5 STRATEGIES FOR REGIONAL MOBILITY

As a venue for continuous, cooperative, and comprehensive planning, the RGVMPO helps review and coordinate strategies, services, and investment projects that address regional goals and priorities for mobility. This chapter reviews technology, coordination, and policy strategies. It is intended as a toolkit of methods to address and improve regional mobility and introduces how the RGVMPO reviews and adopts infrastructure investment projects for the Metropolitan Mobility and Rehabilitation Program and the Transportation Alternatives Set-Aside Program.

REGIONAL MOBILITY STRATEGIES

This chapter is intended to serve as a toolkit and reference point of current and possible strategies to address several factors, summarized here as regional mobility. Beyond the implementation of the planning initiatives, goals, and objectives discussed in Chapter 2, this toolkit provides a review of strategies beyond infrastructure investment and capacity projects that can, in concert, help provide scalable alternatives that address regional issues.

Additionally, due to inherent fiscal constraints involved in infrastructure investment, it is critical to understand and implement strategies including available technology, coordination, policy, and alternative modes of travel.

The following sections provide a comprehensive description of possible strategies beyond the fiscal constraints of typical infrastructure investments and provides a broader palette of methods for meeting the RGVMAB transportation needs discussed in the Multimodal Needs Assessment (Chapter 4).

TECHNOLOGY STRATEGIES

The following section details strategies to address mobility needs related to Transportation and System Management Operations (TSMO). These strategies focus on the utilization of up-to-date transportation facility technologies that aim to help the RGVMPO meet its mobility needs.

Intelligent Transportation Systems

Transportation infrastructure is no longer limited to concrete pavement and asphalt. Recent improvements in operations and data collection have led to digital controls and integrated computer networks that require maintenance and management.

Opportunities for advancing the RGVMAB's electronic infrastructure comes in the form of Intelligent Transportation Systems (ITS), which includes technologies that improve transportation safety and mobility by integrating advanced communications into infrastructure and vehicles. The RGVMPO as an entity, serves as a stakeholder giving input on the Lower Rio Grande Valley Regional ITS Architecture and works in close coordination with the TxDOT Pharr District office as they implement, maintain, and record/monitor ITS performance in the region. The following electronic infrastructure has the potential to provide the RGVMAB with a favorable return on investment in terms of improved safety and mobility for the transportation network.

Ramp Meters

Ramp meters are traffic signals installed on the entrance ramps of freeways that alternate between red and green light signals to control the flow of vehicles as they enter the freeway facility. This infrastructure allows for more controlled merging movements and could therefore provide benefit on major roadway entrance ramps where merging has proven to be particularly dangerous.

Traveler Information Systems (TIS)

TIS is a strategy that involves making information about trip departures, routes, and travel time readily available to travelers and can be used for a variety of modes of transportation. This can be accomplished via websites, telephone hotlines, television, and radio, and particularly with dynamic messaging signs, which are digital signs that are installed along roadways and are updated with real-time travel information. Examples of the latter can be found on I-2 near the I-69C junction in Pharr/San Juan.

Signal Preemption for Emergency Vehicles

Signal preemption is a technology that allows emergency vehicles to change signal cycles, allowing them to advance through traffic lights efficiently and safely. A preemption device is located on mast arms and detects/alters signal cycles when emergency vehicles approach the intersection. This technology is most effective along roadways in which emergency vehicles will typically need to travel longer distances, or intersections where minor arterials/roads connect to larger road classifications. The end goal for signal preemption is to reduce overall response rates for emergency vehicles.

Video Detection (Non-Pavement-Invasive Detection)

Video detection is a form of non-pavement-invasive detection, also known as a traffic detector, which allows for the collection of traffic information, such as vehicle presence, volume, speed, and occupancy. Video detection provides a method of data gathering that does not require invasive procedures to be carried out on the pavement and thus has little to no impact on pavement resilience. This detail of information allows for more informed decisions when making infrastructure improvements.

Traffic Signal & Intersection Improvements

Roadway users encounter traffic control signage and intersection signals on nearly every route they travel. While the primary function of intersection traffic control is to improve safety at intersections, it is also often a significant source of delay. Improper signage and poor signal timing result in unnecessarily long queues and impacts the reliability of the transportation system. Improving signage, signal timing, and equipment is a cost-effective way to facilitate traffic flow along a corridor.

This strategy has been implemented in Hidalgo County through expenditure of $1 million in Category 7 funding to address operational improvements. The funds were used to purchase new control boxes, clocks, etc. for McAllen, Pharr, Mission, and Edinburg in a regional attempt to address light synchronization. Similar efforts have also been undertaken in the Brownsville area to improve intersections for pedestrians along wide or highspeed corridors, such as installing median pedestrian islands on Boca Chica Blvd. to make conditions for pedestrians safer.

The RGVMPO continues to work with its planning partners to identify corridors, which would benefit from traffic signal and intersection improvements and to prioritize projects.

