Interim Report

to the 87th Texas Legislature

House Committee on Transportation

December 2020

HOUSE COMMITTEE ON TRANSPORTATION
TEXAS HOUSE OF REPRESENTATIVES
INTERIM REPORT 2020

A REPORT TO THE
HOUSE OF REPRESENTATIVES
87TH TEXAS LEGISLATURE

TERRY CANALES
CHAIRMAN

COMMITTEE CLERK
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Committee On
Transportation

December 28, 2020

Terry Canales
Chairman

P.O. Box 2910
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The Honorable Dennis Bonnen
Speaker, Texas House of Representatives
Members of the Texas House of Representatives
Texas State Capitol, Rm. 2W.13
Austin, Texas 78701

Dear Mr. Speaker and Fellow Members:

The Committee on Transportation of the Eighty-sixth Legislature hereby submits its interim report including recommendations and drafted legislation for consideration by the Eighty-seventh Legislature.

Respectfully submitted,

Terry Canales,
Chair

Brooks Landgraf,
Vice-Chair

Yvonne Davis

Armando "Mando" Martinez

John Raney

Matt Krause

Ed Thompson

Craig Goldman

Diego Bernal

Cole Hefner

Shawn Thierry

Evelina "Lina" Ortega

Ben Leman

Brooks Landgraf
Vice-Chairman

Members: Diego Bernal, Yvonne Davis, Craig Goldman, Cole Hefner, Matt Krause, Ben Leman, Armando "Mando" Martinez, Evelina "Lina" Ortega, John Raney, Shawn Thierry, Ed Thompson

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INTRODUCTION

The Honorable Dennis Bonnen, Speaker of the House of Representatives, appointed thirteen members of the 86th Legislature to serve on the House Committee on Transportation. The following members were named to the committee: Chairman Terry Canales, Vice-Chair Brooks Landgraf, Representative Diego Bernal, Representative Yvonne Davis, Representative Craig Goldman, Representative Cole Hefner, Representative Matt Krause, Representative Ben Leman, Representative Armando "Mando" Martinez, Representative Evelina "Lina" Ortega, Representative John Raney, Representative Shawn Thierry, and Representative Ed Thompson.

Pursuant to House Rule 3, Section 32, the House Committee on Transportation has 13 members, with jurisdiction over all matters pertaining to the following:

(1) commercial motor vehicles, both bus and truck, and their control, regulation, licensing, and operation;
(2) the Texas highway system, including all roads, bridges, and ferries constituting a part of the system;
(3) the licensing of private passenger vehicles to operate on the roads and highways of the state;
(4) the regulation and control of traffic on the public highways of the State of Texas;
(5) railroads, street railway lines, interurban railway lines, steamship companies, and express companies;
(6) airports, air traffic, airlines, and other organizations engaged in transportation by means of aerial flight;
(7) water transportation in the State of Texas, and the rivers, harbors, and related facilities used in water transportation and the agencies of government exercising supervision and control thereover;
(8) the regulation of metropolitan transit; and
(9) the following state agencies: the Texas Department of Motor Vehicles, the Texas Legislative Council Department of Transportation, and the Texas Transportation Commission.

After the 86th legislative session, Speaker Bonnen charged all committees to study and make recommendations to numerous issues and priorities facing the State of Texas. The interim charges for the House Committee on Transportation are listed on the following page.

INTERIM CHARGES

1. Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 86th Legislature. Conduct active oversight of all associated rulemaking and other governmental actions taken to ensure intended legislative outcome of all legislation, including the following:

    1A. **HB 803** and **SB 198**, which relate to toll project financial reporting and use payments. Monitor the effectiveness of the tools available to Texas toll project entities for enforcing unpaid tolls while protecting customer rights.

    1B. **SB 282** and **SB 962**, which relate to the funding for the State Highway Fund. Study the current mix of user fee-based funding for the state highway system, including registration fees, tolls, and fuel tax, and determine if current funding generated is sufficient to maintain cost demands. Examine whether current legislative appropriations including projections for Proposition 1 (severance tax) and Proposition 7 (sales tax) funds, are keeping pace with Texas' highway funding needs to accommodate population and economic development growth. Make recommendations for additional methods of funding or innovative tools that the state could utilize to deliver road infrastructure projects.

    1C. **SB 357**, which relates to outdoor advertising signs. Monitor the Texas Department of Transportation's implementation of the new statutory requirements set forth in the legislation, including any related rulemaking.

2. Study the state's transportation and road safety efforts in support of the Texas Transportation Commission's goal of ending traffic deaths in the state by 2050. Identify the most dangerous roads and transportation corridors in the state and determine opportunities to reduce high rates of traffic accidents and fatalities in these areas. Make recommendations to improve policies, funding strategies, program development, and agency coordination to ensure continuous improvements to road safety.

3. Study the technology and safety aspects of autonomous and semi-autonomous vehicles, including predictive capabilities and the potential for dedicated freeway and surface lanes for public transportation, autonomous vehicles, and semi-autonomous vehicles. Make recommendations for optimizing state policy to prepare for varying vehicle technologies to ensure safety and traffic reliability on Texas roadways.

4. Study the state's seaport infrastructure and the infrastructure at land ports of entry to facilitate international trade and economic growth. Examine seaport infrastructure and the auxiliary rail and roadway needs connected to each port as well as the port's ability to keep pace with oil and gas production. Make recommendations to maximize the economic flow of goods and products to and from seaports and study the feasibility and economic impact of dredging and widening Texas ports in order to remain competitive in international trade. Examine the infrastructure at international border ports of entry in Texas and identify transportation-related impediments to international trade that negatively impact the state. Make recommendations to reduce border

wait times, facilitate economic growth, and expedite trade. *(Joint charge with the House Committee on International Relations & Economic Development)*

5. Monitor the State Auditor's review of agencies and programs under the Committee's jurisdiction. The Chair shall seek input and periodic briefings on completed audits for the 2019 and 2020 fiscal years and bring forth pertinent issues for full committee consideration.

COMMITTEE ACTIONS

Shortly after receiving interim charges from Speaker Bonnen in the fall of 2019, the House Committee on Transportation (Committee) began planning a robust interim schedule to engage as many transportation stakeholders as possible. On February 21, 2020, the House Committee on Transportation and the House Committee on International Relations and Economic Development conducted a joint interim committee hearing in the City of Laredo at the Texas A&M International University. At that hearing, the two Committees engaged with business leaders, trade and infrastructure experts, and local officials to study a portion of interim charge four, regarding land port infrastructure and economic development along the Texas-Mexico border.

In March 2020, the swiftly spreading COVID-19 virus began risking the public health of Texans, and Governor Greg Abbott responded, among many ways, by closing the Texas Capitol to the public. Consequently, House committees could not conduct interim committee hearings in the Capitol, and in order to protect the public health, committees refrained from meeting outside of the Capitol. The Committee had scheduled to have a public hearing on April 29, 2020 but canceled it for the public health.

On August 17, 2020, the Committee posted a "Notice of Formal Request for Information," requesting that state agencies, interested parties, and the public submit written testimony to the Committee as a response to the interim charges. The Committee received over one hundred (100) responses to the interim charges, becoming the foundation for this report. To view the list of responses, please click here.

INTERIM CHARGE 1:
MONITOR

Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 86th Legislature. Conduct active oversight of all associated rulemaking and other governmental actions taken to ensure intended legislative outcome of all legislation, including the following: HB 803, SB 198, SB 282, SB 962, and SB 357.

BACKGROUND:

The Texas Department of Transportation

Of the more than 7,500 bills and joint resolutions filed during the 86th legislative session, the Texas Department of Transportation (TxDOT) monitored approximately 900 bills that had an effect on the agency.[1] Of those 900 bills, over 100 were signed into law by Governor Abbott.[2] Most of those bills, although not all, passed through the House Committee on Transportation. An even smaller fraction of those bills signed into law granted additional rulemaking authority to the agency.

The following five bills were specifically noted in the Committee's interim charges to monitor and conduct active oversight to ensure intended legislative outcomes:

1. **HB 803** by Representative Patterson - Relating to financial reporting requirements of a toll project entity.

2. **SB 198** by Senator Schwertner - Relating to payment for the use of a highway toll project.

3. **SB 282** by Senator Buckingham - Relating to the allocation of money associated with delays of transportation projects.

4. **SB 962** by Senator Nichols - Relating to the determination of the sufficient balance of the economic stabilization fund for the purpose of allocating general revenue to that fund and the state highway fund.

5. **SB 357** by Senator Nichols - Relating to outdoor advertising signs regulated by the Texas Department of Transportation.

###

<u>HB 803</u> - Relating to financial reporting requirements of a toll project entity.

HB 803 created additional reporting requirements for toll project entities. Per Section 372.001, Transportation Code, a toll project entity is an entity authorized by law to acquire, design, construct, finance, operate, and maintain a toll project, including:

- TxDOT under Chapter 228, Transportation Code;

- A regional tollway authority (RTA) under Chapter 366, Transportation Code;
- A regional mobility authority (RMA) under Chapter 370, Transportation Code; or
- A county under Chapter 284, Transportation Code.

No later than the 180th day after the last day of the toll project entity's fiscal year, the entity must prominently place on the entity's website a report on the entity's financial data, including:

1. The final maturity of all bonds issued by the entity for a toll project or system;
2. The previous fiscal year's toll revenue for each toll project;
3. An accounting of total revenue collected, and expenses incurred by the entity for the previous fiscal year, such as debt service, maintenance and operation costs, any other miscellaneous expenses, and any surplus revenue; and
4. A capital improvement plan with proposed or expected capital expenditures over a period of time determined by the entity.

The new law does not require a toll project entity to include in a report information concerning a toll project that is the subject of a Comprehensive Development Agreement (CDA) entered into by the toll project entity except for the name and cost of the project and the termination date of the agreement. In addition to the required information, the toll project entity has the option to publish:

1. Any money deposited by the entity in a debt service reserve fund as required by bondholder agreements; and

2. Graphs or tables from the audited financial report or annual continuing disclosure report to comply with the required reporting requirements.

HB 803 also required the toll project entity to publish the required financial information separately from the certified audited financial report. Below is a list of reports required under HB 803 for some entities. To view reports for entities not listed, please visit the appropriate toll project entity's website.

HB 803 Toll Reports:
The Texas Department of Transportation
North Texas Tollway Authority (NTTA)
Harris County Toll Road Authority (HCTRA)

###

SB 198 - Relating to payment for the use of a highway toll project.

SB 198 added the following five new sections to the Transportation Code:

1. Section 372.054, Transportation Code, requires an electronic toll tag customer using a transponder to activate and mount the transponder in accordance with the procedures provided by the toll project entity, provide to the toll project entity accurate license plate and customer contact information, and update their information as necessary;

2. Section 372.055, Transportation Code, prohibits a toll project entity from sending an invoice or a notice of unpaid tolls to the registered owner of a vehicle soliciting payment of a toll or any related administrative fee unless the entity first determines, for a customer using a transponder, whether there is an active electronic toll collection customer account that corresponds with the transponder.

   The bill requires that, if the customer has complied with Section 372.054, then the toll project entity must satisfy an unpaid toll at the standard electronic toll collection rate without imposition of a fee from an active electronic toll collection customer account if the account corresponds to a transponder issued by the entity and if the account contains sufficient funds. SB 198 authorizes the toll project entity to send an invoice or notice for payment to collect an unpaid toll and related costs if the account has insufficient funds or the customer's failure to comply with Section 372.054 prevents satisfaction of the unpaid toll from the customer account. Furthermore, the bill requires the toll project entity to send to the customer to whom the transponder was issued a notice stating that the transponder is not working correctly and must be replaced if a toll project entity discovers that a transponder issued by the entity did not work correctly more than 10 times in a 30-day period (A toll entity is not required to send additional notice to an electronic collection customer if the toll entity has sent notice to the customer and the customer does not replace the transponder);

3. Section 372.056, Transportation Code, provides that an invoice or notice of unpaid tolls must clearly state that the document is a "bill" and that the recipient is expected to pay the amount indicated;

4. Section 372.057, Transportation Code, authorizes a toll project entity to provide an invoice or notice to a person by email if the person has provided an email address to the entity and has elected to receive notice electronically or by first class mail. The section also excuses a toll entity from sending an invoice or notice by first class mail or email if the entity does not have access to the contact information provided in the electronic toll collection customer account; and

5. Section 372.058, Transportation Code, authorizes the sharing of confidential customer information between toll entities for purposes of customer service, toll collection, enforcement, or reporting requirements. The section also requires that a contract between toll entities for the collection of tolls must specify who will be responsible for making determinations of the customer account under Section 372.055, sending all notices, and taking other actions and include terms to ensure that customers do not receive invoices from more than one entity for the same transaction.

SB 198 also amended Chapter 228, Transportation Code (State Highway Toll Projects), to add the following new section:

1. Section 228.057, Transportation Code, requires TxDOT to provide electronic toll collection customers the option of authorizing automatic payment of tolls through the

withdrawal of funds from the customer's bank account. TxDOT is in the final stages of implementing a new back office toll operation system that will include updating the operational and customer service requirements of SB 198.

TxDOT has also procured a new payment processing vendor and is currently testing to integrate into the new TxDOT toll operations (back office) system.

This new toll operations system will also allow TxDOT toll customers the option of authorizing automatic payment of tolls through the withdrawal of funds from their bank account as another viable customer payment method. TxDOT is in development with the new back office vendor on operating procedures for informing customers when their transponder(s) have failed to read 10 consecutive times in a 30-day period. Notifications will be sent to affected customers when the new back office system goes live later this year. TxDOT has updated customer's statements to include the required language indicating that the statement is a "bill" and clarifying that payment is expected.

###

SB 282 - Relating to the allocation of money associated with delays of transportation projects.

SB 282 adds new Section 222.007, Transportation Code, to require TxDOT to annually track the dollar value of liquidated damages (LDs) and road user costs (RUCs) assessed for each of TxDOT's 25 geographical districts and allocate those dollars to the respective TxDOT district in which the damages were assessed for transportation projects in that district. If a transportation project that was subject to liquidated damages is located in more than one TxDOT district, TxDOT may reasonably allocate the amount of the liquidated damages from that project among the TxDOT districts in which the project is located.

TxDOT assesses liquidated damages if a contractor fails to complete a highway improvement project within the number of days specified in the contract. TxDOT derives liquidated damage amounts from TxDOT's cost to oversee the project (cost of providing inspection and project management) for the extra time used by the contractor. The purpose of liquidated damages is to withhold payment from the contractor to compensate TxDOT for the extra incurred costs. TxDOT includes a liquidated damages rate in each project contract and uses that rate to assess the liquidated damages, if any, for the project.

TxDOT may also assess road user costs on certain projects, as provided in the contract, if the contractor is not meeting the project schedule and milestones. Road user costs are an estimate of the average differential cost of the extra travel time resulting from delay. TxDOT bases the value on the Consumer Price Index for the previous year. Fiscal Year 2019 road user costs are $30.12 per passenger car hour and $41.33 per commercial truck hour. TxDOT assesses road user costs on highway projects, primarily those located in the metropolitan areas of the state or large projects on heavily traveled roadways, where travel delays have a significant impact on the public.

Under previous TxDOT procedures, once TxDOT finalized a project, TxDOT performed a reconciliation on the overall cost of the project. If a project has a cost overrun, TxDOT deducted

the amount of the cost overrun from the current year's overall funding allocation for that TxDOT district. If a project had a cost underrun, including the assessment of liquidated damages and road user costs that TxDOT withheld from payments to the contractor, TxDOT added the amount of the underrun to the current year's overall funding allocation for that TxDOT district or returns the underrun amount to the statewide program(s), depending on the project's fund source(s).

