Local Road Safety Plans

California
Local Road Safety Plan Webinars
September 9 and 11, 2019

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FHWA Safety & Design Team
Today’s Talking Points

• Overview of Local Road Safety Plans (LRSP)
• FHWA/ NACE LRSP Pilot Program
• LRSP Examples, Resources & Opportunities
Local Road Safety Plan Video

https://youtu.be/Wzdm798MoI8
Strategic Highway Safety Plan

California Strategic Highway Safety Plan

Create a Culture of Safety in California

2015-2019
Steps in the LRSP Development

- **Step 1: Establish Leadership**
- **Step 2: Analyze the Safety Data**
- **Step 3: Determine Emphasis Areas**
- **Step 4: Identify Strategies**
- **Step 5: Prioritize and Incorporate Strategies**
- **Step 6: Evaluate and Update the LRSP**
LRSP Efforts

- **Locally lead**
  - Local agency prepared (Larimer County, CO)
  - Consultant prepared (Clackamas County, OR)
  - Vision Zero Cities (San Francisco, CA)

- **State lead**
  - Consultant prepared (Minnesota)
  - Local agency prepared (Washington)

- **FHWA lead**
  - Consultant prepared
  - Tribal (Tribal Transportation Program)
  - FHWA/NACE Collaboration/Locally prepared (Pilot)
  - Pedestrian Safety Action Plans (7 CA Cities)
Local Road Safety Efforts in CA

- Vision Zero
- Systemic Safety Analysis Report Program (SSARP)
- NAC E/FHWA Local Road Safety Plan Pilot
- Tribal Transportation Safety Plans
- FHWA Focused Approach - Pedestrian/Bicycle Safety Action Plans
Poll

• What types of safety plans are you doing within your agency? (open ended)
Local Road Safety Plans (2019)

Over 300 Federally Recognized Tribes have Safety Plans.

* - this map is an estimate of LRSPs.
NACE “Do-It-Yourself” Local Road Safety Plan pilot

- Increase # of states using this proven safety countermeasure
- Nine states, 41 Local Agencies so far
- Blended Delivery

Webinars, Support Team, Direct Assistance, In-Person Workshop
Goals of the LRSP Pilot

• **Progress towards NACE and FHWA goals of reducing fatal and injury crashes on ALL public Roads**

• **Compliment current LRSP efforts by FHWA, States, Tribes and Locals**

• **Accelerate development and implementation of LRSP**

• **Advances Risk Based, Data Driven and Systemic Approach to Improving Safety of Local Roadways**

• **Empower locals to incorporate safety into routine business (maintenance, capital improvements)**

• **Leverage funding opportunities**
LRSP Pilot Elements

• Training
• Technical Support
• Providing Crash Data
• Data Analysis Support
• Resources Website
• In-Person Workshop
• A LRSP!
Why would a Local Agency Create a Local Road Safety Plan?

- Greater awareness of road safety and risks
- Reduction in severe crashes
- Develop lasting partnerships
- Support for grant/funding applications
- Prioritize investments
“Do what you can, with what you have, where you are.”
– Theodore Roosevelt
Data Driven Approaches

**Predictive analysis**

Uses crash, roadway inventory and traffic volume data to provide more reliable estimates of an existing or proposed roadway’s expected safety performance.

**Systemic analysis**

Uses crash and roadway data in combination to identify roadway characteristics correlated with particular crash types.

Systemic Safety Analysis

Assessing the potential for a specific type of severe crash to occur at a specific location because of the location’s characteristics or features (roadway factors).
How Healthy is Your Road System?
Find out with systemic analysis

Systemic analysis is like a health screening for your road system. Just as your doctor identifies risk factors for illness, systemic analysis identifies locations that are at highest risk for severe crashes. Practitioners can then prioritize projects based on risk and apply low-cost safety treatments to reduce severe crashes across the whole at-risk system.

**Symptoms**
Severe roadway departure crashes on curves.
**Possible Risk Factors:**
- Avg. Daily Traffic > 1,000 vehicles
- Curve Radius < 1,000 feet
- Intersection within Curve
- Visual Trap within Curve
- Severe Crash within Curve

**Diagnosis**
1% of all curves have 3 or more risk factors.
**Lab Results:**
- Curve A
- Curve B
- Curve C
- Curve D
- Curve E

**Treatment**
Prioritize highest risk sites and treat with low-cost countermeasures such as chevron signs or rumble strips.

**Follow-Up**
Track and evaluate safety improvements. Further remediation can be implemented as needed.

**Systemic vs. Systemwide**
Systemic does not mean treating all locations. It allows agencies to treat the highest-risk sites within limited budgets.
Local Road Safety Plan Template

Feel free to use this word document to create your safety plan planning document. Delete any instructions and examples, and then start writing!