Traffic Signal Optimization

Traffic signal optimization is critical to managing congestion and traffic flow. The timing and phasing of signalized intersections should be reviewed periodically, especially in areas of the region experiencing rapid development or increased commercial activity. Traffic signals can also be coordinated along a corridor or throughout an entire system. As traffic volumes increase, signal coordination can be used to optimize high priority traffic corridors and increase the throughput of critical thoroughfares.

Adaptive signal control, which adjusts the timing of traffic lights based on real-time travel conditions, can also provide significant relief to congested corridors and cut costs associated with traffic signal timing data collection and computation.

Significant investments were recently made in the Brownsville area to improve traffic flow by setting aside a dedicated portion of Category 7 for CMP related improvements. This type of improvement is far less expensive for the MPO than a build or capacity-oriented solution for solving congestion issues. While success is not yet quantifiable, the RGVMPO received feedback from the public who have praised the installation of adjacent sidewalks, pushbuttons, and crosswalk signals related to the traffic signal upgrades.

Traffic Data Collection

As transportation technology grows increasingly sophisticated, obtaining the amount of data required by new traffic optimization interfaces presents significant challenges to due to fiscal constraints. Automated traffic data collection creates an opportunity for transportation management agencies to receive a continuous supply of traffic data at a low cost. Because automated traffic data collection gathers data in real time, it facilitates many of the demand responsive TSMO strategies discussed earlier in this section (such as traffic signal optimization). New types of traffic data collection, such as Bluetooth and Wi-Fi detectors, are particularly appealing due to their lower operational and maintenance costs compared to in-road loop detectors. These types of detectors have the added benefit of being able to gather traveler information beyond traditional roadway vehicles to include bicycle and pedestrian roadway users.

Emerging Technologies

In addition to the implementation of some of the ITS capability mentioned above, the emergence of new technologies and the adoption of policies and legislation will provide future decision makers with a new set of strategies to consider.

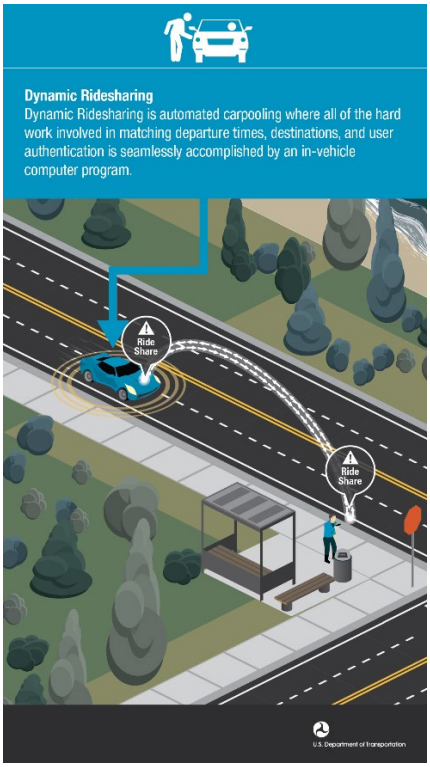
Connected & Autonomous Vehicles

Connected and autonomous vehicles (AV) can be integrated into existing ITS architecture and could potentially improve mobility, traffic operations, and safety. Automated public transportation could help reduce congestion and the space needed to accommodate single-occupant vehicles, while also potentially improving efficiency and reducing fatalities and severe injuries due to fewer drivers on the road. This technology could also benefit freight and economic growth since improved travel times and traffic operations could have positive impacts on the economic vitality of rural and urbanized areas within the region. The National Association of City Transportation Officials (NACTO) provides further advice and guidance about AV in their "Blueprint for Autonomous Urbanism". Similarly, the Society of Automotive Engineers (SAE) and the National Highway Traffic Safety Administration (NHTSA) are working to provide guidance for safety and programming levels of automation. Staff of the urban area can help the development and deployment of these technologies throughout the region by beginning discussions on policy and land use, as well as keeping its planning partners informed about developments in autonomous vehicle technology.

Smartphone Applications

As previously mentioned, TNCs and rideshare applications for smartphones are already influencing how people are choosing to commute. Uber recently unveiled (February 2018) their new "Express Pool" service in the Washington D.C. Metro Area. This new service uses traffic analytics and routing software to reduce backtracking and rerouting to pick up multiple passengers, as was the case with their "UberPool" service. In exchange for significant discounts and more direct routing, riders are picked up within two blocks of their origins, and dropped off within two blocks of their destinations, which entails passengers walking more at the beginning and end of their trips.

Smartphones are also already being used at Metro McAllen, Valley Metro, and Brownsville Metro to improve transit service and user experience through route information apps. The Metro McAllen, Brownsville Metro, and Valley Metro Transit Agencies can continue to work with its planning partners to develop or enhance the functionality of smartphone transit applications to further encourage travelers to use transit.



