

REGIONAL SAFETY STUDY UPDATE

Recommendations Review

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Presentation Items

- Review of Draft Cambridge Systematics Recommendations
- Additional Ideas for Recommendations



Pedestrian Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Install pedestrian Hybrid Beacon and advanced yield signs, stop markings and signs, high visibility crosswalk markings. 	FHWA Proven Countermeasure	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Implement leading pedestrian interval (LPI) at intersections with high turning vehicle volumes to reduce pedestrian-vehicle crashes. 	FHWA Proven Countermeasure	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Conduct pedestrian road safety audits in areas with a higher than average pedestrian fatal and serious injury crashes. 	FHWA Proven Countermeasure	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Lower speed limits through implementation of speed enforcement, installation of automated cameras, and road diets that narrow lane size. 	Over 3500 pedestrian fatalities and serious injuries between 2013-2017 caused by speeding; third highest contributing factor to fatalities and serious injuries. Other studies show speeding major factor in severe pedestrian crashes- Countermeasures That Work	Engineering	State and local governments	Support and encouragement



Pedestrian Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Evaluate mid-block crossings with higher rates of fatalities and serious injuries (especially those over 10,000 AADT) to determine whether more substantial crossing improvements are needed such as medians, refuge islands, pedestrian hybrid beacon, and rectangular rapid flashing beacons. 	<p><i>Medians and crossing islands are an FHWA Proven Countermeasure</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Improve geometry of pedestrian and bicycle facilities at signalized intersections with high frequencies of pedestrian and / or bicycle crashes and on routes serving schools or other generators of pedestrian and bicycle traffic. 	<p><i>Walkways are an FHWA Proven Countermeasure</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Install pedestrian countdown signals. 	<p><i>Used a great deal in the region</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Create pedestrian safety zone program in targeted geographic areas with high occurrence of pedestrian crashes. 	<p><i>Has been used effectively in other states</i></p>	Engineering	State and local governments	Support and encouragement



Pedestrian Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Include pedestrian safety and the risks of impairment for both pedestrians and drivers in any alcohol related mass media campaigns 	<p><i>Alcohol impairment a factor in over 1900 pedestrian fatalities and serious injuries between 2013-2017; Effectiveness Still Undetermined – Countermeasures That Work</i></p>	Education	<p>State Highway Safety Offices Non-profit organizations Local governments</p>	Support and encouragement
<ul style="list-style-type: none"> Develop and implement an elementary school pedestrian training program. 	<p><i>Likely to be Effective – Countermeasures That Work</i></p>	Education	School systems	Unknown
<ul style="list-style-type: none"> Continue the regional StreetSmart Campaign. Investigate strengthening further by aiding member jurisdictions to engage street teams and other elements of the campaign at more locations throughout the year. 	<p><i>Campaign is currently conducted</i></p>	Education	TPB	Continue to sponsor, support, and emphasize the campaign



Intersection Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Replace intersections that have high numbers of fatalities and serious injuries with roundabouts, a circular intersection configuration with channelized approaches and a center island that results in lower speeds and fewer conflict points, wherever feasible. 	<p><i>Roundabouts are an FHWA Proven Countermeasures</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Utilize multiphase signal operation at signalized intersections with a high frequency of angle crashes involving left turning and opposing through vehicles as well as rear-end and sideswipe crashes. A properly timed protected left turn phase (left turn only green light) can reduce rear-end and sideswipe crashes. 	<p><i>Angle/left turn and rear end crashes are the top two collision types at intersections</i></p>	Engineering	State and local governments	Support and encouragement



Intersection Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Increase change intervals (when the traffic lights change) at signalized intersections with a high frequency of crashes that may be caused by change interval lengths that are too short including rear-end crashes and crashes between vehicles continuing through the intersection after one phase has ended and the vehicles entering the intersection on the following phase. 	<p><i>Rear end crashes are the second highest collision type at intersections</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Improve left-turn channelization (providing definite paths for vehicles to follow) at signalized intersections where crashes related to left-turn movements are an issue. 	<p><i>Dedicated left and right turns lanes are a FHWA Proven Countermeasure</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Improve right-turn channelization at signalized intersections with a high frequency of rear-end collisions. 	<p><i>Rear end collisions a major crash cause in the region.</i></p>	Engineering	State and local governments	Support and encouragement



