



RIO GRANDE VALLEY FREIGHT AND TRADE TRANSPORTATION PLAN *EXECUTIVE SUMMARY*



RIO GRANDE VALLEY FREIGHT AND TRADE TRANSPORTATION PLAN

The Rio Grande Valley in South Texas is a multimodal international trade hub and a critical gateway for Texas, agriculture, energy exports, and trade, and the region’s impact to the state and national economy is growing. The region’s multimodal freight network supported more than \$22 billion in exports and \$31 billion in imports in 2019 as well as \$37.4 billion in gross regional product.¹ Approximately one million trucks and 1,000 trains entered the Rio Grande Valley from Mexico the same year.² The maritime ports in the region further support international trade as well as production in binational, regional industries such as agriculture, construction, energy, and manufacturing, handling more than 10 million tons of freight per year.

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First Last, Commissioner,
Texas Transportation Commission



FREIGHT AND TRADE IN THE RIO GRANDE VALLEY (2019)

- » \$22 billion in exports¹
- » \$31 billion in imports¹
- » 1 million northbound trucks from Mexico (+42% since 2010)²
- » 1,000 northbound trains from Mexico (+99% since 2010)²
- » 10 million tons of freight at maritime ports^{3, 2018}
- » \$37.4 billion in Gross Regional Product^{4, 2018}

¹ Bureau of Transportation Statistics, TransBorder Freight Data, 2019.

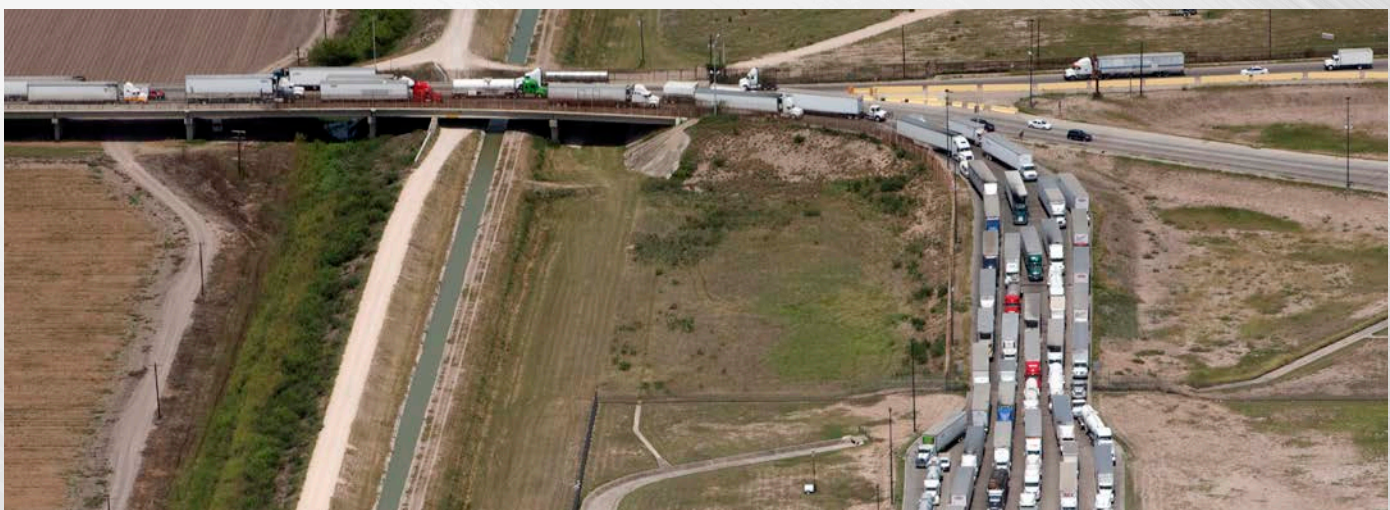
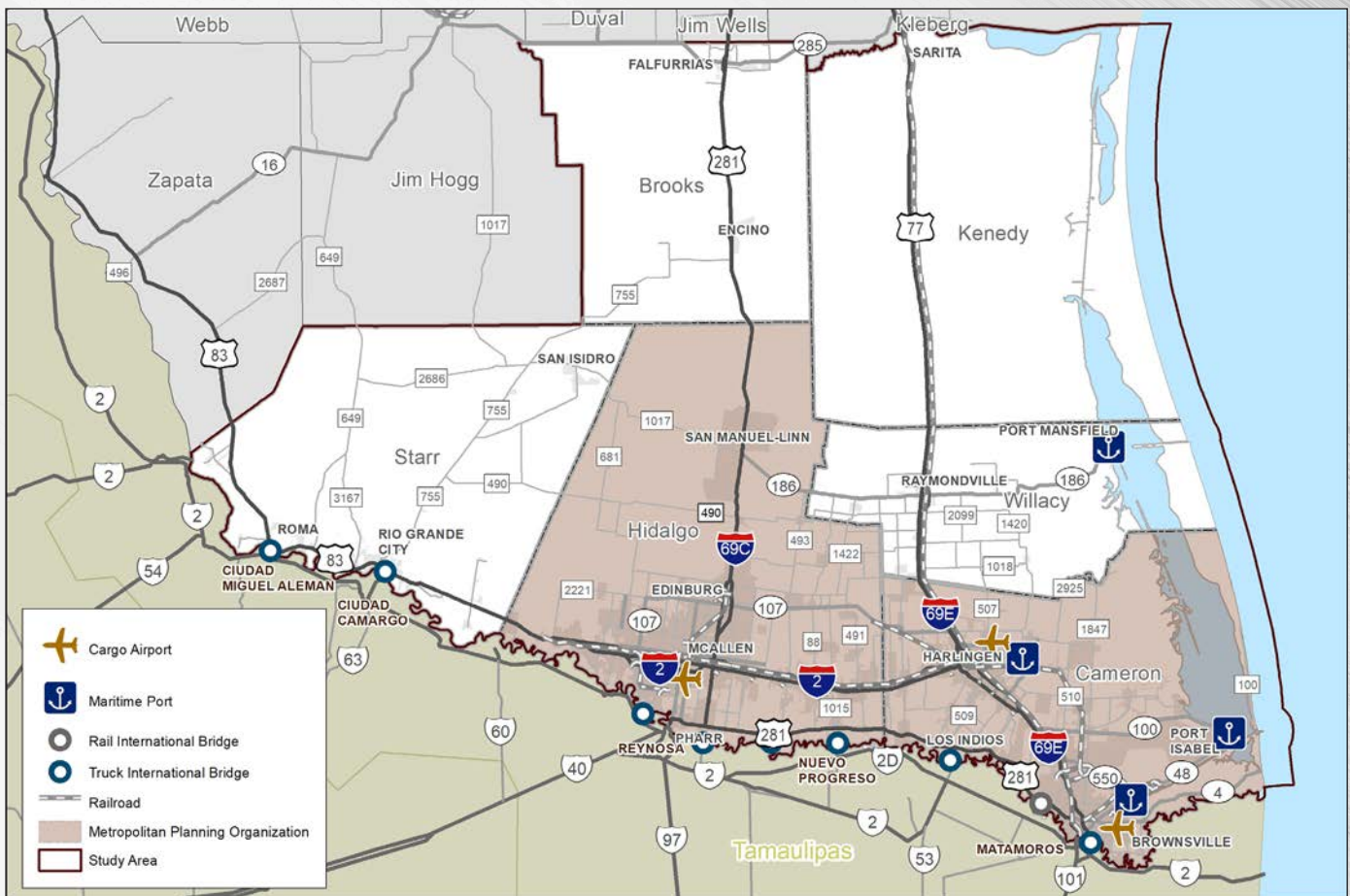
² Bureau of Transportation Statistics, Border Crossing/Entry Data, 2019.

