

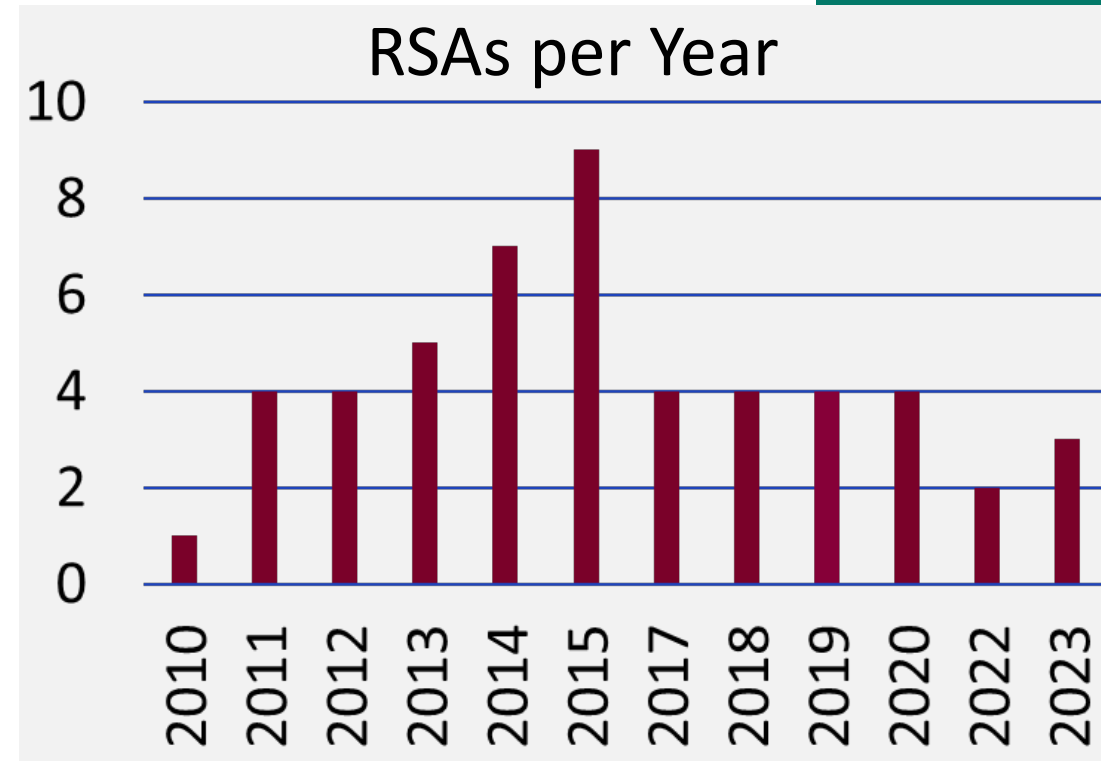


Road Safety Audit 101

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RSAs Since 2010

- 10 of the 15 subregions conducted RSAs
- 50 RSAs total in 13 years
- 70 miles of corridors
- Nearly 9,000 crashes
- Result: \$127+M spent on 32 Local Safety Projects



RSA Purpose

Formal safety performance examination by an independent, multidisciplinary audit team that identifies safety improvement opportunities for all road users.

Benefits

- Pro-actively address safety; reduce crashes
- Identify low-cost/high-value improvements
- Promote “safety culture”
- Contribute feedback on safety issues

Not meant to replace

- Design quality control
- Standard compliance
- Traffic or safety impact studies
- Safety conscious planning
- Inventory programs
- Traffic modeling efforts

FHWA PROVEN SAFETY COUNTERMEASURE



Safety Benefits:

10-60%

reduction in total crashes.¹

RSA Process

Responsibilities:

1
Identify Project



3
Conduct Startup Meeting



5
Debrief Observations



7
Prepare Formal Response



2
Select RSA Team



4
Perform Field Reviews



6
Present Findings



8
Incorporate Findings



Steps 1-2 & 7-8: Design Team/Road Owner

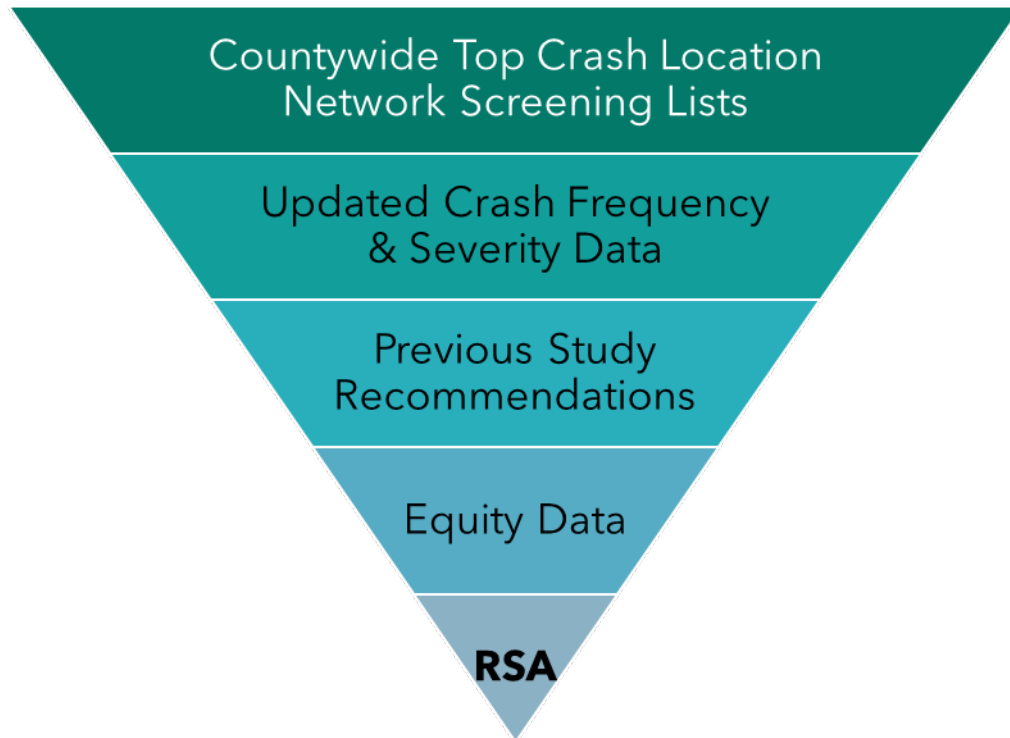
Steps 3-6: RSA Team

RSA Steps

- *Insight from police officers is valuable*
- *Talk to residents where appropriate*
- *1-mile segments work best*



1. Identify Project



2. Select RSA Team

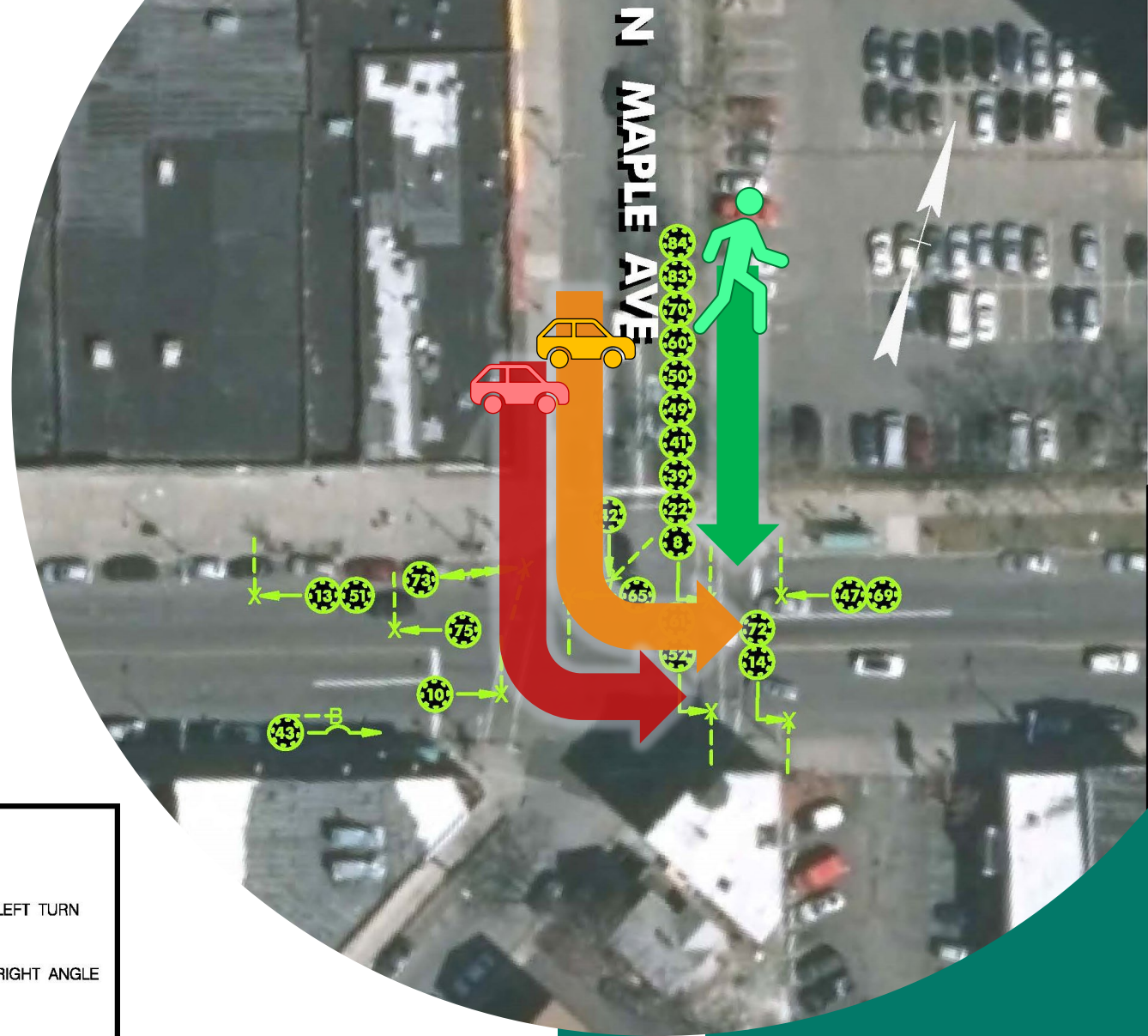
- Independent, multidisciplinary, qualified experts
- Combined skills to address critical project aspects
- Various agencies/stakeholders
- No specified group size

