSIP is to achieve significant reduction in traffic fatalities and serious injuries on public roads.

The Tennessee Department of Transportation (TDOT) has implemented a program called Road Safety Audit Review (RSAR). TDOT in conjunction with the Federal Highway Administration (FHWA) is addressing locations identified in the HSIP. The RSAR will study locations where work may be done to reduce injuries and fatalities with low-cost, quickly-implemented improvements.

Road Safety Audit Review is a multi disciplinary team approach. The team members consist of various disciplines from the Bureau of Engineering and the Bureau of Environment and Planning.



Road Safety Audit Review Flow Chart



Road Safety Audit Reviews (RSARs)

Goal:

Reduce injuries and fatalities with low-cost, quickly-implemented improvements.

What we review:

Existing road segments or intersections

Who is involved:

Multi-disciplinary team



RSARs

Multi-disciplinary Team: Skills

Core skill set (every audit):

- ◆ traffic operations
- ◆ geometric design
- ◆ road safety



RSARs

Multi-disciplinary Team: Skills

Supplementary skills (some audits):

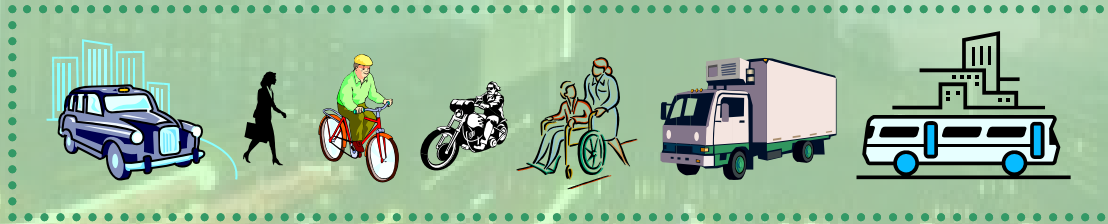
- ◆ positive guidance/human factors
- ◆ specialist skills (such as bridges or signing)
- ◆ law enforcement
- ◆ maintenance



RSARs

Also...

- ◆ considers the safety of all road users



- ◆ examines the interaction of project elements

RSARs Benefits

- ◆ Reduce the number and severity of crashes
- ◆ Promote awareness of safe practices
- ◆ Process to identify and address problems
- ◆ Considers human factors and multimodal issues
- ◆ Low cost



RSARs Procedure

- ◆ Safety Planning Section:
 - ◆ Data and other information are gathered
 - ◆ The data is analyzed
 - ◆ Sites along the project eligible for safety funding are identified
- ◆ Pre-briefing
- ◆ Onsite Visit
- ◆ Report written
- ◆ Post meeting
- ◆ Project Implementation



Site Qualifiers/Disqualifiers

Qualifiers:

- ◆ High-crash sites
- ◆ Injury crashes
- ◆ Crashes with fatalities



Disqualifiers:

- ◆ DUI crashes
- ◆ Crashes involving excessive speeding
- ◆ Police chases



Pre-Brief Meeting

- ◆ Familiarize with the project area
- ◆ Look over the data and other info
 - ◆ Collision history
 - ◆ traffic volumes
 - ◆ aerial photos
 - ◆ design drawing
 - ◆ background reports
- ◆ Especially, familiarize with the sites identified as eligible for funding
- ◆ Describe issues, challenges, & constraints.
- ◆ The team should decide and assign important roles such as Driver, Note Taker, Photographer, Report Writer, etc.



Onsite Visit

- ◆ Inspect the eligible sites
- ◆ Observe road user characteristics
- ◆ Observe surrounding land uses
- ◆ Focus on safety
- ◆ Consider all road users & environmental conditions (day, night, rain, fog, ice, etc.).
- ◆ Take plenty of legible notes and photos



Onsite Visit

- ◆ Drive the audit site several times
- ◆ Drive all approaches and make all turns
- ◆ Walk the audit site

Look for:

- ◆ sight distance obstructions
- ◆ roadside hazards
- ◆ driveway issues



Onsite Visit

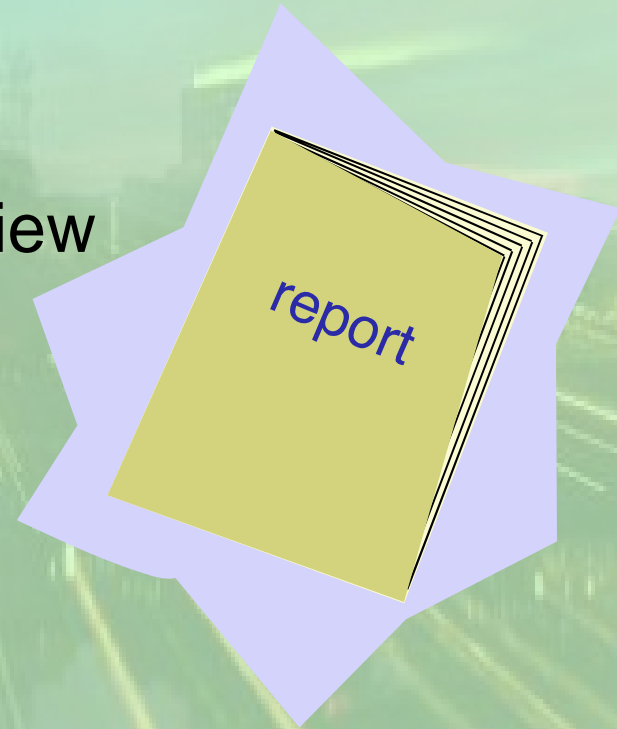
- ◆ Discuss and agree to the guidance to be provided in the RSAR Report.
- ◆ Clearly identify the improvements by location (log mile or monument) and number/quantity.
 - ✦ Example: Add 50 snowplowable markers along the centerline and 3 chevron signs to the curve from L.M. 5.41 to L.M. 5.51 (near Jones Market).