³ Port of Brownsville and Port of Harlingen, 2020.

⁴ Bureau of Economic Analysis, 2018.

The Rio Grande Valley Freight and Trade Transportation Plan (Regional Freight and Trade Plan) was developed to better understand and address the unique binational and multimodal freight and trade challenges and opportunities in the Rio Grande Valley, the only location in the state of Texas with truck, rail, maritime, air, pipeline, and space activity as well as international bridges. Additionally, the Plan was developed alongside TxDOT's concurrent Border Transportation Master Plan (BTMP) which focused on cross-border passenger and freight transportation at the statewide level. The findings and recommendations from the BTMP have been incorporated throughout the Regional Freight and Trade Plan, and implementation of the two plans will go hand-in-hand.

Rio Grande Valley Freight and Trade Plan Study Area






PURPOSE AND GOALS OF THE RIO GRANDE VALLEY FREIGHT AND TRADE TRANSPORTATION PLAN


The Regional Freight and Trade Plan’s purpose, goals, and objectives were developed with input from the Rio Grande Valley Steering Committee, interviews, and freight and trade transportation forums. These goals align with TxDOT’s statewide freight planning goals, which are also exemplified in the concurrent Border Transportation Master Plan.

THE RIO GRANDE VALLEY FREIGHT AND TRADE TRANSPORTATION PLAN PURPOSE


Support regional and statewide freight and trade transportation by identifying freight and trade activities, opportunities, challenges, and strategies for the Rio Grande Valley.




Safety
 Improve the safety of the Rio Grande Valley region’s multimodal freight system which includes highways, railroads, maritime ports, border ports-of-entry, airports, and pipelines.




Sustainable Funding
 Identify sustainable funding sources for the Rio Grande Valley’s freight and trade transportation system.



Economic Competitiveness
 Enhance the economic competitiveness, productivity, and development in the Rio Grande Valley and beyond by ensuring the region’s freight transportation network is robust enough to support cross-border trade and freight intensive industries.




Stewardship
 Manage environmental and state agency resources responsibly and foster accountability and transparency in decision-making.




Mobility and Reliability
 Enhance mobility and improve system efficiency and performance on the Rio Grande Valley transportation system by expanding capacity and addressing freight bottlenecks.



Customer Service
 Encourage local ownership of and coordination in the development of the Regional Freight Plan by engaging public and private sector stakeholders in transparent dialogue and establishing consistent strategies and recommendations.



Connectivity
 Improve local, regional, and cross-border highway connectivity as well as connectivity between freight modes within the Rio Grande Valley.



Asset Preservation
 Maintain and preserve the Rio Grande Valley’s transportation infrastructure that supports multimodal and cross-border movement of freight.



STAKEHOLDER INFORMED PLAN

Stakeholder input guided each step of developing the Regional Freight and Trade Plan. Critical input from stakeholders at the outset of the planning process directed the areas of focus, and input from the Rio Grande Valley Steering Committee was essential to continual vetting of findings throughout the development of the Plan.

Public involvement framework:



5 Rio Grande Valley Steering Committee Meetings



30 Stakeholder Interviews



8 Freight and Trade Transportation Forums



Online feedback options available at every stage

Stakeholder input was used to:



Define freight and trade goals and objectives for the Rio Grande Valley



Identify key needs and challenges impacting freight safety and mobility



Designate the Rio Grande Valley Multimodal Freight Network



Develop and prioritize strategies and recommendations





RIO GRANDE VALLEY MULTIMODAL FREIGHT NETWORK

The Rio Grande Valley Highway Freight Network (RGVHFN) is a key outcome of the Regional Freight and Trade Plan. The RGVHFN:

- » Focuses investments on the portion of the network that carries most of the region’s freight
- » Identifies candidates for Critical Urban and Rural Freight Corridors for the National Highway Freight Network
- » Establishes the basis for the analysis conducted for the Regional Freight and Trade Plan
- » Identifies key freight infrastructure to aid local planning decisions

The highway component of the RGVHFN is divided into three tiers:

- Tier 1** includes the roadways most critical for freight transportation,
- Tier 2** includes roadways providing significant regional connections, and
- Tier 3** includes additional connections within the network and to freight generating and producing businesses in the region.

The designation process combined analysis of truck volumes, freight business locations, international bridge and maritime port access, and other factors with stakeholder input on key corridors.

The RGVHFN includes:

417 Tier 1 miles

459 Tier 2 miles

671 Tier 3 miles

8 international bridges serving commercial vehicles

The RGVHFN plus the region’s non-highway freight infrastructure comprise the Rio Grande Valley Multimodal Freight Network (RGVMFN).



