

Connections 2045: The Waco Metropolitan Transportation Plan Amendment 4



Developed by the Waco Metropolitan Planning Organization
in cooperation with the following agencies:



amendment 4: September 2023

purpose and need for amendment

The Carbon Reduction Program (CRP) was established by the 2021 Bipartisan Infrastructure Bill with the goal of reducing transportation emissions nationwide. Over the course of five years, the Waco MPO expects to have approximately \$4.5 million available to entities within the MPO planning area for obligation through CRP Calls for Proposals.

A 2023 CRP Call for Proposals makes \$2.1 million available for obligation in fiscal year 2024. This amendment identifies modifications to include this Call for Proposals and the applicable funding source to ensure consistency with FHWA actions, the Texas Transportation Commission (Commission) actions, and project programming within the 2023–2026 Transportation Improvement Program.

In May 2023, MPO staff was informed by the Transportation Planning and Programming Division of the Texas Department of Transportation (TxDOT) that TxDOT’s Financial Management Division estimates revenue will be available to TxDOT to begin construction of Project 4C Waco South (IH-35 4C) in 2026. This amendment identifies modifications to align this project with the priorities of the Commission, to ensure consistency with FHWA actions, Commission actions, and project programming within the 2023–2026 Transportation Improvement Program.

The Federal Transit Administration (FTA) awarded funding to a bus purchase project application submitted by the City of Waco on behalf of the Waco Transit System under the Low or No Emission Vehicle Program in April 2023. As a result of this funding commitment, this amendment adds Project T-5U to the Metropolitan Transportation Plan as a funded recommendation within Strategy 6: Provide Equal Access and Benefits to ensure consistency with FTA actions, Commission actions, and project programming within the 2023–2026 Transportation Improvement Program. This project is intended to advance efforts to maintain a state of good repair for transit rolling stock.

Occasionally during the schematic development or environmental study phase of a transportation project, changes to the scope of

work, project limits or costs are identified which are significant enough to warrant an amendment. These changes are often because the planning process often cannot anticipate all possible circumstances constraining a project or determining where logical termini ought to be located. This amendment aligns scopes of work, project limits and revised project costs with those being identified within the engineering design phase.

Revision to Short-Term Priorities in Strategy 2

The project extent, scope of work, and cost for Project ID: S-048E (Priority 4) has been revised to reflect the refined project design. The purpose of the project is to shift storage of traffic backing up from intersections from main lanes to frontage roads which have slower speeds and should reduce possibility of rear-end crashes.

A companion ramp project to Project S-048E is included as Project S-048F (Priority 4A) as requested by the Waco District of TxDOT. During the project design phase of S-048E, TxDOT determined additional work is required to accomplish the ultimate goal of S-048E. Together, Projects S-48E and S-48F reflect the refined project design.

Revision to Short-Term Priorities in Strategy 4

A formal commitment for federal funding through the Federal Highway Administration’s (FHWA) Carbon Reduction Program was approved by the Commission through Minute Order ##### approved on August 16, 2023.

A 2023 Call for Proposals awards \$2.1 million in Carbon Reduction Program funds to entities within the MPO planning area for obligation in fiscal year 2024.

table A1-1 – carbon reduction (CRP) funding awards for FY 2024

Funding Category	FY 2024
Carbon Reduction Funds Allocated to Waco MPO	\$2,100,523

Source: Draft Planning Targets for the 2024 Unified Transportation Program, February 3 Memo from Humberto “Tito” Gonzalez Jr., Director, Transportation Planning and Programming Division, TxDOT. A formal commitment for funding was approved by the Commission through Minute Order ##### approved on August 16, 2023.

Revisions to Short-Term Priorities in Strategy 5

The recommended IH-35 4C highway project, Project ID: S-022G, is reprioritized from long-term Priority 9 in strategy 5 to the highest short-term priority in strategy 5 and in alignment with the priorities of the Commission. A formal commitment for funding was approved by the Commission through Minute Order ##### approved on August 16, 2023. The purpose of this project is to reconstruct the facility to current TxDOT design standards for Interstates and State Freight Corridors and address unacceptable traffic conditions forecasted for 2045.

The project extent, scope of work, and cost for Project ID: S-039A-2 (Priority 3) has been modified to reflect the refined project design. The purpose of the project is to address unacceptable traffic conditions forecasted for 2045 for both Spur 298 (Franklin Ave.) and New Road.

The estimated project cost for Project ID: S-031A (Priority 4) has been revised to reflect the refined project design. The purpose of the project is to better address unacceptable traffic conditions forecasted for 2045 along SH 6 near FM 185 and Spur 412 (McLaughlin Rd).