COORDINATION & POLICY STRATEGIES

The following section details strategies to address mobility needs related to Transportation Demand Management (TDM). These strategies utilize coordination and policy programs that aim to help the RGVMPO meet its mobility needs.

Transportation Demand Management

TDM strategies seek to reduce congestion on existing roadways by reducing the overall number of cars using roads or by redistributing cars away from congested areas and peak periods of travel. Encouraging the use of alternative modes of transportation (such as transit, biking, or walking) and increasing the number of travelers in each vehicle are the primary ways in which TDM strategies reduce single-occupant vehicle demand on existing roadways. Simply put, transportation demand can be managed by providing travelers with a wide range of efficient and accessible choices for reaching their destination.

With limited funding available to address congestion through increasing roadway capacity, TDM is a cost-effective means to improve use of the transportation system. TDM strategies are designed to accomplish the following:

- Improve mobility and accessibility by expanding and enhancing the range and quality of available travel choices.
- Reduce congestion and improve system reliability by decreasing the number of vehicles using the roadway.

- Reduce congestion and improve system reliability by shifting vehicle travel to non-peak periods.
- Increase safety by addressing congestion, which is generally related to higher occurrences of traffic incidents.
- Improve air quality by reducing the number of vehicle miles traveled, thereby saving energy, and decreasing the number of short vehicle trips.

The following sections detail best practices for TDM.

Strategies to Reduce Single Occupancy Vehicle Trips

Carpool, vanpool, and school-pool programs encourage travelers with common destinations, particularly employment and school destinations, to share vehicles. These can be based on informal arrangements between individuals or formally arranged through ride-matching services. Available research indicates that improving awareness, trust, and willingness to ride with strangers, as well as flexibility in scheduling, may help to increase carpool use. Incentives are another effective tool for encouraging ridesharing.

Resources that may help to increase the use of carpooling, vanpooling, and school-pooling include publishing a webpage with "Frequently Asked Questions" (FAQs) that address the benefits of carpooling, tips for finding other carpoolers, advice on how to organize pick-ups and drop-offs, carpooling etiquette, and safety concerns, among others.

Additionally, some entities have used websites to facilitate the matching of individuals with other carpoolers by either hosting their own free ride-matching service using online ride share software, or publicizing ride-matching applications available to the public, such as web-based carpooling apps.

Incentives

The RGVMPO can play a valuable role in working with area employers and schools to develop employer-based incentives to encourage ridesharing, such as tax incentives and preferential parking.

TRANSPORTATION MANAGEMENT ORGANIZATIONS

Transportation Management Organizations (TMOs) are non-profit organizations voluntarily created by a group of businesses – often with local government support – to coordinate transportation services in a defined area (typically a commercial district, medical center, or industrial park). Because they tend to serve a small geographic area and constituency, these groups can be very responsive to members' needs. TMOs provide a variety of TDM services that encourage more efficient use of transportation and parking resources, particularly through commute trip reduction strategies and ridesharing.

EMPLOYER-BASED TOOLS & INCENTIVES

The commute to and from work is a significant contributor to traffic congestion along area roadways, particularly during peak travel times. TDM strategies that focus on employer-based tools and incentives can be an effective way to reduce travel by single occupant vehicles by coordinating ridesharing among employees, encouraging the use of alternate transportation modes for work trips, shifting work trips away from peak hours, and reducing work travel times and the number of overall trips. Examples of alternate modes of transportation include walking, biking, using transit, skateboarding, etc.

Employer-based TDM strategies fall into several categories:

- Encouraging employees to travel by alternate modes.
- Shifting trips away from peak periods of travel and reducing the total number of trips.
- Providing route information to divert commuters from congested routes.
- Using location-specific solutions - such as locating in developments with a mix of employment, residential, and service uses - to shorten the work commute.

Regional transportation planning entities can actively work with area employers to reduce congestion by expanding the transportation options available to their employees. This type of information can be provided on a website or delivered through a "speaker series" for educating area employers regarding options available and their benefits to employers, employees, and the community.

