AGENDA

1. Approval of October 27, 2017 Meeting Summary – Rich Larkins, Chair

2. Safety, Innovative Construction, and Emergency Projects Program Funding Opportunity – Adam Beckom, NCTCOG

3. Takata Airbag Recall Update – Ken Benson, Airbag Recall North Texas Coalition

4. Road to Zero Grant Opportunity and Project Idea – Thomas Bamonte, NCTCOG

5. Vision Zero and Road to Zero Death Campaign Initiative – Stephen Ratke, FHWA

6. Funding Multi-lane Roundabout Study Discussion – Brian Moen and Mark Lenters, City of Frisco

7. Update Items
   a) Safety Performance Targets – Sonya Landrum, NCTCOG
   b) RTC Request for Aspirational Safety Goal – Sonya Landrum, NCTCOG
   c) CVE Data Exchange System Update – Kevin Kroll, NCTCOG
   d) CRIS Data Request Timeframe – Camille Fountain, NCTCOG
   e) Introduction of New FHWA Safety and Traffic Operations Specialist – Millie Hayes, FHWA
   f) Older Drivers Set Record for Second Year Update – Millie Hayes, FHWA

8. Upcoming Safety-Related Events and Training Announcements
   a) Traffic Incident Management First Responder and Manager Course:
      • January 25 – 26, 2018, NCTCOG
      • February 28 – March 1, 2018, Fire Service Training Center, TCC Northwest Campus, Fort Worth TX
      • May 30 – 31, 2018, NCTCOG
      • July 18 – 19, 2018, NCTCOG
      • September 12 – 13, 2018, NCTCOG
      • October 17 – 18, 2018, NCTCOG
   b) NCTCOG Photogrammetry Training
      • Basic: February 12 – 16, 2018
      • Advanced: February 19 – 20, 2018
   c) LifeSafer National Conference on Highway Safety Priorities, April 22 – 24, 2018, San Antonio, TX
   d) Texas Traffic Safety Conference, August 8 – 10, 2018, Sugarland, TX

9. Other Business (Old or New): This item provides an opportunity for members to bring items of interest before the group

10. Next RSAC Meeting: April 27, 2018 at 10 am
CMAQ/STBG FUNDING PROGRAMS

<table>
<thead>
<tr>
<th>STATUS</th>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td>Federal/Local Funding Exchanges</td>
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<tr>
<td>☑</td>
<td>Automated Vehicle Program (May bring back a Round 2 effort)</td>
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<tr>
<td>☑</td>
<td>Strategic Partnerships (May bring back a Round 2 effort)</td>
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<tr>
<td>☑</td>
<td>Planning and Other Studies</td>
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<tr>
<td>■</td>
<td>10-Year Plan/Proposition 1 Adjustments</td>
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<td>■</td>
<td>Sustainable Development Phase 4: Turnback Program, Context Sensitive, Transit Oriented Development (TOD) Projects</td>
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<tr>
<td>☑</td>
<td>Transit Program</td>
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<tr>
<td>□</td>
<td>Assessment Policy Programs/Projects</td>
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<tr>
<td>☑</td>
<td>Local Bond Program Partnerships</td>
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<tr>
<td>□</td>
<td>Safety, Innovative Construction, and Emergency Projects</td>
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<tr>
<td>□</td>
<td>Management and Operations (M&amp;O), NCTCOG-Implemented, and Regional/Air Quality Programs</td>
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☑ = Project Selection Completed
■ = Pending STTC/RTC Approval
□ = Program Partially Completed

SAFETY, INNOVATIVE CONSTRUCTION, AND EMERGENCY PROJECTS

<table>
<thead>
<tr>
<th>Description/Purpose</th>
<th>To support operations, safety, innovative construction, and emergency improvements.</th>
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</thead>
</table>
| Current Requests   | • Wycliffe Avenue Flooding Project  
• Shady Shores Bridges |
| Next Steps         | To be determined. Staff will continue coordination efforts with partnering agencies. |
# Program Timeline

