Laredo Urban Transportation Study

Metropolitan Planning Organization Policy Committee

Notice of Public Meeting

City of Laredo City Hall
City Council Chambers
1110 Houston Street
Laredo, Texas
December 18, 2017
1:30 p.m.

MEETING AGENDA

I. CHAIRPERSON TO CALL MEETING TO ORDER

II. CHAIRPERSON TO CALL ROLL

III. CITIZEN COMMENT

Speakers are required to fill out witness cards, which must be submitted to MPO Staff no later than 15 minutes after the start of the meeting. Speakers shall identify themselves at the microphone. Comments are limited to three (3) minutes per speaker. No more than three (3) persons will be allowed to speak on any side of an issue. Should there be more than three (3) people who wish to speak on a specific issue, they should select not more than three (3) representatives to speak on their behalf. The presiding officer may further limit public comment in the interest of order or time. Speakers may not transfer their minutes to any other speaker. Comments should be relevant to City business and delivered in a professional manner. No derogatory remarks shall be permitted.

IV. ITEMS REQUIRING POLICY COMMITTEE ACTION

A. Approval of the minutes for the meeting held on November 20, 2017.

B. Receive public testimony and approve Resolution No. MPO 2017-08 for the proposed amendment(s) to the 2017-2020 Transportation Improvement Program (TIP):

1. ***Removal*** of project CSJ 0086-14-082 intended to provide for the development of plans, specifications, and estimates (PS&E) for the Jacaman and Airport overpasses. Proposed work has an estimated cost of 4.6 million dollars. ***Rationale***: All 4.6 million in project funds are being transferred to project temporarily identified as CSJ 0922-33-933 intended to provide for the construction of a FAST lane at World Trade Bridge.

C. Receive public testimony and approve a Motion to: accept the ranking of firms that submitted proposals in response to the Request for Qualifications (RFQ) issued for

the development of the 2020-2045 Laredo Metropolitan Plan Update, and FAST Act Compliance Project, approve the selection of a professional service provider, and authorize Staff to enter into negotiations.

D. Discussion with possible action to place digital signage on FM 1472 (Mines Road) intended to notify the driving public of congestion and allocation of funding for implementation.

E. Discussion with possible action on the letting date for Calton Railroad Grade Separation project (0922-33-093) which is proposed to move from November 2017 (FY 2018) to August (FY 2018).

F. Discussion with possible action on Hachar Road.

V. REPORT(S) AND PRESENTATIONS (No action required)

A. Flecha/Las Cruces Realignment Project:
   1. Report by the City of Laredo Real Estate Division on the status of Flecha/Las Cruces Realignment project's Right of Way (ROW) acquisition.
   2. Report by CEC representative on the status of the Flecha/Las Cruces Realignment project's: plans and specification updates, Army Corp of Engineers permitting and request for additional funding.

B. Presentation by TxDOT on the proposed Outer Loop alignment.

C. Report by MPO Director on the relative competiveness of the City of Laredo's Infra Grant application.

D. Report by the TxDOT on the meeting had by the City and TxDOT to discuss the "wish list"/recommendations resulting from the Texas Transportation Institute's (TTI) Mines Road study, pertaining to proposed City of Laredo facility improvements intended to improve the function of Mines Road.

E. Letting date for the Zacate Creek Hike & Bike Trail (CSJ 0922-33-170) has been moved from November 2017 (FY 2018) to January 2018 (FY 2018).

F. Status report by Mr. Joe Medina on discussions with the Muller family in relation to the River Bank Road Project.

G. Status report on the Regional Mobility Authority (RMA).

   1. Status update on the financing for the Vallecillo Road Project.

VI. ADJOURNMENT

THIS NOTICE WAS POSTED AT THE MUNICIPAL GOVERNMENT OFFICES, 1110 HOUSTON STREET, LAREDO, TEXAS, AT A PLACE CONVENIENT AND READILY ACCESSIBLE TO THE PUBLIC AT ALL TIMES. SAID NOTICE WAS POSTED BY DECEMBER 15, 2017, BY 1:30 P.M.

All meetings of the MPO Committee are open to the public. Persons who plan to attend this meeting and who may need auxiliary aid or services, such as: interpreters for persons who are deaf or hearing impaired, readers of large print or Braille, or a translator for the Spanish language are requested to contact Ms. Vanessa Guerra, City Planning, 1120 San Bernardo Ave. at (956) 794-1613, vguerra@ci.laredo.tx.us, at least five working days prior to the meeting so that appropriate arrangements can be made. Materials in Spanish may also be provided upon request.

Disability Access Statement - This meeting is wheelchair accessible. The accessible entrances are located at 1110 Victoria and 900 Flores. Accessible parking spaces are located at City Hall, 1110 Victoria.

Ayuda o Servicios Auxiliares: Todas las reuniones del Comité del MPO están abiertas al público. Personas que planean asistir a esta reunión y que pueden necesitar ayuda o servicios, auxiliares como: intérpretes para personas con discapacidad auditiva, lectores de letra grande o en Braille, o un traductor para el idioma español deben comunicarse con la Sra. Vanessa Guerra, en el Departamento de Planificación de la Ciudad, 1120 San Bernardo Ave. al (956) 794-1613, vguerra@ci.laredo.tx.us, al menos cinco días hábiles antes de la reunión para que los arreglos apropiados se pueden hacer. Materiales in español se proveerán a petición.

Declaración de Acceso a la Discapacidad: Esta reunión es accesible para sillas de ruedas. Las entradas accesibles están ubicadas en 1110 Victoria y 900 Flores. Las plazas de aparcamiento accesibles se encuentran en el Ayuntamiento, 1110 Victoria.

Información en Español: Si usted desea esta información en español o si desea explicación sobre el contenido, por favor llámenos al teléfono (956) 794-1623 o comuníquese con nosotros mediante correo electrónico a vguerra@ci.laredo.tx.us.

CITY OF LAREDO REPRESENTATIVES:

Honorable Pete Saenz, Mayor and LUTS Chairperson
Honorable Charlie San Miguel, City Councilmember, District VI
Honorable George Altgelt, City Councilmember, District VII

LAREDO MASS TRANSIT BOARD REPRESENTATIVE:

Honorable Roberto Balli, City Councilmember, District VIII

COUNTY OF WEBB REPRESENTATIVES:

Honorable Tano E. Tijerina, Webb County Judge
Honorable Jesse Gonzalez, Webb County Commissioner, Pct. 1
Honorable John Galo, Webb County Commissioner, Pct. 3

STATE REPRESENTATIVES:

Mr. David M. Salazar, Jr., P.E., District Engineer
Ms. Melisa Montemayor, District Administrator

***** EX-OFFICIO *****

Honorable Judith Zaffirini, State Senator, District 21
Honorable Richard Raymond, State Representative, District 42
Honorable Tracy O. King, State Representative, District 80

Nathan R. Bratton
MPO Director

For: Jose A. Valdez, Jr.
City Secretary

Laredo Urban Transportation Study

Metropolitan Planning Organization Policy Committee
City of Laredo Council Chambers
1110 Houston St. -Laredo, Texas

MINUTES OF THE NOVEMBER 20 , 2017 MEETING

Regular members present:

Honorable Pete Saenz, Mayor and LUTS Chairperson
Honorable Tano E. Tijerina, Webb County Judge
Honorable John Galo, Webb County Commissioner, Pct. 3
Honorable George Altgelt, City Councilmember, District VII (joined the meeting at 1:50 p.m.)
Honorable Roberto Balli, City Councilmember, District VIII
Melisa Montemayor, TxDOT District Administrator

Regular members not present:

Honorable Jesse Gonzalez, Webb County Commissioner, Pct. 1
Honorable Charlie San Miguel, City Councilmember, District VI
David M. Salazar, Jr., District Engineer

Ex-Officio Members Not Present:

Honorable Richard Raymond, State Representative, District 42
Honorable Judith Zaffirini, State Senator, District 21
Honorable Tracy O. King, State Representative, District 80

Staff (Of Participating LUTS Agencies) Present:

City:
Nathan R. Bratton, City Planning/LUTS Staff
Vanessa Guerra, City Planning/LUTS Staff
Angie Quijano, City Planning/LUTS Staff
Robert Murillo, City Traffic Safety Department
Eduardo Bernal, Transit, El Metro
Claudia San Miguel, Transit, El Metro
Garbriel Martinez, City Engineering
Horacio De Leon, City Manager

State:
Sara Garza, TxDOT
Roberto Rodriguez, TxDOT
Alberto Ramirez, TxDOT
Ana Duncan, TxDOT
Carlos Rodriguez, TxDOT
Mike Graham, TxDOT
Juan Ramirez, TxDOT

County:	Guillermo Cuellar, Webb County Engineering Luis Perez Garcia, Webb County Engineering
Others:	Ruben Soto, Regional Mobility Authority, (RMA) Antonio Rodriguez, HNTB, Inc. Brad Peel, HNTB, Inc. Enrique Valdez, LNV Julia Wallace, Laredo Morning Times Edward Ochoa, Civil Engineering Consultants Jeff Puig, Civil Engineering Consultants Luis De la Garza

I. CHAIRPERSON TO CALL MEETING TO ORDER

Mayor Pete Saenz called the meeting to order at 1:37 p.m.

II. CHAIRPERSON TO CALL ROLL

Nathan R. Bratton, MPO Director, called roll and verified that a quorum existed.

III. CITIZEN COMMENT

Speakers are required to fill out witness cards, which must be submitted to MPO Staff no later than 15 minutes after the start of the meeting. Speakers shall identify themselves at the mierophone. Comments are limited to three (3) minutes per speaker. No more than three (3) persons will be allowed to speak on any side of an issue. Should there be more than three (3) people who wish to speak on a specific issue, they should select not more than three (3) representatives to speak on their behalf. The presiding officer may further limit public comment in the interest of order or time. Speakers may not transfer their minutes to any other speaker. Comments should be relevant to City business and delivered in a professional manner. No derogatory remarks shall be permitted.

Luis De La Garza stated that as a former transportation owner, he believed the Committee should consider construction of a 3rd lane on IH 35.

IV. ITEMS REQUIRING POLICY COMMITTEE ACTION

A. Approval of the minutes for the meeting held on October 16, 2017.

C.M. Balli made a motion to approve the **minutes** of October 16, 2017.

Second:	Judge Tijerina
For:	5
Against:	0
Abstained:	0

Motion carried unanimously

Judge Tijerina made a motion to **move up** item IV-D.

Second: C.M. Galo
For: 5
Against: 0
Abstained: 0

Motion carried unanimously

D. Motion on City's request for $10 million in CBI funding for the World Trade Bridge FASTLANE projeet as follows (and any matters incident thereto):

– Move from CSJ 0086-14-058 PS&E of Airport and Jacaman *($4,641,030 CBI funds previously approved MPO action*	$4,641,030.00
– Move from CSJ 0086-14-920 ROW on Loop 20 from US 59 to Airport Overpass *($4,806,663 CBI funds previously approved MPO action 10/16/16)*	$2,271,609.00
– Move remaining surplus CBI funds from Loop 20/IH 35 main lanes CSJ 0086-14-065 which let in July 2017	$3,087,361.75
Total CBI Funds to	**$10,000,000.75**

– Supplement US 59 Loop PS&E development with TxDOT Strategy 111 funds	$4,641,030.00
– Supplement US 59 Loop ROW from US 59 to Airport with TxDOT ROW funds	$2,271,609.00
– Propose use of TxDOT Strategy 111 funds for additional US 59 Loop PS&E development to offset surplus	$3,087,361.75
Total:	**$10,000,000.75**

– Additional CBI funds which remain in CSJ 0086-14-920	$2,535,054.00
Original	**$12,535,054.75**

C.M. Altgelt joined the meeting at 1:50 p.m.

Horacio De Leon, City Manager, spoke in favor of the item. He stated the funding relocation request was intended to fund the construction of the World Trade Bridge FASTLANE project.

Alberto Ramirez, TxDOT, stated TxDOT would assume full responsibility of the engineering and design of the Loop 20 projects formerly being developed by the County.

TxDOT would work through their procurement office and ultimately use a consultant that was already under contract with TxDOT.

Judge Tijerina expressed his disappointment with the lack of communication during the development of the City's fund reallocation proposal. He further stressed the importance of continued cooperation and communication among all MPO partners.

In response to Judge Tijerina's query, Melisa Montemayor, TxDOT assured the committee that the 10 million dollars in Strategy 111 funds were guaranteed for use on the Loop 20 projects.

Mr. De Leon stated the City would include the County at any future brainstorming meetings.

Melisa Montemayor, TxDOT, reminded the Committee that the item was discussed at the Technical Committee meeting 6 days in advance of the Policy meeting.

C.M. Balli made a motion to **approve** the reallocation of $10 million in CBI funding per the proposal as presented for the World Trade Bridge FASTLANE project.

Second: C.M. Altgelt
For: 6
Against: 0
Abstained: 0

Motion carried unanimously

Judge Tijerina left the meeting at 2:04 p.m.

B. Receive public testimony and initiate a ten-day public review and comment period for the following proposed amendment(s) to the 2017-2020 Transportation Improvement Program (TIP):

1. ***Removal*** of project CSJ 0086-14-082 intended to provide for the development of plans, specifications, and estimates (PS&E) for the Jacaman and Airport overpasses. Proposed work has an estimated cost of 4.6 million dollars. ***Rationale***: All 4.6 million in project funds are being transferred to (grouped) project identified as CSJ 0086-14-058 intended to provide for the development of PS&E, schematic, environmental, and right of way (ROW) surveying/mapping on Loop 20, from International Boulevard to Saunders Avenue.

C.M. Galo made a motion to **open** a public hearing and **initiate** a ten-day public review and comment period.

Second: C.M. Bali
For: 5

Against: 0
Abstained: 0

Motion carried unanimously

C.M. Altgelt made a motion to **move up** item #V-A.

Second: C.M. Bali
For: 5
Against: 0
Abstained: 0

V. REPORT(S) AND PRESENTATIONS (No action required)

A. Riverbank Road:

1. **Presentation by Joe Medina on the Riverbank Road project.**
2. **Report by TxDOT on possible funding sources available to the Riverbank Road project.**

Joe Medina gave a brief presentation on the item. The proposed 3.7 mile, 2 lane road built to current city standards is estimated to cost 9.3 million dollars. The road would provide an alternate route to Mines Road Traffic.

C.M. Altgelt inquired if any TxDOT dollars would be available for this project as the proposed road would alleviate on-system congestion.

Ms. Montemayor stated that funding availability would be dependent on the road's classification and whether the road would be on or off system.

The mayor requested that Mr. Medina bring back a firm commitment for the required property owner to donate the necessary land. Said commitment would allow the committee to prioritize the project.

Melisa Montemayor, TxDOT, suggested further discussion should be had regarding the proposed development of the project.

C.M. Altgelt requested the item be placed on the next agenda to report on the status of discussions with the Muller family.

C. Motion supporting Webb County's request to re-allocate all surplus funds, in the approximate amount of $3,087,361.75 from CSJ0086-14-065 (Main lanes over I35), and approving TxDOT's re-allocation of said surplus funds to CSJ 0086-14-058, a grouped project, for Schematic, PS&E, Environmental, and right-of-way mapping and surveying and which generally includes, as its project limits, From: International To: US 59 Business (Saunders Ave.).

E. Discussion with possible action on TxDOT's proposed development of a Right of Way (ROW), conceptual schematic and constraints analysis for the mid to long range improvements recommended by the TTI study for Mines Road.

C.M. Galo made a motion to **table** items IV-C and IV-E.

Motion failed due to lack of second.

Ms. Montemayor, stated that no action was necessary on item IV-C and IV-E.

No action was taken.

F. Discussion with possible action on the Regional Mobility Authority's funding and its proposed system infrastructure project approach alternatives.

Antonio Rodriguez, HNTB, Inc. stated that the RMA workshop held on October 26, 2017 was a success. He stressed the RMA's commitment to proceed according to the Policy Committee's wishes.

C.M. Altgelt expressed his interest in the RMA's development of mass transit planning and innovation.

The Mayor echoed C.M. Altgelt's comments, but also stressed the importance of the mobility in North West Laredo.

C.M. Balli made a motion to **move up** item #V-B.

Second:		C.M. Galo
For:	5	
Against:	0	
Abstained:	0	

Motion carried unanimously

B. RMA:

1. **Presentation on the proposed scope of services for the Mines Road Regional Study.**
2. **Presentation by the RMA on its mass transit recommendations.**
3. **Status of the RMA.**

Brad Peel, HNTB, Inc. stated the RMA had the authority to design, own, acquire, finance, build, operate, and maintain transit systems. He stated locally, El Metro, a discussion of the City provided fixed route bus and paratransit services. He stated the RMA could provide services which were complimentary to the mission of El Metro in order to promote and provide high quality, cost-effective public transportation services that address the needs and demands of the citizens of Laredo.

He stated the RMA could provide the following services: planning, or working with the City of Laredo, Webb County, and the MPO, to develop a long-range transit, funding, implementation, wherein the RMA oversee implementation of large infrastructure projects, regional coordination. Finally, the RMA could serve solely or jointly with El Metro, as the implementation vehicle to plan, design, build, and operate identified high capacity transit projects such as express bus routes, bus rapid transit, or rail-based transit.

Brad Peel, HNTB, Inc. stated the proposed idea was to develop a project programming plan. He stated the services that would be needed included: traffic demand modeling and analysis, public involvement, environmental and development analysis, development of transportation solutions, and an implementation plan. The estimated cost for the development of said plan would be $636,000 and take approximately 7 months.

Ruben Soto, RMA reported that the RMA was initiating a Transportation Reinvestment Zone (TRZ) feasibility study from Hwy 59 to Hwy 83, as approved by City Council.

Mayor requested for the RMA to report back on the financing on the Vallecillo Road Project.

(None of the remaining items were discussed, due to time constraints, and would be placed on the next Policy Committee agenda.)

G. Discussion with possible action on the letting date for Calton Railroad Grade Separation project (0922-33-093) which is proposed to move from November 2017 (FY 2018) to August (FY 2018).

H. Discussion with possible action on Hachar Road.

V. REPORT(S) AND PRESENTATIONS (No action required)

C. Flecha/Las Cruces Realignment Project:

1. **Report by the City of Laredo Real Estate Division on the status of Flecha/Las Cruces Realignment project's Right of Way (ROW) acquisition.**
2. **Report by CEC representative on the status of the Flecha/Las Cruces Realignment project's: plans and specification updates, Army Corp of Engineers permitting and request for additional funding.**

D. Presentation by TxDOT on the proposed Outer Loop alignment.

E. Report by MPO Director on the relative competiveness of the City of Laredo's Infra Grant application.

F. Report by the TxDOT on the meeting had by the City and TxDOT to discuss the "wish list"/recommendations resulting from the Texas Transportation Institute's

(TTI) Mines Road study, pertaining to proposed City of Laredo facility improvements intended to improve thc function of Mines Road.

G. Letting date for the Zacate Creek Hike & Bike Trail (CSJ 0922-33-170) has been moved from November 2017 (FY 2018) to January 2018 (FY 2018).

VI. ADJOURNMENT

The meeting was adjourned at 3:22 p.m.

Nathan R. Bratton,
MPO Director

Pete Saenz, Mayor and
LUTS Chairperson

LAREDO URBAN TRANSPORTATION STUDY
ACTION ITEM

DATE:	**SUBJECT:** RESOLUTION
12-18-17	Receive public testimony and approve Resolution No. MPO 2017-08 adopting the proposed amendment(s) to the 2017-2020 Transportation Improvement Program (TIP): 1. ***Removal*** of project CSJ 0086-14-082 intended to provide for the development of plans, specifications, and estimates (PS&E) for the Jacaman and Airport overpasses. Proposed work has an estimated cost of 4.6 million dollars. ***Rationale***: All 4.6 million in project funds are being transferred to project temporarily identified as CSJ 0922-33-933 intended to provide for the construction of a FAST lane at World Trade Bridge. TIP 17-20/REV 04

INITIATED BY: TxDOT/MPO	**STAFF SOURCE:** Nathan Bratton, MPO Director

PREVIOUS ACTION:
On 07/18/16, The Policy Committee approved revision #1. On 09/19/16, the Policy Committee approved revision #1-B. On May 15th, 2017, the Policy Committee approved Revision #2. On 06/19/17, the Policy Committee approved revision #3. On 11/20/17, the Policy Committee approved initiation of a ten-day comment period for revision #4.

BACKGROUND: See attachments for full revision details.

COMMITTEE RECOMMENDATION: Approval	**STAFF RECOMMENDATION:** Approval.

RESOLUTION NO. MPO 2017-08

BY THE LAREDO URBAN TRANSPORTATION STUDY
METROPOLITAN PLANNING ORGANIZATION POLICY COMMITTEE

ADOPTING THE 2017-2020 TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

WHEREAS, the Laredo Urban Transportation Study (LUTS), the designated Metropolitan Planning Organization (MPO) for the Laredo Urban Area, has reviewed the proposed revision(s) to the 2017-2020 Transportation Improvement Program (TIP); and,

WHEREAS, the Laredo Urban Transportation Study finds that the proposed revision(s) to the 2017-2020 Transportation Improvement Program (TIP) meets the high priority improvements necessary for the LUTS area;

NOW THEREFORE BE IT RESOLVED, that the Laredo Urban Transportation Study, as the designated Metropolitan Planning Organization for the Laredo Urban Area, adopted the proposed 2017-2020 Transportation Improvement Program (TIP), which are attached hereto and made a part hereof for all purpose:

We certify that the above resolution was adopted on December 18, 2017, at a public meeting of the Policy Committee of the Laredo Urban Transportation Study.

Honorable Pete Saenz
Mayor of Laredo and Chairperson of the
MPO Policy Committee

Nathan Bratton
MPO Director

David M. Salazar,
TxDOT, District Engineer

MPO / Laredo District - 22
FY 2017 - 2020 Transportation Improvement Program

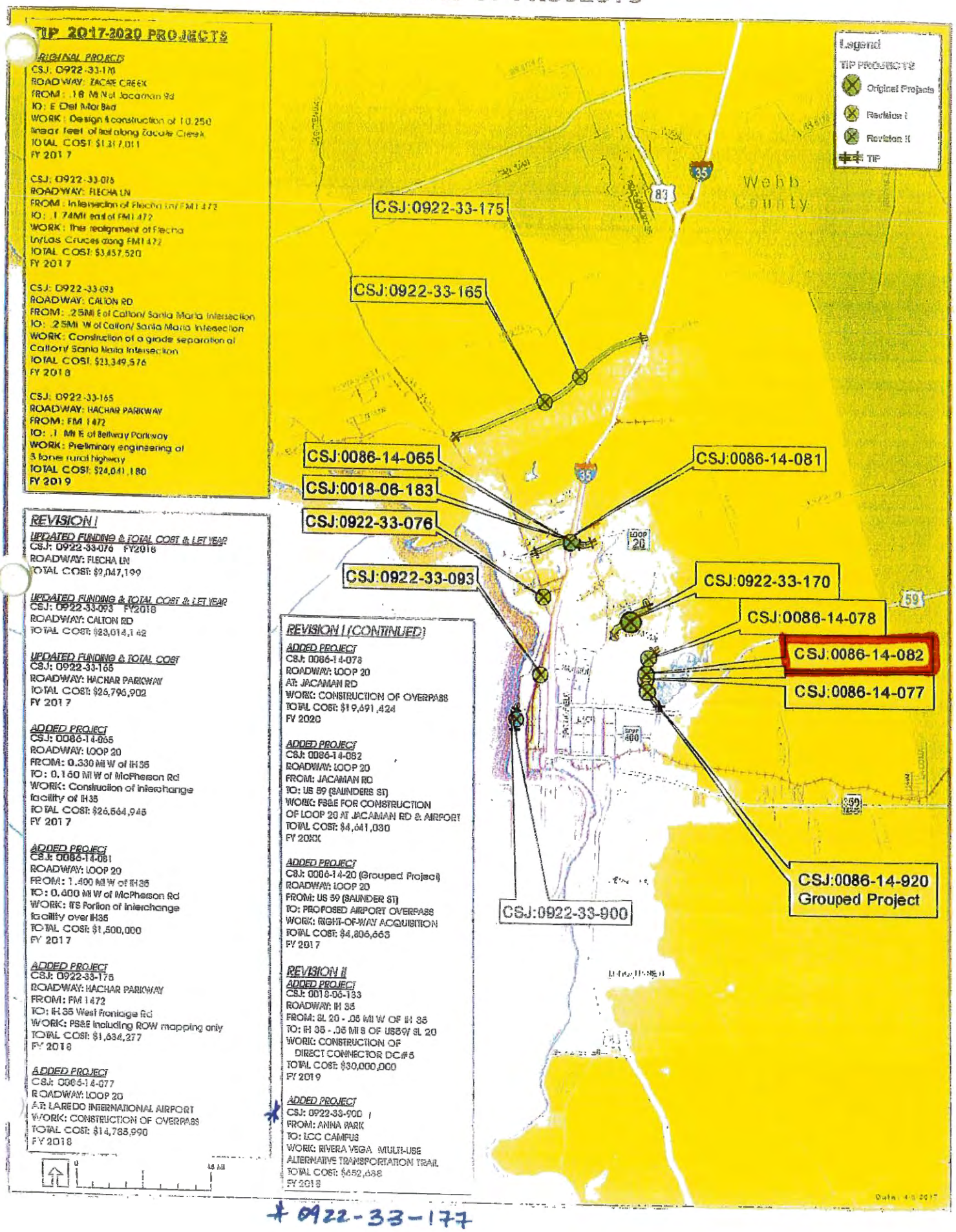
Funding by Category

		FY 2017		FY 2018		FY 2019		FY 2020		Total FY 2017 - 2020	
Category	Description	Programmed	Authorized	Programmed	Authorized	Programmed	Authorized	Programmed	Authorized	Programmed	Authorized
1	Preventive Maintenance and Rehabilitation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2M or 2U	Urban Area (Non- TMA) Corridor Projects	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Non-Traditionally Funded Transportation Project	$0	$0	$8,441,118	$8,441,118	$0	$0	$0	$0	$8,441,118	$8,441,118
4	Statewide Connectivity Corridor Projects	$0	$0	$0	$0	$32,877,000	$32,877,000	$0	$0	$32,877,000	$32,877,000
5	CMAQ	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5 Flex	Map21 Flex	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	Structures	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	Metro Mobility & Rehab	$0	$0	$0	$0	$26,796,902	$26,796,902	$0	$0	$26,796,902	$26,796,902
8	Safety	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Enhancements	$1,056,250	$1,056,250	$0	$0	$0	$0	$0	$0	$1,056,250	$1,056,250
9 Flex	TAP	$0	$0	$0	$0	$815,798	$815,798	$0	$0	$815,798	$815,798
10	Supplemental Transportation	$0	$0	$16,620,223	$16,620,223	$0	$0	$0	$0	$16,620,223	$16,620,223
10 CBI	Corridor Border	$27,288,519	$27,288,519	$0	$0	$0	$0	$0	$0	$27,288,519	$27,288,519
11	District Discretionary	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	Strategic Priority	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12C	Strategic Priority RECON	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12S	Strategic Priority RECON	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SBPE	Strategy Budget PE	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SB 102	Strategy 102	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total	$28,344,769	$28,344,769	$25,061,341	$25,061,341	$60,489,700	$60,489,700	$0	$0	$113,895,810	$113,895,810

Funding Participation Source

Source	FY 2017	FY 2018	FY 2019	FY 2020	Total
Federal	$22,675,815	$14,366,535	$51,679,460	$0	$88,721,810
State	$5,457,704	$0	$3,287,700	$0	$8,745,404
Local Match	$211,250	$2,253,688	$5,522,540	$0	$7,987,478
CAT 3 - Local Contributions (LC)	$0	$8,441,118	$0	$0	$8,441,118
CAT 3 - Prop 1	$0	$0	$0	$0	$0
CAT 3- Prop 7	$0	$0	$0	$0	$0
CAT 3 - Prop 12	$0	$0	$0	$0	$0
CAT 3 - Prop 14 Bonds	$0	$0	$0	$0	$0
CAT 3 - Texas Mobility Fund	$0	$0	$0	$0	$0
CAT 3 - Vehical Registration Fees - VTR	$0	$0	$0	$0	$0
CAT 3 - RTR	$0	$0	$0	$0	$0
CAT 3 - SH 121 Toll Revenue	$0	$0	$0	$0	$0
CAT 3 - SH 161 Toll Revenue	$0	$0	$0	$0	$0
CAT 3 - SH 130 Concession Revenue	$0	$0	$0	$0	$0
CAT 3 - PTF	$0	$0	$0	$0	$0
CAT 3 - Unique Federal Program - Tiger II	$0	$0	$0	$0	$0
CAT 3 - TDC	$0	$0	$0	$0	$0
Other - Section 5306	$0	$0	$0	$0	$0
Other - Strategy PE Budget	$0	$0	$0	$0	$0
Other - Stragegy 102 Budget	$0	$0	$0	$0	$0
Total	$28,344,769	$25,061,341	$60,489,700	$0	$113,895,810

2017-2020 TIP
LOCATIONS OF PROJECTS



TIP 2017-2020 PROJECTS

ORIGINAL PROJECTS

CSJ: 0922-33-170
ROADWAY: ZACATE CREEK
FROM: .18 Mi N of Jacaman Rd
TO: E Del Mar Blvd
WORK: Design & construction of 10,250 linear feet of levee along Zacate Creek
TOTAL COST: $1,317,011
FY 2017