Chevrons



RSAR Report – Written regarding observations at eligible locations.

- ◆ Description of Project and Background
- ◆ Team members
- ◆ Assumptions (if any)
- ◆ Information used in the review
- ◆ Pre-Brief Summary
- ◆ Observations
- ◆ Guidance
- ◆ Map of eligible sites
- ◆ Cost estimate



Post Meeting

- ◆ Review the RSAR Report and Memo
- ◆ The RSAR Report and Memo are revised, if needed, and submitted.



RSAR Report – MPO

ROAD SAFETY AUDIT REPORT

STATE ROUTE 331 (Tazewell Pike)
KNOX County
 From L.M. 0.11 (Ramp from SR-33/Broadway)
 To L.M. 0.29 (McCamey Rd)
 PIN #107420.00



PREPARED BY
 TENNESSEE DEPARTMENT OF TRANSPORTATION
 PROJECT PLANNING DIVISION

Approved by:	Signature:	Date:
DIRECTOR Project Planning Division		8/

This document is covered by 23 USC § 409 and its production pursuant to fulfilling planning requirements does not waive the provisions of § 409.

Road Safety Audit Review

Knox County
 State Route 331 (Tazewell Pike)
 Begin: L.M. 0.11 (Ramp from SR-33/Broadway)
 End: L.M. 0.29 (C319 McCamey Rd)
 Date of Review: February 8, 2006

Description of Project and Background

This project involves an area of concern along SR-331 (Tazewell Pike) in Knox County that was brought to TDOT's attention by the Hazard Elimination Safety Program List. Consequently, staff were asked to evaluate this section of roadway to determine the need for appropriate safety measures.

Team Members

- Mark Geldmeier – Chief Traffic Engineer, City of Knoxville.
- Mike Conger – Senior Transportation Engineer, Knoxville TPO.
- James Norris – Transportation Engineer, Knoxville TPO.
- Herman Ledford – District Maintenance Superintendent, TDOT Maintenance District 15 Office (Knoxville).
- C.L. Tilley – Roadway Specialist Supervisor 1, TDOT Project Planning Division/Conceptual Planning Office (Nashville).
- Nathan Vatter – Operations Specialist 2, TDOT Region 1 Traffic Office (Knoxville).
- Erik Andersen – Roadway Specialist 2, TDOT Project Planning Division/Short Range Planning and Data Office (Nashville).

Information used in the Review

- Knox County general highway map.
- Aerial photograph.
- ADAM Coverage Count (Station 54).
- TRIMS Traffic Report.
- TRIMS Geometric Report.
- TRIMS Route Feature Description Listing.
- TRIMS Photolog.
- TRIMS Crash Data (Including 2001, 2002, 2003, and any available in 2004 and 2005).
- TRIMS Crash Rate Summary Report (Including 2001, 2002, 2003, and any available in 2004 and 2005).
- TRIMS Crash Summary Report (Including 2001, 2002, 2003, and any available in 2004 and 2005).
- Crash Reports (Reference # 8114704, 8460171, 7979802, 8459582, 8114067, 8679084, 8110828, 8465559, 8114780, 8119236, 8119970, 8451754, 8451766, 8459943, 8460258, 8460188, 8699502, 8681431, 8110901, 8118700, and 8459699).

- Crash Diagram.
- Onsite visit during the middle of Wednesday, February 8, 2006.

Pre-Briefing Summary

After analyzing the information, this finding was made:

- From L.M. 0.11 (Ramp from SR-33/Broadway) to L.M. 0.29 (C319 McCamey Rd) is eligible for Hazard Elimination Safety Program funds because the crash ratio (actual crash rate divided by critical crash rate) is 5.64, which is greater than 3.50 (the minimum threshold).

Observations

During the onsite visit, these observations were made:

- The roadway has:
 - One (1) northbound lane;
 - One (1) northbound acceleration/deceleration lane that begins at L.M. 0.11 (Ramp from SR-33/Broadway), changes into a Right Turn Only lane, and ends at L.M. 0.23 (Forestral Dr); and
 - One (1) southbound lane.
- The speed limit is 40 mph in both directions (posted at L.M. 0.13 for northbound traffic and L.M. 0.34 for southbound traffic).
- There are four (4) unsignalized intersections within the project area:

Log Mile	Intersecting Street	Right or Left
0.18	C320 Baum Rd	Right
0.23	C313 Forestral Dr	Right
0.24	C332 Cole Rd	Left
0.29	C319 McCamey Rd	Right

- Both sides of the roadway have retail/commercial development with many private drives.

RSAR Report – MPO



Photo 1. TRIMS Image looking northbound where the Ramp from SR-33/Broadway enters at L.M. 0.11.



Photo 2. TRIMS Image looking northbound at the Baum Rd intersection at L.M. 0.18 (right).



Photo 3. TRIMS Image looking northbound at the Forestal Dr intersection at L.M. 0.23 (right) and the Colle Rd intersection at L.M. 0.24 (left).



Photo 4. TRIMS Image looking northbound at the McCamey Rd intersection at L.M. 0.29 (right).