Revisions to Long-Term Priorities in Strategy 5

The IH-35 4C project (Project ID: S-022G) which was originally included as long-term Priority 9 has been removed due to a change in priority to short-term Priority 1A.

Revision to Short-Term Priorities in Strategy 6 (Funding Award)

On June 26, 2023, federal funds were awarded to the Waco Transit System under the Federal Transit Administration (FTA) Section 5339(c) Low or No Emission Vehicle Program in fiscal year 2023. Waco Transit will receive funding to buy 4 battery-electric buses and install 4 chargers to replace aging diesel buses. The project will reduce carbon emissions in neighborhoods with high levels of diesel-based pollution while improving the reliability of transit service and helping residents access jobs, schools, and essential services.

The vehicle purchase project identified within this amendment received a formal commitment for funding by the Commission through Minute Order ##### approved on August 16, 2023. The capital fund award to Waco Transit is detailed in Table A4-1.

table A1-2 – FTA capital funding awards made in FY 2023

Funding Category	Total Funds
FTA Section 5339(c) Award	\$3,133,129
Non-Federal Local Match	\$546,343
Total	\$3,679,472

revisions to project recommendations

strategy 2: improve safety and security

short term priorities (2020 to 2030)

Priority 4A

Project ID: S-048E

Note: This is a modification of the project extent, scope of work, and cost for a previously identified priority within the original adopted MTP. The priority for this project is changed to 4A. Scoring has not changed.

Facility: US 84 (Woodway Dr)
 Extent: FM 1695 (Hewitt Dr) to SS 298
 Current: 4 lane freeway with continuous frontage roads
 Scope of Work: 1) Change on & off ramps from diamond configuration to 'X' configuration
 2) Construct main lane auxiliary ramps in between on & off ramps
 1) Reconstruct main lanes, frontage roads, ramps, and interchanges
 2) Add direct connects
 Purpose and Need: Shift storage of traffic backing up from intersections from main lanes to frontage roads which have slower speeds and should reduce possibility of rear-end crashes.
 Project Scoring: Good Repair: 10
 Safety: 0*
 Efficiency: -25
 Livability: 13
 Freight / Econ Dev: 75

Equity: -20
 Total Score: 53

*Insufficient research has been conducted regarding quantifying the impact of changing ramp configurations on reducing crashes. Anecdotal evidence from similar projects within larger metro areas does suggest some reduction in both total crashes and severity for congested corridors.

Fiscal Constraint: Mobility: \$3.6 \$2.5
 Maintenance: \$1.0 \$0.0
 Safety: \$2.6 \$0.0
 State Connectivity: \$15.4

Work Phase	Cost
Engineering	\$0.9 \$0.9
Right of Way	\$0.0
Construction	\$6.3 \$17.0
Total	\$7.2 \$17.9

Priority 4B

Project ID: S-048F

Note: This project is added as a companion project to Project S-048E (Priority 4) as determined through project design.

Facility: US 84 (Franklin Ave)
 Extent: SS 298 to Lake Air Dr
 Current: 4 lane freeway with continuous frontage roads
 Scope of Work: 1) Reconstruct roadway
 2) Realign ramps
 Purpose and Need: Companion ramp project to Project S-048E requested by TxDOT
 Project Scoring: Unscored

Fiscal Constraint: \$0.0*

Work Phase	Cost
Engineering	\$0.0
Right of Way	\$0.0
Construction	\$0.8
Total	\$0.8

*TXDOT Waco District is authorized to program but not yet attributed to a Funding Category.

strategy 4: improve regional livability

short term priorities (2020 to 2030)

Carbon Reduction Program (CRP) funds present an opportunity for the implementation of low-cost, high-impact projects in the Waco MPO planning area which reduce transportation emissions while benefiting local communities.

CRP project prioritization criteria developed by the MPO is designed to encourage communities to think systemically about the impact of their projects while also keeping in mind the Federal Highway Administration's (FHWA) priorities of safety, transit flex, transferability between FHWA programs, ADA, equity, climate change and sustainability, labor and workforce, and truck parking. Projects are scored across the fields of Reduction in Transportation Emissions, Equity, Impact on Future Generations, and Land Use Considerations. This ensures selected project address regional livability, air quality and environmental concerns.

The scale of projects feasible within the anticipated funding level increases the potential of cities of all sizes and resource levels to contribute the required 20% funding match. CRP funds are available for obligation for a period of 3 years after the last day of the fiscal year for which the funds are authorized, up to 4 years.