Now, as TxDOT completes projects, SB 282 requires TxDOT to confirm that it is crediting any cost savings from the assessment of liquidated damages and/or road user costs appropriately to the corresponding TxDOT district. This will be achieved annually, at the end of each fiscal year, with a variance report.

The variance report will identify and apply expenditures that have occurred since the letting of construction projects. In October of each year, projects that have been finalized and closed within the previous fiscal year will be compiled along with expenditures that include final construction cost, safety contingencies, change orders, liquidated damages, road user costs and previous year variances. After an analysis to compare final cost versus original Low Bid amounts and confirming with the TxDOT districts which category of funding to credit or debit, cumulative totals will be applied to the Letting Allocations in the Category Analyses for each TxDOT District.

TxDOT has set up all internal reporting processes and procedures to create the variance reports, calculate all liquidated damages, road user costs, or both damages and costs and credit any cost savings from the assessment of liquidated damages, road user costs, or both damages and costs appropriately to the corresponding TxDOT District. Fiscal Year 2020 ended on August 31, 2020. TxDOT anticipates completing the annual process for fiscal year 2020 (the first fiscal year since the passage of SB 282) by November 15, 2020.

###

<u>SB 962</u> - Relating to the determination of the sufficient balance of the economic stabilization fund for the purpose of allocating general revenue to that fund and the state highway fund.

In November 2014, 80 percent of voters approved Proposition 1, which amended the Texas Constitution and authorized a portion of oil and natural gas production taxes (also known as severance taxes) to be divided evenly between the Economic Stabilization Fund and the State Highway Fund for transportation funding. The statutory transfer provision of Proposition 1 funds to the State Highway Fund were set to expire December 31, 2024, unless the legislature extended the expiration date.

SB 962 extends the expiration date of Proposition 1 fund transfers to the State Highway Fund from December 31, 2024 to December 31, 2034. Therefore, the State Highway Fund will continue to receive Proposition 1 deposits, which may be used for the development and delivery of additional non-tolled roadway projects, through the first quarter of state fiscal year 2035.

The exact fiscal impact of continuing Proposition 1 payments from fiscal year 2026 to fiscal year 2035 has not yet been determined. However, it is possible that another 10 years of this funding could approach $10 billion. Although severance taxes are volatile and unpredictable, SB 962 will

provide TxDOT with greater financial security, which is required for the long-term planning of non-tolled, roadway projects.

Additionally, Senate Bill 69 extends the expiration date of Proposition 1 fund transfers to the State Highway Fund in the same way SB 962 amends the expiration. Further, SB 69 establishes a new procedure for the transfer of Proposition 1 revenues to the Economic Stabilization Fund and the State Highway Fund. SB 69 amends Subchapter H of Chapter 316, Government Code, to eliminate the joint legislative committee that was required to determine the sufficient balance of the Economic Stabilization Fund that must be attained before the Texas Comptroller of Public Accounts (comptroller) may make a transfer of Proposition 1 revenues to the State Highway Fund. SB 69 requires the comptroller to determine and adopt for a state fiscal biennium a "threshold" balance of the Economic Stabilization Fund in an amount equal to seven percent of the certified general revenue-related appropriations made for that state fiscal biennium.

Before making any allocations to the Economic Stabilization Fund and State Highway Fund under Section 49-g, Article III, Texas Constitution, the comptroller must determine if the sum of the balance of the Economic Stabilization Fund on the preceding August 31, any projected transfer to the fund under Section 49-g(b), and any projected transfer to the fund under Section 49-g(c) in accordance with the allocations for the transfer as provided by Section 49-g(c-1) is less than an amount equal to seven percent of the certified general revenue-related appropriations made for that state fiscal biennium. If the amount in the Economic Stabilization Fund is less than the amount described above, the comptroller must reduce the allocation to the State Highway Fund and increase the allocation to the Economic Stabilization Fund, in an equal amount, until the balance in the Economic Stabilization Fund reaches the required amount. The provisions of the SB 69 relating to the calculation of the new "threshold" balance of the Economic Stabilization Fund, and any required adjustment of the allocations to the Economic Stabilization Fund and State Highway Fund, take effect beginning with the state fiscal year beginning September 1, 2021. SB 69 amends Section 404.0241, Government Code, relating to the investment of the assets in the Economic Stabilization Fund.

###

SB 357 - Relating to outdoor advertising signs regulated by the Texas Department of Transportation

SB 357 amended Section 391.038, Transportation Code, to provide a maximum height of 60 feet for new or amended permitted commercial signs. SB 357 clarifies that a person who holds a permit for a sign existing on March 1, 2017, may rebuild the sign at the same location where the sign existed on that date, only by obtaining a new or amended permit, at a height that does not exceed the height of the sign on March 1, 2017, or 85 feet, whichever is less. The amended permit requirement does not apply to the rebuilding of a sign if the permit holder rebuilds the sign due to damage caused by:

- wind or a natural disaster;
- a motor vehicle accident; or
- an act of God.

SB 357 stated that a sign may not be higher than 60 feet, excluding a cutout that extends above the rectangular border of the sign, measured:

1. from the grade level of the centerline of the main-traveled way, not including a frontage road of a controlled access highway closest to the sign at a point perpendicular to the sign location; or

2. if the main-traveled way is below grade, from the base of the sign structure. SB 357 includes an exemption from the maximum sign height for a sign within the boundaries of a political subdivision that is authorized by TxDOT under rules adopted by the Texas Transportation Commission to exercise control over the signs within their jurisdiction (a certified city).

SB 357 states that if a sign owner who has 100 or more permitted signs, and has a sign that violates the maximum sign height, the Texas Transportation Commission, after notice and an opportunity for a hearing before the Texas Transportation Commission, may deny that owner an application for a new sign permit, or renewals for existing signs.

TxDOT is currently in the rule drafting process to reflect the statutory changes pertaining to sign height requirements and denial of new sign permits, or renewals for existing signs as required by SB 357. While the rules are not currently up to date in the Texas Administrative Code, as required by law, TxDOT is currently enforcing the 60-foot height limitation as enacted by SB 357 for new permit locations.

###

The Texas Department of Motor Vehicles

The 86th Legislature passed approximately 40 bills directly impacting the Texas Department of Motor Vehicles (TxDMV). The vast majority of bills that became law affected the department's programs for dealer licensing, oversize and overweight vehicle permitting, and vehicle titles, registrations, and license plates. Bills also passed that impacted the Motor Vehicle Crime Prevention Authority (formerly known as the Automobile Burglary and Theft Prevention Authority). The implementation status of the enacted bills that were voted out by the House Committee on Transportation are summarized below.

The TxDMV Sunset bill (SB 604 by Buckingham) continues the department until 2031. Major elements in the bill include:

- Requiring a system to act on complaints and notify the parties to the complaint of its status.
- Ending representative and salvage vehicle agent licensing and salvage vehicle dealer license endorsements.
- Allowing the department to set salvage vehicle dealer license terms and issue cease-and-desist orders for non-licensed salvage vehicle dealing.

- Allowing the ordering of consumer refunds for violations by dealers and household goods carriers.
- Giving the department sole authority to determine access to its automated registration and titling system and requiring training about the system and identifying fraud.
- Requiring all counties to allow use of the automated titling system (webDEALER).
- Changing the name of the Automobile Burglary and Theft Prevention Authority to the Motor Vehicle Crime Prevention Authority and allowing it to fund efforts to stop motor vehicle fraud.
- Requiring independent motor vehicle dealers, if licensed less than 10 years, to take license training.
- Making information from an investigation of a licensee confidential if disclosure jeopardizes the investigation. This item was a TxDMV Board recommendation to the Legislature.

According to the TxDMV, the above items have been fully implemented or soon will be after some final rule adoptions and manual updates. There are some elements of the bill where implementation is in process. The bill requires digital license plates to be available for certain vehicles. Rules for digital plates have been adopted, and proposals are being evaluated from vendors to supply the plates. Programming department computer systems has begun, and the entire program is on track to be ready ahead of the required implementation date for vendors to participate by December 31 of this year. Lastly, the bill requires a study by the department, the Department of Transportation, the Department of Public Safety, the Commission on Environmental Quality, and the Public Utility Commission on the impact of alternatively fueled vehicles on the state and alternatives for assessing fees on such vehicles. This report was published in December 2020.

Additional Legislation

HB 2620 by Representative Martinez of Weslaco enacted several TxDMV Board recommendations to improve the department's authority and services relating to oversize and overweight vehicles. The bill includes: standards for escort vehicles and flaggers used with oversize/overweight vehicles, the ability to deny a permit if the motor carrier is out-of service per the Federal Motor Carrier Safety Administration (or similar state rating), requiring shippers provide a certificate of weight if the person transporting the shipment requests one, and requiring the person transporting the shipment to provide the department with a certificate of weight prior to issuance of a permit if the combined weight of the vehicle and load exceeds 200,000 pounds. After some final rule adoptions and software changes, this bill will be fully implemented.

HB 3842 by Representative King of Zavala contains the TxDMV Board recommendation to repeal a provision related to consignment sales by dealers that conflicted with other laws about dealers selling from a single licensed location. The bill also passed with the provisions from SB 1193 relating to issuing titles to vehicle buyers when a dealer goes out of business. This bill has been fully implemented.

HB 2835 by Representative Canales created an affirmative defense for having an expired vehicle registration if the person's tax assessor-collector's office is closed for a protracted period (such as for a natural disaster). This bill did not require any implementation steps by the department.

HB 61 by Representative White addressed lighting requirements for escort flag vehicles. Updates to department rules will be adopted soon.

HB 1262 by Representative Bell of Kaufman allows trailers weighing up to 7,500 pounds to register for up to five years at a time. Several hundred customers are already using this new option.

HB 1548 by Representative Springer defines "off-highway vehicles" and requires license plates on them and golf carts when used on roads as allowed by law. The plates are available to customers and more than 5100 have been purchased.

HB 1631 by Representative Stickland ended registration blocks for red-light camera violations. A minor wording update to department rules will be made but all substantive parts of the bill were implemented in June 2019.

HB 1755 by Representative Thompson of Brazoria defines "assembled vehicle" and allows those vehicles to be titled and registered. Approximately 100 vehicles have already received these titles.

HB 2310 by Representative Vo requires coordinating with the Federal Emergency Management Agency (FEMA) to update title records of vehicles receiving a FEMA payout. The department has identified several options to address this situation and is actively working with FEMA and the Texas Department of Emergency Management on the most efficient way to obtain the identification information for vehicles receiving a payout.

HB 3068 by Representative Kuempel allows older-style license plates to be used on classic motor vehicles and travel trailers, custom vehicles, street rods, and certain exhibition vehicles. This bill is fully implemented.

HB 3163 by Representative Springer requires a document explaining privileged parking be provided to customers receiving disabled license plates or parking placards. The department created the document and has distributed more than 620,000 of them to county tax offices.

HB 3760 by Representative Guillen allows governmental agencies disposing of their surplus vehicles to issue temporary tags to the buyers.

Specialty License Plates

All the military-related specialty license plates created by the 86th Legislature are available to eligible customers as is the Purple Heart license plate for law enforcement. Of the license plates requiring a deposit before being created, the "Register to Vote" and "F-35 Fighter Jet" license plates are available.

RECOMMENDATIONS

- TxDOT should continue to draft rules reflecting the full intent of the Legislature.
- TxDMV should continue to draft rules reflecting the full intent of the Legislature.

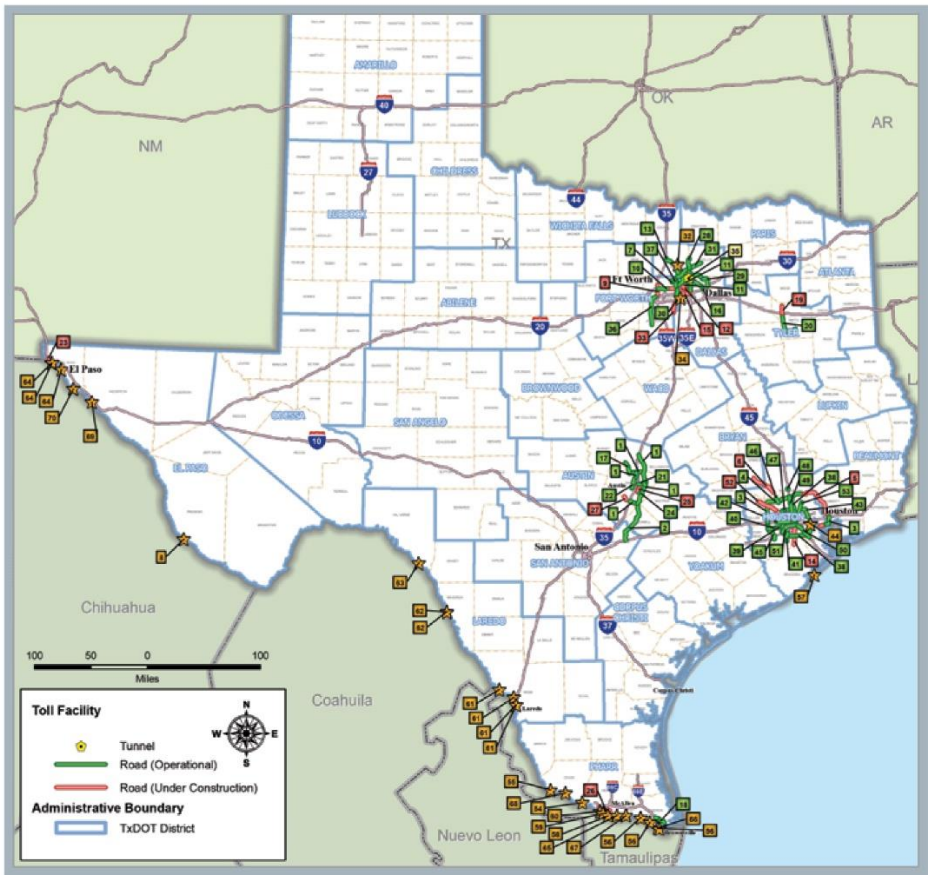
INTERIM CHARGE 1A:
TOLL SERVICE

HB 803 and SB 198, which relate to toll project financial reporting and use payments. Monitor the effectiveness of the tools available to Texas toll project entities for enforcing unpaid tolls while protecting customer rights.

BACKGROUND:

Toll roads and toll lanes can be found in several major metropolitan regions in Texas, including Houston, Dallas, Austin, and the Rio Grande Valley. Generally, utilizing tolls is considered one of the few options available to develop transportation infrastructure without the need to have the road construction dollars on hand. This is achieved because the drivers who pay the toll are paying for the debt service on bonds used to finance the construction, the maintenance of the road, and the operation of the road. In other words, it is a "user pays" approach.

Toll Roads & Toll Bridges in Texas Map



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Roads are neither free nor remotely inexpensive. For reference, in August 2020 the Texas Transportation Commission programmed for the state to spend about $74.65 billion over the next

10 years on transportation infrastructure.[4] Tolls are commonly referred to as a tool in the toolbox of transportation infrastructure financing options. However, this proverbial toolbox does not have a lot of options. To pay for roads, the state must either collect and utilize tax revenue or permit a toll. Tolls are considered a user-fee, meaning the drivers pay for their use of the road. Consequently, drivers have an option whether to use a toll road or not, and if a road has a toll, those drivers that live in another region of the state may never have to pay for a road they do not use. As is described below, user fees, and their direct association with a road for which use is voluntary, are not taxes.