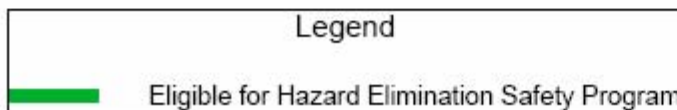
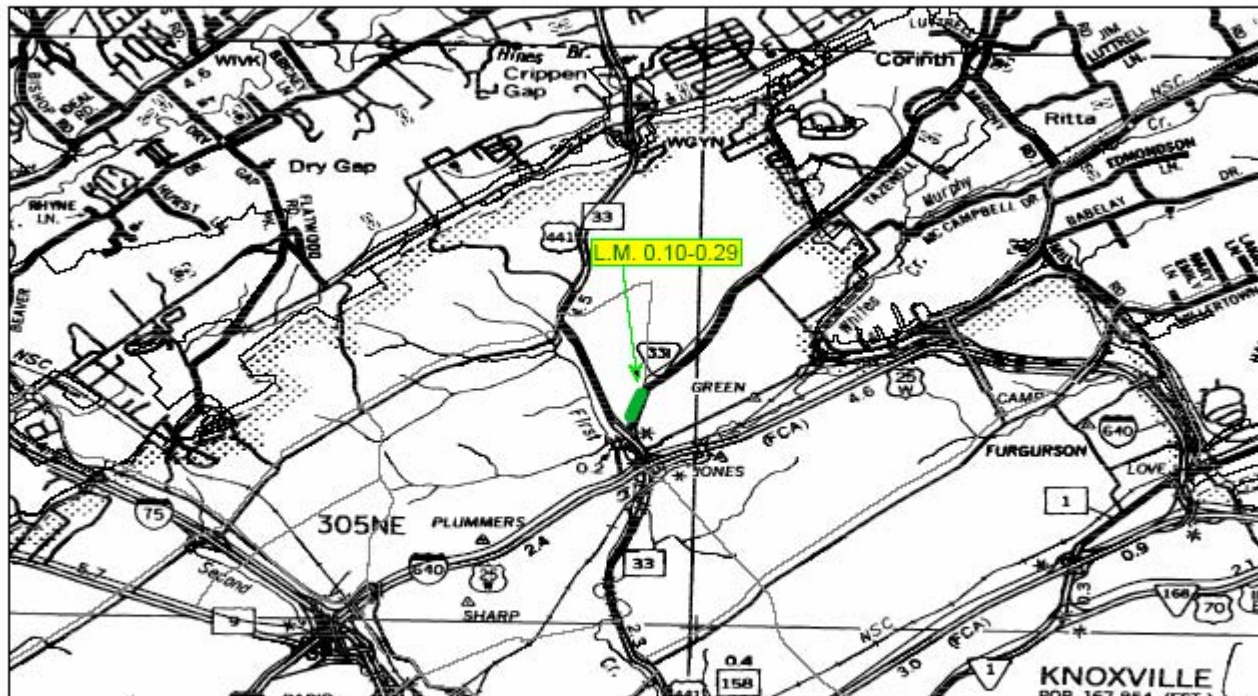
Guidance

A bid contract will be let to implement all the improvements. The following guidance is provided:

- 1) Add a two-way center turn lane. Widen on the western side of the existing roadway to minimize impacts to property owners.
- 2) Relocate the driveway to the strip mall on the western side of the existing roadway (L.M. 0.12, near Suntrust Bank sign) approximately 200 feet to the south (L.M. 0.06). This is to discourage drivers on the SR-33/Broadway off-ramp from making left turns to the driveway. There are two existing driveways that allow access to the strip mall from SR-33/Broadway.