PARKING MANAGEMENT & INCENTIVES

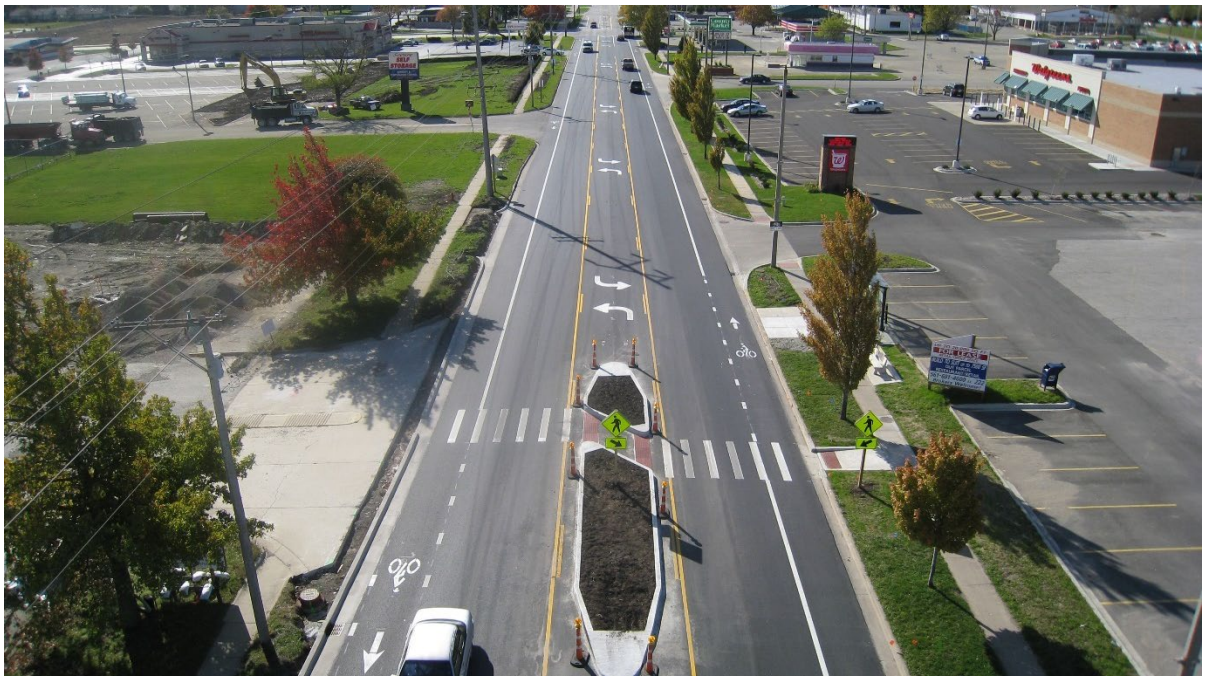
Parking management strategies and incentives encourage the use of alternate modes and can be implemented by both local jurisdictions and employers. These strategies typically rely on dis-incentivizing travel by single occupant vehicle by passing along more of the cost of parking to employees and/or limiting the availability of parking. Improved management of parking facilities can result in potential savings to communities and may reduce parking requirements.

Complete Streets

The concept of "Complete Streets" is rooted in the idea that roads should be built with all users in mind, not just the private automobile. While Complete Streets principles include many TDM and TSMO strategies, the concept focuses less on improving traffic conditions and more on the livability of places through a combination of safety, efficiency and comfort. Complete Streets strategies address the needs of all users of the transportation system, including the young and the old, the disabled, and users of transit or non-motorized forms of transportation. They yield a wide range of benefits related to safety, equity, access, economic development, air quality, health, and livability.

Per the HCMPO 2014 Pedestrian Plan and 2018 HCMPO Bicycle Plan, several cities had noted efforts to implement Complete Streets, including Alton, Donna, McAllen, Mercedes, Mission, Palmhurst, and Weslaco. However, specific methods were not provided.

While policies adopted by local governments represent most Complete Streets policies adopted nationwide, MPOs can be integral partners in promoting and implementing Complete Streets strategies. Moving forward, it will be crucial for the RGVMPO and BPAC to continue to engage with localities and their community members to implement more Complete Streets practices.



Maintenance

Infrastructure maintenance is a critical aspect of TSMO. Most infrastructure management agencies prefer to schedule routine repairs and inspections instead of embarking on ad-hoc patching and repairing. Schedule management for inspection and street repairs will enable city and county personnel to efficiently use limited resources. Regularly scheduled roadway resurfacing is necessary to provide uniform improvements to the existing roadways and to extend their useful life. Older roads, especially those built according to discontinued standards, should be reviewed to upgrade deficient sections based on modern design standards.

Access Management

Access management refers to the regulation of the number of access points between a development and the adjacent roadway network. Many access management solutions involve installation of roadway medians where feasible to guide turning movements to the appropriate locations and improve traffic flow and safety. Another example of access management is optimizing the number and locations of driveway curb cuts in commercial or industrial zones.

Previous endeavors within the RGVMAB included MPO staff helping sponsor access management workshops for TAC members and city staff to attend. The RGVMPO sees many benefits from access management tools such as placement of laminations on the number and spots that curb cuts are permitted along a roadway.

Targeted Traffic Enforcement

Consistent and reliable enforcement of traffic laws helps address public concerns about traffic issues. Focused speed studies (using radar trailers and traffic counters) and enforcement can be employed in the RGVMAB to discourage speeding on roadways within the region.

Safe Passing Ordinances are an example of traffic enforcement that can help encourage RGVMAB citizens to use alternative modes of transportation as they increase bicycle and pedestrian safety. These ordinances protect vulnerable road users by requiring a safe passing distance of 3 feet by motor vehicles and 6 feet for commercial vehicles when conditions allow. Currently, several cities within the RGVMAB have enacted such safe passing ordinances, including Brownsville, Edinburg, Harlingen, McAllen, Mission, Pharr, San Benito, San Juan, and Weslaco.