CSJ: 0922-33-076
ROADWAY: FLECHA LN
FROM: Intersection of Flecha Ln/ FM 1472
TO: .174Mi east of FM 1472
WORK: The realignment of Flecha Ln/Las Cruces along FM 1472
TOTAL COST: $3,457,520
FY 2017

CSJ: 0922-33-093
ROADWAY: CALTON RD
FROM: .25Mi E of Calton/ Santa Maria Intersection
TO: .25Mi W of Calton/ Santa Maria Intersection
WORK: Construction of a grade separation at Calton/ Santa Maria Intersection
TOTAL COST: $23,349,576
FY 2018

CSJ: 0922-33-165
ROADWAY: HACHAR PARKWAY
FROM: FM 1472
TO: .1 Mi E of Beltway Parkway
WORK: Preliminary engineering of 6 lane rural highway
TOTAL COST: $24,041,180
FY 2019

REVISION I

UPDATED FUNDING & TOTAL COST & LET YEAR
CSJ: 0922-33-076 FY2018
ROADWAY: FLECHA LN
TOTAL COST: $2,047,199

UPDATED FUNDING & TOTAL COST & LET YEAR
CSJ: 0922-33-093 FY2018
ROADWAY: CALTON RD
TOTAL COST: $23,014,142

UPDATED FUNDING & TOTAL COST
CSJ: 0922-33-165
ROADWAY: HACHAR PARKWAY
TOTAL COST: $26,796,902
FY 2017

ADDED PROJECT
CSJ: 0086-14-065
ROADWAY: LOOP 20
FROM: 0.330 Mi W of IH 35
TO: 0.160 Mi W of McPherson Rd
WORK: Construction of interchange facility at IH 35
TOTAL COST: $26,564,945
FY 2017

ADDED PROJECT
CSJ: 0086-14-081
ROADWAY: LOOP 20
FROM: 1.490 Mi W of IH 35
TO: 0.400 Mi W of McPherson Rd
WORK: ITS Portion of interchange facility over IH35
TOTAL COST: $1,500,000
FY 2017

ADDED PROJECT
CSJ: 0922-33-175
ROADWAY: HACHAR PARKWAY
FROM: FM 1472
TO: IH 35 West Frontage Rd
WORK: PS&E including ROW mapping only
TOTAL COST: $1,634,277
FY 2018

ADDED PROJECT
CSJ: 0086-14-077
ROADWAY: LOOP 20
AT: LAREDO INTERNATIONAL AIRPORT
WORK: CONSTRUCTION OF OVERPASS
TOTAL COST: $14,788,990
FY 2018

REVISION I (CONTINUED)

ADDED PROJECT
CSJ: 0086-14-078
ROADWAY: LOOP 20
AT: JACAMAN RD
WORK: CONSTRUCTION OF OVERPASS
TOTAL COST: $19,691,424
FY 2020

ADDED PROJECT
CSJ: 0086-14-082
ROADWAY: LOOP 20
FROM: JACAMAN RD
TO: US 59 (SAUNDERS ST)
WORK: PS&E FOR CONSTRUCTION OF LOOP 20 AT JACAMAN RD & AIRPORT
TOTAL COST: $4,041,030
FY 20XX

ADDED PROJECT
CSJ: 0086-14-20 (Grouped Project)
ROADWAY: LOOP 20
FROM: US 59 (SAUNDER ST)
TO: PROPOSED AIRPORT OVERPASS
WORK: RIGHT-OF-WAY ACQUISITION
TOTAL COST: $4,806,663
FY 2017

REVISION II

ADDED PROJECT
CSJ: 0018-06-183
ROADWAY: IH 35
FROM: SL 20 - .05 MI W OF IH 35
TO: IH 35 - .05 MI S OF US59/ SL 20
WORK: CONSTRUCTION OF DIRECT CONNECTOR DC#5
TOTAL COST: $30,000,000
FY 2019

ADDED PROJECT
CSJ: 0922-33-900
FROM: ANNA PARK
TO: LCC CAMPUS
WORK: RIVERA VEGA MULTI-USE ALTERNATIVE TRANSPORTATION TRAIL
TOTAL COST: $652,638
FY 2018

+ 0922-33-177

2017-2020 Laredo TIP - Revision 4 - Project Summaries

Remove

0086-14-082 US 59 Phase E Let 8/17 (FY 17)

Prev. 0086-14-910

From: International Boulevard

To: US 59/LP 20 Interchange

For development of PS&E for Jacaman Road and Airport overpasses.

PS&E							
PE	4,641,030	FUNDS	Federal	State	Local	LC	TOTAL
Construction	0	10-CBI	3,712,824	928,206	0	0	4,641,030
Const Eng	0						
Conting	0						

Vanessa Guerra

From: Randy Aguilar <Randy.Aguilar@txdot.gov>
Sent: Monday, November 06, 2017 1:41 PM
To: Vanessa Guerra
Subject: Updates

Vanessa,

QUESTION #1: TXDOT RESPONSE
Roberto and I talked with Lori this morning about the 082 money moving to 058. She advised that we need to do a revision to cancel 082. Since 058 already let and is grouped, nothing has to be done there.

QUESTION #2 TXDOT RESPONSE
We are in the process of updating CSJ:0086-14-077 to add $2.43million CBI to replace the Prop 1 funds that were transferred to 065. (NO TIP REVISION REQUIRED)

I was advised that Zacate Creek Hike & Bike was to be moved from November 2017 to January 2018. An LSM was submitted last month and it was approved Friday November 3rd. DCIS has been updated.

Randy Aguilar
Planner
TxDOT Laredo District
956-712-7457

CONNECTING TEXANS TO WHAT MATTERS MOST
Texas Department of Transportation
#txdot100
1917 • 2017

Vanessa Guerra

From: Vanessa Guerra
Sent: Wednesday, November 01, 2017 4:20 PM
To: 'Lori Morel'
Cc: Karen Burkhard
Subject: TIP questions

Hi Lori,

I have a couple of questions for you.

1. 0086-14-082 – PS&E for Jacaman and Airport overpasses – 4.6 million – TIP FY 2017

TxDOT is requesting that this project be revised to:

- remove Airport and replace with Del Mar.

THEN

- Move the 4.6 million (with its new scope of work Jacaman and DEL MAR, PS&E) from this project to a GROUPED project 0086-14-058, which already let.

It seems the funds have already been moved in DCIS and the AFA's already reflect the additional 4.6 million.

How would I go about doing this change in the TIP?

2. 0086-14-077- construct Airport overpass – 14,785,990 – FY 2024
0086-14-065 – construct Loop 20 interchange – 25,564,945- FY 2017

TxDOT is requesting to swap 2.4 million in Prop 1 Cat 2 monies from 077 and move to 065, and replace with 2.4 million CBI from 065 to 077

Issue is 077 is outside of the TIP and 065 already let.

Again, how would I go about doing this change in the TIP?

ACTION ITEM

DATE:	**SUBJECT:** Motion(s)
12-18-17	Receive public testimony and approve a Motion to: accept the ranking of firms that submitted proposals in response to the Request for Qualifications (RFQ) issued for the development of the 2020-2045 Laredo Metropolitan Plan Update and FAST Act Compliance Project, approve the selection of a professional services provider, and authorize Staff to enter into negotiations.

INITIATED BY:	**STAFF SOURCE:**
Staff	Nathan Bratton, MPO Director

PREVIOUS COMMITTEE ACTION: None.

BACKGROUND:

The 2020-2045 Laredo Metropolitan Plan Update – To develop a long range transportation planning document to encompass the 2020-2045 planning period, in conformance with state and federal requirements. This includes and evaluation of the existing transportation system, public transportation, environmental conditions, transportation needs, and developing a financially constrained implementation plan. The project will include a land use, socioeconomic conditions and forecast elements to a 2045 horizon year.

The FAST Act Compliance - will entail the review and amendment of the existing MTP and TIP in order to comply with the Fixing America's Surface Transportation (FAST) Act requirements.

Request for Qualifications:
A Request for Qualification was developed and published on October 10th and October 14th, 2017

Submittals
Two firms, **CDM Smith** and **Alliance Transportation Group**, submitted summary of qualifications packages in response to the MPO's call for submittals.

Evaluation:
A ten member Selection Committee comprised of representatives of the City, TxDOT, El Metro, the County, the MPO, and TAMIU were tasked with evaluating the two submittals.

Selection Committee Results: (*see attached score sheets and ranking matrix*)
The Selection Committee ranked the firms as follows:

1. CDM Smith
2. Alliance Transportation Group

FINANCIAL IMPACT:
The 2018 UPWP allocated $250,000 for the MTP update and $75,000 for the FAST Act Compliance project.

COMMITTEE RECOMMENDATION: At the time the Technical Committee was held, the County, Transit and TAMIU had yet to submit evaluation forms. The Committee recommended inclusion of the scores from Transit and the County should they be submitted before presentation to the Policy Committee.	**STAFF RECOMMENDATION:** Approval

Project Name: Laredo MTP Update and FAST Act Compliance Project
Proposal scores/rankings

Point methodology:
1st = 2 pts
2nd = 1 pt

Ranking Matrix

Selection Committee:

	CDM Smith			Alliance Transportation		
	Raw	Rank	Pts	Raw	Rank	Pts
Juan E. Rodriguez-STDC	92	1	2	87	2	1
Andres Castañeda-Laredo MPO	98	1	2	95	2	1
Luis Perez Garcia-County Engineering	85	1	2	76	2	1
Rogelio Rivera-City Engineering	89	1	2	87	2	1
Robert Eads-Traffic Safety	90	2	1	92	1	2
Albert Ramirez-TxDOT	85	2	1	90	1	2
Sara Garza-TxDOT	100	1	2	100	1	2
Roberto Rodriguez-TxDOT	85	2	1	90	1	2
Claudia San Miguel-Transit El Metro	88	1	2	84	2	1
Adrian Dominguez-TAMIU*						
*Scores not submitted						
Total Points:	812		15	801		13

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project					Reviewer Name: Juan E Patron Organization: South TX Development Council			
CRITERIA					Weight Points	Firm 1 Alliance	Firm 2 CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.				40	33	34	8 7 10 9
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.				25	23	24	8 8 8
Approach	Firm's overal approach to the project and familiarity with the study area.				15	14	15	7.5 7.5
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.				10	9	10	5 5
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abilility to generate creative solutions.				10	8	9	5 4
				Total	100	87	92	

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project					Reviewer Name: Andres Castaneda Organization: Laredo MPO			
CRITERIA					Weight Points	Firm 1 Alliance	Firm 2 CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.				40	38	40	
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.				25	25	25	
Approach	Firm's overal approach to the project and familiarity with the study area.				15	13	14	
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.				10	9	9	
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abililty to generate creative solutions.				10	10	10	
				Total	100	95	98	

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project	Reviewer Name: LUIS PEREZ GARCIA, III, P.E. Organization: WEBB COUNTY ENGINEERING

CRITERIA		Weight Points	Firm 1 Alliance	Firm 2 CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.	40	31	34	
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.	25	19	21	
Approach	Firm's overal approach to the project and familiarity with the study area.	15	11	13	
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.	10	8	9	
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abililty to generate creative solutions.	10	7	8	
	Total	100	76	85	

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project	Reviewer Name: Roberto R. Ramirez, Jr. Organization: City of Laredo - Engineering Department

CRITERIA		Weight Points	Firm 1 Alliance	Firm 2 CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.	40	36	35	
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.	25	23	23	
Approach	Firm's overal approach to the project and familiarity with the study area.	15	10	14	
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.	10	9	9	
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abilility to generate creative solutions.	10	9	8	
	Total	100	87	89	

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project					Reviewer Name: Robert Ends Organization: Traffic Dept.			
CRITERIA					Weight Points	Firm 1 Alliance	Firm 2 CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.				40	35	35	
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.				25	24	24	
Approach	Firm's overal approach to the project and familiarity with the study area.				15	14	13	
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.				10	9	8	
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abilility to generate creative solutions.				10	10	10	
				Total	100	92	~~91~~ 90 V6.	

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project					Reviewer Name: Organization:			
CRITERIA					Weight Points	Firm 1 Alliance	Firm 2 CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.				40	35	30	
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.				25	20	20	
Approach	Firm's overal approach to the project and familiarity with the study area.				15	15	15	
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.				10	10	10	
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abilility to generate creative solutions.				10	10	10	
				Total	100	90	95	

Albert. Ramirez

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project					Reviewer Name: Sara Garza Organization: TxDOT			
CRITERIA					Weight Points	Firm 1 Alliance	Firm 2 CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.				40	40	40	
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.				25	25	25	
Approach	Firm's overal approach to the project and familiarity with the study area.				15	15	15	
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.				10	10	10	
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abilility to generate creative solutions.				10	10	10	
				Total	100	100	100	

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project					Reviewer Name: Roberto Rodriguez Organization: TxDOT			
CRITERIA						Firm 1	Firm 2	
					Weight Points	Alliance	CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.				40	40	30	
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.				25	20	20	
Approach	Firm's overal approach to the project and familiarity with the study area.				15	10	15	
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.				10	10	10	
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abilility to generate creative solutions.				10	10	10	
				Total	100	90	85	

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project					Reviewer Name: Claudia San Miguel Organization: Transit Department			
CRITERIA					Weight Points	Firm 1 Alliance	Firm 2 CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.				40	35	32	
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.				25	20	22	
Approach	Firm's overal approach to the project and familiarity with the study area.				15	11	14	
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.				10	9	10	
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abililty to generate creative solutions.				10	9	10	
				Total	100	84	88	

12/11/17

Angelica Quijano

From: Angelica Quijano
Sent: Wednesday, December 6, 2017 1:53 PM
Cc: Vanessa Guerra
Subject: Laredo MTP Update/FAST Act Compliance Project
Attachments: Stubbed Attachments.htm

Good afternoon,

As you are aware, the MPO is in the process of selecting a consultant to develop the MTP Update/FAST Act compliance project. Approximately four weeks ago, you should have received a selection committee member evaluation packet containing the Request for Qualifications (RFQ), the two submittals, and an evaluation form. The MPO wishes to renew its request for your assistance with the selection process. Please submit the RFQ submittal evaluation form (attached) no later than Thursday, December 7th, 2017 at 12:00 noon. If you did not receive the package, need an additional copy, or have any questions, please contact our offices. Thank you.

Vanessa Guerra
Planner III : City of Laredo Planning Department : Laredo Metropolitan Planning Organization : 1120 San Bernardo Ave. : P.O. Box 579 : Laredo Texas 78042-579 : Main: 956-794-1613 : Dir.: 956-794-1604 : Fax: 956-794-1624 : vguerra@ci.laredo.tx.us

Laredo Urban Transportation Study
Metropolitan Planning Organization

MEMORANDUM

To: Albert Ramirez, TxDOT
Roberto Rodriguez, TxDOT
Sara Garza, TxDOT
Andres Castañeda, Laredo MPO
Claudia San Miguel, City Transit, El Metro
Robert Eads, City Traffic Safety Department
Rogelio Rivera, City Engineering Department
Luis Perez Garcia, Webb County Engineering
Juan E. Rodriguez, South Texas Development Council
Adrian Dominguez, TAMIU

From: Vanessa Guerra, MPO Coordinator

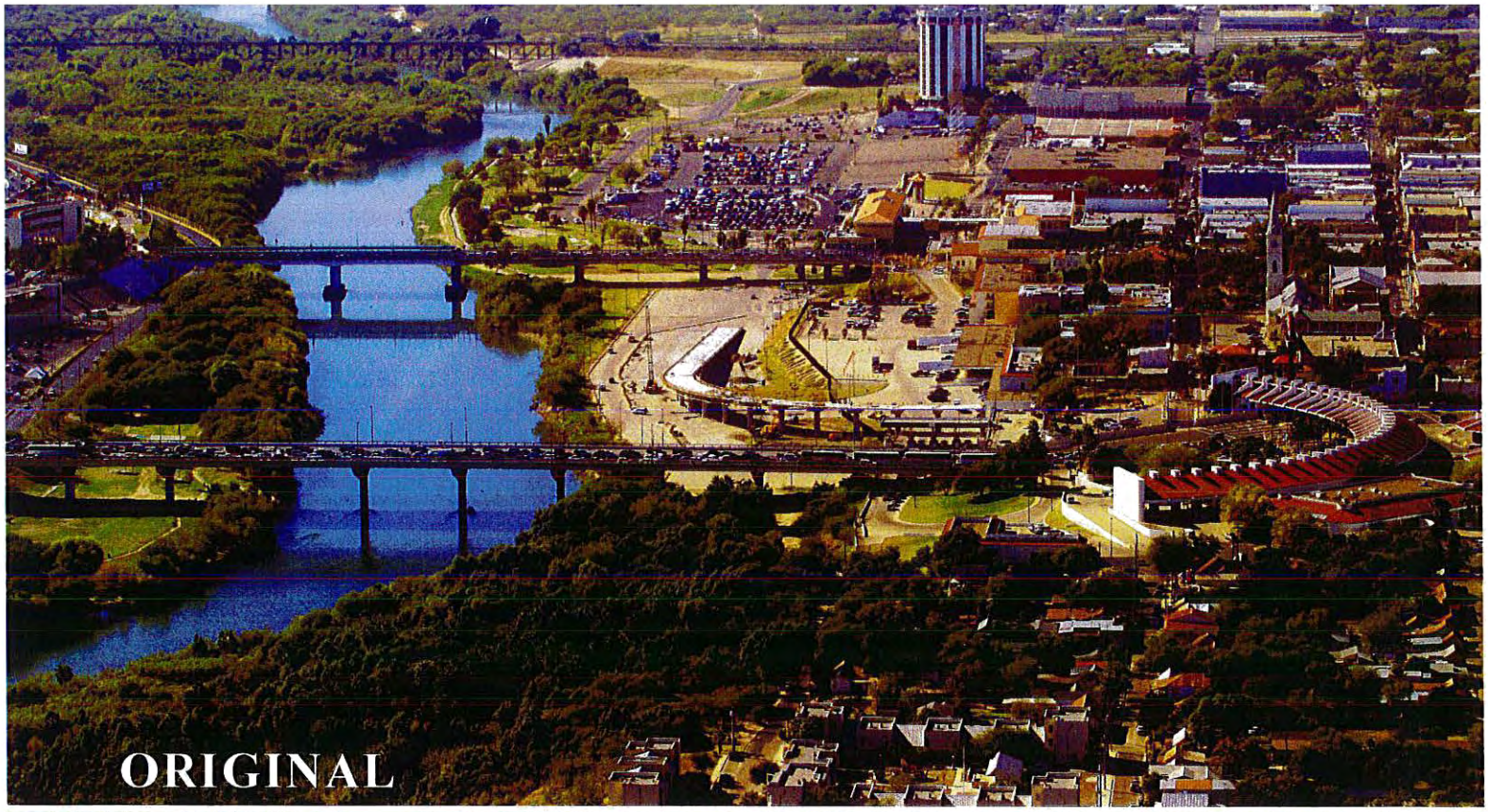
Date: November 7, 2017

Subj. Laredo Metropolitan Transportation Plan Update and Fast Act Compliance Project

The Laredo Metropolitan Planning Organization (MPO) is currently seeking professional services for the development of the above identified project. Enclosed herewith is a copy of the Request for Qualifications (RFQ), two submittals, and a Consultant Evaluation Form. The MPO respectfully requests that you assist in the selection of a consultant by completing the evaluation form and returning it to our office by 5:00 p.m. on Friday, November 17th, 2017. Our fax number is (956) 794-1624. Should you have any questions or need additional information, please do not hesitate to contact our offices at vguerra@ci.laredo.tx.us or at (956) 794-1613. Thank you.

Consultant Evaluation Form

Project: 2020- 2045 MTP Update and Fast Act Compliance Project					Reviewer Name: Organization:			
CRITERIA						Firm 1	Firm 2	
					Weight Points	Alliance	CDM Smith	
Experience	Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.				40			
Federal and State Requirements	Demonstrated experience of the consulltant team(s) or individuals (lead persons only) with federal and state transportation planning requirements and federally funded project requirements and processes.				25			
Approach	Firm's overal approach to the project and familiarity with the study area.				15			
Capacity	Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements.				10			
Qualifications	Qualification of key individual(s) and or sub-contractors (lead persons only) proposed to provide theses services and evidence of the team's abilility to generate creative solutions.				10			
				Total	100			



ORIGINAL

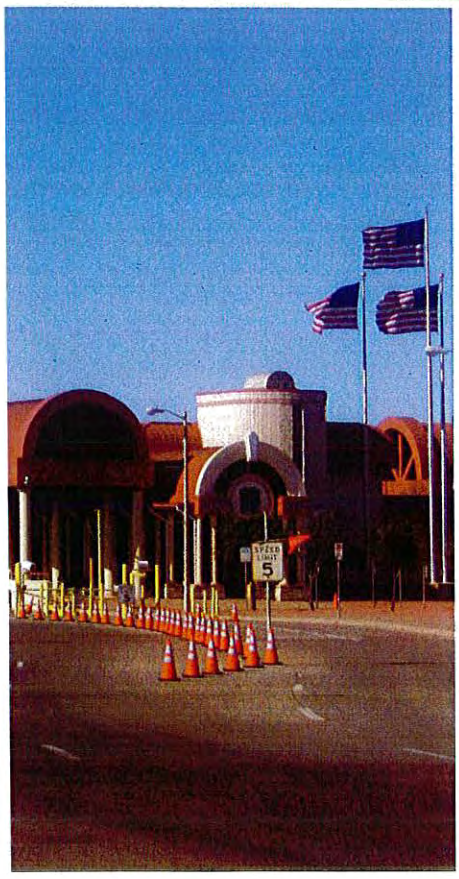
QUALIFICATIONS

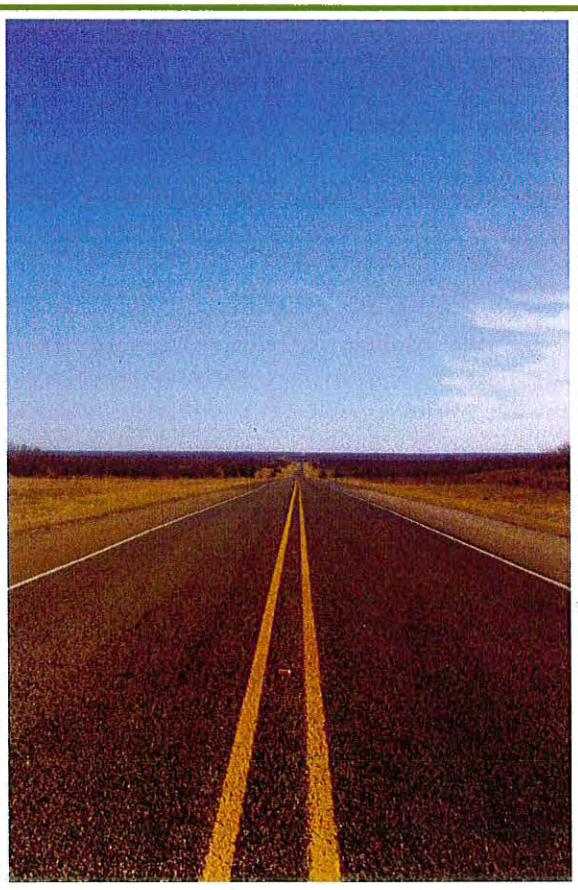
Laredo Metropolitan Transportation Plan Update & Fast Act Compliance Project

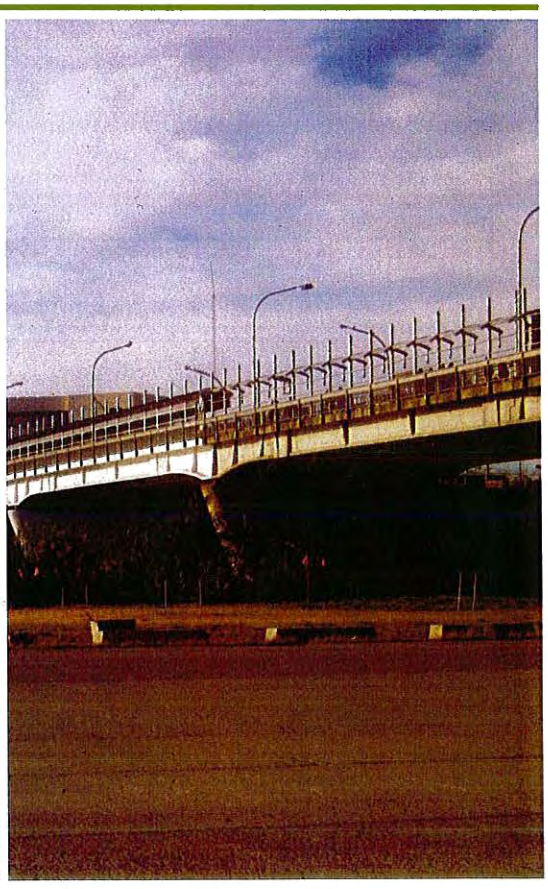
November 6, 2017

LAREDO URBAN TRANSPORTATION STUDY
metropolitan planning organization

CDM Smith®







Cover Letter

Dear Mr. Jose A. Valdez Jr.,

This statement of qualifications for the **Laredo Metropolitan Transportation Plan (MTP) Update and FAST Act Compliance Project** demonstrates our experience, expertise, and approach to develop a plan to support a balanced, multimodal, and sustainable transportation system that meets the criteria of technical, political, and economic feasibility for the Laredo region. We have joined with **Kleinman Consultants, PLLC**, a multidisciplinary planning, design, and public involvement firm who has experience in multiple border communities. The complementary skills and talents of this team brings a unique blend of technical transportation planning and public involvement expertise to provide a high-quality product within the schedule and budget identified for this plan update.

Key Benefits to Choosing Our Team:

1. **The Right Experience:** CDM Smith is uniquely positioned to provide the Laredo Urban Transportation Study (LUTS) with a quality, successful plan update because of our experience developing both the 2035 and 2040 MTPs for this study area. In addition to serving as the project manager for the aforementioned MTPs, our proposed project manager for this update, **Madhu Narayanasamy, AICP**, has prepared a variety of long-range regional transportation planning projects within the state of Texas. His attention to detail, his keen understanding of the larger context within which long-range transportation planning activities occur, and his familiarity with the LUTS planning area makes him an excellent choice to manage this important project. This past experience will allow our team to "hit the ground running" and develop the 2045 MTP update in an efficient and effective manner.

2. **Local Presence and Community Familiarity:** The CDM Smith team will use our existing, strong relationships with LUTS staff and our knowledge of the study area to address challenges to the preservation and enhancement of transportation system viability in the coming years. Our experience in developing and updating previous Laredo MTPs, and extensive experience and knowledge with federal and state transportation planning requirements and processes, will enable us to create an efficient hierarchy of project management to provide a FAST Act compliant MTP update.

3. **Unmatched Expertise and Understanding:** As demonstrated in the following pages, we understand the tasks and methods necessary for a successful and efficient plan update. Through technical expertise and communication media available, CDM Smith is prepared to keep LUTS on schedule for FHWA approvals. As Laredo experiences intense continued growth in residential and commercial sectors, our CDM Smith team is prepared to provide a multimodal vision to accommodate the movement of goods, residents, and visitors efficiently and safely through the growing region.

After reviewing our submittal, we trust that you will agree that our team's breadth and depth of preparing MTPs, coupled with our familiarity with the Laredo region, make us uniquely qualified to assist LUTS with updating the 2045 MTP. As a vice president of CDM Smith, I am authorized to negotiate and bind the firm to a contract. If you should have any questions regarding this submittal, please contact me at (512) 346-1100.

Very truly yours,

Sean Tenney, PE
Vice President
CDM Smith Inc.

CDM Smith Contact:
Madhu Narayanasamy, AICP
11490 Westheimer Road, #700
Houston, TX 77077
713.423.7300

Kleinman Consultants Contact:
Vicky Carrasco
314 W. O'Reilly Street
Presidio, TX 79845

STATEMENT OF QUALIFICATIONS

SECTION 1

General Statement of Firm's Qualifications

CDM Smith is uniquely positioned to provide LUTS with a quality, successful plan update because of our LOCAL PROJECT EXPERIENCE in developing the MPO's 2035 and 2040 MTP Updates, a Regional Travel Demand Model Update, a transit development plan update, and transit asset management plan. This past experience, combined with similar experience across Texas, will help us "hit the ground running" upon selection to develop an MTP update that is FAST Act compliant.

CDM Smith will provide the technical experience, local understanding, and professional commitment necessary to successfully complete this Metropolitan Transportation Plan (MTP) Update and FAST Act Compliance Project. **We are available to commence services immediately after successfully negotiating a contract.**

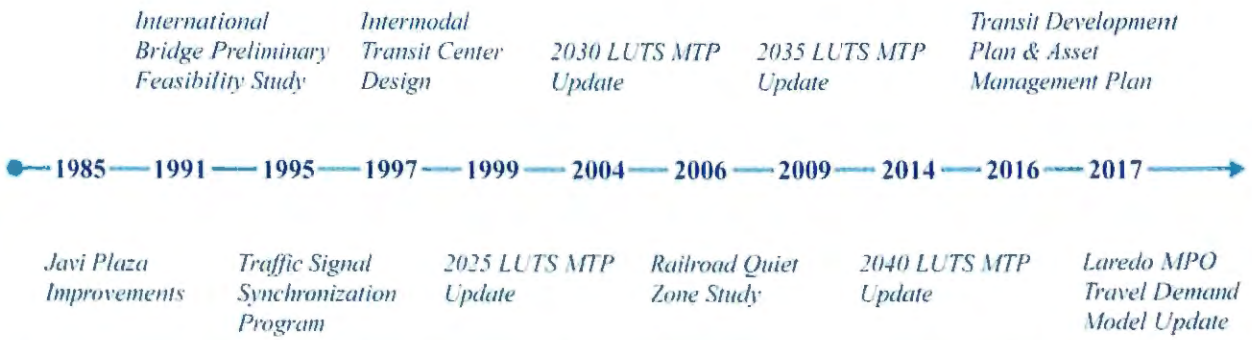
CDM Smith has distinct advantages related to project experience that will contribute to the successful completion of the 2045 MTP update—the most noteworthy advantage is our long-standing involvement in conducting transportation planning and engineering studies for various federal, state, and local agencies, including agencies in the Laredo region.

