Permian Basin MPO Metropolitan Planning Organization

Solving Midland and Odessa's Transportation Challenges

Forward 45 Plan Approved November 18, 2019.

Amendment No. 1 Approved February 18, 2020.

Amendment No. 2 Approved September 20, 2021.

Forward 45

VISUALIZE.

PLAN.

IMPLEMENT.

History of the MTP and MTP Amendments

The MPO Policy Board approved the Forward 45 MTP on November 18, 2019.

Amendment No. 1 was approved on February 16, 2021 by the Permian Basin MPO Policy Board. The purpose of the amendment was to remove certain projects along the I-20 corridor to remain fiscally constrained during the FY 2021-2024 period. The projects removed from the MPO's previously approved TIP remain in the ten year planning period but beyond the FY 2021-2024 TIP in Appendix D of this document.

Record of Public Participation

The Public Participation process included for Forward 45 MTP Amendment No 1:

- The Permian Basin MPO conducted a public meeting using an electronic meeting tool on Wednesday, January 20, 2021 at 9:00 a.m. to begin a 10-day public comment period. The public was encouraged to review and comment on the draft MTP Amendment No 1. Notice of the public meeting was placed in the Midland Reporter-Telegram and the Odessa American newspapers and on the MPO's website.
- The public was given a minimum of ten (10) days to submit comments on the projects for consideration prior to the adoption of the MTP Amendment No 1.
- A draft MTP Amendment No 1 was made available on the Permian Basin MPO website (www.permianbasinmpo.com).
- In a regularly scheduled meeting of the Permian Basin MPO Policy Board Tuesday, February 16, 2021 interested parties were again given the opportunity to review and comment on the MTP Amendment No. 1 prior to the final approval by the Policy Board. The final MTP Amendment No. 1 was approved for submission into the TxDOT STIP on or before February 16, 2021.
- The approved documents and any amendments will remain on the Permian Basin MPO website for ongoing reference by the public.

Amendment No. 2 was approved on September 20, 2021 by the Permian Basin MPO Policy Board. The purpose of the amendment was to add certain projects along the I-20 corridor that had been removed as part of Amendment No. 1. The new Amended MTP is fiscally constrained for the FY 2021-2030 planning period. The projects added into the TxDOT 10-year UTP in August of 2021 are shown in the amended Tables in Chapter 9 and 10, respectively.

Record of Public Participation

The Public Participation process included for Forward 45 MTP Amendment No. 2:

- The Permian Basin MPO conducted a public meeting using an electronic meeting tool on Tuesday, September 7, 2021, 2021 at 8:30 a.m. to begin a 10-day public comment period. The public was encouraged to review and comment on the draft MTP Amendment No 2. Notice of the public meeting was placed in the Midland Reporter-Telegram and the Odessa American newspapers.

- The public was given a minimum of ten (10) days to submit comments on the projects for consideration prior to the adoption of the MTP Amendment No 2.
- A draft MTP Amendment No 2 was made available on the Permian Basin MPO website (www.permianbasinmpo.com).
- In a regularly scheduled meeting of the Permian Basin MPO Policy Board Tuesday, September 20, 2021, stakeholders were again given the opportunity to review and comment on the MTP Amendment No. 2 prior to the final approval by the Policy Board. The final MTP Amendment No. 2 was approved for submission to TxDOT on or before September 25, 2021.
- The approved documents and any amendments will remain on the Permian Basin MPO website for ongoing reference by the public.

9.1 Project Prioritization

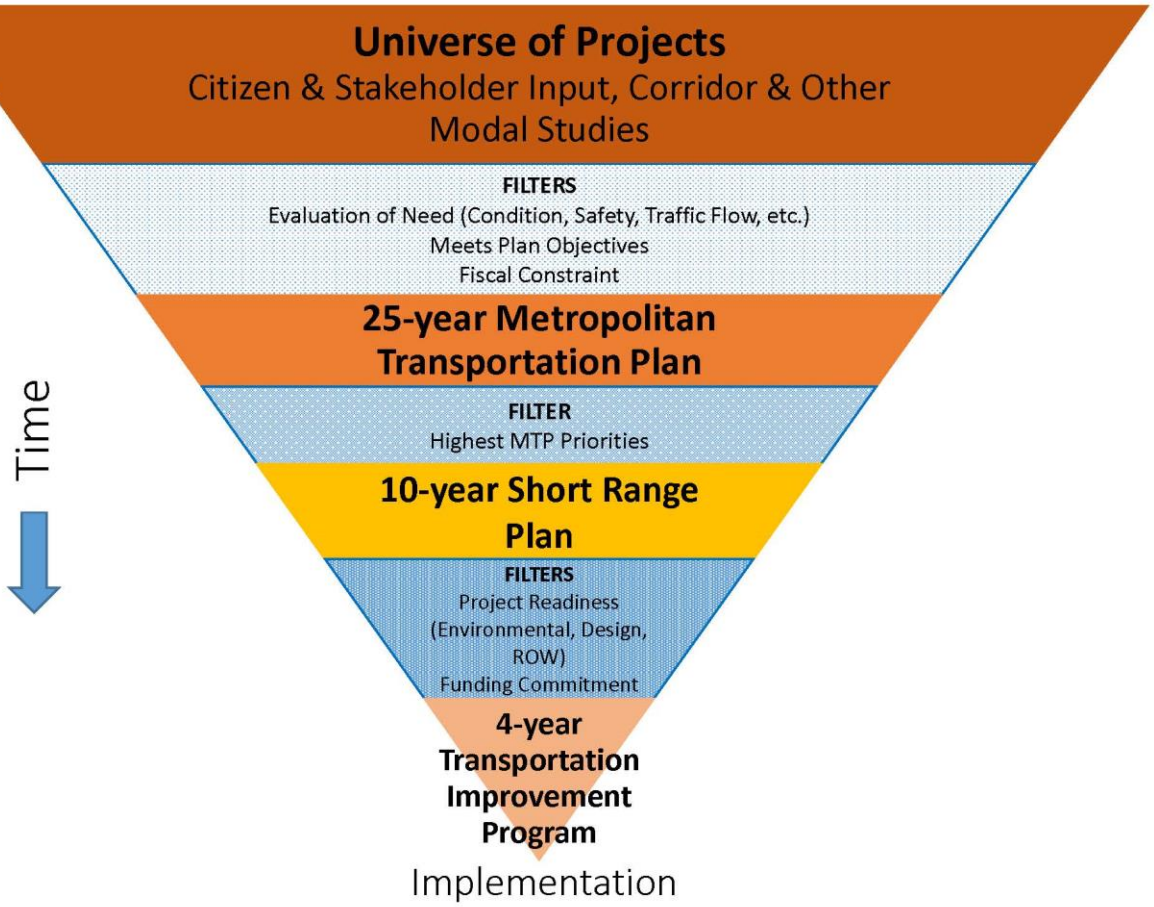
Project prioritization is a critical component of the metropolitan planning process and the preparation of the *Forward 45* MTP. First, in order to spend federal dollars on local transportation projects and programs, a metropolitan area must have an adopted Metropolitan Transportation Plan (MTP) and a Transportation Improvement Program (TIP). Federal regulations require both documents to be performance-based and fiscally constrained. Fiscal constraint has been a key component of transportation planning and program development since the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and reinforced with every subsequent transportation bill. Fiscal constraint means that the cost of those projects selected for inclusion in the MTP's planning horizon reasonably match the expected funding levels for that time period. The TIP, on the other hand, must not indicate that the cost of projects exceeds projected available funding during the four-year period. Second, because of the limited resources available, a process was followed to score and rank projects for consideration and inclusion in the MTP. The scoring criteria used is based on the ten Federal Planning Factors from the FAST Act, the requirements outlined in House Bill 20, and the Permian Basin MPO's mission statement, goals and objectives. It is important to note that the MTP and TIP must reflect the same scope and projected cost prior to approval to commence project letting.

9.1.1 Project Prioritization Process

The MPO's initial step in the project prioritization process was to publish a call for projects. Stakeholders and the community at large were invited to submit projects for consideration across all modes. The next step to generate a list of projects for screening and evaluation. Projects received through the 30-day call period were deemed to automatically include those that were already identified in the 2019 Unified Transportation Program (UTP) and those being carried over from the 2040 MTP. A scoring sheet and general definition of scoring criteria is shown in Fig. 9.2 below. It was drafted on multiple occasions by the Permian Basin MPO staff with assistance from the TAC during special called meetings to gain a complete understanding of how the scoring process would work in the project selection process. As it was an extensive list, the TAC collaboratively ranked each of the listed projects separating them by immediate and long-term need. The immediate need projects were scored by the TAC and the Permian Basin MPO staff. The scoring criteria and weighting balance reflects federal and state goals as well as local needs.

Once the top priority projects were identified according to the procedures described above, they were placed into the financially constrained component of the MTP based on the projected funding levels for the MTP planning horizon, project score, and project implementation timeline. Once fiscal constraint for the MTP planning horizon was reached, projects were placed into the unfunded priority section of the MTP. Projects in the fiscally constrained list are now eligible to be moved to the TIP once it is determined by TxDOT that funding is available. This step is completed during the TIP preparation process and may be amended as additional funding becomes available.

Figure 9.1 Project Selection Timeline



Source: Waco MPO

The process of moving a project forward into the TIP is a cooperative process between Permian Basin MPO and the TxDOT Odessa District. During TIP updates and amendments, projects will be moved from the financially constrained component of the MTP to the TIP. As the MTP planning horizon is revised or when new information or new funds become available, a reevaluation of MTP project list may be required.

Currently funded projects in the *Vision 2040 Plan* are identified along with their funding source. Regionally significant projects potentially funded through outside sources are included in the project listings as well.

Figure 9.2 MPO Project Evaluation Scoring Criteria

Permian Basin MPO Project Evaluation Criteria & Scorecard

The following Project Evaluation Criteria will be used to score the projects during the development of a prioritized list of transportation investments in the 2020-2045 Metropolitan Transportation Plan.

100 Points Max

I. *Operational Efficiency and Preservation*

1. ***Traffic Operations:*** Does this project include elements that specifically improve the operational efficiency of the transportation system with emphasis on higher capacity corridors? (AADT)

   a. 50,000 and up ..... 5 points
   b. 40,000 – 49,999 ..... 4 points
   c. 30,000 – 39,000 ..... 3 points
   d. 20,000 – 29,000 ..... 2 points
   e. 19,000 or less ..... 1 point

2. ***Congestion*****: Does the project emphasize a reduction in congestion as related to the MPO's Congestion Management Program (CMP) and approved PM3 Performance Targets?

   a. Travel time reliability index (TTI) 2.25 and above ..... 5 points
   b. TTI 2.00 to 2.25 ..... 4 points
   c. TTI 1.75 to 2.00 ..... 3 points
   d. TTI 1.50-1.75 ..... 2 points
   e. TTI < 1.50 ..... 1 point
   f. No ..... 0 points

3. ***Thoroughfare Plan:*** Does the project improve a corridor shown on the three-county thoroughfare plan?

   a. Yes ..... 1 Point

   b. What type of facility is it?

