

MANAGED LANES COMMITTEE (AHB 35) STRATEGIC PLAN 2015 – 2017

AUGUST 20, 2014

 TRANSPORTATION RESEARCH BOARD

TRB MANAGED LANES COMMITTEE (AHB 35)

STRATEGIC PLAN 2015 – 2017

INTRODUCTION

This strategic plan outlines the structure, goals, and activities for the Managed Lanes Committee of the Transportation Research Board from 2015 through 2017. The Managed Lanes Committee is charged with supporting practitioners and furthering research for managed lanes. Managed lanes are defined as preferential lanes or roadways that improve efficiency, performance and throughput through the application of management strategies. These strategies include changing vehicle occupancy requirements, designating vehicle eligibility, implementing congestion pricing, and controlling access. Common examples of managed lanes that are currently in operation include high occupancy vehicle (HOV) lanes, preferential bus lanes, dynamic shoulder lanes, high occupancy toll (HOT) lanes, and express toll lanes.

The Committee started in 1987 as an ad-hoc group, and was eventually approved by the Freeway Operations Committee as the HOV Task Force. The group gained committee status as the HOV Systems Committee from TRB in about 1990 with the mission of addressing priority lane treatments and related measures for HOVs. Over the past 10 to 15 years, there has been growing interest in and experience with using pricing for HOT/express lanes as a means to improve performance and generate revenue. The Committee began to broaden its scope to reflect the evolutionary changes in HOV systems. In 2008 the Committee officially changed its name to “HOV, HOT and Managed Lanes Committee,” and then shortened it to “Managed Lanes Committee” in 2012.

ORGANIZATION

The TRB Managed Lanes Committee reports to the Operations Section (AHB00) within the TRB Technical Activities Division. The Committee has 32 members including four “Young Members,” two are emeritus members and one international member. The Committee’s membership is diverse in terms of type of organization as shown below

Local/Regional Government	8	Consultant	6
State Government	6	Industry	3
Federal Government	1	Academia	8

Following TRB protocols, members are appointed by TRB for three-year tenures, and about one third of the members rotate off every three years. The maximum time a member can serve is nine years. Committee officers include the chair, vice chair and secretary. This plan identifies the Committee’s goal

to plan for the continuity in committee activities and knowledge by identifying the following activities related to succession planning: engage a larger number of members through participation in work groups and task forces, identifying “deputies” to the chairs of the three subcommittees, develop an orientation packet for new members, and develop a recruitment and succession plan.

The Committee conducts its work largely through subcommittees and joint subcommittees. In addition, the Committee forms task forces as-needed for the purposes of tri-annual strategic plan preparation and conferences. With this strategic plan update, the Committee intends to expand the use of working groups and task forces, some of which will be guided by a particular sub-committee, as a strategy to deliver the activities in the plan. All committee members are expected to contribute to the work of one or more subcommittees or task forces. In addition, the Committee has a diverse group of approximately 350 friends, many of whom participate in Committee and subcommittee activities.

The three standing subcommittees are chaired by Committee members who will be assisted by newly created deputies.

Meeting Planning Subcommittee: This subcommittee sets direction for and executes conference-related activities such as organizing workshops, plenary sessions and poster sessions for the annual meeting, the mid-year meeting and conferences. This subcommittee facilitates joint activities through partnerships with other TRB Committees on topics of mutual interest. This subcommittee also facilitates the review of papers submitted for the annual meeting and other conference and mid-year functions.

Research Subcommittee: This subcommittee develops and promotes research priorities and works with a variety of research sponsors to address issues of importance to project practitioners and agencies involved in the planning and implementation of managed lanes.

Outreach Subcommittee: This subcommittee keeps members and friends up to date on activities through e-mail, the Committee website (<http://managedlanes.org/>) and social media. This subcommittee also uses those tools to facilitate the exchange of information among researchers and practitioners, including sponsorship of webinars on selected topics of interest.

Joint subcommittees are co-sponsored with other TRB Committees where there are common interests:

Joint Subcommittee on Active Traffic Management: This subcommittee is co-sponsored with the Freeway Operations Committee. It serves as a forum for researching, promoting and evaluating real time traffic management tools, which are frequently deployed in conjunction with managed lanes.

Joint Subcommittee on Multimodal Pricing Implementation: This subcommittee is co-sponsored with the Congestion Pricing Committee. It serves as a forum for researching, promoting and evaluating congestion pricing projects, including priced managed lanes, with an emphasis on multi-modal projects.