RSAR Report – MPO

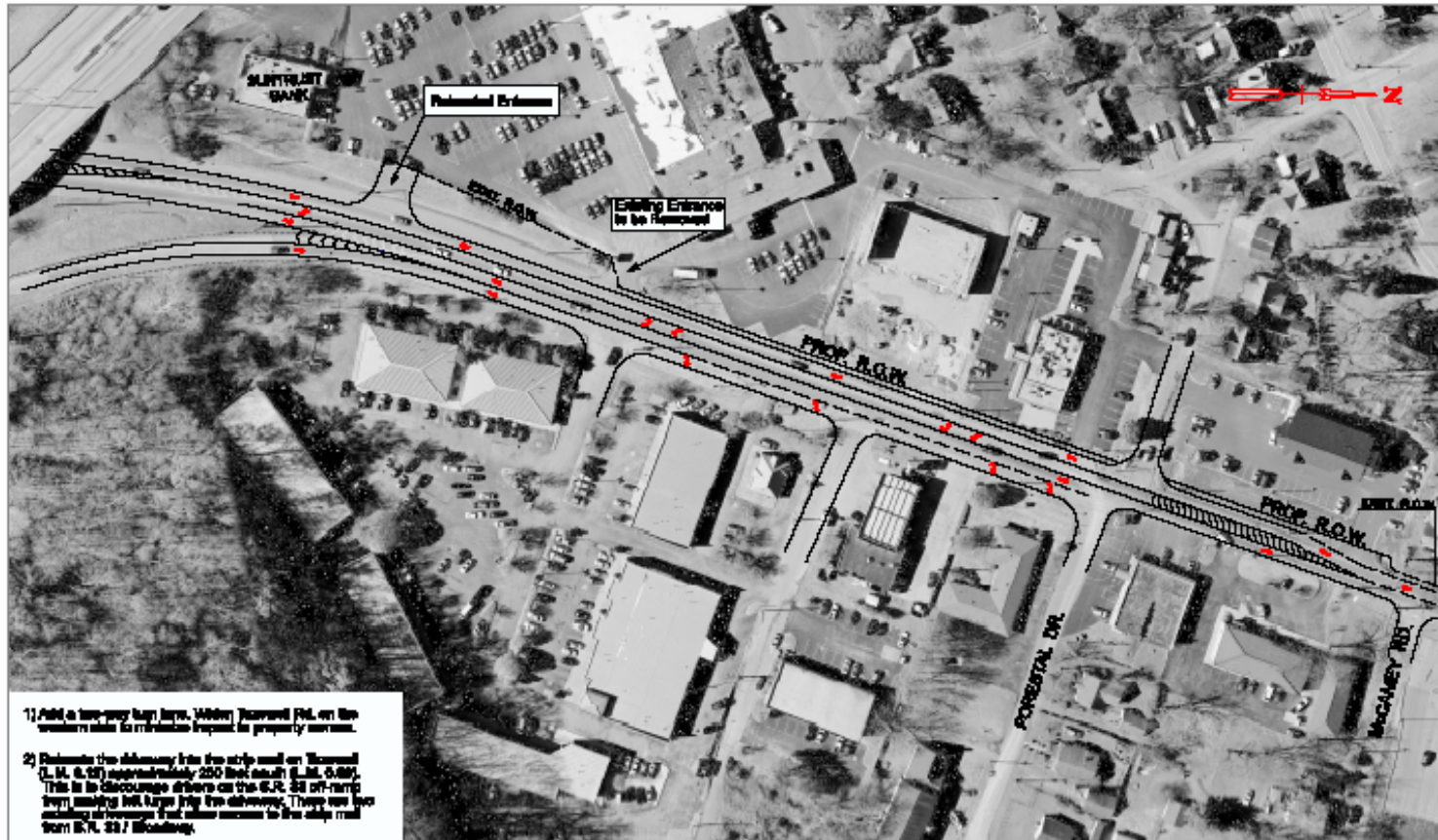
RSAR - State Route 331 in Knox County



RSAR Report – MPO

RSAR - Site #1: S.R. 331 (Tazewell Pike) KNOX COUNTY

From L.M. 0.11 (Ramp from S.R. 33/ Broadway) to L.M. 0.29 (McCarney Rd.)



0 100' 200'

USA 06/23/08

RSAR Report – MPO

Route: State Route 33 (U.S. 441)
 Description: From I-640
To Forrestal Drive
 County: Knox
 Length: 0.1± miles
 Date: 6/19/2006

CLEAR AND GRUBBING	\$	2,000
EARTHWORK	\$	20,000
PAVEMENT REMOVAL	\$	5,000
DRAINAGE	\$	40,000
STRUCTURES	\$	N/A
RAILROAD CROSSING OR SEPARATION	\$	N/A
PAVING (Includes C & G)	\$	150,000
RETAINING WALLS	\$	N/A
MAINTENANCE OF TRAFFIC	\$	15,000
TOPSOIL	\$	1,000
SEEDING	\$	1,000
SODDING	\$	3,000
SIGNING	\$	5,000
LIGHTING	\$	N/A
SIGNALIZATION	\$	N/A
FENCE	\$	N/A
GUARDRAIL	\$	N/A
RIP RAP OR SLOPE PROTECTION	\$	N/A
OTHER CONST. ITEMS (8.5%)	\$	23,000
MOBILIZATION	\$	15,000
CONSTRUCTION COST	\$	280,000
10% ENG. & CONT.	\$	30,000
TOTAL CONSTRUCTION COST	\$	310,000
10% PRELIMINARY ENGINEERING	\$	30,000
TOTAL COST	\$	340,000

Prepared by Functional Design Office

Route: SR-331 (Tazewell Pike)
 County: Knox County
 Description: Begin: L.M. 0.11 (Ramp from SR-33/Broadway)
End: L.M. 0.29 (C319 McCamey Rd)
 Date: 7/5/2006

Construction cost.	\$	340,000
Right-of-Way cost.	\$	160,000
Utility cost.	\$	200,000
TOTAL PROJECT COST	\$	700,000

Prepared by Project Planning Division
 Estimated prices based on TDOT 2005 Average Unit Bid Prices

RSAR Report – RPO

ROAD SAFETY AUDIT REPORT

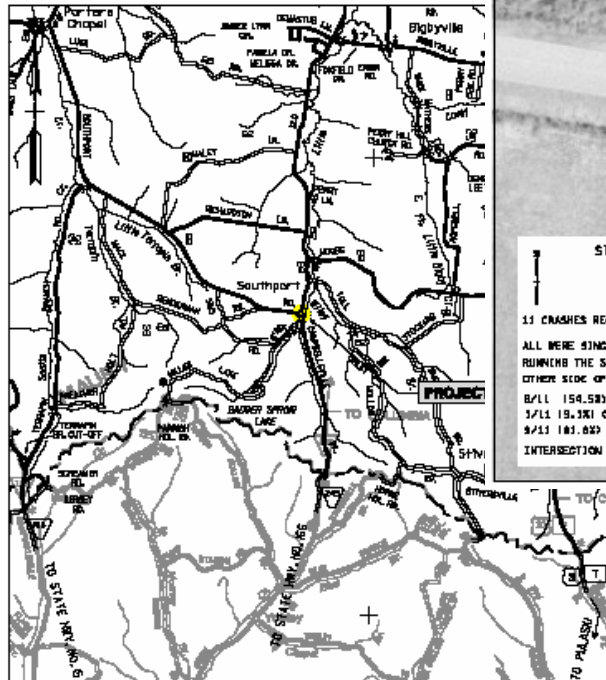
STATE ROUTE 245
AT INTERSECTION OF SOUTHPORT ROAD
MAURY COUNTY
PIN # 107870.00



PREPARED BY
CLINARD ENGINEERING ASSOCIATES, LLC
FOR THE TENNESSEE DEPARTMENT OF TRANSPORTATION
PROJECT PLANNING DIVISION

Approved by:	Signature:	Date:
DIRECTOR Project Planning Division		7-14-06

This document is covered by 23 USC § 409 and its production pursuant to fulfilling public planning requirements does not waive the provisions of § 409.



