

Geometric Design Strategic Research Program



TRB COMMITTEES:

**GEOMETRIC DESIGN (AFB10)
OPERATIONAL EFFECTS OF GEOMETRICS
(AHB65)**

Foundation of Research Program



- **Longstanding partnership between two TRB Standing Committees with similar scope and purpose**
 - Encourages interaction between the two committees and, by extension, their partners
 - Maximizes available resources to identify critical research needs and develop research needs statements (RNS)
- **Longstanding partnership with AASHTO Technical Committee on Geometric Design**
 - Provides a direct connection between the development of RNS and their submission for consideration of funding
 - Provides an additional consideration that the committees submit RNS that address critical research needs

General Approach of Research Program



- **Use mid-year meetings to focus on identifying new RNS ideas**
 - Joint meeting with both committees, usually include AASHTO
 - Name volunteers to lead development of complete RNS
- **CRCs of both committees maintain current status of RNS in development**
 - Remind volunteers of upcoming deadlines
 - Communicate with AASHTO committee to submit priority RNS for funding consideration
 - Consider unfunded RNS from previous years for relevance and revision

General Approach of Research Program



- **Use annual meetings to refresh discussion of RNS ideas**
 - Status updates on RNS development
 - High-level discussions of new ideas
 - Reminder of Synthesis statement submission deadline
- **CRCs promote interaction among committees and encourage collaboration**
 - Receive off-cycle RNS ideas
 - Encourage off-cycle development of RNS

Agenda of Mid-year Meetings



- **Presentation of NCHRP projects from Strategic Research Plan (generate research ideas)**
- **White Papers**
- **Unfunded Research Needs**
- **Emerging Research Needs**
- **Documentation of Updated Strategic Research Plan**
- **Continue partnership with AASHTO**

Special Mid-year Meetings



- **Three mid-year Symposia series keep the research community engaged and put results in to the hands of practitioners**
 - Urban Street Symposium (5th in 2017, last two co-hosted with an ITE section)
 - International Symposium on Highway Geometric Design (6th in 2020, alternates between North America and Europe)
 - Alternative Intersections/Interchanges Symposium (1st in 2014, focuses on recent interest in this specific design category and related operations and safety)
- **USS and ISHGD typically held every 5 years**

Recent Results



- Since 2013, over two dozen RNS completed, most submitted to AASHTO/NCHRP ballot, as well as several synthesis statements
- Since 2006, roughly \$8 million in NCHRP projects, plus syntheses and other research
- Research results led to multiple revisions to AASHTO *Green Book*, FHWA Controlling Criteria, and many other national and state design resources
- AFB10 and AHB65 awarded “Blue Ribbon Committee” award by TRB in 2014 for advancing research