330 miles of Class I and Short Line Railroads



3 cargo airports



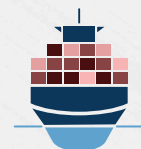
2 shallow-draft maritime ports



1 rail international bridge

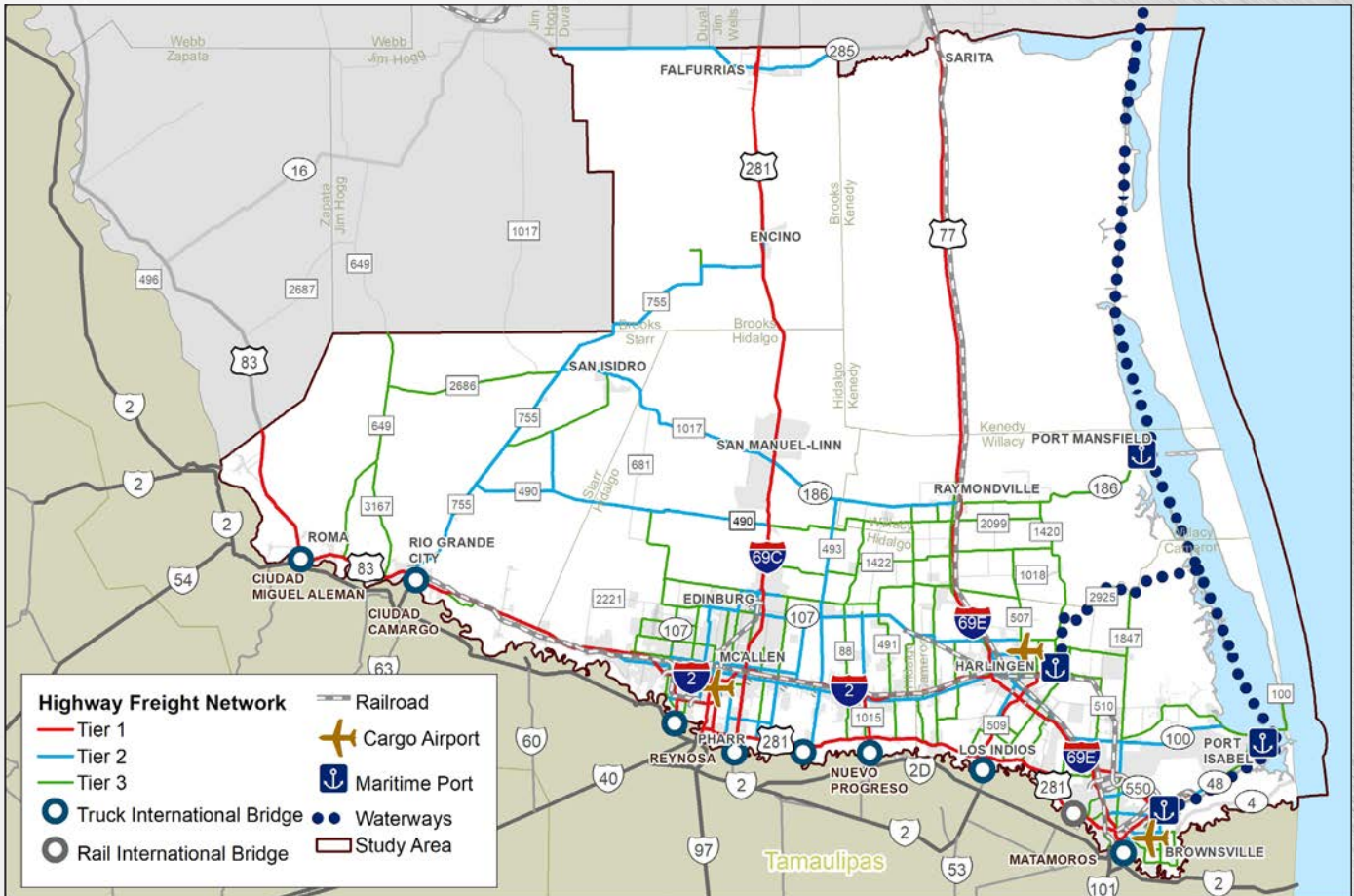


2,855 miles of pipelines



2 deep-draft maritime ports

Rio Grande Valley Multimodal Freight Network



Note: Pipelines are also included in the RGVMFN.

In 2018, an estimated 68.3 million tons of freight values at \$93.7 billion was transported on the RGVMFN. By 2050, tonnage is expected to grow by 169% to 183.9 million tons, and value to grow by 179% to \$261.1 billion.



MAIN SOURCES OF GROWTH





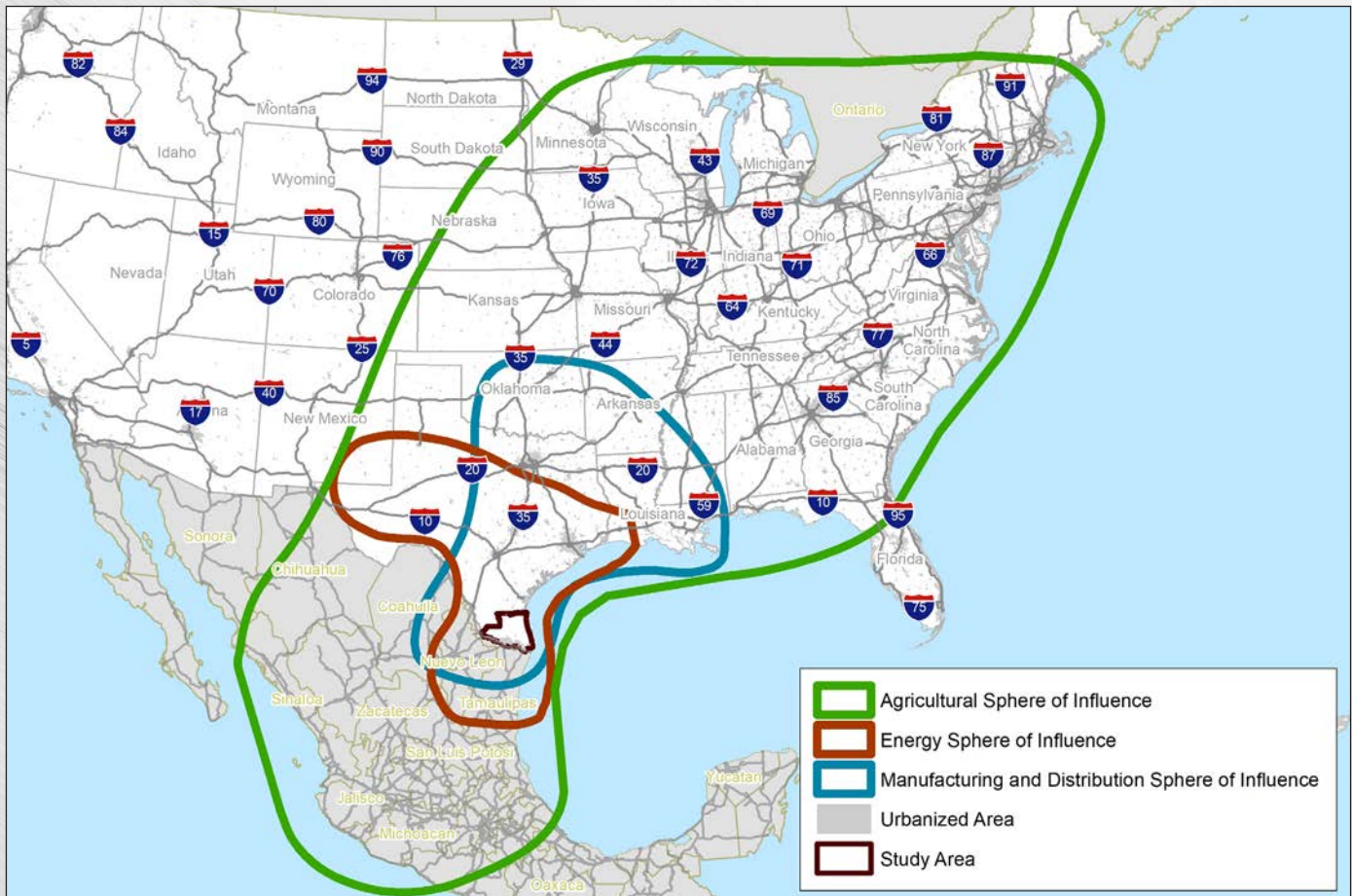
FOOD, FUEL, AND MANUFACTURING IN THE RIO GRANDE VALLEY

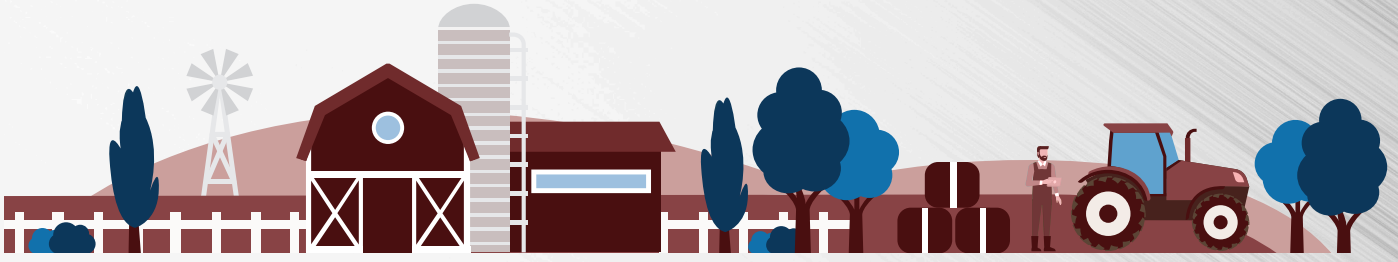
The Rio Grande Valley plays a critical role in three key supply chains: agriculture (predominantly produce), fuel, and manufacturing and distribution. Produce grown in Mexico and the Rio Grande Valley is shipped to markets in Texas, Louisiana, the Midwest, and the Northeast through the region's transportation network, including cold storage and processing facilities in the Rio Grande Valley.