LOCATION MAP

STATE ROUTE 245 L.M. 2.13
INTERSECTION @ SOUTHPORT ROAD
MAURY COUNTY



STATE ROUTE 245 AND SOUTHPORT ROAD MAURY COUNTY 1"=50'

11 CRASHES RECORDED FROM BEGINNING OF 2003 TO END OF 2003.
ALL WERE SINGLE VEHICLE CRASHES INVOLVING EASTBOUND DRIVERS
RUNNING THE STOP SIGN AT SOUTHPORT ROAD AND CRASHING ON THE
OTHER SIDE OF THE INTERSECTION.
8/11 154.583 OF THE CRASHES INVOLVED INJURIES
5/11 19.3X1 OF THE CRASHES INVOLVED A FATALITY
9/11 181.823 OF THE CRASHES OCCURRED AT NIGHT
INTERSECTION CRASH RATE - 7.82 CRITICAL CRASH RATE - 1.37

RSAR Report – RPO

Road Safely Audit Review
State Route 245 (LM 2.13)
Intersection of Southport Road
Maury County



Road Safely Audit Review
State Route 245 (LM 2.13)
Intersection of Southport Road
Maury County

Road Safely Audit Review
State Route 245 (LM 2.13)
Intersection of Southport Road
Maury County

Description of Project and Background

This project involves an area of concern at the intersection of State Route 245 (Campbellsville Pike) and Southport Road in Maury County that was brought to the department's attention by a review of crash records. Consequently, Cilnard Engineering Associates, LLC was asked to evaluate this intersection to determine the need for appropriate safety measures.

State Route 245 at this location is a two-lane highway with eleven (11) foot travel lanes and two (2) foot shoulders within an existing sixty (60) foot right-of-way. Based upon ADT counts performed by TDOT in 2005, approximately 1,070 vehicles per day traveled along SR-245 near this intersection. Southport Road at this location is a two-lane local road with eleven (11) foot travel lanes and one (1) foot shoulders. Based upon ADT counts performed by TDOT in 2005, approximately 470 vehicles per day traveled along Southport Road. State Route 245 and Southport Road intersect to form a T intersection at State Route 245 at approximately Log Mile 2.13.

See attached for Project Location photographs.

Information Used in this Review

- Maury County General Highway Map
- TRIMS Traffic Report
- TRIMS Geometric Report
- TRIMS Route Feature Description Listing
- TRIMS Photolog
- TRIMS Crash Data
- TRIMS Crash Rate Report (for crashes occurring 2001-2003)
- Additional Crash Reports from 2004 - 2005
- Site visits made by consultant
- Field Review held June 9, 2006

- Intersection Crash Rate: 7.82
- Critical Crash Rate: 1.37

The crash ratio (actual crash rate divided by the critical crash rate) is 5.72, which exceeds the minimum value of 3.50 required to make this intersection eligible for Hazard Elimination Safety Program (HESP) funds. Of the eleven crashes that occurred during this time period:

- 2/11 (18.2%) occurred in 2001
- 2/11 (18.2%) occurred in 2002
- 7/11 (63.6%) occurred in 2003
- 9/11 (81.8%) occurred at night
- 6/11 (54.5%) involved injuries
- 1/11 (9.1%) involved a fatality

Crash Data

A review of the available crash data shows eleven (11) crashes occur from the beginning of 2001 to the end of 2003. All were single vehicle bound drivers running the stop sign at Southport Road and crashing into the intersection.

A review of available crash records after 2003 indicated that one crash has occurred at this location since the start of 2004. This crash occurred in a manner consistent with the other crashes.

RSAR Pre-Meeting

A pre-meeting was held at TDOT Headquarters on June 6, 2006 to discuss this project. The following is a list of attendees:

- Tom Cilnard / Cilnard Engineering Associates
- Brady Griggs / Cilnard Engineering Associates
- Brian Gaffney / Cilnard Engineering Associates
- Cynthia Allen / TDOT Project Planning Division
- Chris Armstrong / TDOT Project Planning Division
- Marcie Nelson / TDOT Safety Planning Division
- Michelle Powell / TDOT Headquarters Traffic Office
- Eric Jackson / TDOT Headquarters Traffic Office
- Michelle Williams / South Central RPO Coordinator (by teleconference)
- Tasha Johnson / TDOT Region 3 Traffic (by teleconference)

At this meeting, the consultant discussed the crash history at this location and discussed possible measures to improve stop condition awareness and other safety improvements.

RSAR Field Review

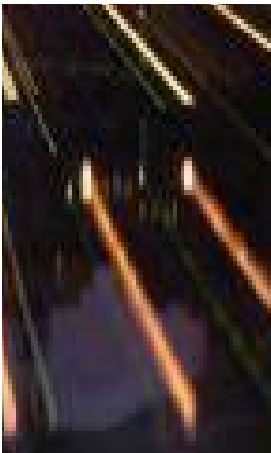
A field review was held at the project site on June 9, 2006. The following is a list of attendees:

- Tom Cilnard / Cilnard Engineering Associates
- Brady Griggs / Cilnard Engineering Associates
- Clay Fitzgerald / TDOT Region 3
- Glen Turner / TDOT Region 3
- Wayne Yocom / TDOT Region 3
- Larry Venable / TDOT Region 3
- Michelle Williams / SC West RPO
- Dudley E. Daniel / TDOT Conceptual Planning
- Tasha Johnson / TDOT Region 3 Traffic
- Michelle Powell / TDOT Headquarters Traffic Office
- Eric Jackson / TDOT Headquarters Traffic Office
- Chris Armstrong / TDOT Project Planning Division
- Joe Robinson / TDOT Region 3