The 2023 Call for Proposals makes \$2.1 million available for to entities within the MPO planning area for obligation in fiscal year 2024. Table A1-# estimates the carbon reduction program resources that will be awarded through the 2023 Call for Proposals.

table A1-3 – carbon reduction program funds available for obligation

Mode	Project ID	Short-Term Cost	Long-Term Cost	Total Cost*
Carbon Reduction Priorities	CR-001- CR-020	\$2.1	\$0.0	\$2.1
Total		\$2.1	\$0.0	\$2.1

*In Millions

strategy 5: address demand for future mobility

short term priorities (2020 to 2030)

Priority 1A

Project ID: S-022G

Note: This is a modification of the project priority and cost for a previously identified priority within the original adopted MTP, in alignment with the priorities of the Texas Transportation Commission. The extent and scoring for this project have not changed.

Facility: Interstate Highway 35
 Extent: South 12th Street to SH 6 / West Loop 340
 Current: 6 lane expressway with discontinuous frontage roads
 Scope of Work: 1) Reconstruct all bridges and pavements
 2) Widen main lanes from 6 to 8
 3) Reconstruct and realign ramps and frontage roads
 Purpose and Need: 1) Address unacceptable traffic conditions forecasted for 2045.
 2) Address high number of total and severe crashes
 3) Reconstruct facility to current design standards for Interstates and State Freight Corridors.
 Project Scoring: Good Repair: 48
 Safety: 48
 Efficiency: -25
 Livability: 11
 Freight / Econ Dev: 100
 Equity: 60
 Total Score: 241
 Fiscal Constraint: Mobility: \$64.0
 State Connectivity: \$67.2
 State Priority: \$131.3

Work Phase	Cost
Engineering	\$20.0* \$12.2*
Right of Way	\$30.0* \$0.0

Construction	\$200.0 \$262.5
Total	\$250.0 \$274.7

*Phase complete or underway

Priority 3

Project ID: S-039A-2

Note: This is a modification of the project extent, scope of work, and cost for a previously identified priority within the original adopted MTP. The priority and scoring for this project have not changed.

Facility: Spur 298 (Franklin Ave)
 Extent: US-84 to New Road (Cheddar's Dr) SL 396 (Valley Mills Dr)
 Current: 4 lane hybrid arterial with frontage roads
 Scope of Work: 1) Reconstruct New Road interchange
 2) Add dual left turn and u-turn lanes
 3) Remove existing main lanes
 4) Convert existing frontage roads to proposed main lanes
 1) Widen to six lanes divided
 2) Relocate main lanes to frontage roads
 3) Construct dual left turn lanes
 Purpose and Need: Address unacceptable traffic conditions forecasted for 2045 for both Spur 298 and New Rd.
 Project Scoring: Good Repair: 10
 Safety: 0
 Efficiency: 25
 Livability: 56
 Freight / Econ Dev: 65
 Equity: 40
 Total Score: 196
 Fiscal Constraint: Mobility: \$38.1 \$36.4
 Maintenance \$1.4

Work Phase	Cost
Engineering	\$1.7* \$1.8*
Right of Way	\$0.6
Construction	\$36.4 \$37.8

Total	\$38.1 \$40.0
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*Phase complete or underway

Priority 4

Project ID: S-031A

Note: This is a modification of the project cost for a previously identified priority within the original adopted MTP. The priority and scoring for this project have not changed.

Facility: SH 6
 Extent: Spur 412 (McLaughlin Rd) to FM 185
 Current: 2 lane principal arterial with center turn lane
 Scope of Work: Widen to 4 lanes with center turn lane and shoulders
 Purpose and Need: 1) Address system gap and extend 4 lane section to logical termini.
 2) Better address unacceptable traffic conditions forecasted for 2045
 Project Scoring: Good Repair: 10
 Safety: 0*
 Efficiency: -25
 Livability: -11
 Freight / Econ Dev: 50
 Equity: -20
 Total Score: 4

*Note: This section of SH 6 has had a history of unacceptable numbers of total and severe crashes. Crashes during the review period of 2016 to 2018, however, were significantly less than the historical trend. Since no significant changes in traffic volume, speed or roadway design occurred during the review period, MPO staff concluded that this reduction was due to random statistical variability. MPO staff concluded that the proposed scope of work would be effective at reducing the crashes observed over a longer historical period despite not being reflected in the evaluation score.

