

State and Federal Legislative Issues for Managed Lanes

It is critical that state or local jurisdictions be able to legally operate a roadway using a specific managed lanes operational strategy. Is legislation a roadblock to managed lanes implementation? State departments of transportation, including TxDOT, receive authorization regarding the operation of federal-aid highways from the United States government. Once the states receive this federal authorization, each state must establish authorization within its specific legal structure. In Texas, the state legislature passes laws which authorize the Texas Transportation Commission to operate federal-aid and all other state roadways in accordance with the statutes.

For an agency to successfully develop and operating managed lanes, the appropriate federal, state, and local legislative or policies need to be in place that allow for the design, operation, and enforcement of managed lanes under a variety of control scenarios. Furthermore, agencies will likely need legal and regulatory flexibility to make appropriate operational and eligibility changes over time as conditions change.

The operation of different types of managed lanes may be sufficiently different from typical freeway operations that changes in legislation and/or regulations may be required. Appropriate legislation should be in place at both the federal and state level to ensure their success and legality. Managed lanes operational strategies include high occupancy vehicle (HOV) lanes, value-priced and high occupancy-toll (HOT) lanes, exclusive lanes, separation and bypass lanes, dual facilities, and lane restrictions. The following sections provide a brief description of each managed lane operational strategy and a discussion of the federal laws that authorize and govern its operation. State laws, using Texas an example, are also discussed, including violations, enforcement, and operational flexibility.

HOV Lanes

An HOV lane is an exclusive traffic lane or facility limited to carrying HOVs and certain other qualified vehicles. Simply put, HOV lanes are separate lanes that are restricted to vehicles with a specified occupancy and may include carpools, vanpools, and buses (1). HOV lanes can operate on either arterials or freeways and, when implemented on freeways, can be one of three types of facilities—separated roadway, concurrent-flow lanes, and contraflow lanes (2). Additionally, the separated roadway facility may be either a two-way facility or a reversible-flow facility.

Federal Law

Various federal codes, guidelines, and legislation authorize the creation and operation of HOV lanes, including Title 23 of the United States Code (3), which defines carpool projects and gives passenger requirements for vehicles operating on HOV lanes (4). Specific policy regarding carpool projects is also included in Title 23 of the Code of Federal Regulation (5).

Furthermore, the United States Department of Transportation (USDOT), Federal Highway Administration provides guidance to states on the Federal-Aid Highway Program as it pertains to HOV lanes (6). This document provides states with background information, the federal policy position regarding HOV lanes, and conditions under which proposed operational changes to existing HOV lanes are subject to federal review. Other relevant legislation includes the National Environmental Policy Act (NEPA) (7) and the Clean Air Act (8).

State Law

The State of Texas provides the Texas Transportation Commission the authority to designate and TxDOT the authority to design, construct, operate, or maintain dedicated HOV lanes on any multi-lane highway on the state highway system (9). This statute also allows vehicles displaying the “low-emissions vehicle” insignia, thereby designating them as an inherently low-emission vehicle (ILEV), to use the HOV lane regardless of the number of occupants (10). The objective of providing this authority is to help relieve traffic congestion.

Value-Priced Lanes and HOT Lanes

Within the transportation community, a commonly agreed-upon definition of a HOT lane is an HOV lane that allows vehicles with lower occupancy to have access to the lane by paying a toll. Variations of HOT lanes are value-price, value express, and fast and intertwined regular (FAIR) lanes, which may or may not be occupancy driven depending on the region or state. For example, value express lanes, as proposed by the Colorado DOT, are similar to HOT lanes (11). In most cases, value lanes and FAIR lanes are toll lanes. However, some jurisdictions use these terms to describe strategies similar to a HOT lane. The idea behind HOT lanes is to improve the HOV lane utilization and sell unused lane capacity (1).

Federal Law

ISTEA specifically authorized the creation of up to five congestion pricing pilot programs, no more than three of which could implement tolls on the interstate system (12). TEA-21 modified and enhanced the congestion pricing program in several ways, including the renaming of the program to value pricing, increasing the number of projects to 15, and allowing tolling on any of the programs established under this act (13). TEA-21 also established the Interstate System Reconstruction and Rehabilitation Pilot Program, which authorizes states to collect tolls on an interstate facility for the purposes of reconstructing or rehabilitating that corridor if it could otherwise not be maintained or improved (14). However this program is limited to three projects, each located in a different state.