Kleinman Consultants

Complementing our team is Kleinman Consultants, a HUB/DBE firm, who provides premium public involvement services in the West Texas region. They have **extensive experience in working with border communities and various audiences providing outreach and engaging the public in planning processes.** They also have previous experience in working with the Latino community and have employees who are bilingual, fluent in both English and Spanish.

COMPARABLE PROJECTS

The CDM Smith team has successfully delivered a number of MTPs and projects that are directly related to long-range transportation planning. On the following pages, we have provided project summaries and client reference for recent,



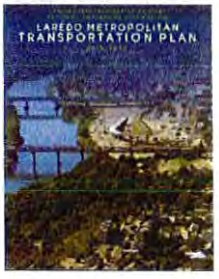
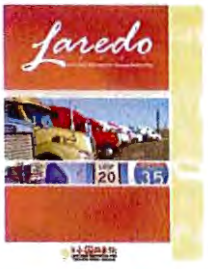
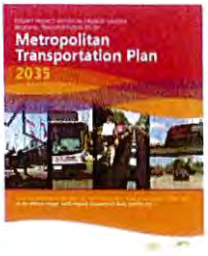
CDM Smith's experience in Laredo dates back to 1985—we are committed to continuing our successful efforts in the region and we will bring this extensive knowledge to bear for the successful implementation of the LUTS 2045 MTP update and FAST Act compliance project.

comparable projects with which the proposed staff for this project has been involved. These projects have provided us the skills and contacts needed to efficiently and effectively prepare the 2045 MTP Update.

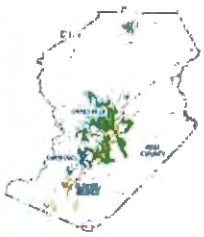
In addition to the following project experience, CDM Smith has completed or is currently working on the long-range transportation plans for the more than one dozen MPOs across the country, including Midland-Odessa and Killeen-Temple.

DEMONSTRATED LEADERSHIP AND EXTENDED KNOWLEDGE BASE REGARDING STATE OF THE PRACTICE IN LONG-RANGE TRANSPORTATION PLANNING

COMPARABLE PROJECT EXPERIENCE

Project	Description	Reference
2040 MTP Update (2014), Laredo, TX 	- MAP-21 compliant comprehensive, multimodal, and coordinated transportation plan - Prepared performance measures and established project prioritization process - Identified policies, programs, and projects for each mode of travel - Completed on time and within budget	*Vanessa Guerra* *Laredo MPO* *1120 San Bernardo Ave.* *Laredo, TX 78042* *956.794.1604*
2035 MTP Update (2009), Laredo, TX 	- SAFETEA-LU compliant fiscally constrained multimodal plan - Employed scenario planning to identify policies, programs, and projects - FHWA commented "one of the best plans that we read lately"	*Vanessa Guerra* *Laredo MPO* *1120 San Bernardo Ave.* *Laredo, TX 78042* *956.794.1604*
2040 JOHRTS MTP, TX (2015) 	- MTP complied with MAP-21 regulations and identified policies, programs, and projects for each mode of travel - Prepared performance measures and established project prioritization process - Completed on time and within budget	*Bob Dickinson,* *SETRPC* *2210 Eastex Freeway* *Beaumont, TX 77703* *409.899.8444 x7750*
2035 JOHRTS MTP, TX (2014) 	- MTP complied with SAFETEA-LU regulations and identified policies, programs, and projects for each mode of travel - Prepared performance measures and established project prioritization process - Completed on time and within budget	*Bob Dickinson,* *SETRPC* *2210 Eastex Freeway* *Beaumont, TX 77703* *409.899.8444 x7750*

COMPARABLE PROJECT EXPERIENCE

Project	Description	Reference
2040 MTP, Victoria, TX (2015) 	- MTP complied with MAP-21 regulations and identified policies, programs, and projects for each mode of travel - Prepared performance measures and established project prioritization process - Completed on time and under budget	*Mary Craighead* *Victoria MPO* *700 Main Center* *Victoria, TX 77901* *361.485.3360*
Gainesville-Hal MPO 2040 MTP (2015) 	- MTP complied with SAFETEA-LU regulations and identified policies, programs, and projects for each mode of travel - Prepared performance measures and established project prioritization process - Completed on time and within budget	*Srikanth Yamala* *GHMPO* *2875 Browns Ridge Rd* *Gainsville, GA 30504* *770.297.2625*

SECTION 2
Qualifications of Consulting Team/Individuals

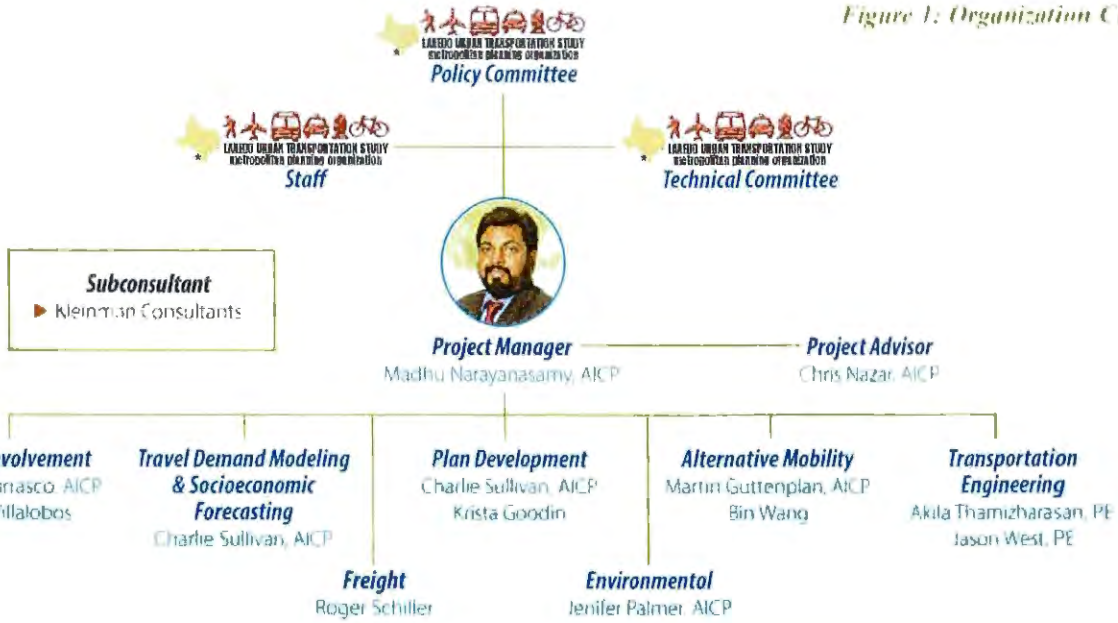
CDM Smith's team structure capitalizes on our recent work with the Laredo MPO—we bring the unique advantage of a strong foundation of similar, recent experience that is compounded by the benefit of established working relationships with the MPO through several successful projects.

Strong collaboration among team members is critical to project planning and implementation. The CDM Smith team proposes a core group of **professionals who have worked with LUTS on previous planning projects and have an excellent working understanding and first-hand experience** in all the requirements anticipated for this project.

The personnel assigned to this project will work as a collaborative team under the direction of our project manager, taking high-level direction from the MPO staff, the Technical Committee, and the Policy Board. These individuals will, in essence, act as an extension of the MPO staff for the duration of the project, focusing their specialized expertise on a variety of planning tasks for the MPO. Many of our project team members have worked together on the projects that follow and have developed efficient and synergistic working relationships.

Figure 1 illustrates our proposed organizational structure and simplified chain of command that

Figure 1: Organization Chart



will ensure streamlined communications and functions between the MPO and CDM Smith's project team. The following short biographies provide an introduction to our proposed project management and key staff and an abbreviated description of their qualifications and similar project experience. Complete project team resumes are included as an appendix.

Madhu Narayanasamy, AICP will serve as project manager and will have ultimate responsibility for this important project. His duties will include overall project management, team, and agency coordination; adherence to budget and schedule; and other related activities.

Madhu brings more than 14 years of experience and his technical specialties include preparing transportation plans, corridor feasibility studies, congestion management processes, transit plans, travel demand modeling, economic and financial analyses, and public involvement. He also

PROVEN PROJECT MANAGER WHO HAS SUCCESSFULLY DELIVERED MORE THAN 5 PROJECTS TO LAREDO MPO

served as the Vice Chair for the Transportation Planning division of the American Planning Association (APA) and **was instrumental in the development of APA's policy on the FAST Act.** He also co-authored APA's freight planning policy guidelines.

Madhu has an **outstanding track record of managing transportation planning projects in the LUTS MPO**, giving him the knowledge and ability to understand Laredo perspective. Madhu was instrumental in the development of the 2040 Laredo MTP, 2045 travel demand model, and the Laredo Transit Development Plan. Additionally, he led the development of the 2040 and 2035 JOHRTS MTP updates, as well as assisting the JOHRTS MPO with updating their current FAST Act-compliant 2045 MTP.

SUMMARY OF PROJECT MANAGER'S SKILLS

Comparable Project Experience:

- ✓ As PM, successfully delivered 5 projects for the Laredo MPO, including the MTP and Transit Asset Management Plan
- ✓ As PM, successfully delivered 7 MTPs for 5 MPOs in Texas
- ✓ Co-authored more than 10 MTPs around the nation

Familiarity with Federal & State Regulation:

- ✓ Great understanding of all federal and state planning standards
- ✓ Through APA, involved in many facets of the FAST Act and MAP-21 development
- ✓ Co-authored APA's freight planning policy according to FAST Act requirements
- ✓ Developed the project selection criteria and established performance measures for KTMPO and SETRPC, as per FAST Act and House Bill 20 requirements

Creative Solutions:

- ✓ Designed a web-based public outreach platform for 2035 MTP for the Midland-Odessa region
- ✓ Employed scenario planning for the 2035 Laredo MTP development

Charlie Sullivan, AICP will serve as our team's planning lead. His background includes 14 years of experience at TxDOT in the Transportation Planning & Programming and the Public Transportation Divisions and 13 years with CDM Smith. He has worked directly on planning projects for 13 of the state's 25 MPOs and has performed work for another nine MPOs as part of statewide corridor projects. Charlie has extensive experience in preparing MTPs. He served as the lead planner for Laredo's MTP and TDM updates. Charlie also served as the project manager for the 2040 Victoria MTP, where his **innovative approaches included developing the Voice of Victoria, a public outreach program and multimodal project scoring criteria**. His management of work products resulted in the project being completed on time and under budget.

Serving as our public involvement lead, **Vicky Carrasco** will be responsible for the assisting CDM Smith and their preparation of a public involvement plan, outreach strategies, bilingual information documents, and assisting Laredo MPO in working with stakeholders and corresponding with all required local, state, and federal agencies. She is a bilingual planner and is a former Chair of the Latinos and Planning (LAP) Division of the APA. During her many years of being involved with APA and the Latinos and Planning Division, she has worked on educating other professionals on best outreach strategies for reaching out to the Hispanic community during planning processes.

BILINGUAL TRANSPORTATION WITH EXPERIENCE IN FEDERAL PLANNING STANDARDS

Martin Guttenplan will be responsible for alternative mobility. He has in-depth knowledge of the federal, state, and local transportation planning processes, and his experience covers a wide range of pedestrian/bicycle plans, transportation, land use, growth management and multimodal initiatives, including mobility management processes and comprehensive plans. Martin led the alternative mobility task for the 2035 and 2040 Laredo MTP updates. He was instrumental in the development of multimodal LOS measures for multimodal analysis in the

Transportation Research Board (TRB) Highway Capacity Manual 2010.

Jenifer Palmer, AICP has over 10 years of transportation planning in all major modes of transportation, including buses, bus rapid transit (BRT) systems, heavy rail systems, high speed rail, as well as roadway and bicycle and pedestrian studies. Jenifer served as the lead planner for Laredo's transit development and asset management plan completed in 2016. Jenifer's diverse experience working with transit agencies, MPOs, state DOTs, and the Federal Transit Administration (FTA) has provided her with an ability to develop integrated and multimodal solutions for both corridor-specific projects and long-range transportation plans.

SECTION 3

Approach and Schedule to Complete the Project

CDM Smith's long history of Laredo experience coupled with national best practices and our continued commitment to LUTS will enable us to deliver a FAST Act-compliant 2040 and 2045 MTP update within a short time frame.

PROJECT UNDERSTANDING

CDM Smith has a reputation for producing quality solutions that are comprehensive and implementable. We have continuously demonstrated our ability to successfully perform on projects in Texas, which has resulted in long-term relationships with our clients. Although project references are important, our volume of repeat business with MPOs throughout the state serves as a testament to our ability to meet our clients' needs and exceed their expectations.

EXPERIENCED TEAM IN DEVELOPMENT OF MTPs BASED ON FEDERAL & STATE PLANNING REQUIREMENTS

CDM Smith has completed the previous four versions of the Laredo MTP, updated the travel demand model for these four versions, and also recently delivered the Transit Development and Asset Management Plan.

The Laredo 2035 Metropolitan Transportation Plan is "one of the best that I have seen in many years." —FHWA Reviewer

Our team fully understands the region, federal and state regulations, and is up-to-date with all the requirements. MTP development is a rigorous task requiring strong technical skills, expertise in multimodal planning, coordination with policy bodies and with the general public, and compliance with a host of rules and regulations. Our goal for this project is to develop a successful multimodal MTP that goes beyond the minimum requirements to be a truly useful

guide to transportation planning for Laredo. To accomplish this goal, the MTP must address several contexts of transportation planning. It must recognize:

The context of planning under federal, state, and local regulations. Regulations affect both the parameters of plan development and the time schedule. Compliance with the new rules specified by the FAST Act and Texas House Bill 20 will be particularly important.

The context of available tools. The Laredo travel demand model is a crucial tool for network project evaluation, and our team has already developed and delivered the 2018 through 2045 socioeconomic and network data to TxDOT for updating the Laredo Model. If the new model is not delivered in time to fit into the MTP development schedule, CDM Smith has the experience and familiarity with TxDOT modeling procedures to develop alternative analysis tools.

The context of transportation planning in the lives of people. The end result of transportation planning is to make peoples' lives better. Every choice to select or to not select a project will have impacts on their lives. The MTP is a crucial planning process to help ensure that the optimum choices are made for projects for all transportation modes and that the impacts of transportation projects do not disproportionately affect certain population groups.

The context of transportation planning within fiscal constraint. With limited funding, projects will have to be carefully evaluated to manage the best mix of system preservation, safety, mobility for goods and people, improved operations, and environmental justice. The best mix of projects will consider multimodal issues, which include transit, bicycle and pedestrian, trucks, rail freight, and air travel.

The project approach for the 2020-2045 MTP addresses the objectives specified in the RFQ with a processed organized into seven general tasks:

1: *Project Management*

2: *Review the 2040 MTP for Compliance with the Latest Regulations*

3: *Public Participation*

4: *Project Evaluation*

5: *Revenue Forecasts & Final Prioritized Project Listing*

6: *Development of the MTP Document*

7: *Implementation of the Plan & MOEs*

PROJECT APPROACH

Task 1: Project Management

Task 1.1: Kickoff Meeting, Scope of Work, Schedule, and Project Management

The management of project activities will ensure the efficient and timely delivery of all study deliverables that are complete, correct, and comprehensive. The CDM Smith team will work towards these objectives through the following set of activities:

MTP Kickoff Meeting. This will be an interactive meeting that sets up the MTP development process. Its primary goal is to refine and verify the Scope of Work and the Schedule. The meeting will also be used to seek preliminary input on transportation planning goals and on performance Measures of Effectiveness (MOEs).

Project Management Plan. The CDM Smith team will develop a Project Management Plan to serve as a guide for conducting the project and identifying the required tasks and products, proposed public participation strategies, schedule of work, project meetings, public meetings, and major milestones and deliverables. The project schedule will recognize the need to update the current 2040 MTP to achieve compliance with the FAST Act no later than May 27, 2018.

Monthly Progress Reports and Invoices. The CDM Smith team will prepare monthly progress reports that will document activities performed during the previous month as well as those anticipated in the upcoming month. Invoices will be prepared monthly, or as otherwise required by the MPO.

QA/QC Process. The CDM Smith team's primary strategy of quality control is to assign the right people to each task so that all work is complete, correct, and comprehensive the first time. The defined QA/QC process for checking work requires a minimum of two rounds of internal review of all deliverables before submittal to the MPO. This process will be tracked for each deliverable in a QA/QC checklist. All comments received from the MPO will be tracked as they are addressed in updated deliverables.

Task 1.2: Review Goals, Objectives, and Policies from Existing Plans

Initial goals, objectives, and policies for MTP development will be gleaned from MPO documents, including the previous 2040 MTP, the Viva Laredo Comprehensive Plan adopted in 2017, the Thoroughfare Plan, and other planning documents identified through interviews with MPO staff and other stakeholders. As the goals, objectives, and policies are key factors in defining the project selection criteria, it is vital that they be verified as the true and most current intent of the MPO.

Task 1 Deliverables

1: *A summary of the project kick-off meeting*
2: *A finalized scope of work with schedule*
3: *Monthly progress report and invoices*
4: *Project Management Plan*

Task 2: Review and update Current MTP for Compliance with Latest Regulations

After the project kickoff meeting, the first major step in the project will be to review how the current 2040 MTP conforms to the FAST ACT and other federal and state regulations. In addition to the MTP-specific regulations specified in 23 CFR 450, the review will cover the corresponding regulations for the Public

Participation Plan, Title VI outreach, Limited English Proficiency Plan, and consultation with additional transportation stakeholders as part of the review.

Based upon our review of how the current MTP addresses these requirements, we have developed a list of issues that should be addressed in the update. We will review this list with the MPO staff to finalize a list of recommendations which will include specific additions, deletions, and elements of the plan that should be revised. Following is the list of issues to be addressed and updated for the 2040 MTP to be FAST Act compliant.

1. Incorporate the two new planning factors
2. Include consideration of intercity buses
3. Include an assessment of capital investment and other strategies to preserve the existing and future transportation system and reduce the vulnerability of the existing transportation infrastructure to natural disasters.
4. Include a description of the (federally required) performance measures and performance targets used in assessing the performance of the transportation system.
5. Include a system evaluation report evaluating the condition and performance of the transportation system with respect to the (federally required) performance targets including progress achieved by the MPO toward the performance targets.

Task 2 Deliverables

1: *Technical memorandum documenting requirements of the FAST Act and elements of the current 2040 MTP in need of expansion, deletion, or revision*

2: *Updated 2040 MTP in compliance with all provisions of the FAST Act*

Task 3: Public Participation

The CDM Smith team will work with MPO staff to update the current Public Participation Plan specifically for the 2045 MTP. The updated Public Participation Plan will identify efforts that will be used to involve minorities, low income communities, and other groups that are often underrepresented in the transportation planning process. The strategies identified will also be used to develop a plan that provides meaningful opportunities for public participation.

The implementation of the plan will consider outreach to two distinct groups: stakeholders and the general public. Improved outreach will be sought for each group, and a Public Outreach Contacts Database will be formally established to support broad and ongoing outreach.

Task 3.1: Stakeholder Database

Our team has already prepared a database of major stakeholders in the region through our previous work, and we will continue to build and update the list of stakeholders and interested public. We will work with the MPO staff and build a database that can be used beyond this public outreach process and make it capable of generating data regarding stakeholder interests, their area of interest, and to continue with communication.

Task 3.2: Outreach to Stakeholders

A previous set of regional stakeholders have already been identified in Laredo MPO planning documents and in the existing Public Participation Plan mailing list. During the public participation process, we may target organizations with strong transportation interests, such as intercity bus operators, freight and warehousing operators, school district bus operations, taxi and ridesharing providers, and bicycle advocacy groups.

Task 3.3: Outreach to the Public

CDM Smith team will work with the MPO to identify other opportunities to solicit public input, activities such as conducting focus group meetings, interviewing other key stakeholders (such as major employers, the City of Laredo's Transportation and Traffic Safety Advisory Committee, EPA and the U.S. Department of Homeland Security), and "piggy-backing" onto meetings of existing civic groups. Particular focus will be placed on reaching out to the under-served and underrepresented members of the community including low-income residents, people with disabilities, and seniors.

The CDM Smith team has extensive experience in presenting complex technical information in an understandable way. One of the most successful techniques has been to host an open house with a series of display boards on easels, each illustrating a simplified single step of the project generation, evaluation, and selection process. Rather than conducting a single presentation, staff stands by at easel stations ready to explain and to answer questions as people come and go at their convenience.

In this venue, having Spanish-speaking staff who are familiar with transportation concepts is vital. Our experience with previous public meetings in Laredo has demonstrated that even the most fluent Spanish speakers can face challenges in providing a proper translation; they must also be thoroughly familiar with transportation concepts and terminology. This experience has lead us to team with Kleinman Consultants, who have an engineering, surveying, and planning practice. Their broad-ranging practice will provide the needed background in transportation to complement their fluency in Spanish.

As shown in the project schedule at the end of this proposal, two series of public forums are proposed to be held. The first during the

needs assessment process, the second after the development of alternative projects to allow public input into the development of the draft MTP document. Each round of public meetings will be held at two locations to get maximum input.

Generating interest and involvement among the general public is by far the hardest task in a public participation process. The CDM Smith team has found that reaching out to established groups—such as community groups, employers, and special interest groups—often works better than expecting individuals to make the time in their schedules to attend public meetings on their own. The design of the Public Participation Plan will identify likely groups to contact.

Task 3.4: Environmental Justice Analysis

Every transportation project produces benefits and costs. Tracking how the benefits and costs of projects impact different social groups is termed "Environmental Justice" or "Title VI analysis." Ideally, the benefits and costs of each project will be evenly and justly borne by every segment of society. The goal of the Environmental Justice analysis is to identify the locations of projects and protected populations and to ensure that disproportionate effects are avoided, minimized, or mitigated.

Task 3.5: Measures of Effectiveness

As part of the performance-based planning mandated by the FAST ACT, performance measures and targets will be developed so that the effectiveness of the public outreach efforts can be monitored. MOEs that are distinct, measurable, and achievable will be defined.

Task 3 Deliverables

1: *Updated Public Participation Plan customized to the MTP process*

2: *Updated formal Public Outreach Contacts Database*

3: *Environmental Justice analysis report*

4: *First public meeting under Task 4*

5: *Second public meeting under Task 6*

6: *Measures of Effectiveness for public outreach*

Task 4: Project Evaluation

Task 4.1: Performance Measures

FHWA recently released its 'system performance' performance measures Notice of Proposed Rulemaking (NPRM), which articulates a very specific set of performance measures that states and MPOs must implement by 2018. The CDM Smith team will draw upon our extensive experience with performance measures to help Laredo MPO establish the right set of performance measures for this Plan that meet both federal and state requirements and inform decision-making. The CDM Smith team will establish a set of performance measures that will enable MPO to support plan development and implementation, comply with FAST Act performance-based planning requirements, and provide a means for MPO to monitor plan implementation and support ongoing planning and programming efforts. To develop performance measures and targets,

the CDM Smith team will proceed with the following steps:

Review Current Process. To gain a clear understanding of how the TxDOT and FHWA currently uses performance measures, we will interview TxDOT staff and pay particular attention to the measure definitions, methodologies, targets, applications, and data sources. These conversations will also include performance-management processes currently in place at TxDOT and FHWA.

Identify Availability of Data, Analyses Tools, and Reporting Mechanisms. Beginning with meetings surrounding the Plan kick-of, the consultant team will conduct interviews with MPO and TxDOT staff (and others as needed) to determine the availability of data, analyses tools, and reporting mechanisms to support or influence the development and application of the performance measures for each of the goal areas.

Align Measures with Goals and Objectives and Ensure Consistency. This step will be coordinated with the goals and objectives task to ensure the measures are aligned, consistent, and data-driven. While we will address FAST Act requirements, this step will provide opportunities to consider the value of new measure methodologies, data sets, and additional innovative measures if they offer value to improving efficiency in the Laredo MPO region. We will identity potential future tools and or data required to support tracking system performance.

Check consistency with FAST Act Performance Measure Requirements. This can be conducted in tandem with step 2 above. We will compare the emerging set of measures derived from the goals and objectives with FAST Act requirements. This will ensure that we identify and resolve any gaps in FAST Act compliance.

Develop Recommendations for Final Measures and Targets. Once an agreed upon set of measures has been established, we will work closely with the MPO staff and technical advisory committee to develop a set of recommendations for performance measures and targets. This will be presented to public for comments at the first series of public meeting and then to the MPO policy committee for adoption.

Task 4.2: Socioeconomic Data Report

The input socioeconomic and network data for the 2013 base year travel demand model and data for the 2018, 2030, 2040, and 2045 forecast years has already been completed by CDM Smith team and delivered to TxDOT. The Laredo population is projected to grow incrementally outward in all directions, and is concentrated along the Mines Road, Loop 20, Cuatro Vientos Boulevard, and US 83 South corridors.

Brief documentation on the socioeconomic data was provided when the files were delivered to the MPO. For this MTP task, a more extensive report will document the socioeconomic data for all model attributes of households, population, group quarters, household size, household income, and employment in the categories of basic, retail, service, and education.

Task 4.3: Existing Conditions, 2040 No-Build Analysis, and Project Generation

The core technical analysis of MTP project generation and evaluation is to compare the modeled conditions to the desired standards, look for deficiencies, and define and analyze projects to address those identified needs. This task is a technical tool for developing potential projects based on need. Work under this task will run the model for the 2013 base year, define the 2045 Existing Plus Committed (E+C) network, and run the model for the 2045 forecast year with the E+C network. Traffic-related issues will be identified for each model run and may generate additional projects for consideration in the MTP.

Task 4.4: Project Evaluation

The full list of projects to be evaluated will include projects generated by model analysis under Task 4.3, projects carried forward from the previous MTP, and projects defined by the MPO after the call for projects and public comments.

CDM Smith will develop an evaluation methodology using performance measures to screen the projects and ensure that the plan's goals and objectives are being accomplished. A ranking tool will be developed to provide transparency for the public and a reliable, repeatable method for evaluating projects for the local planning community and policy makers. The end product of this task will be the initial ranked listing of all projects.

Task 4.5 Freight Planning

The FAST Act placed extra emphasis on regional freight movement. As the largest inland port in the country, freight planning will be crucial for Laredo region.

The attention on freight issues is compounded by the Panama Canal expansion, technology advancements, and the rise of automation. Because of this, our team will apply a special focus to transportation planning, realizing that more effective freight solutions are a vital component to advancing infrastructure.

Task 4 Deliverables

1: *MTP project evaluation criteria*

2: *Spreadsheet setting up the scoring by project based on performance measures and scoring*

3: *Report detailing model socioeconomic attributes for 2018, 2030, 2040, and 2050*

4: *2045 E+C network in TransCAD format*

5: *Report evaluating 2018 and 2045 issues and potential projects*

6: *White paper on Laredo region's freight movement*

Task 5: Revenue Forecast and Final Prioritized Project Listings

The reasonably anticipated funding sources available by year will be analyzed using the Unified Transportation Plan (UTP) and the TRENDS model made available through TxDOT.

The list ranked projects from Task 4.4 will be matched with the available funding by year to determine the final fiscally-constrained prioritized project listings. While projects will be selected according to their initial rank, this will be an iterative and somewhat subjective process as the best matches and the best staging of projects is determined. Project ranking, project costs, and available funding by year will be balanced to derive three distinct project listings: short-term funded projects, long-term funded projects, and unfunded projects.

Task 5 Deliverables

1: *Financial plan describing reasonably expected funding*

2: *Spreadsheet listing all projects in the categories of short-term funded projects, long-term funded projects, and unfunded projects*

Task 6: Development of the MTP Document and Project Completion

The Draft MTP document will be an assembly of the technical memorandum from previously completed tasks. It will be updated based on task review and comments, and refined to develop a single complete, correct, and comprehensive document. This strategy allows for continuous review of documents throughout the full life of the project.

The draft 2045 MTP will be presented to the technical committee and policy board and will then be made available during the public comments period. All comments will be documented and addressed in a revised draft, followed by a further review period for the final version before its presentation to the Laredo Policy Committee.

Closeout of the MTP development process is defined as a specific step in order to emphasize that the project is fully complete. A final meeting with MPO staff will ensure that all files are in their possession in usable formats and that they have the ability to make updates to the MTP for future plan amendments.