Fiscal Constraint: Mobility: \$8.0 \$2.8

Work Phase	Cost
Engineering	\$1.0* \$0.0*
Right of Way	\$0.0
Construction	\$8.0 \$2.8

Total	\$9.0 \$2.8
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*Phase complete or underway

long term priorities (2031 to 2045)

Priority 9

Project ID: S-022G

Facility: Interstate Highway 35

Extent: South 12th Street to SH 6 / West Loop 340

Current: 6 lane expressway with discontinuous frontage roads

Scope of Work: 1) Reconstruct all bridges and pavements not addressed in projects S-022H or S-022J (Priorities 2 & 3 in Short Term Priorities)
2) Widen main lanes to 8

Purpose and Need: 1) Address unacceptable traffic conditions forecasted for 2045.
2) Address high number of total and severe crashes
3) Reconstruct facility to current design standards for Interstates and State Freight Corridors.

Project Scoring: Good Repair: 48
Safety: 48
Efficiency: 25
Livability: 11
Freight / Econ Dev: 100
Equity: 60
Total Score: 241

Fiscal Constraint: Mobility: \$185.7
Maintenance: \$12.5
Safety: \$1.8

Work Phase	Cost
Engineering	\$20.0*
Right of Way	\$30.0*
Construction	\$200.0
Total	\$250.0

*Phase complete or underway

strategy 6: provide equal access and benefits

short term priorities (2020 - 2030)

Project T-5U identifies the capital costs the Waco Transit System, Inc. will incur for the purchase of transit vehicles to replace vehicles currently in operation past their recommended lifespan. Waco Transit will buy four battery-electric buses and install four chargers to replace aging diesel buses. These federal funds remain available for obligation for four fiscal years, including the fiscal year in which the amount is appropriated plus three additional years.

table A1-3 - public transportation vehicle purchases

Project ID	System	Project Cost
T-5U	Urban	\$3,679,472
Total		\$3,679,472

summary of recommendations

The follow summary tables have been updated to reflect the changes made in this amendment.

table A1-4 - changes to total costs of plan recommendations by strategy

Strategy	Short Term Cost*	Long Term Cost*	Percent of Amendment
1 - State of Good Repair	\$0.0	\$0.0	0.00%
2 - Safety	\$11.5	\$0.0	30.5%
3 - Efficiency	\$0.0	\$0.0	0.00%
4 - Livability	\$2.1	\$0.0	5.6%
5 - Mobility	\$20.4	(\$250.0)	54.1%
6 - Equity	\$3.7	\$0.0	100.0%

*In Millions

Note: Reduction in Long Term Costs because of the reprioritization of IH-35 4C from a long-term priority to a short-term priority

table A1-5 - changes to total costs of plan recommendations by transportation mode

Mode	Short Term Cost*	Long Term Cost*	Percent of Amendment
Highway	\$34.0	(\$250.0)	0.90%
Public Transportation	\$3.7	\$0.0	0.10%
Bicycle	\$0.0	\$0.0	0.00%
Pedestrian	\$0.0	\$0.0	0.00%
Passenger Rail	\$0.0	\$0.0	0.00%
Total Plan	\$37.7	(\$250.0)	100.00%

*In Millions

Note: Reduction in Long Term Costs because of the reprioritization of IH-35 4C from a long-term priority to a short-term priority

table A1-6 - total costs of plan recommendations by strategy after amendment

Strategy	Short-Term Cost*	Long-Term Cost*	Total Cost*	Percent of Plan
1 - State of Good Repair	\$467.1	\$771.9	\$1,239.0	56.5%
2 - Safety	\$38.4	\$20.7	\$59.1	2.7%
3 - Efficiency	\$33.5	\$64.1	\$97.6	4.5%
4 - Livability	\$44.2	\$7.4	\$51.6	2.4%
5 - Mobility	\$149.1	\$356.3	\$505.4	23.1%
6 - Equity	\$89.6	\$148.8	\$238.4	10.9%
Total Plan	\$821.9	\$1,368.2	\$2,191.1	100.0%

*In Millions

Strategy	Short-Term Cost*	Long-Term Cost*	Total Cost*	Percent of Plan
1 - State of Good Repair	\$467.1	\$771.9	\$1,239.0	62.6%
2 - Safety	\$49.9	\$20.7	\$70.6	3.6%
3 - Efficiency	\$33.5	\$64.1	\$97.6	4.9%
4 - Livability	\$46.3	\$7.4	\$53.7	2.7%
5 - Mobility	\$169.5	\$106.3	\$275.8	13.9%
6 - Equity	\$93.3	\$148.8	\$242.1	12.2%
Total Plan	\$859.6	\$1,119.2	\$1,978.8	100.0%