Intersection Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Install LED heads and reflective backplates (reflective borders around traffic lights that make them more visible) in locations with high numbers of signalized intersection fatal and serious injury crashes. 	<p><i>Reflective backplates are a FHWA proven countermeasure</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Restrict access to properties using driveway closures or turn restrictions that are near signalized intersections with high crash frequencies related to driveways. 	<p><i>Corridor Access Management including driveway closures, consolidation or relocation is an FHWA Proven Countermeasure</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Restrict or eliminate turning maneuvers (including right turns on red) or employ signal coordination at signalized intersections with a high frequency of crashes related to turning maneuvers. 		Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Improve signage at unsignalized intersections by ensuring foliage does not block the sign, the lettering is still reflective, and the sign is located where it can be seen by motorists. 	<p><i>Systemic Application of Low-Cost Countermeasures - FHWA Proven Countermeasure</i></p>	Engineering	State and local governments	Support and encouragement



Intersection Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Add reflective material to sign posts at unsignalized intersections. 	<p><i>Systemic Application of Low Cost Countermeasures - FHWA Proven Countermeasure</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Install LED-enhanced stop signs at unsignalized intersections where there are a higher than average number of fatal and serious injury crashes. 	<p><i>Systemic Application of Low Cost Countermeasures - FHWA Proven Countermeasure</i></p>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Provide public information, education, and training for older drivers on risks associated with signalized intersections such as red-light running, speeding, not yielding to pedestrians, and difficulty judging speed and distance of approaching vehicles when making left turns. 	<p><i>Left turns at intersection are a major cause of crashes involving older adults. Aging impacts ability to judge time and distance. Older Drivers fifth highest contributing factor to fatal and serious injury crashes.)</i></p>	Education	State Highway Safety Offices, State and local Departments of Transportation	<p>Support and encouragement</p> <p>Potential for sponsoring or supporting a public information campaign</p>



Major Arterials Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Implement roadside design improvements such as clear zones, slope flattening, and adding or widening shoulders to improve ability for drivers to safely recover if they leave the travel lane. 	<i>FHWA Proven Countermeasure</i>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Implement improvements including installation of cable barriers, guardrails, and concrete barriers to reduce the severity of roadway departure crashes. 	<i>FHWA Proven Countermeasure</i>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Implement enhanced delineation treatments can alert drivers in advance of the curve including pavement markings; post-mounted delineation; larger signs and signs with enhanced retroreflectivity; and dynamic advance curve warning signs and sequential curve signs. 	<i>FHWA Proven Countermeasure</i>	Engineering	State and local governments	Support and encouragement



Major Arterials Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Install high friction surface treatment (HFST) in locations where the available pavement friction is not adequate to support operating speeds a sharp curve, inadequate cross-slope design, wet conditions, polished roadway surfaces, or driving speeds in excess of the curve advisory speed. 	<i>FHWA Proven Countermeasure</i>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Install longitudinal rumble strips and stripes in locations where run-off-the-road crashes are high. 	<i>FHWA Proven Countermeasure</i>	Engineering	State and local governments	Support and encouragement
<ul style="list-style-type: none"> Install the Safety Edge to eliminate the vertical drop-off at the pavement edge, allowing drifting vehicles to return to the pavement safely. It has minimal effect on asphalt pavement project cost with the potential to improve pavement life. 	<i>FHWA Proven Countermeasure</i>	Engineering	State and local governments	Support and encouragement