RSA Steps



3. Conduct Startup Meeting

- Pre-Audit
- Review project location
- Review crash and traffic data
- Present FHWA Proven Safety Countermeasures
- Field visit rules



SYMBOLS		TYPES OF CRASHES	
	MOVING VEHICLE		REAR END
	BACKING VEHICLE		HEAD ON
	NON-INVOLVED VEHICLE		SIDE SWIPE
	PEDESTRIAN		OUT OF CONTROL
	BICYCLIST		OVERTURNED
	PROPERTY DAMAGE ONLY CRASH		LEFT TURN
	INJURY IN CRASH		RIGHT ANGLE
	FATAL CRASH		STRUCK PARKED VEHICLE
	FIXED OBJECT		
	NON-FIXED OBJECT		
	ANIMAL		
	POTHOLE		

DATA FOCUS: CRASH DATASET

RSA Steps



*What elements of the road may present a safety concern?
What opportunities exist to eliminate or mitigate identified safety concerns?*



4. Perform Field Reviews

Verify identified issues

Observe operations

Note other safety concerns

Document findings



Must wear safety vests



Field Checklist

General Issues

Intersections

Pedestrian/Bicyclists

Transit

Traffic Signals

Signage, Striping, Lighting

Alignment / Cross Section

Field Checklist - General

Encroachment



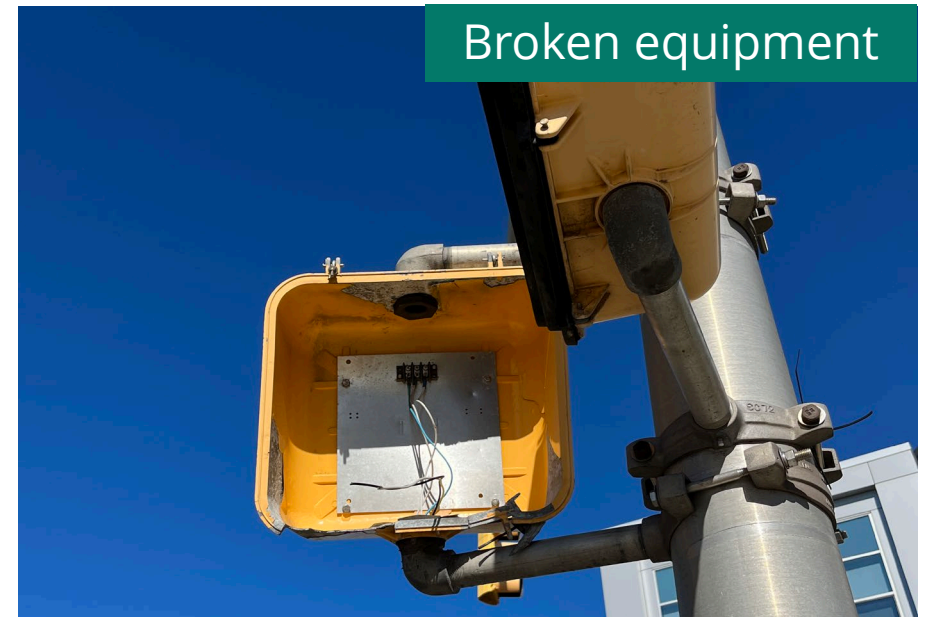
Utility obstructions



Item	Looking for
Visibility	<ul style="list-style-type: none">• Sight distances given roadway speed• Utilities blocking views
Drainage	Adequate and free of debris
Operations	<ul style="list-style-type: none">• Access management• Alignment and lane use
Lighting	<ul style="list-style-type: none">• Adequate• Good condition
Signs	<ul style="list-style-type: none">• Properly positioned• Conspicuous• Not too cluttered
Pavement markings	Visible and effective

Field Checklist - Intersections

Item	Looking for
Crosswalks	<ul style="list-style-type: none">• Sited along desire lines• Spaced adequately• ADA compliant• Signed and/or marked
Geometry	<ul style="list-style-type: none">• Proper lane alignment
Operations	<ul style="list-style-type: none">• Signal timing• Turning movements & queueing• Parking at/in intersection
Equipment	<ul style="list-style-type: none">• Good condition / working• Head size (8" v. 12")• Pedestrian heads• Pedestrian push buttons