      Other Expressways or Better ..... 4 points
      Major Arterial ..... 3 points
      Minor Arterial ..... 2 points
      Collector ..... 1 point

4. ***System Preservation***: Does this improvement emphasize system preservation and support the MPO's PM2 Road and Bridge Condition and Transit Asset Management Plan Targets?

   a. On National Highway System (NHS) ..... 3 points
   b. Not on NHS ..... 2 points

5. ***On Bus Route***

   a. Yes ..... 2 points
   b. No ..... 0 points

Maximum 20 points

I. Safety & Security

4. ***Safety***: Does this project promote the MPO's PM1 adopted safety resolution in support of TxDOT's Performance Management Targets using the TxDOT published CRIS Data? Measure uses a standard of crashes per 100 million vehicle miles.
   a. 121 and up ..... 20 points
   b. 61 – 120 ..... 15 points
   c. 31 – 60 ..... 10 points
   d. 0 – 30 ..... 5 points

5. ***Resiliency & Security:*** Does this project promote system resiliency?
   a. Yes ..... 5 points
   b. No ..... 0 points

Maximum 25 points

II. Integration with Other Modes

6. ***Other Modes***: Does this project provide connection to one or more alternative modes of transportation (bicycling, walking, transit, air travel) according to city/county plans?
   a. Yes ..... 2 points
   b. No ..... 0 points

7. Does project include an alternative mode of transportation?
   a. Yes ..... 3 points
   b. No ..... 0 points

Maximum 5 points

IV. Freight Movement (Data Available** NPMRDS)

10. ***Freight Movement*****: Will the project improve freight mobility related to truck volumes? (24-hour truck count)
   a. 8,001 and up ..... 15 points
   b. 2,501 – 8,000 ..... 10 points
   c. 0 – 2,500 ..... 5 points

Maximum 15 points

V. Community Support

11. ***Economic Development:*** The project supports documented economic development initiatives.
   a. High benefit ..... 15 points
   b. Medium benefit ..... 10 points
   c. Low benefit ..... 5 points
   d. No benefit ..... 0 points

12. ***Alternative Funding:*** Does this project include additional financial support including an identified community priority list, comprehensive plan CIP and/or documentation of financial commitment?
   a. Yes ..... 5 points
   b. No ..... 0 points

Maximum 20 points

VI. Community Development

13. ***Travel and Tourism:*** Does the project enhance travel and tourism? (Data based on MPO assumptions)
   a. Yes ..... 5 points
   b. No ..... 0 points

14. ***Socioeconomic Effect:*** Will socioeconomic conditions be improved? (Environmental Justice, Title VI Populations, Limited English Proficiency Populations, etc.)
    a. Yes ..... 5 points
    b. No ..... 0 points

Maximum 10 points

VII. Environmental Factors

15. ***NEPAssist***: Has the NEPAssist Tool been utilized in the consideration of the project's environmental effects? (Data from: Federal/State sources)
    a. Yes ..... 2 points
    b. No ..... 0 points

16. Does the project fall within the MS4 boundary?
    a. Yes ..... 3 points
    b. No ..... 0 points

Maximum 5 points

Total Score: _____

MTP Project Selection Process - Companion Criteria Definitions

Section I *Operational Efficiency and Preservation*

Operational Efficiency: A qualitative assessment of a road's operating conditions. For planning purposes, it is an indicator of the extent or degree of service provided by, or proposed to be provided by, a facility based on and related to the operational characteristics of the facility. This term is tied directly to the MPO adopted PM3 System Reliability targets. Annual average daily traffic (AADT) is the total volume of vehicle traffic on a highway or road for a year divided by 365 days.

Preservation: The activity or process of keeping something valued alive, intact, or free from damage or decay.

Section II *Safety, Security and Resiliency*

Safety: A systematic process that has the goal of reducing the number and severity of transportation related accidents by ensuring that all opportunities to improve safety are identified, considered and implemented as appropriate.

Security: the state of being free from danger or threat interpreted to mean a threat of physical harm as a result of either a criminal or terroristic act.

Resiliency: The capacity to recover quickly from difficulties, disaster; toughness.

Section III *Integration with other Modes*

Integration: Does this project provide a connection or is it within ¼ mile of an existing or planned alternative mode?

Section IV *Freight Movement*
Data is available from the National Performance Measures Research Data Set (NPMRDS).

Section V *Community Support*
Economic Development: This measure looks at how each specific project benefits the economic development for the area and the region. Such benefits may include support for job growth, access to jobs, freight movements, and regional land use goals. This measure is subjective because it does not specifically relate to a quantitative measure. However, a few rules of thumb to keep in mind during the scoring of projects include:

- High Benefit: New construction projects that are proposed in areas with potential commercial or economic benefit get scored higher – 15 points
- Medium Benefit: New construction projects that are proposed in residential areas are scored moderately because they do improve the tax base, but not at the same level as commercial activity -10 points
- Projects that require additional right -of-way or are in areas with little or no potential of development or redevelopment are scored the lowest – 5 points
- Projects that will not likely generate economic development activity are scored with 0 points

Alternative Funding: The project includes documented additional financial support.

Section VI *Community Development*
Environmental Justice: Environmental justice assures that services and benefits allow for meaningful participation and are fairly distributed to avoid discrimination.

Section VII *Environmental Factors*
Environmentally Sensitive Area: An area of environmental importance having natural resources which if degraded may lead to significant adverse, social, economic or ecological consequences. These could be areas in or adjacent to aquatic ecosystems, drinking water sources, unique or declining species habitat, and other similar sites. (49CFR194)
Environmental Impact Statement: Report developed as part of the National Environmental Policy Act requirements, which details any adverse economic, social, and environmental effects of a proposed transportation project for which Federal funding is being sought. Adverse effects could include air, water, or noise pollution; destruction or disruption of natural resources .

9.2 Highway Committed Projects FY 2020 – 2045 – Amendment No. 2

As stated earlier, through public comment and multiple workshops as well as in-depth discussions with the Permian Basin MPO Policy Board and TAC, a list of top priority projects was derived for the 25-year plan. As the initial drafting of the 2045 MTP was being finalized, the 2020 UTP was approved by the Texas Transportation Commission at its regular monthly meeting in August of 2019. Subsequently, the 2021 and 2022 UTP project lists were approved. The list (see Table 9.1) of projects through FY 2030 include projects approved and committed for funding in the FY 2022 UTP.

Projected Fiscally Constrained Priority Projects

The fiscally constrained project list contains projects eligible for federal funding that may be further planned and eventually moved into the State Unified Transportation Plan (UTP) which has a ten-year horizon. The UTP lists all projects in the state that have development authority to commence design specifications, address right-of-way needs and environmental issues. Once placed in the ten-year UTP, a project is eligible to be placed in the State's Transportation Improvement Program (STIP) where authority is given for construction. The STIP contains each individual MPO Transportation Improvement Program (TIP) from across the state. The above project development scenario does not preclude a project from being moved into the UTP and placed into the Permian Basin MPO TIP in a faster manner; all project scheduling and construction timing are dependent on funding availability. When considering the list of projects contained in the plan the Permian Basin MPO Technical Advisory Committee and the Policy Board considered the MAP-21 planning factors and national performance goals listed in Chapter 1.

9.2.1 Fiscally Constrained Projects 2020 – 2029

I-20 Improvements

The importance of I-20 as an east-west travel and trade corridor stretches well beyond West Texas. The significance of the interstate to the urbanized area and to the greater Permian Basin region necessitated a reevaluation of existing projects geared toward modernizing the stretch of interstate. The aging interstate system, population growth, and increased economic activity also contributed to the decision to undertake a comprehensive study of the interstate in the fall of 2015. At that time TxDOT Odessa District, TxDOT's Transportation Planning & Programming Division, and the Permian Basin MPO began a study of I-20 within the MPO boundary.

From the beginning of the study, MPO staff, consultants and TxDOT met with stakeholders and the community to develop scope for the project and to assess safety and transportation concerns with the modernization of the corridor. Consultants then took the stakeholder engagement and public input comments and evaluated them alongside different types of roadway configurations, a detailed needs assessment, and an analysis of existing and future traffic data. At the May 2016 MPO Policy Board meeting TxDOT consultants presented their initial finding and recommendations, aimed at selecting segments for detailed design schematics. After discussion between the Policy Board, TxDOT Odessa District and TxDOT it was determined that TxDOT would dedicate the funds necessary to develop design schematics for the entire 42 mile stretch of the study corridor instead of the 12-mile portion originally considered.

Since then a coordinated effort between the TxDOT Odessa District and the Permian Basin MPO to identify funding and to leverage resources to begin implementing Phase I of the Permian Basin I-20 Corridor Study was completed. Table 9.1 shows the fiscally constrained I-20 projects in the initial ten-year window of the MTP.

Non I-20 Improvements

The remainder of the projects on the ten-year list include State highway and loop projects within both communities. They are geared toward intersection improvements and interchanges to address connectivity, congestion, as well as safety.


ONLY

Table 9.1 Fiscally Constrained Priority Projects 2021 – 2030 Amendment No. 2 (2-pages)