Using tolling to finance roads stands in stark contrast to collecting tax revenue to pay for roads, e.g., the motor vehicle fuel tax. A taxpayer may not choose to opt-out of a paying a tax on the sale of gasoline for their vehicle, other than choosing to use transportation that is alternatively powered. Moreover, the motor vehicle fuel tax revenue is deposited into the State Highway Fund, wherein each year the Texas Transportation Commission determines where to allocate the revenue around the state. In essence, when one pays the motor vehicle fuel tax on the sale of gasoline or diesel, the taxpayer is paying for the construction and maintenance of roads all across Texas regardless if they actually drive on them.

During Governor Rick Perry's administration, between 2000 to 2015, toll roads were a part of the state's transportation strategy. A significant amount of the state's current toll roads in Texas were opened or expanded, utilizing them for transportation infrastructure because the motor vehicle fuel tax revenue was not able to cover Texas' infrastructure needs. Toward the end of Governor Perry's administration and early in Governor Abbott's administration, the Texas Legislature passed and Texas voters approved two new allocations of current revenue streams to transportation: Proposition 1 and Proposition 7. Proposition 1 authorized the State to transfer a portion of the oil and gas severance taxes to the State Highway Fund each year. Proposition 7 authorized the state to transfer a portion of the state's sales and use taxes and motor vehicle sales taxes to the State Highway Fund each year.

Shortly after Governor Greg Abbott came into office in 2015, Governor Abbott stated that Texas could meet its transportation infrastructure needs without the state implementing tolls—effectively declaring a moratorium on all new state implemented toll roads.

Toll Entities

Currently, there are four types of governmental entities that may develop and operate toll projects under Texas law: the Texas Department of Transportation, Regional Mobility Authorities, Regional Toll Authorities, and County Toll Road Authorities. Texas has ten Regional Mobility Authorities, one Regional Toll Authority, and several County Toll Road Authorities.

Generally, toll entities have extensive state and federal oversight and accountability requirements and contractual requirements to satisfy each year, including but limited to an independent financial audit. Many toll entities draft a quarterly report and a project report and obtain maintenance verification and maintenance certification. During the 86th legislative session, the Governor signed House Bill 803, which requires toll entities with toll projects to produce an annual, simplified financial report and publish it on their website. This new report provides Texans with a more easily

understandable financial document than the independent financial audit, which is often lengthy and overly technical for the casual reader. The North Texas Toll Authority (NTTA) and the Central Texas Regional Mobility Authority (CTRMA) release a comprehensive list of assessments and reports each year, proving their commitment to full financial transparency and accountability to Texans. Additionally, NTTA has consistently earned a Financial Transparency Star from the Texas Comptroller of Public Accounts—taking transparency seriously by putting it up for scrutiny by third parties: auditors, comptroller, and bondholders.

Toll entities, like the CTRMA and NTTA, view themselves as a part of the transportation solution for their regions. Regional Mobility Authorities and Regional Toll Authorities were created during the early 2000's—a time when infrastructure dollars were scarcer than today. The state motor vehicle fuel tax, which has not been raised since 1991, was the only significant state revenue generator for infrastructure at the time. Not only have cars become more fuel efficient throughout time, but inflation had already taken a massive bite out of its purchasing power, while highway construction costs had soared and maintenance costs of aging roadways had escalated.

In 15 years, CTRMA changed Central Texas' transportation network, providing toll routes for drivers in the region's heavily congested roadways.[5] Moreover, many RMAs, like CTRMA, develop non-toll assets for drivers avoiding the toll. Not only does CTRMA have over $2 billion in asset investment, but approximately 45% of CTRMA's total project investment have been allocated for non-tolled assets.[6]

The NTTA has similarly changed North Texas, operating more than 1,000 lane miles of toll roads, and serving more than 12 million customers.[7] Approximately 6 million NTTA toll tags are in circulation, as well.[8] Pre-COVID-19, NTTA was processing 2.5 million daily transactions, meeting high demand for mobility options.

The Harris County Toll Road Authority (HCTRA) is another major toll entity that has changed the transportation network in its region. Established in 1983 by Harris County voters, it was formed as a response to the state's scarce infrastructure dollars and the urgent need to address the immense population growth and congestion in the Greater Houston Area. HCTRA now consists of approximately 127 miles of roadway in the Houston/Harris County region and will continue to remain a critical infrastructure asset in the region.[9]

Toll Road Fees and Fines

Public tolling entities function without tax dollars, relying on toll revenue to pay debt service, operate and maintain the road, and invest in new capital projects. The tolls alone must pay for these components, and while no one enjoys paying tolls, drivers that use the toll road are obligated to pay for their use. In the event a driver fails to timely pay their toll, a toll entity has a right to issue a late payment fee. Without a late payment fee, there are few fair incentives for a driver to pay their bill on time. While electronic toll collection (transponders placed on a vehicle that is linked to a credit card for automatic processing) largely eliminates late payment issues, toll authorities also allow a "Pay By Mail" program that allows registered vehicle owners to be billed for their use of a toll road based on an electronic image of their license plate. This facilitates use by drivers who

cannot obtain a credit card or who prefer not to use a transponder (i.e., occasional users, those with privacy concerns, etc.). Pay-By Mail transactions are most costly to collect (since invoices must be processed and mailed, etc.), and there is a higher risk of non-payment.

Immediately prior to the COVID-19 pandemic, CTRMA was processing over 304,000 daily Pay By Mail transactions for use of their roadways. Their toll fee structure is as follows:

- Toll Bill = tolls + $1 invoice fee
- Notice of Non-payment (30 days past due) = tolls + $15
- Second Notice of Non-Payment (60 days past due) = tolls + $30
- Final Notice of Non-Payment/Collections (90+ days past due) = tolls + $45

The maximum administrative fee per unpaid invoice is $45.[10]

Customer Service

All toll entities that operate tolls are in the customer service industry. CTRMA has stated that it remains committed to providing the best customer experience possible with every encounter. Average customer call wait times are down to under 45 seconds, and overall customer satisfaction was at 97% in July 2020. NTTA similarly strives for the highest customer service satisfaction as well, and it has a third-party that conducts customer surveys. It consistently achieves around 97% ratings of customer satisfaction as well. Many toll entities, including both NTTA and CTRMA, were actively involved in supporting toll transparency and toll customer service legislation. In the 86th legislative session, both entities, and many others, contributed to the drafting of SB 198, which codified many of the best practices for meaningful toll customer service. Proponents of this significant legislation included anti-toll activists.

According to some customers, some toll entities have much room for improvement on customer service. Below are some of the criticisms and suggestions from users of tolls from all around the state of Texas:[11]

- Some users would like to have improved notification of their expired credit cards linked to toll account before issued toll penalties. Some toll entities have been criticized for not immediately notifying consumers of expired credit cards, resulting in an increase in late fees and fines.
- Some users request more timely notice of toll invoices and insist that all toll entities offer payment plans while minimizing late fees.
- Some users would like improved communication efforts prior to receiving any penalties.

Habitual Violators and Customer Rights

A Habitual Violator is defined in Section 372.106(a) of the Texas Transportation Code as (A) one who was issued at least two written notices of nonpayment that contained in aggregate 100 or more events of nonpayment within a period of one year, and (B) was issued a warning that failure to pay the amounts specified in the notices may result in the toll project entity's exercise of Habitual

Violator remedies.[12]

A toll violator, whether failing to pay one or 1,000 toll fees, is creating an unfair and unequitable outcome for the drivers who utilize the toll road and pay their toll fees. Texas state law allows for various enforcement remedies to prohibit habitual violators, including blocking vehicle registration renewal, prohibiting habitual violators from using toll roads, on-site enforcement of the vehicle ban, and publishing the name to the toll entity's website of those habitual violators.

Habitual Violators are also ensured their due process protections under the law. A Habitual Violator must first be sent written notice of their violator status. Law requires that a notification letter is sent to the address in the Texas Department of Motor Vehicle (TxDMV) registration database and allow 30 days for the driver to dispute the status or address the account balance. If the 30 days lapses without any contact with the driver or any remedy, the toll entity may enforce the remedies under the law. The driver then may make payment or dispute their habitual violator status before a Justice of the Peace.

Texas Department of Motor Vehicles Vehicle Registration Records

Some toll entities have expressed concerns with the Texas vehicle registration record database that they are required to use as the contact information for drivers that use toll roads without a toll tag. Essentially, toll entities use the vehicle license plate information to trace back the owner of the vehicle through the TxDMV's vehicle registration records. However, the problem is that the TxDMV records are often insufficient for various reasons to track down the vehicle owner—and it is not necessarily the fault of the TxDMV. CTRMA noted that approximately 3% of invoices are uncollectible because of no DMV information.[13] An additional 2% of invoices are returned because of bad address information.[14]

As a result, NTTA has renewed an offer to cover all costs to develop an improved system for the State of Texas, while allowing the State to retain full control of the updated system. NTTA has indicated that, with the proliferation of fraudulent license plates and temporary plates, significant improvements in the system would not only help resolve issues for all toll entities but also help law enforcement.

RECOMMENDATIONS:

1. The State, toll entities, and law enforcement should continue to work together and resolve any issues with the vehicle registration records database.
2. Toll entities should provide the function of allowing registered vehicle owners to list their preferred method of communication.

INTERIM CHARGE 1B:
FINANCE

SB 282 and SB 962, which relate to the funding for the State Highway Fund. Study the current mix of user fee-based funding for the state highway system, including registration fees, tolls, and fuel tax, and determine if current funding generated is sufficient to maintain cost demands. Examine whether current legislative appropriations including projections for Proposition 1 (severance tax) and Proposition 7 (sales tax) funds, are keeping pace with Texas' highway funding needs to accommodate population and economic development growth. Make recommendations for additional methods of funding or innovative tools that the state could utilize to deliver road infrastructure projects.

BACKGROUND:

Texas transportation infrastructure, on the local and state level, needs to be continually assessed to ensure it is adequately supporting future population and economic growth. In 2018, traffic delay on the 100 most congested roadways in Texas was equivalent to 60,000 person-years and cost the state economy more than $11 billion.[15] According to TxDOT, in 2017, the annual congestion costs per auto commuter were $1,508 in Houston.[16] In Austin, annual costs were $1,391, and in Dallas-Fort Worth, they were $1,272.[17] Simply put, Texans are sitting in traffic because transportation infrastructure has not kept up with Texas's growth. However, without two of the decade's great infrastructure finance accomplishments, Texas would be in worse shape: Proposition 1, a 2014 Constitutional amendment that dedicated a portion of oil and gas severance tax to the State Highway Fund (SHF), and Proposition 7, a 2015 Constitutional amendment that dedicated a portion of sales and use tax, and motor vehicle sales and rental taxes to be transferred to the SHF.

For some perspective on their impacts, below is a list of the Texas Transportation Commission's (Commission) adopted Unified Transportation Programs (UTP), which is the state's 10-year transportation infrastructure planning document.

- 2015 UTP: $34.46 billion[18]
- 2016 UTP: $35.51 billion[19]
- 2017 UTP: $70.19 billion[20]
- 2018 UTP: $71.23 billion[21]
- 2019 UTP: $75.36 billion[22]
- 2020 UTP: $77.56 billion[23]
- 2021 UTP: $74.65 billion[24]

Between ending revenue diversions from the SHF, which is the State's primary infrastructure funding source, and the implementation of Prop 1 & 7, the State's transportation revenue forecasts grew significantly. As helpful as these funding tools have been, they have not resolved our infrastructure finance issues.

Texas Population

Texas's population is approximately 29 million.[25] Every single day, an estimated 1,100 individuals are added to the Texas population.[26] By 2050, only 30 years away, Texas's population is projected to increase 60% to approximately 47 million.[27] The vast majority of the population growth throughout the last decade has been centered in major urban areas like Houston, Dallas/Fort Worth, San Antonio, and Austin.[28] Three other regions, namely the Rio Grande Valley, El Paso and Midland/Odessa, grew significantly as well.[29] The State demographer anticipates future population growth to remain focused in these regions.[30]

Additionally, 93% of Texans use a car or truck as their means of transportation, and Texans drive more than 540 million miles on the state road system every day.[31] According to the state demographer, Texas's five metro areas—Austin, Dallas, Fort Worth, Houston, and San Antonio—represent 67% of the Texas population, and 87% of all Texans live in counties along and east of I-35[32]. Meanwhile, by 2050, when the state population approaches 50 million, our transportation system must be capable of supporting not only a 60% increase in population but also the immense increase in commercial motor vehicle travel.

According to the Texas Transportation Plan 2050, adopted in August 2020 by the Commission, more than 2.2 billion tons of freight moved within Texas on the state's transportation network in 2016. This is expected to grow to 4.0 billion tons by 2045. Highway tonnage is expected to double from 1.2 billion tons in 2016 to 2.5 billion tons in 2045, a projected increase of 1.3 billion tons and growth of 108%. During this period, the value of freight moved in Texas is forecasted to grow by 213% from $1.7 trillion to $5.2 trillion. The state's economy is projected to grow by over 250% between 2020 and 2046, from a gross state product of approximately $2 trillion to nearly $7 trillion.[33]

The 2030 Report Remains <u>Critical</u> in 2021

In 2010, the Commission formed a panel of transportation experts and researchers across Texas that was tasked to "develop a forecast for alternative levels of service for the four elements of the Texas transportation system—pavement, bridges, urban mobility and rural connectivity—along with analyzing potential sources of transportation revenue and determining the economic effects of under-investing in the system."[34]

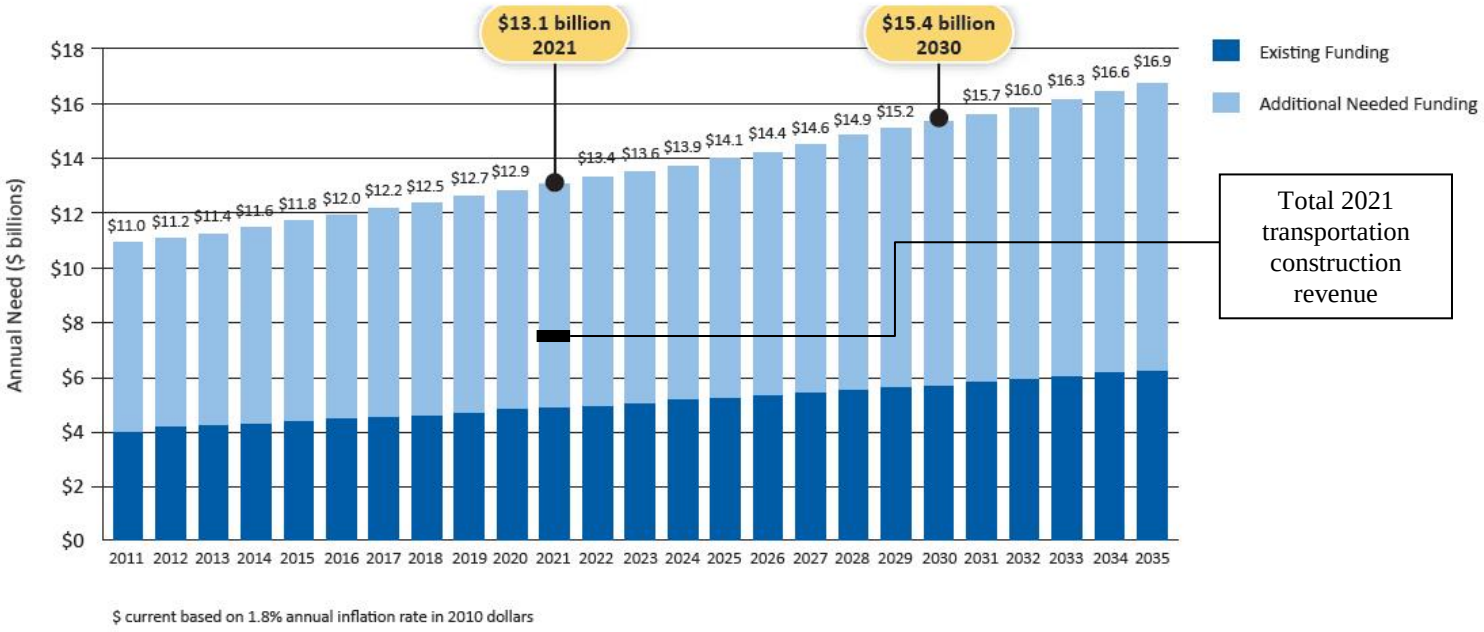
The 2030 Report determined that the state needed $270 billion in highway infrastructure investment to maintain 2010 road conditions plus add capacity between 2011 and 2035.[35] At the time, prior to Prop 1 and Prop 7, the State only had roughly $100 billion identified for existing revenue sources, which included toll revenues and comprehensive development agreements (CDA), and the remaining $170 billion would have to come from new revenue sources.[36] In current dollars, after adjusting for an average 1.8% inflation per year from 2011, the 2030 Report concludes that the State actually needs $343.3 billion—not $270 billion—to merely maintain existing 2010