Task 6 Deliverables

1: *25 hard copies of Draft versions of the 2045 MTP document*

2: *40 hard copies of Final versions of the full 2045 MTP document*

3: *Final files for all tables, figures, and maps in editable formats (.xlsx or TransCAD)*

4: *2045 MTP Executive Summary*

5: *Presentation to the Policy Committee*

Task 7: Implementation of the Plan and Measures of Effectiveness (MOEs)

Along with the full set of final supporting files and text files for the MTP, provided as part of the project close-out as Task 7, the ongoing monitoring process will enable Laredo MPO

staff to continuously evaluate and update the 2045 MTP throughout the five-year life span of the document, and track the performance of the implemented projects.

CREATIVE SOLUTION TO TRACK PERFORMANCE

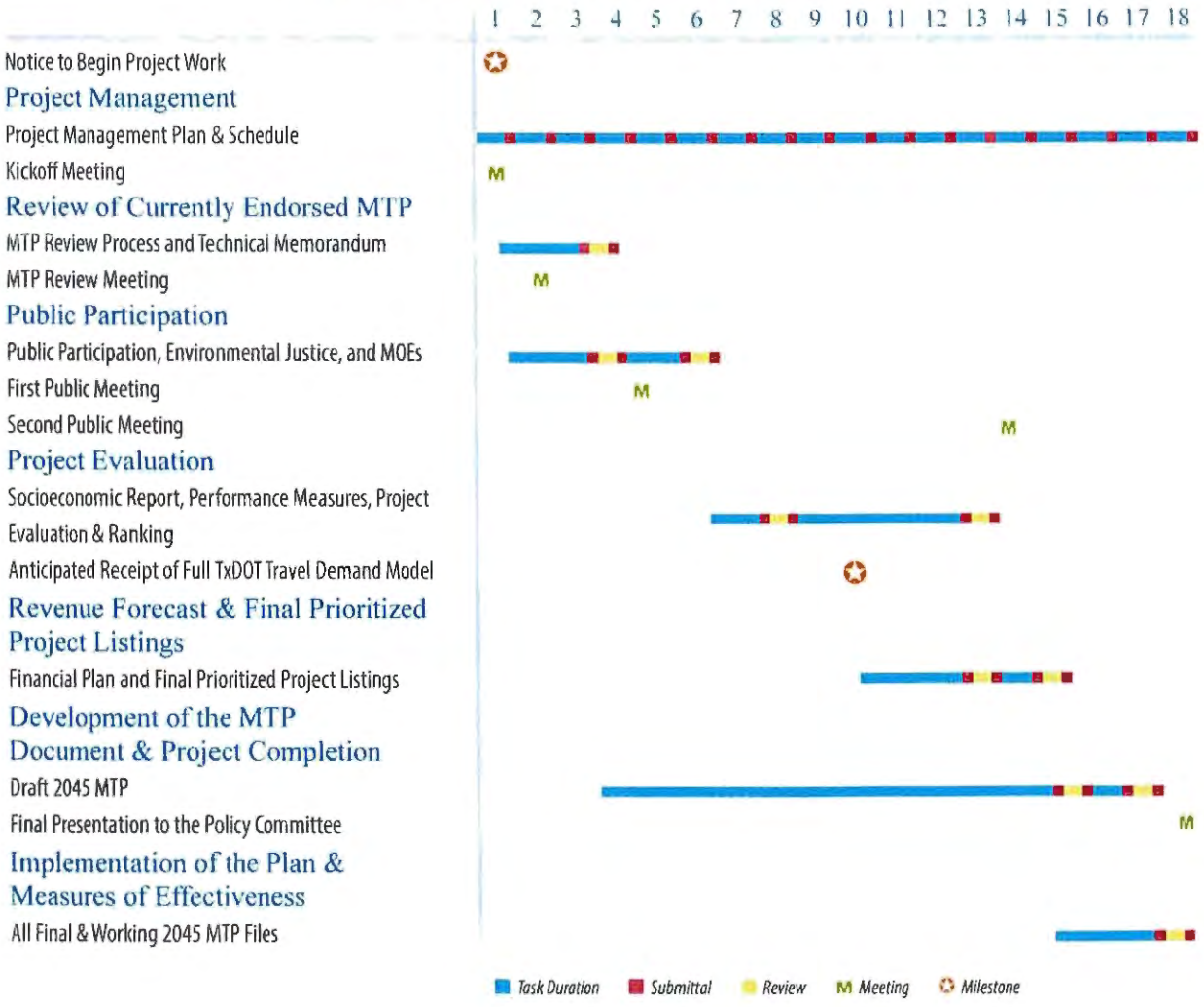
The performance measures as defined under Task 4.1 will have defined objective and subjective project evaluation criteria. Objective MOEs will be derived for each performance measure so that the performance of individual projects and of the full transportation network can be monitored. The ongoing monitoring of the MOEs will enable the MPO to evaluate projects under actual conditions to determine how well the completed projects are performing.

Task 7 Deliverable

1: *Spreadsheet of performance measures (MOEs) for each project evaluation track*

Proposed Project Schedule

LAREDO 2045 MTP PROJECT SCHEDULE



APPENDIX

MADHU NARAYANASAMY, AICP
Project Manager

Education

MS, Urban Planning, Texas A&M University, 2006

BS, Architecture, Thiagarajar College of Engineering, India, 2002

Registration

American Institute of Certified Planners

Madhu Narayanasamy has more than 13 years of experience in multimodal transportation planning and policy analysis. His technical specialties includes preparing transportation plans, corridor feasibility studies, access management studies, congestion management process, travel demand modeling, economic and financial analyses, urban planning and design strategies, and public involvement. He serves as the Vice chair for the Transportation Planning division of the American Planners Association.

- **Project Manager, Laredo Urban Transportation Study (LUTS) 2040 MTP Update, Laredo, TX.** The MTP provides a vision for meeting the existing and anticipated travel demands on the multimodal transportation system serving the Laredo area through the year 2040. The 2040 MTP was developed with compliance to MAP-21 requirements and to support a balanced, multimodal, and sustainable transportation system that improves the multimodal system and enhances livability in this rapidly growing area.
- **Project Manager, Laredo Transit Development Plan and Transit Asset Management Plan, Laredo, Texas.** Madhu served as the project manager for this project to update the Transit Development Plan for El Metro. El Metro is the transit agency that provides public transportation for the Laredo Metropolitan Region. The project included a full assessment of the agency management structure, operating costs, funding sources, facilities, and fixed route service. Demographic analysis and ridership verification identified current and emerging travel markets. Fiscally-constrained service improvement recommendations were developed with public input received at project open houses and from an on-board ridership survey. CDM Smith also prepared a transit asset management plan for El Metro to procure, operate, maintain, rehabilitate, and replace their transit assets.
- **Project Manager, 2045 Laredo MPO Travel Demand Model Update, TX.** CDM Smith prepared the demographic and travel model inputs for the LUTS travel demand model. Madhu served as the project manager for updating the network and demographic data for the new base year (2013) and future year 2045 for submittal to the TxDOT. Responsibilities included refining network; data collection to determine network attributes; developing demographic data for all years, and preparing geographic files and reports required to make the submittal to TxDOT.
- **Project Manager, Laredo MPO Travel Demand Model Update, TX.** CDM Smith prepared the demographic and travel model inputs for the LUTS travel demand model. Madhu served as the project manager for updating the network and demographic data for the new base year (2008) and future year 2040 for submittal to the TxDOT. Responsibilities included refining network; data collection to determine network

attributes; developing demographic data for all years, and preparing geographic files and reports required to make the submittal to TxDOT.

- **Project Manager, South East Texas Regional Planning Commission 2040 MTP Update, Beaumont, TX.** Madhu served as the project manager for updating the 2040 MTP for the Southeast Texas Regional Planning Commission (SETRPC). The MTP provided the vision for meeting the existing and anticipated travel demands on the multimodal transportation system serving the SETRPC area through the year 2040. The 2040 MTP supported a balanced, multimodal, and sustainable transportation system that improves the multimodal system and enhances livability in this rapidly growing area. CDM Smith services included: public participation, roadway, transit, bicycle, pedestrian needs and improvements, performance measures, livability, planning level cost estimates, financial plan, and MAP-21 compliance.
- **Senior Planner, Victoria MPO 2040 MTP Update, Victoria, TX.** Madhu served as senior planner and coauthored the MAP-21 compliant 2040 MTP. This MTP project for the Victoria MPO is referenced for its innovative Voice of Victoria public involvement program. The program greatly increased the amount of public participation and has been successfully used for three other planning projects: the Victoria Comprehensive Plan, a corridor study, and an airport master plan.
- **Project Manager, South East Texas Regional Planning Commission 2015 – 2018 TIP Update, Beaumont, TX.** Madhu is currently serving as the project manager for updating the 2015 – 2018 Transportation Improvement Program (TIP) for the SETRPC. CDM Smith services included: public participation, document preparation, and compliance to applicable state and federal regulations.
- **Project Manager, Killeen-Temple Metropolitan Planning Organization 2040 MTP Update, TX.** The Killeen-Temple Metropolitan Planning Organization (KTMPO) contracted with CDM Smith to assist with the development of the 2040 MTP. CDM Smith services included: roadway, needs and improvements, traffic forecasting, performance measures, livability, project evaluation criteria, and MAP-21 compliance.
- **Project Manager, KTMPO Congestion Management Process, TX.** The KTMPO contracted with CDM Smith to complete their 2013 Congestion Management Process. Services included preparing a CMP framework, identifying traditional and nontraditional congestion mitigation improvements, prepare goals and objectives, performance measures, and funding sources.
- **Deputy Project Manager, KTMPO Travel Demand Model Update, TX.** CDM Smith prepared the demographic and travel model inputs for the KTMPO travel demand model. Madhu served as the deputy project manager for updating the network and demographic data for the new base year (2011) and future year 2035 for submittal to TxDOT. Responsibilities included refining network; data collection to determine network attributes; developing demographic data for all years, and preparing geographic files and reports required to make the submittal to TxDOT.
- **Task Manger, 2040 MTP Gainesville-Hall County MPO, GA.** The updated plan identified needs based on a variety of data-based performance measurements; incorporated multimodal alternative solutions; meet FHWA requirements and positioned the MPO to meet requirements from the pending federal reauthorization. Madhu was instrumental in the development of this update. He managed different tasks including data collection, analyzing existing conditions, GIS management and coauthored the MTP.
- **Project Manager, Jefferson-Orange-Hardin Regional Transportation Study On-Call Planning: Public Participation Plan and MTP, TX.** The MTP developed a vision for meeting the existing and anticipated travel demands on the multimodal transportation system serving the SETRPC area through the year 2035. CDM Smith developed the 2035 MTP to support a balanced, multimodal, and sustainable transportation system that improves the multimodal system and enhances livability in this rapidly growing area. CDM Smith services included: public participation, roadway, transit, bicycle, pedestrian needs and improvements, performance measures, livability, planning level cost estimates, financial plan, and MAP-21 compliance. The SETRPC Policy Committee adopted the 2035 MTP in April 2013.

CHRIS NAZAR, AICP
Project Advisor

Education

MS, Urban Planning, University of Toronto, 2001

BA, Urban Studies and Economics, University of Toronto, 1999

Registration

American Institute of Certified Planners

Chris Nazar serves as a principal planner, team leader and project manager. He manages environmental and transportation planning projects and his duties include project budgeting, scheduling, coordination, document writing and editing, supervising teams, document delivery, client coordination, and quality assurance. Chris has led teams of planners, economists, and environmental specialists in the preparation of complex environmental documents, MPO plans, statewide plans, and corridor studies for state DOTs, MPOs and other government and private agencies. His technical specialties include transportation planning, environmental studies, economic impact analyses, and public involvement.

- **Lead Planner/Practitioner DuPage County Long Range Transportation Plan, DuPage County, IL.** CDM Smith is preparing the first comprehensive long range transportation plan for DuPage County, IL. This includes completion of a capital plan, identify key projects, policies, and initiatives for the next 25 years: a financial plan; and an operations and maintenance plan and strategy. Chris is guiding the capital plan work including the analysis of existing conditions, needs, and propose projects.
- **Technical Reviewer, Indianapolis MPO Freight Plan, Indianapolis, IL.** CDM Smith produced the first freight plan for the Indianapolis MPO. Chris served as the technical reviewer and technical review committee chair for all parts and chapters of the plan, ensuring scope of work compliance as well as technical accuracy.
- **Project Manager, Wichita Area Metropolitan Planning Organization (WAMPO) Metropolitan Transportation Plan 2035, Wichita, KS.** In partnership with WAMPO, CDM Smith prepared the transportation blue print for the Wichita area for 2010-2035. The plan included researching transportation needs; developing goals, objectives, and measures of effectiveness; evaluating potential projects; and completing all documentation. Chris led the entire plan team, directed plan delivery and coordinated all aspects of the analysis and documentation, including client/stakeholder communication, scheduling, and budgeting. He was also responsible for the long-term financial plan.
- **Project Manager, WAMPO Travel Time Study, Wichita, KS.** CDM Smith was part of a team completing a travel time study of major roadways and railroad crossings for the Wichita area. Work included the collection of railroad crossing data, coordination with other plans, and developing and reviewing documents. As CDM Smith's project manager, Chris was responsible for all aspects of CDM Smith's work including data collection, analysis, document writing, and advisory group presentations.

VICKY CARRASCO
Public Involvement

Education

MS, Urban Planning, Texas A&M University, 2004

BS, Renewable Natural Resource Management

Languages

Spanish

Public Outreach Training

Charrette Training, National Charrette Institute, 2007

Facilitation Skills for Resource Managers and Scientists, Nelson Facilitation, 2010

Social Science Training, National Nonpoint Education for Municipal Officials Network, 2010

Sustainable Urbanism: Design with Nature/ LEED ND, Doug Farr and Associates, 2009

Public Issues and Conflict Management, NOAA Coastal Services Center, 2005

Vicky Carrasco is associate vice president/planner of Kleinman Consultants, PLLC. Her responsibilities include project management and is senior planner for all urban planning projects in the company. She has expertise in the following areas: environmental studies, economic development, GIS, land use planning, natural resource management, public participation, inter-governmental coordination, conflict resolution and facilitation.

- **Public Involvement Specialist, Highway 67 Corridor Study, TxDOT, West Texas.** Vicky is assisting CDM Smith with stakeholder contact list, a Public Involvement Plan, innovative outreach strategies, inter-government coordination, and bilingual translation for documents and stakeholder meetings.
- **Public Involvement Specialist, Presidio International Bridge, Presidio, TX.** Vicky provided guidance on outreach strategies, assistance in public meetings hosted by TxDOT for input on the bridge expansion.
- **Past Chair, APA Latinos and Planning, National.** Vicky hosted planning 'dialogo' events as part of the Latinos and Planning Division, of the American Planning Assoc. She facilitated and led numerous sessions and discussion nationally on planning/ engagement of Latinos in planning processes and helped organize Dialogo on the Border event, to discuss planning issues important to Latino communities.
- **Public Involvement, Water System Improvements-Colonia, Presidio, TX.** Vicky served as public involvement lead for this project which included grant application, preliminary engineering, final design, bidding, and construction. Her responsibilities included public input/public meetings, community meetings, and inter-agency coordination with TCEQ, TWDB, County.
- **Outreach, Kent County Climate Change and Sea Level Rise Adaptation VCAPS Process, Kent County, MD.** Vicky assisted with Vulnerabilities and Consequences Adaptation Planning Scenarios (VCAPS) planning process in partnership with planning department for Kent County, MD. She conducted stakeholder interviews and helped organize a public workshop and diagramming session and follow-up public meetings for the project, which led to a report about natural hazards.

ABRIL VILLALOBOS, EIT

Public Involvement

Education

BS, Civil Engineering, Texas A&M University, 2017

Languages

Spanish

Registration

Engineer-in-Training, # 59553

A recent graduate of Texas A&M, Abril joined CDM Smith as a transportation planner, following an internship with the Texas toll practice – one of our firm's largest toll teams. She offers direct experience with transportation planning tasks such as analysis, writing and editing of reports, data collection and summarization, tabulation, and research. While serving as an intern, Abril focused on preparing and initiating work authorizations for new projects, writing and editing toll facility and planning reports, and performing transportation analysis in Houston, Dallas, and El Paso. With demonstrated leadership skills, Abril takes an active role in her community, looking for opportunities to combine her fluency in Spanish and diverse outreach abilities to advance personal and professional growth.

- **SH 249 Comprehensive Study, TxDOT, Toll Operations Division.** Abril provided a variety of transportation planning tasks for this study, which was part of an on-call Traffic & Revenue contract. As an active member of this project team, CDM Smith's role includes management and coordination of all procurement related efforts for TxDOT, its consultants and partner agencies, advising TxDOT on its procurement processes and procedures, development of the procurement documents and selection criteria, support in the selection process, transition to award, and implementation. For the SH 249 task, CDM Smith was involved in the procurement of this $410 million DBOM agreement for a 24-mile long new tolled facility consisting of up to four new toll lanes in Montgomery County and two new toll lanes in Grimes County.
- **Oak Hill Sketch Level Traffic & Revenue Study, TxDOT.** Abril served as a transportation planner on this study which provided conceptual level feasibility analysis for Oak Hill Parkway. This project, a joint partnership between TxDOT and Central Texas Regional Mobility Authority, will improve and provide mobility solutions for US 290 and SH 71.
- **SH 183 Investment Grade Study (Midtown Express), Dallas-Fort Worth, TxDOT.** Abril served as a transportation planner, where she assisted in analyzing existing conditions and preparing the final report. This traffic and revenue study is a key component to the implementation of managed lanes along SH 183, SH 114, and Loop 12.

CHARLIE SULLIVAN, AICP

Plan Development, Travel Demand Modeling & Socioeconomic Forecasting

Education

MS, Community & Regional Planning
University of Texas, 2000

BS, Architecture,
University of Texas, 1984

Registration

American Institute of Certified Planners

Charlie Sullivan is a senior transportation planner with an extensive background in MPO planning, transportation planning, travel demand modeling, geographic information systems, public involvement, and project management. His relevant project experience includes:

- **Senior Planner, TDM Updates, Laredo, TX.** The existing 2004 TDM for Laredo was expanded and updated to 2008 with a 2035 forecast to support an update to the MTP. An interesting feature of this project was an MPO specification of a forecast TAZ system which is completely different from the base year.
- **Planner/Task Manager, Laredo Transit Development Plan and Transit Asset Management Plan, Laredo, TX.** Mr. Sullivan served as task manager for four of the eight tasks for the Laredo Transit Development Plan. This project included a review and analysis of the fixed-route system based on onboard surveys and ridechecks, a review of recommendations from previous plans, and the development of alternatives for short-term improvements to the transit system.
- **Project Manager, Victoria MPO 2040 MTP Update, Victoria, TX.** Charlie led this effort on the development of MAP-21 compliant 2040 MTP for the Victoria MPO region. This MTP project for the Victoria MPO is referenced for its innovative Voice of Victoria public involvement program. The program greatly increased the amount of public participation and has been successfully used for three other planning projects: the Victoria Comprehensive Plan, a corridor study, and an airport master plan.
- **Senior Planner, Laredo Urban Transportation Study (LUTS) 2040 MTP Update, Laredo, TX.** The MTP provides a vision for meeting the existing and anticipated travel demands on the multimodal transportation system serving the Laredo area through the year 2040. The 2040 MTP is being developed with compliance to MAP-21 requirements and to support a balanced, multimodal, and sustainable transportation system that improves the multimodal system and enhances livability in this rapidly growing area.
- **Senior Planner, South East Texas Regional Planning Commission 2040 MTP Update, Beaumont, TX.** The MTP provided the vision for meeting the existing and anticipated travel demands on the multimodal transportation system serving the SETRPC area through the year 2040. The 2040 MTP supported a balanced, multimodal, and sustainable transportation system that improves the multimodal system and enhances livability in this rapidly growing area. CDM Smith services included: public participation, roadway, transit, bicycle, pedestrian needs and improvements, performance measures, livability, planning level cost estimates, financial plan, and MAP-21 compliance.

ROGER SCHILLER
Freight Planning

Education

MS, Planning, Florida State University, 2007

BA, Economics and International Affairs, Florida State University, 1999

Registration

Project Management Professional, #1938730

Roger Schiller has more than 10 years of experience in freight transportation planning and operations in both the public and private sectors. His experience includes identifying and prioritizing freight transportation improvement projects; developing, testing, and evaluating freight technology applications; statewide and regional multimodal freight planning; economic analysis; cost-benefit analysis; policy analysis; and commercial vehicle operations/enforcement.

- **Project Manager, Port Strategic Mission Plan and Port Capital Program, TxDOT, Coastal Texas.** For TxDOT, Roger led the development of the biennial Port Strategic Mission Plan and Port Capital Program. This included an overview of regional and global trends affecting Texas ports, an assessment of the operational and infrastructure implications of those trends, and a set of policy and program recommendations intended to maximize the growth and economic benefit of the Texas maritime transportation system.
- **Project Manager, Rider 48 Implementation, TxDOT, Coastal Texas.** The 84th Texas Legislature included Rider 48 in the biennial state budget, which devoted $20 million to road connectivity projects for Texas ports. Roger managed the process of identifying and programming these projects for TxDOT, including multiple calls for projects, project scoring and ranking, Texas Transportation Commission approval, and getting the projects into the Unified Transportation Program for implementation.
- **Deputy Project Manager, Freight Advanced Traveler Information System (FRATIS) Program, FHWA, Los Angeles and South Florida.** Roger served as deputy project manager for the FHWA FRATIS program, which developed and tested a package of technology applications designed to improve freight operations through dynamic routing, information sharing between intermodal terminals and trucking companies, and drayage load planning optimization. This included development of a Concept of Operations (ConOps) and System Requirements Specifications which laid the technical groundwork for FRATIS, followed by system development and small-scale testing in Los Angeles and South Florida. Roger led the assessment of existing and emerging freight technologies for the ConOps, assisted with requirements gathering and prioritization, and helped train drayage company drivers and staff in the use of the FRATIS system. Roger was also the lead interface with the independent evaluation team, ensuring that the evaluators had access to all the data necessary to conduct their assessment.

KRISTA GOODIN, AICP

Plan Development

Education

MS, Environmental Planning and Management, Louisiana State University, 2000

BA, Environmental Studies, Rollins College, 1998

Registration

American Institute of Certified Planners

NHI Course No. 142005, NEPA and Transportation Decision Making

Krista Goodin is a transportation and environmental planner with more than 17 years of experience on projects involving multimodal transportation, environmental, and land use planning. Krista has demonstrated success working across various market sectors and leading multidisciplinary teams. Krista is adept at preparing long-range transportation plans and performing environmental reviews for transportation infrastructure projects conforming to statewide and federal requirements.

- **Project Manager, Grand Strand Area Transportation Study, 2040 Metropolitan Transportation Plan MTP Update.** Krista is the project manager for the 2040 update of the Grand Strand Area Transportation Study's (GSATS) MTP. GSATS is the MPO for a 3 county region located along portions of the South Carolina and North Carolina coasts. The Waccamaw Regional Council of Governments (WRCOG) is leading the update of the MTP.
- **Project Manager, Commerce Corridor: Transportation, Connectivity, Accessibility and Economic Opportunity Study, Richmond, VA.** CDM Smith is assisting in preparing a comprehensive multimodal strategy to address existing and future transportation challenges within the Commerce Road corridor in Richmond, Virginia. The study examines the development opportunities that will occur if the Richmond Marine Terminal (RMT) fulfills its potential and examines the highway and rail transportation needs necessary to maximize connectivity, accessibility, and allow the full economic development potential of the corridor.
- **Planner, Greater Charlotte Regional Freight Mobility Plan, Greater Charlotte Bi-State Region, NC and SC.** Krista is assisting with the development of this freight mobility plan for the 14-county Greater Charlotte Bi-State Region. The Centralina Council of Governments is leading the development of the Greater Charlotte Regional Freight Mobility Plan.
- **Principal Planner, Louisiana Speaks Regional Plan Implementation, South Louisiana.** Krista managed the implementation of a 35-Parish Wide Regional Plan for South Louisiana and assisted the Louisiana Recovery Authority with developing the strategy for an Office of State Planning and funding Phase 2 of Louisiana Speaks in North Louisiana. She assisted with the development of partnerships with state agencies and conducted coalition building with non-governmental organizations. She also advocated for better regional and statewide planning including statewide policy changes for comprehensive planning and transportation choices.

JENIFER PALMER, AICP
Environmental

Education

MS, Public Administration, University of Central Florida, 2007

Master's Certificate in Urban and Regional Planning, University of Central Florida, 2007

BA, Humanities and Critical Theory, University of Central Florida, 2004

Registration

American Institute of Certified Planners

Jennifer Palmer has over 10 years of transportation planning in all major modes of transportation, including buses, bus rapid transit (BRT) systems, heavy rail systems, high speed rail, as well as roadway and bicycle and pedestrian studies. Over the last several years, her focus has been in leading and implementing federally funded transportation projects and compliance with requirements under the National Environmental Policy Act (NEPA). Jenifer's diverse experience working with transit agencies, MPOs, state DOTs, and the FTA has provided her with an ability to develop integrated and multimodal solutions for both corridor-specific projects and larger policy level decision making processes.

- **Transit Technical Lead, El Metro Transit Development Plan, Laredo Metropolitan Planning Organization, Laredo, TX.** Jenifer was the transit technical lead for this 5-year transit development plan (TDP) for transit services in the City of Laredo, Texas. Jenifer led all technical analysis, recommendations, and documentation for the TDP and managed sub-consultant technical work and public involvement planning and execution. Study efforts included development of marketing plan strategies, assessment of transit dependent populations and identifying gaps in service, evaluating system and route performance, peer review analysis of similar transit systems, fleet management and an analysis, and review of needs for a Transit Asset Management Plan.
- **Lead Environmental Planner, CTA NEPA and New Start Services Red Line Extension (RLE) Environmental Impact Statement (EIS), Chicago, IL.** CTA and FTA have initiated the environmental review process to extend the Red Line south 5.3 miles from the existing 95th Street Terminal to 130th Street. CDM Smith prepared a NEPA Draft EIS to summarize the environmental impacts associated with this project and outline appropriate mitigation measures to avoid or reduce identified adverse impacts. Once environmental processes are complete and FTA issues a Record of Decision on this project, a New Starts application is expected to be completed.
- **Lead Environmental Planner, CTA Ashland Avenue BRT Environmental Assessment, Chicago, IL.** CTA and FTA conducted an environmental analysis for a new, center running 16-mile long north-south corridor just east of downtown Chicago. Jenifer served as the lead environmental planner on this project, and assisted with the FTA Small Starts Application for the project. She also assisted in the coordination of public involvement activities and supporting transit and traffic analyses for the project.

MARTIN GUTTENPLAN, AICP
Alternative Mobility

Education

MA, Fine Arts, Florida State University, 1982

BA, Penn State University, 1977

Registration

American Institute of Certified Planners

League Cycling Instructor (LCI) 576

Martin Guttenplan's 26 years of experience focuses on integrating the bicycle, pedestrian, and transit modes into all facets of transportation planning and design. He led the Florida Department of Transportation's (FDOT's) development of multimodal level of service (LOS) methodologies. He then incorporated these methodologies into the state's growth management process and developed an integrated transportation and land use planning process. These multimodal LOS measures form the basis for multimodal analysis in the Transportation Research Board (TRB) Highway Capacity Manual 2010. An avid cyclist, he served as vice president of the board of directors for the League of American Bicyclists and was instrumental in the development of its Bicycle-Friendly Community Program.

- **Bicycle/Pedestrian Lead, South Montgomery County Texas Mobility Plan.** As a subconsultant to Brown and Gay Engineering, Martin led the bicycle/pedestrian planning element for this fast growing area north of Houston, TX, encompassing The Woodlands. In conjunction with stakeholders he laid out a conceptual bicycle/pedestrian network in coordination with planned roadway connectivity improvements. His work also included sample typical sections and planning level cost estimates.
- **Task Manager, Bicycle/Pedestrian and Elements for Louisiana Long-Range Transportation Plan (LRTP) Update.** As task manager, Martin assisted the Louisiana Department of Transportation and Development in updating the bicycle/pedestrian elements of its LRTP to reflect agency, MPO, and stakeholder input. He developed a sustainability and livability section for the existing conditions analysis which highlights state efforts in coordinated land use and transportation planning. In addition, he has conducted an analysis of statewide and regional policies and programs that foster sustainability and livability and also developed a recommended framework for statewide application.
- **Project Manager, West Virginia State Bicycle System Plan, WV.** Martin served as the project manager of this study to identify cross-state bicycle routes that can be considered for the American Association of State Highway Transportation Officials' (AASHTO) proposed U.S. Bike Route System and to provide an organized map for tourism promotion. He has coordinated efforts with surrounding states, West Virginia stakeholders, and national partners. The proposed routes was mapped with a legend identifying recommended skill levels and amount of climbing.

BIN WANG, PTP
Alternative Mobility

Education

MS, Transportation Planning & Management, Texas Southern University, 2012

BS, Statistics, Beijing Normal University, 2004

Registration

Professional Transportation Planner

TxDOT Local Government Projects Procedures Certification

Bin Wang is a transportation planner with more than eight years of experience. She specializes in urban and regional transportation planning, public transit planning, and NEPA environmental assessment. A Professional Transportation Planner (PTP), Ms. Wang is proficient with cutting edge micro and macro simulation platforms such as CUBE and Synchro, and has expertise in ArcGIS desktop software. In the course of her project work, Bin has successfully pursued federal and state transportation grants including TIGER, TIP, FTA 5339, and TCEQ.