Fiscally Constrained Projects FY 2021-2024 & FY 2025-2030 - Amendment No. 2

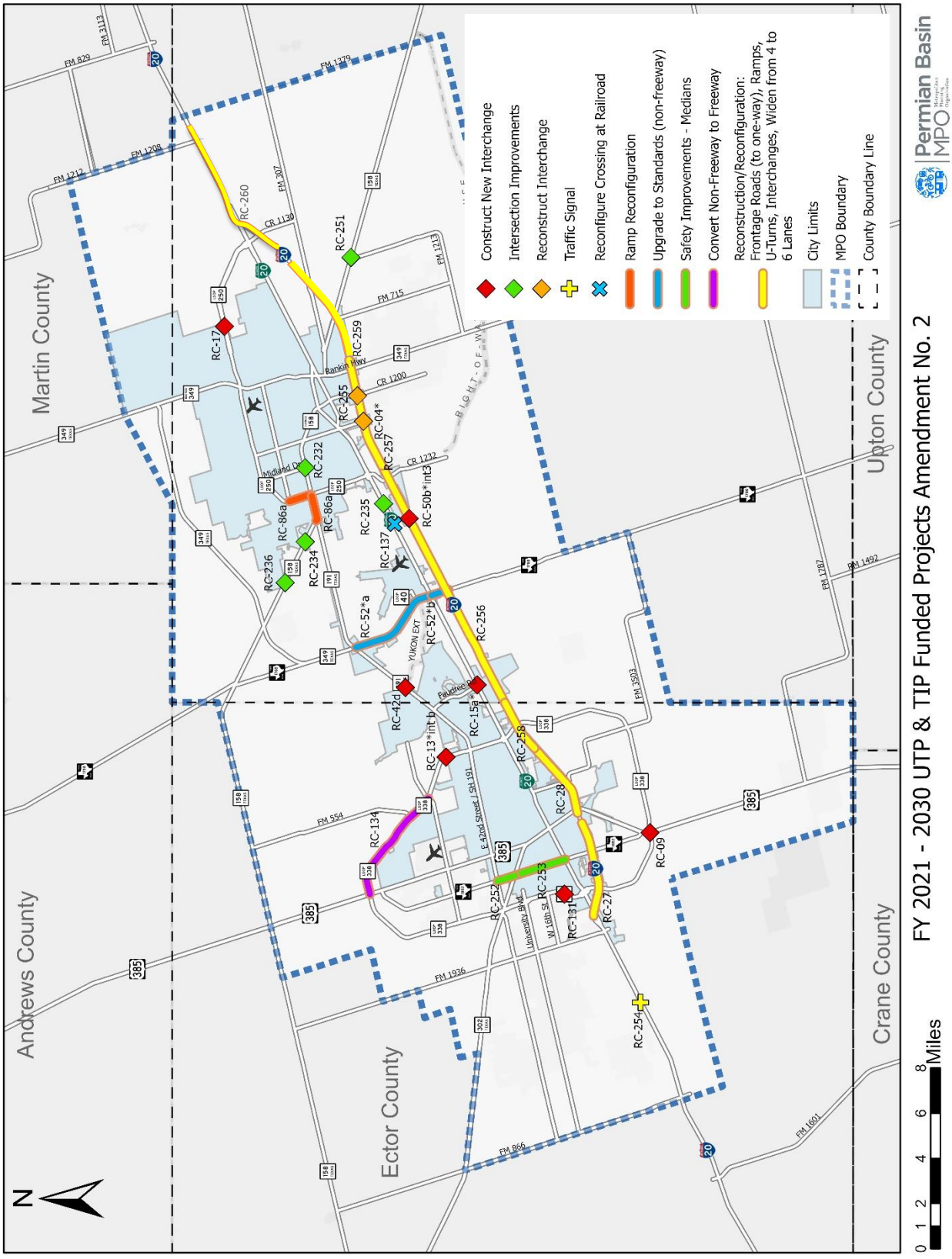
FY 2021-2024 TIP

Est. Let Year	Project	Highway	Limits	Description	Length	Sponsor	MPO ID	CSJ	UTP Allocation Category 2U	UTP Allocation Category 3	UTP Allocation Category 4	UTP Allocation Category 8	UTP Allocation Category 10	UTP Allocation Category 12 PER	UTP Allocation Category 12	UTP Allocation Category 11	Total Authorized
2021 - project let	IH 20 - Phase I - Midland	IH 20	SL 250 to 0.5 miles east of Midkiff Rd	Replace existing underpass with a 4-lane wide overpass structure, urban median, Y-ramps configuration	1.5	TxDOT	RC-04*	0005-14-067	$14,160,000	$2,000,000	$12,000,000					$8,640,000.00	$36,800,000
2021 - project let	IH 20 - Phase I - Midland	IH 20	At CR 1250	Construct new interchange	1	TxDOT	RC-50b* int3	0005-14-084			$29,550,000					$20,450,000.00	$50,000,000
2021 - project let	SH 158 -Freeway Ramp Improvements	SH 158	Avalon Drive to LP 250	Ramp reconfiguration	1	City of Midland	RC-86a	0463-02-075	$11,630,000	$1,000,000							$12,630,000
2021 - project let	SL 250 - Freeway Ramp Improvements	SL 250	BS 158-B to Wadley Ave	Ramp reconfiguration	1	City of Midland	RC-86a	1188-02-100	$11,630,000	$1,000,000							$12,630,000
2022	SH 191 - Yukon Road Interchange	SH 191	At Yukon Rd	Construct new interchange	3	City of Odessa	RC-42d	2296-02-026	$13,120,000		$12,000,000						$25,120,000
2022	Interchange at Cotton Flat Rd - Midland	IH 20	At Cotton Flat Road	Reconstruct of frontage roads, ramps, u turns and interchange	1	TXDOT	RC-255	0005-14-100			$14,233,858		$25,000,000				$39,233,858
2024	I-20 Project 3c - Widen Freeway - Midland	IH 20	Ector Co. line to East of CR 1300	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes	4	TxDOT	RC-256	0005-14-093	$5,500,000	$2,000,000				$99,300,000	$42,700,000		$149,500,000
2024	I-20 Project 3d - Widen Freeway - Midland	IH 20	East of CR 1300 to East of CR 1250	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes	5	TxDOT	RC-257	0005-14-094	$6,500,000					$31,200,000	$48,600,000		$86,300,000
2024	I-20 Project 3c - Widen Freeway - Ector	IH 20	East of JBS Pkwy to Midland Co. Line	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes	2	TxDOT	RC-258	0005-13-064	$1,000,000					$20,000,000	$7,600,000		$28,600,000
2024	I-20 Project 3b - Widen Freeway - Midland	IH 20	East of CR 1250 to East of SH 349	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes	5.6	TxDOT	RC-259	0005-14-092	$6,250,000					$69,550,000			$75,800,000
Year 1-4 Totals									**$69,790,000**	**$6,000,000**	**$67,783,858**	**$0**	**$25,000,000**	**$220,050,000**	**$98,900,000**	**$29,090,000**	**$516,613,858**

FY 2025 - 2030 Amendment No. 2

FY	Project	Highway	Limits	Description	Length	Sponsor	MPO ID	CSJ	UTP Allocation Category 2U	UTP Allocation Category 3	UTP Allocation Category 4	UTP Allocation Category 8	UTP Allocation Category 10	UTP Allocation Category 11	UTP Allocation Category 12 PER	UTP Allocation Category 12	Total Authorized	Remaining Funding (TBD)
2026-2031	Interchange at Faudree Road - Odessa	BI 20-E	At Faudree Rd	Construct new interchange	1	City of Odessa	RC-15a*	0005-02-119	$8,370,000	$2,000,000	$10,750,000						$21,120,000	
2026-2031	Interchange at W 8th Street - Odessa	SH 302	At W 8th St	Construct new interchange	1	City of Odessa	RC-131	2224-01-110	$19,760,000	$2,000,000							$21,760,000	
2026-2031 Not Fully Funded	I-20 Project 4 - Widen Freeway - Ector	IH 20	West of FM 1936 to Monahans Draw	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes.	6	TxDOT	RC-27	0004-07-135	$9,750,000						$71,050,000		$80,800,000	$54,025,600
2026-2031 Not Fully Funded	I-20 Project 4 - Widen Freeway - Ector	IH 20	Monahans Draw to East of JBS Pkwy	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes.	4	TxDOT	RC-28	0005-13-063	$9,750,000						$44,200,000		$53,950,000	$87,741,200
2026-2031 Not Fully Funded	I-20 Project 5 - Widen Freeway - Midland	IH 20	East of SH 349 to East of FM 1208	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes.	11.8	TxDOT	RC-260	0005-15-093	$9,750,000						$58,250,000		$68,000,000	$190,720,000
2026-2031	Safety Improvements (Medians) - Odessa	SH 191	LP 338 E to LP 338 W	Safety Improvements -Medians	1	TxDOT	RC-261	2296-01-058	$6,000,000								$6,000,000	
2026-2031	Non-Freeway Improvements - Midland	SH 349	SH 191 to BI 20-E	Upgrade to standards non-freeway	4	TxDOT	RC-52*a	1718-07-043	$6,966,960								$6,966,960	
2026-2031	Non-Freeway Improvements - Midland	SH 349	BI 20-E to IH 20	Upgrade to standards non-freeway	1	TxDOT	RC-52*b	1718-01-035	$1,433,040								$1,433,040	
2026-2031	Traffic signal at Moss Ave - Odessa	IH 20	N. I-20 Service Road/Murphy Street to IH 20/Moss Ave	Install traffic signal at intersection	1	TxDOT	RC-295	0004-07-137	$750,000								$750,000	
2026-2031	Interchange at SL 338 - Odessa	US 385	At South SL 338	Construct new interchange	1	TxDOT	RC-09	0229-01-042	$21,000,000	$2,000,000							$23,000,000	
2026-2031	Safety Improvements (Medians) - Odessa	FM 1882	SS 450 to 42nd Street	Safety Improvements -Medians	1	TxDOT	RC-252	2005-01-029									$0	$2,000,000
2026-2031	Safety Improvements (Medians) - Odessa	FM 1882	2nd St to SS 450	Safety Improvements -Medians	2	TxDOT	RC-253	2005-03-008	$4,000,000								$4,000,000	
2026-2031	Intersection at CR 60 - Midland	SH 158	At CR 60 / Briarwood	Intersection Improvements	1	TxDOT	RC-236	0463-02-079	$3,600,000								$3,600,000	
2026-2031	Intersection at Wadley Ave - Midland	SH 158	At Wadley Ave	Intersection Improvements	1	TxDOT	RC-234	0463-02-080	$3,600,000								$3,600,000	
2026-2031	Intersection at SH 158 - Midland	SH 158	At CR 120	Intersection Improvements	1	TxDOT	RC-251	0463-03-053	$4,000,000								$4,000,000	
2026-2031	Rail/Highway Crossing - Midland	BI 20-E	At CR 1250	Reconfigure offset at Rail/Highway crossing	1	TxDOT	RC-137	0005-02-112	$6,000,000			$600,000					$6,600,000	
2026-2031	Intersection at Avalon Dr - Midland	BI 20-E	At Avalon Dr	Intersection Improvements	1	TxDOT	RC-235	0005-02-125	$3,000,000								$3,000,000	
2026-2031	Intersection at FM 868 - Midland	BS 158-B	At FM 868	Intersection Improvements	1	TxDOT	RC-232	0463-02-081	$3,600,000								$3,600,000	
2026-2031	Interchange at 52nd/56th - Odessa	SL 338	At 52nd/56th Street	Construct new interchange	1	TxDOT	RC-13* int b	2224-01-116	$5,500,000							$22,500,000	$28,000,000	
2026-2031 Not Fully Funded	Upgrade to Freeway - Odessa	SL 338	Yukon Rd to US 385 N	Convert Non-Freeway to Freeway	5	TxDOT	RC-134	2224-01-117	$4,500,000								$4,500,000	$13,425,736
2026-2031 Not Fully Funded	Interchange at Todd Rd - Midland	SL 250	At Todd Rd	Construct new interchange	1	TxDOT	RC-17	1188-02-111	$4,500,000								$4,500,000	$21,469,208
2026-2031	Regional Synchronization Program**	-	MPO Boundary	ITS project to synchronize signals across MAB	-	TxDOT	RE-20	-			**Not in 2022 UTP						$0	$3,000,000.00
2026-2031	Six Union Pacific Railroad Intersections**	-	Various	Improve intersections at railroad crossings	-	TxDOT	RR-001	-									$0	$3,000,000.00
Years 5-10 Totals									**$135,830,000**	**$6,000,000**	**$10,750,000**	**$600,000**	**$0**	**$0**	**$173,500,000**	**$22,500,000**	**$349,180,000**	**$375,381,744**
Years 1-4 Totals (From TIP)									**$69,790,000**	**$6,000,000**	**$67,783,858**	**$0**	**$25,000,000**	**$29,090,000**	**$220,050,000**	**$98,900,000**	**$516,613,858**	**0**
FY 2022 UTP									**$205,620,000**	**$12,000,000**	**$78,533,858**	**$600,000**	**$25,000,000**	**$29,090,000**	**$393,550,000**	**$121,400,000**	**$865,793,858**	**$375,381,744**

Map 9.1 Fiscally Constrained Priority Projects 2021-2030 Amendment No. 2



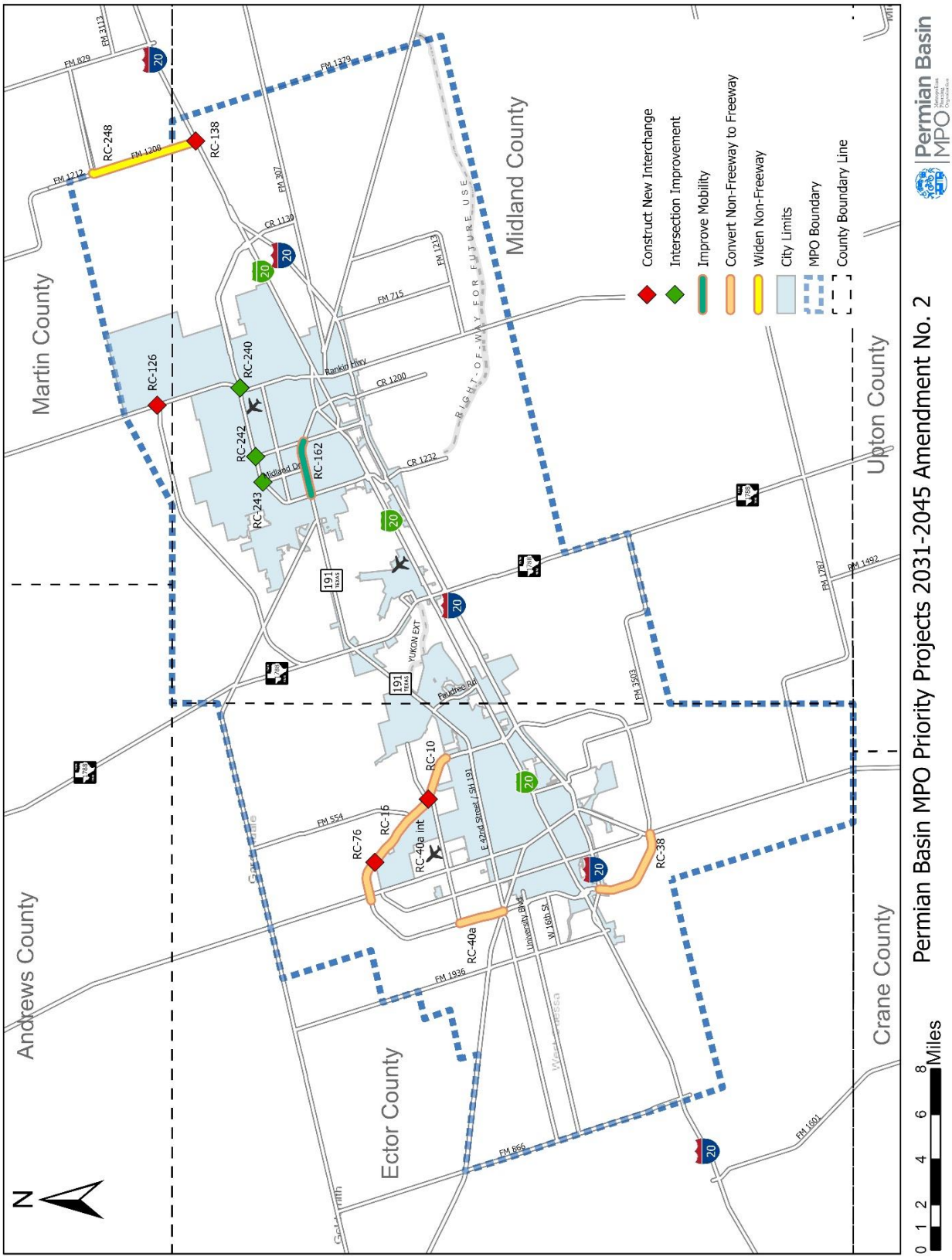
9.2.2 Fiscally Constrained Projects 2031–2045

The projects shown in Table 9.2 list the MPO's priorities for the remaining 15 years of the MTP. Unlike the previous list of fiscally constrained projects, these projects do not have designated funding. Chapter 10 provides a reasonable estimate of funding based on a set of projection criteria.