The same can be said for parking enforcement laws, which prevent automobiles from parking in ways that may be harmful to or discourage pedestrian and bicycle travel. Edinburg, Pharr, and San Juan currently have such enforcements in place, while Brownsville is currently making progress towards implementation.

Traffic Calming

Because there are many instances where the number of aggressive drivers is greater than the capacity to enforce traffic laws, many cities and counties have implemented various "self-enforcing" speed and volume control devices. Most of these measures are referred to as "traffic calming." These physical devices can assist law enforcement in influencing driver behavior.

Most traffic calming measures are applied to residential streets, though certain measures can be applied to higher volume roadways as well. Broadly defined, the goals of traffic calming measures are:

- To slow down the average vehicle speeds for a roadway.
- To address excessive volumes for a roadway.
- To make drivers aware of the context and surroundings of roadways.

Traffic calming measures can sometimes impact access and response time for emergency personnel. Representatives of fire, police, and emergency services departments should be involved in the review of proposed traffic calming devices. The RGVMPO can work with its planning partners and emergency response agencies to identify locations suitable for traffic calming implementation. Common examples of traffic calming installations include:

- Speed humps or cushions
- Bulb outs
- Chicanes
- Raised crosswalks
- Traffic circles

Traffic Incident Management

Traffic Incident Management (TIM) consists of a planned and coordinated process to detect, respond to, and quickly clear traffic incidents so that traffic flow may be restored as safely and quickly as possible. Effective TIM strategies reduce the duration and impacts of traffic incidents and improve the safety of motorists, crash victims, and emergency responders. Traffic incident management involves coordination among several public and private sector partners, including:

- Law enforcement
- Emergency management and preparedness
- Fire and rescue
- Emergency medical services
- Towing and recovery
- Transportation departments
- Hazardous materials contractors
- Public safety communications
- Traffic information media

All Ages & Abilities Facilities

Active transportation facilities which are designed and built to provide a high comfort level for all users including young, old, or disabled, is a more equitable approach to include more people in the active transportation network. All ages and abilities facility types focus on intuitive design, separation from motor vehicles, and a high level of comfort along all segments of the route. Occasionally, bike facilities may often have gaps which place vulnerable users in an uncomfortable position on the roadway, whereas all ages and abilities facility types will have a continuous and connected system. An example of an all ages and abilities facility in the RGVMAB is the Heavin Resaca Trail which connects BUS-77 with W. Stenger St. in San Bento and provides a separated, paved pathway comfortable for all users.

Safe Routes to School Programs

Safe Routes to School (SRTS) programs aim to improve the ability to walk, bike, or wheel to schools. The program works with parents, schools, and local governments to prioritize and select projects that improve active transportation access to schools and ensure safe and comfortable routes for all students. Moving forward, the 2019 TxDOT Transportation Alternatives Set-Aside Program/Safe Routes to School Program Guide can be used as a guideline for SRTS implementation.

Open Streets Events

Open Street events, also known as "Ciclovias" or Sunday Parkways, are dedicated to non-vehicle use for a pre-determined period of time. Residents use the streets for activities such as exercise, games, or playing music. Community vendors, and business may be involved to incorporate local traditions. The purpose of Open Streets events is two-fold: first, to provide an opportunity to build community and enjoy public space in a safe, quiet environment, and secondly, promote and encourage residents to use active modes of travel such a walking, biking, or transit, for daily activities.

Municipalities or local non-profits group can both host such events, and often the two work in unison to accomplish the event. The City of Brownsville currently hosts "CycloBia", its Open Streets event which makes selected Brownsville streets available to residents for recreational and sport activities. The City of Harlingen has also hosted similar events known as "Viva Streets". The Open Streets Project provides many resources and tools for communities who would like to start an open streets event.

Social Behavior Change Programs

Many urban areas have started to offer residents who are interested in learning more about using active modes of travel additional information and support. Municipalities, transit agencies, and non-profit groups have maintained such programs to help reduce single occupancy vehicle trips, and increase trips made by walking, biking, or taking transit. Generally, programs work with individuals who are already interested, or who have considered making such changes, as not to waste effort with those residents who are not interested or ready to change their mode of travel. Community events, social media campaigns, and door to door marketing are all methods used to communicate with residents who choose to participate with the program. Successful programs have been shown to accomplish reductions in vehicle miles traveled within the communities the program is active.

Safety & Security

The FAST Act requires that the transportation planning process address both the safety and security of the transportation system for motorized and non-motorized users. Federal guidelines define safety as "freedom from unintentional harm," and define security as "freedom from intentional harm."