In previously held positions, Bin has been responsible for project benefit cost analysis for federal and state grant application; working with H-GAC modeling groups regarding project coding and evaluation of project performance; leading environmental impact studies for FTA, TxDOT NEPA compliance and Phase I ESA; microsimulation and analysis of arterial traffic delay and LOS for roadway improvement projects; National Transit Database reporting, TrAMS reporting, transit financial capacity and capability analysis, transit service evaluation, parking studies, and transit demand analysis for park and ride, transit center, bus routes and transit admin/maintenance facilities. Some of Bin's notable projects include:

- Texas City Capital Improvement Plan, Texas City
- FM 830 Expansion Benefit Cost Analysis, City of Conroe
- Gulf Coast Center Transit Service Evaluation, Gulf Coast Center
- Walnut Bend Lane Reconstruction Categorical Exclusion, TxDOT
- Westheimer Road Pedestrian and Transit Improvement Phase I ESA, City of Houston
- Pelican Island Bridge Reconstruction Benefit Cost Analysis for TIGER Grant Application
- Transit Oriented Development Study for Expanded Light Rail Corridor, METRO
- Houston METRO Regional Transit Long Range Plan, METRO
- North Houston Highway Improvement Community Impact Assessment, TxDOT
- US 90A Commuter Rail EIS Section 4(f),- METRO
- Buffalo Speedway Expansion NEPA Environmental Assessment, TxDOT

AKILA THAMIZHARASAN, PE, PTOE

Transportation Engineering

Education

MS, Transportation Engineering, Clemson University, 2002

BE, Civil Engineering, University of Madras, 1999

Registration

Professional Engineer: Ohio (2010)

Professional Traffic Operations Engineer

Akila Thamizharasan brings over 10 years of experience in a broad range of transportation projects including interstate highway studies, traffic signal design, signal retiming, micro- and macrosimulation modeling, impact assessments, parking studies, traffic calming studies, bike-trail projects, safety analysis, and roundabout evaluations.

- **Task Manager, US 183 North and MoPac South Toll and Revenue Projects, Austin, TX.** Akila was the lead traffic engineer on this project wherein VISSIM Operations models were developed for a 15-mile long corridor along US 183/Missouri Pacific railroad (MoPac) north of downtown Austin and 9-mile-long corridor on MoPac south of downtown Austin. The study corridors included four major system interchanges and connectivity to over 20 key arterial roadways. The study evaluated several roadway design alternatives and traffic operations at ingress/egress locations to the managed lanes along the corridors. Study findings were driving roadway design decisions. Akila conducted design workshops to present simulation model findings to local clients namely Central Texas Regional Mobility Authority (CTRMA), the Texas Department of Transportation (TxDOT) and other design firms involved in the project.
- **Task Manager, US 183-MoPac Interchange Improvements, Austin, TX.** Akila was the task lead for a traffic operations evaluation study completed for CTRMA. The study area included nine miles of freeway along US 183 and MoPac corridors and more than 10 interchanges. Evaluation was completed using VISSIM simulation software. Simulation models were calibrated for existing conditions; and different future alternatives were evaluated. Akila prepared documents summarizing the study, and presented study findings at CTRMA meetings.

JASON WEST, PE
Transportation Engineering

Education

MPA, University of Texas, 2008

MS, Transportation Engineering, University of Texas, 2008

BS, Civil Engineering, University of Texas at San Antonio, 2005

Registration

Professional Engineer: Texas (2015)

Jason West is a professional engineer focused on project management and delivery of innovative, complex projects. His professional experience includes project management for corridor studies and design-build procurements. Jason also has engineering and planning experience including the development of master development plans, freeway plans, and arterial plans.

- **Technical Manager, SH 249 Extension, Montgomery and Grimes Counties, TX.** Jason provided technical support during the TxDOT procurement to design, construct and maintain a new location 24-mile toll facility ($390 million) northwest of Houston. He participated in the development of the maintenance specification and coordinated with TxDOT program activities.
- **Deputy Project Manager, IH 35 Ramp Reversal Plans, Specifications, & Estimate, Hays County, TX.** Jason has led project controls and scheduling staff. He has led weekly staff meetings and monthly check-in meetings with Texas Department of Transportation and team partners. His responsibilities also include coordination with utility coordinator in facilitating information exchange and supporting strategy for utility assignment.
- **Technical Manager, SH 99 Segments H & I (Grand Parkway), Chambers, Harris, Liberty and Montgomery Counties, TX.** Jason provided technical support during the TxDOT design-build procurement where the DB Contractor will build 43.6 miles and maintain 52 miles of roadway northeast of Houston. The $1.2 billion project includes a long-term maintenance responsibility for the DB Contractor. Jason was responsible for preparing responses to proposer's comments on the final request for proposals and preparing revisions to the maintenance specification. He also coordinated with TxDOT programmatic initiatives to implement current policy and maintenance approaches into the SH 99 H&I procurement documents.
- **Project Manager, SH 130 Segments 5 & 6 Connector Study, Guadalupe and Comal Counties, TX.** Jason managed a feasibility analysis and conceptual study for the connector, and identified a strategy to include the project in a long-range TxDOT transportation plan. For the feasibility analysis, he directed a team to investigate ROW impacts for preliminary alignments, prepare cost estimates, and evaluate traffic and revenue. For the conceptual study, he managed the work of an engineering firm that refined the project cost and identified a preferred alignment for the project. Mr. West successfully initiated including the project in the TxDOT Texas Rural Transportation Plan 2035.

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ORIGINAL

STATEMENT OF QUALIFICATIONS

LAREDO METROPOLITAN TRANSPORTATION PLAN UPDATE

For The Laredo Urban Transportation Study (MPO)

NOVEMBER 06, 2017

PREPARED FOR

CITY OF LAREDO

ALLIANCE TRANSPORTATION GROUP, INC.
11500 METRIC BLVD., BLDG. M-1, STE. 150
AUSTIN, TEXAS 78750 | 512.821.2081
WWW.ALLIANCE-TRANSPORTATION.COM

November 6, 2017

Mr. Jose A. Valdez, Jr. City Secretary
City of Laredo
1110 Houston Street
City Hall, 3rd Floor
Laredo, TX 78040

Re: Laredo Metropolitan Transportation Plan Update

Dear Mr. Valdez,

Alliance Transportation Group, Inc. (Alliance), is excited about this opportunity to continue our successful working relationship with the Laredo Urban Transportation Study (MPO) by completing this 2045 Metropolitan Transportation Plan (MTP) Update. Alliance is a Certified WBE/DBE firm in Texas that provides a full range of transportation planning and engineering services. For this project, we have assembled a multi-disciplinary team of accomplished, nationally-recognized professionals who have successfully completed numerous MTPs throughout Texas and the South, and who have extensive experience in Laredo and Webb County.

The Alliance Team of certified transportation and transit planners, demographers, traffic engineers, accessibility specialists, and public engagement specialists, bring unparalleled expertise to this Laredo MPO 2045 MTP Update project. Specifically, we are well-versed in the MTP development and update process, including the current FAST Act (primarily a continuation of MAP-21) performance-driven, outcome-based, transportation planning regulations. We have worked on 22 MTP Updates in the past 7 years and have supported MPO staff in successfully completing 8 MTP Updates under the new planning requirements. This skill set will be extremely important during this project, which requires updating the existing MTP to be FAST Act-compliant by May 2018, with complete development of the new MTP for adoption in December 2019.

I will serve as Project Manager and am authorized to sign any contracts on behalf of the firm. Mr. Jim Harvey, AICP, will serve as Project Principal, performing a vital QA/QC role. Together, we have more than 6 decades of experience in both the public sector as MPO staff and leadership, as well as in the private sector at Alliance, providing professional services and support to our MPO colleagues. We have both provided support services to the Laredo MPO.

We appreciate your consideration of our qualifications and look forward to working with the Laredo MPO once again. Should you have any questions, or need any additional information, please contact me anytime at jdallen@emailatg.com or 337.802.6655 (cell).

Sincerely,
Alliance Transportation Group, Inc.

J.D. Allen, AICP, TSSP-Rail
Executive Vice President / Project Manager

Table of Contents

List of Exhibits

General Background & Experience

Alliance Transportation Group, Inc. (**Alliance**), is a full-service planning, engineering, travel demand modeling, public engagement, data and demographic analysis firm whose staff has decades of experience working with state DOTs, MPOs, counties, cities, and transit agencies. Our primary goal is making lives better through innovative transportation solutions.

The Alliance Team Brings:

- ✓ A project team with local knowledge, prepared to deliver high-quality professional planning services to the Laredo MPO and the City of Laredo.
- ✓ A Project Manager that has successfully delivered a wide-range of products to the Laredo MPO.
- ✓ Unparalleled transportation planning expertise and experience in federal and state metropolitan planning regulations and applications that Alliance has previously provided to the Laredo MPO.
- ✓ Expertise in performance-driven, outcome-based planning requirements for metropolitan planning.

Individual Responsible for Project Management:

Name: J.D. Allen, AICP, TSSP-Rail
MTP/MPO Experience: 26 Years
Time with Alliance: 16 Years
Phone: 337.802.6655 (Cell)
Email: jdallen@emailatg.com

Alliance works closely with clients to foster a meaningful dialogue on project objectives and utilizes our technical skills and experience to deliver knowledge and understanding to facilitate informed decision making. This approach allows us to meet client objectives while maintaining sensitivity to overall community goals so that transportation investments serve as a sustainable long-term community asset. Alliance is certified as a Disadvantaged Business Enterprise (DBE) in the State of Texas.

The major thrust of Alliance's 20-year planning practice has been providing planning services to MPOs in support of their long-range planning efforts including MTP, TIP, and Travel Demand Modeling work. The Alliance Team of professional planners and engineers work closely with MPO staff to accomplish all the objectives of the 3C process, from public engagement to travel demand model updates and multi-modal alternatives analysis, to plan creation and adoption.

The Alliance Team of certified planners, demographers, traffic engineers, accessibility specialists, public engagement specialists, air quality analysts, and transportation analysts bring unparalleled expertise to the Laredo MPO 2045 MTP Update and FAST Act-Compliance project. The Alliance PM and Project Principal have a combined 6 decades of experience in both the public sector as MPO staff and leadership, as well as in the private sector at Alliance, providing professional support to our MPO colleagues.

> *"Alliance provided high quality products and services on time and within budget. We would be pleased to work with Alliance again."*
> Laredo Urban Transportation Study

> *"With the help of Alliance, we received several commendations from FHWA and FTA ... additionally FHWA requested permission to use the materials as examples of how to do it right."*
> Laredo TMA Certification Project Manager

> *"I commend Alliance for its superior work. I am going to propose to my Transportation Policy Board and Technical Advisory Committee that CAMPO use the Bastrop County Plan that Alliance developed as the Standard of Excellence for all of our future, plan documents."*
> Ashby Johnson - CAMPO Executive Director

> *"I was against the previous bond package, but this process was so transparent and the reasons that projects were selected were so well laid out that even if you don't like all of the projects, there is nothing to object to."*
> Hays County Bond Study – Citizen Input

The Alliance Team is well-versed in the MTP development process and current FAST Act (primarily a continuation of MAP-21) performance-driven, outcome-based metropolitan transportation planning regulations. We have worked on 22 MTP Updates in the past 7 years and have supported MPO staff in completing 8 MTP Updates under the new planning requirements. **Exhibit 1** highlights Alliance's recently completed MTPs.

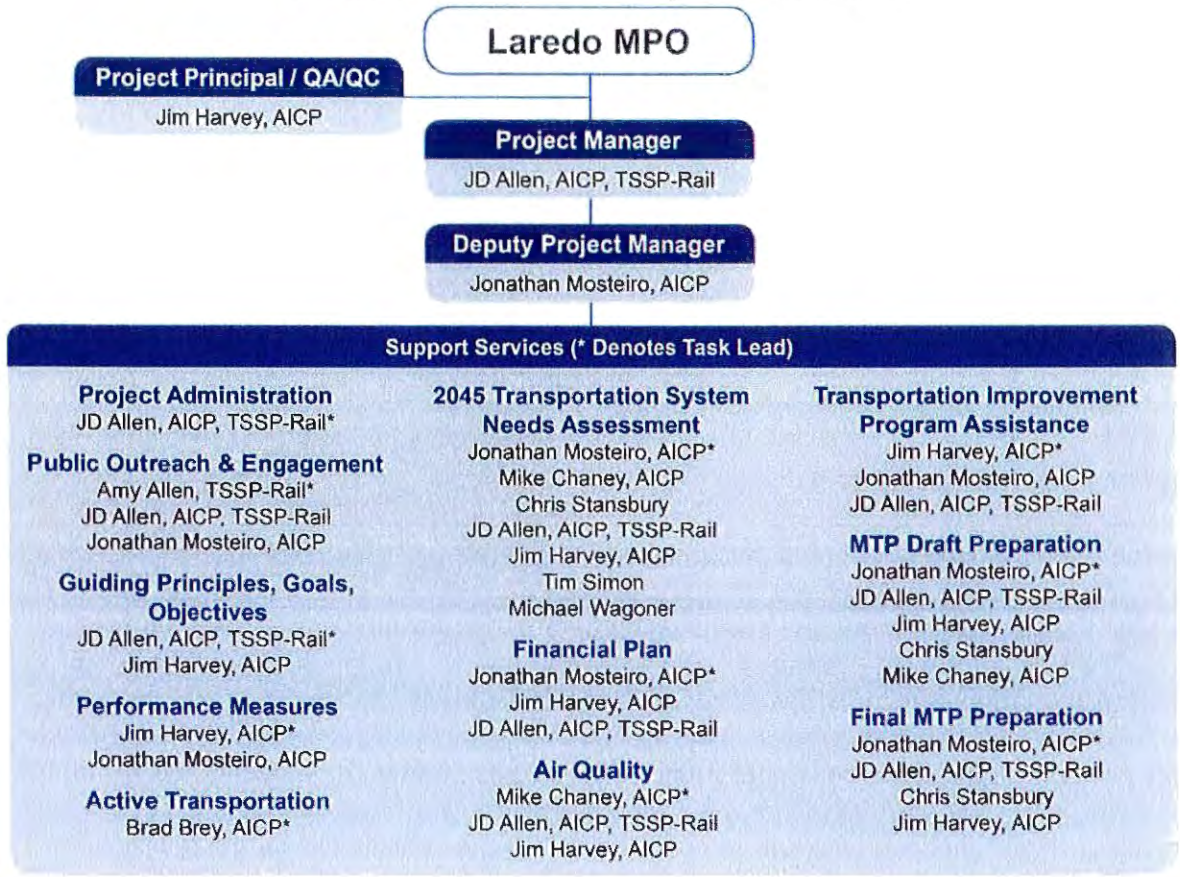
Exhibit 1. MTPs Completed by Alliance in the Last 7 Years

Project Name		Key Services
El Paso MTP 2045 *†	Kingsport MTP	* Alliance was Prime † MTP is MAP-21/FAST Act-Compliant ‡ Alliance provided modeling assistance to MPO
Lake Charles MTP *	Johnson City MTP	
Victoria MTP *	Clarksville MTP	
Baton Rouge MTP (x2) †	Little Rock MTP *‡	
El Paso MTP (2040) †‡	Oklahoma City MTP *‡	
Alexandria MTP (x2) †	Texarkana MTP †	
Monroe MTP (x2) *†	Tyler MTP *†	
Houma/Thibodeaux MTP	NLCOG - Shreveport LRTP *†	
San Antonio MTP *	Tri-Lakes (Hot Springs) MTP *	
Wichita MTP *		

Project Team & Organizational Structure

Alliance has assembled a multi-disciplinary team led by Mr. J.D. Allen, AICP, TSSP-Rail, a proven PM with more than 26 years of experience working for and with MPOs on various long-range, multi-modal, transportation planning efforts. The Alliance Team Organization Chart is shown in **Exhibit 2.** Key personnel resumes can be found in the **Appendix**.

Exhibit 2. Alliance Team Organization Chart



Project Experience

The following pages highlight projects in which the Alliance Team successfully carried out the same or similar scope activities on time and on budget for other clients. These examples demonstrate our ability to provide the planning skills necessary to fulfill Laredo MPO MTP Update expectations and objectives. The projects highlight personnel that contributed to the success of those projects. The Alliance Team is Proven!

El Paso MPO | MTP 2045 Update | El Paso, TX

Alliance is helping the El Paso MPO (EPMPO) complete a FAST Act-compliant, performance based, multi-modal 2045 MTP to guide implementation of a program of projects that provide mobility options for all users. Alliance is working closely with EPMPO staff to engage the public and regional stakeholders in a discussion of travel needs in the study area; leading a visioning effort to identify mobility needs and a set of future mobility options that articulates the community's vision; conducting an assessment of the existing transportation system to identify needs/deficiencies; and developing performance measures to evaluate solutions and prioritize a program of multi-modal projects to optimize the future transportation system. Alliance is working with the MPO TAC to develop a reasonable, FAST Act-compliant, fiscal-constraint framework to guide program implementation within the planning horizon. The final plan will provide an attractive document and summary brochure describing the development process and outcomes of the 2045 MTP.

At a Glance:

Project Highlights:

- Performance-Based Planning
- Public Visioning Process
- Multi-Modal Emphasis

Reference:

Michael Medina, Executive Director
211 N. Florence St., El Paso, TX, 79901
Ph. 915.591.9735
mmedina@elpasompo.org

Completion Cost:

$480K

Completion Date:

Summer 2018 (est.)/Currently On time and within budget

Key Personnel

J.D. Allen, AICP, TSSP-Rail – Project Manager; Jim Harvey, AICP – Project Principal; Jonathan Mosteiro, AICP – Deputy Project Manager; Brad Brey, AICP – Active Transportation Task Lead; Chris Stansbury – Planner; Michael Chaney, AICP – Senior Modeler; Tim Simon – Planner

NLCOG | Shreveport-Bossier City Long-Range Transportation Plan (LRTP) 2040 Update | Shreveport, LA

Alliance developed the LRTP (or MTP) for the Shreveport-Bossier City metropolitan area. The LRTP addresses regional and local multi-modal transportation goals and objectives, including active transportation, transportation system management and operations strategies, transportation system deficiencies, safety concerns and projected travel demand for the horizon-year 2040. The project included extensive public outreach, stakeholder consultation and visioning meetings; detailed socioeconomic projections; and a regional travel demand model with a mode-choice component.

The final plan includes prioritized projects based on MAP-21/FAST Act performance measures that are both repeatable and transparent to the public, stakeholders and member agencies.

At a Glance:

Project Highlights:

- New Multi-Modal Travel Demand Model
- Demographics Based on a Delphi Process
- New Project Selection Process

Reference:

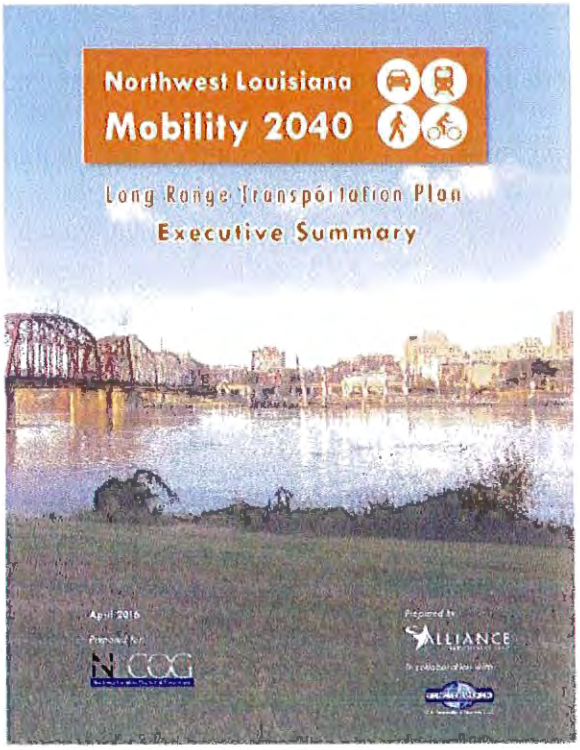
Kent Rogers
625 Texas St., Shreveport, LA, 71101
Ph. 318.841.5950
kent.rogers@nlcog.org

Completion Cost:

$824K

Completion Date:

2016/On time and within budget



Key Personnel

J.D. Allen, AICP, TSSP-Rail – Project Manager; Jim Harvey, AICP – Project Director; Mike Chaney, AICP – Modeling Lead; Tian Huang, PE, PTOE, AICP – Senior Modeler; Jonathan Mosteiro, AICP – Deputy Project Manager; Amy Allen, TSSP-Rail – Public Involvement Specialist; Chris Stansbury – Planner

Tri-Lakes MPO | MTP Update | Hot Springs, AR

The Tri-Lakes MPO selected Alliance to develop a 2040 MTP Update. Alliance conducted all technical analysis including crash hot spot reviews, population and employment forecasting, level of service analysis based on both the Alliance-developed Arkansas Statewide Model and traffic counts (no local TDM was available), environmental mitigation, environmental justice, transit route effectiveness, bike and pedestrian deficiencies, TSM&O, and freight movements. Alliance also developed all public visioning and stakeholder outreach materials. The MPO provided facilitators for the visioning meetings with training and moderation provided by Alliance. Alliance provided the MPO with its first performance-based project prioritization process that combined input from the public visioning process on selection criteria and input from the Technical Committee. Alliance provided training to both MPO staff and Technical Committee members to ensure that the process was sustainable for future updates. The final products included a fully MAP-21-compliant MTP and an Executive Summary. The project was completed in nine months, with the draft documents delivered in seven months.

At a Glance:

Project Highlights:

- New Project Selection Process
- Analysis and Identification of Future Corridors
- Emphasis on Alternative Transportation

Reference:

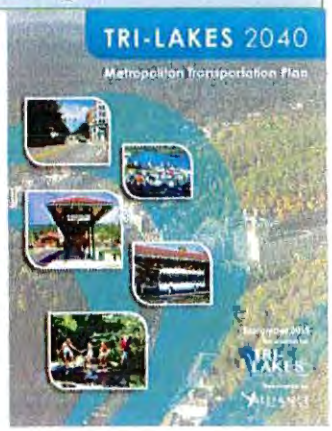
Robert Tucker
501 W. Markham, Suite B, Little Rock, AR, 72201
Ph. 501.525.7577
rtucker@wcapdd.org

Completion Cost:

$175K

Completion Date:

2015/On time and within budget

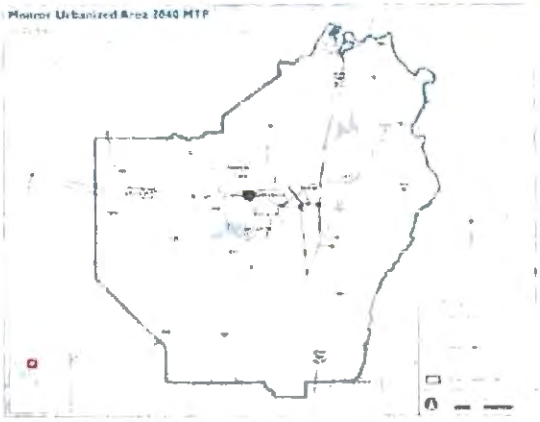


Key Personnel

J.D. Allen, AICP, TSSP-Rail – Project Manager; Jim Harvey, AICP – Project Director; Mike Chaney, AICP – Modeling Lead; Jonathan Mosteiro, AICP – Deputy Project Manager; Amy Allen, TSSP-Rail – Public Involvement Specialist

LADOTD | Monroe MTP Update 2040 | Monroe, LA

At a Glance:
Project Highlights:
• MAP 21 Performance Based Planning Principles • Extensive Public Outreach & Engagement
Reference:
Douglas Mitchell 1913 Stubbs, Monroe, LA, 71201 Ph. 318.387.2572 doug@northdelta.org
Completion Cost:
$500K
Completion Date:
2015/On time and within budget



Alliance assisted Monroe MPO staff and elected decision makers to plan for future mobility needs of the Monroe Urbanized Area residents by developing a multi-modal, metropolitan transportation plan that identifies projects and programs to provide a variety of mobility options for traveling within and through the area. The cornerstone of the MTP was an extensive public outreach and stakeholder involvement process that developed the vision used to define the final set of recommendations for local, state, and federal transportation investments of regional significance through 2040. While the plan meets all MAP-21/FAST Act-planning requirements, it was developed with focus on the access and mobility needs of the local traveling public, as well as the efficient and economically sustainable performance of the Interstate and NHS to support state and national performance management goals. One of the highlights of the project is a project selection process that utilized the public's vision combined with a set of performance measures to help technical staff identify projects that will improve mobility in the region.

Key Personnel

J.D. Allen, AICP, TSSP-Rail – Project Manager; Jim Harvey, AICP – Project Principal; Jack Jones – Senior Modeler; Jonathan Mosteiro, AICP – Planner; Chris Stansbury – Planner; Amy Allen, TSSP-Rail – Public Involvement Specialist

Tyler Area MPO | MTP 2040 Update | Tyler, TX

Alliance provided transportation planning assistance to the Tyler Area MPO to develop their 2040 MTP. During the project, Alliance developed and carried out public outreach, socioeconomic forecasting, and quantitative travel demand analysis. Alliance developed and implemented interactive public outreach activities to solicit feedback from the community on the future transportation system. Alliance also assessed existing system conditions for all modes of transportation, developed regional population and employment forecasts, developed performance metrics to assist MPO planning efforts, provided a project selection tool kit based on FAST Act-performance measures and refined and applied the Tyler Area TDM to evaluate anticipated roadway deficiencies and potential improvements. The completed long-range plan compiles the assessment of the future transportation needs of the community, establishes priorities for the funding of needed improvements and charts a course for meeting the community's vision. The plan was designed to increase mobility options for area residents and enhance the economic viability of the community, while preserving its quality of life.

At a Glance:

Project Highlights:

- New Project Selection Process
- MAP-21 Performance-Based Planning Principles
- Public Visioning Workshops

Reference:

Heather Nick
423 W. Ferguson, Tyler, TX, 75702
Ph. 903.531.1175
hnick@tylertexas.com

Completion Cost:

$100K

Completion Date:

2014/On time and within budget

Key Personnel

J.D. Allen, AICP, TSSP-Rail – Project Manager; Jim Harvey, AICP – Planning Director; Jack Jones – Senior Modeler; Jonathan Mosteiro, AICP – Planner; Debra Harvey, AICP, RAS – Senior Planner; Amy Allen, TSSP-Rail – Public Involvement Specialist

Laredo MPO | TMA Certification | Laredo, TX

Alliance provided planning services to support the Laredo Urban Transportation Study (LUTS) Transportation Management Area (TMA) certification process under the federal surface transportation bill, Moving Ahead for Progress in the 21st Century (MAP-21). The primary product of this planning effort was a TMA Certification Notebook, which documented the Alliance:

At a Glance:

Project Highlights:

- FHWA Commendation for Best Practice
- Laredo MPO TMA Certification
- MPO Partner Agency Enhance Participation

Reference:

Nathan Bratton
1120 San Bernardo Ave., Laredo, TX, 78040
Ph. 956.794.1613
nbratton@ci.laredo.tx.us

Completion Cost:

$88K

Completion Date:

2015/On time and within budget

"With the help of Alliance, we received several commendations from FHWA and FTA ... additionally FHWA requested permission to use the materials as examples of how to do it right."

Laredo TMA Certification Project Manager

- Review and identification of all MPO plans, programs, policies, procedures, and agreements requiring revision to achieve conformity with MAP-21 requirements for a TMA.
- Generation and implementation of all identified necessary revisions in preparation for the informal (desk review) and formal (onsite) certification process
- Coordination with all agencies involved in the certification process, including but not limited to: the City of Laredo, Webb County, TxDOT Laredo District, TxDOT Transportation Planning and Programming Division, Federal Highway Administration, and Federal Transit Administration.

Key Personnel

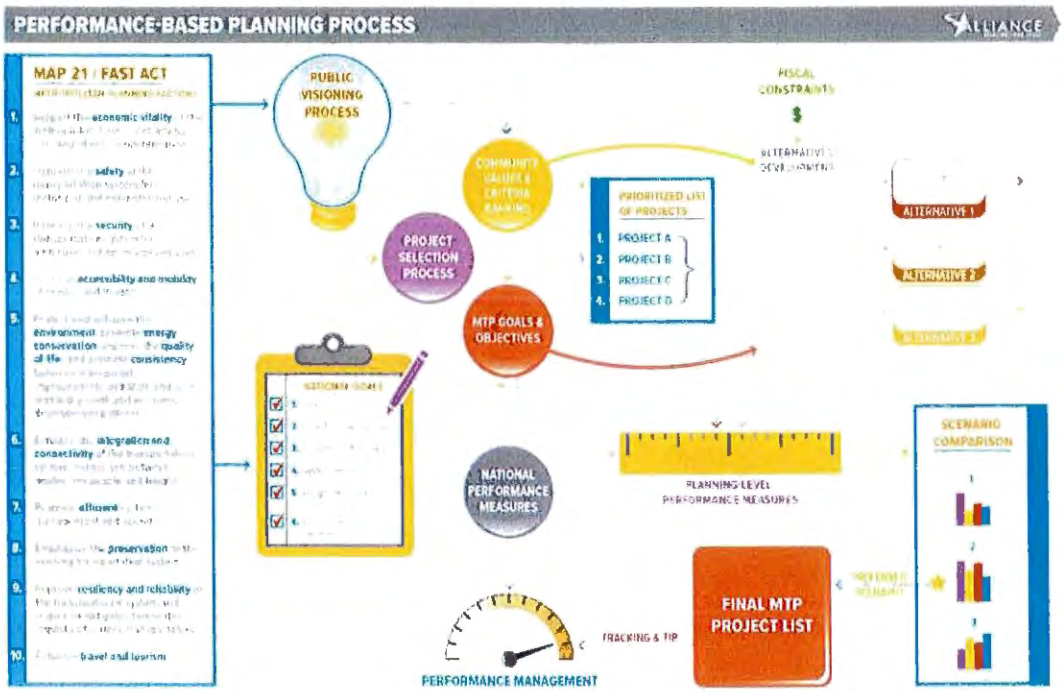
Jim Harvey, AICP – Project Manager; J.D. Allen, AICP, TSSP-Rail – Project Principal

Project Approach

Project Understanding & Approach

The Laredo MPO is the designated transportation planning and programming agency for the Laredo Urban Transportation Study and must update its current 2040 MTP prior to the expiration date, when it will no longer have a minimum 20-year planning horizon.