Table 9.2 Fiscally Constrained Priority Projects 2031 – 2045 Amendment No. 2

Fiscally Constrained Projects FY 2031 - 2045 Amendment No. 2													
Est. Let Year	**Project**	**Highway**	**Limits**	**Description**	**Length**	**Sponsor**	**MPO ID**	**Estimated Category 2U**	**Estimated Category 3**	**Estimated Category 4**	**Estimated Category 11**	**YOE Cost***	**Total**
2031	SL 250 - BS 349 Intersection Improvements	SL 250	At BS 349 (Big Spring St)	Intersection Improvements, Traffic Signal Upgrades	1	Midland	RC-240	$7,200,000				$7,200,000	$14,400,000
2031	BS 158 (Andrews Hwy) - Mobility Improvements	BS 158	SL 250 W to Midkiff Rd	Improve mobility and add capacity	2.5	Midland	RC-162			$9,000,000		$9,000,000	$18,000,000
2032	SL 250 - Midland Dr Intersection Improvements	SL 250	At Midland Dr	Intersection Improvements, Traffic Signal Upgrades	1	Midland	RC-243			$7,400,000		$7,400,000	$14,800,000
2032	SL 250 - Midkiff Rd Intersection Improvements	SL 250	At Midkiff Rd.	Intersection Improvements, Traffic Signal Upgrades	1	Midland	RC-242	$7,400,000				$7,400,000	$14,800,000
2034	SL 338 W - Freeway Conversion	SL 338 W	Yukon Rd to 0.5 mi. W. of US 385	Convert non-freeway to freeway	5.2	Ector	RC-16	$21,840,000				$21,840,000	$43,680,000
2035	SL 338 W- Freeway Conversion	SL 338 W	Yukon Rd to SH 302	Convert non-freeway to freeway	2.3	Ector	RC-40a			$9,200,000		$9,200,000	$18,400,000
2036	SL 338 W- Freeway Conversion	SL 338 W	IH 20 western jct. to US 385	Convert non-freeway to freeway	4.3	Ector	RC-38	$11,070,000		$6,560,000		$17,630,000	$35,260,000
2036	SL 338 E - Freeway Conversion	SL 338 E	Yukon to 52nd St.	Convert non-freeway to freeway	2	Ector	RC-10	$8,200,000				$8,200,000	$16,400,000
2038	SL 338 - 100th St. Interchange	SL 338 NE	At 100th St.	Construct new Interchange	1	Ector	RC-76	$34,400,000				$34,400,000	$68,800,000
2039	FM 1208 - Freeway Widening	FM 1208	IH 20 to FM 1212	Widen non-freeway	5.7	Martin/Midland	RC-248	$14,270,000		$22,500,000		$36,770,000	$73,540,000
2041	SL 338 W - W Yukon Road Interchange	SL 338 W	At. W Yukon Rd	Construct new interchange	1	Ector	RC-40a int	$36,000,000				$36,000,000	$72,000,000
2042	SH 349 - BS 349 Interchange	SH 349	At BS 349	Construct new interchange	1	Martin	RC-126	$19,260,000		$17,540,000		$36,800,000	$73,600,000
2044	IH 20 - FM 1208 Interchange	IH 20	At FM 1208	Construct new interchange	1	Midland	RC-138	$35,200,000		$3,200,000		$38,400,000	$76,800,000
Years 11-25 Totals (15 Years)								**$194,840,000**	**$0**	**$75,400,000**	**$0**	**$270,240,000**	**$540,480,000**

Map 9.2 Fiscally Constrained Priority Projects 2031 – 2045 Amendment No. 2



UNFUNDED PROJECTS 2031-2045

Project ID	County	Road Name	Limit	Description	Estimated Cost
RC-08	Midland	SH 349	AT FM 1788/CR 60	Construct new interchange	$20,000,000
RC-13	Ector	SL 338	52nd St. to SH 191	Convert non-freeway to freeway	$2,750,000
RC-14*	Midland	SL 250	At BI 20	Reconstruct Interchange	$13,750,000
RC-18*	Ector	SL 338	SH 191 eastern jct. to IH 20 eastern jct.	Convert non-freeway to freeway	$5,000,000
RC-39a	Ector	SL 338 W	IH 20 to SH 302	Convert non-freeway to freeway	$13,000,000
RC-49 int	Midland	SH 158	At CR 1250	Construct new interchange	$20,000,000
RC-49a int	Midland	SH 349	At CR 1250	Construct new interchange	$20,000,000
RC-50a int1	Midland	SH 191	At CR 1250	Construct new interchange	$20,000,000
RC-69	Midland	SH 349 (FM 1788)	SH 191 to 1 mi north of SH 158	Convert non-freeway to freeway	$13,750,000
RC-70	Ector	SH 158	FM 1788 to Grandview	Widen non-freeway	$16,875,000
RC-71	Ector	SH 158	Grandview to US 385	Widen non-freeway	$9,375,000
RC-72	Ector	SL 338 S	US 385 to FM 3503	Widen non-freeway	$18,000,000
RC-73	Ector	SL 338 S	At FM 3503	Construct new interchange	$20,000,000
RC-77	Ector	SL 338 NE	At 87th St.	Construct New Interchange	$20,000,000
RC-78	Ector	SL 338 NE	At FM 554/Grandview	Construct New Interchange	$20,000,000
RC-79	Martin/Midland	BS 349	Mockingbird to SH 349	Widen non-freeway	$9,375,000
RC-81	Martin	SH 349	At Fairgrounds (extension)	Construct new interchange	$20,000,000
RC-93	Midland	SH 158	SH 191 to SH 349	Widen non-freeway	$18,750,000
RC-94	Midland	SH 158	SH 349 to FM 1788	Widen non-freeway	$11,250,000
RC-99	Midland	SH 349/FM 1788	At SL 40/Yukon Rd. Ext.	Intersection improvements	$600,000
RC-100	Midland	SH 349/FM 1788	At SH 191	Construct new interchange	$20,000,000

RC-102	Midland	SH 349	FM 1788/CR 60 to SH 158	Convert non-freeway to freeway	$5,500,000
RC-103	Midland	SH 349	SH 158 to Holiday Hill Rd	Convert non-freeway to freeway	$11,250,000
RC-104	Midland	SH 349	Holiday Hill Rd to Garfield Rd	Convert non-freeway to freeway	$7,300,000
RC-105	Martin	SH 349	Garfield Rd to BS 349	Convert non-freeway to freeway	$5,000,000
RC-106	Midland	SH 349	At SH 158	Construct new interchange	$20,000,000
RC-107	Midland	SH 349	At Holiday Hill	Construct new interchange	$20,000,000
RC-108	Martin	SH 349	At Garfield Rd	Construct new interchange	$20,000,000
RC-117	Ector	SL 338 N	At Wireline Rd. (CR 1157)	Construct new interchange	$20,000,000
RC-118	Midland	SH 191	At Unnamed Rd West of FM 1788	Construct new interchange	$20,000,000
RC-120	Martin	SH 349	BS 349 to Fairgrounds Road extension	Construct new location non-freeway	$1,250,000
RC-120b	Martin	SH 349	Fairground Rd ext. to CR 1150/Elkins Rd	Construct new location non-freeway	$1,500,000
RC-120c	Martin	SH 349	CR 1150/Elkins Rd to FM 1208	Construct new location non-freeway	$8,800,000
RC-128	Ector	SL 338	At JBS Parkway	Construct new interchange	$20,000,000
RC-129	Ector	US 385 (Grant Ave.)	2nd St. to 10th St.	Rebuild as a Pedestrian Friendly Corridor	$8,000,000
RC-130	Ector	US 385 (Grant Ave.)	2nd St. to IH 20	Streetscape and Pedestrian Improvements	$6,250,000
RC-132	Ector	SL 338 W	At SH 302/42nd St	Reconstruct Interchange	$13,750,000
RC-135	Ector	SL 338 E	At SH 191	Replace existing underpass with overpass	$13,750,000
RC-139	Ector	US 385 (Andrews Hwy)	at 100th St.	Construct Lighted Intersection - Close Frontage Roads to 87th and add Frontage Rd. Access 1/2 Block N. and S.	$600,000
RC-140	Ector	US 385 (Andrews Hwy)	at 91st St.	Construct Lighted Intersection - Close Frontage Roads to 87th and add Frontage Rd. Access 1/2 Block N. and S.	$600,000
RC-141	Ector	SL 338 SE	FM 3503 to IH 20 Eastern Jct.	Convert non-freeway to freeway	$12,500,000
RC-157	Midland	BI 20	At Hwy 158 (Garfield St.)	Construct new interchange	$25,000,000
RC-159	Midland	BS 158 (Andrews Hwy)	At FM SL 268 (Wall St), including Ohio Ave to Indiana Ave	Intersection Improvements, Corridor Capacity Improvements, Access Management Improvements	$5,500,000

RC-201	Ector	IH 20	At SL 338 W	EB to SB direct connect	$25,000,000
RC-202	Ector	IH 20	At SL 338 W	NB to WB direct connect	$25,000,000
RC-203	Ector	IH 20	At SL 338 W	EB to NB direct connect	$25,000,000
RC-204	Ector	IH 20	At SL 338 W	SB to WB direct connect	$25,000,000
RC-205	Ector	IH 20	At SL 338 E	WB to SB direct connect	$25,000,000
RC-206	Ector	IH 20	At SL 338 E	NB to EB direct connect	$25,000,000
RC-207	Ector	IH 20	At SL 338 E	SB to EB direct connect	$25,000,000
RC-208	Ector	IH 20	At SL 338 E	WB to NB direct connect	$25,000,000
RC-209	Ector	IH 20	At SL 338 W	NB to EB direct connect	$25,000,000
RC-210	Ector	IH 20	At SL 338 W	SB to EB direct connect	$25,000,000
RC-211	Ector	IH 20	At SL 338 W	WB to SB direct connect	$25,000,000
RC-212	Ector	IH 20	At SL 338 W	WB to NB direct connect	$25,000,000
RC-213	Ector	IH 20	At SL 338 E	EB to NB direct connect	$25,000,000
RC-214	Ector	IH 20	At SL 338 W	EB to SB direct connect	$25,000,000
RC-215	Ector	IH 20	At SL 338 E	NB to WB direct connect	$25,000,000
RC-216	Ector	IH 20	At SL 338 E	EB to SB direct connect	$25,000,000
RC-217	Ector	US 385 N	At SL 338 N	EB to NB direct connect	$25,000,000
RC-218	Ector	US 385 N	At SL 338 N	SB to WB direct connect	$25,000,000
RC-219	Ector	SL 338 W	At SH 302	EB to SB direct connect	$25,000,000
RC-220	Ector	SL 338 W	At SH 303	NB to WB direct connect	$25,000,000
RC-221	Ector	SL 338 W	At SH 304	EB to NB direct connect	$25,000,000
RC-222	Ector	SL 338 W	At SH 305	SB to WB direct connect	$25,000,000
RC-223	Ector	US 385 S	At SL 338 S	NB to WB direct connect	$25,000,000
RC-224	Ector	US 385 S	At SL 338 S	EB to SB direct connect	$25,000,000
RC-238	Midland	BI-20 (Front St)	At Fairgrounds Rd	Grade Separation, Intersection Improvements	$25,000,000
RC-239	Midland	BS 349 (Big Spring St)	At Scharbauer Dr.	Intersection Improvements, Widen Structure	$4,000,000