INTRODUCTION

Briefly describe your County’s commitment to transportation safety through this planning process and the drafting of this document. An introduction can be one or more paragraphs, and can be as general or specific as you’d like. It serves two purposes: It gives readers an idea of what the rest of the plan will say; and it provides a reason to keep reading. For example, you should include a description of the document; define the central concept—transportation safety; and perhaps provide some statistics that you’d like to change enough to take on this planning process.

For example, you might say, “The County is committed to improving transportation safety to reduce the risk of death and serious injury that results from incidents on our transportation systems. This plan tells the story of transportation safety needs and strategies for our County. Implementation of the plan will improve transportation safety for the county, its people, and its visitors. As part of an ongoing effort to make safety improvements, the Local Road Safety Plan was developed with input from several safety partners. In the past 5 years, (state some statistic that you want to improve). The County is targeting (cite a goal that will improve this statistic) over the next 5 years.”

VISION & GOALS

Generate interest in the planning process by drafting a vision statement. It can be a team effort. A vision statement is an idealized description of your success. It should inspire, energize, focus, and help you and your partners picture success as you develop the plan.

The best vision statements describe the desired long-term, big picture outcomes that are five to ten years away. Summarize your vision in a powerful phrase. This can greatly enhance the effectiveness of your vision statement. This phrase will serve as a trigger to the rest of the vision in the mind of everyone that reads it. If you are having trouble coming up with your summarizing phrase, try adding after you’ve written the rest of the vision statement.

Here are examples of a vision statement:

- To advance road safety in our County by reducing fatal and serious injuries and improving peoples lives.
- Create a County Culture inside and out that promotes and implements Toward Zero Deaths strategies.

Here are examples of goals to support the vision:

- Reduce the number of fatal crashes to Zero by 2030.
- Reduce the number of severe Run off the Road crashes by 50% by 2025.
- Implement proven safety solutions systematically to reduce fatal and severe crashes.
- Increase seat belt usage by 20% for teenage drivers.
One of the most useful and impressive features of the Traffic Collision Database is the ability to produce detailed, color-coded GIS maps for a number of collision categories. After running a General Query or queries for Intersection High Incidence, Midblock Historical, and Midblock High Incidence, corresponding GIS maps are automatically updated in ESRI’s ArcView™ which is included with the Collision Database. (A screen shot of a map in ArcView™ is shown at the top left. The layout, color coding, and the type of information to be viewed are all customizable.)

The query results are displayed on a citywide GIS map, and you can show individual locations as well as highlighted intersections and midblock segments. You can run, for example, a query to show all collisions involving school-age pedestrians on a specific day of the week and have the collision locations appear on the map. Even midblock collisions are located along the streets automatically. Clicking on an individual location yields the relevant information for that collision record.

Queries can be run to highlight the top ten intersection locations or midblock segments (or any number you prefer), ranking them by collision rate or number of collisions. Full color layouts are easily printed with maps, graphics, compasses, legends, and additional text and graphics. This...
Transportation Injury Mapping System

About TIMS
The Transportation Injury Mapping System (TIMS) has been developed over the past five-plus years by SafeTREC to provide quick, easy and free access to California crash data, the Statewide Integrated Traffic Records System (SWITRS), that has been geocoded by SafeTREC to make it easy to map out crashes.

Latest News

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<tr>
<td>Jan 25</td>
<td>SWITRS GIS Map: Performance Issue</td>
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<td>Jan 24</td>
<td>Street Story - A new web tool released by SafeTREC</td>
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<tr>
<td>Dec 18</td>
<td>2016-2017 SWITRS Update</td>
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Safety Data & Risks

Safety Data

- Crash
- Roadway
- Traffic Volume
- Enforcement
- Maintenance Logs
- Road Safety Audits
### Local Road Safety Plans

**Example Crash Data (in Template)**

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**Overall Numbers**

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**Weather**

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**Most Severe Injury Reported**

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<td>72</td>
<td>4.4%</td>
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Roadway Risk Factors

- Lane width
- Shoulder width and type
- Horizontal Curvature, delineation, and advance warning devices
- Pavement condition and friction
- Roadside rating
- Presence of centerline and edgeline markings
- Presence of centerline, edgeline, or shoulder rumble strips
- Driveway design and density
- Intersection skew angle
- Intersection traffic control devices
- Intersection in or near horizontal curve
- Presence of left and right turn lanes
- Average daily traffic volumes
- Proportion of commercial vehicles
- Posted or operating speed
- Adjacent land use (agricultural, commercial, schools, alcohol sales/establishments)
- Crosswalk presence
- Crossing distance

FHWA’s Systemic Safety Project Selection Tool (page 18)

https://safety.fhwa.dot.gov/systemic/fhwasa13019/
Focus on Proven Safety Countermeasures