At a minimum, the Committee and its subcommittees meet twice annually, once at the TRB Annual Meeting in January of each year and for a mid-year meeting hosted around the country in locations

where managed lane facilities are being implemented or operated. The Committee frequently partners with the Freeway Operations Committee, the Congestion Pricing Committee, Bus Transit Systems Committee and other TRB committees for joint sponsorship of conferences, mid-year meetings and annual meeting sessions and workshops. The Committee also hosts an international conference on managed lanes approximately every three years; the most recent one was held in Oakland, California in 2012. When activities requiring significant in-staff participation to prepare research circulars, organize conferences or develop practitioner outreach materials have occurred, the Committee has met for a mid-year working session at one of the two TRB venues located in Irvine, California (Beckman Center) or Woods Hole, Massachusetts.

PARTNERSHIPS

The Committee seeks to partner with other TRB committees based on mutual interest, including identifying research needs and developing research proposals; and sponsoring conferences, sessions and workshops. The table below identifies areas of overlapping interest with various TRB Committees. Bold type is used to indicate the committees with which the Managed Lanes Committees has partnered most frequently in the past.

Number	Name	Overlap
ABE25	Congestion Pricing	Tolling, revenue and financing for managed lanes
AHB20	Freeway Operations	Freeway operations and traffic management, combined operational strategies on controlled access highways
APO50	Bus Transit Systems	Express bus operations on managed lanes
ABC30	Performance Measurement	Performance monitoring on managed lane
ABE50	Transportation Demand Management	Managed lanes are one of their TDM components
ADA60	Public Involvement in Transportation	Marketing and education on managed lanes
ADB10	Traveler Behavior and Values	Modal and spatial shifts caused by changes in travel behavior on managed lanes
AHB40	Highway Capacity and Quality of Service Committee	Access and capacity associated with managed lanes
AHB45	Traffic Flow Theory and Characteristics	Access and capacity associated with managed lanes
AHB15	Intelligent Transportation Systems	ITS features on managed lanes (metering, CCTV, DMS-pricing and travel time information)
ADB40	Transportation Demand Forecasting	Demand for managed lanes
AP020	Emerging and Innovative Public Transport and Technologies	New emerging and innovative concepts of public transport systems and technologies.
AHB10	Regional Transportation Systems Management and Operation	Incident management, enforcement and operations management on managed lanes
AHB30	Vehicle-Highway Automation	Potential use of managed lanes for autonomous vehicle operations (no current applications being tested)
AFB10	Geometric Design	Design of managed lanes, particularly concurrent lane separation and access features

Number	Name	Overlap
AP020, AP025, AHB15	Emerging Ridesharing Solutions Joint Subcommittee	research related to emerging solutions for increasing the average occupancy of private vehicles

Since many managed lanes involve tolling and a growing number are delivered as public private partnership, the Committee also seeks to partner more actively with other professional organizations these interests. These organizations include, but are not limited to the International Bridge, Tunnel and Turnpike Association (IBTTA) and the American Road & Transportation Builders Association (ARTBA).

In addition, the Committee seeks to work with the Federal Highway Administration to leverage and augment the resources provided by each entity. The plan includes focus activities to coordinate with FHWA on information sharing and to promote and better advocate for participation in FHWA’s Pooled Fund Study, which has completed or is contemplating a number of efforts addressing managed lanes.

COMMITTEE GOALS

TRB has targeted various themes over the past decade as a means to frame significant policy decisions and identify areas in need of innovation. The Managed Lanes Committee attempts to address key themes as follows:

1. **Congestion:** Providing an alternative to congestion through managed lane strategies.
2. **Performance:** Promoting more efficient use of limited roadway capacity by metering demand through pricing, eligibility and access control.
3. **Sustainability:** Exploring how managed lane practices can preserve mobility by using underutilized existing or planned infrastructure while supporting costs through pricing and thus, lead to a more sustainable transportation system.
4. **Funding:** Promoting ways to manage lane capacity while generating revenue to help fund projects.

The Committee’s goals, listed below, guide its efforts to address the themes of Congestion, Performance, Sustainability, and Funding. Attachment 1 illustrates how the Committee’s past accomplishments serve these goals. As new guidance becomes available from TRB, the Committee will address it by adjusting ongoing activities.

Goal 1: Address Managed Lane Issues Critical to Practitioners and Policy Makers

Identify critical issues related to managed lane planning, implementation and operation. Pursue methods to address these issues by advancing research and collaborative activities that promote improved standards of practice and sharing of experiences.