RC-241	Midland	SL 250	At A St	Intersection Improvements, Traffic Signal Upgrades	$5,000,000
RC-244	Midland	SL 250	Wadley Ave/Holiday Hill Rd/Tremont Ave	Intersection Improvements, Traffic Signal Upgrades	$5,000,000
RC-245	Midland	SH 191	EB Ramp at FM 1788	Extend on ramp with acceleration merge lane	$1,000,000
RC-246	Midland	IH 20	At CR 1110	Construct new interchange	$20,000,000
RC-249	Ector	SL 338 SE	At Bates Field Rd.	Construct New Interchange	$20,000,000
RE-02	Ector	FM 1882	US 385 northern jct. to Yukon Rd	Widen non-freeway	$13,152,000
RE-03a	Ector	BI 20	8th St. to FM 1788	Improve mobility and add capacity	$42,788,000
RE-03b	Ector	BI 20	IH 20 to 8th St.	Improve mobility and add capacity	$40,536,000
RE-04a	Midland	BI 20	FM 1788 to Wall/Front St.	Improve mobility and add capacity	$38,284,000
RE-04b	Midland	BI 20	Front St. to IH 20	Improve mobility and add capacity	$67,560,000
RE-10a	Midland	FM 307	Fairgrounds Rd to CR 1150	Widen non-freeway	$7,000,000

9.4 Transit Prioritized Projects Through 2045

EZ Rider services are funded through FTA's Section 5307, Urbanized Area Formula Grant Program. The transit funds are used for operations, planning and maintenance activities. EZ Rider's planning funds will be applied to the monitoring of the overall transit system along with individual route performances, while maintenance funds will be used to keep the fleet in a state of good repair to meet EZ-Rider's Transit Asset Management goals.

The provision of Elderly and Disabled Transit Services is funded through Section 5310, Elderly and Persons with Disabilities Program. Recent funding allocations for Section 5310 were used as a baseline, along with modest increases.

Table 9.4 Elderly and Disabled Transit Service Cost

	2020-2025	2026-2035	2036-2045	2020-2045
Category	**Projected Amount**	**Projected Amount**	**Projected Amount**	**Projected Amount**
Section 5310	$ 1,319,776	$ 2,244,000	$ 2,288,000	$ 5,851,776

* *Description: Provide transportation service for elderly and disabled persons*

Table 9.5 E-Z Rider Project List

MOUTD Projects List	2020-2025	2026-2035	2036-2045
Add Two Hours of Revenue Service	$4,451,856	$4,451,856	$4,451,856
Bus Replacement Program	$11,587,703	$12,800,000	$12,800,000
Comprehensive Operations Analysis	$250,000		
Inter-urban Express Route		$4,500,000	$4,500,000
Midland Downtown Transfer Center	$3,125,000		
Multi/Intermodal Transit Center		$4,700,000	
Two New Fixed Routes		$8,030,000	$8,080,000
Odessa Downtown Transfer Center		$3,125,000	
Total	**$19,414,559**	**$37,606,856**	**$29,831,856**

9.5 Bicycle & Pedestrian Projects

In the summer of 2017, the City of Midland applied to TxDOT for Transportation Set-Aside Program funding. The project includes pedestrian and bicycle enhancements in their downtown to encourage the use of alternative transportation options for both workers and downtown visitors. Enhancements included adding north and southbound bike lanes on N. Lorraine St. and N. Main St. The project was approved for funding and included in the Permian Basin MPO 2019-2022 TIP.

The City of Odessa and the City of Midland have both submitted applications in FY 2019 for funding to address pedestrian and cyclist concerns in their communities. If their applications are successful, the Permian Basin MPO will make formal amendments to the adopted 2019-2022 TIP to reflect these funds and project approvals.

Table 9.6 Bicycle & Pedestrian

Project	Description	Highway	Limit	Est. Let Year	Total Project Cost	Sponsor	MPO ID
Midland-Downtown Bike/Ped Infrastructure	Construct bicycle lanes, curb extensions, and median and improve ADA compliance	N/A	On N Loraine and N Main St from W Louisiana St. to E Wall St	2019	$627,038	City of Midland	BP-06

9.6 Unfunded Bicycle and Pedestrian Projects

In September of 2017 the Permian Basin Metropolitan Organization was awarded $17,258 in supplemental funding under the Texas Department of Transportation's (TxDOT) State Planning and Research program to commence the evaluation and feasibility of an intercity trail facility. The Permian Basin MPO Policy Board approved additional funding in the amount of $24,742 for the study allowing the organization to proceed. Accepted in May of 2019 the Multi Use Trail Study outlined preliminary routes for further study and consideration by the Permian Basin MPO and planning partners interested in seeing the corridor come to fruition. Other efforts to address cyclist and pedestrian needs are the applications to the TxDOT Transportation Alternative Set Aside and Safe Routes to School Programs.

Table 9.7 Illustrative List Bicycle and Pedestrian

Project	Description	Highway	Limit	Total Project Cost	Sponsor	MPO ID
Multi-Use Trail Corridor	Construct a multi-use trail connecting the communities of Midland and Odessa	TBD	TBD	TBD	Multiple	BP-07

9.7 Grouped CSJs

Some of the necessary and important transportation work in the region may be completed by state and local MPO partner agencies under State authority, wherein work may be commenced without a specific description of the project in the MTP. Table 9.8 is the approved grouped project category descriptions. At this time projects funded with Transportation Alternatives Set Aside Program (TASA), Transportation Enhancement (TE), and Congestion Mitigation and Air Quality Program (CMAQ) funding require an individual Federal eligibility determination prior to authorization of Federal funding, and therefore are not approved to be grouped.

Table 9.8 Grouped Project Control Job Numbers (CSJ) by Category (revised August 4, 2015)

PROPOSED CSJ	GROUPED PROJECT CATEGORY	DEFINITION
5000-00-950	PE-Preliminary Engineering	Preliminary Engineering for any project except added capacity projects in a nonattainment area. Includes activities which do not involve or lead directly to construction, such as planning and research activities; grants for training; engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed.
5000-00-951	Right of Way Acquistion	Right of Way acquisition for any project except added capacity projects in a nonattainment area. Includes relocation assistance, hardship acquisition and protective buying.
5000-00-952 5000-00-957 5000-00-958	Preventive Maintenance and Rehabilitation	Projects to include pavement repair to preserve existing pavement so that it may achieve its designed loading. Includes seal coats, overlays, resurfacing, restoration and rehabilitation done with existing ROW. Also includes modernization of a highway by reconstruction, adding shoulders or adding auxiliary lanes (e.g., parking, weaving, turning, climbing, non-added capacity) or drainage improvements associated with rehabilitation.
5000-00-953	Bridge Replacement and Rehabilitation	Projects to replace and/or rehabilitate functionally obsolete or structurally deficient bridges.
5000-00-954	Railroad Grade Separations	Projects to construct or replace existing highway-railroad grade crossings and to rehabilitate and/or replace deficient railroad underpasses, resulting in no added capacity
5800-00-950	Safety	Projects to include the construction or replacement/rehabilitation of guard rails, median barriers, crash cushions, pavement markings, skid treatments, medians, lighting improvements, highway signs, curb ramps, railroad/highway crossing warning devices, fencing, intersection improvements (e.g., turn lanes), signalization projects and interchange modifications. Also includes projects funded via the Federal Hazard Elimination Program, Federal Railroad Signal Safety Program, or Access Managements projects, except those that result in added capacity.
5000-00-956	Landscaping	Project consisting of typical right-of-way landscape development, establishment and aesthetic improvements to include any associated erosion control and environmental mitigation activities.
5800-00-915	Intelligent Transportation System Deployment	Highway traffic operation improvement projects including the installation of ramp metering control devices, variable message signs, traffic monitoring equipment and projects in the Federal ITS/IVHS programs.
5000-00-916	Bicycle and Pedestrian	Construction or rehabilitation of bicycle and pedestrian lanes, paths and facilities.
5000-00-917	Safety Rest Areas and Truck Weigh Stations	Construction and improvement of rest areas, and truck weigh stations.
5000-00-918	Transit Improvements and Programs	Projects include the construction and improvement of small passenger shelters and information kiosks. Also includes the construction and improvement of rail storage/maintenance facilities bus transfer facilities where minor amounts of additional land are required and there is not a substantial increase in the number of users. Also includes transit operating assistance, acquisition of third-party transit services, and transit marketing, and mobility management/coordination.

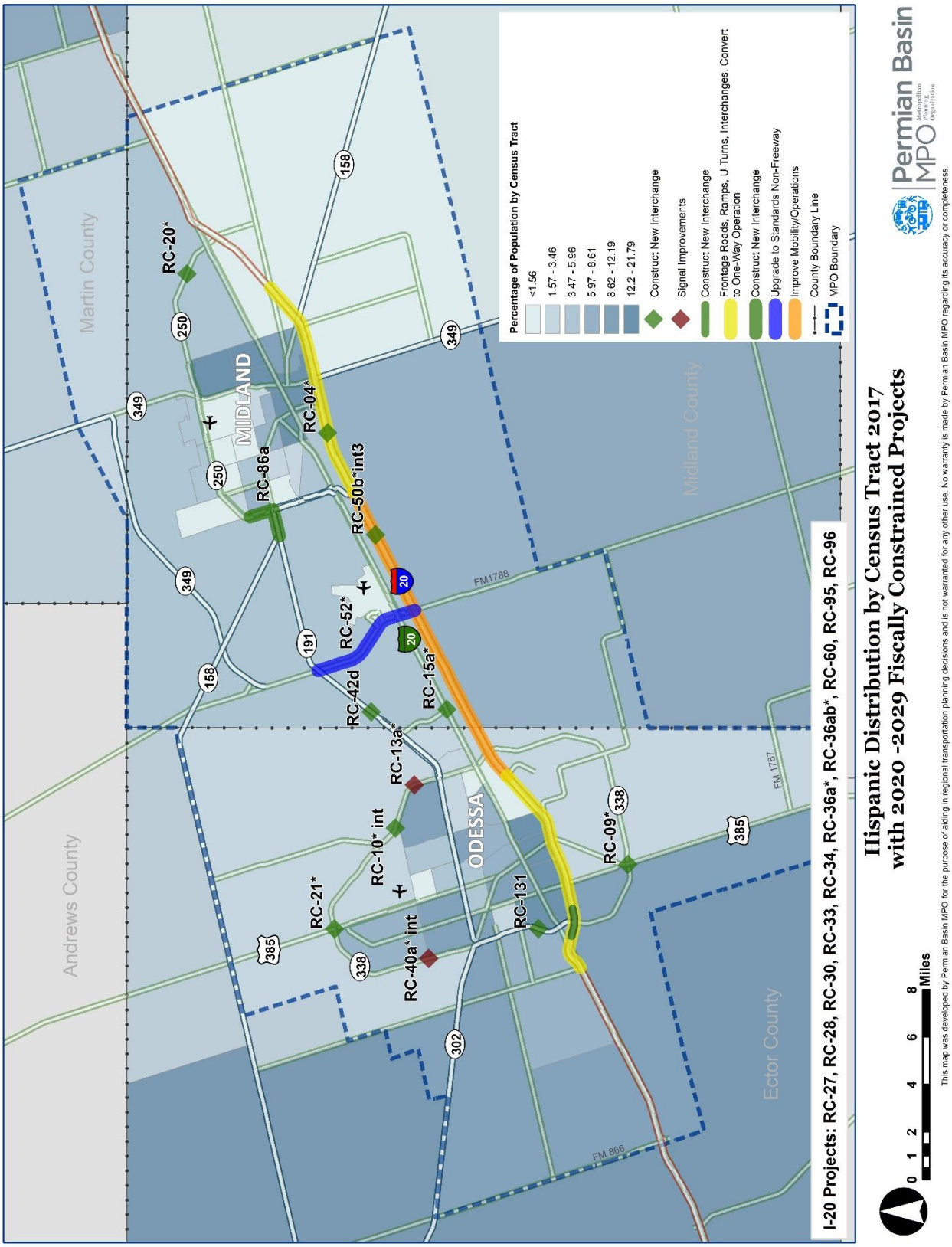
Note 1: Projects funded with Transportation Alternatives Program (TAP), Transportation Enhancement, and Congestion Mitigation Air Quality funding require a Federal eligibility determination, and are not approved to be grouped.