State Law

Texas statutes authorize TxDOT to charge a toll for the use of one or more lanes of a state highway facility, including an HOV lane (15). Therefore, TxDOT is able to participate in the federal value-pricing program, which it has done with the HOT lane pilot programs on the Katy (IH-10) and Northwest (US 290) Freeways in Houston.

Exclusive Lanes

The operational strategy of exclusive lanes provides certain vehicles, usually designated by vehicle type, an exclusive operational lane. The most common types of vehicles designated for this strategy are buses and large trucks. Buses often have exclusive lanes to provide an incentive for riders by decreasing delay, whereas trucks are separated in an attempt to increase safety and reduce conflicts by the physical separation of truck traffic from passenger car traffic. The maximum operating volumes for exclusive lanes varies depending on the vehicles operating on the facility and the design of that facility. The critical factor is to ensure that the desired level of service is maintained (16).

Federal Law

Any exclusive facility designated for buses falls under the jurisdiction of the laws governing HOV lanes and related transit facilities. Regarding exclusive facilities for trucks, regulations at the federal level specify only that no state may deny reasonable access to heavy vehicles either to or from any facility on the Interstate Highway System (17).

State Law

As with the federal law, any exclusive facility designated for buses in Texas would fall under those laws governing HOV lanes or transit. Regarding exclusive facilities for trucks, Texas has no specific statutes that give TxDOT the authority to establish exclusive truck lanes or facilities for the purposes of alleviating congestion, require trucks to use them, or exclude passenger cars from such lanes or facilities. However, given the potential benefits of such facilities, the researchers recommend providing TxDOT with the authority to create truck-exclusive facilities for the purposes of congestion mitigation.

Separation and Bypass Lanes

The separation or bypass lane is a treatment for a specific section or segment of roadway. Several areas have successfully used this management strategy, which often addresses a roadway segment that has the following characteristics: weaving area, a significant grade, high percentage of truck traffic, and/or congestion. Some areas have implemented bypass lanes at entrance ramps for transit or HOVs. The concept is that these vehicles receive preferential treatment and may bypass a queue to enter the freeway. Other treatments include the use of truck bypass lanes near high-volume interchanges to physically separate trucks from other traffic and to facilitate weaving maneuvers in the interchange proper.

Federal Law

As with exclusive facilities, any separation or bypass facility designated for HOVs, buses, trucks, or other special-use groups would fall under the jurisdiction of the aforementioned laws governing their operation.

State Law

As with the federal law, any separation or bypass facility designated for buses or HOVs in Texas would fall under those laws governing HOV lanes. Once again, Texas has no specific statutes that would govern the establishment of separation or bypass facilities for trucks. However, the legislation recommended in the previous section for the creation of exclusive lanes would be appropriate support for separation and bypass lanes.

Dual Facilities

Dual facilities are managed lane strategies that have physically separated inner and outer roadways in each direction. The inner roadway is reserved for light vehicles, cars only, or other specially designated user groups, while the outer roadway is open to all vehicles. For example, the New Jersey Turnpike has a 35-mile segment that consists of interior (passenger car) lanes and exterior (truck/bus/car) lanes within the same right-of-way. For 23 miles, the interior and exterior roadways have three lanes in each direction. On the 10-mile section that opened in November 1990, the exterior roadway has two lanes, and the interior roadway has three lanes per direction. Each roadway has 12-ft lanes and shoulders, and the inner and outer roadways are barrier separated.

Federal Law

Any managed lane facility using the dual operational concept falls under the jurisdiction of the federal laws governing the specific strategies used, such as HOV, HOT, trucks, etc.

State Law

As with the federal laws, any managed lane facility using the dual operational concept in Texas falls under the jurisdiction of the state laws governing the specific strategies used by the operating entity. Therefore, any specific legislation regarding dual facilities is not necessary.