"Pre-COVID-19, the shortfall in transportation investment for 2021 is $7.2 billion, increasing about 1.8% each year due to inflation."

conditions.[37]

When breaking out the investment need from 2011 to 2035, at first glance, the 2021 need looks to be $13.1 billion and grows to $16.9 billion by 2035. However, after including the megaprojects around the state, such as Central Texas's I-35 and Houston's I-45/I-69 improvements, which were not previously factored, the total funding need for 2021 increases to $14.7 billion.[38] Meanwhile the current UTP forecast has only $7.46 billion available for construction for 2021. Therefore, pre-COVID-19, the shortfall in transportation investment for 2021 is $7.2 billion, increasing about 1.8% each year due to inflation.[39] Between 2019 and 2030, Texas will underfund transportation infrastructure by $111 billion—averaging $9.3 billion per year.[40] This forecasts a steady decline in available construction revenue, which will be discussed later in this section.

The chart below represents the 2030 Report's assessment of funding needs from 2011-2035 as adjusted for inflation. Note that this chart neither considers the impact of Prop 1 and Prop 7 nor considers the funding impact of various megaprojects planned.



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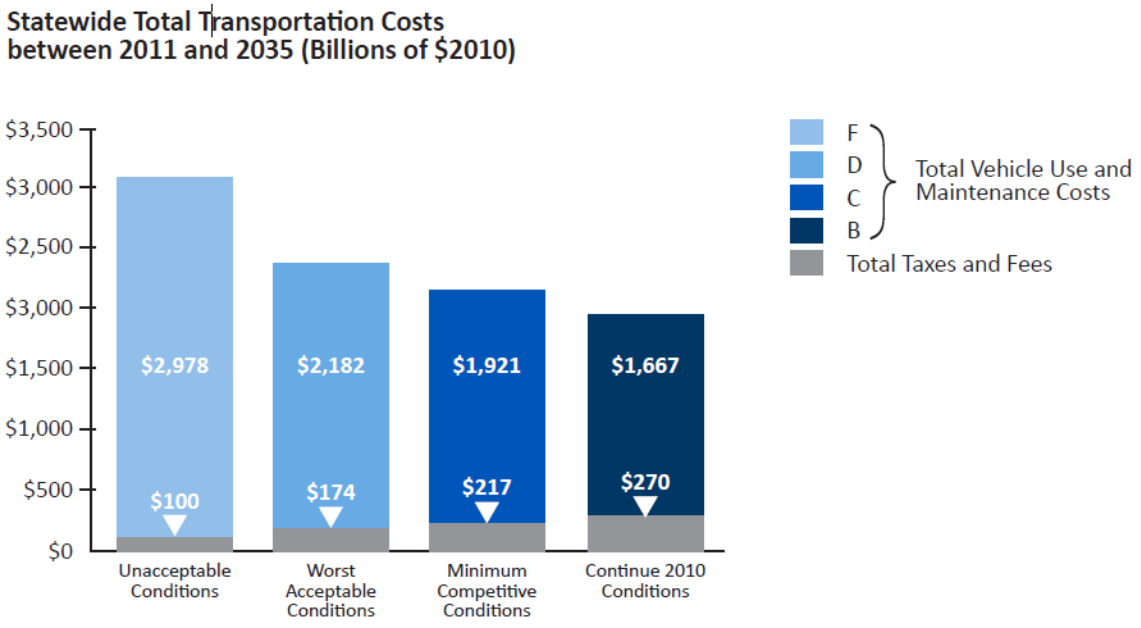
Transportation has a Powerful Return-on-Investment

Infrastructure investment is like pouring gasoline on a fire for economic growth in Texas. Investing in Texas roads raises the Texas economic productive capacity and has one of the highest fiscal multipliers of any government funding, according to the White House.[42] The multiplier is as low as 1.5 to as high as 3.[43] Similarly, 2030 report determined that, for every $1.00 spent on infrastructure over the 2011 $100 billion existing revenue, Texans gain $7.70.[44]

In 2016, according to the Texas Comptroller of Public Accounts, a survey of corporate executives, ranked highway accessibility second among the top 10 site selection factors, just behind the availability of skilled workers. Highway accessibility has ranked first or second in importance in this survey for more than 25 years.[45]

"Between 2019 and 2030, Texas will underfund transportation infrastructure by $111 billion—averaging $9.3 billion per year."

The following chart illustrates the infrastructure return-on-investment from the 2030 report. Note that inflation has not been adjusted and that the associated alphabetical letters indicate infrastructure grading from A through F. In essence, the chart shows that earlier maintenance investment is a significantly more prudent use of taxpayer funding than late repair as a result of underfunding.



[46]

Funding Streams for Fiscal Year 2021 (Pre-COVID-19)

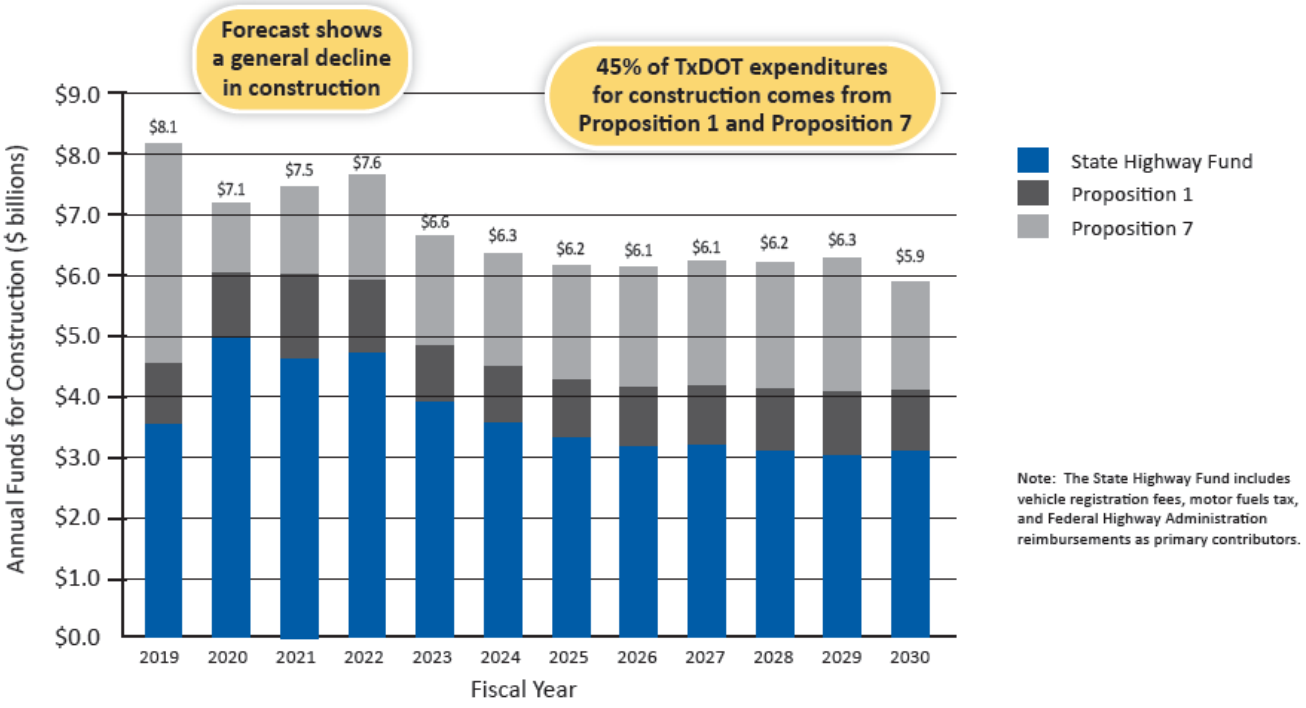
Texas has numerous funding streams to pay for infrastructure. The TxDOT fiscal year (FY) 2021 budget was projected to be $14.75 billion, with $7.29 billion of that amount programmed for maintenance and operation, and $7.46 billion programmed for construction. Pre-COVID-19, the FY 2021 revenue projections were as follows:

State Highway Fund

Federal Highway Admin Reimbursement:	$5.06 billion
State Motor Fuel Tax (gas and diesel tax):	$2.83 billion
Vehicle Registration Fee:	$1.63 billion
Other Revenue:	$0.66 billion

Proposition 1 (Oil & Gas Severance Tax)	
Transfers:	$1.46 billion
Interest:	$0.04 billion
Proposition 7 (Vehicle Sales and Use Tax)	
Transfers:	$2.50 billion
Interest:	$0.03 billion
Texas Mobility Fund	
All Fees:	$0.54 billion
Total:	**$14.75 billion**

As mentioned previously, revenue forecasts will steadily decline if new revenue streams are not added. In the TxDOT Long-Range Revenue Forecast, the agency anticipates that the Federal Highway Administration (FHWA) reimbursements will continue to decline over the next decade while our state population grows—this is captured in blue below.[47] This equates to fewer overall construction projects if no new revenue is added.



[48]

COVID-19's Impact on Transportation Revenue

Prior to the COVID-19 global pandemic and the extreme volatility of the Texas oil and gas market in spring 2020, the Texas Comptroller of Public Accounts (Comptroller) certified that state motor fuel tax, Proposition 1, and Proposition 7 revenue was a total of $13.9 billion for the 2020-2021 biennium.[49] In July 2020, in the midst of the COVID-19 pandemic, the Comptroller's certified

revenue estimate reduced this figure to $11.96 billion. Therefore, TxDOT, as of July 2020, has already taken a $1.9 billion cut to its infrastructure revenue for FY 2020-2021 biennium.[50] It is possible these transportation revenues will again be reduced in the Comptroller's January 2021 budget revenue estimates. The $1.9 billion cut in revenue amounts to 14% of the TxDOT budget. This means that the estimates for FY 2020-2021 revenue mentioned previously in this section must also account for the $1.9 billion reduction in revenue, setting the state's infrastructure investments back even further.

The Texas Transportation Portfolio

Many transportation experts in Texas believe that the state cannot build enough highways and roads to keep up with Texas's 2050 population growth trajectory or alleviate many of our state's worsening traffic congestion challenges.

Because of statutory and constitutional funding constraints, approximately 3% of TxDOT's yearly state transportation revenue in the SHF may be allocated to multi-modal transportation and other TxDOT functions not related to the development, delivery, and maintenance of the state highway system. In addition, approximately half of the 3%, and growing each year, is required to be allocated to the Texas Emissions Reduction Plan (TERP), which is a grant program that financially incentivizes drivers to reduce vehicle and equipment pollution. This means that all other divisions within the agency, including the Aviation, Bridge, Maritime, Public Transportation, Rail, and many others, are all funded within an estimated 1.5% of TxDOT's transportation revenue and have an increasingly smaller pool of revenue to pull from each year.

Texas's five major metropolitan areas, where 67% percent of Texans live, do not receive any state funding for mass transportation. In 2019, $40 million was allocated in transit funding, but it was restricted to small metros and rural transit.[51] It is critical that the state continually assesses its transportation portfolio to ensure it is adequately supporting population and economic growth in highways, aviation, ports, freight movement, mass transportation, etc.

Funding Solutions

The State Motor Fuel Tax

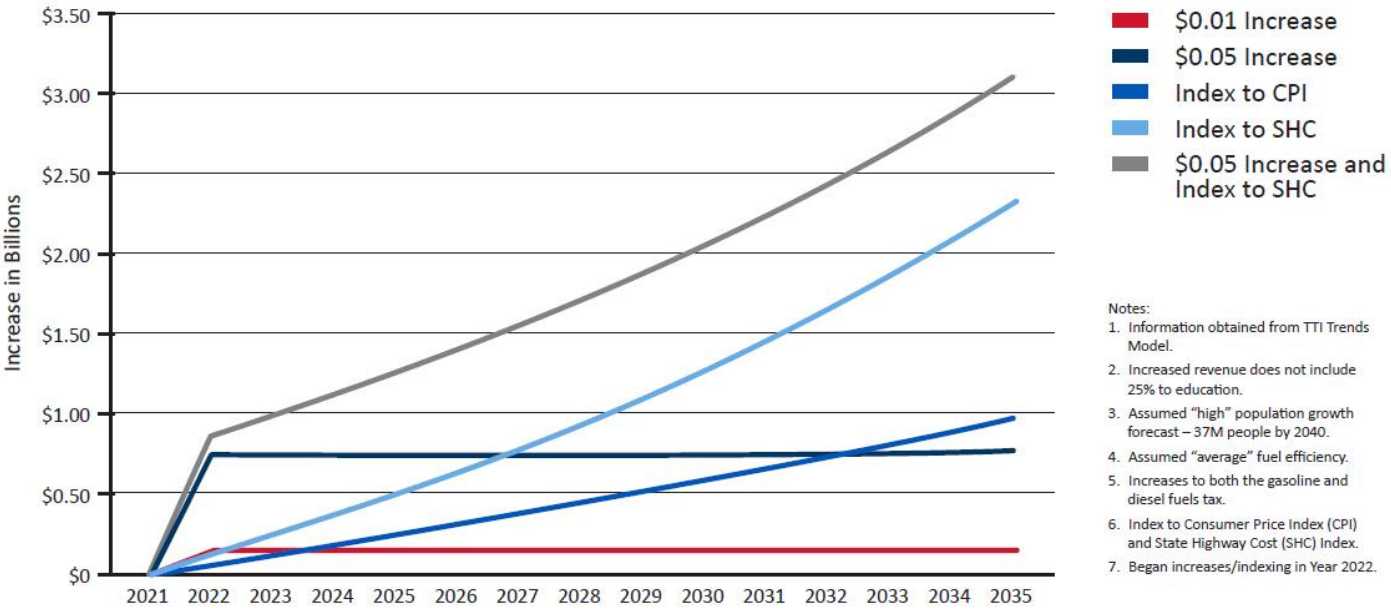
Right now, Texans pay 20 cents of state motor fuel tax on every gallon of gasoline or diesel. 15 cents is deposited into the SHF, and 5 cents goes toward education. Texas has the lowest motor fuel tax among the ten most populous states, while Texas also has significantly more lane miles than any other State. [52] The State is responsible for maintaining over 197,000 lane miles.