The new MTP must incorporate performance measures outlined in the FAST Act, but must also include the two new (10 total) planning factors expanded in the FAST Act. The plan must also be based on performance-driven, outcome-based planning principles. In addition, the current MTP must be updated by May 2018 to accommodate FAST Act-compliant tenets.



Scope of Services

The following section provides an overview of Alliance's proven best practice techniques to accomplish both a quick update to the existing MTP and develop a new MTP update in a way that will not just meet minimum requirements, but will elicit best practice commendations for the Laredo MPO MTP 2045 from the MPOs regulatory agencies and planning partners.

1. Project Administration & Coordination

The Alliance approach to project administration and coordination is to deliver active and enthusiastic project management that supports a fast start, vigorous execution of critical path tasks, and to maintain that effort to a strong and conclusive finish that delivers the highest quality projects. Our first-priority will be to deliver FAST Act-compliant updates to the existing MTP.

2. Public Involvement

An effective MTP Public Participation and Stakeholder Engagement Process engages the MPO, its planning partners, stakeholders, and the community at large in a collaborative, accessible planning effort. The process should provide the following activities and answer the following questions:

- **Defining 2045 MTP Goals and Objectives:** What do we want to achieve?
- **Visioning:** What does success look like? (Help people envision an optimized multi-modal system.).
- **Visualizing Strategies and Outcomes:** How do we make it happen? (Examples of solutions or strategies such as Complete Streets, access management, new capacity, new modes, etc.).
- **Developing Candidate Performance Measures:** How do we measure success?

Public Participation

The Alliance Team is a champion in designing and executing effective, bilingual, and culturally sensitive public participation and stakeholder engagement programs for MTP development using traditional, non-traditional, face-to-face, web-based, social-media, virtual meetings, and other carefully nuanced methods to solicit usable input from a wide variety of community

stakeholders. Using a wide variety of appropriate outreach strategies, Alliance will engage three main participant groups in the MTP planning process:

- **The public or community at large**, who contribute in the visioning and goal setting phase of plan development. Special attention will be paid to the statutorily defined 'interested parties' identified in FAST Act and the Metropolitan Planning Regulations.
- **Technical partners**, such as state and local traffic engineers, transit providers, school districts, public safety agencies, and planning professionals.
- **Policy makers**, who through contact with their constituents provide a gap analysis of what might have been missed in the public participation process, and through their respective institutions and organizations, also help prioritize the findings of their technical staff, as well as define what actions are financially and institutionally feasible.

3. Guiding Principles, Goals, & Objectives

Although it is important to ensure that the Laredo 2045 MTP complies with all state and federal requirements, the MTP must first and foremost address developing a transportation system that provides real benefit to the Laredo Metropolitan Area and supports the community vision, goals, and objectives for the future transportation system.

Alliance will ensure that adopted goals are approved by the Laredo MPO, its policy makers, and planning partners. The goals will:

- **Reaffirm Previous Goals or Set New Goals:** What do we want to achieve?
- **Develop a Vision for the Future:** What does success look like?
- **Visualize Strategies and Outcomes:** How do we make it happen?

It will also be important to frame the guiding principles, goals, and objectives in terms of the performance management principles set forth in the ***FAST Act***. Quantifying the benefits of real

transportation improvements in the language of the federal requirements will open the door to implement the MTP through state and federal funding programs and promote expedited delivery of the improved multi-modal transportation system envisioned in the MTP.

4. Performance Measures

Alliance keeps its MPO clients ahead of FAST Act regulations and informs them as proposed rules on performance measures and performance management targets are released and final rules are issued. During development of the numerous MTPs for Texas MPOs, Alliance developed MAP-21/FAST Act-compliant performance measures, criteria, and performance targets that have been accepted by State DOTs—including TxDOT—and approved by FHWA and FTA.

As in past federal compliance projects for the Laredo MPO, Alliance will help the MPO develop performance measures and tools to document planning outcomes in the region. We will also provide guidance during dialogue with TxDOT on setting MPO performance targets.

5. 2045 Transportation System Needs Assessment

An effective MTP requires a comprehensive set of transportation solutions integrated into a coordinated multimodal system. The Alliance Team will develop a program of short-term and long-term transportation solutions for further evaluation and testing. The program of projects will be defined in sufficient detail with supporting descriptive data to evaluate the outcomes of the transportation investment in terms of the selected performance measures and the ability to address the Laredo MPO study area mobility needs identified through a series of analyses that Alliance has successfully used on other MTP development projects. Alliance will prepare socioeconomic forecasts to assist in identifying current and future transportation system needs.

The analysis will include mobility considerations for all modes alongside growth and land use goals. In addition, there will be analysis to look at important mobility challenges such as freight and international border crossings along with TSM&O.

6. Financial Plan

Financial Analysis for MTPs is a combination of comparing total program costs in year of expenditure dollars to anticipated total revenue by category in year of receipt dollars to establish the financial capability of the MPO program and to evaluate the fiscal constraint of the MTP program of projects. In the case of the Laredo 2045 MTP, the process is more sophisticated than usual because the financial analysis and fiscal constraint calculations must consider the financial analysis procedures and fiscal policies of incorporated in the TxDOT UTP.

7. Prepare Draft MTP

Alliance will develop a Draft 2045 MTP document suitable for public distribution and for review and feedback by the Laredo MPO. The draft will be submitted as specified in the RFP to the Laredo MPO for their review and recommendation for approval by the Policy Committee and Technical Committee. Alliance will assist in presenting the draft 2045 MTP at public hearings/ meetings, and will compile and analyze the input received by the public for the Laredo MPO.

8. Prepare Final MTP

Alliance's award-winning plans are designed to ensure the MPO has a high-quality, accessible document with meaningful content, is aesthetically pleasing, and provides a compelling story of mobility in the region. Our layout specialists and graphic designers provide quality and visually appealing plan documents that receive high praise from our clients and their planning partners, including an ***FHWA Best-Practice Commendation*** for document layout and clarity of presentation for the Laredo MPO TMA Certification Review Notebook. For all MTP updates, Alliance prepares standalone executive summaries and publishes summary brochures for public consumption.

Project Schedule

Alliance will meet or exceed all deadlines associated with the current and new MTP Update. Specifically, Alliance will update the current MTP for FAST Act-compliance and adoption by the MPO in May 2018. The various components of the new 2045 MTP will be delivered over the course of the next year, with a draft delivered for review by August 2018 and final adoption by December 2018. We will exceed your expectations!

Familiarity with Geographic Area

Alliance has completed several successful projects over the years for the Laredo MPO and other government agencies in the region. **Exhibit 3** highlights Alliance's local experience.

Exhibit 3. Alliance Team Project Experience in the Geographic Area

Project Name	Client
Land Use Data Collection	City of Laredo
San Bernardo Corridor Development	City of Laredo
SAFETEA-LU Compliance Review	Laredo MPO
TMA Certification Review	Laredo MPO
Access Management Workshop	City of Laredo
Del Mar Corridor Study	City of Laredo
El Portal Circulation Study	City of Laredo
Water St. Redevelopment Traffic Analysis	City of Laredo
Laredo River Road Feasibility Study	City of Laredo
SL 480 PS&E Development	TxDOT Laredo District

Availability

Alliance is firmly committed to the success of every project we undertake. Our commitment starts with our people. Alliance is an employee-owned firm and the success of your project is more than personal to us. We have the right staff with the right qualifications and are available to start work immediately. We will deliver!

ALLIANCE TRANSPORTATION GROUP

J.D. Allen, AICP, TSSP-Rail – Project Manager

Years of Experience

Total: 26
With Alliance: 16

Education

MS, Community and Regional Planning, University of Texas, 1991

BS, Economics, McNeese State University, 1988

Certifications

American Institute of Certified Planners: #10501, 1994

Transit Safety & Security Professional – Rail (TSI)

Mr. Allen is a professional transportation planner with more than 26 years of experience. He began his career as an MPO planner and later became the MPO Director for the Lake Charles Urbanized Area and Executive Director of a 5 parish (county) regional planning commission (IMCAL). At IMCAL and at the SETRPC in Beaumont, he was responsible for the MTP, TIP, UPWP and air quality conformity determinations. During his time at the Lake Charles and Beaumont MPOs he worked on and completed three MTP air quality conformity reports resulting in three determinations of compliance with the mobile source emissions requirements of the NAAQS. As early as 1997, Mr. Allen developed the first performance-based project selection process for the Lake Charles MPO. The process married the public participation process with technical review of project alternatives to produce performance based outcomes. Since joining Alliance, Mr. Allen has led teams providing assistance to MPOs, states, cities, counties/parishes, and transit providers throughout the US. Mr. Allen has worked on nearly all of Alliance's MTP projects and was the PM on the 8 MAP-21/FAST Act-compliant projects and brought them to successful conclusion and adoption. His work with the Baton Rouge MPO in 2013 resulted in the FHWA Louisiana office proclaiming the project selection process developed as 'best practice' for use by Louisiana MPOs. He has also managed and personally provided substantive technical contributions to projects that encompass all aspects of transportation planning including TDM updates and applications; transit analysis and plan development projects; air quality conformity determinations; large scale data collection efforts; traffic engineering projects that evaluated the

interaction of large scale developments and their impact on the transportation system; and high-profile demographic updates.

Mr. Allen will provide direct, hands on leadership and manage all aspects of the project.

Project Experience

- Project Manager | El Paso MPO | 2045 MTP Update | El Paso, TX
- Project Manager | NLCOG | Shreveport-Bossier City LRTP 2040 Update | Shreveport, LA
- Project Principal | Clarksville MPO | 2035 LRTP Update | Montgomery County, TN & Christian County, KY
- Project Manager | Tri-Lakes MPO | MTP Update | Hot Springs, AR
- Project Manager | LADOTD | Monroe 2040 MTP Update | Monroe, LA
- Project Manager | Tyler Area MPO | 2040 MTP Update | Tyler, TX
- Project Manager | LADOTD | Lake Charles Urbanized Area 2034 MTP Update | Lake Charles, LA
- Project Principal | Laredo MPO | TMA Certification | Laredo, TX
- Project Manager | Texarkana MPO | Bicycle and Pedestrian Master Plan | Texarkana, TX
- Project Manager (Alliance) | Texarkana MPO | 2040 MTP Update | Texarkana, TX

Jim Harvey, AICP – Project Principal

Years of Experience

Total: 37
With Alliance: 14

Education

MURP, Urban & Regional Planning, University of New Orleans, 1990

JD, Tulane Law School, 1974

BA, History, Tulane University, 1972

Certifications

American Institute of Certified Planners: #24100, 2010

Mr. Harvey is a seasoned transportation planner and travel demand modeler with more than three decades of MTP development, travel demand modeling and project management experience in both the public sector with the New Orleans Regional Planning Commission (NORPC) and in the private sector with Alliance. Jim started his career as a transit and air quality planner for the NORPC where he prepared the transit element, performed all the travel demand modeling and air quality conformity analysis and wrote the air quality conformity analysis report for 5 TIP, and 5 MTP updates all resulting in determinations of full compliance with the mobile source emissions requirements of the NAAQS. In the early 2000s, under Jim's supervision, the NORPC was awarded a Transportation and Community Systems Preservation (TCSP) grant and performed some of the early work leading to the performance based planning guidance later developed by FHWA and incorporated into the FAST Act performance management and scenario based planning process. Mr. Harvey joined Alliance in 2003, and has since led a team of planners, modelers, and technicians in an array of transportation and transit studies. During his tenure, he has provided leadership for and made substantial technical contributions to regional mobility plans, MTPs, air quality conformity analysis and conformity reports (including the Clarksville 2035 MTP), transit and pedestrian plans, transit rail alternatives analysis, FTA New Starts Rail evaluations, emergency transit systems planning, and FTA regulatory compliance technical support activities; including the public involvement efforts associated with many of the transportation and transit projects. He is a

skilled facilitator adept at engaging community dialogue that builds consensus and support for projects.

Mr. Harvey will use his experience working with and for MPOs to review all work products and deliverables to ensure quality products are delivered to the Laredo MPO. He will participate in all aspects of the project and will lead the Performance Measures task and will assist the MPO on TIP development.

Project Experience

- Project Principal | El Paso MPO | 2045 MTP Update | El Paso, TX
- Travel Demand Modeling and Air Quality Conformity Task Lead | Clarksville MPO | 2035 LRTP Update | Montgomery County, TN and Christian County, KY
- Project Principal | LADOTD | Monroe 2040 MTP Update | Monroe, LA
- Planning Director | Tyler Area MPO | 2040 MTP Update | Tyler, TX
- Project Principal | LADOTD | Lake Charles Urbanized Area 2034 MTP Update | Lake Charles, LA
- Project Manager | Laredo MPO | TMA Certification | Laredo, TX
- Project Principal | Texarkana MPO | Bicycle and Pedestrian Master Plan | Texarkana, TX
- Project Principal | CRPC | Baton Rouge 2037 MTP Update | Baton Rouge, LA
- Assistant Project Manager | Alexandria/Pineville MTP Update | Alexandria, LA

Jonathan Mosteiro, AICP – Deputy Project Manager

Years of Experience

Total: 3
With Alliance: 3

Education

MS, Community & Regional Planning, University of Texas, 2015

BS, Architecture, University of Cincinnati, 2011

Certifications

American Institute of Certified Planners: #029492, 2017

Mr. Mosteiro is a Community and Regional Transportation and Transit Planning specialist with expertise in transportation policy, GIS, MTP development, and plan communications. During his time at Alliance he completed analysis and write-ups on the Tyler and Tri-Lakes MTPs, managed much of the day-to-day analysis and document development for the Monroe MTP and was the Deputy Project Manager involved in every aspect of the LRTP development for NLCOG in Shreveport. He is currently the Deputy Project Manager for the El Paso MTP. He developed the financial constraint for the MTP efforts in Monroe and Shreveport. He has also been heavily involved in developing the City of Killeen Thoroughfare Plan and CIP, is the Deputy Project Manager for the KTMPO Congestion Management Plan Update and is currently playing a major role in developing land-use development scenarios and transportation demand analysis on the Doniphan Drive Corridor project in El Paso.

Mr. Mosteiro will be involved in every aspeet of the Laredo MPO MTP development. He will lead the systems analysis task, the financial plan task, and the MTP Draft and final document preparation.

Project Experience

- Deputy Project Manager | El Paso MPO | 2045 MTP Update | El Paso, TX
- Planner | City of Laredo MPO | TMA Certification | Laredo, TX
- Deputy Project Manager | NLCOG | Shreveport-Bossier City 2040 LRTP Update | Shreveport, LA

- Planner | Texarkana MPO | Bicycle and Pedestrian Master Plan | Texarkana, TX
- Project Planner | Tyler Area MPO | 2040 MTP Update | Tyler, TX
- Deputy Project Manager | Monroe 2040 MTP Update| LADOTD | Monroe, LA
- Project Planner | Tri-Lakes MPO | 2040 MTP Update | Hot Springs, AR
- Project Planner | Capital Metro | Project Connect | Austin, TX
- Project Planner | LADOTD | Statewide Technical Assistance for Transit (STAT) | New Orleans, LA
- Project Planner | Bastrop County | Transportation Master Plan | Bastrop, TX
- Project Planner | City of Bastrop | Comprehensive Master Plan | Bastrop, TX
- Project Planner | City of Cibolo | Comprehensive Master Plan Update | Cibolo, TX
- Project Planner | City of Schertz | Thoroughfare Master Plan | Schertz, TX
- Project Planner | Kaufman County | Transportation Master Plan | Kaufman County, TX
- Project Planner | City of Killeen | Thoroughfare Plan | Killeen, TX
- Land Use Forecasting/Geographic Review Task Leader | City of Austin | Impact Fee Analysis | Austin, TX

ALLIANCE TRANSPORTATION GROUP

Mike Chaney, AICP – Travel Demand Modeling Lead

Years of Experience
Total: 23
With Alliance: 16

Education
BS, Geography (Concentration in Urban and Regional Planning), Southwest Texas State University, 1994

Certifications
American Institute of Certified Planners: #024068, 2010

Mr. Chaney is Alliance's National Practice Lead for Travel Demand Modeling and has 20 years of experience in transportation planning, travel demand modeling, and quantitative analysis. Mike has designed and led the development of numerous state-of-the practice and advanced practice TDMs. Mike was the Project Manager for the development of the current El Paso 2040 Horizon TDM, as well as the Project Manager and Principal Architect of the Texas and the Arkansas statewide models, and Project Manager for the latest update of the CARTS TDM in Little Rock, AR. He led the model development and application for scenario planning done for the NLCOG LRTP development. He also led the development or update of the Association of Central Oklahoma Governments (ACOG) TDM; the Wichita Area MPO TDM in Wichita, KS; the Killeen-Temple MPO TDM and the Waco MPO TDM in Waco, TX. Mike has accumulated extensive knowledge of passenger and freight travel demand modeling, socioeconomic data development and forecasting, scenario based planning, and transportation planning.

Mr. Chaney will lead all efforts associated with model application during the systems analysis task and will participate in the MTP draft document development. He will also play a pivotal role in any scenario planning during alternatives development.

Project Experience

- Senior Modeler | NLCOG | Shreveport-Bossier City 2040 LRTP Update | Shreveport, LA
- Senior Modeler | LADOTD | Monroe 2040 MTP Update | Monroe, LA
- Senior Modeler | Tri-Lakes MPO | 2040 MTP Update | Hot Springs, AR
- Senior Modeler | Alexandria/Pineville MTP Update | Alexandria, LA

- Travel Demand Model Subject Matter Expert and TDM Design Lead | Clarksville MPO | 2035 LRTP Update | Montgomery County, TN & Christian County, KY
- Senior Transportation Planner | Baton Rouge MTP Update and TDM Development | Baton Rouge, LA
- Project Manager | TxDOT | Texas Statewide Analysis Model | Texas
- Project Manager | AHTD | Arkansas Statewide TDM | Arkansas
- Deputy Project Manager | ACOG | TDM Update | Oklahoma City, OK
- Project Manager | WAMPO | TDM Development | Wichita, KS
- Project Manager | KTMPO | TDM Update | Killeen, TX
- Project Manager | Waco MPO | TDM Update | Waco, TX

Chris Stansbury – Transportation Planner

Mr. Stansbury is a Transportation Planner with expertise in development of improvement plans, public participation facilitation, population forecasting, transportation/spatial modeling, and analyzing alternatives. He conducted needs assessment analysis on the Monroe MTP and the NLCOG LRTP and is currently working on the Doniphan Corridor and the MTP develop projects in El Paso. During the Monroe and NLCOG projects, Chris played a major role in alternative transportation modes analysis. He was also a major contributor to the KTMPO Congestion Management Process development.

Years of Experience

Total: 1.5
With Alliance: 1.5

Education

MS, Planning, Florida State University, 2015

BA, Economics & Finance, University of South Alabama, 2013

Mr. Stansbury will play a major role in conducting alternative modes needs assessment (transit, bike, pedestrian). He will also be a major contributor to draft and final plan development.

Project Experience

- Project Planner | El Paso MPO | 2045 MTP Update | El Paso, TX
- Project Planner | LADOTD | Monroe 2040 MTP Update| Monroe, LA
- Project Planner | NLCOG | Shreveport-Bossier City 2040 LRTP Update | Shreveport, LA
- Task Manager | LADOTD | Louisiana Statewide Human Services Transportation Coordination Plan Update | Baton Rouge, LA
- Project Planner | Capital Metro | General Planning Consultant On-Call Services | Austin, TX
- Project Planner | Tyler Area MPO | Demographic Forecasting for Travel Demand Modeling | Tyler, TX
- Project Planner | AHTD | Long-Range Intermodal Plan | Arkansas

- Project Planner | City of Bastrop | Comprehensive Plan/ Transportation Master Plan | Bastrop, TX
- Project Planner | Bastrop County | Transportation Plan | Bastrop, TX
- Project Planner | City of Cibolo | Comprehensive Plan Update | Cibolo, TX
- Project Planner | City of Schertz | Thoroughfare Plan | Schertz, TX
- Project Planner | Harlingen-San Benito MPO | Bicycle & Pedestrian Master Plan | Harlingen, TX
- Project Planner | Kaufman County | Transportation Plan | Kaufman County, TX
- Project Planner | LADOTD | Statewide Technical Assistance for Transit (STAT) 2013-2016 | Louisiana
- Project Planner | TxDOT El Paso | Doniphan Drive Master Plan | El Paso, TX
- Project Planner | AHTD | Arkansas Statewide Transit Coordination Plan | Arkansas
- Project Planner | BCSMPO | FM-60 / University Drive Corridor Study | Bryan, TX
- Project Planner | CARTS | Travel Demand Model Update | Arkansas

Brad Brey, AICP – Active Transportation

Mr. Brey is a Transportation Planner with three years of experience in multiple facets of multi-modal transportation planning, including active transportation plans, transit systems planning, demographic forecasting, multi-modal performance analysis and stakeholder engagement. He has assisted on various projects ranging from small-scale corridor circulation plans to large-scale, multi-jurisdictional corridor and county-wide studies.

Years of Experience
Total: 3
With Alliance: 2

Education
MUP, Urban Planning, University of Michigan, 2014
BA, History, University of North Dakota, 2012

Affiliations
American Planning Association (APA)

Certifications
American Institute of Certified Planners: #29484, 2017

Mr. Brey will provide assistance with the Active Transportation element of the MTP.

Project Experience

- Project Planner | El Paso MPO | 2045 MTP Update | El Paso, TX
- Deputy Project Manager | Texarkana MPO | Bicycle/Pedestrian Master Plan | Texarkana, TX
- Deputy Project Manager | Bastrop County | Transportation Plan | Bastrop, TX
- Project Prioritization Task Lead | City of Bastrop | Comprehensive Plan and Transportation Master Plan | Bastrop, TX
- Infrastructure Finance Task Lead | Harlingen-San Benito MPO Bicycle and Pedestrian Plan | Harlingen-San Benito MPO | Harlingen, TX
- Project Planner | LADOTD | Statewide Technical Assistance for Transit (STAT) 2013-2016 | Louisiana
- Project Planner | LADOTD | Statewide Technical Assistance for Transit (STAT) 2016-2019 | Louisiana

- Project Planner | LADOTD | Technical Assistance for State Safety Oversight (TASSO) | New Orleans, LA
- Project Planner | Williamson County | Long-Range Transportation Plan | Williamson County, TX
- Project Planner | TxDOT El Paso | Doniphan Drive Master Plan | El Paso, TX
- Alliance Project Manager | City of Waco | BRT Feasibility Study | Waco, TX
- Project Planner | AHTD | Arkansas Statewide Transit Coordination Plan | Arkansas
- Project Planner | BCSMPO | FM-60 / University Drive Corridor Study | Bryan, TX
- Project Planner | City of Lake Charles | Transit System Study | Lake Charles, LA
- Project Planner | City of Austin | HazMat Routing Study | Austin, TX
- Project Planner | CRPC | On Call Transit Element Technical Assistance | Baton Rouge, LA

Tim Simon – Public Transportation

Mr. Simon has more than 7 years of specific agency experience as a transit service planner. While working for the Kansas City Area Transportation Authority in Kansas City, MO, Tim provided scheduling and route design for the fixed-route and MAX BRT lines that utilized interlining and route design to produce an efficient and connected route network.

Years of Experience

Total: 7
With Alliance: 1

Education

MS, Urban Planning, University of Kansas, 2010

BS, Journalism & Environmental Studies, University of Kansas, 2008

Spanish Language & Culture Program, The University of Granada, Granada, Spain, 2006

While working for Lane Transit District in Eugene, OR, Tim managed the re-design of fixed-route schedules and alignments in coordination with the new West Eugene EmX BRT line. Tim is an expert in working with all aspects of service design, including complex scheduling techniques utilizing Excel and HASTUS software. His background provides a unique perspective that helps bridge the gaps between planning, development, and operation of transit services.

Mr. Simon will assist with the Transit Element of the MTP.

Project Experience

- Planner | El Paso MPO | 2045 MTP Update | El Paso, TX
- Planner | Texarkana MPO | Bicycle and Pedestrian Master Plan | Texarkana, TX
- Planner | City of Waco | Bus Rapid Transit Feasibility Study | Waco, TX
- Planner | Capital Metro | Project Connect | Austin, TX
- Planner | Brownsville Transit Comprehensive Strategic Plan | Brownsville MPO | Brownsville, TX
- Project Planner | BCSMPO | FM-60 / University Drive Corridor Study | Bryan, TX
- Project Planner | CARTS | Travel Demand Model Update | Little Rock, AR
- Project Planner | City of Austin | HazMat Routing Study | Austin, TX

- Project Manager | City of Lake Charles | Transit System Study | Lake Charles, LA
- Project Planner | AHTD | State Safety Oversight Support | Arkansas
- Project Planner | AHTD | Arkansas Statewide Transit Coordination Plan | Arkansas
- Project Planner | TxDOT El Paso | Doniphan Drive Master Plan | El Paso, TX
- Project Planner | Tyler Area MPO | Demographic Forecasting for Travel Demand Modeling | Tyler, TX
- Project Planner | Williamson County | Long-Range Transportation Plan | Williamson County, TX
- Project Planner | City of Bastrop | Comprehensive Plan and Transportation Master Plan | Bastrop, TX
- Project Planner | Bastrop County | Transportation Plan | Bastrop, TX

Michael Wagoner – Travel Demand Modeling

Mr. Wagoner has participated in a variety of transportation planning and travel demand-modeling projects since he started with Alliance in 2013. He assists with MTPs by working on updates of regional transportation TDMs in support of long-range strategic planning efforts. He also works on freight mobility studies, land use analysis, and provides both data collection and analysis in support of the development of transportation simulation models.

Years of Experience
Total: 5
With Alliance: 4

Education
BS, Mechanical Engineering
West Virginia University, Morgantown, WV, 2010

Registrations
National Council of Examiners for Engineering and Surveying
NCEES ID 13590-84228 TX, 2013

Mr. Wagoner will support Mike Chaney with the Travel Demand Modeling aspects of the MTP analysis.

Project Experience

- Planner | Tri-Lakes MPO | 2040 MTP Update | Hot Springs, AR
- Travel Demand Modeler | NLCOG | Shreveport-Bossier City 2040 LRTP Update | Shreveport, LA
- Travel Demand Modeler | AHTD Long-Range Intermodal Transportation Plan | Arkansas
- Planner/Travel Demand Modeler | AHTD | High-Speed Rail Feasibility Study | Arkansas
- Planner/Travel Demand Modeler | AHTD | Arkansas Statewide Transit Coordination Plan | Arkansas
- Planner/Travel Demand Modeler | CARTS | Travel Demand Model Update | Little Rock, AR
- Planner/Travel Demand Modeler | City of Austin | HazMat Routing Study | Austin, TX
- Planner/Travel Demand Modeler | TxDOT El Paso | Doniphan Drive Master Plan | El Paso, TX

- Planner/Travel Demand Modeler | Tyler Area MPO | Demographic Forecasting for Travel Demand Modeling | Tyler, TX
- Planner/Travel Demand Modeler | City of Waco | Bus Rapid Transit Feasibility Study | Waco, TX
- Planner/Travel Demand Modeler | AHTD | Arkansas Statewide Travel Demand Model (AR TDM) Phase II | Arkansas
- Planner/Travel Demand Modeler | BCSMPO | SH6 Corridor Analysis | Bryan, TX
- Planner/Travel Demand Modeler | Capital Metro | General Planning Consultant On-Call Services | Austin, TX
- Planner/Travel Demand Modeler | City of Killeen | Thoroughfare Plan | Killeen, TX
- Planner/Travel Demand Modeler | City of Schertz | Thoroughfare Plan | Schertz, TX
- Planner/Travel Demand Modeler | Kaufman County | Transportation Plan | Kaufman County, TX

Amy Allen, TSSP-Rail – Public Outreach & Engagement

Mrs. Amy Allen is a Senior Public Participation Specialist/Transportation Planner with more than 9 years of experience in public outreach and engagement, safety and security audits, information technology, GIS, various types of data collection, transportation and transit planning, workshop development and delivery, and data review and analysis. Based in Alliance's Lake Charles Office, Amy has worked on a variety of transportation related projects across the country, ranging from review and analysis of 'big data' to workshop development and presentation on various public transportation issues. In addition, Amy has been a key contributor to public involvement and stakeholder outreach services for the majority of the MTPs Alliance has completed over the past 9 years.