The Rio Grande Valley is also a critical fuel hub for export of Texas fuel products, with Gulf Coast refineries using the region's maritime ports and international bridges to ship fuel to a large and growing Mexican market. Most of the export traffic is currently handled by trucks due to pipeline shutdowns, leading to significant traffic of loaded and empty trucks at the region's international bridges.

The Rio Grande Valley is part of a binational manufacturing environment. Every part of the manufacturing and distribution process impacts and is impacted by freight in the region, from import of raw materials to distribution of finished goods. The production activity is concentrated in the Rio Grande Valley and northern Mexico and the Rio Grande Valley, and finished goods travel to markets and distribution hubs in Texas, Louisiana, and Oklahoma.

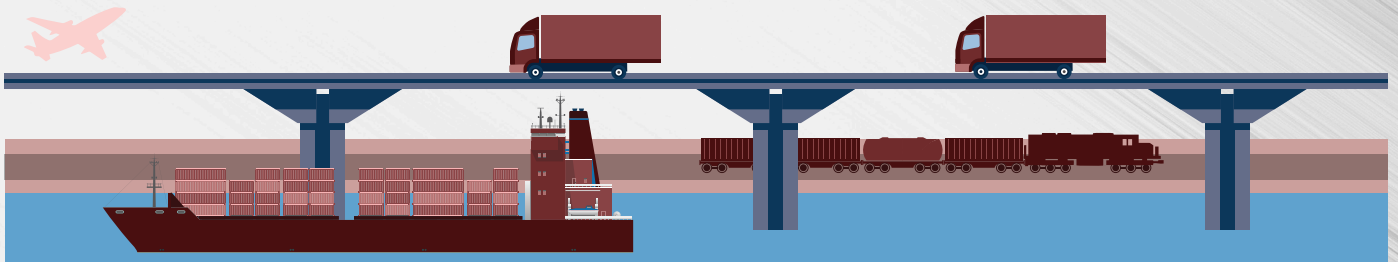
Rio Grande Valley Economic Spheres of Influence





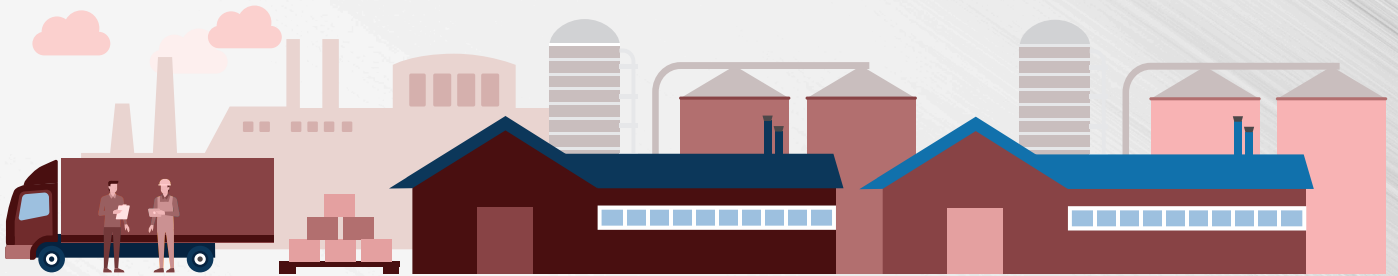
Freight and Trade Requirements of **FARM AND FOOD PRODUCTS** in the Rio Grande Valley

- » Efficient import processes and inspections at international bridges
- » Barge and vessel transportation for inbound fertilizer, pesticides, corn, and grains
- » Truck and water transportation for outbound products, including ports outside of the Rio Grande Valley
- » Efficient truck movement within both rural and urban areas for domestic products, packaging, and labeling
- » Cold storage for warehousing and distribution operations



Freight and Trade Requirements of **FUEL PRODUCTS** in the Rio Grande Valley

- » Domestic pipeline and barge transportation to maritime ports
- » Oversize/overweight truck corridors accessing international bridges
- » Efficient truck processing for northbound empty trucks and southbound loaded trucks
- » Short-term truck parking for drivers waiting to cross southbound
- » Future re-opening of international pipelines to alleviate truck pressure



Freight and Trade Requirements of **MANUFACTURING AND DISTRIBUTION** in the Rio Grande Valley

- » Rail, barge, and vessel transportation of raw materials into the Rio Grande Valley and Mexico
- » Oversize/overweight truck corridors accessing international bridges
- » Efficient north- and south-bound truck operations at international bridges
- » Air cargo service to Asia for intermediate manufacturing or assembly
- » First-and last-mile connections to plants, warehouses, and distribution centers
- » Ports outside of the region, such as Houston or Long Beach, for distribution overseas



FREIGHT AND TRADE TRANSPORTATION NEEDS

The Regional Freight and Trade Plan documented conditions and performance of freight infrastructure across six topics identified with stakeholders to determine threats against continued support of and growth in these key supply chains as well as regional safety, mobility, and quality of life. The analysis of each of these topics was combined with stakeholder input to identify challenges, opportunities, and needs on the RGVHFN.

CONDITIONS AND PERFORMANCE TOPICS EVALUATED ON THE RGVHFN



Safety



Mobility and Reliability



Asset Management



Connectivity



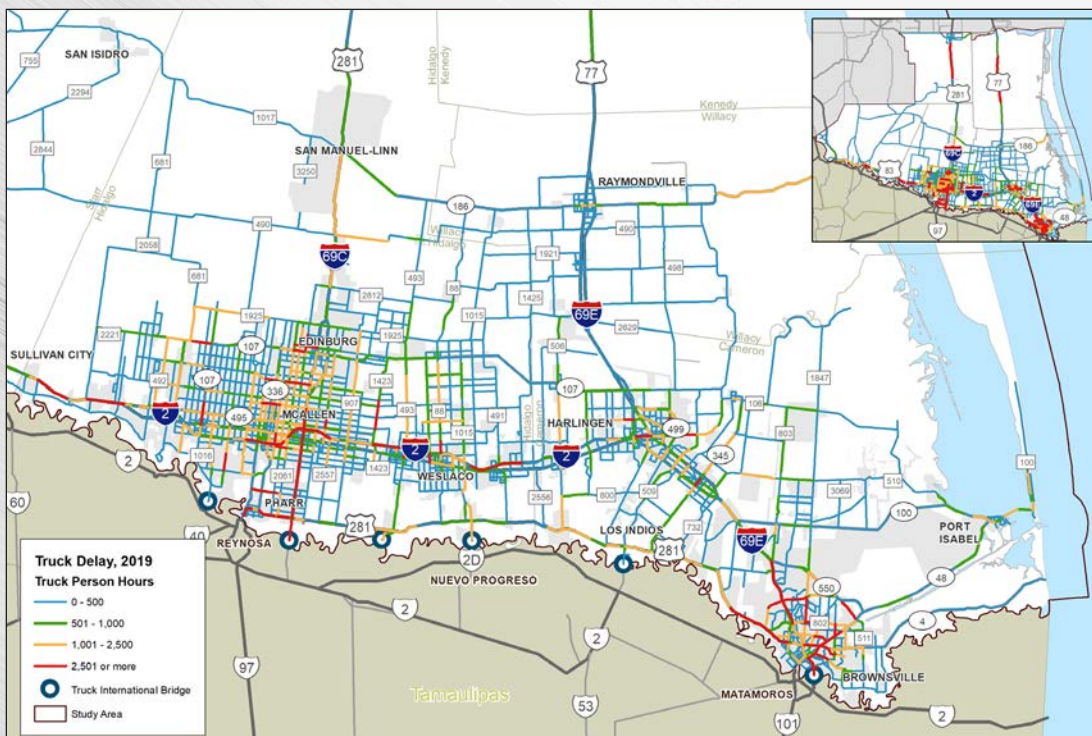
Truck Parking



Oversize/Overweight Traffic

Challenges associated with each topic are typically located within 20 miles of the Texas-Mexico border, and volumes through and performance of international bridges impact the entire regional transportation system. In 2019, approximately 90 percent of truck delay and truck-involved crashes were in Cameron and Hidalgo Counties.