Field Checklist – Ped, Cyclist, Buses

Facility use/modal interaction



Poor sidewalk condition



Item	Looking for
Potential to add safety features	<ul style="list-style-type: none"> • Ped refuge island • Curb extensions • Bike lanes
Sidewalk	<ul style="list-style-type: none"> • Adequately wide • Smooth and level • Free of obstructions
Bus stops	<ul style="list-style-type: none"> • Safe and convenient crossing nearby • Near side vs. far side • Signage • Facilities (lighting, shelter etc.)
Operations	Observations of modal interactions

RSA Steps



All suggestions from field visit incorporated into report



5. Debrief Observations

Post-Audit
Discussion of
field visit



6. Present Findings

Draft RSA Report
Background
Issues & Observations
Recommendations
Visualizations



7. Prepare Formal Response

Preliminary Final
Report
Road Owner
Response



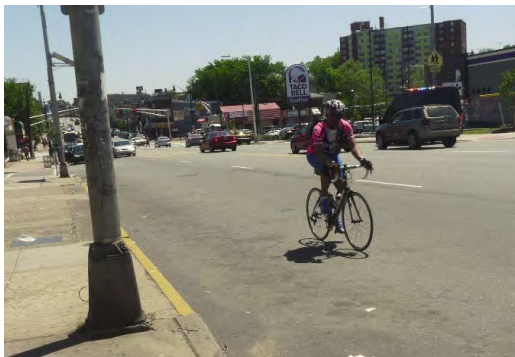
8. Incorporate Findings

Final RSA Report

Report Components

Background Identified Issues & Observations

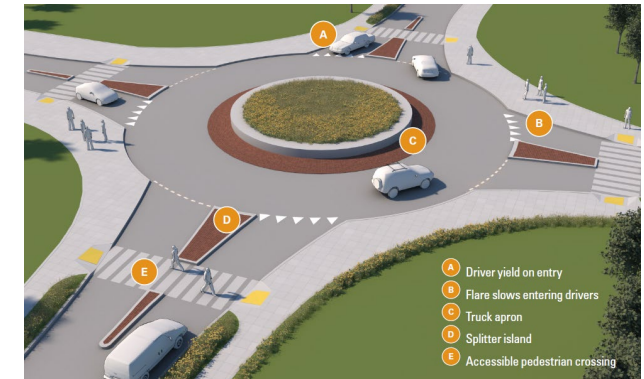
- Corridor description / analysis
- Crash findings and diagrams
- Photographs
- Reference documents (traffic data, studies, other plans)
- Road owner response



Use HSM / CMF Clearinghouse to estimate safety benefits



Recommendations Visualizations



✓	Safety benefit potential
\$	Cost magnitude
🕒	Timeframe

Then What? – Build it!

Washington Avenue Local Safety Project

- Construct missing sidewalk sections
- Bus stop improvements
- High Intensity Activated crossWalk (HAWK)
- Cost \$4.2M
- Completed July 2019



Talk to your MPO about funding opportunities!





RSAs Intrinsically About People

- In-person observations
- In-person discussions
- Multidisciplinary input and perspectives
- All about the experience
- Can lead to meaningful safety improvements



Thank you

Defining the Vision. Shaping the Future.



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