The current flat rate tax does not account for inflation. The state motor fuel tax has not been adjusted since 1991.[53] As a result, the tax has lost half of its purchasing power since then. If Texas had indexed the tax to the CPI in 1991, the tax would have grown to approximately 40 cents, and the state would be collecting twice the state motor fuel tax as it currently is today. According to the National Conference of State Legislatures, 22 states, including Washington D.C., have indexed

their state motor fuel tax.[54]

Vehicles are becoming more fuel efficient, and they will continue to require less gasoline or diesel. As electric vehicles become more popular, the State's infrastructure dollars will continue to diminish further. The state motor fuel tax is the second largest revenue source for transportation, next to FHWA reimbursements. Because of the anticipated proliferation of electric vehicles through the next two decades, the State will not only see decrease in FHWA reimbursements, as mentioned previously, but also see decreases in state motor fuel tax revenue. The Texas A&M Transportation Institute has indicated that peak motor fuel revenue will be around 2030.[55]

Below is a graph on the state's motor fuel revenue if specific improvements were made:



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Texas Mobility Fund

In 2001, Texas voters approved the Texas Mobility Fund (TMF), and authorized grants of funds for infrastructure, including toll roads. The Commission was authorized to issue debt supported by the TMF to finance the development and construction of roads on the state highway system, publicly owned toll roads, and other public transportation projects. The TMF was one of the more flexible sources of money available for use by TxDOT. However, in the 84th legislative session, HB 122 was adopted, which imposed significant restriction on the use of the TMF. Specifically, HB 122 prohibited the Commission from issuing any additional TMF debt, except to refund outstanding obligations, refund outstanding variable rate obligations, and to renew or replace credit agreements relating to variable rate obligations. It also specified that additional funds on deposit in the TMF in excess of what is needed to satisfy existing obligations or credit agreement requirements may be used for any of the statutory purposes except for toll roads.

According to TxDOT, the estimated current borrowing capacity of the Texas Mobility Fund is

approximately $3 billion a year. This number is subject to change and could be higher or lower depending on, at the time of issuance, if there is a substantial change in the revenue forecast for the TMF or in interest rates.

Tolling

The Commission has stated that it is operating in a non-toll environment. This is a policy determination and is not a requirement or prohibition imposed by statute. The 2030 Report included toll roads as a necessary investment tool to develop Texas's transportation system. It was part of the investment equation. The report specifically estimated that $1.8 billion per year, adjusting for inflation overtime, would need to be financed through toll roads and managed lanes.

Developing toll roads or toll lanes provide new transportation options without straining existing transportation funding sources because they are either largely funded through private financing or toll revenue bonds. Tolls should be used strategically in communities that want them. Many already have as they have taken the initiative to create local or regional tolling entities. Additionally, tolls provide congestion relief for drivers, and they often allow communities to accelerate infrastructure investment in their region as a result of not having to wait for traditional state funding. As noted above, according to TxDOT in 2018, traffic delay on the 100 most congested roadways in Texas was equivalent to 60,000 person-years and cost the state economy more than $11 billion.[57]

Comprehensive Development Agreements

Comprehensive development agreements (CDA) are the Texas form of public-private partnership for roadway projects. Generally, a CDA involves a contract with a private sector entity to design, construct, finance, operate, and maintain a project for some period of time. Texas law limits these contracts to a maximum of 52 years. CDAs transfer financing, revenue, and construction risk to the private sector. In some instances, there is an up-front payment received from the private sector entity for the right to develop and operate the project, and often there is an agreement to share revenues between the private sector and the public entity as well. Ownership of any roadway subject to a CDA must, by law, remain with the public sector, so there is never any private ownership of public roadways under a CDA.[58]

The CDA delivery method has been used for five projects in Texas with an aggregate capital cost of $8.5 billion. One project (SH 130, Segments 5 & 6) went into bankruptcy after several years of operation; however, the restructuring process for that project has been completed, and it has emerged from bankruptcy with new owners. Notwithstanding the bankruptcy, the roadway maintained continuous operation, the state was not forced to assume any of the financial obligations of the previous private sector developer, and the new owner has already invested more to improve the road.[59] In light of this information, the State should consider the merits of authorizing TxDOT to extend its current lease agreement for SH 130, Segments 5 & 6.

Two of the five CDAs included up-front payments for the rights to develop and operate the

projects, and that money has been used by the regions where the projects are located to support the financing of additional projects. All five CDA projects also provide for revenue sharing, which provides further funding for additional projects. [60]

Notwithstanding previous uses of CDAs in Texas and other parts of the US, Texas has moved away from the model to the point where there is currently no legislative authorization for TxDOT or RMAs to use a CDA except for on SH 99 Grand Parkway. This is true despite the fact that there are several projects with projected costs of more than $1 billion in urban areas throughout the state. Some or all of these projects could be developed through CDAs (using private sector financing) and thereby leave a lot of state funding they will need available for other projects in urban and rural areas.[61]

Moreover, while concession payments can be helpful in financing the construction of additional infrastructure, it is important to note that concessions are primarily financing tools for advancing future toll revenues. The CDA model allows a private entity to bring future toll or tax revenues to the present for construction of infrastructure based on the premise that the private entity will keep some or all of the future revenue for the duration of the agreement. Toll rates can be capped or shared by the public entity; however, a result of this financing arrangement is a potential forfeiture of future revenue for the public entity.

Not all development agreements necessarily result in the public's forfeiture of future revenue to build additional infrastructure. Development agreements between public entities have successfully proven to provide funding for projects while keeping all proceeds within the public control. It should be noted that the largest concession agreement in Texas is between two public entities, the North Texas Tollway Authority (NTTA) and TxDOT. In 2007, NTTA made a $3.2 billion concession payment to TxDOT for the right to develop and operate the Sam Rayburn Tollway (SH 121) for a duration of 52 years. All proceeds from the NTTA's concession payment have been, or will be, spent in the North Texas region on additional transportation projects. In this instance the Sam Rayburn Tollway is controlled and operated by a governmental entity of appointed public officials, and not a private concessionaire.

When considering the use of a CDA it is also important to analyze the potential higher cost of financing when using private debt to build a project. CDAs are typically financed through the use of private debt, which is typically more expensive than public debt, and a mixture of public subsidies and publicly backed credit agreements such as Transportation Finance and Innovation Act (TIFIA) loans. The North Tarrant Express and the LBJ project developed through CDAs both utilized a mixture of private debt and public subsidies potentially increasing the overall cost of these projects. A publicly financed and developed project may have resulted in a savings for the public.

Lastly a majority of the CDAs in Texas have involved international firms as the concessionaire. While Texas is in the early stages of its currently authorized CDAs, and they have been effective at alleviating traffic in highly congested areas, it should continue to be reviewed if the transfer of locally collected Texas toll or tax dollars to international and often foreign based firms is in the best interest of the public when building future projects. Specific contract clauses embedded within a CDA, such as the duration of the agreements, use of public subsidies, non-compete clauses and

termination for convenience provisions, should also continue to be reviewed to ensure these agreements protect the interest of the citizens of Texas.

Optional County Fees

While trading local funding for an increase to the state's responsibility to fund projects should be avoided, the state should assess the benefits of giving local transportation funding options to those communities that wish to make infrastructure development a priority. [62]

One example where the legislature has provided a local funding tool is the optional vehicle registration fee ("Optional VRF") created in 2007. Only 5 counties—Cameron, Hidalgo, Webb, El Paso, and Bexar Counties—are eligible to adopt the Optional VRF.[63]

The Optional VRF allows a county to impose an additional $10 vehicle registration fee and to remit that $10 fee to an RMA to fund long-term transportation projects that are consistent with the purposes specified by Section 7-a, Article VIII, Texas Constitution. In other words, the Optional VRF may only be used for roadway purposes (i.e., construction, ROW, and policing). The initial Optional VRF is adopted by order of a county commissioners court; no public vote is required, and unless committed to the repayment of an outstanding bond issuance, it may be removed or rescinded.[64]

All the 5 counties eligible to adopt the fee have done so, and 4 of the 5 have issued bonds secured by the fee in order to increase funding available for local projects. These counties say that the tool has been highly successful in enabling them to advance projects important to their regions for mobility, safety, and economic development.[65]

During the 86th Legislative Session, over a dozen bills and amendments, impacting over two dozen counties, were filed to authorize additional counties to adopt the Optional VRF. Many of the impacted counties adopted resolutions in support of the legislation and traveled to the Capitol to advocate for the need for more local funding options; however, no legislation was adopted to expand the list of counties able to adopt the Optional VRF.[66]

Related to the Optional VRF is authorization that two of the counties (Cameron and Hidalgo) have to increase the amount of the Optional VRF to $20 through approval of the increase by a vote of county residents. In other words, the Optional VRF of up to $10 can be enacted by action of their commissioners' courts, and the fee can be increased by up to $10 through an approval of the additional increase by a vote of county residents. Such an action would increase the amount that could be leveraged to support projects, but only if there is a public vote. Other counties with authority to enact the initial $10 fee have pursued legislation that would provide for this additional fee pursuant to a public vote.[67]

Transportation Reinvestment Zones

Transportation Reinvestment Zones (TRZ) are a concept that RMAs and other local governmental

entities have actively supported since their creation in 2007. TRZs are a tool for generating transportation project funding by capturing and leveraging the economic growth that results from a transportation project. Development of new projects, and the expansion or improvement of existing projects, often spurs increased economic development in areas around a project. This economic development can be in the form of construction of new homes and businesses in previously undeveloped areas or through the redevelopment of existing areas which, as a result of a project, experience improved access to homes and businesses. As development or redevelopment occurs, property values in those areas increase. A TRZ allows a municipality, county, or a port authority to designate a geographic area around a transportation project and to capture all or a portion of the increase in ad valorem tax revenues resulting from the increase in property values for use in connection with the financing of the project. In this manner the economic growth attributable to the project is used to support the funding of the project.[68]

While it has long been clear that counties (unlike cities) do not have the authority to issue debt secured by a tax increment, a 2015 Attorney General opinion suggested that counties may not be authorized to form a tax increment financing zone and collect a tax increment, even if no bonds are issued and regardless of whether the tax increment funds are used to support the costs of a project that benefits the entire county. The opinion concluded that: "absent a constitutional amendment, it is likely a court would conclude that a county may not form a TRZ, to the extent that doing so utilizes a captured increment of ad valorem taxes to fund a county-created tax increment reinvestment zone."[69]

All Pavement Consumers

All vehicles have an impact on the deterioration rate of the pavement of roads. Generally, a heavier vehicle will consume pavement more quickly than a lighter vehicle, and a vehicle with more axles will better disperse its weight across the pavement, helping to spread out the impact of additional weight. The quality of road conditions plays a significant role in the maintenance of all vehicles, and it is important to note that, right now, TxDOT spends more money maintaining its roadways each year than it does building new roads. The State should study pavement consumption to learn more about how all drivers impact the roads and whether their contributions to the State Highway Fund cover their use of Texas roads.

Electric Vehicle User Fees

A driver of a combustion vehicle pays their road user fee, via the motor vehicle fuel tax, at the gas pump. As a result of the technology, a fully electric vehicle does not pay a user fee at the gas pump at all. The motor vehicle fuel tax is deposited into the SHF for the construction and maintenance of Texas roads. The Texas Advanced Energy Business Alliance stated that while electric vehicles make up only 0.1% of the vehicles on the roadway, they are supportive of electric vehicle owners fairly contributing to infrastructure funding.[70]

Several bills addressing electric vehicle fees as a means to contribute toward infrastructure were filed during the 86th Legislative Session; however, none of the bills passed. Subsequently,

legislators tasked the Texas Department of Motor Vehicles with studying how the state can fairly assess an electric vehicle registration fee and provide their data before the 87th legislative session. This data will be compiled into a report in December 2020. The Texas Legislature, in accordance with the recommendations of the report, should adopt legislation addressing this issue and strive to ensure that the revenue stream is not devalued overtime by inflation.

RECOMMENDATIONS:

- The Legislature should consider actions to support the intelligent and strategic use of toll roads and toll lanes in Texas.

- The Legislature should consider the merits of reauthorizing CDAs to enhance the ability of TxDOT and other transportation entities to partner with the private sector to deliver essential infrastructure projects, as evaluated in the 2030 Committee Report. The Legislature should also continue to review how CDAs impact the citizens of Texas and Texas industry and find ways to ensure Texas interests are protected.

- The Legislature should consider the advantages and disadvantages of utilizing the other various transportation infrastructure tools listed in this section.

- The Legislature should continually assess whether the state's transportation funding streams are preparing Texas's major metropolitan centers for the immense population and economic growth projected by 2050. This is increasingly important because 67% of all Texans live in Texas's five major metropolitan centers.

INTERIM CHARGE 1C:
BILLBOARDS

SB 357, which relates to outdoor advertising signs. Monitor the Texas Department of Transportation's implementation of the new statutory requirements set forth in the legislation, including any related rulemaking.

BACKGROUND:

The final version of SB 357 in the 86th legislative session was a product of robust negotiations and compromise—a bittersweet hallmark of a functional democratic system. Prior to the passage of the bill, state law required that outdoor advertising signs ("billboards") shall not exceed a 42.5-foot height limit. In the early 2010's, TxDOT, which has regulatory authority over billboards, began measuring billboards across the state and later learned that over 8,600 billboards exceeded the height limit of 42.5 feet. TxDOT carried out their regulatory duty by issuing enforcement letters, leading to many lawsuits that resulted in the Third District Court of Appeals in Austin striking down critical components of the Texas Highway Beautification Act.

In 2017, to address the Appellate Court decision, the 85th legislature passed a bill that reestablished the state's regulatory authority over billboards. Without the law, the State may have lost over $300 million in federal highway appropriations each year. The new law implemented a 42.5-foot height limit, only applied to billboards along state-maintained roadways, and would not encroach on local sign regulations.

Many stakeholders reasoned that the new law was not clear on billboard height, including the Texas Transportation Commission ("Commission"), which is the governing body that oversees TxDOT. Subsequently in 2018, the Commission decided to eliminate the 42.5-foot height limit, ultimately allowing billboard height limits to double to 85 feet in September 2019. This effectively allowed the state legislature time to pass a new law clearing up any perceived vagueness or ambiguity on the height limitation during the 86th legislative session.

SB 357

SB 357, authored by Senator Nichols, Chair of the Senate Committee on Transportation, and sponsored by Representative Terry Canales, Chair of the House Committee on Transportation, cleared up several of the outstanding issues during the 86th legislative session.

Firstly, the new law provides a maximum height of 60 feet for new or amended permitted commercial signs. SB 357 clarifies that a person who holds a permit for a sign existing on March 1, 2017, may rebuild the sign at the same location where the sign existed on that date, only by obtaining a new or amended permit, at a height that does not exceed the height of the sign on March 1, 2017, or 85 feet, whichever is less. The amended permit requirement does not apply to the rebuilding of a sign if the permit holder rebuilds the sign due to damage caused by:

- wind or a natural disaster;

- a motor vehicle accident; or
- an act of God.