Years of Experience
Total: 22
With Alliance: 9

Education
MS Educational Technology, McNeese State University, Lake Charles, 1998
BS Marketing, McNeese State University, Lake Charles, 1988
Secondary Mathematics Certification, McNeese State University, Lake Charles, 1994

Certifications
Transit Safety & Security Professional – Rail (TSI)

Mrs. Allen will provide leadership on all Public Outreach and Engagement elements of the MTP.

Project Experience

- Public Involvement Specialist | NLCOG | Shreveport-Bossier City LRTP 2040 Update | Shreveport, LA
- Public Involvement Specialist | Tri-Lakes MPO | MTP Update | Hot Springs, AR
- Public Involvement Specialist | Tyler Area MPO | 2040 Metropolitan Transportation Plan Update | Tyler, TX
- Public Involvement Specialist | LADOTD | Lake Charles Urbanized Area 2034 MTP Update | Lake Charles, LA

- Public Involvement Specialist | LADOTD | 2040 Metropolitan Transportation Plan Update | Monroe, LA
- Public Involvement Specialist | Alexandria/Pineville MTP Update | Alexandria, LA
- Public Involvement Specialist | LADOTD | Statewide Technical Assistance for Transit (STAT) 2010-2013 | Louisiana
- Public Involvement Specialist | LADOTD | Statewide Technical Assistance for Transit (STAT) 2013-2016 | Louisiana
- Public Involvement Specialist | Texarkana MPO | 2040 MTP Update | Texarkana, TX
- Public Involvement Specialist | LADOTD | Vernon Parish Transportation Master Plan & Corridor Study for US 171 | Vernon Parish, LA

Laredo Urban Transportation Study

REQUEST FOR SUBMISSION OF QUALIFICATIONS FOR

SUBJECT:
LAREDO METROPOLITAN TRANSPORTATION PLAN UPDATE
FOR
The Laredo Urban Transportation Study (MPO)

The Laredo Urban Transportation Study (MPO) solicits statement of qualifications for the update of the Laredo Metropolitan Transportation Plan. The updated plan will be used by both the Laredo Urban Transportation Study (MPO) and the City of Laredo. The objective of the study is to provide a comprehensive long range transportation plan for the study area.

Interested firms should submit **1 original signature package and 9 copies** (no faxes or emails) of their statement of qualifications package no later than **4:00 P.M. C.S.T. on November 6th, 2017** in sealed envelopes marked "**LAREDO METROPOLITAN TRANSPORTATION PLAN UPDATE**" either mailed to Mr. Jose A. Valdez, Jr., City Secretary, City of Laredo, P.O. Box 579, Laredo, Texas 78042-0579, or delivered to Mr. Jose A. Valdez, Jr., City Secretary, 3rd floor, City Hall, 1110 Houston St., Laredo, Texas, 78040.

Submittal packages shall be submitted in conformance with the requirements outlined in this Request for Qualifications. Submittals shall be limited to fifteen (15), 8.5 x 11 inch, pages, exclusive of professional resumes, cover sheets, fly leafs, table of contents, dividers, etc., printed on one side, double spaced, using Times New Roman font with a font size of 12. All submittals become the property of the Laredo MPO. The Laredo MPO reserves the right to reject any and all submittals and to waive any minor irregularities. All submittals shall be submitted at the time, place and date specified. Submittals received late shall not be considered.

Copies of the RFQ may be obtained by contacting Mr. Miguel Pescador, City of Laredo Purchasing Director, at (956) 790-1825, or Ms. Vanessa Guerra, MPO Coordinator, at 956-794-1604, or by visiting the following website: http://www.cityoflaredo.com/Bids/Bids.htm

Questions concerning study parameters shall be directed to:

Vanessa Guerra, Transportation Planner
City of Laredo
Planning Department
1120 San Bernardo
Laredo, Texas 78040
(956) 794-1604 or (956) 794-1623
vguerra@ci.laredo.tx.us

Nathan Bratton.
MPO Director

Introduction

The Laredo Urban Transportation Study ("LUTS")/City of Laredo ("City") solicits professional services to update the 2015-2040 Laredo Metropolitan Transportation Plan (MTP) to encompass the years 2020-2045 and assist in the update of the currant MTP and Transportation Improvement Program (TIP) to achieve FAST Act compliance.

Study Area:

The project will encompass that area within the Laredo Metropolitan Area as identified on the Laredo Metropolitan Boundary Area Map.

PROJECT OBJECTIVES AND AVAILABLE RESOURCES

Objectives of the study include but are not limited to:

1) Development of an updated plan that addresses all planning factors in conformance with all relevant state and federal requirements, including but not limited to 23 CFR 450.324.

2) Provide a transportation plan which covers a 25 year period and identifies transportation facilities, including but not limited to major roadways, transit, and inter modal facilities, that should function as an integrated regional system. The Laredo Travel Demand Model shall be used by the consultant as a tool to help identify transportation projects.

3) Provide a transportation plan which includes both short- and long-term strategies/actions that develop and maintain an integrated, inter modal transportation system that is accessible, and that efficiently moves people and goods.

4) Provide for the development of a transportation plan with public involvement and coordination with all required stakeholders and transportation providers including but not limited to: regional airports, rail-freight operators, commercial transport associations, and others within the area.

5) Develop a socioeconomic report for a 2018 base year and forecast through 2045. The report shall update and expand socioeconomic and demographic factors used in long-range transportation planning, including but not limited to population, housing, income, employment, etc.

6) Coordinate with all agencies involved in the development of the plan, including but not limited to the City of Laredo, County of Webb, Texas Department of Transportation (TxDOT) District Office, TxDOT Transportation Planning & Programming Division, Federal Highway Administration, Federal Transit Administration, Environmental Protection Agency, U.S. Department of Homeland Security, etc.

7) Review the existing MTP and TIP, and develop and provide all revisions materials necessary for adoption in order to achieve FAST Act compliance by May 27, 2018.

8) Develop a stakeholder database for use during the outreach process, and beyond, capable of generating data regarding stakeholder attendance, areas of interest, correspondence, etc.

1120 San Bernardo
P.O. Box 579
Laredo, TX 78042

(956) 794-1613
(956) 794-1624 Fax
vguerra@ci.laredo.tx.us

Analyze the current MTP and TIP and prepare and provide all materials necessary for adoption in order to achieve FAST Act compliance by May 27, 2018.

Analyze and prepare an updated Long Range Transportation Plan that conforms to all Federal and State requirement and which considers:

1) Effect of transportation policy on land use.
2) Planning factors.
3) Performance based planning requirements.
4) Transportation systems (road and bridge, rail, transit, bicycle, inter modal, pedestrian, etc.)
5) Project assessment and prioritization
6) Congestion Management.
7) Financial planning.

Updated Plan Report Production at a minimum will include the following:

1) Prepare a draft final document and present it to the Technical Committee.
2) Print 25 copies of the final draft document for distribution to the Technical Committee. A copy of the report in electronic format, including any and all maps and data tables, shall also be submitted to the Technical Committee, the format of which shall be determined by MPO staff.
3) Prepare Final Document and present to the Policy Committee.
4) Following acceptance and approval of the final draft document by the MPO Policy Committee, forty (40) final reports must be prepared and delivered to the MPO with all corrections and comments incorporated in the final version. Final reports should be neatly bound with attractive covers and address the processes and procedures used in this study. All exhibits on larger paper shall be folded and referenced in the text. The Final report must be submitted within twenty (20) days.
5) The consultant will submit five (5) final reports on CD ROM to the MPO in both pdf and word.
6) All data, basic sketches, charts, calculations, plans, specifications, and other documents created, or collected as part of this project shall be provided and become the exclusive property of the Laredo MPO.

Presentations minimum requirement*:

a. One (1) at Draft to the Technical Committee
b. One (1) at Final to the Policy Committee

*Consultant should assume all presentation will occur on separate days.

The MPO will be sole proprietor of the draft and final reports.

Resources:

1) Various maps and previous studies compiled by the City of Laredo Planning Department.
2) Comprehensive Plan of Laredo, Texas, Adopted September 18th, 2017, Laredo City Council.
3) 2010-2035 Laredo Metropolitan Transportation Plan, Wilbur Smith Associates, 2009
4) 2015-2040 Laredo Metropolitan Transportation Plan, CDM Smith, 2014,
5) Laredo Transit Development Plan, CDM Smith, 2016
6) Most current Land Use Inventory based on Appraisal District data.

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(956) 794-1624 Fax
vguerra@ci.laredo.tx.us

STATEMENT OF QUALIFICATIONS

At a minimum the statement of qualifications shall include:

1. Title: "LAREDO METROPOLITAN TRANSPORTATION PLAN UPDATE AND FAST ACT COMPLIANCE PROJECT".
2. Firm name, address, phone number, and persons to contact regarding the statement of qualifications. Include names of sub-consultants, addresses and contact person.
3. The submittal shall be signed by the authorized person on behalf of the firm.
4. General Statement of Firm(s) Qualifications – Provide information on the firm(s) background and experience in transportation planning.
5. Qualifications of Consulting Team or individuals- Provide information on the individuals proposed for work on the project; identify proposed project management responsibilities, resumes of lead consultant team members and sub-contractors (lead persons only). Resumes of company personnel who are not part of the project team should be omitted.
6. Provide information on the consultant team(s) or key personnel (lead persons only) knowledge and experience with federal and state transportation planning requirements and processes.
7. List of recent comparable projects performed by the consultant team(s) or key personnel (lead persons only), brief description of project, project owner, the name, address, and telephone number of the person(s) closely associated with the firm's prior projects, status of the project, if the project was completed on time, on budget, and date of completion.
8. A brief summary of the firm's approach to the project, factors that will be considered in accomplishing the project, methodology for collection and evaluation of data, and any other pertinent information the interested firm may wish to include.
9. Schedule to complete the project.
10. Familiarity with the geographical area of the project
11. Availability to commence services immediately after successfully negotiating a contract.

NOTICE: Submittals shall NOT include fee proposals. Submittals including a cost estimate for the development of the study SHALL NOT be considered.

EVALUATION CRITERIA

In general, the submittals shall be evaluated based on the following criteria:

1) Demonstrated experience of the consultant team(s) or individuals (lead persons only) with the development of metropolitan transportation plans, or similar studies, in accordance with federal and state planning standards.
2) Demonstrated experience of the consultant team(s) or individuals (lead persons only) with federal and state transportation planning requirements, and federally funded project requirements and processes.
3) Capacity of the team (lead persons only) to provide the full range of project management skills and adequately respond to project requirements
4) Qualifications of the key individual(s) and or sub-contractors (lead persons only) proposed to provide these services and evidence of the Team's ability to generate creative solutions

1120 San Bernardo (956) 794-1613
P.O. Box 579 (956) 794-1624 Fax
Laredo, TX 78042 vguerra@ci.laredo.tx.us

5) Firm's overall approach to the project and familiarity with the study area.

U.S. DOT STANDARD TITLE VI ASSURANCE

The Recipient, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

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P.O. Box 579
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vguerra@ci.laredo.tx.us

D. Discussion with possible action to place digital signage on FM 1472 (Mines Road) intended to notify the driving public of congestion and allocation of funding for implementation.

E. Discussion with possible action on the letting date for Calton Railroad Grade Separation project (0922-33-093) which is proposed to move from November 2017 (FY 2018) to August (FY 2018).

Texas Department of Transportation
125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

September 11, 2017

Mr. Gabriel Martinez, P.E.
Assistant City Engineer
City of Laredo Engineering Department
1110 Houston St.
Laredo, Texas 78042

Re: Calton Road Grade Separation: Revised Letting Date
CSJ 0922-33-093, Webb County

Dear Mr. Martinez:

In the attached letter dated August 29, 2017, we requested a status update to the project as well as a revised letting date by September 8, 2017. You were informed that the current scheduled letting date of November 2017 could not be met because the project had not reached a "ready to let" status.

Per our phone conversation, we will be changing the let date for this project to August 2018 (FY 2018), to reflect the decision of the City of Laredo. This will require an administrative update in the STIP and will be presented as such during the next available Laredo MPO meeting.

Should you have any questions, please do not hesitate to contact Ana Duncan at 956-712-7460.

Sincerely,

Alberto Ramirez, P.E.
Director of Transportation Planning & Development

CC: Rogelio Rivera, P.E., City Engineer, City of Laredo
Nathan Bratton, P.E., Director of Planning, City of Laredo
Pedro R. Alvarez, P.E., Laredo District Engineer, TxDOT
Melisa Montemayor, Laredo District Administrator, TxDOT
Ana Duncan, P.E., Project Manager, TxDOT

Texas Department of Transportation
125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

August 29, 2017

Mr. Gabriel Martinez, P.E.
Assistant City Engineer
City of Laredo Engineering Department
1110 Houston St.
Laredo, Texas 78042

Re: Calton Road Grade Separation: Letting Date Update
CSJ 0922-33-093, Webb County

Dear Mr. Martinez:

The letting date for the subject project is currently scheduled for November 2017, as was requested in your letter dated April 4, 2017. At that time you listed the following uncertainties on the project:

- Pending railroad agreement for construction and maintenance,
- Further utility coordination and utility relocations,
- Clearing of right-of-way encroachments, and
- Changing of design from 2004 specifications to current 2014.

Since the project has not yet met the "ready to let" definition, we are requesting that the City of Laredo provide a status update on the overall project development and the uncertainties listed above. Please also indicate the revised letting date for this project that will allow you to meet the ready to let definition below. This will require an administrative update in the STIP and will be presented as such during the next available Laredo MPO meeting.

"Ready to Let" Definition (completed four months prior to letting):

- Environmentally cleared and Environmental mitigation completed
- Environmental permits secured
- Right-of-Way cleared (acquisition, abatement, demolition, etc.)
- Schematic approved
- 100% PS&E completed
- Project agreements in place (Local funding received)
- Railroad Coordination/Agreements in place
- Utility agreements in place/relocations in progress and/or scheduled

We ask that you submit this information by September 8, 2017. After this date, TxDOT will be required to move the project from the November 2017 letting schedule and will do so as deemed necessary. Should you have any questions, please do not hesitate to contact Ana Duncan at 956-712-7460.

Sincerely,

Alberto Ramirez, P.E.
Director of Transportation Planning & Development

CC: Rogelio Rivera, P.E., City Engineer, City of Laredo
Nathan Bratton, P.E., Director of Planning, City of Laredo
Pedro R. Alvarez, P.E., Laredo District Engineer, TxDOT
Melisa Montemayor, Laredo District Administrator, TxDOT
Ana Duncan, P.E., Project Manager, TxDOT

Vanessa Guerra

From: Roberto Rodriguez III <Roberto.Rodriguez@txdot.gov>
Sent: Tuesday, October 03, 2017 9:22 AM
To: Angelica Quijano; Vanessa Guerra
Cc: Nathan R. Bratton
Subject: MPO Agenda Item - CSJ 0922-33-093 Calton Letting update
Attachments: 2017-0911 Calton letting TxDOT Update .pdf

Attached find an administrative update for next MPO.

The Calton Rd Grade Separation project (CSJ 0922-33-093) will not be letting in November 2017 (FY 18) and is being moved to August 2018 (FY 18).

Thanks

Roberto Rodriguez, P.E.
TP&D-Advanced Planning Supervisor
Laredo District
1817 Bob Bullock Lp
Laredo TX 78043
(956) 712-7735 (Direct)
(956) 333-4075 (Cell)

From: Ana Duncan
Sent: Monday, September 11, 2017 5:10 PM
To: Gabriel Martinez
Cc: Nathan R. Bratton; Pedro Alvarez; Melisa Montemayor; Alberto Ramirez; 'rrivera@ci.laredo.tx.us'
Subject: CSJ 0922-33-093 Calton Letting update

Gabriel,

As discussed earlier, see attached letter moving the letting date to August 2018. Hard copy to follow.

Thank you.

Ana A. Duncan, P.E.
Transportation Engineer

Texas Department of Transportation – Laredo District
1817 Bob Bullock Loop * Laredo, TX 78043
O: 956/712-7460 F: 956/712-7401
Email: ana.duncan@txdot.gov

F. Discussion with possible action on Hachar Road.

V. REPORT(S) AND PRESENTATIONS (No action required)

A. Flecha/Las Cruces Realignment Project:
   1. Report by the City of Laredo Real Estate Division on the status of Flecha/Las Cruces Realignment project's Right of Way (ROW) acquisition.
   2. Report by CEC representative on the status of the Flecha/Las Cruces Realignment project's: plans and specification updates, Army Corp of Engineers permitting and request for additional funding.

B. Presentation by TxDOT on the proposed Outer Loop alignment.

C. Report by MPO Director on the relative competiveness of the City of Laredo's Infra Grant application.

D. Report by the TxDOT on the meeting had by the City and TxDOT to discuss the "wish list"/recommendations resulting from the Texas Transportation Institute's (TTI) Mines Road study, pertaining to proposed City of Laredo facility improvements intended to improve the function of Mines Road.

E. Letting date for the Zacate Creek Hike & Bike Trail (CSJ 0922-33-170) has been moved from November 2017 (FY 2018) to January 2018 (FY 2018).

F. Status report by Mr. Joe Medina on discussions with the Muller family in relation to the River Bank Road Project.

G. Status report on the Regional Mobility Authority (RMA).

   1. Status update on the financing for the Vallecillo Road Project.

Flecha/Las Cruces Realignment Project Item

Texas Department of Transportation
125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

July 31, 2017

Mr. Gabriel Martinez, P.E.
Assistant City Engineer
City of Laredo Engineering Department
1110 Houston St.
Laredo, Texas 78042

Re: Flecha/Las Cruces Realignment: Letting Date Update
CSJ 0922-33-076, Webb County

Dear Mr. Martinez:

Since early June 2017, we have been requesting a status update to the proposed letting date for the subject project. A project must be "ready to let" a minimum of four months prior to the actual letting month/year. As of the date of this letter, the project is scheduled for letting in September 2017 and has not met the "ready to let" definition.

Ready to Let Definition:

- Environmentally cleared and Environmental mitigation completed
- Environmental permits secured
- Right-of-Way cleared (acquisition, abatement, demolition, etc.)
- Schematic approved
- 100% PS&E completed
- Project agreements in place (Local funding received)
- Railroad Coordination/Agreements in place
- Utility agreements in place/relocations in progress and/or scheduled

In your response email, you confirmed that the project is still, at a minimum, pending completion of ROW acquisition and Corps of Engineering approval for mitigation issues. Without proposing a new letting date, you also indicated that the project will not be "ready to let" in 2017. Please be informed that TxDOT will be proposing to change the let date for this project to August 2018 (FY 2018), until further advisement from the City of Laredo. This will require an administrative update in the STIP and will be presented as such during the next available Laredo MPO meeting.

Should you have any questions, please do not hesitate to contact me at 956-712-7446.

Sincerely,

Alberto Ramirez, P.E.
Director of Transportation Planning & Development

CC: Rogelio Rivera, P.E., City Engineer, City of Laredo
Nathan Bratton, P.E., Director of Planning, City of Laredo
Pedro R. Alvarez, P.E., Laredo District Engineer, TxDOT
Melisa Montemayor, Laredo District Administrator, TxDOT
Ana Duncan, P.E., Project Manager, TxDOT

Ana Duncan

From: Gabriel Martinez, Jr. <gmartinez@ci.laredo.tx.us>
Sent: Friday, July 28, 2017 2:42 PM
To: Ana Duncan
Cc: Rogelio Rivera; Nathan R. Bratton
Subject: FW: CSJ 0922-33-076 - Bridge Submittal Review comments

Ana:

From the land acquisition perspective, I have been unable to get a timeline for the pending parcels at this point.

Also, as you know, the mitigation issue is also pending, as per TxDOT e-mail from Maria Rogers dated yesterday, July 27, 2017 & related pending approval from Corps of Engineers.

At this point, I do not foresee reaching a point anytime in 2017 when we will be ready with 100% completion / approval 4 months before advertising for bids.

I will follow up with you as I soon as I have with something more concrete from the other parties involved.

Gabriel Martinez, PE
Assistant City Engineer
City of Laredo Engineering Dept
Laredo, Texas 78040
Phone: (956)791-7346
Fax: (956)791-7496
e-mail: gmartinez@ci.laredo.tx.us

-----Original Message-----
From: Arturo Garcia
Sent: Friday, July 28, 2017 2:05 PM
To: Gabriel Martinez, Jr.; Jessica Nelson
Cc: Rogelio Rivera; Linda Teniente
Subject: RE: CSJ 0922-33-076 - Bridge Submittal Review comments

Gabriel, not sure if you knew but today is Jessica's last day. Linda Teniente will be taking over the duties as acting real estate manager effective Monday. We'll have to sit down with you to sort out what is pending.

-----Original Message-----
From: Gabriel Martinez, Jr.
Sent: Thursday, July 27, 2017 2:41 PM
To: Arturo Garcia <agarcia@ci.laredo.tx.us>; Jessica Nelson <jnelson@ci.laredo.tx.us>
Cc: Rogelio Rivera <rrivera@ci.laredo.tx.us>
Subject: FW: CSJ 0922-33-076 - Bridge Submittal Review comments
Importance: High

Arturo/ Jessica:
Please provide an estimated schedule for the remainder of acquisition of pending parcels for the Flecha project.

Ana Duncan

From: Ana Duncan
Sent: Monday, July 24, 2017 1:46 PM
To: 'Gabriel Martinez, Jr.'
Cc: 'Rogelio Rivera'; 'Arturo Garcia'; 'Angelita C. Ramos'; Ricardo De La Parra; Alberto Ramirez; Roberto Rodriguez III
Subject: RE: City of Laredo - Flecha project - letting dates

Good afternoon Gabriel,

We have been asking since early June for an updated letting date for the Flecha Realignment project (CSJ 0922-33-076). We understand that you are coordinating with your Consultant, but the decision must come from the City of Laredo as soon as possible. A project must be "ready to let" a minimum of 4 months prior to the actual letting month/year. In order to be accepted as "ready to let" a project must have complete PS&E, all ROW, ENV and Utility clearances, which includes utility coordination complete with relocations underway or scheduled accordingly. This project is currently scheduled for a September 2017 letting and must be moved as soon as possible.

Please provide an updated letting date for this project, in writing from City of Laredo, by this Friday, July 28, 2017. If we do not receive an update, we will be required to move the let date and notify the Laredo MPO accordingly.

Should you have any questions or concerns, feel free to contact me. Thank you.

Ana A. Duncan, P.E.
Transportation Engineer

Texas Department of Transportation – Laredo District
1817 Bob Bullock Loop * Laredo, TX 78043
O: 956/712-7460 F: 956/712-7401
Email: ana.duncan@txdot.gov

From: Ana Duncan
Sent: Wednesday, June 21, 2017 8:14 AM
To: Gabriel Martinez, Jr.
Cc: Jeffrey G. Puig, P.E., R.P.L.S.; Rogelio Rivera; Arturo Garcia; Angelita C. Ramos; 'Kyle Gass, P.E., CFM'; Edward L. Ochoa P.E., S.I.T., CFM; Julio Ramos, P.E., PTOE; Ricardo De La Parra; Alberto Ramirez; Roberto Rodriguez III
Subject: Fwd: City of Laredo - Flecha project - letting dates

Gabriel,

With this information from your Consultant, the City should be able to propose a reasonable letting date. Keep in mind the definition of "ready to let." This is not just complete PS&E, but also includes all ROW, ENV and Utility clearance letters. As was discussed with other projects, utility coordination needs to be complete with relocations underway before the project should be submitted for letting.

We await your response. If you have any questions or would like to discuss, please do not hesitate to call us. Thank you.

Ana A. Duncan, P.E.
Transportation Engineer

Texas Department of Transportation – Laredo District
1817 Bob Bullock Loop * Laredo, TX 78043
O: 956/712-7460 F: 956/712-7401
Email: ana.duncan@txdot.gov

From: Kyle Gass, P.E., CFM [mailto:kgass@cectexas.com]
Sent: Tuesday, June 20, 2017 4:22 PM
To: Gabriel Martinez, Jr.
Cc: Jeffrey G. Puig, P.E., R.P.L.S.; Rogelio Rivera; Arturo Garcia; Angelita C. Ramos; Ana Duncan; Edward L. Ochoa P.E., S.I.T., CFM; Julio Ramos, P.E., PTOE
Subject: RE: City of Laredo - Flecha project - letting dates

Gabriel,

Thanks for following up on this. Been trying to catch up on everything since getting back in the office.

Our current schedule anticipates that we will receive Corps Approval for the mitigation plan in October. I believe that would fulfill the environmental clearance, so we'll target October to submit final plans. That means 90% plans will be submitted in August for review and comment. Final plans in October I believe means letting around December or January.

We need to confirm that the utility relocations will be completed to allow for letting. Will also need city input on the status of ROW acquisitions and funding agreements.

Thanks,
Kyle Gass, P.E., CFM
Principal - Division Manager
CEC
Texas Firm Registration Numbers
Engineering F-2214 & Surveying 100410-00
11550 IH 10 West, Suite 395 | San Antonio, TX 78230
Tel: 210-641-9999 Fax: 210-641-6440
Direct: 210-798-9218

From: Gabriel Martinez, Jr. [mailto:gmartinez@ci.laredo.tx.us]
Sent: Tuesday, June 20, 2017 1:43 PM
To: Kyle Gass, P.E., CFM <kgass@cectexas.com>
Cc: Jeffrey G. Puig, P.E., R.P.L.S. <jpuig@cectexas.com>; Rogelio Rivera <rrivera@ci.laredo.tx.us>; Arturo Garcia <agarcia@ci.laredo.tx.us>; Angelita C. Ramos <aramos1@ci.laredo.tx.us>; Ana Duncan <Ana.Duncan@txdot.gov>
Subject: RE: City of Laredo - Flecha project - letting dates

Please provide a status regarding the email request below.

From: Gabriel Martinez, Jr.
Sent: Thursday, June 08, 2017 8:40 AM

To: 'Kyle Gass'
Cc: Jeffrey G. Puig; Rogelio Rivera; Arturo Garcia; Angelita C. Ramos
Subject: FW: City of Laredo - Flecha project - letting dates
Importance: High

Kyle:

Can you please respond to this TxDOT concern with any needed schedule revisions?

Thanks,

Gabriel Martinez, PE
Assistant City Engineer
City of Laredo Engineering Dept
Laredo, Texas 78080
Phone: (956)791-7346
Fax: (956)791-7496
e-mail: gmartinez@ci.laredo.tx.us

From: Ana Duncan [mailto:Ana.Duncan@txdot.gov]
Sent: Tuesday, June 06, 2017 3:41 PM
To: Gabriel Martinez, Jr.
Cc: Rogelio Rivera; Ricardo De La Parra
Subject: City of Laredo - Calton & Flecha projects - letting dates

Good afternoon Gabriel,

With Fiscal Year 2018 fast approaching, we are beginning to confirm let dates for fiscal year 2018. The fiscal year is from September 1, 2017 to August 31, 2018. We have two projects with the City of Laredo currently scheduled in FY 18.
Flecha Realignment **(CSJ 0922-33-076) – September 2017** (Ready to Let date: May 2017)
Calton Road **(CSJ 0922-33-093) - November 2017** (Ready to let date: July 2017)

The ready to let date for Flecha has already passed and that for Calton is fast approaching. Based on discussions with the utility companies, a November letting date for Calton may not be attainable. **Please propose a new letting date for each of these projects in writing as soon as possible. Your prompt response is appreciated.**

A project must meet the "ready to let" definition at least 4 months prior to the letting date:

- Environmental clearance complete
- Environmental permits secured
- ROW cleared (acquisition, abatement, demolition, etc.)
- Schematic approved (if applicable)
- 100% Plans, Specifications and Estimate (PS&E)
- Project agreements in place (Local funding received)
- Railroad Coordination/agreements in place (if applicable)
- Utility agreements in place/relocations completed or in progress and near completion

Please let us know if you have any questions.

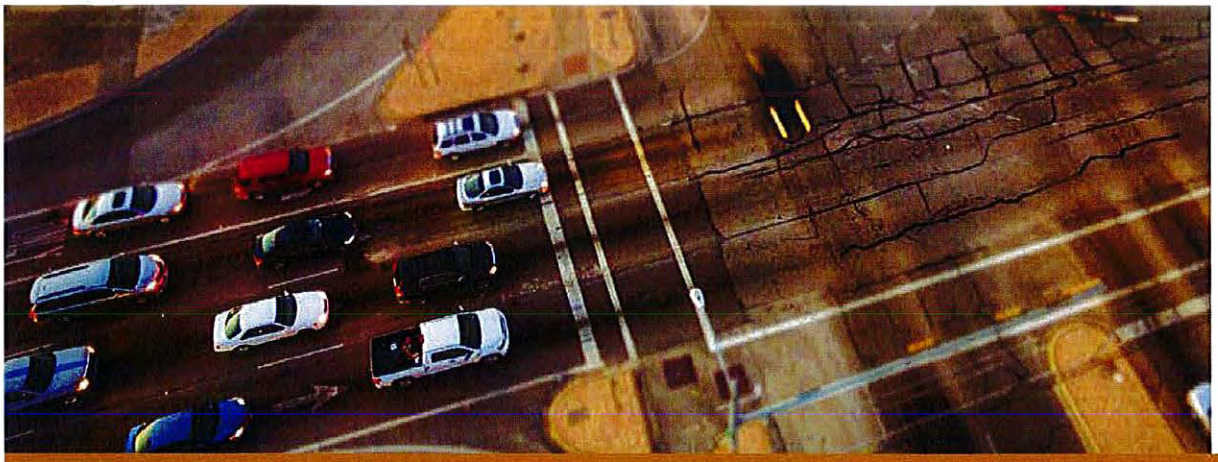
Thank you.

