Telling the Story of Safety – Tribal Reservation Transportation

Road Safety Audits and Their Role In That Story

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Agenda

• The Story
• RSA Definition
• Steps in the RSA Process
• Lummi RSA Example
• Lummi RSA Outcomes
• Resources
The rate of Native American People dying in a crash is **5 times more likely** when the driver was speeding.

The rate of Native American People dying as a pedestrian is **5 times higher**.

The rate of Native American People dying in a traffic crash because a driver is impaired **5 times higher**.

The rate of Native American People dying in a crash is **7 times more likely** when they aren’t using their seat belts.
Transportation Safety Plan Typically Focuses on Road Environment Factors

- Human Factors
- Vehicle Factors
- Road Environment Factors
Transportation Safety Plan Should Look at the Data and Relationships of all 3 Factors

- Human Factors
- Road Environment Factors
- Vehicle Factors
What the Data tells us of Traffic Crashes

TYPICAL REPORTED CRASH CAUSES—According to FHWA
Road Safety Audit
A formal and independent safety performance review of a road project by an independent, multidisciplinary, experienced team of safety professionals, addressing the safety of all road users.

Transportation Safety Plan
A data-driven plan developed by a multi-disciplinary team to improve safety on the entire road network by prioritizing the activities implemented by a government and communicating these priorities with safety partners.
Road Safety Audit (RSA) Key Points

**Road Project**

- **Formal**: Procedures & Documentation
- **Independent**: Auditors Detached from Road Agency & Design Team, No Bias
- **Safety Performance**: Focus on Substantive Safety
- **Experienced Team**: Audit work is based on experience and knowledge
- **All Road Users**: All relevant human travel modes are considered
The Goal of All RSA’s

“Hands down, is making your road safer”
- Craig Allred, FHWA
RSA’s 8 Steps

1. Identify project
2. Select RSA team
3. Conduct Kick-off meeting
4. Perform data & field reviews
5. Conduct analysis and prepare report
6. Present findings to Project Owner
7. Prepare formal response
8. Incorporate findings

Responsibilities
RSA Team
Project Owner
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Identify project

Select RSA team

Conduct Kick-off meeting

Conduct analysis and prepare report

Perform data & field reviews

Present findings to Project Owner

Prepare formal response

Incorporate findings
Lummi RSA and Training

- Held March 1-3, 2016 at Lummi Nation
- Included a training for other Tribes
- Sponsored by Northwest TTAP
- Conducted by Adam Larsen and Craig Allred, FHWA
- 2 locations analyzed
RSA Team

- FHWA Resource Center and Tribal Transportation Staff
- Planner and engineers from other Tribal Nations
- Lummi Transportation Planners
- Lummi Law Enforcement
Step 6: Present Findings to Project Owner

- What’s working
- Issues
- Crash experience
- Low cost/short term countermeasures
- Mid-term recommendations
- Long term recommendations
Slater Rd. & Haxton Way - Example
Slater Rd. & Haxton Way - Example

What’s Working

• Ped accommodations at intersection
• Lighting
• Good pavement
• Condition of pavement marking
• Adequate for most circumstances
Slater Rd. & Haxton Way - Example

**Issues**

- Mixed users, many unfamiliar drivers use this intersection (local / non-local)
- High number of older drivers
- Major traffic generators: convenience store, gas station, casino/hotel, ferry, and main reservation access
- Wayfinding to I-5
- Commercial use of Slater, large trucks for oil industry
Slater Rd. & Haxton Way - Example

**Issues**

- Permissive left turns, WB to SB
- Sun glare could impair visibility of EB or WB signal or oncoming vehicles
- Fog is frequent
- EB to SB right turning vehicle may obscure other EB vehicles
- Posted speed on Slater (50mph) compared to Haxton Way (35mph)
Slater Rd. & Haxton Way - Example

Crash Experience
• At least 12 high severity angle crashes WB to SB

• Crashes and near-collisions with NB right turns

• Ten years crash data:
  • 13+ Serious Crashes
  • 16+ PDO Crashes
  • 3 Deaths
  • 2 Deaths Recently not in crash data yet
Slater Rd. & Haxton Way - Example

- **Long Term Recommendation**
  - Roundabouts reduce:
    - crash severity
    - frequency
    - maintenance costs
- Potential gateway to Reservation
- Eliminates last signal in county
LOW Cost /SHORT Term Countermeasures

- Add protected left turn phase for WB to SB
- Add protected NB right turn arrow (same time as WB left turn phase)
- Add EB acceleration lane for NB right turns or prohibit NB right turns on red
- Continue 45mph zone EB until east of Haxton
- Over-sized, retroreflective back plates
- Upgrade to 12-inch signal heads
- Upgrade to LED signal heads
Final Steps

Step 6 – Prepare Formal Audit Report
- Audit Report written by Northwest TTAP

Step 7 – Response to RSA

Step 8 – Incorporate Findings
- Working with County on stripping
- We have new traffic lights on our Tribal-TIP and County TIP
Benefits of an RSA - Part of the Story

• Ideas that improves Road Environment Factors
  ▫ Low cost and Short Term Countermeasures
  ▫ Long Term Recommendations

• A True Collaborative Approach
  ▫ Engineers
  ▫ Designers
  ▫ Planners
  ▫ Law Enforcement
  ▫ Emergency Medical Services
  ▫ Maintenance

• Communication and Networking
We asked citizens all across Washington State these questions...
Think an RSA could help your Tribe?

- Identify a champion at your Tribe
- Review the available resources (see next slides)
- Ask for assistance
  - Tribal Technical Assistance Program
  - FHWA Tribal Program and Resource Center
  - National Center for Rural Road Safety (Safety Center)
- Get Tribal leaders on board
- Start with Step 1: Identify Project
Resources

• RSA Toolkit for FLMA’s and Tribal Governments
  http://safety.fhwa.dot.gov/rsa/resources/toolkitflh/
• Tribal RSA’s 2009 Case Studies
  http://safety.fhwa.dot.gov/rsa/resources/casestudiesflh/
• Tribal RSA’s 2008 Case Studies
  http://safety.fhwa.dot.gov/rsa/tribal_rsa_studies/
• Other FHWA RSA Resources
  http://safety.fhwa.dot.gov/rsa/resources/
• FHWA RSA Videos
  https://www.youtube.com/watch?v=ObMD_xaSTIQ and
  https://www.youtube.com/watch?v=zWeYddkLymk
Resources (cont.)

- Tribal Safety Website
  http://www.tribalsafety.org/
- Find your local Tribal Transportation Assistance Program (TTAP)
  http://nltapa.org/regions/ttaps
- Safety Center Tribal RSA Training Videos
  (Coming Soon)
  https://ruralsafetycenter.org/about-our-center/contact-us/
Questions???

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