The RGVMPO is responsible for addressing safety and security through the programming of transportation improvements. The MPO's role in coordinating regional transportation needs between the various local, state, and federal transportation agencies are vital to creating successful safety and security policies and enhancing regional mobility. By integrating the safety and security goals and objectives of regional stakeholders into the transportation planning process, the MPO can ensure that its plans and studies are consistent with and help support safety and security planning in the RGVMAB.

The following sections discuss the various safety and security initiatives relevant to the RGVMAB and focus on implementation strategies. Please refer to Chapter 2 for full descriptions of referenced plans.

Texas Strategic Highway Safety Plan

The SHSP identifies safety concerns and classifies them into seven key emphasis areas. The plan describes the trends in fatalities within each emphasis area, defines a specific target for 2022, and suggests strategies that should be undertaken to achieve the performance targets that are tailored to the unique circumstances of crashes within each emphasis area.

The strategies recommended in the SHSP should provide the basis for countermeasures that the RGVMPO consider addressing crash types and locations, as well as driving behaviors, that are responsible for the greatest number of crashes in the region – particularly those resulting in serious injuries or fatalities. Further information on RGVMAB safety trends can be found in Chapter 4.

Highway Safety Improvement Plan

The HSIP's goal is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands. The program must be consistent with the Texas SHSP and report annually on the following:

- HSIP program structure
- Progress towards implanting HSIP-funded projects
- Progress made in achieving safety performance targets
- Assessment of the effectiveness of implemented improvements

TxDOT selects projects for implementation through HSIP following a data-driven approach that identifies safety problems in a systemic manner, identifies countermeasures to address them, and prioritizes projects based on the goals and objectives outlined in the SHSP.

Texas Department of Emergency Management

The state emergency management program is coordinated by the Texas Division of Emergency Management (TDEM). This program is intended to ensure that the State of Texas and its local governments respond to and recover from emergencies and disasters. The program also implements plans and programs to help prevent or lessen the impact of emergencies and disasters, as well as programs to increase public awareness about threats and hazards.

The TDEM also coordinates emergency planning and administers disaster recovery, hazard mitigation, and homeland security grant programs in the State of Texas.

Previous MPO Safety and Security Efforts

RGVMPO has embraced and is working to continue, integrate and expand the safety and security programs and relationships developed over time by the three former MPOs covering portions of the consolidated RGVMAB. This section describes those programs and how the RGVMPO is tying these historical efforts into a cohesive and comprehensive regional safety and security program.

HSBMPO

The former HSBMPO used the "4-Es" of traffic safety to improve safety on roadways. The "4-Es" of traffic safety are Engineering, Enforcement, Emergency services, and Education. By using each of the "4-Es" the HSBMPO took steps to reduce crashes on roadways within the RGVMAB through safety related investments.

Several hurricane evacuation routes also pass through previously defined HSBMAB, which are vital roadways during emergency management events. The prioritization of these roadways in the project identification process is key to keeping a properly functioning disaster preparedness program.

Four international border crossings exist in the previous HSBMAB. Border security is vital to the region, state, and country, so interagency collaboration is needed to protect transportation infrastructure.

HCMPO

The former HCMPO worked with state and federal agencies to study and monitor safety in the region while working locally to make the transportation system safer.

The implementation of a Traffic Incident Management System (TIMS) was developed in 2010 to analyze state crash records and help guide decisions on where to make roadway improvements. This data is also used to assess specific roadway areas for pedestrian, cyclist, transit, and freight safety, as well as where roadway improvements can be made.

Disaster preparedness was also a primary concern for the region and the HCMPO worked closely with TxDOT and the LRGVDC to coordinate plans for the event of a natural disaster.

Six international border crossings are present in what previously was the HCMAB. Close relationships have been formed with U.S. Customs and Border Protection along with the City of Reynosa, in Tamaulipas, Mexico to provide security to border crossings and bridges that connect the region economically and socially to Mexico, and RGVMPO must continue moving forward to ensure regional safety and security.

BMPO

The former BMPO 2040 MTP update included four policy statements regarding safety and security planning, which were as follows:

- The Brownsville MPO supports, along with transportation partners, the development of a safe transportation system for all users (pedestrian, bicycle, private auto and trucking and public transportation).
- The Brownsville MPO will examine and consider increased transportation system security when evaluating or sponsoring funding requests for transportation improvement projects.

- The Brownsville MPO will champion or support agency coordination, training, and information-sharing efforts to promote security preparedness within the MPO planning area.
- The Brownsville MPO will seek available funding to strengthen the security of the MPO's transportation system.

Directed by these policy statements, the BMPO enacted various methods of incorporating safety and security measures. For example, in the project identification process, rankings included points for safety, and FHWA-sponsored safety workshops were held for MPO and local staff members.

The MPO also coordinated with many relevant agencies such as U.S. Homeland Security, Brownsville Police Department, and the Cameron County Police department.

Currently, the City of Brownville Office of Emergency Management and Homeland Security (OEMHS) serves Brownsville citizens by making plans to prepare for and respond to emergencies or disasters, either man-made or natural.