SB 357 stated that a sign may not be higher than 60 feet, excluding a cutout that extends above the rectangular border of the sign, measured:

1. from the grade level of the centerline of the main-traveled way, not including a frontage road of a controlled access highway closest to the sign at a point perpendicular to the sign location; or

2. if the main-traveled way is below grade, from the base of the sign structure. SB 357 includes an exemption from the maximum sign height for a sign within the boundaries of a political subdivision that is authorized by TxDOT under rules adopted by the Texas Transportation Commission to exercise control over the signs within their jurisdiction (a certified city).

SB 357 also states that if a sign owner who has 100 or more permitted signs, and has a sign that violates the maximum sign height, the Texas Transportation Commission, after notice and an opportunity for a hearing before the Texas Transportation Commission, may deny that owner an application for a new sign permit, or renewals for existing signs.

The new law requires TxDOT to draft rules to properly implement SB 357. TxDOT is currently in the rule drafting process to reflect the statutory changes pertaining to sign height requirements and denial of new sign permits, or renewals for existing signs as required by SB 357. While the rules are not currently up to date in the Texas Administrative Code, as required by law, TxDOT is currently enforcing the 60-foot height limitation as required.[71]

Billboard Inventory

An essential component of TxDOT's regulatory enforcement of billboard heights is a complete inventory of all existing billboards and their current heights. In recent conversations with TxDOT, it has become clear that the agency does not have a full inventory even though the state has regulatory authority over more than 20,000 billboards. TxDOT may require additional funds and staff in order to accomplish this necessary task; regardless, the agency should prioritize this task in order to carry out the regulatory authority under the new law.

Rulemaking

SB 357 was designed under negotiations and compromise between interested parties. Although the new administrative rules continue to be drafted, TxDOT should refrain from drafting rules that are outside the reasonable boundaries of the legislation. Proposing new rules that address issues not referenced in the legislation jeopardizes the integrity of the democratic process and should be avoided.

RECOMMENDATIONS:

- The Texas Department of Transportation should adopt rules for SB 357 that track the intent of the legislature.

INTERIM CHARGE 2:
SAFETY

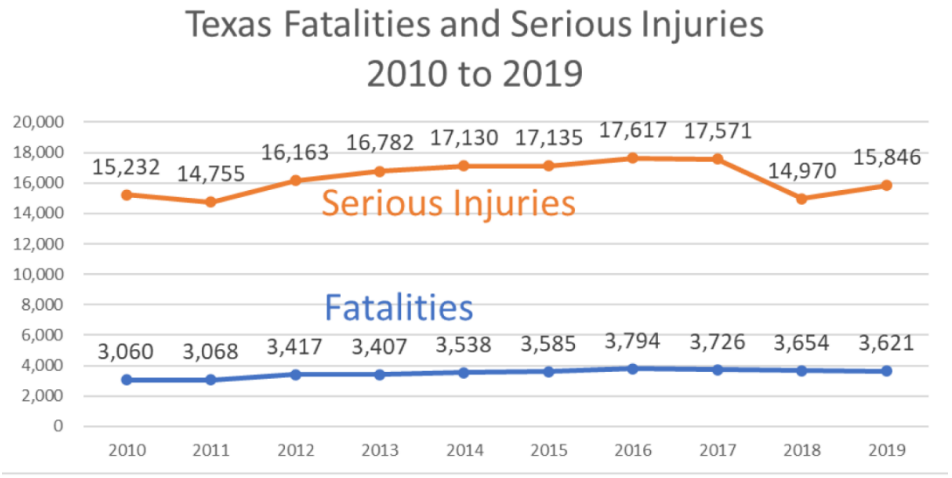
Study the state's transportation and road safety efforts in support of the Texas Transportation Commission's goal of ending traffic deaths in the state by 2050. Identify the most dangerous roads and transportation corridors in the state and determine opportunities to reduce high rates of traffic accidents and fatalities in these areas. Make recommendations to improve policies, funding strategies, program development, and agency coordination to ensure continuous improvements to road safety.

BACKGROUND:

The National Highway Traffic Safety Administration (NHTSA) has found that 94 percent of car crashes are attributable to human choice or error.[72] On November 7, 2020, Texas surpassed 20 years without a deathless day on its roads.[73] Texas leads the nation in traffic fatalities, and on average, 10 people die every day on Texas roads. During the COVID-19 pandemic, when more people began working from home and many schools converted to virtual classrooms, some experts thought the state would see a decrease in transportation fatalities because our roadways had significantly fewer cars throughout all hours of the day. However, the state saw an increase in traffic fatalities.[74]

On August 1, 2020, Texas surpassed 2,000 fatalities on the roads faster than the previous two years. For reference, in 2019 the state passed 2,000 fatalities on August 9, and in 2018, the state passed 2,000 fatalities on August 4. The increase in fatalities is attributable to an increase in the following usual factors: speeding, distracted driving, driving under the influence of alcohol or drugs, and occupants not wearing seat belts.[75] "This uptick in traffic fatalities during a global pandemic—which resulted in an unprecedented decrease in traffic—is a wake-up call to all Texans to improve their driving habits."

"This uptick in traffic fatalities during a global pandemic—which resulted in an unprecedented decrease in traffic—is a wake-up call to all Texans to improve their driving habits."



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Below are a few quick facts on traffic safety:

1. In 2019 more than 26,000 crashes occurred in Texas' work zones, resulting in 167 fatalities and 690 serious injuries.[77]

2. The AAA Foundation's "2019 Traffic Safety Culture Index" found that a majority of drivers view typing (96.2%), reading (94.3%), and talking (79.7%) on a hand-held cellphone while driving to be very or extremely dangerous. Nevertheless, 43.2% of drivers report having driven while talking on a hand-held cellphone at least once in the past 30 days. Most drivers support laws against distracted driving, with over 76% of drivers supporting a law against holding and talking on a cellphone.[78]

3. As it pertains to railroads, Texas is ranked #1 in collisions and injuries and #2 in deaths of all states. There were 251 collisions at highway-rail grade crossings. It resulted in 31 deaths and 123 injuries. There were also 100 pedestrian rail trespass casualties in 2019, resulting in 56 injuries and 44 deaths.[79]

4. Every day about five pedestrians suffer death or serious injury somewhere on Texas roads.[80]

5. Texas was ranked the 8th most dangerous state for pedestrians in the 2019 Dangerous by Design report by Smart Growth America.[81]

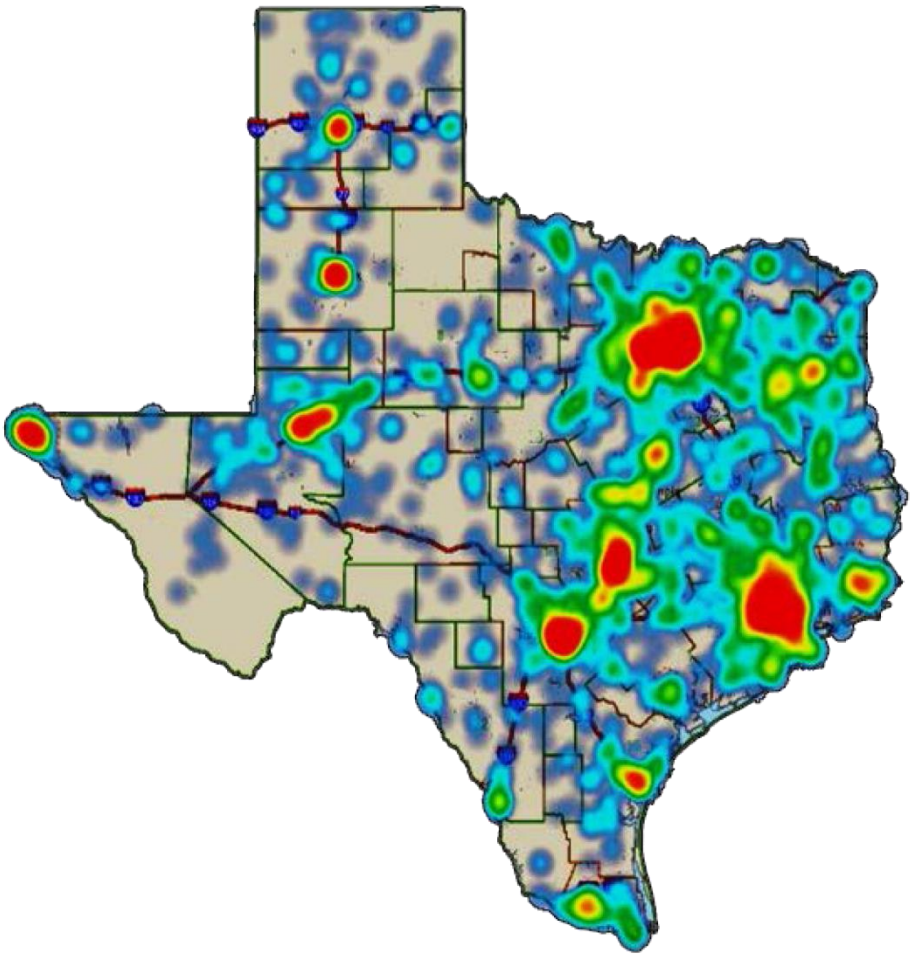
Additional Texas motor vehicle traffic crash statistics for 2019 can be found by clicking here.

The Texas Department of Transportation's (TxDOT) top agency priorities are to promote safety and protect the traveling public. In 2019, the Texas Transportation Commission (Commission) commenced a campaign to "#EndTheStreakTX" focusing on educating Texans to help put an end to the 20-year streak of fatalities on the roads. This campaign is also intertwined with the agency's "Road to Zero" initiative. "Road to Zero" is the agency's overarching goal to end all traffic fatalities by 2050. The initiative also strives to eliminate traffic fatalities in half by 2035. TxDOT will achieve this by pulling out all the stops: improving driver education and awareness, enhancing road engineering, improving enforcement tools, and embracing future vehicle, road, and pedestrian safety technologies.[82]

"The National Highway Traffic Safety Administration (NHTSA) has found that 94 percent of car crashes are attributable to human choice or error."

Top Factors for Fatal Crashes (2014-2019)

During the last six years, the top three factors for fatal crashes were (1) driving under the influence of alcohol or drugs, (2) failing to drive within a single lane, and (3) speeding. Below is a heat map of fatal crashes in Texas for 2019.[83] Red indicates a higher number of fatal crashes.



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Alcohol and Drug Impaired Drivers

Texas saw a steady rise of traffic fatalities from 2011 to 2017 and has seen a slight decrease since 2017. As of 2019, 1,256 fatalities were a result of impaired drivers.[85] Also, in 2019, 2,456 serious injuries were associated to impaired driving. Impaired driving continues to remain a major cause of all traffic safety issues.[86] Approximately 60% of all crashes happened between 9pm and 4am. In 2019, the average blood alcohol concentration of drivers in fatal collisions was 0.16. The legal limit is 0.08. Approximately 60% of impaired driving fatalities involved only alcohol; about 20% involved both alcohol and drugs.[87]

Distracted Drivers

Experts believe that traffic crashes that occur due to distracted driving are underreported because it is difficult to determine if a driver was distracted.[88] In 2019, 379 fatal crashes were associated to reported distracted driving. In the same year, 2,501 serious injuries were associated to reported distracted driving.[89]

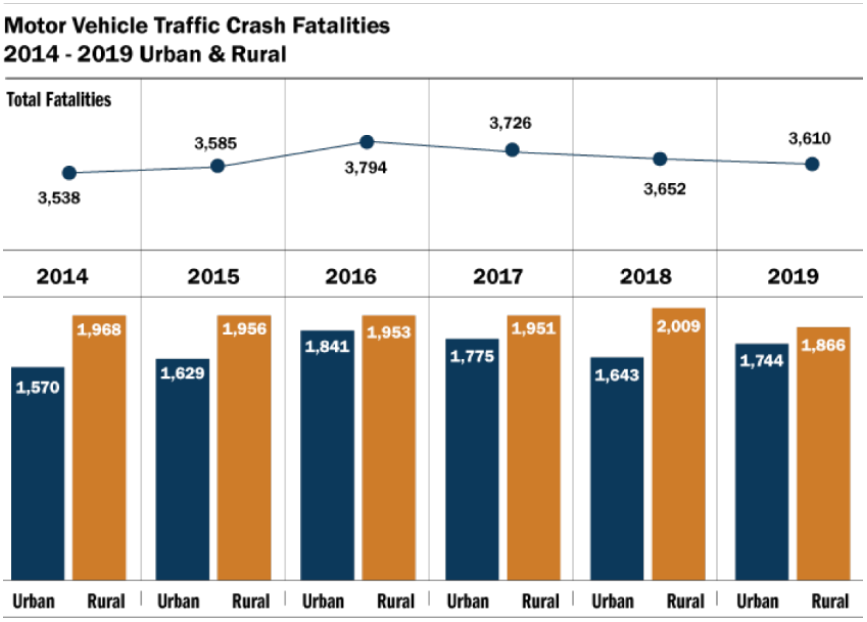
The Texas A&M Transportation Institute (TTI) routinely performs empirical studies to determine mobile communication device use on the roads. Overall, the research shows that use has declined, texting has grown, and talking has fallen. TTI has observed that overall use was proportionally higher for drivers without front seat passengers, females, and drivers under 60 years of age. Groups that were more likely to be observed texting than talking were younger drivers, drivers not in a pickup truck, and drivers without a front seat passenger.[90]

Speeding Drivers

The overall percentage of traffic fatalities connected to speed fell from 25% in 2010 to 20% in 2019. Fatalities on the roads peaked in 2014, totaling 814. However, serious injuries have fluctuated, peaking at 2,305 in 2013. Serious injuries decreased to 17% in 2018 and rose by 4% in 2019.[91]

Urban and Rural Traffic Fatalities (2014-2019)

The graph below is a breakdown of the urban and rural traffic fatalities for the last six years. Urban areas are defined as a location within the limits of a city or town having a population of 5,000 or more.[92] Rural areas are all locations that are not urban. As of 2019, 51.96% of all fatalities occurred in rural areas.



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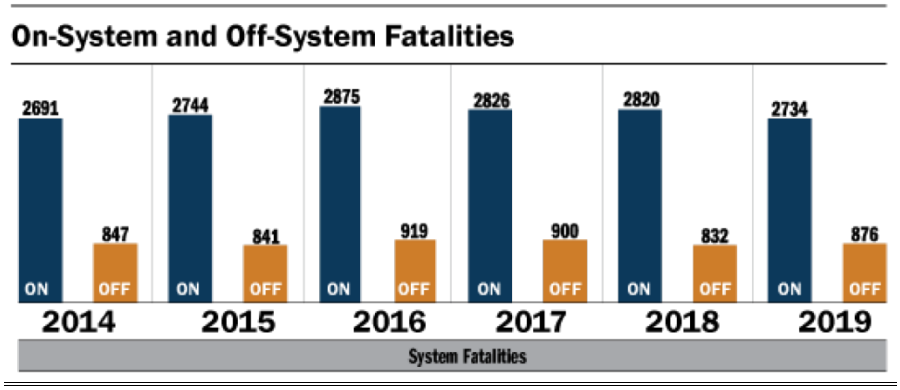
On-System versus Off-System Fatalities

State owned roads are referred to as on-system roads. TxDOT maintains approximately 200,000 lane miles, all of which are on-system.[94] Off-system are roads are not owned or maintained by the state. As indicated by the graph below, fatalities on-system have more than double and sometimes triple the fatalities than off-system roads even though there are more lane miles off-system.