Lane Restrictions

Lane restrictions are a management strategy that limits certain types of vehicles to specified lanes. The most common type of lane restriction addresses truck traffic. A large presence of trucks, both in rural and urban areas, can degrade the speed, comfort, and convenience experienced by passenger car drivers. Some states, to minimize these safety and operational effects, have implemented truck lane restrictions.

Federal Law

At the federal level, the regulation noted under exclusive facilities applies to lane restrictions in that no state may deny reasonable access to heavy vehicles either to or from any facility on the Interstate Highway System (17).

State Law

Texas has no specific statutes that would allow the state to establish lane restrictions for reasons other than when a heavy vehicle might cause damage to the highway or road (18,19) or on specific holidays (20). However, municipalities are allowed to restrict heavy vehicles to two designated lanes on a highway with three or more lanes, within the municipality, so long as it is only during peak traffic hours (21).

Managed Lane Violation

To date, no state legislation exists that specifically prohibits unauthorized use of managed lane facilities per se, with the exception of legislation regarding the failure or refusal to pay toll charges on a HOT lane facility (22). Legislation regarding violations in the use of such facilities is traditionally enacted at the county or local level. For example, in Houston, Metropolitan Transit Authority of Harris County (METRO) enforces the HOV lanes within the city limits under a City of Houston Ordinance (23). Where the HOV lane system operates beyond the city limits, officers ticket violators for disregarding official traffic control devices regulating vehicle occupancy within the HOV lane. Enforcement of the HOT lane restrictions is handled in a similar manner. Similar arrangements exist in other cities across Texas.

With traditional tolled facilities, regulations are in place regarding failure to pay a toll. While the Texas Turnpike Authority (TTA) currently does not operate a toll road, it has the power to prosecute violators under the law (24). Regional mobility authorities have the power in Section 361.003 of the Texas Transportation Code to construct, maintain, and operate turnpike projects in a region within Texas (25). The code grants regional mobility authorities the same powers as the Texas Turnpike Authority, including that of prosecuting violators. Furthermore, in Dallas, the North Texas Tollway Authority (NTTA) enforces its facilities under state regulations governing regional tollway authorities and failure or refusal to pay tolls (26). Likewise, the Harris County Toll Road Authority (HCTRA) in Houston enforces the toll facilities under state laws addressing non-payment of tolls on turnpikes in specific counties (27).

Enforcement

Enforcement of managed lanes, like the enforcement of all traffic laws, is handled through a combination of state regulations and local ordinances, so long as those laws do not conflict with any federal regulations governing the operation of federal-aid highways. For example, in Texas, the Texas Highway Patrol, part of the Traffic Law Enforcement Division of the Department of Public Safety (DPS), is responsible for “patrolling and supervising more than 200,000 miles of rural highways in Texas” (28). The authority of the DPS is granted through the Texas Government Code. The agency is empowered to enforce the laws protecting the public safety, and state troopers are charged with the duties of enforcing the traffic laws on rural Texas highways (29). Furthermore, TxDOT is directed to cooperate with and assist the DPS in the “enforcement of state laws concerning public safety” (30).

At the county level, the state empowers county peace officers to “enforce state laws that regulate the operation of a motor vehicle on a highway, street, or alley” (31). Therefore, these officers have the power to enforce any state law governing managed lanes within their jurisdictions.

Municipalities in Texas have the necessary powers to enforce traffic laws as well. For example, peace officers in municipalities are empowered by the Texas Local Government Code (32) and have the powers and jurisdiction granted to a peace officer by the Code of Criminal Procedure (33). Moreover, TxDOT can enter into agreements with municipalities to give them the authority to “provide for the location, relocation, improvement, control, supervision, and regulation of a designated state highway in the municipality” (34).