Note 2: Projects funded as part of the Recreational Trails Program (RTP) consistent with the revised grouped project category definitions may be grouped. RTP projects that are not consistent with the revised grouped project category definitions must be individually noted in the Transportation Improvement Program (TIP) and State Transportation Improvement Program (STIP).

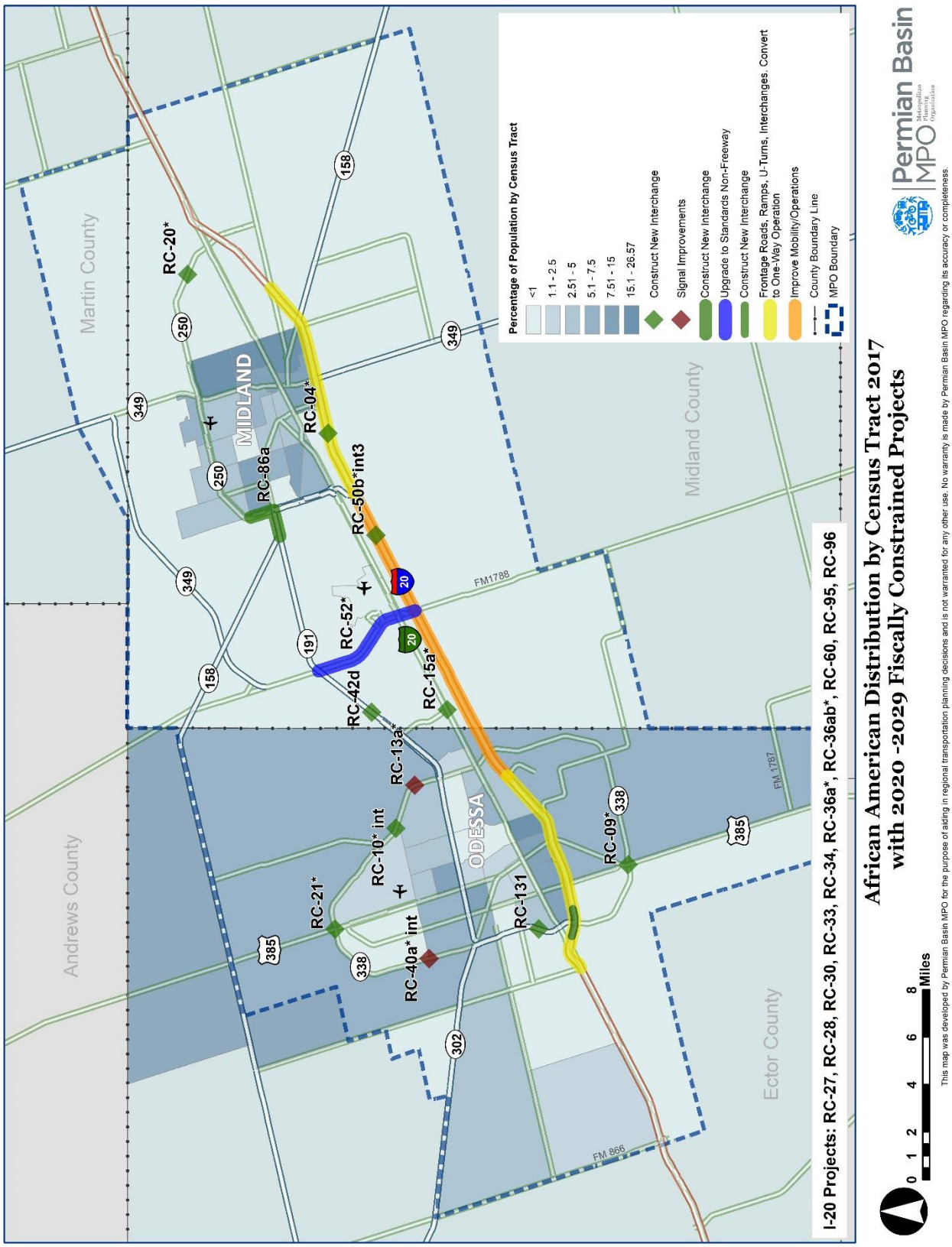
9.8 Title VI /EJ Analysis

The purpose of an environmental justice (EJ) review is to ascertain that federally funded transportation projects do not adversely impact minority, low-income and limited English proficient populations. Federal Highway Administration states that "disproportionately high and adverse effects, not size, are the bases for EJ. A very small protected population in the project, study, or planning area does not eliminate the possibility of a disproportionately high and adverse effect on these populations. The MPO is responsible for ensuring and documenting that these populations are not adversely affected.

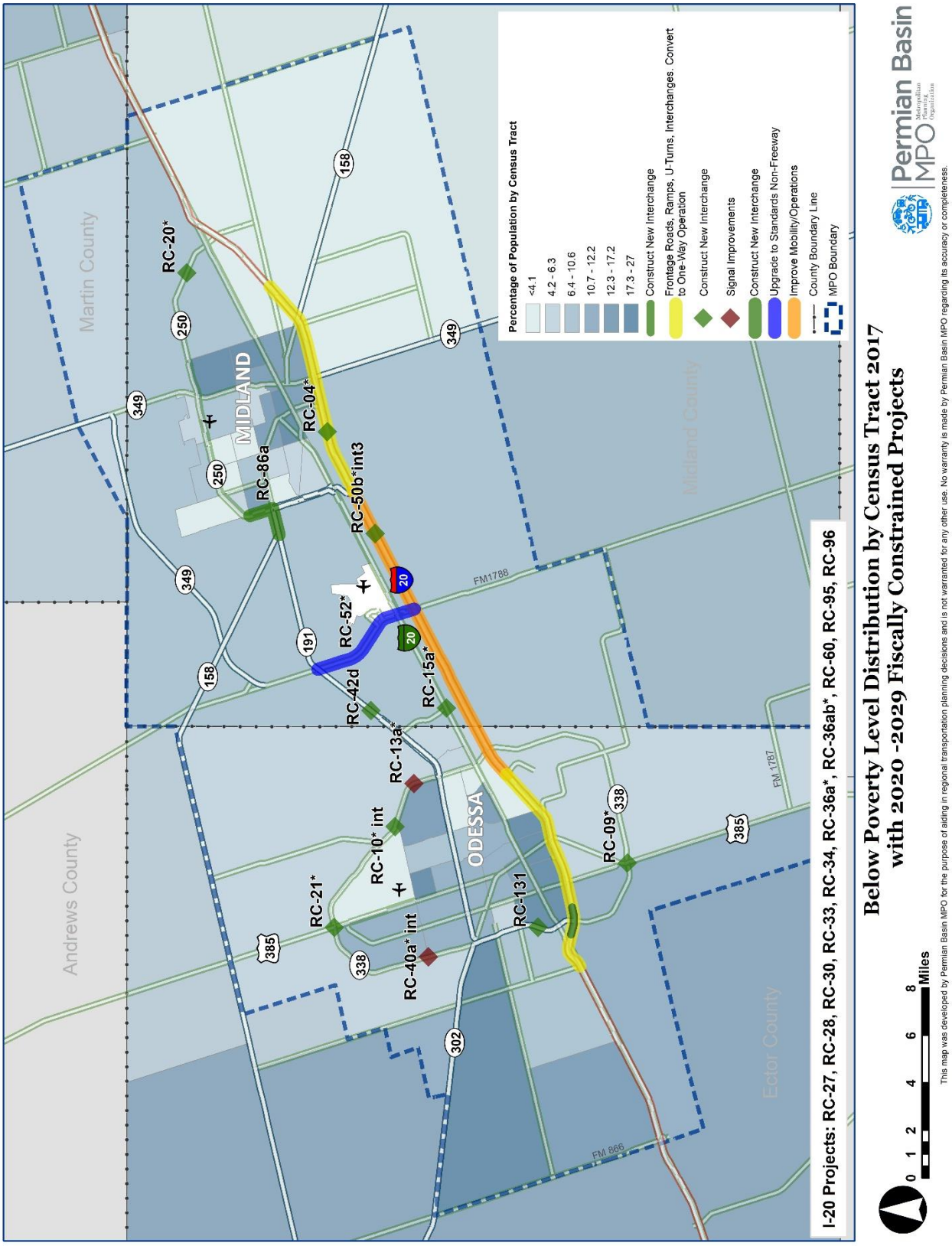
Map 9.3 Hispanic Population Distribution by Census Tract



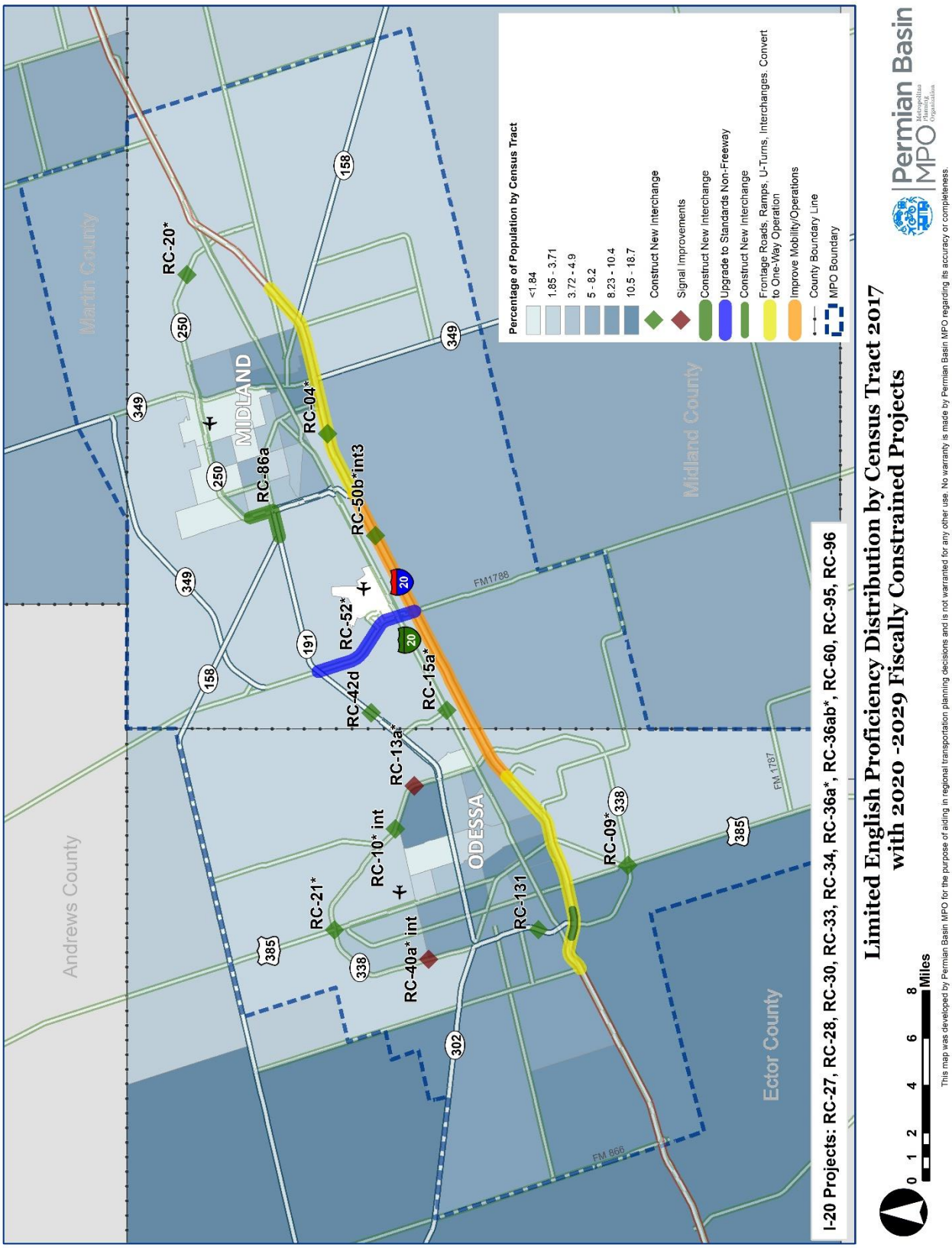
Map 9.4 African American Population Distribution by Census Tract