RGVMPO ACTIONS TO CONTINUE AND INTEGRATE PREVIOUS SAFETY AND SECURITY EFFORTS

RGVMPO is working to continue the previous safety and security program development begun by the three former MPOs by undertaking a variety of actions and strategies, including but not limited to:

1. Evaluating the programs in each area to identify the most effective strategies and considering how they might be expanded to regional programs.
2. Identifying common themes and effective branding (such as the HSBMPO '4E' terminology) to develop common and consistent vocabulary for use in planning and program development efforts across the RGVMAB.
3. Looking for opportunities to consolidate and streamline task groups or committees to reduce redundancy and make the most effective use of people's available time, particularly emergency management and emergency response personnel that are so critical to both creating and carrying out the programs.
4. Respecting the uniqueness of each community by preserving and supporting independent safety and security programs where a customized, site specific, approach is the most effective and most likely to achieve the desired safety and security outcomes.
5. Continuing to work with federal, state, and local agencies and emergency managers to identify steps to be taken that may not have been previously considered or have become necessary due to emerging circumstances and challenges.

STRATEGIES TO INCREASE TRAVEL BY ALTERNATIVE MODES OF TRANSPORTATION

Strategies to increase travel by alternative modes (i.e. transit and active transportation) can also help the RGVMAB reduce the number of automobile trips and enhance regional mobility. These strategies typically focus on the following objectives:

- Expand the service area of transit (regional and local) and connect bicycle and pedestrian infrastructure to transit facilities to reach more citizens, increasing connectivity to key destinations within the region.

- Improve the quality of transit service to increase convenience, comfort, ease of access, and affordability to encourage mode switch by providing various levels of service focused on community context.
- Educate the public on the availability of various alternative transportation modes and services and provide intuitive and accessible resources to help travelers navigate the region.
- Understanding and reducing congestion allowing for more efficient and safe travel of alternative transportation modes on the RGVMAB roadway network.

The following sections detail mode-specific strategies based on plans currently under development which will provide the RGVMAB with recommendations for alternative transportation mode implementation.

RGVMPO Active Transportation Plan

Active transportation refers to non-motorized modes of travel, such as walking, bicycling, or using a wheelchair or mobility device. Because these modes provide fundamental means of mobility and accessibility to individuals, it is crucial for the metropolitan planning process to consider the needs of active transportation users. In addition, active transportation can provide communities with opportunities for enhanced recreation, leisure, and tourism by creating pedestrian and bicycle networks that allow people to spend time outdoors and encourage economic development. Some standard strategies include:

- Increasing bicycle/pedestrian safety through signage, lighting, facility type upgrades, etc.
- Increasing the continuity of facility networks
- Increasing availability of parking/storage and availability of amenities (e.g. RGVMPO Bike Friendly Business Program)

Accordingly, the RGVMPO Active Transportation Plan is being conducted in tandem with this MTP update to help address such strategies. The plan contains robust analysis on the RGVMAB's current state of active transportation infrastructure and ensuing needs; a set of network recommendations with a staged implementation plan; and facility design guidelines. The plan also conducted public engagement efforts alongside the MTP process to consider community priorities and locally identified needs.

All elements of the plan aim to guide the creation of a successful active transportation network that supplements the project prioritization described in this MTP update, specifically in Chapter 9. This will allow for the RGVMPO and its planning partners to optimize the multimodal transportation project implementation process in an effective and fiscally constrained manner, while increasing the quality of life for the RGVMAB residents by providing more multimodal mobility options.

To maintain focus on active transportation issues, the BPAC exists to address pertinent active transportation matters and present recommendations to the TAC. This subcommittee contains a mixture of TAC members, bicycle advocates, pedestrian advocates, and other relevant stakeholders. Continued support from the RGVMPO BPAC will be essential to the enhancement of the RGVMAB active transportation network. The full Active Transportation Plan is available for review on the RGVMPO website.

RGVMPO 2030 Transit Development Plan

While personal automobiles typically offer comfort and ease to users, traveling by transit typically requires longer travel times and less flexibility in schedule. Improving transit services involves strategies and planning that makes the option of taking transit competitive to that of using a personal automobile by creating time and cost savings. Such strategies include:

- Shortening overall travel times
- Increasing traveler comfort
- Providing added flexibility regarding travel times and destinations

Certain aspects of bus travel will always be less convenient than travel by car, however, there are several improvements that can be made to existing regional (i.e. Valley Metro) and local (i.e. Brownsville Metro, Island Metro, McAllen Metro, UTRGV) service to influence a future transition to transit ridership.

The RGVMPO is also conducting the 2030 Transportation Development Plan (TDP) in concurrence with this MTP update to ensure a coordinated effort in the multimodal transportation planning process. The TDP contains in depth analysis on the RGVMAB's existing transit conditions and needs; a set of service standards to create a unified regional state of transit; scenario alternatives for Valley Metro to efficiently connect to existing service providers; and a transit investment analysis detailing the level of funding necessary to achieve the scenarios developed. The plan also conducted a series of public engagement events alongside the MTP outreach efforts to understand community priorities and obtain local input on specific areas of need. These engagement findings were paired with the TDP's technical analyses to provide better mobility options within the RGVMAB via transit.