Goal 2: Promote Research and Best Practices

Promote research and best practices that address identified issues on a continuing basis, in response to market and sponsoring agency needs and changes in technology. Maximize research

opportunities through collaborative activities with other committees through a variety of potential sponsors and forums.

Goal 3: Disseminate Knowledge on Best Practices and Related Research

Provide outreach on best practices and related research findings to practitioners and policy makers in order to increase knowledge about the best practices and impacts of managed lanes.

Goal 4: Advance Managed Lane Concepts Responding to each Market, Mode, and Congested Roadway Setting

Advance concepts for a wide variety of markets (i.e., urban commuting, long distance intra-city travel, exurban travel, goods movements), modes (i.e., HOV, transit, auto commuter, truck) and setting (i.e., separate roadways and lanes on freeways, expressways, toll roads, bridge and tunnel approaches, ramps, arterials). Anticipate and promote adoption of new technologies that improve operation or efficiency of managed lanes. Concepts include planning, design and operational strategies reflecting existing and proposed projects.

Goal 5: Improve Committee Effectiveness

Continually improve the Committee’s functionality in being effective and in engendering participation, collaboration and adaptation to changing conditions and emerging technologies. Establish linkages and collaborate with other TRB committees on managed lane-related topics.

ACTIVITIES

Attachment 2 lists the Committee’s focus activities for this strategic plan under the primary goal it addresses; clearly, however, the activities address multiple goals, as summarized in at the end of the attachment. Several activities, such as those that address succession planning (#15, 16, 18 and #19) and partnering with other committees, other organizations and FHWA (#4, #10, #13 and #17) have already been highlighted above. Additional activities worth highlighting include:

- Development of a legacy guide for practitioners (#14). This is a significant undertaking that will require time to plan and implement. Equally significant, it requires a plan for ongoing maintenance. A task force will assess the requirements and options, such as starting with a chapter or chapters in existing guidance such as the Highway Capacity Manual or Freeway Operations Handbook.
- Numerous activities focused on research including: expanding the pool of peer reviewers for papers submitted to TRB (#3); developing research proposals and updating the TRB research needs database (#4); seeking sponsors for scholarships to facilitate student participation in conference poster sessions (#5); developing a catalog of research funding opportunities (#6); promoting participation in FHWA’s Pooled Fund Study (#1).

In addition, the Committee has identified topics for future conferences, which are also a good indicator of research needs (#2). These areas, listed below, reflect many of the challenges facing the field today and in the future.

- Operational challenges of managed lanes
 - Designs for connections within managed lanes systems and networks
 - Strategies for optimizing revenue and performance
 - Impact of automated vehicles on managed lanes
 - Means to harness and apply big-data from managed lanes
- The Committee also remains committed to continuing to hold an international conference every three years. This is a significant undertaking that reaps large rewards for practitioners and researchers alike.

ATTACHMENT 1: COMMITTEE GOALS AND PAST ACCOMPLISHMENTS (shading indicates goal addressed)

Past Accomplishments	Goal 1: Address Issues Critical to Practitioners and Policy Makers	Goal 2: Promote Research and Best Practices	Goal 3: Disseminate Knowledge on Best Practices and Related Research	Goal 4: Advance Concepts Responding Market, Mode, and Roadway Setting	Goal 5: Improve Committee Effectiveness
1 Hosted 2 webinars since 2010, surveyed participants					
2 Hosted 14th International HOV, HOT and Managed Lanes Conference (May 2012)					
3 Fielded topics for FHWA sponsored ML and congestion pricing webinars					
4 Sponsored conferences every 3-4 years					
5 Created website for project data					
6 Sponsored mid-year sessions (latest was Atlanta in June 2013)					
7 Sponsored poster sessions and workshops at annual TRB meeting (2012, 2013, 2014)					
8 Developed synthesis topics and research problem statements					
9 Co-sponsored research circular (w/ Fwy Ops committee)					
10 Co-sponsored new Managed Lanes implementation guide					
11 Fielded research topics to FHWA HOV/ML pooled fund study group					
12 Quarterly newsletters (prior to 2004)					
13 Executive outreach (peer-to-peer) exchange (prior to 1998)					
14 Developed and submitted nomination for TRB Blue Ribbon Committee consideration					
15 Updated Sub-Committees to respond to needs: Created new Meeting Planning Subcommittee; renamed the Information Dissemination Subcommittee as the Outreach Subcommittee; created strategic planning task force					

ATTACHMENT 2: MANAGED LANE COMMITTEE GOALS AND FUTURE FOCUS ACTIVITIES

Goal 1: Address Managed Lane Issues Critical to Practitioners and Policy Makers

Identify critical issues related to managed lane planning, implementation and operation. Pursue methods to address these issues by advancing research and collaborative activities that promote improved standards of practice and sharing of experiences.