Map 9.5 Below Poverty Population Distribution by Census Tract



Map 9.6 Limited English Proficient Population Distribution by Census Tract



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10.1 Overview of the MPO's Financial Picture

Federal regulations under USDOT require a financial plan as an element of the Permian Basin's 2045 MTP. The purpose of the financial plan is to demonstrate that proposed investments are reasonable in the context of anticipated future revenues over the life of the plan. Meeting this requirement in the financial planning realm is called "fiscal constraint." The MTP is fiscally constrained based on an in-depth analysis of anticipated revenues and escalated project costs, and the transportation investments proposed in this plan are consistent with revenue forecasts. Anticipated revenues include funding from federal, state, and local sources. This section provides detailed assumptions regarding revenue, capital costs, maintenance costs, and future revenue needs used to develop the MTP financial plan. Funding for transportation improvements in Texas is driven by the Unified Transportation Program (UTP), which is a 10-year, mid-range planning document, used by TxDOT to guide the state's project development. Transportation investments legislation was enacted in 2015 when House Bill 20 was passed by the Texas Legislature. The bill requires that TxDOT and all MPOs maintain a 10-year planning and programming cycle that includes the same time frame as the TxDOT UTP. HB 20 also contained funding streams that provide a high degree of confidence to fund projects over the ten-year window. This chapter includes a discussion of roadway and transit funding assumptions, based on the anticipated revenues available. The fiscally constrained list of projects in Chapter 9 contains transportation improvements as identified by Permian Basin MPO Policy Board, the TAC, staff, stakeholders and the public who attended hearings and workshops during the development of the MTP. As stated in previous chapters, numerous opportunities for public and stakeholder input were offered during the preparation of the plan. The transportation improvements contained in this Chapter are intended to meet the anticipated needs within the 10-year and 25-year time frames; subject to amendment(s) by the MPO Policy Board.

10.2 Cost Estimates

During the preparation of the *Vision 2040* MTP, the TAC and a working committee met frequently to establish a reasonable cost estimate for the types of projects being considered for inclusion into the MTP. These included projects such as overpasses, road widenings, added capacity projects and conversions from typical two-lane roadway to a non-freeway corridor. Part of the staff and TAC responsibilities associated with the preparation of this *Forward 45* MTP was to generate a new projection of cost for the long list of projects that was originally submitted following a "Call for Projects" in September 2018. Again, the TAC met to discuss the revision to the previously used document containing project cost estimates. It was stated by TAC members that a significant increase in cost has been experienced by all agencies and that the new project cost estimates should include an increased factor of 25 percent. This was the methodology utilized for cost estimating of projects listed in Chapter 9 including the Prioritized List through 2045 and the Illustrative List, Tables 9.1 and 9.2 respectively.

10.3 Constrained Funding Scenario

To provide the reader with additional information covering the TxDOT UTP process, the Texas Transportation Commission and TxDOT use the UTP as a 10-year plan to guide transportation project development. The UTP is developed annually in accordance with the Texas Administrative Code (TAC §16.105) and is approved by the Texas Transportation Commission prior to August 31. The UTP authorizes projects for construction, development and planning activities and includes projects involving highways, aviation, public transportation, and state and coastal waterways.

The UTP is part of a comprehensive planning and programming process flowing from TxDOT's agency mission to project-level implementation. That is, the UTP is an intermediate programming document linking the planning activities of the Statewide Long-Range Transportation Plan (SLRTP), the Metropolitan Transportation Plans, and Rural Transportation Plan to the detailed programming activities under the Statewide Transportation Improvement Program (STIP), MPO Transportation Improvement Programs (TIP), and TxDOT's 24-month (2-year) construction letting schedule.

Specifically, the UTP is a listing of projects and programs that are planned to be constructed and/or developed within the first ten years of the State's 24-year SLRTP. Project development includes activities such as preliminary engineering work, environmental analysis, right-of-way acquisition and design. Despite its importance to TxDOT as a planning and programming tool, the UTP is neither a budget nor a guarantee that projects will or can be built. However, it is a critical tool in guiding transportation project development within the long-term planning context. In addition, it serves as a communication tool for stakeholders and the public in understanding the project development commitments TxDOT and its partners are making.

The Permian Basin MPO benefits directly from the incorporation of projects into the State's UTP. As stated, once a project is listed in the UTP, the listed activities can begin. Typically, by the time a project gets included in the UTP the idea for it has been discussed and analyzed on a needs basis among the MPO's member agencies, interested parties, and the Policy Board. As part of this exercise in prioritizing projects and indicating fiscal constraint within the MTP, the TAC and Policy Board has prepared a list of projects for consideration into the MPO's priority project list. It is from this list that projects are chosen for inclusion into the UTP except that the Transportation Commission has the authority to provide funding for projects that may not be listed in the MPO's project list using funding categories it has available.

The UTP development process includes the steps listed below,

- Establish strategic goals, performance measures, and approved targets
- Develop the planning cash forecast
- Determine the UTP funding distribution strategy
- Release the UTP planning targets
- Prioritize and select transportation projects locally

- Identify funding for the transportation projects
- Prioritize and select transportation projects at the state level
- Produce the UTP document and project listings
- Conduct UTP public meeting and public hearing
- Present to Texas Transportation Commission for adoption

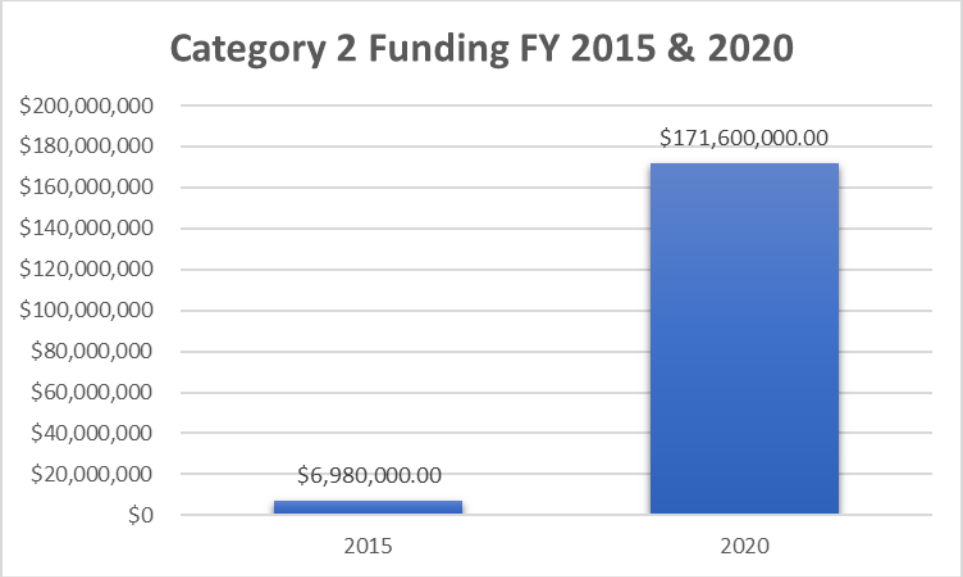
Federal Funds

Revenues collected from federal motor fuels taxes are deposited in the federal Highway Trust Fund. These funds are appropriated by Congress through the Federal-Aid Highway Programs and distributed to each state. Most TxDOT projects are funded with both federal and state funds, with the most common share being 80% federal, 20% state. The Federal Highway Administration (FHWA) reimburses TxDOT for qualified project expenditures as they are paid out.

State Funds

The State Highway Fund is TxDOT's principal fund. Most of the taxes and fees deposited in the State Highway Fund are dedicated by the Texas Constitution to support state highways. The primary sources of State Highway Fund revenues are the state motor fuels tax, vehicle registration fees, sales taxes (Proposition 7), and the oil and gas production tax, also known as severance tax (Proposition 1). Revenues from Propositions 1 and 7 are held in special subaccounts of the State Highway Fund. These funds are realized at the MPO level when the distribution of Category 2 funds is made by the Transportation Commission. For the Permian Basin MPO, the main source of revenue is Category 2, Metro and Urban Area Corridor Projects. Larger MPOs benefit from additional funding from the remaining TxDOT categories shown below. The Category 2 funds are distributed based on a number of factors that affect the region. This is true for all MPOs, but not the case for Transportation Management Areas (TMAs). The Texas Administrative Code (Title 43, Part 1, Rule 16.154) contains a formula for the distribution of funds based on population, truck vehicle miles traveled, congestion, number of lane miles that are on-system, and safety using fatal and serious injury crashes as reported through the TxDOT Crash Record Information System (CRIS). It is based on these factors that the Permian Basin MPO is allocated Category 2 funds each year that the UTP is approved. As stated earlier, the UTP is a 10-year planning document and reasonably forecasts funding over the time period so that the MPO has the availability of funding to plan for mid-term transportation projects where the 25-year MTP is a long range document and the TIP is a short, 4-year document. Figures 10.1 and 10.2 below show the UTP from FY 2015 and from FY 2020. In that six-year period, the total funding made available to all MPOs and rural districts in the state has more than doubled.

Table 10.1 Allocates Funding for FY 2015 & 2020 Comparison



Although Category 2 funds are the most consistent revenue source for the Permian Basin MPO, in recent years the TxDOT Odessa District has coordinated with the MPO to program funding from Category 4-Statewide Urban Connectivity, to pay for on-system projects in the MPO boundary. Furthermore, the Texas Transportation Commission (TTC) has programmed significant amounts of Category 12-Strategic Priority funding to major projects including I-20, US 385, SL 250, and SL 338. The Category 12 funds provided to the MPO serve to expedite project implementation. The TTC made these funds available due to the MPO leveraging its Category 2 funds as well as funds provided by both the Midland and Odessa Economic Development Corporations. Additionally, the TxDOT Odessa District typically spends one-third of its annual Category 11 allocation in the MPO boundary as well, these are District Discretionary funds. For historical reference, the TxDOT UTP approved for FY 2015 showed a total of $6,980,000 of Category 2 funding whereas the FY 2020 UTP shows $171,600,000, representing an increase of 245%.

Non-Traditional Funding

The Permian Basin MPO region has a history of contributing local funds to assist with the construction of prioritized projects as determined by the Policy Board. In 2005, the Odessa Development Corporation (ODC) contributed $5 million for the construction of an overpass at John Ben Shepperd Parkway to link the major north-south corridor with an emerging industrial park located south of the Union Pacific Railroad tracks and accessing I-20. At that time, the TxDOT Odessa District was preparing to delay construction until funding became available. The Development Corporation realized that in order to construct the project, it would be necessary to find additional funds from local, non-state sources. In 2018 both the ODC and the Midland Development Corporation (MDC) donated $15 million locally generated funds to contribute toward important projects including Loop 250 at CR 1150 in Midland, US 385 at N. Loop 338 in Odessa, Loop 250 at CR 1140 in Midland, and Loop 250 at SH 158 in Midland. Local funds from the City of Odessa and Ector County were also provided for a traffic signal and grade improvement project at 52nd/56th Streets at Loop 338 in Odessa. It is anticipated that this trend will continue and that this funding source can be reasonably programmed at a rate of $2 million per year from both entities

combined. This type of funding is listed in the TxDOT UTP as Category 3, Non-Traditional sources.

Anticipated funding for the MTP planning period comes primarily from four sources: Categories 2, 3, 4, and 11, as shown in Table 10.1. The TTC has provided additional Category 12 funding; however, there is no assumption made for an average annual allocation in future years. These reasonably expected funding levels meet the fiscal constraint requirement under federal legislation.

Table 10.2 Anticipated Annual Revenue FY 2020-2045**.**

Category	Revenue
Category 2	$17.2 million/year
Category 3	$2 million/year
Category 4	$7.5 million/year
Category 11	$1 million/year
Total	*$27.7 million/year*

While the funding levels listed in Table 10.1 are constant for future years, the MPO applied an inflation factor of 4% per year when included in the *Forward 45* MTP. Thus, at the anticipated rate of funding allocation of $27.7 million per year, the MPO would benefit from $720.2 million over the life of the plan for highway programming. This does not include Category 12 funds that are likely to be allocated to MPO projects over the life of this MTP. This total figure is for present value dollars without consideration of inflation. Transit funding and funding sources are described below and in Table 10.2.