The addition of the TDP, alongside the MTP prioritization process, will allow for the RGVMPO and its planning partners to better understand how to enhance the existing transit system, in turn reducing single occupancy vehicle travel and improving multimodal options for RGVMAB citizens. The full TDP is available for review through the RGVMPO website.

RGVMPO Congestion Management Plan

The CMP is also currently under development and aims to gather data on congestion levels in the urbanized areas of the RGVMAB and ties in closely to the technology, coordination, and policy strategies discussed earlier in this chapter. The CMP network being analyzed consists of roadways within the RGVMAB that are either FHWA functionally classified or identified as a transit route. This process informs cost balanced strategies for reducing delay and congestion and is an integral resource used in the development of this MTP as well as in the decision-making framework established in the MTP for future investments strategies prioritization.

INFRASTRUCTURE INVESTMENT STRATEGIES

The following section outlines the steps taken to address or mitigate the deficiencies identified through the multimodal needs analysis (Chapter 4). Steps include the development of an unconstrained list of potential infrastructure projects, completing a project prioritization process based on the 10 FAST Act planning factors and community values, and creating a staged implementation plan for the MTP planning horizon (Chapter 6). This process allows for the RGVMPO to build off data-driven analyses and community input to create a subjective project prioritization which will in turn allow the region to implement projects that address gaps in transportation infrastructure in a timely and fiscally feasible manner.

Project Identification

Once the alternative policy and program strategies were considered, potential projects to expand or build new facilities within the RGVMAB were examined. The combined results from public and stakeholder engagement, plan review, multimodal needs assessment, and a call for transportation projects was used to develop a list of candidate projects for further consideration.

Project Selection

The RGVMPO works in close coordination with the TxDOT Pharr District, using objective data and quantitative analysis tools, to identify and address regional needs based on state and national goals. Through this process, TxDOT category funding is allocated towards transportation infrastructure projects. This includes funding categories such as preventative maintenance and rehabilitation, corridor and connectivity enhancements, non-traditionally funded transportation projects, grade separation programs, safety improvements, border infrastructure, and other supplemental transportation projects.

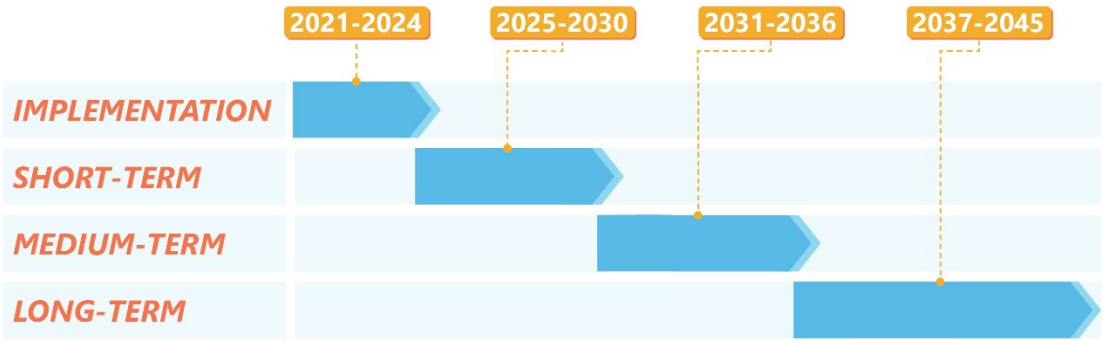
Regarding Category 7 and 9 funding projects, the RGVMPO and TAC incorporated the federal planning factors and feedback received during the visioning process to help determine regional priorities and develop a draft prioritized project list. FAST Act planning factors can be referenced in Chapter 2. The TAC, with assistance from RGVMPO staff, used a project evaluation process based on technical findings, stakeholder input, and professional judgement to evaluate and prioritize the project list. The project selection process is further discussed in Chapter 9.

Project List Adoption & Staged Improvement Plan

The TPB oversees final approval of the draft project list after the prioritization process is finalized. Once the TAC completed their project selection process, the draft list of prioritized projects was sent to the TPB, which approved the draft list for public review and feedback. Following public comment, the TPB approved the final project list upon adoption of the RGVMPO 2045 MTP.

The final list of prioritized projects is presented in the following chapter, which displays the project list in a phased plan for fiscally constrained implementation over the 26-year plan horizon. The implementation phases are listed below:

- Implementation Stage (2021 – 2024)
- Short-Term Stage (2025 – 2030)
- Medium-Term Stage (2031 – 2036)
- Long-Term Stage (2037 – 2045)



Chapter 6 also provides corresponding maps to identify projects in each stage of the plan.