Activities

	Timing	Lead Subcommittee <i>[Research, Outreach, Meeting Planning]</i>
1. Better promote and advocate for participation in FHWA’s Pooled Fund Study through means such as: <ul style="list-style-type: none"> • Helping organizations with similar interests get together; • Developing a one-page fact sheet for executives of prospective members; • Developing a regular report of research issued in conjunction with the legacy guide for practitioners 	Ongoing	Research
2. Consider the following priority topics for future conference sessions and workshops: <ul style="list-style-type: none"> • Operational challenges of managed lanes • Designs for connections within managed lanes systems and networks • Strategies for optimizing revenue and performance • Impact of automated vehicles on managed lanes • Means to harness and apply big-data from managed lanes 	Ongoing	Meeting Planning

Goal 2: Promote Research and Best Practices

Promote research and best practices that address identified issues on a continuing basis, in response to market and sponsoring agency needs and changes in technology. Maximize research opportunities through collaborative activities with other committees through a variety of potential sponsors and forums.

Activities

	Timing	Lead Sub-Committee <i>[Research, Outreach, Meeting Planning]</i>
3. Expand to 50 the pool of peer reviewers for papers submitted to TRB on managed lanes. The goal is to improve the quality of the review and feedback to authors by increasing the number of reviewers assigned to each paper.	Ongoing	Meeting Planning
4. Coordinate with other committees to develop and submit research proposals and synthesis proposal for funding through TRB and other sources. Update the TRB Research Needs Database.	Ongoing	Research
5. Engage student through poster sessions; leverage existing scholarship programs such as Eisenhower and University Transportation Center	Ongoing	Meeting Planning
6. Develop and maintain a catalog of research funding sources and a calendar of deadlines	2014 and ongoing	Research
7. Implement a calendar of upcoming conferences; make information available by email or on the web page	2014 and ongoing	Outreach

Goal 3: Disseminate Knowledge on Best Practices and Related Research

Provide outreach on best practices and related research findings to practitioners and policy makers in order to increase knowledge about the best practices and impacts of managed lanes.

Activities

	Timing	Lead Sub-Committee [Research, Outreach, Meeting Planning]
8. Sponsor or co-sponsor workshops, poster and panel sessions at each Annual TRB meeting	Ongoing	Meeting Planning
9. Sponsor webinars to disseminate knowledge between conferences. Possibly focus on this in years when the Committee does not host the International Conference.	Ongoing	Outreach
10. Better coordinate with FHWA on information sharing, since FHWA is positioning itself as a knowledge base	Ongoing	Outreach
11. Develop and maintain on the Committee web page, data on current and planned projects; assign an individual to update each project at least annually	2014 and ongoing	Outreach
12. Convene the International Managed Lanes Conference (goal is every three years; last conference was in 2012). Seek opportunities to partner with IBTTA as well as other TRB committees.	2015	New Task Force

Goal 4: Advance Managed Lane Concepts Responding to each Market, Mode, and Congested Roadway Setting

Advance concepts for a wide variety of markets (i.e., urban commuting, long distance intracity travel, exurban travel, goods movements), modes (i.e., HOV, transit, auto commuter, truck) and setting (i.e., separate roadways and lanes on freeways, expressways, toll roads, bridge and tunnel approaches, ramps, arterials). Concepts include planning, design and operational strategies reflecting existing and proposed projects.

Activities

	Timing	Lead Sub-Committee <i>[Research, Outreach, Meeting Planning]</i>
13. Actively reach out to other committees to co-sponsor workshops, poster and panel sessions at each Annual TRB meeting	Ongoing	Meeting Planning
14. Define a plan, including a plan for funding, to develop a legacy guide for practitioners, which would be updated frequently as new information develops. The plan must include a means or sustaining timely updates. Explore the possibility of starting with a chapter or chapters in existing guidance such as the Highway Capacity Manual or Freeway Operations Guidebook	2014	New Focused Task Force
Begin work on the legacy guide for practitioners	2015	New Focused Task Force
Issue the legacy guide for practitioners	2016	New Focused Task Force

Goal 5: Improve Committee Effectiveness

Continually improve the Committee’s functionality in being effective and in engendering participation, collaboration and adaptation to changing conditions and emerging technologies. Establish linkages and collaborate with other TRB committees on managed lane-related topics.