Truck Delay in the Rio Grande Valley



Congestion on Rio Grande Valley highways is estimated to cost roadway users \$425 million per year, including \$56 million in truck congestion cost.

These truck congestion costs are estimated to result in a loss of 1,400 jobs and \$77 million in gross state product, not including the costs of delay at the border.

The top need areas in the Rio Grande Valley include connectivity, mobility and reliability, safety, and truck parking. Pavement and bridge conditions in the Rio Grande Valley are generally good, and no persistent asset management challenges were identified. Oversize and overweight patterns, overall truck volumes, and asset conditions should be continually monitored to ensure the network continues to meet the freight industry's needs.

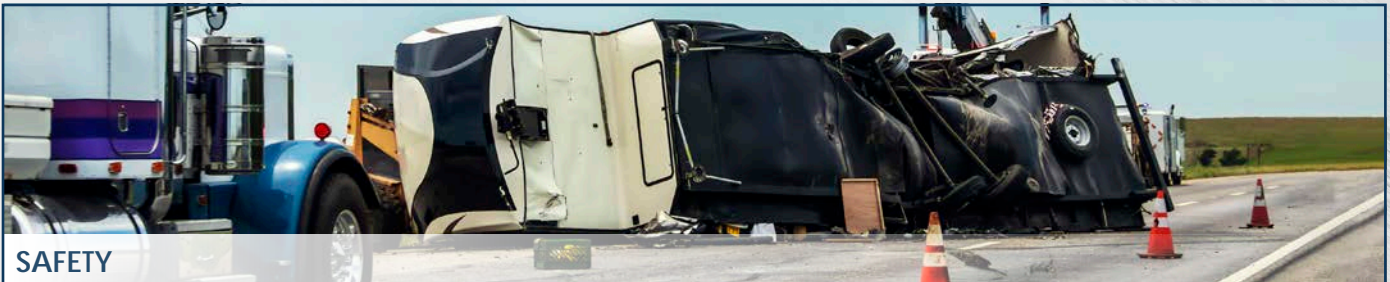


CONNECTIVITY AND MOBILITY

Patterns at international bridges heavily influence congestion on the roadway network. Mobility and reliability needs were typically greatest in the urbanized areas near the Texas-Mexico border, particularly:

- » At the I-2/I-69 interchanges,
- » Accessing the Port of Brownsville,
- » Throughout Harlingen,
- » In the developed, industrial areas of Pharr, McAllen, and Edinburg, and
- » Along the I-2/US 83 corridor and its parallel routes.

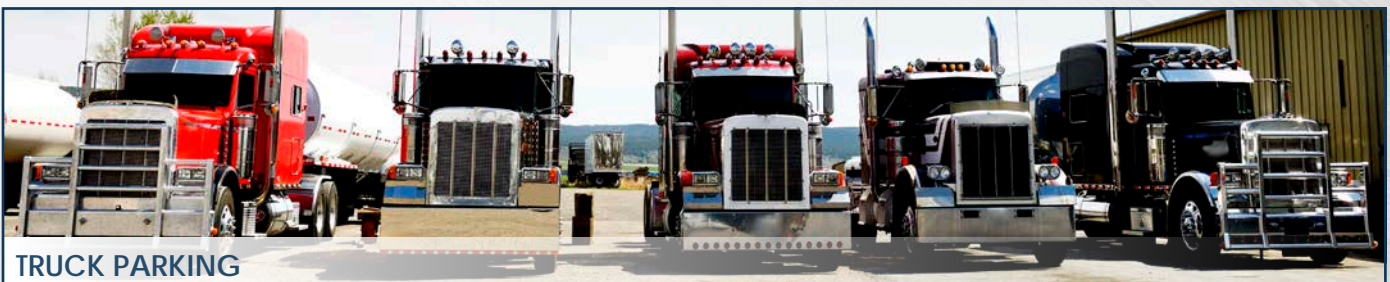
Throughout the development of the Regional Freight and Trade Plan, stakeholders identified connectivity as the greatest mobility-related challenge. The needs assessment addressed this topic separately, identifying two-lane highways with potential to better serve freight if improved.



SAFETY

Between 2015 and 2019, crashes involving a truck were fatal more than twice as frequently as crashes in general. Stakeholders also identified incident management as a challenge to safety and mobility, observing variation in crash response and, at times, delay in clearance of freight vehicles. The locations with the greatest safety needs were:

- » The majority of the I-69C/US 281 corridor,
- » The I-69E/US 77 corridor in rural areas,
- » FM 1017 between San Isidro and San Manuel-Linn,
- » FM 755 near Encino, and
- » Urban areas where fatal truck-involved crashes have occurred.



TRUCK PARKING

Demand for truck parking in the Rio Grande Valley is heavily influenced by international trade as well as warehousing activity in the region, particularly trucks waiting for a relatively short period of time. The greatest truck parking were located on:

- » Interstates and US highways
- » Roadways accessing industrial areas
- » Military Highway/US 281
- » Oversize spaces along oversize/overweight corridors

Freight and trade challenges and needs were combined to develop a combined freight need priority of high, medium, or low for each roadway segment. The topics were weighted based on input from the Rio Grande Valley Steering Committee, and the resulting score was used to prioritize freight projects for the Rio Grande Valley Freight Investment Plan. The topics were weighted:



Safety (including unauthorized truck parking)
25 percent



Mobility and Reliability
25 percent



Asset Management
15 percent

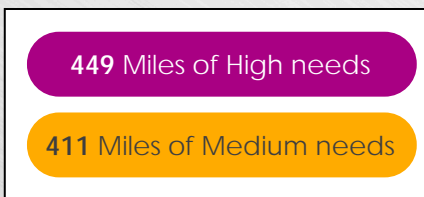
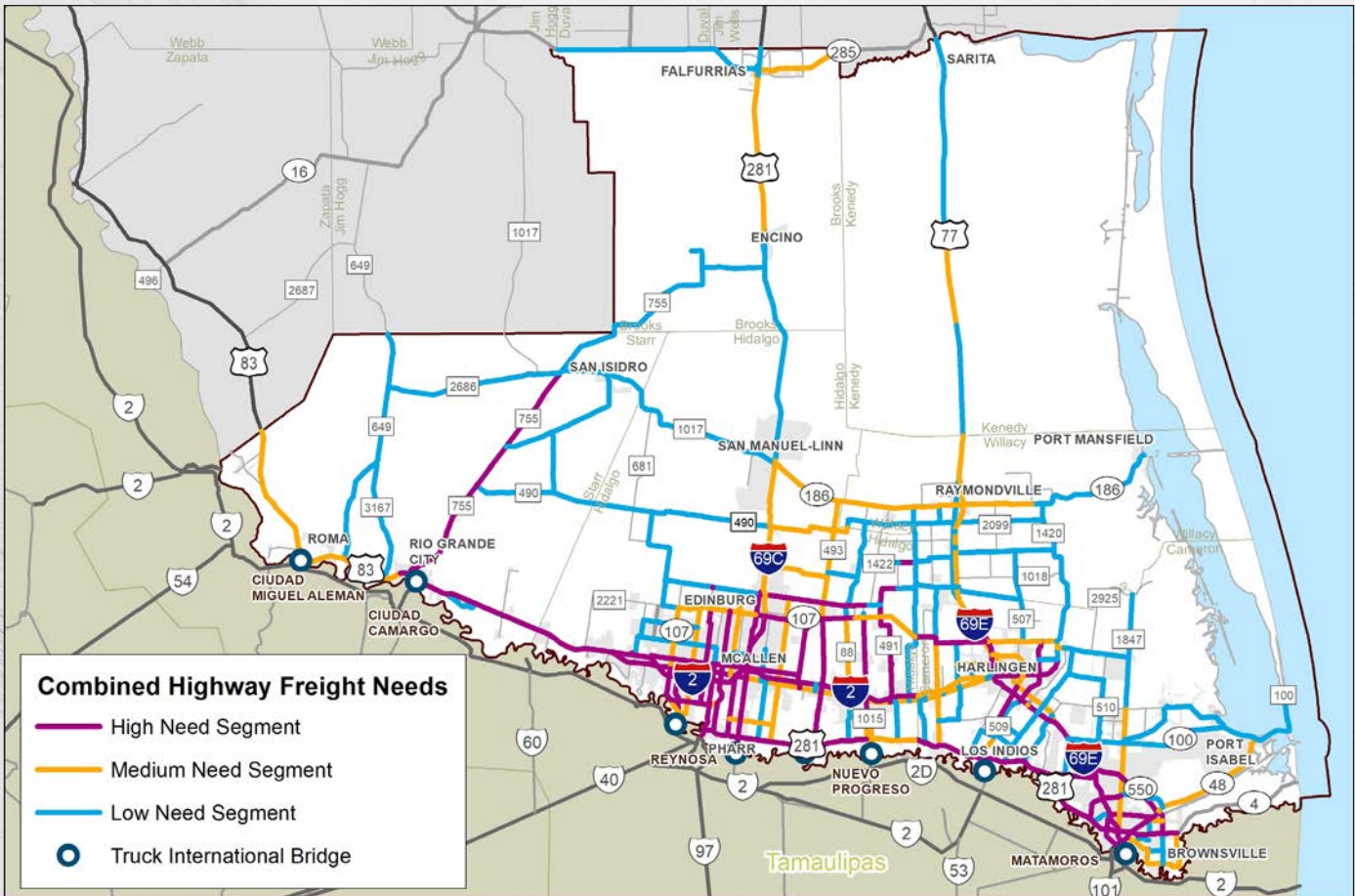


Connectivity
20 percent



Oversize/Overweight Corridors
15 percent

Combined Freight and Trade Needs in the Rio Grande Valley





ADDRESSING FREIGHT AND TRADE NEEDS IN THE RIO GRANDE VALLEY

The Regional Freight and Trade Plan development process led to a robust and comprehensive set of recommendations and strategies addressing the identified freight and trade transportation needs and challenges. This process provided a transparent, data-driven, and stakeholder-informed approach to decision-making for freight transportation improvements. It leveraged a variety of stakeholder engagement activities to gain varied perspective. This input was combined with an assessment and prioritization of needs to develop a comprehensive and cost-effective approach for recommended actions. The approach includes four categories of strategies for addressing freight and trade transportation needs and challenges in the Rio Grande Valley: infrastructure projects, policies, programs, and operational strategies. In total, 35 strategies support 8 recommendations.

Policies and Programs



- » Outreach, coordination, and collaboration
- » Planning, training, land use, and data
- » TxDOT led and TxDOT supported

Operational Strategies



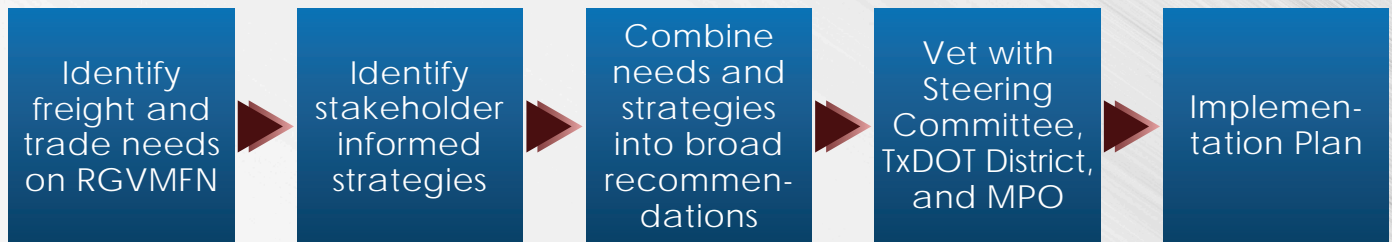
- » Transportation system management and operations (TSM&O)
- » Access management, signage, wayfinding, and road markings
- » Intelligent transportation systems

Infrastructure Projects



- » Planned projects
- » Strategic projects
- » Stakeholder proposed projects

PROCESS FOR IDENTIFYING STRATEGIES



SUMMARY OF REGIONAL FREIGHT AND TRADE PLAN RECOMMENDATIONS

There are **8 recommendations** supported by **35 strategies**:

 <p>5 Project strategies, including 246 planned projects</p>	 <p>7 Policy strategies</p>	 <p>15 Program strategies</p>	 <p>8 Operational strategies</p>
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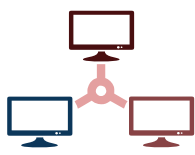



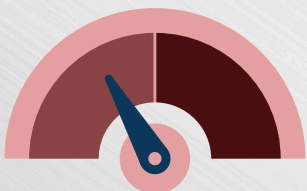
FREIGHT RECOMMENDATIONS, STRATEGIES, AND ACTIONS

Several common themes emerged during analysis of freight and trade transportation needs and discussion with stakeholders about potential strategies to address them. Following an initial round of vetting, the strategies were grouped into eight broad recommendations. By bundling strategies, the Regional Freight and Trade Plan's implementation plan can be easily tracked based on progress in each recommendation area. Additionally, this approach provides flexibility between complementary strategies during implementation.

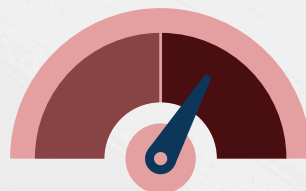
Each recommendation is supported by several strategies as well as short-term and medium-term actions for implementation. Short-term actions can be implemented within 12-18 months, and medium-term actions can begin within that timeframe and be completed within 5 years.

FREIGHT AND TRADE RECOMMENDATIONS FOR THE RIO GRANDE VALLEY

 <p>Complete Infrastructure Projects Supporting Freight and Trade</p>	 <p>Enhance Operations and Resiliency of the International Bridge Network</p>	 <p>Improve Freight Mobility on Local Roadways</p>	 <p>Increase Access to Safe Truck Parking</p>
 <p>Continue Collaboration with Binational Regional Stakeholders</p>	 <p>Implement Technology Strategies to Improve Freight Operations</p>	 <p>Improve Regional Data Collection</p>	 <p>Integrate Freight Considerations into All Stages of Planning</p>



22 SHORT-TERM ACTIONS



15 MEDIUM-TERM ACTIONS



COMPLETE INFRASTRUCTURE PROJECTS SUPPORTING FREIGHT AND TRADE

Strategies

- » Track, fund, and complete the freight projects identified in the 2021 Unified Transportation Program (Project)
- » Advance long-range corridor plans (Project)
- » Build support and identify potential funding sources for strategic projects (Project)
- » Support projects identified in the BTMP (Project)
- » Explore opportunities to expand freight rail capacity while avoiding negative impacts to public safety and congestion (Program)

Short-Term Actions

TxDOT should **develop a framework for tracking** the development and implementation of priority freight projects.