However, to add context, on-system roads have higher numbers of daily vehicle miles traveled, have on average higher speed limits, and have higher numbers of daily commercial truck miles traveled.[95]



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Addressing Safety Challenges

"The next great leap in traffic safety is to enlist smart technology to help prevent crashes from happening in the first place."[97] The State of Texas, research institutions, advocates, and leaders all across Texas have poured an immeasurable amount of time and effort into addressing traffic safety. The Strategic Highway Safety Plan is the state's coordinated and comprehensive highway safety plan that is managed by an executive committee and a vastly diverse stakeholder group, representing road safety agencies, organizations, advocates, and experts. The group utilizes their expertise to generate goals, strategies, countermeasures, and targets to address all aspects of traffic safety.[98] The plan pinpoints critical safety needs and guides financial decisions toward improvements to save lives.

The annual Unified Transportation Program (UTP), TxDOT's 10-year transportation infrastructure planning guide, is where the state makes these important financial planning decisions. The 2021 UTP, which identifies approximately 8,000 transportation projects amounting to $74.7 billion, considers safety elements in every single transportation project.[99] Additionally, while every transportation project has safety components, TxDOT plans to spend $3.7 billion to Category 8 (Safety Programs) for specific safety project types. The projects that fall within Category 8 often include new median barriers and widening shoulders; they also include enhancing signals, lighting, signs, guardrails, and rumble strips. Moreover, in the 2020 UTP, the Commission allocated an additional $600 million to Category 8 (Safety Programs) to be spent during the years 2020 and 2021.[100]

In 2016, the Texas Traffic Safety Task Force, a diverse stakeholder group created by the Texas Transportation Commission, drafted a comprehensive safety report entitled Solutions for Saving Lives on Texas Roads.[101] It identifies specific methods to improve highway safety engineering, methods to improve driver behavior education and enforcement, and traffic solutions used in other states.

Lastly, TxDOT recognizes that the continued improvement in transportation technologies,

including autonomous and connected vehicles and infrastructure monitoring tools, are critical to accomplishing its "Road to Zero" campaign. Part of the solution is implementing these technologies on the roads, and it is essential that public policy enables the rapid growth of these technologies rather than stifling them. Additional opportunities for traffic safety technology solutions can be found at the USDOT Fact Sheet.

RECOMMENDATIONS:

- The State should find ways to amplify TxDOT's #EndTheStreakTX campaign to improve driver behavior on the roads. We must continue to look for opportunities to educate Texans that driver behaviors are the leading cause of traffic fatalities.
- The State should prioritize research and investment in smart infrastructure technologies to prevent crashes, such as intersection collision avoidance systems, dynamic curve warning systems, wildlife detection systems, and road weather sensors.

INTERIM CHARGE 3:
AUTONOMOUS TECHNOLOGY

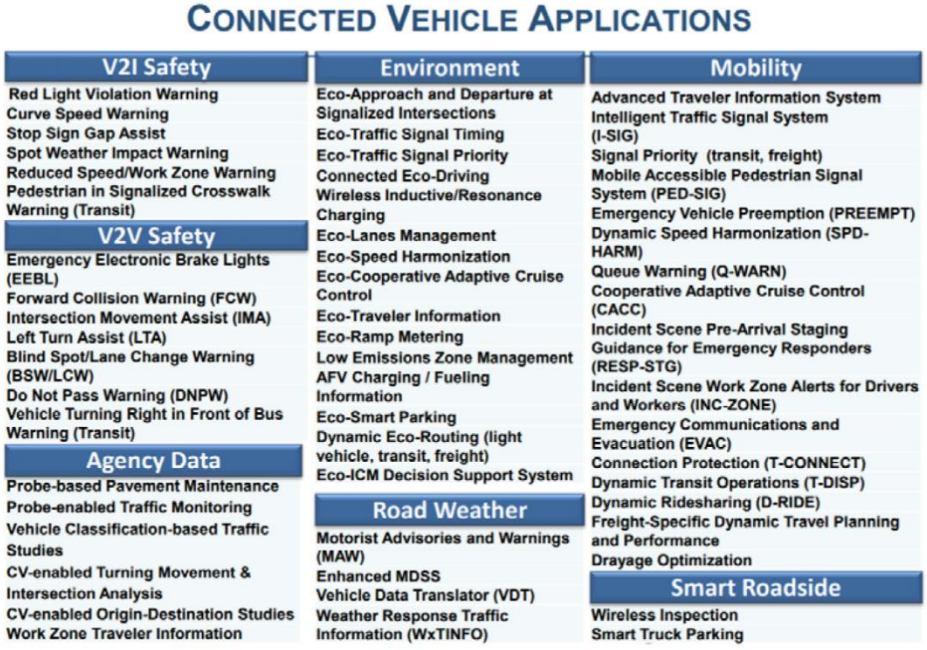
Study the technology and safety aspects of autonomous and semi-autonomous vehicles, including predictive capabilities and the potential for dedicated freeway and surface lanes for public transportation, autonomous vehicles, and semi-autonomous vehicles. Make recommendations for optimizing state policy to prepare for varying vehicle technologies to ensure safety and traffic reliability on Texas roadways.

BACKGROUND:

Connected vehicles (CV) and autonomous vehicles (AV) are more than just futuristic ideas. Early forms of these technologies exist now, and they are on Texas roads. They are beginning to transform transportation, and Texas needs to continue promoting smart public policy to allow these innovations to continue flourishing. Although these technologies have room for improvement, CVs and AVs likely hold the key to eliminating most human error on the roads. These technologies not only gather more driving data than a human, but these technologies allow a vehicle to react hundreds, if not thousands, of times faster than humans do while behind the wheel.

CVs and AVs (CAV) are separate systems; however, they are expected to merge as the technologies advance.[102] CVs rely on technologies classified as Vehicle to Vehicle (V2V), Vehicle to Infrastructure (V2I), and, collectively, Vehicle to Everything communications.[103] By sending and receiving short communications, connected vehicles receive information about surrounding vehicles, infrastructure, and other connected devices that can be relayed to their drivers or processed by the vehicle to produce safe operations.[104]

Some types of CV applications are below:



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In AV technologies, there are several progressive stages. Level 0 features no autonomous technologies within the vehicle. Level 5, the final stage, features a fully autonomous vehicle for all essential driving operations. Each level between 0 and 5 implements semi-autonomous technologies but have certain technological limitations that prevent classification as full automation. Generally, AVs are the final stage of the progressive series of vehicle automation. Already in many semi-autonomous vehicles on the road today, drivers are benefitting from Advanced Driver Assistance Systems (ADAS), which are technologies to help with certain driving tasks, such as staying within a lane or emergency braking.[106] Incorporation of these systems in vehicles are recognized as lower "levels" of autonomy.

When enough ADAS grow in sophistication and combination, vehicles will begin to be classified among the higher levels of autonomy and will eventually achieve full autonomy. Currently, the State is not aware of any commercially available vehicle classified within the highest levels of autonomy. As such the ultimate impacts of fully autonomous vehicles remain largely unknown due to the significant number of variables associated with their use, such as any effects on safety and roadway efficiency or how the autonomy will ultimately merge with connected vehicle technology. [107]

Texas Connected and Autonomous Vehicle (CAV) Task Force

Since its formation in January 2019, the Texas CAV Task Force, which operates within TxDOT, has become the one-stop resource for information and coordination on all ongoing connected and autonomous vehicle projects, investments, and initiatives in the State.[108] The membership of the task force is comprised of individuals from across Texas and the United States, including industry leaders, technology experts, and researchers.

The CAV Task Force is comprised of five subcommittees, addressing specific topics:

1. Education, Communication, and User Needs,
2. Freight Delivery,
3. Licensing and Registration,
4. Data, Connectivity, Cybersecurity, and Privacy, and
5. Safety and Liability.[109]

In collaboration with the CAV Task Force, Texas A&M Transportation Institute is providing cutting-edge research across multiple related areas and are drawing upon a wide range of interdisciplinary subject matter experts who can support several white papers currently under development. The white papers will be delivered to TxDOT and the CAV Task Force before the 87th legislative session begins, and include the following six topics:

- Terminology related to CAVs,
- Public outreach,
- Roles and responsibilities related to CAVs in Texas,
- Infrastructure issues and needs,
- Education, awareness, levels, capabilities, and registration, and
- Safety use cases.[110]

Among the many CAV research matters that TTI is currently focusing, they have already conducted immense research on infrastructure support and readiness, which includes connectivity, pavement wear, pavement markings, and dedicated lanes.[111] Each one is comprised of challenges that the State and industry will need to collaborate in order to overcome. A few of these challenges are listed below:

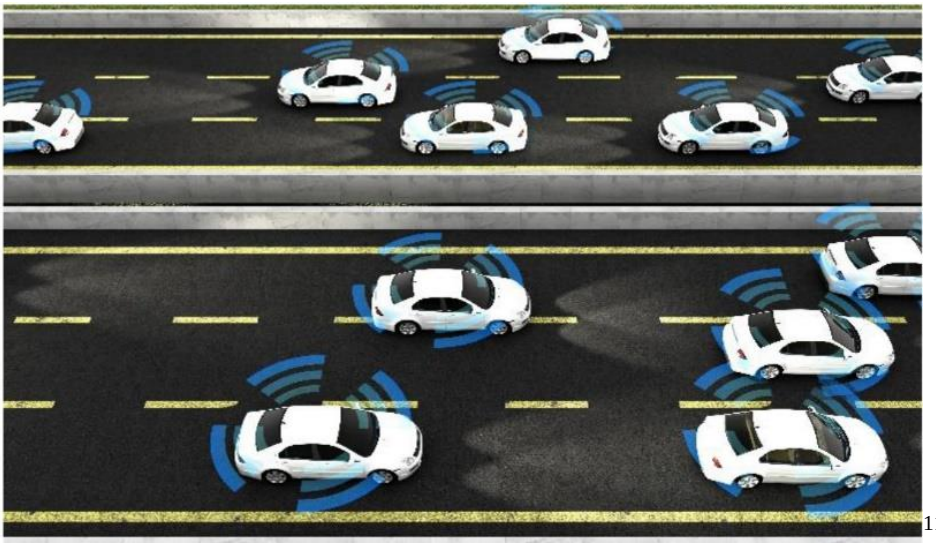
Connectivity – Which form of communication technology will connect vehicles with their surroundings: dedicated short-range communications (DSRC), cellular V2X (C-V2X), or 5G? [112]

Pavement Wear – If all CAVs drive along precise paths on the pavement, how do the vehicles prevent pavement rutting, which may significantly increase hydroplaning?[113]

Pavement Markings – As CAVs read pavement markers on the roadways, how can the State improve road markings that function regardless of day and night reflectivity levels, wet weather conditions, and a variety of other environmental factors?[114]

Dedicated Lanes – Dedicated lanes will accelerate the deployment of CAVs in our communities. How do localities implement dedicated lanes for CAVs without causing traffic equity issues on the roads as CAVs continue to be phased in?[115]

Additional information on these challenges can be found here.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The CAV Industry Outlook

Texas is one of the major epicenters of self-driving technologies in the United States. During the 85th legislative session, the Texas legislature passed SB 2205, which laid the regulatory framework for the rapidly flourishing CAV technology ecosystem currently in Texas. As a result, numerous companies have already began testing vehicles on Texas roads. While many of these companies are focusing on small CAVs for passengers, some companies are testing CAV technologies for

commercial motor vehicles intended for long-haul transport of goods, such as Kodiak. One company, Nuro, stands out in that it is currently delivering goods via zero-occupant vehicles (ZOV) on Texas roads.

Many industry suggestions meant to foster a better transportation system for CAVs are in lockstep:

1. Roads should have well-defined and well-maintained lane markings because CAV sensors use them for navigation.[117]
2. Road signs and markings should have high contrast and be clear of any visual obstruction because CAV cameras rely on them.
3. Construction zones should have real-time and advanced digital notification alerts to allow CAVs time to adapt. Constructions zones should also improve lane markings and signage and eliminate sharp curves.[118]

CAVs companies focusing on long-haul trucking have a different set of suggestions. To be clear, these suggestions do not contradict those previously listed.

1. The State should invest in additional truck parking or transfer hubs. The most practical business model is one that allows long-haul CAVs to exit highways outside of major urban centers to transfer goods from CAVs to traditional vehicles manned by skilled drivers. Skilled drivers would then deliver goods to sites within these cities.[119]
2. In the future, Texas should adopt new requirements for automated commercial motor vehicle inspection. The Federal Motor Carrier Safety Administration is currently leading a project to develop a consensus approach to inspecting highly automated trucks. Industry believes Texas would cement its leadership in CAV technologies by adopting these consensus results when available.

ZOVs have a variety of unique features that set them apart from CAVs that allow passengers. Firstly, ZOVs do not have any seats in the vehicle and cannot be driven from the inside. As a result, these ZOVs should not require all the same inspection requirements of normal vehicles. For instance, state law requires that all cars, regardless of whether they carry passengers, must have brake pedals, mirrors, windshields, wiper blades, speedometers, and seatbelts. For a ZOV to pass state inspection, they must build in these unnecessary features. There is a clear opportunity here to foster better public policy for ZOVs.

Economic and Environmental Benefits of CAVs and ZOVs

Lastly, the list of benefits for implementation of CAVs for long-haul trucking and delivery services is vast. It serves as reminder to all Texans that we have much to gain by responsible implementation:

Autonomous Trucking

1. Strengthen competitiveness – Access to highly automated trucking will improve Texas' industrial competitiveness, expand markets for producers, and grow the economy. Self-driving trucks could move freight across the country in two days instead of five.

2. Revitalize the trucking workforce – Right now, in the trucking industry, there is an estimated shortage of 60,000 drivers. Trucking is among the most dangerous common jobs in the US, and it has tradeoffs that are often difficult for drivers, such as being away from family for days or weeks at a time. Current AV long-haul business models require a qualified CDL driver behind the wheel at all times, and in the future, will operate through trucking hubs. Simply put, trucking jobs are not disappearing any time in the foreseeable future.
3. Reduced fuel consumption – Self-driving trucks are approximately ten percent more fuel efficient than human counterparts.
4. Safety – Self-driving trucks remove risks of distractions and drowsiness.
5. Reduced traffic congestion – Fleets can be dispatched to avoid traffic and reduce congestion. One study suggested that transitioning 5% of vehicles to AVs will increase traffic flow speeds by 40% and reduce fuel consumption by 28%.[120]

Zero-Occupant Vehicle Delivery Service

1. Create new jobs – create and sustain 3.4 million jobs annually in retail, software engineers, and hardware engineers.
2. Stimulate local economies – generate $1.1 trillion in investment from AV delivery companies, suppliers, and retail partners over the 10-year period, which will generate an estimated $4.1 trillion in total value to the U.S. economy.
3. Decrease emissions – Reduce CO2 emissions by 57 million tons annually.
4. Give people time – Save Texans 3 billion hours of driving to and from the store. That is the equivalent of every user recouping 96 hours annually.
5. Reduce Crashes – Help to avoid upwards of ~34,000 severe road collisions annually.[121]

RECOMMENDATIONS:

1. The state should eliminate various unnecessary vehicle inspection requirements that ZOVs must adhere even though ZOVs neither carry passengers nor serve a purpose for ZOVs to operate safely on roadways, such as a brake pedal, mirrors, windshields, wiper blades, speedometers, and seatbelts.
2. The state should continue to closely monitor the advancement of autonomous vehicle technology in an effort to ensure that Texas law and regulations keep up with the rapidly advancing technology.