The FY 2022 UTP contains a list of Texas Transportation Commission approved investments, cost estimates, funding sources, and a general timing of projects over a ten-year period. The FY 2022 UTP list includes programmed funding from numerous TxDOT funding categories as shown in Table 10.3 below. The UTP covers a ten-year period; this programming of funds through the year 2031 totals $865,793,858, thus leaving a remaining fifteen years of the planning period at an estimated $27.7 million per year to program over the life of the plan.

Table 10.3 FY 2021-2024 TIP Projects and Funding Sources

Fiscally Constrained Projects FY 2021-2024 & FY 2025-2030 - Amendment No. 2																	
FY 2021-2024 TIP																	
Est. Let Year	Project	Highway	Limits	Description	Length	Sponsor	MPO ID	CSJ	UTP Allocation Category 2U	UTP Allocation Category 3	UTP Allocation Category 4	UTP Allocation Category 8	UTP Allocation Category 10	UTP Allocation Category 12 PER	UTP Allocation Category 12	UTP Allocation Category 11	Total Authorized
2021 - project let	IH 20 - Phase I - Midland	IH 20	SL 250 to 0.5 miles east of Midkiff Rd	Replace existing underpass with a 4-lane wide overpass structure, urban median, Y-ramps configuration	1.5	TxDOT	RC-04*	0005-14-067	$14,160,000	$2,000,000	$12,000,000					$8,640,000.00	$36,800,000
2021 - project let	IH 20 - Phase I - Midland	IH 20	At CR 1250	Construct new interchange	1	TxDOT	RC-50b* int3	0005-14-084			$29,550,000					$20,450,000.00	$50,000,000
2021 - project let	SH 158 -Freeway Ramp Improvements	SH 158	Avalon Drive to LP 250	Ramp reconfiguration	1	City of Midland	RC-86a	0463-02-075	$11,630,000	$1,000,000							$12,630,000
2021 - project let	SL 250 - Freeway Ramp Improvements	SL 250	BS 158-B to Wadley Ave	Ramp reconfiguration	1	City of Midland	RC-86a	1188-02-100	$11,630,000	$1,000,000							$12,630,000
2022	SH 191 - Yukon Road Interchange	SH 191	At Yukon Rd	Construct new interchange	3	City of Odessa	RC-42d	2296-02-026	$13,120,000		$12,000,000						$25,120,000
2022	Interchange at Cotton Flat Rd - Midland	IH 20	At Cotton Flat Road	Reconstruct of frontage roads, ramps, u turns and interchange	1	TXDOT	RC-255	0005-14-100			$14,233,858		$25,000,000				$39,233,858
2024	I-20 Project 3c - Widen Freeway - Midland	IH 20	Ector Co. line to East of CR 1300	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes	4	TxDOT	RC-256	0005-14-093	$5,500,000	$2,000,000				$99,300,000	$42,700,000		$149,500,000
2024	I-20 Project 3d - Widen Freeway - Midland	IH 20	East of CR 1300 to East of CR 1250	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes	5	TxDOT	RC-257	0005-14-094	$6,500,000					$31,200,000	$48,600,000		$86,300,000
2024	I-20 Project 3c - Widen Freeway - Ector	IH 20	East of JBS Pkwy to Midland Co. Line	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes	2	TxDOT	RC-258	0005-13-064	$1,000,000					$20,000,000	$7,600,000		$28,600,000
2024	I-20 Project 3b - Widen Freeway - Midland	IH 20	East of CR 1250 to East of SH 349	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes	5.6	TxDOT	RC-259	0005-14-092	$6,250,000					$69,550,000			$75,800,000
Year 1-4 Totals									**$69,790,000**	**$6,000,000**	**$67,783,858**	**$0**	**$25,000,000**	**$220,050,000**	**$98,900,000**	**$29,090,000**	**$516,613,858**

Table 10.3 Continued

FY 2025 - 2030 Amendment No. 2																	
FY	Project	Highway	Limits	Description	Length	Sponsor	MPO ID	CSJ	UTP Allocation Category 2U	UTP Allocation Category 3	UTP Allocation Category 4	UTP Allocation Category 8	UTP Allocation Category 10	UTP Allocation Category 11	UTP Allocation Category 12 PER	UTP Allocation Category 12	Total Authorized	Remaining Funding (TBD)
2026-2031	Interchange at Faudree Road - Odessa	BI 20-E	At Faudree Rd	Construct new interchange	1	City of Odessa	RC-15a*	0005-02-119	$8,370,000	$2,000,000	$10,750,000						$21,120,000	
2026-2031	Interchange at W 8th Street - Odessa	SH 302	At W 8th St	Construct new interchange	1	City of Odessa	RC-131	2224-01-110	$19,760,000	$2,000,000							$21,760,000	
2026-2031 Not Fully Funded	I-20 Project 4 - Widen Freeway - Ector	IH 20	West of FM 1936 to Monahans Draw	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes.	6	TxDOT	RC-27	0004-07-135	$9,750,000						$71,050,000		$80,800,000	$54,025,600
2026-2031 Not Fully Funded	I-20 Project 4 - Widen Freeway - Ector	IH 20	Monahans Draw to East of JBS Pkwy	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes.	4	TxDOT	RC-28	0005-13-063	$9,750,000						$44,200,000		$53,950,000	$87,741,200
2026-2031 Not Fully Funded	I-20 Project 5 - Widen Freeway - Midland	IH 20	East of SH 349 to East of FM 1208	Reconstruction of frontage roads, ramps, u turns, interchanges. Convert frontage roads to one-way operation. Widen from 4 to 6 lanes.	11.8	TxDOT	RC-260	0005-15-093	$9,750,000						$58,250,000		$68,000,000	$190,720,000
2026-2031	Safety Improvements (Medians) - Odessa	SH 191	LP 338 E to LP 338 W	Safety Improvements -Medians	1	TxDOT	RC-261	2296-01-058	$6,000,000								$6,000,000	
2026-2031	Non-Freeway Improvements - Midland	SH 349	SH 191 to BI 20-E	Upgrade to standards non-freeway	4	TxDOT	RC-52*a	1718-07-043	$6,966,960								$6,966,960	
2026-2031	Non-Freeway Improvements - Midland	SH 349	BI 20-E to IH 20	Upgrade to standards non-freeway	1	TxDOT	RC-52*b	1718-01-035	$1,433,040								$1,433,040	
2026-2031	Traffic signal at Moss Ave - Odessa	IH 20	N. I-20 Service Road/Murphy Street to IH 20/Moss Ave	Install traffic signal at intersection	1	TxDOT	RC-295	0004-07-137	$750,000								$750,000	
2026-2031	Interchange at SL 338 - Odessa	US 385	At South SL 338	Construct new interchange	1	TxDOT	RC-09	0229-01-042	$21,000,000	$2,000,000							$23,000,000	
2026-2031	Safety Improvements (Medians) - Odessa	FM 1882	SS 450 to 42nd Street	Safety Improvements -Medians	1	TxDOT	RC-252	2005-01-029									$0	$2,000,000
2026-2031	Safety Improvements (Medians) - Odessa	FM 1882	2nd St to SS 450	Safety Improvements -Medians	2	TxDOT	RC-253	2005-03-008	$4,000,000								$4,000,000	
2026-2031	Intersection at CR 60 - Midland	SH 158	At CR 60 / Briarwood	Intersection Improvements	1	TxDOT	RC-236	0463-02-079	$3,600,000								$3,600,000	
2026-2031	Intersection at Wadley Ave - Midland	SH 158	At Wadley Ave	Intersection Improvements	1	TxDOT	RC-234	0463-02-080	$3,600,000								$3,600,000	
2026-2031	Intersection at SH 158 - Midland	SH 158	At CR 120	Intersection Improvements	1	TxDOT	RC-251	0463-03-053	$4,000,000								$4,000,000	
2026-2031	Rail/Highway Crossing - Midland	BI 20-E	At CR 1250	Reconfigure offset at Rail/Highway crossing	1	TxDOT	RC-137	0005-02-112	$6,000,000			$600,000					$6,600,000	
2026-2031	Intersection at Avalon Dr - Midland	BI 20-E	At Avalon Dr	Intersection Improvements	1	TxDOT	RC-235	0005-02-125	$3,000,000								$3,000,000	
2026-2031	Intersection at FM 868 - Midland	BS 158-B	At FM 868	Intersection Improvements	1	TxDOT	RC-232	0463-02-081	$3,600,000								$3,600,000	
2026-2031	Interchange at 52nd/56th - Odessa	SL 338	At 52nd/56th Street	Construct new interchange	1	TxDOT	RC-13* int b	2224-01-116	$5,500,000							$22,500,000	$28,000,000	
2026-2031 Not Fully Funded	Upgrade to Freeway - Odessa	SL 338	Yukon Rd to US 385 N	Convert Non-Freeway to Freeway	5	TxDOT	RC-134	2224-01-117	$4,500,000								$4,500,000	$13,425,736
2026-2031 Not Fully Funded	Interchange at Todd Rd - Midland	SL 250	At Todd Rd	Construct new interchange	1	TxDOT	RC-17	1188-02-111	$4,500,000								$4,500,000	$21,469,208
2026-2031	Regional Synchronization Program**	-	MPO Boundary	ITS project to synchronize signals across MAB	-	TxDOT	RE-20	-									$0	$3,000,000.00
2026-2031	Six Union Pacific Railroad Intersections**	-	Various	Improve intersections at railroad crossings	-	TxDOT	RR-001	-									$0	$3,000,000.00
Years 5-10 Totals									**$135,830,000**	**$6,000,000**	**$10,750,000**	**$600,000**	**$0**	**$0**	**$173,500,000**	**$22,500,000**	**$349,180,000**	**$375,381,744**
Years 1-4 Totals (From TIP)									**$69,790,000**	**$6,000,000**	**$67,783,858**	**$0**	**$25,000,000**	**$29,090,000**	**$220,050,000**	**$98,900,000**	**$516,613,858**	**0**
FY 2022 UTP									**$205,620,000**	**$12,000,000**	**$78,533,858**	**$600,000**	**$25,000,000**	**$29,090,000**	**$393,550,000**	**$121,400,000**	**$865,793,858**	**$375,381,744**

**Not listed in 2022 UTP

10.3.1 Forecasted Transit Revenues

Forecasted Revenues to Midland Odessa Urban Transit District (MOUTD)

The MOUTD is the umbrella agency through which EZ-Rider provides urban transit services in the Midland and Odessa urbanized areas. Revenue received by EZ-Rider is through Federal Transit Administration's (FTA) Urbanized Area Formula Grants (Section 5307). The funds are used for transit capital, operating assistance and for transportation related planning. Also, discretionary grants such as Bus and Bus Facilities (Section 5339) are awarded to EZ-Rider as a form of funding commonly used for additional buses, vehicle replacement and facilities.

Given that Section 5339 grants are discretionary and in order to remain conservative in estimating future transit revenues, only Section 5307 funding was projected for the Permian Basin MPO region. Transit revenues are shown below.

Available funding for EZ Rider operating and capital expenses, from 2019 to 2045 are shown in Table 10.4. Operating funding for EZ Rider is drawn from Section 5307 sources:

- FTA Section 5307 (Urbanized Area Formula Program)
- State Funds
- Local Funds
- Operating Revenue

Table 10.4 EZ-Rider Base Allocations

EZ-Rider Base Activities	2020-2025	2026-2035	2036-2045	2020-2045
Category	**Projected Amount**	**Projected Amount**	**Projected Amount**	**Projected Amount**
Section 5307: Operations	$ 18,000,000	$ 35,100,000	$ 42,900,000	$ 96,000,000
Section 5307: Maintenance	$ 17,200,000	$ 33,700,000	$ 41,100,000	$ 92,000,000
Section 5307: Planning	$ 4,900,000	$ 9,500,000	$ 11,800,000	$ 26,200,000
TOTAL	***$ 40,100,000***	***$ 78,300,000***	***$ 95,800,000***	***$ 214,200,000***