Other entities with the power to enforce traffic-related laws include transit authorities, regional mobility authorities, and tollway authorities. In Texas, various chapters of the Texas Transportation Code governs transit authorities (35, 36, 37, 38, 39). Under these codes, certain transit authorities are allowed to commission and hire peace officers, who are responsible for enforcing traffic laws and investigating traffic incidents that occur in the transit authority system (40, 41). Additionally, if a transit authority serves an area in which the principal municipality has more than 1.5 million residents, sworn peace officers of the authority have all the “powers, privileges, and immunities of peace officers in the counties in which the transit authority system is located, provides services, or is supported by a general sales and use tax” (42). However, it is important to note that the municipalities in which transit peace officers have this authority do not typically rely on the transit peace officers for all primary control on state highways within the municipal boundaries.

Toll authorities – including the TTA (43), regional tollway authorities (44), and county authorities (45) – enforce operations depending on their type of authority. For example, NTTA contracts with the Department of Public Safety for enforcement while HCTRA has county law enforcement personnel enforce its facilities. In both cases, enforcement of these toll facilities may be handled electronically through the use of technologies that photograph the license plates of violators, thereby fining the owner of the vehicle for violating the applicable state law governing the failure to pay tolls on specific facilities. Beyond this measure, automated enforcement is not addressed at the state level.

Automated or remote enforcement for moving violations, separate from managed lane violations, may also be a viable option for agencies. Various technologies might be used to help detect and help cite violators such as vehicles towing trailers, speeding, crossing buffers, or other violations. In such cases, appropriate authority would need to be put into place to allow law enforcement agencies to enforce in this manner.

Operational Changes

Over time, an operating agency may need to change the operational strategy of a managed lane facility to better meet the changing needs of the region. The FHWA has guidelines for the operation of HOV lanes, specifically when federal actions might be needed if a “proposed significant operational change can be reasonably

expected to affect a specific HOV lane or portions of the regional HOV system, which were funded or approved by FHWA” (6). Texas has no specific regulations regarding operational changes to any type of managed lane facility, though changes to existing HOV facilities would have to follow federal guidelines as noted above.

Federal Legislation Needs

The legislation currently in place at the national level is sufficient to enable TxDOT to establish all types of managed lane facilities discussed herein on the Interstate Highway System in Texas, on state and county highways, and on local streets. Regulations regarding operational changes are also in place to guide TxDOT in the creation and long-term operation of such facilities. However, as noted in the discussion regarding value-priced lanes and HOT lanes and tolling to finance reconstruction or improvements, these facilities are only possible through limited pilot programs established by ISTEA and TEA-21. For this operational strategy to become a widespread feature of HOV lanes in the United States, support for a larger and more permanent program needs to be provided at the federal level. Thus, the research team recommends changes to federal legislation that would facilitate such a program. Recommendations are to change the wording of ISTEA, as amended by TEA-21, by (1) removing the word “pilot” from the value-pricing program and by (2) removing the limit of 15 on eligible programs. Additional recommendations are to modify the Interstate System Reconstruction and Rehabilitation Pilot Program established by TEA-21 to (1) remove the word “pilot” from the program and (2) remove the limit of three projects.

Critical Issues

Critical issues which may prevent jurisdictions from implementing managed lanes include the following:

- *Enabling Legislation* – Laws need to allow agencies to establish and operate all types of managed lanes facilities.
- *Contractual Agreements* – Legislation is needed that makes it easy for agencies to enter into contractual agreements with other transportation-related agencies for the design, operation, and/or maintenance of transportation facilities with managed lanes.
- *Managed Lanes* – Define managed lanes as an operational concept and authorize entities to develop these facilities for congestion mitigation purposes.
- *Managed lanes Violation* – Operating authorities need to be able to issue citations for managed lanes violations. One single law that addresses the violation of any managed lanes facility in operation in a state could help ensure the statewide implementation of managed lanes strategies.
- *Operational Changes* – Agencies need the authority to make operational changes to a managed lanes facility if necessary to better meet the goals and objectives of the region and maximize its benefits.
- *Enforcement* – Legislation needs to address managed lanes enforcement, including automated enforcement.

Addressing these issues into the state statutes broadens the powers of transportation agencies and provides them with the tools they need to successfully implement managed lane facilities in their jurisdictions in the most effective manner, thereby working to reduce congestion and enhance the mobility of their citizens.

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For More Details . . .

Related Reports:

[Report 4160-8, State and Federal Legislative Issues for Managed Lanes](#)

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