Medium-Term Actions

TxDOT should **track and publish progress** towards implementation of priority freight projects.

TxDOT should undertake a Rio Grande Valley **Freight Rail Infrastructure Assessment** to identify opportunities to build freight rail capacity while avoiding negative impacts to public safety and congestion at rail-highway crossings.



CONTINUE COLLABORATION WITH BINATIONAL REGIONAL STAKEHOLDERS

Strategies

- » Establish a Rio Grande Valley Freight Advisory Committee with public and private sector stakeholders (Policy)
- » Convene a biennial regional freight and trade transportation summit (Program)
- » Develop a freight transportation public education and awareness program and share the road campaign (Program)

Short-Term Actions

TxDOT should support the formation of the **Rio Grande Valley Freight Advisory Committee** and provide ongoing regional freight planning support.

TxDOT should use the findings from the Regional Freight and Trade Plan to **develop public outreach materials** for use at regional, statewide, and national levels.

TxDOT should work with regional stakeholders to **convene a planning session** for the first biennial Rio Grande Valley Freight and Trade Transportation Summit.

Medium-Term Actions

TxDOT and regional stakeholders should **convene biennial Rio Grande Valley Freight and Trade Transportation Summits** to facilitate an ongoing dialogue, information exchange, and Rio Grande Valley Freight and Trade Transportation Plan implementation in the region.



ENHANCE OPERATIONS AND RESILIENCY OF THE INTERNATIONAL BRIDGE NETWORK

Strategies

- » Develop regional resiliency plan to enhance network redundancy, expand transportation alternatives, and improve connectivity between border crossings and between designated corridors (Policy)
- » Increase capacity for specialized inspections through training, staffing, or technology (Program)
- » Increase utilization of the Free and Secure Trade (FAST) Lanes program by supporting improvements at international bridges and increasing enrollment (Program)

Short-Term Actions

TxDOT should **convene a meeting of bridge operators** and federal agencies to identify opportunities to address resiliency through a **coordinated regional plan**.

TxDOT should work with international bridge operators to identify opportunities and challenges associated with **increasing utilization of FAST Lanes** at international bridges.

Medium-Term Actions

TxDOT should convene a working group including federal agencies and international bridge operators to discuss **opportunities to increase capacity for specialized inspections** at international bridges.



IMPLEMENT TECHNOLOGY STRATEGIES TO IMPROVE FREIGHT OPERATIONS

Strategies

- » Establish a Binational Regional Traffic Management Center and deploy dynamic message signs on the highway freight network (Operational)
- » Deploy advance warning systems on critical highway routes and at safety hotspots (Operational)
- » Implement statewide guidance on Smart Work Zones to identify and deploy appropriate ITS solutions on the highway freight network (Operational)
- » Deploy freight-specific ITS on critical freight routes (Operational)
- » Establish automated vehicle readiness program, including both technology components and traditional maintenance activities (Program)

Short-Term Actions

TxDOT should develop a **concept of operations for deploying ITS** to address general freight challenges and needs. Priority locations for deployment should be identified.

TxDOT should explore **funding and partnership opportunities for a RGV Traffic Management Center** concept of operations and feasibility study.

TxDOT should assess and **identify the highest priority routes** on the highway freight network for deploying advance warning systems.

Medium-Term Actions

TxDOT should implement ITS concepts of operations at one or more **pilot locations** and eventually at priority locations identified in short-term actions.

TxDOT and local partners should **initiate the TMC concept of operations** and feasibility study identified in short-term actions.

TxDOT should develop **standards of readiness for connected and automated vehicle (CAV) deployment**, such as lane marking maintenance, smart signage, and 4D digital mapping of the network, and implement these standards at priority locations.



IMPROVE FREIGHT MOBILITY ON LOCAL ROADWAYS

Strategies

- » Conduct traffic signal timing studies for urban arterials on the highway freight network (Operational)
- » Increase signage and wayfinding on the highway freight network, ensuring placement allows trucks time to maneuver (Operational)
- » Improve safety and mobility at at-grade highway-rail crossings through grade separations and by addressing humped crossings (Program)
- » Develop regional multimodal thoroughfare plans for the RGV MPO area (Program)

Short-Term Actions

TxDOT should identify corridors with traffic signal timing needs, develop and implement **traffic signal timing recommendations**, and evaluate the effectiveness of the signal timing enhancements to improve freight movements and passenger vehicle travel.

TxDOT should work with local partners to determine locations where **static or dynamic signage** would improve traffic flow, particularly for accessing maritime ports or international bridges.

Medium-Term Actions

TxDOT and local partners should **implement the signal timing needs** identified in short-term actions.

TxDOT should **undertake a Rio Grande Valley Freight Rail Infrastructure Assessment** to identify opportunities to build freight rail capacity while avoiding negative impacts to public safety and congestion at rail-highway crossings.

TxDOT should provide planning support for conducting **regional multimodal thoroughfare plans** conducted by regional organizations (MPO and RMAs).



IMPROVE REGIONAL DATA COLLECTION

Strategies

- » Develop a freight data program to collect and share information (Program)
- » Expand and maintain weigh-in-motion and automated vehicle classification/count system (Program)
- » Expand commercial vehicle border crossing data collection and reporting to include northbound and southbound border crossing and wait times at all international bridges (Program)
- » Track changes in freight movement due to USMCA implementation and update regional forecasts to reflect new patterns (Program)
- » Integrate reporting of locally-issued OS/OW permits into existing TxDMV reporting program (Policy)

Short-Term Actions

TxDOT should address freight data collection in the RGV by **improving WIM and VC device coverage** in the region.

TxDOT should convene a working group of research organizations, international bridge operators, and data providers to discuss the feasibility of **providing bidirectional border crossing times** for commercial vehicles at all applicable RGV international bridges.

TxDOT should establish a framework to **track changes in freight and trade** movement following implementation of the USMCA.

TxDOT should meet with TxDMV, local permit issuers, and users of OS/OW permits to exchange ideas on **collecting, submitting, and sharing additional data for multi-use permits** to aid in transportation network maintenance, construction, and investment planning.

Medium-Term Actions

TxDOT should develop a **comprehensive freight data collection, repository, and reporting program** that includes formulated rules, agreements, and guidelines for obtaining, sharing, and using public and private sector data sources.

TxDOT should **publish statistics and observations** related to changing freight flows following implementation of the USMCA.



INCREASE ACCESS TO SAFE TRUCK PARKING

Strategies

- » Collaborate with truck stop operators to develop new or expand existing truck parking, especially near international bridges (Program)
- » Collaborate with regional stakeholders to encourage truck parking at non-TxDOT public facilities and private commercial and industrial sites (Program)
- » Include designated parking for oversize vehicles in locations with frequent oversize loads (Policy)
- » Deploy Truck Parking Availability System on highway freight network (Operational)
- » Construct additional truck parking in coordination the Statewide Truck Parking Study implementation (Project)

Short-Term Actions

TxDOT should adopt a policy **requiring OS/OW parking at public facilities** when feasible.