Post-Field Review Improvements

TDOT District personnel began making immediate improvements to this location based on the findings of the field review. These improvements included:

- Installation of an intersection warning sign approaches
- Installation of a horizontal alignment sign approach
- Installation of four (4) stop ahead sign
- Replacement of stop sign (R1-1) on the northbound approach with an auxiliary double arrow sign (M6-4) under the stop sign.
- Clearing of right-of-way on the southbound approach
- Installation of a reflective yellow beacon
- Based upon all available evidence, the following guidance is provided at this location:
 - Intersection warning signs (W2-2) were installed on State Route 245 after the field review approximately 700' in advance of this intersection on both approaches, however current MUTCD guidelines recommend 175'. The sign on the southbound approach should be relocated to a point approximately 175' from the intersection. The sign on the northbound approach should be relocated to a point approximately 250' from the intersection. This extra distance on the northbound approach is necessary to accommodate the bridge located just south of the intersection on State Route 245.
 - Replace the recently upgraded stop sign on the east side of the intersection with a double arrow intersection warning sign (W1-7). The existing small arrow sign (M6-4) and State Route 245 marker sign should be removed.
 - Two State Route 245 route signs with auxiliary M5-1 and M5-1R directional arrow signs and with auxiliary M3-1 (NORTH) and M3-3 (SOUTH) signs should be installed on Southport Road approximately (but no less than) 300' from State Route 245 edge of traveled way.
 - A State Route 245 route sign and auxiliary M2-1 (JCT) sign should be installed on Southport Road, approximately (but no less than) 400' from State Route 245 edge of traveled way.
 - Remove the existing stop sign on the west side of the intersection and replace with two oversized stop signs (one on each side of eastbound approach) with high intensity sign facing. Signs should be placed approximately eight (8) feet from State Route 245 edge of traveled way.
 - A Reflective sleeve should be installed on the post of both proposed stop signs to increase visibility.
 - Install a stop bar on the eastbound approach, approximately eight (8) feet from State Route 245 edge of traveled way.
 - Install reflective delineators on the existing guardrail on the east side of the intersection.
 - Remove the existing stop ahead (W3-1) signs on Southport Road approximately 1700' from intersection and replace with two oversized stop ahead (W3-1) signs (one on each side of eastbound approach) with high intensity sign facing. Sign position should be relocated to approximately 175' from intersection. Existing W3-1 signs located on Southport Road approximately 500' from intersection should remain.
 - The words "STOP AHEAD" should be painted with reflective paint on the eastbound approach of Southport Road, approximately 175' from intersection.



The use of a flashing red/yellow beacon was considered at this location. It was the consensus of those at the field review that maintenance of the beacon would be difficult in such a rural location and that this measure would not be necessary in light of the other proposed improvements. Rumble strips were also considered on Southport Road in advance of the intersection but it was decided that this extra measure would not be warranted at this time.

RSAR Report – RPO

Project Photographs
Road Safety Audit Report
SR-245 (Campbellville Pike) at Southport Road
Maury County



Photograph 1

Views looking east along Southport Road, approximately 1700' from intersection, showing stop ahead signs (W3-1) which were added since the field review for this project.



Photograph 2

Views looking east along Southport Road, approximately 500' from intersection, showing stop ahead signs (W3-1). The sign on the left was added since the field review for this project.



Project Photographs
Road Safety Audit Report
SR-245 (Campbellville Pike) at Southport Road
Maury County

Photograph 7

View looking north along State Route 245, approximately 700' from intersection, showing W2-2 which was added since the field review for this project.



Photograph 8

View looking north along State Route 245 (Southport Road can be seen on the left).

Project Photographs
Road Safety Audit Report
SR-245 (Campbellville Pike) at Southport Road
Maury County