- Roadside Design Improvement at Curves
- Reduced Left-Turn Conflict Intersections
- Systemic Application of Multiple Low Cost Countermeasures at Stop-Controlled Intersections
- Leading Pedestrian Interval
- Local Road Safety Plan
- USLIMITS2
- Enhanced Delineation and Friction for Horizontal Curves
- Longitudinal Rumble Strips and Stripes on Two-Lane Roads
- Median Barrier
- Safety Edge™
- Backplates with Retroreflective Borders
- Corridor Access Management
- Dedicated Left- and Right-Turn Lanes at Intersections
- Roundabouts
- Yellow Change Intervals
- Medians and Pedestrian Crossing Islands in Urban and Suburban Areas
- Pedestrian Hybrid Beacon
- Road Diet
- Walkways
- Road Safety Audit
NHTSA’s Countermeasures that Work

1. Impaired Driving
2. Seatbelts
3. Speed Limits
4. Distracted Driving
5. Motorcycles
6. Young Drivers
7. License Renewal
8. Education Campaigns
9. Bicycle Helmets

Local Road Safety Plans

LRSP Resources

NACE / FHWA Hands-On Local Road Safety Plan Workshop

U.S. Department of Transportation
Federal Highway Administration

This pilot program is a partnership with the Federal Highway Administration through the Every Day Counts initiative and will provide a unique opportunity for your agency to participate in a blended learning program culminating in a "hands-on" pre-conference workshop on April 30 at the NACE 2018 Conference at the Wisconsin Dells.

Local Road Safety Plan development has been a strategic priority for the National Association of County Engineer’s in recent years. The successful completion of the pilot. This will be led by states that have implemented them. The pilot will take place in cooperation with local, state and federal agencies.

Develop a LRSP framework.

- Foster local, state, federal cooperation.
- Expedite planning.

The Tribal Transportation Safety Management System Steering Committee decided to promote the Tribal Transportation Safety Plan in the states that have done the planning.

If you are developing a Transportation Safety Plan, the Safety Planning Resource page may be of interest.

Quick Links

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- Roadway Safety Resources
- Like Us on Facebook
- Contact Us

NACE / FHWA / NYAPA Hands-On Local Road Safety Plan Workshop

2016 Traffic Safety Report

- May 2016

Safe Streets Roaster Report

- Texas: zero
- Andrews: grant and access for innovative and improving safety for all drivers of every

Local Road Safety Plans
Discussion about Implementation

- Buy-in
- Partners
- Measurable
- Money
- Timeline
- Follow-through
- Time
- Acceptance
Case Study: Thurston County, WA

- LSRP by County staff
- 270 Signed Curves Prioritized
- Used Proven Countermeasures
- 35% Reduction in target crashes
CA Local Road Safety Plans

2018 MARIN COUNTY TRAVEL SAFETY PLAN
Systemic Safety Analysis

2019 Nevada County Local Road Safety Plan

Engineering Streets for Safety

More than 70 percent of severe and fatal collisions occur on just 12 percent of San Francisco's streets. Vision Zero incorporates systemic safety improvements like protected bike lanes, wider sidewalks, and reduced traffic speeds. The goal is to calm traffic, enhance visibility, and improve the organization of our streets.

One of the first commitments to advance Vision Zero was to complete 24 priority projects in 24 months. The City surpassed that target and completed 30 priority projects in 24 months. To maintain the momentum, a new set of priority projects have been identified. Although this time the list goes beyond engineering, it includes education, enforcement, evaluation, and policy efforts as well.

Many projects are already underway or completed. You can follow our progress for making safer streets and safer road users on this map.

Project Updates

As a part of its commitment to change business as usual, the City has expedited 24 key safety projects and developed an online tracking tool to allow anyone to track their progress and hold the City accountable. Visit the.

WalkFirst

WalkFirst was a two-year public process that identified the 6% of San Francisco streets that are responsible for 60% of pedestrian collisions and developed solutions.

Bicycle Safety Projects

The SFMTA implements bicycle safety improvements across San Francisco, helping jurisdictions to increase numbers of people to bike safely and comfortably across the City.
**NOTeworthy Practices**

- Linking low B/C to high B/C projects
- Do what you can with what you have
- Project bundling
- LRSP
- ICE Report (MO support)
- Incremental Improvements (low cost)

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**Barriers/Challenges**

- Poor design of roundabouts
- Problematic buy-in (Roadblocks)
- Phasing projects for future needs

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**What is Needed**

- Assistance: RW certificate is very time-consuming
- Higher set asides for non-motorized and smaller communities
- Complete street design requires coordination
- Lack of distribution of funds, especially ATP
- More funding for LRSP's
- Expansion of call
- Streamline NEPA for set-asides and small projects
“Do what you can, with what you have, where you are.”
– Theodore Roosevelt