TxDOT should assess the feasibility of and **determine priority locations for deployment of TPAS**.

Medium-Term Actions

TxDOT should convene a meeting with existing truck stop operators and regional stakeholders owning facilities with significant surface parking availability to **exchange ideas and information on expanding safe truck parking** along the highway freight network.

TxDOT should **deploy TPAS infrastructure** at feasible locations on the highway network.

TxDOT should develop **additional truck parking capacity** in coordination with the implementation of the Statewide Truck Parking Study.



INTEGRATE FREIGHT CONSIDERATIONS INTO ALL STAGES OF PLANNING

Strategies

- » Integrate freight considerations into the project development process
- » Develop truck traffic impact analysis guidelines to include truck parking/queuing impact and inspection locations in urban and rural areas
- » Integrate freight considerations into land use decisions to mitigate conflicts between residential, commercial, and industrial uses
- » Develop a regional Transportation Systems Management and Operations (TSM&O) program to include freight considerations and commercial vehicle incident management
- » Seek sustainable funding for transportation improvements in the RGV

Short-Term Actions

TxDOT should integrate the **freight infrastructure design considerations** currently under development into the RGV project development process for future infrastructure improvements.

TxDOT should coordinate with local planners to assess the feasibility of integrating freight and truck considerations into **traffic impact analyses** for industrial and commercial developments.

TxDOT and regional freight stakeholders should participate in the development and implementation of the **Pharr District TSMO Program Plan**.

In coordination with the Pharr District TSMO Program Plan, TxDOT should **develop an incident management program** that includes consideration of commercial vehicle needs.

Medium-Term Actions

TxDOT should develop and share **freight land use considerations and mitigation factors** related to freight and trade with local leaders. The considerations could be developed in cooperation with the MPO through input from its boards and technical and policy committees.

TxDOT should develop **freight and trade transportation investment funding guidelines** that explore innovative funding and financing to include local, state, federal, and private sector funding opportunities.



FREIGHT INVESTMENT PLAN: FREIGHT PROJECTS IN THE RIO GRANDE VALLEY

The Rio Grande Valley Freight Investment Plan is a ten-year list of projects from TxDOT's 2021 Unified Transportation Program (UTP) that will directly impact freight and trade transportation in the region. Tracking and advancing these projects is critical to ensure their continued inclusion in the UTP and eventual construction.

FREIGHT INVESTMENT PLAN SUMMARY

246
Projects

Costing
\$3.5 billion

\$2.2 billion
funded

There are 246 freight and trade projects in the Rio Grande Valley in the 2021 UTP. These projects are estimated to cost \$3.5 billion, and approximately \$2.2 billion of this cost is funded in the UTP. Together, mobility and reliability projects improving existing roadway capacity and alternate routes projects adding new route options comprise more than 80 percent of the total cost for the region. There are more projects in the safety category than any other; however, all projects impact safety and TxDOT integrates safety into each project.

Project Category	Number of Projects	Percent of Projects	Total Cost (Millions \$)	Percent of Total Cost
ALTERNATE ROUTES	14	5.70%	\$1,077.40	30.30%
ASSET MANAGEMENT	51	20.70%	\$246.60	6.90%
MOBILITY AND RELIABILITY	69	28.00%	\$1,905.90	53.60%
PORT FACILITIES	12	4.90%	\$177.30	5.00%
SAFETY	100	40.70%	\$150.50	4.20%
TOTAL	246	100.00%	\$3,557.60	100.00%

UNMET NEEDS ON THE RIO GRANDE VALLEY HIGHWAY FREIGHT NETWORK



200 miles with unmet
high and medium priority
safety needs



320 miles with unmet
high and medium priority
mobility needs

Funding Status	High Priority		Medium Priority		Low Priority	
	Number of Projects	Funding Gap (Millions)	Number of Projects	Funding Gap (Millions)	Number of Projects	Funding Gap (Millions)
FULLY FUNDED	57	\$0.00	34	\$0.00	59	\$0.00
PARTIALLY FUNDED	26	\$246.90	22	\$159.40	24	\$186.00
UNFUNDED	8	\$115.60	9	\$499.70	7	\$125.90
TOTAL	91	\$324.00	65	\$649.80	90	\$304.90
TOTAL	482	\$2,726.00	236	\$4,003.10	718	\$8,584.10

The UTP is updated annually, and there is no guarantee that projects in the UTP will be fully funded or implemented. In the 2021 UTP:

21% of costs on **high priority** freight projects are unfunded

63% of cost on **medium priority** freight projects are unfunded

31% of cost on **low priority** freight projects are unfunded

During interviews, meetings of the Rio Grande Valley Steering Committee, and transportation forums, additional projects were discussed that could have a significant, transformative impact on how freight moves in the Rio Grande Valley. These longer-term, strategic projects are not necessarily TxDOT-led and may not be planned by any entity yet.

STRATEGIC FREIGHT PROJECTS IN THE RIO GRANDE VALLEY

I-69 Improvements and Designation	International Bridge Improvements	Maritime Port Capabilities	Rail Intermodal Facility
Established program with projects in various stages of development or completion Upgrade to interstate standard portions of US 77, US 281, and SH 550	Pharr International Bridge: Improve staging, inspection, vehicle flow Donna and Anzalduas International Bridges: Accommodate north- and southbound loaded trucks	Brownsville: Deepen from 42' to 52' to accommodate larger vessels for LNG development Harlingen: Establish container-on-barge facilities	Develop rail intermodal facility to accommodate truck-to-rail or ship-to-rail freight movements Not currently under development





IMPLEMENTATION

CALL FOR ACTION

The development of the Rio Grande Valley Freight and Trade Transportation Plan builds on the 2018 Texas Freight Mobility Plan to identify unique needs, challenges, and opportunities in a region with extensive multimodal infrastructure, a binational economy, and multiple trade gateways. This plan also complements TxDOT's Border Transportation Master Plan which addresses statewide passenger and freight transportation issues and opportunities on the Texas-Mexico border. The Regional Freight and Trade Plan presents recommendations, strategies, and action steps to improve freight safety and mobility in the Rio Grande Valley, and implementation of the plan should focus on:

- » **Continued and Broadened Collaboration** – The Steering Committee will evolve to serve as the Rio Grande Valley MPO's Freight Advisory Committee. Continued participation from the public- and private-sector participants will be critical to plan implementation. Additionally, increased participation from partners at federal agencies and Mexican counterparts at multiple levels will be essential to success.
- » **Early Implementation Steps** – As TxDOT and its partners implement the recommendations, strategies, and action steps, early implementation actions can maintain momentum from plan development. Steps such as developing a tracking framework and assigning more detailed roles for short-term actions will provide TxDOT and its partners with a clear path to implementation.
- » **Rio Grande Valley Freight Investment Plan** – The projects in the Rio Grande Valley Freight Investment Plan are currently in TxDOT's UTP. However, \$1.3 billion of project costs are unfunded, and the UTP does not guarantee funding. High priority freight projects should be tracked to ensure funding, and their importance should be communicated to decision-makers. The TxDOT Pharr District will continue to develop projects for inclusion in the UTP, and freight priorities should be taken into consideration as projects are selected for development.



CASEY WELLS

✉ casey.wells@txdot.gov

☎ 512-423-8986

CAROLINE MAYS

✉ caroline.mays@txdot.gov

☎ 512-936-0904