Photograph 11

View looking south at intersection

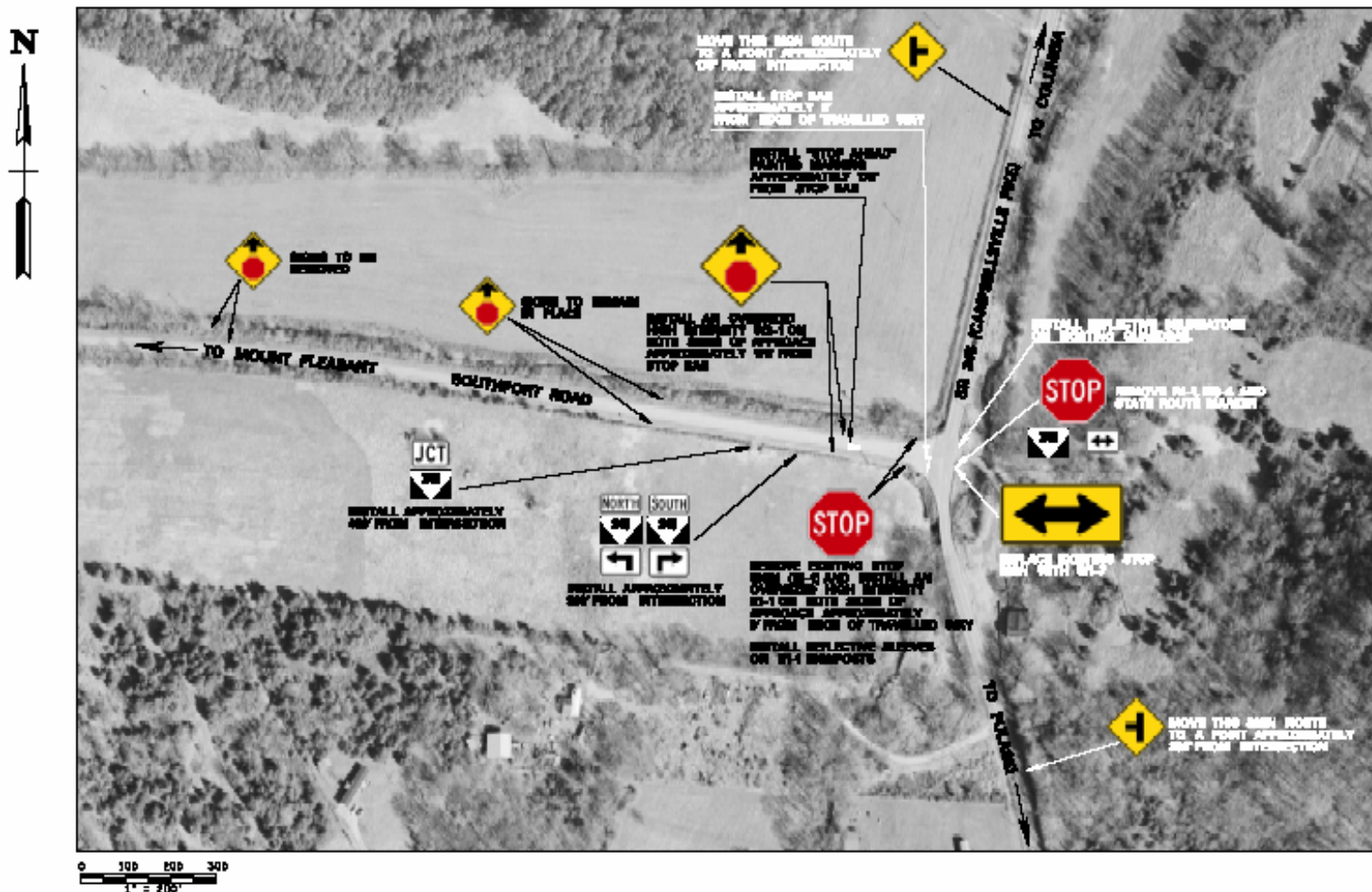


Photograph 12

View looking south at intersection.

RSAR Report – RPO

RSAR – STATE ROUTE 245 AND SOUTHPORT ROAD, MAURY COUNTY



RSAR Report – RPO

ROADWAY SAFETY AUDIT REPORT

ROUTE: State Route 245 (Campbellsville Pike)
 DESCRIPTION: Intersection of Southport Road (LM 2.13)
 COUNTY: Maury
 DATE: June 21, 2006

One (1) W1-7 Double Arrow Sign Including Posts	\$200
Three (3) State Route 245 route marker signs Including Posts	\$200
One (1) M5-1 and One (1) M5-1R directional arrow sign	\$100
One (1) M3-1 (NORTH) and One (1) M3-3 (SOUTH) sign	\$100
One (1) M2-1 (JCT) sign	\$50
Two (2) R1-1 Oversized High Intensity Stop Signs and Posts	\$400
Two (2) Reflective Sleeves for R1-1 Posts	\$100
Two (2) W3-1 Oversized High Intensity Stop Ahead Signs and Posts	\$400
One (1) Stop Bar on Southport Road	\$200
One (1) "Stop Ahead" Painted Marking	\$300
Thirty (30) Reflective Delineators	\$300
Sign Removal	\$200
Relocation of Two (2) W2-2 Intersection Ahead Signs	\$100
8.5% OTHER CONSTRUCTION ITEMS	\$220
MOBILIZATION	\$2,000
10% ENGINEERING & CONTINGENCIES	\$500
TOTAL CONSTRUCTION COST	\$5,400
INFLATION 4% X 1 YR = 4%	\$0
TOTAL COST	\$5,400

Crash Rate Calculation

County: Maury City: near Columbia Date: 6/21/2006
 Intersection of: State Route 245 and Southport Road
 Crash History Start Date: 1/1/2001 TO 12/31/2003

number of Crashes =	11	ADT 1 =	1,313
number of years =	3.0	ADT 2 =	783
Number of Fatal Crashes =	1	ADT 3 =	472
Number of Injury Crashes =	5	ADT 4 =	0
Statewide Average Rate =		0.18	

Exposure Rate= 1.40

Average Crash Rate= 7.83

Critical Crash Rate= 1.37

Statewide Average Rate= 0.18

Severity Index= 0.64

Ratio= 5.72

RSAR Notice to Proceed



NOTICE TO PROCEED/COMPLETION NOTICE

Attention: Winston Gaffron, Director Region 3

The following work has been identified by the Chief Engineer to be performed by state maintenance forces. This "Notice to Proceed" authorizes the Region to begin work. Attached is a copy of the Road Safety Audit Report (RSAR) for your use. When complete, please sign and return a copy to all recipients listed below.

Also, any required field deviation from the RSAR guidance must be documented and returned with this completion notice. You are not authorized to exceed programmed funding without approval by the Chief Engineer.

Date: November 13, 2006 Region: 3

County: Maury PIN No: 107070.00

Project No: HSIF-245 (5) Preliminary Engineering No.: _____

Site No: _____ Construction No.: 60018-3212-04 35,400.00

Location: SR245, (Cannabellville Pike) at Southeast Road LM 2.13

Work to be Performed: Sign removal and relocation, signage, pavement markings and delineation