Activities

	Timing	Lead Sub-Committee <i>[Research, Outreach, Meeting Planning]</i>
15. Assign members to subcommittees, including subcommittee co-leads.	2014	Leadership (Chair, Vice Chair, Secretary and Subcommittee Chairs)
16. Implement a system of small groups or task forces for specific activities	2014	Leadership
17. Partner with other organizations on conferences, research and activities in order to increase reach. Potential partners include, but are not limited to, the International Bridge, Tunnel and Turnpike Association (IBTTA); and the American Road & Transportation Builders Association (ARTBA) as related in particular to public-private partnerships <ul style="list-style-type: none"> • Identify partnering opportunities through coordination with each of the TRB Managed Lanes subcommittees • Coordination would be through teleconferences, email, or meeting attendance. • Remain active and involved in the IBTTA Meeting Planning committees, and also be involved in IBTTA Board meetings in order to identify new opportunities 	Ongoing	All
18. Develop a Managed Lane Committee orientation package that informs new members and new friends of TRB and the Committee purpose, structure, current activities and ways to get involved	2014	Leadership
19. Develop a Recruitment and Succession Plan to ensure the Committee has diverse and motivated members that are capable of carrying out the activities of the committee, and assuming leadership roles on the committee and its subcommittees and task forces	2014	Leadership

GOALS AND FUTURE FOCUS ACTIVITIES (shading indicates goal addressed; dark shading indicates primary goal)

Future Focus Activities	Goal 1: Address Issues Critical to Practitioners and Policy Makers	Goal 2: Promote Research and Best Practices	Goal 3: Disseminate Knowledge on Best Practices and Related Research	Goal 4: Advance Concepts Responding Market, Mode, and Roadway Setting	Goal 5: Improve Committee Effectiveness
1. Promote participation in Pooled Fund Study	Dark Shading	Dark Shading	Dark Shading	Light Shading	Light Shading
2. Future conference topics: operational challenges; connections within systems & networks; optimizing revenue & performance; automated vehicles; big data	Dark Shading	Light Shading	Light Shading	Light Shading	Light Shading
3. Expand pool of reviewers for papers submitted to TRB	Light Shading	Dark Shading	Light Shading	Light Shading	Light Shading
4. Develop research and synthesis proposals (in coordination with other committees) and update the TRB Research Needs Database	Dark Shading	Dark Shading	Dark Shading	Light Shading	Dark Shading
5. Engage students through poster sessions	Light Shading	Dark Shading	Dark Shading	Light Shading	Light Shading
6. Develop a catalog of research funding sources and deadlines	Light Shading	Dark Shading	Light Shading	Light Shading	Dark Shading
7. Implement a calendar of conferences	Light Shading	Dark Shading	Light Shading	Light Shading	Dark Shading
8. Sponsor or co-sponsor workshops, poster and panel sessions at each Annual TRB meeting	Dark Shading	Light Shading	Dark Shading	Light Shading	Light Shading
9. Sponsor webinars to disseminate knowledge	Light Shading	Light Shading	Dark Shading	Light Shading	Dark Shading
10. Coordinate with FHWA on information sharing	Light Shading	Light Shading	Dark Shading	Light Shading	Dark Shading
11. Develop data on current and planned projects	Light Shading	Dark Shading	Dark Shading	Dark Shading	Light Shading
12. Convene the Int'l Managed Lanes Conference	Dark Shading	Light Shading	Dark Shading	Light Shading	Light Shading
13. Actively reach out to other committees to co-sponsor workshops, poster and panel sessions	Light Shading	Light Shading	Light Shading	Dark Shading	Light Shading
14. Develop a legacy guide for practitioners	Dark Shading	Light Shading	Dark Shading	Dark Shading	Light Shading
15. Assign members to subcommittees, including subcommittee deputies	Light Shading	Light Shading	Light Shading	Light Shading	Dark Shading
16. Implement small groups & task forces for activities	Light Shading	Light Shading	Light Shading	Light Shading	Dark Shading
17. Partner with other organizations	Dark Shading	Light Shading	Dark Shading	Light Shading	Dark Shading
18. Develop an orientation package for new members and friends	Dark Shading	Light Shading	Dark Shading	Dark Shading	Dark Shading
19. Develop a Recruitment and Succession Plan	Dark Shading	Light Shading	Dark Shading	Light Shading	Dark Shading