INTERIM CHARGE 4:
PORTS

Study the state's seaport infrastructure and the infrastructure at land ports of entry to facilitate international trade and economic growth. Examine seaport infrastructure and the auxiliary rail and roadway needs connected to each port as well as the port's ability to keep pace with oil and gas production. Make recommendations to maximize the economic flow of goods and products to and from seaports and study the feasibility and economic impact of dredging and widening Texas ports in order to remain competitive in international trade. Examine the infrastructure at international border ports of entry in Texas and identify transportation-related impediments to international trade that negatively impact the state. Make recommendations to reduce border wait times, facilitate economic growth, and expedite trade. (Joint charge with the House Committee on International Relations & Economic Development)

BACKGROUND:

Seaports

The State's lack of investment tools in Texas's maritime ports is bottlenecking economic growth. Our maritime system is a critical gateway to international trade and is vital to the state's economy. Texas ports play a key role in ensuring American goods and commodities reach global markets. The State is home to 19 seaports: 11 deep-draft ports and eight shallow-draft ports. Five of Texas's deep-draft ports are ranked in the top 20 U.S. ports by total tonnage.[122] Keeping our ports competitive is a priority goal for Texas as new trade policies and trade shifts develop. For the last several years, Texas has led the U.S. in the movement of waterborne commerce through its ports and ranks number one in exports. According to TxDOT's Port Mission Plan, in 2017, of the top ten fastest growing U.S. seaports in terms of export revenue, four were in Texas:

#1. Port Houston ($6.16 billion in growth)
- Gasoline grew 27.05%
- Liquefied Natural Gas (LNG), etc. grew 47.73%
- Plastics grew 2.68%

#2. Port of Corpus Christi ($4.69 billion in growth)
- Gasoline grew 9.05%
- Oil grew 355.48%
- Halogenated derivatives of hydrocarbons grew 24.35%

#3. Port of Beaumont ($3.16 billion in growth)
- Oil grew 309.61%
- Gasoline grew 21.58%

#10. Port Freeport ($1.48 billion in growth)
- LNG, etc. totaled $1.21 billion
- Oil grew 285.15%

- Sodium/potassium hydroxide/peroxide grew 49.15%.[123]

Port	National Rank
Houston	2
Beaumont	5
Corpus Christi	6
Port Arthur	17
Texas City	18
Freeport	31
Galveston	59
Brownsville	61
Victoria	80
Calhoun Port Authority	81

The following chart shows Texas's port rankings by tonnage throughout the United States, as compiled by the U.S. Army Corps of Engineers in 2018.[124]

The Maritime Port Mission Plan

Prior to the passage of SB 1959 (86R, 2019), each biennium, TxDOT produced multiple reports on maritime priorities for the Texas Legislature immediately prior to the legislative session. SB 1959, however, changed this format by permitting one report to cover these priorities. The first issue of this singular comprehensive report was published in December 2020.[125] This report, entitled the Maritime Port Mission Plan (PMP), outlines trends and issues impacting Texas ports at a system-wide level, identifies key challenges and opportunities for Texas ports, and provides critical strategies that the state and the ports must pursue to improve their competitive position. TxDOT also asserts that the 2020 PMP will comprehensively address the committee's interim charge.

The Port Authority Advisory Commission (PAAC) is a nine-member body that provides a forum for the exchange of information between the Commission, TxDOT, and representatives of the port industry in Texas. The PAAC is responsible for evaluating and prioritizing all projects in the MPMP.[126] In essence, the MPMP is the statewide maritime blueprint that takes a comprehensive view of infrastructure needs at Texas ports in order to improve economic output.

Investment Needs

Ports today and in the future will require deeper channels to handle larger vessels, improved berths, and state-of-the-art docks to keep our state and national economies moving forward. In December 2018, the PAAC reported to the 86th Legislature numerous findings and important discussion points.[127] Texas ports and navigation districts need to secure $7.7 billion of direct port system investments through local, state, and federal funds over the next 5 years to improve future private port system investments.[128] Of the $7.7 billion, $2.2 billion is for total cost for five authorized ship channel improvement projects; $2.5 billion is for planned facilities investments for public ports between 2018 and 2022; and $3 billion is for unfunded inland connectivity projects that serve ports. [129]

As of December 2018, during the previous five years, ports had invested over $1.3 billion into port facilities and had leveraged $67.4 billion of private investments during the same timeframe.[130] Ports themselves were anticipated to invest over $2.5 billion into their port facilities alone and over $830 million to cover their local share of ship channel deepening and widening projects.[131] These necessary improvements are anticipated to leverage over $63.3 billion of additional private investment in the next five years alone.[132]

As of December 2020, in their report to the 87th Legislature, the PAAC requested the State help fund $460 million. Of the $460 million requested, $130 million would go toward the 2022-2023 Port Capital Program (PCP).[133] The PCP contains a prioritized list of projects that includes port facilities, waterways, and inland connections. If funded by the legislature, these projects would support improved logistics, increased capacity, and enhanced safety to keep Texas ports competitive. Additionally, it is likely the ports are willing provide at least a 25% cost share—as they have suggested in previous years.[134]

The remaining $330 million would go toward the Ship Channel Improvement Revolving Fund (SCIRF). Funding the SCIRF would help provide financing for eligible navigation projects that modernize waterways and allow for increased growth of waterborne commerce. There are five projects in Texas that are eligible to draw on the fund should it be capitalized. Note that these previously mentioned funding requests were not authorized during the 86th Legislative Session.

According to the Port of Corpus Christi, many states have created robust port funding programs to develop the infrastructure and facilities needed to attract maritime commerce to their shores. Texas does not have a dedicated maritime funding source to ensure the state's ports remain competitive, and if the State were to investment in the SCIRF, it would certainly help grow the state's economy and help prepare our ports for future growth.[135]

Stakeholder Considerations

In recent years Texas has received approval for federal US Army Corps of Engineers (USACE) funded dredging projects and other important port improvement projects. However, some advocates have noted that special attention should be paid to the infrastructure "outside the gates." This term refers to infrastructure leading into and going away from the port. Getting products to ports for export and imports to market as quickly and safely as possible should be a priority of the legislature. Strategic investment in port access roads and heavy truck corridors will help ensure Texas ports and international ports of entry continue to facilitate international trade and drive economic growth. [136]

Advocates have suggested that another tool available to the legislature is the Port Access Improvement Program. Originally funded through TxDOT rider 45 in 2015, this program authorizes TxDOT to use existing funds, up to an amount specified by the legislature, to improve access roads to ports throughout the state. A unique feature of the Program is that funding is not limited to "on system" roads, meaning both TxDOT and non-TxDOT roads may receive funding if approved by the Texas Transportation Commission. Since 2015 the Texas Legislature has directed $100 million in TxDOT funding to this program, including $40 million approved by the 86th Legislature. According to TxDOT this program has improved access to ports through improved and widened public roadways, added truck queuing lanes in high-traffic areas, improved signage, and gates at rail crossings, and upgraded intersections near Texas ports.[137]

Additionally, as noted by the Port of Corpus Christi, ports only have the authority to develop port property for industrial uses.[138] Legislative changes that allow ports to develop property for commercial, light industrial, recreation, and tourism spaces would stimulate the economy and create additional jobs for the Coastal Bend area and Texas. A priority for the Port of Corpus Christi

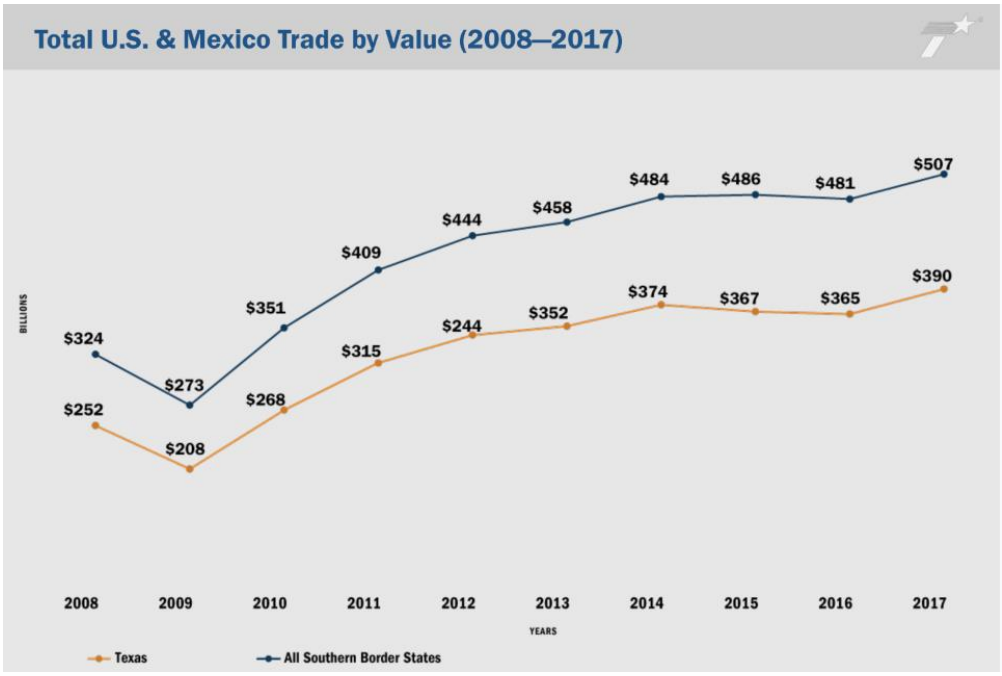
is the development of the right-of-way portion for the Harbor Bridge project that will revert to the port once the bridge is decommissioned. Collaboration on future development plans for this property is ongoing with area leaders.[139]

###

Land Ports of Entry

Across the entire 1,255-mile Texas-Mexico border, Texas has 28 international bridges and border crossings. Mexico was the largest trading partner in 2019 for both the United States and Texas. According to the Texas A&M Transportation Institute, in 2019, the United States traded almost $615 billion in goods ($257 billion in exports and $358 billion in imports) with Mexico.[140] Also in 2019, Texas traded almost $213 billion in goods ($109 billion in exports and $104 billion in imports) with Mexico—more than four times what Texas traded with Canada, the state's second-largest trading partner.[141] Moreover, the 2018 passage of the United States Mexico Canada Agreement (USMCA) is expected to have a positive impact of $17.6 billion on Texas's annual gross product and create 164,700 new jobs in the state.[142]

The City of Laredo and its network of ports, known as Port Laredo, are in a league of their own. Laredo is North America's busiest land port, handing $232 billion in trade in 2019 while also crossing more than 4 million commercial trucks and 10,000 trains.[143] Port Laredo imports more than $1 billion in avocados, exports $3 billion in gasoline, and brings in billions in new cars. Laredo moves more trade (valuation) than all other Texas land ports combined and is billions busier that the Port of Houston.[144] More importantly is that they are outgrowing quickly as well.



While Texas is growing, the primary issue is that Texas's ability to capitalize on the anticipated economic growth pattern will be hampered by each point-of-entries'(POE) incapability of

handling, efficiently, the increase volume of commerce.[145] In an assessment from the City of El Paso, Dennis Nixon, CEO of the International Bank Commerce stated, "It does us no good to see increased trade at our ports of entry if we do not have the customs inspectors and infrastructure to process that trade."[146] The City of El Paso similarly noted that, in order for Texas POE's to take advantage of the opportunities presented by USMCA and remain competitive for this commerce, investing in necessary improvements will remove existing impediments and ensure that El Paso POEs can accommodate any increase in commercial traffic.[147]

Similarly, in the Rio Grande Valley, the Pharr-Reynosa International Bridge, which conducts approximately $40 billion in annual trade, has wait times upwards of four to ten hours during peak season. Thousands of dollars' worth of produce is lost each year due to spoilage and border wait times will continue to increase without further investment. The City of McAllen sees this serious problem as an opportunity to build-out the Anzalduas Port of Entry into a full northbound and southbound commercial bridge.[148] Their project will ultimately reduce wait times across the region, allowing more efficient delivery of goods and services for Texans, and will also reduce vehicle emissions resulting from less time idling at border crossing.

Border Trade Advisory Committee

TxDOT understands that, given the current travel and trade projections, improving the existing multimodal infrastructure capacity and operations is critical to alleviate traffic congestion, facilitate international trade, reduce environmental impacts, and improve the quality of life for residents in the border regions.[149] That is why TxDOT works hand-in-hand with the Border Trade Advisory Committee (BTAC), which is an assembly of diverse experts on border trade that is tasked with aiding TxDOT in defining and developing a strategy and make recommendations to the commission and the Governor for addressing the highest priority border trade transportation challenges. More specifically, TxDOT and BTAC are working with United States and Mexico federal, state, regional, and private sector stakeholders. The strategies will be compiled into the Border Transportation Master Plan (BTMP) and the draft will be published in December 2020, with possible Commission adoption of a final report in early 2021. TxDOT asserts that the 2020 BTMP will comprehensively address the committee's interim charge as well.

Stakeholder Considerations

Listed below are some notable transportation-related impediments to international trade that negatively impact Texas and the United States, as provide by the city of El Paso.[150]

1. The existing design of the POE lanes no longer provide for the effective and efficient flow of both pedestrian and commercial traffic. Significant upgrades to existing infrastructure are necessary to accommodate existing traffic and any future increase in traffic flow.
2. The existing technology at the POE needs to be modernized so that there is access to real time data that can be shared with all governmental entities. No consistent method for the collection of crossings and wait-time data exists.
3. Federal staffing levels need to be increased so that there is sufficient staffing to sustain operations at full capacity at federal facilities for the inspection and processing for crossings of both pedestrian and commercial traffic.

4. Increased investment is needed to conduct non-invasive inspections (NII) screening technology to expedite inspections and reduce wait-times. NII systems allow Customs and Border Protection (CBP) officers to process and inspect shipments without physically opening or unloading them. During peak times, the existing NII system processing capacity creates congestion and truck queueing inside CBP's cargo lots.

RECOMMENDATIONS:

1. The Legislature should consider the potential economic benefits to the state of funding the Port Capital Plan and the Ship Channel Improvement Revolving Fund for critical port improvements.
2. The Legislature should continue to fund the Port Access Improvement Program.
3. The Legislature should consider adopting legislation that allows maritime ports to develop property for commercial, light industrial, recreation, and tourism spaces rather than only for industrial purposes.
4. The Legislature should consider adopting legislation similar to HB 260 from the 86th Legislative Session. The bill required that TxDOT, in collaboration with the Texas A&M Transportation Institute, develop and maintain a publicly accessible web portal designed to provide real-time information regarding motor vehicle movements at ports of entry between Texas and the United Mexican States and in surrounding areas for the purpose of alleviating cross-border motor vehicle traffic congestion.
5. The Legislature and TxDOT should consider prioritizing funding for border cities for port of entry expansion projects and for integration of new technologies to improve inefficiencies.

INTERIM CHARGE 5:
STATE AUDITOR'S REVIEW

Monitor the State Auditor's review of agencies and programs under the Committee's jurisdiction. The Chair shall seek input and periodic briefings on completed audits for the 2019 and 2020 fiscal years and bring forth pertinent issues for full committee consideration.

BACKGROUND:

The State Auditor's Office (SAO) reports included at the link below were released during fiscal years 2019 and 2020. The completed audits are relevant to the jurisdiction of the House Committee on Transportation.

State Auditor's Reports – Fiscal Year 2019-2020

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