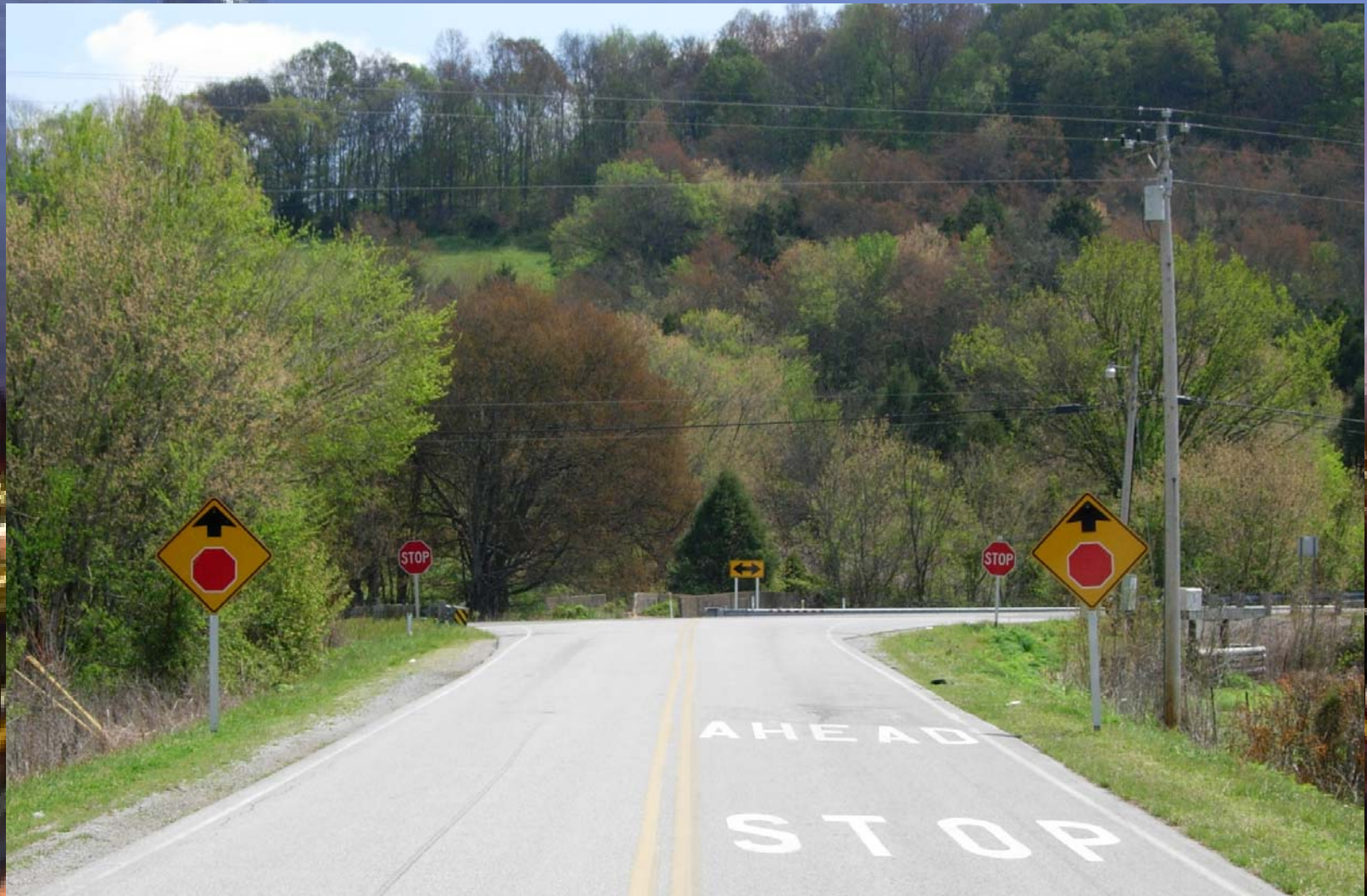
Installation

Date Completed: _____

Noted: _____

cc: Paul Digges, Chief Engineer
Mike Tugwell, State Traffic Engineer
Ronda Porter, Project Programming
Cynthia Allen, Project Planning
Gary Ogleson, Safety Plan Manager

RSAR Guidance Completed



Reevaluation

- ◆ Every year for a period of 3 years.
- ◆ Begins 1 year after improvements implemented.
- ◆ Improved sites will be reevaluated to improve the RSAR process.

Common Issues and Challenges



- ◆ responsibilities
- ◆ programming and scheduling
- ◆ effects on project cost
- ◆ legal liability
- ◆ management of expectations
- ◆ resources and references



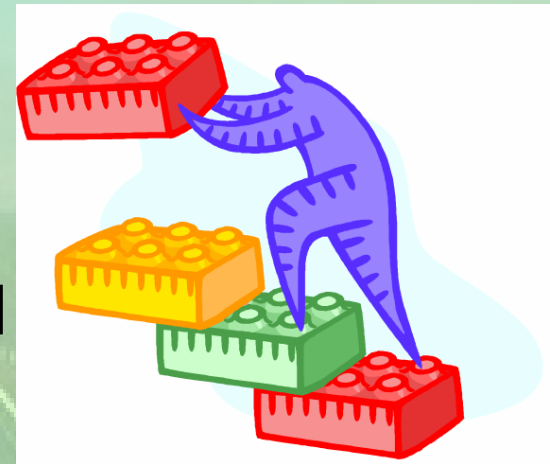
RSAR Responsibilities

- ◆ Commit to safety and the RSAR process.
- ◆ Commit resource (time, funding, and staff).
- ◆ Select a qualified RSAR team.
- ◆ Provide required information.



Potential RSAR Sites

- ◆ Technical Committee identify specific locations
- ◆ Do Preliminary Needs Assessment (Crash Rates)
- ◆ Actual assessment conducted to identify potential safety funding



A city skyline at dusk with light trails from traffic on a highway in the foreground. The text 'Thank You!' is written in a large, bold, yellow font with a white outline, slanted to the right. The background shows a city with tall buildings and a highway with many lanes of traffic, with light trails from cars and streetlights creating a sense of motion.

Thank You!

Are There Any Questions?