Major Arterials Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Develop a regional Safety Checklist template as a tool for local jurisdictions to use during planning and project identification efforts 		Engineering	MPO	Develop a regional safe roads policy template like what has been done for complete streets and green streets
<ul style="list-style-type: none"> Conduct education enforcement campaign focused on distracted driving (D.R.I.V.E, Texting and Driving Imitative). 	<i>Distracted driving is the eighth highest contributing factor to fatal and serious injury crashes.</i>	Education	State and local police departments	Potential for sponsoring or supporting a public information campaign or enforcement activations
<ul style="list-style-type: none"> Target education to low seat belt use groups based on factors including gender, age, and ethnicity. 	<i>Low seat belt use is the fourth highest contributing factor to fatal and serious injury crashes.</i>	Education	State Highway Safety Offices	Potential for sponsoring or supporting a public information campaign or enforcement activations
<ul style="list-style-type: none"> Conduct a study to determine the safety needs of older adults in the region and coordinate internally and externally to provide information on transportation alternatives other than driving. 		Education	TPB	Consider coordinating with ongoing transportation alternatives work activities at TPB and other agencies



Major Arterials Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none">Determine penalties for distracted driving in MD, DC, and VA, support legislative classification of distracted driving as a "moving violation" and decide if changes are needed.		Education		Review current statutes in member states for informational (not lobbying) purposes
<ul style="list-style-type: none">Evaluate response times to rural crashes to determine if resources need to be evaluated in various jurisdictions.		Emergency Medical Services		



Young Drivers Recommendations

Countermeasure	Justification	4E	Who Can Implement	Potential MPO Role
<ul style="list-style-type: none"> Support strengthened graduated driver licensing requirements (limited nighttime driving, passenger restriction, 30 to 50 hours of practice driving, age 16 minimum age to obtain a learner’s permit, no cell phone use) for young drivers and strictly enforce the law. 	<p><i>Graduated Driver Licensing (GDL) is a proven countermeasure – Countermeasures That Work)</i></p> <p><i>Note: The three jurisdictions do a good job in meeting most of the requirements of a model GDL law.</i></p>	Education	State Highway Safety Offices	
<ul style="list-style-type: none"> Conduct well-publicized enforcement programs aimed at young drivers. 	<p><i>Seat belt enforcement programs and primary seat belt laws are proven countermeasures – Countermeasures That Work.</i></p>	Education	State Highway Safety Offices, state and local law enforcement	Support and encouragement
<ul style="list-style-type: none"> Conduct multi-component community programs to address underage drinking including licensing actions for underage alcohol violations, zero tolerance enforcement, and vendor compliance checks for age 21 enforcement. 	<p><i>NCHRP 622, Effectiveness of Behavioral Highway Safety Countermeasures, indicates these measures are likely to be effective.</i></p>	Education	State Highway Safety Offices	Support and encouragement



Additional Ideas for Recommendations

From Kurt Erickson of the Washington Regional Alcohol Program

- Virginia Primary seat belt law
- More sobriety checkpoints
- More widespread use of ignition interlock devices for impaired driving offenders
- Increased DUI testing
- Pilot passive alcohol program pilot – air sensors detect alcohol in the vehicle and disable ignition if detected



Additional Ideas for Recommendations

Discussed among TPB staff and others

- Develop a Regional Safety Program modeled on the Transportation Land Use Connections (TLC program) – possible activities include:
 - Providing consultant services to facilitate local road safety audits
 - Providing consultant services for in depth safety data analysis at the jurisdictional (or sub jurisdictional) level
 - Supporting “StreetSmart-like” activities with street teams and Virtual Reality car for member jurisdictions
 - Sponsoring a regional “safest driver” contest (along the lines of what San Antonio did in 2018)
 - Supporting enforcement activities
 - Supporting bike/ped projects with a Safe Routes to School tie in
 - Supporting jurisdictional level roadway safety plans
 - Facilitating educational outreach on safety



Additional Ideas for Recommendations

Discussed among TPB staff and others

- Develop a Regional Safety Program modeled on the Transportation Land Use Connections (TLC program)
- Develop a regional roadway safety policy like the Complete Streets and Green Streets policies
- Facilitate regional safety peer exchanges
- Assist jurisdictions with crash data analysis
- Encourage member jurisdictions to adopt Vision Zero policies
- Encourage member jurisdictions to develop local roadway safety plans



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