<table>
<thead>
<tr>
<th>Meeting/Task</th>
<th>Date</th>
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<tbody>
<tr>
<td>Program introduced to STTC and RTC</td>
<td>March/April 2017</td>
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<tr>
<td>Program introduced to Regional Safety Advisory Committee</td>
<td>April 2017</td>
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<tr>
<td>Project review by NCTCOG staff</td>
<td>January 26-February 9, 2018</td>
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<tr>
<td>Program presented to STTC for Information</td>
<td>February 23, 2018</td>
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<tr>
<td>Program presented to RTC for Information</td>
<td>March 8, 2018</td>
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<tr>
<td>Public Meetings</td>
<td>March 2018</td>
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<tr>
<td>Program presented to STTC for Action</td>
<td>March 23, 2018</td>
</tr>
<tr>
<td>Program presented to RTC for Action</td>
<td>April 12, 2018</td>
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Road to Zero Grant Proposal

Regional Safety Advisory Committee

Thomas J. Bamonte
Senior Program Manager, Automated Vehicles
North Central Texas Council of Governments

January 26, 2018
AV Development Goes Mainstream

$20 Billion

Ford
ARGO AI
GM
CRUISE
$20 Billion
DELPHI
Intel
nuTonomy
Mobileye
DATA and the CONNECTED CAR

CAN-BUS: internal communication bridge between Electronic Control Units

AUTONOMOUS VEHICLE IMAGING AND SCANNING: LIDAR, radar, ultrasonic sensors, or exterior cameras

DSRC RADIO: vehicle to vehicle and vehicle to infrastructure communication

TELEMATICS CONTROL UNIT (TCU): interconnects CAN Bus and external systems

TIRE PRESSURE SENSORS: short range radio, goes to radio receiver

EVENT DATA RECORDER: black box with accident data

CRASH DATA RETRIEVAL UNIT: extracts EDR data

THIRD PARTY MONITORING DEVICE: OBD-II or external device communicates with fleet operator

License Plate
THE COMING FLOOD OF DATA IN AUTONOMOUS VEHICLES

RADAR ~10-100 KB PER SECOND

SONAR ~10-100 KB PER SECOND

GPS ~50KB PER SECOND

CAMERAS ~20-40 MB PER SECOND

LIDAR ~10-70 MB PER SECOND

AUTONOMOUS VEHICLES 4,000 GB PER DAY... EACH DAY
NVIDIA unveils its powerful Xavier SOC for self-driving cars

The system can process 30 trillion operations per second.
Example: Vehicle Data Use Case

“Waycare refines and synthesizes information including vehicle speed, braking and acceleration data, then predicts potential highway trouble spots. Since the system went live, a 12% improvement in state police highway crash response times, and a 23% drop in secondary collisions because accidents are being cleared faster.”
Safe System Innovation Grants

USDOT funded
Three annual grant cycles
$1M/year
$50K - $200K grants
Administered through National Safety Council

“Emphasis is on strengthening existing roadway safety programs, accelerating technology and infrastructure improvements, and implementing a safe systems approach to reach zero roadway fatalities.”
DFW Team

arity

Roadway Safety Foundation

Grand Prairie, Texas

Arlington, Texas

University of Texas Arlington
Project Outline

Arity driving behavior analysis/distracted driving detection tool
RSF video analytics on roads (usRAP ViDA)
UTA provides coding support
Team selects safety interventions
Arity evaluates efficacy of safety measures when implemented
Workshop to share project details/results
Possible future use of tools
Contact Information

Thomas J. Bamonte, Senior Program Manager

tbamonte@nctcog.org
469-600-0524
@TomBamonte
For a copy of the Vision Zero and Road to Zero Death Campaign Initiative presentation, please contact Stephen Ratke, P.E., FHWA directly.
Solicitation Detail View

Drivers Failing to Yield at Multi-Lane Roundabout Exits

General Information

Solicitation Number: 1451
Status: Solicitation posted
Date Posted: Jul 18, 2017
Last Updated: Oct 2, 2017
Solicitation Expires: Jul 18, 2018
Partners: CT, WI
Lead Agency: Federal Highway Administration

Contact Information:

Lead Agency Contact:
Wei Zhang
wei.zhang@dot.gov
Phone: 202-493-3317

FHWA Technical Liaison(s):
Wei Zhang
wei.zhang@dot.gov
Phone: 202-493-3317

Financial Summary:

Commitment Start Year: 2018
Commitment End Year: 2023
Commitments Required: $1,300,000.00
Commitments Received: $100,000.00
100% SP&R Approval: Approved

Commitments by Organization:

<table>
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<tr>
<th>Agency</th>
<th>Year</th>
<th>Commitments</th>
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<td>2018</td>
<td>$10,000.00</td>
<td>Michael</td>
<td>(860) 594-2037</td>
<td><a href="mailto:Michael.Connors@ct.gov">Michael.Connors@ct.gov</a></td>
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<td>2019</td>
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<td>2020</td>
<td>$10,000.00</td>
<td>Michael</td>
<td>(860) 594-2037</td>
<td><a href="mailto:Michael.Connors@ct.gov">Michael.Connors@ct.gov</a></td>
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<td>Connecticut Department of Transportation</td>
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<td>(860) 594-2037</td>
<td><a href="mailto:Michael.Connors@ct.gov">Michael.Connors@ct.gov</a></td>
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<td>Connecticut Department of Transportation</td>
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<td>(860) 594-2037</td>
<td><a href="mailto:Michael.Connors@ct.gov">Michael.Connors@ct.gov</a></td>
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</tbody>
</table>
Study Description

Background:
Over 3,300 modern roundabouts have been constructed in the U.S. since the 1990s, and most of them have exhibited good to excellent operational and safety performances. However, an issue is slowly but steadily emerging with some multi-lane roundabouts that are experiencing much higher than expected crash rates. The type of crash to be investigated is associated with drivers failing to yield properly at exit – vehicles entering the roundabout from the outside lane collide with vehicles exiting the roundabout from the inside lane. Multiple factors may have contributed to the rise in crashes, such as driver misjudgement of the available gaps, and lack of positive guidance by lane marking in the circulating lane, etc. Urgent action is needed to determine the root cause of such crashes so that proper solutions can be developed to mitigate the problem before it becomes a widespread issue that may jeopardize the implementation of roundabouts around the country.

Objectives:
Investigate the factors contributing to crashes from Exit-Circulating path conflicts at multi-lane roundabout exits, and develop counter measures to cure this problem.

Scope of Work:
This study is limited to 2-lane roundabouts, and consists of crash study, site specific design review, speed study, traffic study, traffic conflict study, and developing counter-measures.

Identify five or more multi-lane roundabouts that are experiencing Exit-Circulating path conflict crashes, and similar number of multi-lane roundabouts that have comparable traffic demands but are performing well in terms of traffic operation and safety. Study the crash patterns of each roundabout, and the geometric design, signing and pavement marking (on the approach and inside the roundabout), summarize their similarities and differences, and develop hypothesis of the leading causes of the crashes. Perform on-site study to determine if vehicle speeds at critical locations conform to design intent, and use suitable technology to record field traffic data than enables determination of lane-based origin-destination pattern at each multi-lane roundabout intersection and computer assisted semi-automated traffic conflict analysis to determine if the conflict patterns mirror the types of crashes observed at each site. Develop counter-measures in geometric design, signing, and/or pavement marking, etc. that help reduce conflicts, simplify driver task loads, and promote proper yielding at roundabout intersection. Develop training material that helps spread the knowledge.

If sufficient funding is pooled together, a PHASE II project may be initiated to implement the proposed countermeasures at select multi-lane roundabout locations that have the exit conflict crashes, and verify the effectiveness of the counter-measures in reducing specific type(s) of traffic conflicts.

Comments:
Study duration: 3 to 5 years
Suggested contribution: $50,000 from each participating state DOT/local agency for the entire duration of the study.
All state and local agencies are welcome to participate.

Documents:

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<tr>
<th>Title</th>
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<tbody>
<tr>
<td>Waiver Request Letter</td>
<td>Memorandum</td>
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<tr>
<td>Approval of SP&amp;R Waiver</td>
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