Ana A. Duncan, P.E.

Transportation Engineer

Texas Department of Transportation – Laredo District
1817 Bob Bullock Loop * Laredo, TX 78043
O: 956/712-7460 F: 956/712-7401
Email: ana.duncan@txdot.gov

Report by MPO Director on the relative competiveness of the City of Laredo's Infra Grant application



CITY OF Laredo

FY17-18 INFRA

I-35/I-69W International Freight Gateway

November 2, 2017

Cover Page: I-35/I-69W International Freight Gateway, INFRA Grant Application

FY17-18 INFRA Grant Application Summary	
Was an INFRA application for this project submitted previously?	Yes
If yes, what was the name of the project in the previous application?	I-69W International Freight Gateway
Previously Incurred Project Cost	$32,000,000
Future Eligible Project Cost	$98,000,000
Total Project Cost (Sum of the two previous rows)	$130,000,000
INFRA Request	$78,000,000
Total Federal Funding (including INFRA)	$78,000,000
Are matching funds restricted to a specific project component? If so, which one?	Yes, Construction
Is the project or a portion of the project currently located on National Highway Freight Network?	Yes
Is the project or a portion of the project located on the National Highway System?	Yes
Does the project add capacity to the Interstate system?	Yes
Is the project in a national scenic area?	No
Do the project components include a railway-highway grade crossing or grade separation project?	No
Do the project components include an intermodal or freight rail project, or freight project within boundaries of a public or private freight rail, water, or intermodal facility?	No
If answered yes to either of the two component questions above, how much of requested INFRA funds will be spent on each of these projects components?	$0
State(s) in which project is located.	Texas
Small or Large Project	Large
Urbanized Area in which project is located, if applicable.	Laredo
Population of Urbanized Area.	270,000
Is the project currently programmed in the:	
• TIP?	No, U.S. Highway 59 only
• STIP?	Yes
• MPO Long Range Transportation Plan?	Yes
• State Long Range Transportation Plan?	Yes
• State Freight Plan?	Yes

Executive Summary

The Port of Laredo is the busiest inland port in the nation, facilitating over $198 billion in imports and exports in 2015. As a "gateway" to the U.S. and the dominant Port of Entry (POE) along the U.S./Mexican border, smart investments in transportation infrastructure are important in meeting current and future challenges of moving people and goods in the region, the nation, and enhancing economic competitiveness of the U.S. The roadways and commercial/industrial areas that connect and serve Laredo's four POEs act as the backbone of commerce for the region and the nation. The I-35/U.S. 59 interchange is at the hub of trade entering Laredo's cross-border system via I-35, U.S. 83 and U.S. 59/I-69W corridors, connecting to Laredo's busiest commercial port of entry, the World Trade Bridge.

To address the acute challenge of efficiently moving people and goods and supporting international trade, the City of Laredo, Texas, and Webb County, Texas, in partnership with the Texas Department of Transportation (TxDOT), is submitting the I-35/I-69W International Freight Gateway Project for consideration in the first round of the INFRA grant program. ***This INFRA grant request is for $78 million, and if selected, the funding will be utilized towards the project's total construction cost of $130 million.*** This project will significantly improve efficiency, reliability, and safety by constructing the final five (of eight) direct connectors between U.S. 59 and I-35 in north Laredo. These five direct connectors between two high-volume truck freight routes have been identified as current and future segments of the National Highway System (NHS) and National Highway Freight Network (NHFN). This project, which directly impacts the fluidity of traffic for both Texas and Mexico, has national significance and sets the conditions for supporting the expected future freight growth out to 2050.

Currently, over 22 percent of the state economy and approximately 465,000 jobs in Texas are dependent on U.S.-Mexico trade. The Port of Laredo accounts for 37% of all trade between U.S.-Mexico. Furthermore, a 2016 Texs Department of Transportation time series analysis of the Truck-Freignt Flow from the border in Laredo to the rest of the United States revealed that trucks originating in Laredo, Texas, traveled to every state in the contiguous United States of America in just one week. ***If left to operate without these improvements, the "Laredo Gateway" will become the "Laredo Bottleneck" which will have negative consequences.***

The project elements included in this funding request will ensure that U.S.-Mexico trade will support, and be the catalyst for economic growth, for Laredo, Texas, and the U.S. The five direct connector projects are in different stages of development, but ***all are scheduled to begin construction prior to September 30, 2020 and cannot be completed without Federal funds.*** When completed, these projects will provide for an upgraded, controlled access facility that will move traffic to/from through this portion of Laredo with an improved level of service (LOS) through currently-congested sections of roadway. The direct connectors have been identified by TxDOT, the City of Laredo, Webb County and the Webb County-City of Laredo Regional Mobility Authority (WCCL RMA) as a priority project for this community.

Based on the BCA results, this project will result in public benefits of $4.32 for every $1 spent. A summary of the public benefits realized by this project are shown in **Table ES-1** below.

Table ES-1: Summary of Benefit Cost Analysis Statistics

Statistics	Discounted @ 7%	Discounted @ 3%
Total Benefits	**$392.4 M**	**$745.0 M**
Travel Time Benefits	$300.4 M	$568.8 M
Vehicle Operating Cost Benefits	$43.7 M	$84.4 M
Emission Cost Benefits	$4.1 M	$7.9 M
Accident Cost Benefits	$44.3 M	$83.8 M
Incremental O&M Costs	$0.0 M	$0.0 M
Total Capital Costs	$90.8 M	$103.7 M
Right of Way Costs	$9.1 M	$10.4 M
Construction Costs	$81.7 M	$93.3 M
Net Present Value (NPV)	$301.6 M	$641.3 M
Benefit-Cost Ratio (BCR)	4.32	7.18
Return on Investment (ROI)	332%	618%
Internal Rate of Return (IRR)	28.8%	

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1 Project Description

The Port of Laredo is the busiest inland port/gateway/border crossing along the U.S.-Mexico border, and it facilitated over $195 billion in imports and exports in 2015. As a gateway and the premier Port of Entry (POE) along the 1,969-mile U.S.-Mexico border, smart investments in transportation infrastructure are important in meeting current and future challenges of moving people, goods, and commodities in the bi-national region and the U.S., and enhancing economic competitiveness of the U.S. economy. The roadways, railroads, and commercial and industrial areas that connect and serve Laredo's four POEs act as the backbone of commerce for the region and U.S. One of the busiest POEs is the World Trade Bridge in Laredo, which on average, handles about 11,000 to 12,000 trucks per day.

Growth in trade and related activities, coupled with significant economic and population growth on both sides of the international border has significantly increased border traffic on Laredo's four international bridges and the existing railroad bridge over the Rio Grande River that marks the international border. Auto parts are the top goods that ship through Laredo, according to the Laredo Development Foundation. The Laredo Customs District, which stretches from Brownsville to Del Rio, Texas, leads the nation in exports of vehicle parts, with the bulk of the freight moving through Laredo. During first quarter 2017, motor vehicle imports and exports through Laredo totaled $8.1 billion, according to a WorldCity analysis of U.S. Census data.

Figure 1-1: Truck Traffic at One Laredo Port of Entry

Figure 1-2: The World Trade Bridge is one of the busiest POEs along the entire U.S. – Mexico Border

The borders are major contributors to the regional, state, and national economies of both U.S. and Mexico, and it is imperative they provide efficient connectivity between the transportation systems of both nations and the critical trade gateways in the Laredo region. Forecasts in commercial and non-commercial traffic growth recommend that improvements in infrastructure capacity, operations, and Intelligent Transportation Systems (ITS) are needed to meet increasing demand. Additionally, improvements made to system linkages will allow for more efficient and safe movements of people and goods, improved supply

chain efficiency for industries, and improve freight and passenger mobility. The improvements will also provide greater access for jobs, education, and training opportunities; enhance safety; and provide infrastructure needed to support projected growth in cross-border trade, freight volumes, population growth, and employment.

The I-35/I-69W interchange is the nexus of trade moving in all directions through the Laredo Gateway to include the busiest POE between the U.S. and Mexico, the World Trade Bridge. I-69W passes over I-35 and tracks of the Union Pacific Railroad (UP). ***This project will construct the final five (of eight) direct connectors between I-69W (formerly U.S. 59) and I-35 in north Laredo, also known as the "Milo" interchange.*** Three of the connectors between I-35 and I-69W have already been constructed. Each connector will span approximately 3,000 feet and will require bridges to flyover the existing I-35 and I-69W main lanes and frontage roads. ***The project will also upgrade a 1.8-mile segment of I-69W to interstate standards by adding one additional 12-foot mainlane in each direction and widening to 10-foot inside/outside shoulders.*** Preliminary design has been completed for this project, and the interchange was environmentally reviewed and approved in an Environmental Assessment (EA) by the FHWA in the 1990s. Any additional phase implemented would be cleared environmentally as a standalone Categorical Exclusion (CE).

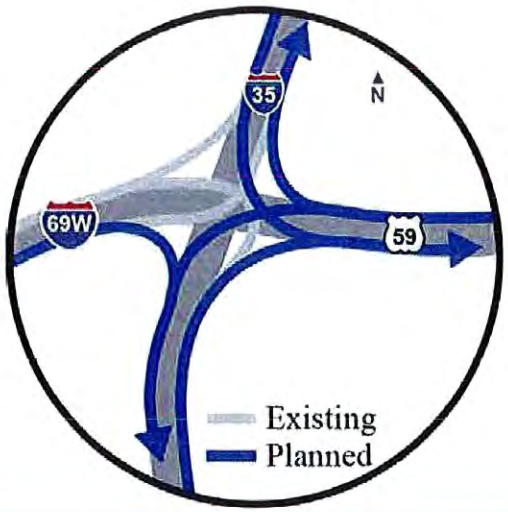
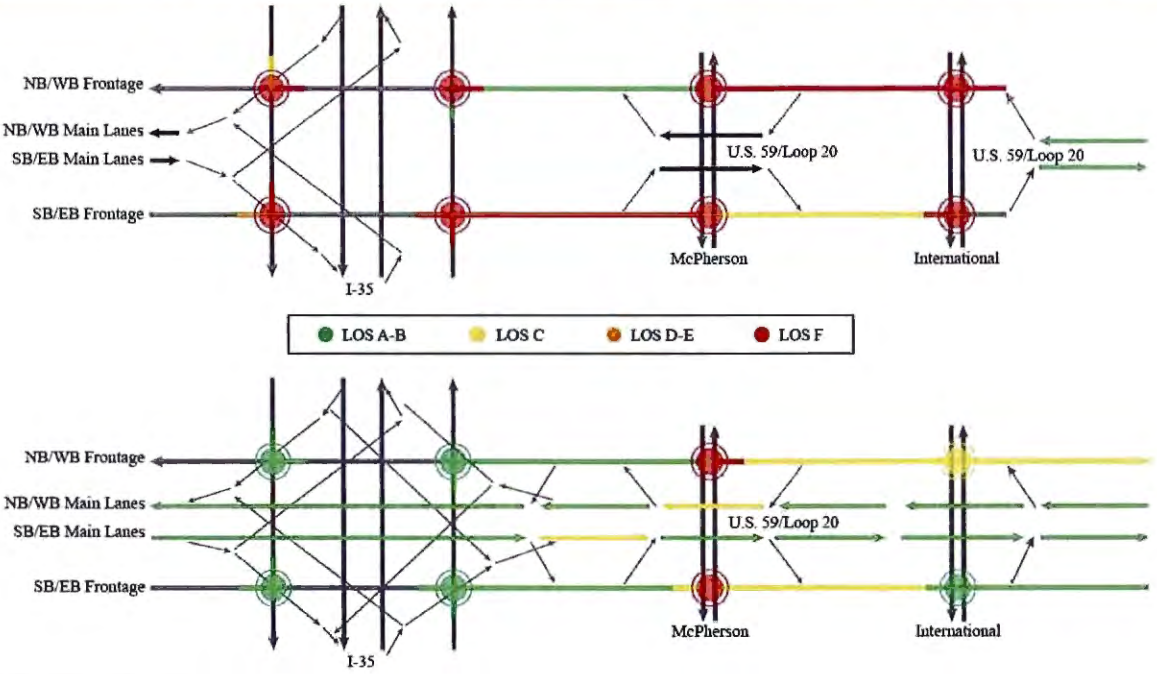


Figure 1-3: Planned Project Connectors

1.1 Mobility Outcomes

As shown in **Figure 1-4**, the I-35/I-69W International Freight Gateway project is expected to improve highway and intersection level of service and reduce congestion while increasing throughput in the corridor. ***Without the improvements, intersection delay in all directions at the U.S. 59/I-69W interchange with I-35 as well as adjacent intersections will reach Level of Service (LOS) F, further exacerbating what is already a critical bottleneck for accessing the World Trade Bridge.*** As proposed in the I-35/I-69W International Freight Gateway project, adjusting the number of travel lanes, the type of traffic control at intersections, the number of access points, and speed limits all positively affect roadway capacity and congestion. The new U.S. 59/I-69W mainlanes allow for additional throughput and mobility through the corridor, while the I-35 direct connectors significantly reduce intersection delay. Most intersections see dramatic LOS improvements (**Figure 1-4** below) and the U.S. 59/I-69W mainlanes allow for the uncongested flow of trucks and passenger vehicles.

Figure 1-4: Level of Service Comparison, 2040 No-Build versus Build



1.2 Safety Outcomes

Another key objective of the I-35/I-69W International Freight Gateway project is to improve safety throughout the project limits, especially by creating direct connections at the Milo Interchange as well as a continued through movement on U.S. 59/I-69W, decreasing movements at signalized intersections. The average number of incidents (crashes) for the project vicinity based on 2010-2012 data was 48.5 crashes/year. **Table 1-1** identifies the top intersections in Laredo with crash occurrences, including fatal crash locations, between the years 2010 and 2012. Intersection numbers 5, 6, and 15 from **Table 1-1** are within the project limits. Adding the U.S. 59/I-69W mainlanes overpass and direct connectors with I-35 will allow a large volume of vehicles to bypass these intersection safety hotspots.

The project will address safety concerns caused by an increase in traffic and an increase in crash rates in the region. Some of the most significant growth in daily traffic volumes between the years 2002 and 2015 occurred along U.S. 59 and I-35 (**Table 1-2**). Based on these trends, population and freight volumes located within the corridor will continue to grow well into the future; the new infrastructure will help accommodate this growth.

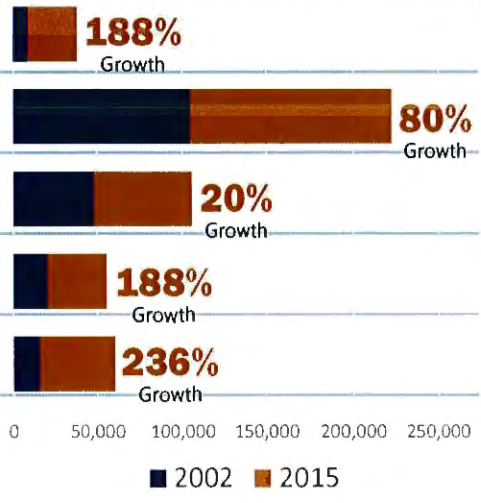
Table 1-1: Top 20 Crash Locations in Laredo, 2010-2012

	Intersection	Number of Crashes
1.	McPherson Rd. and Del Mar Blvd.	268
2.	Loop 20 (Bob Bullock Loop) and SH 359	222
3.	IH 35 and U.S. 83 (Matamoros St.)	212
4.	IS 35 and Calton Rd.	165
5.	**IH 35 and Loop 20 (Bob Bullock Loop)**	**159**
6.	**FM 1472 and Loop 20 (Bob Bullock)**	**129**
7.	U.S. 83 (Zapata) and Loop 20 (Bob Bullock)	126
8.	IH 35 and Mann Rd.	114
9.	Loop 20 (Bob Bullock Loop) and Spur 400 (Clark Blvd.)	109
10.	IH 35 and Victoria St.	108
11.	IH 25 and U.S. 59 (Lafayette St.)	105
12.	McPherson Rd. and Calton Rd.	103
13.	IH 35 and U.S. 83 (Houston St.)	102
14.	McPherson Rd and Jacaman Rd.	97
15.	**McPherson Rd. and Loop 20 (Bob Bullock Loop)**	**95**
16.	McPherson Rd. and Shiloh Dr.	93
17.	Loop 20 (Bob Bullock Loop)	90
18.	U.S. 59 and N. Bartlett Ave.	75
19.	McPherson Rd. and Hillside Rd.	70
20.	Mines Rd. and Bristol Rd.	68

Table 1-2: High-Traffic Volume Growth Locations Close to the Project Area (ADT 2002 to 2015)

Roadway	Location	Absolute Growth	% Growth between 2002 -2015
U.S. 59	Between I-35 and McPherson Ave. *(east of Milo Interchange)*	29,147	188% Growth
U.S. 59	Between Del Mar Blvd. and U.S. 59 *(4.6 miles east of Milo Interchange)*	15,974	80% Growth
I-35	Between FM 1472 and U.S. 59 (south of Milo Interchange)	9,474	20% Growth
I-35	Between Carlton Rd. and Mann Rd. *(3.6 miles south of Milo Interchange)*	13,864	188% Growth
U.S. 59	Between I-35 and McPherson Ave. *(1 mile east of Milo Interchange)*	20,566	236% Growth

Source: Created using data from 2012 and 2015 Laredo District Traffic Map by TxDOT



The components of the I-35/I-69W International Freight Gateway project are in different stages of development, but all are scheduled to begin construction prior to September 30, 2020, ***and cannot be completed without Federal funds***. When completed, the project will provide for an upgraded, controlled access facility that will move traffic through this portion of Laredo with an improved Level of Service (LOS) through congested sections of roadway present today. ***It is estimated that the project will provide $4.32 of benefit for every $1 invested.*** The I-35/I-69W International Freight Gateway project has been identified by TxDOT, the City of Laredo, Webb County, and the Webb County-City of Laredo Regional Mobility Authority as a priority project for this community and is reflected in their planning documents.

1.3 Eligibility

The I-35/I-69W International Freight Gateway project meets the following INFRA project eligibility requirements:

- A highway freight project carried out on the National Highway Freight Network.
- A highway or bridge project carried out on the National Highway System that adds capacity and increases mobility to the U.S. interstate system.

TxDOT previously submitted a "Laredo Bundle" Federal FASTLANE application as part of the FY2016 program. In hopes of obtaining needed funding for these critical international trade gateway improvements, the City of Laredo, in partnership with TxDOT, is submitting a new application for the project with a more comprehensive project scope. Rather than higblighting the many changes made to the previous application submittal, the project has been redefined to maximize benefits to the region and nation, and a new INFRA grant application has been submitted.

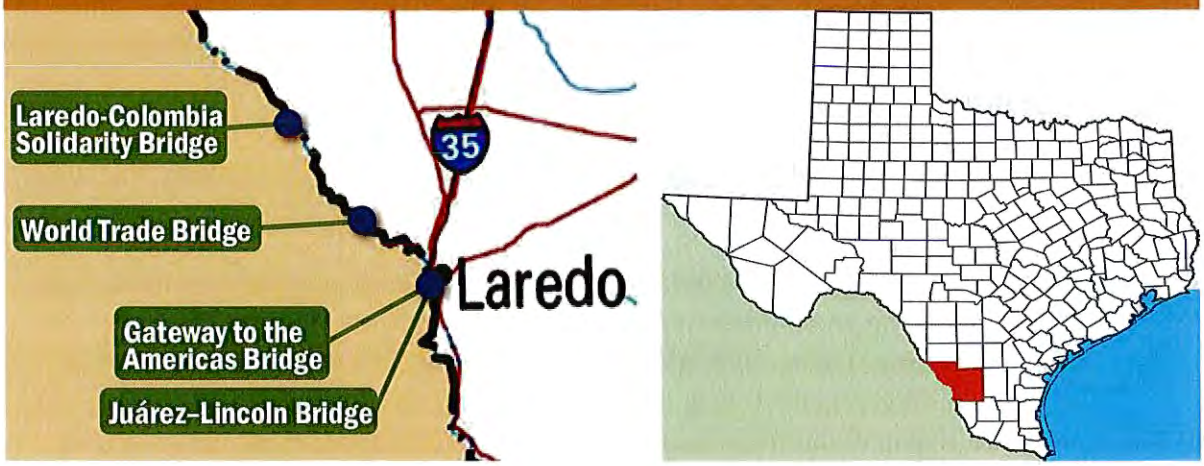
1.4 Previously Incurred Costs

The City of Laredo and TxDOT have previously invested over $32 million in prior work on the project. These previous costs include the completion of three (of eight) direct connectors between U.S. 59 and I-35 in north Laredo. This application for INFRA funding will be used to complete the remaining five connectors.

2 Project Location

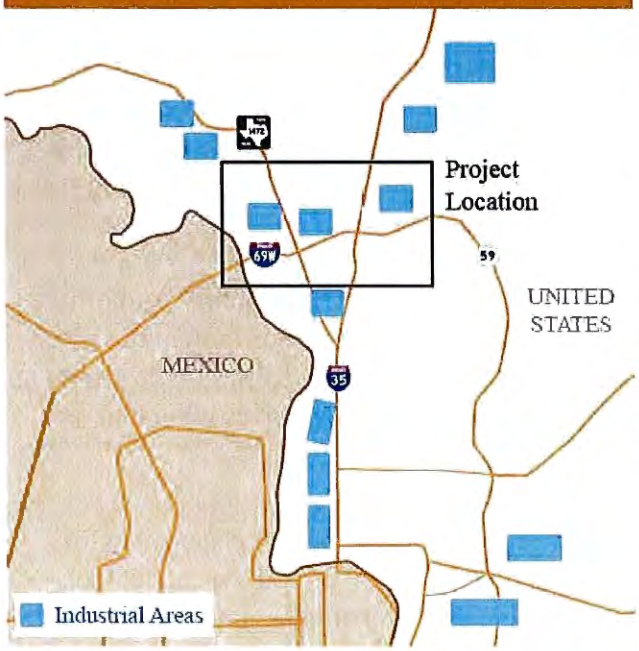
Laredo, the county seat of Webb County, Texas, is located on the north bank of the Río Grande River in South Texas, across from Nuevo Laredo, Tamaulipas, Mexico. The Laredo Urbanized Area (ID 47854) has a population of almost 270,000 (2016). As shown in **Figure 2-1**, the I-35/I-69W International Freight Gateway project is located near the World Trade Bridge, a critical international border crossing located approximately 2.75 miles to the west of I-35 and the U.S. 59/I-69W interchange. U.S. 59/I-69W provides access to and from the World Trade Bridge and other major freight corridors in the region. The Juarez-Lincoln International Bridge, which is the fourth busiest port of entry for non-commercial vehicles at the U.S.-Mexico border, is located approximately 8 miles to the south.

Figure 2-1: Project Location Map



In addition, industrial facilities in the area are the nerve centers for cross-border freight traffic in the Laredo region. These facilities serve as the origins and destinations of the majority of commercial traffic, and the project is located within a 10-mile radius of these facilities (**Figure 2-2**). Laredo's location at the border of the U.S. and Mexico on the southern end of I-35 and close to the manufacturers in northern Mexico highlights its vital role in trade between the two nations. The project is located on the north end of the City of Laredo, approximately 3 miles east of the U.S.-Mexico border crossing (World Trade Bridge).

Figure 2-2: Laredo Area Industrial Areas



The projects would fully integrate with each other, thus improving connectivity between the trade gateways and transportation corridors. The project will also integrate with the McPherson Road interchange that opened to traffic in 2014 and with the International Boulevard interchange project that is currently under contract. The major destination points for trucks crossing at the World Trade International Bridge are within 4 miles from this POE. I-69W connects the POE with truck routes FM 1472, I-35, and U.S. 59, which provides direct access to destinations within Laredo.

3 Project Parties

The City of Laredo, Webb County, Webb County-City of Laredo Regional Mobility Authority, and TxDOT have formed a strong partnership to address the challenges of moving people and goods, and to facilitate cross-border trade. The applicant – the City of Laredo – who is leading this project as part of the I-35 Statewide Corridor Implementation Plan, is submitting this grant application.

The City of Laredo is the county seat of Webb County, Texas, located on the north bank of the Rio Grande River in South Texas, across from Nuevo Laredo, Tamaulipas, Mexico. According to the 2010 census, the city population was 236,091, making it the tenth-most populous city in the state of Texas and third-most populated on the Mexico–United States border, after San Diego, California, and El Paso, Texas. Its metropolitan area is the 178th-largest in the U.S. and includes all of Webb County, with a population of 250,304. Laredo is also part of the cross-border Laredo-Nuevo Laredo Metropolitan Area with an estimated population of 636,516.

Because Laredo is 95.6 percent Hispanic and Latino, it is one of the least ethnically diverse cities in the United States. When economic diversity, household diversity, and social class diversity are considered, Laredo is rated the 19th least diverse city overall out of the 313 largest cities in the nation. Laredo's economy is based on international trade with Mexico. Most major transportation companies have a facility in Laredo. The city's location on the southern end of I-35, close to the manufacturers in northern Mexico, promotes its vital role in trade between the two nations. Laredo International Airport is within the Laredo city limits, while the Quetzalcoatl International Airport is nearby in Nuevo Laredo on the Mexican side.

Webb County was created on January 28th, 1848 by the Texas legislature and is the 6th largest county in the state of Texas with 3,307 square miles. Like all Texas counties, Webb County is governed by four part-time county commissioners and elected by single-member districts of equivalent population, and a county-wide county judge, who is the full-time administrator of the county.

The mission of the Webb County-City of Laredo Regional Mobility Authority is to assist the establishment of a comprehensive transportation system to directly benefit the traveling public within Webb County-City of Laredo region through the development of additional transportation alternatives within the region.

As a project partner, the Laredo District of TxDOT would be responsible for the development and implementation of the projects. TxDOT, in cooperation with local and regional officials, is responsible for planning, designing, building, operating and maintaining the state's transportation system. This

includes acquiring right-of-way for state highways and other modes of transportation; researching issues to save lives and solve transportation problems; constructing roads and bridges; and improving and maintaining roadways, bridges, airports, and other transportation infrastructure. The Laredo District plans, designs, builds, operates and maintains the state transportation system in the following counties: Dimmit, Duval, Kinney, La Salle, Maverick, Val Verde, Webb and Zavala.

There are many other entities supporting this project and its proposed benefits, including many organizations, agencies, businesses, and government officials. In partnership with supporters Webb County, Webb County-City of Laredo Regional Mobility Authority, and the Laredo Metropolitan Planning Organization (MPO), the City of Laredo continues to gain support from legislators, government, local businesses, and other economic development organizations within the region and the state. Letters of Support can be found in **Appendix A**.

4 Grant Funds and Sources and Uses of Project Funds

The I-35/I-69W International Freight Gateway project represents a significant surface transportation infrastructure investment to improve freight and passenger vehicle mobility. Accordingly, multiple revenue sources will be utilized for construction, to balance project needs against the broader fiscal constraints of TxDOT's statewide construction program. **Table 4-1** shows the planned sources of project funds, and includes $78 million of INFRA grant funds.

4.1 Viability and Completeness of the Project's Financing

Table 4-1: Overall Project Fund Sources

Source	Cost	Type
INFRA (Grant)	$78,000,000	Federal
CBI – Federal Match (80%)	$24,000,000	Federal
CBI – State Match (20%)	$6,000,000	Non-federal
City of Laredo	$22,000,000	Non-federal
TOTAL SOURCES	**$130,000,000**	

The $130,000,000 is the cost of project construction.

The funding package for the projects is a mix of federal, state, and local dollars, with overall funding comprised of Coordinated Border Infrastructure (CBI) program funds and an INFRA grant award, as well as a financial commitment from the State of Texas and City of Laredo. Sixty (60) percent of total funding is attributed to the anticipated federal INFRA grant award; the remaining 40 percent of funding is attributed to the federal CBI funds (18%) and local sources (22%). **Table 4-1** illustrates the various funding mechanisms and sorts them by funding type.

4.2 Stable and Reliable Fund Commitments

The $30 million of Coordinated Border Infrastructure (CBI) funding through FHWA is being provided through TxDOT with an 80/20 federal/state split. The City of Laredo's City Council

passed a resolution in 2016 to provide $22 million of the matching funds. The City of Laredo's funds generally come from tax revenue, fees/collections, and other sources.

TxDOT also supports this project financially. TxDOT annually oversees $7.5 billion in the state highway fund, $3.4 billion in state bond proceeds, $1.8 billion in other funding mechanisms (tolls, mobility fund, concession fees), and over $8.6 billion in federal funds to construct, maintain, and operate approximately 197,100 miles of state highway system.

4.3 Contingency Reserves

The City of Laredo currently has a fund balance exceeding $44 million. The City has the capacity to utilize or leverage funding towards the issuance of bonds/debt service in the future, if the project were to exceed the anticipated budget.

Despite the strong funding plan that is in place, TxDOT will also support any needed contingency reserves. TxDOT recognizes the need for contingency funding in the event of funding interruptions. The possibility of federal or state transportation dollars being unavailable for project expenditures is remote. Historically, periodic short-term interruptions in federal reimbursements have been successfully managed through cash management practices. In 1946, language was added to the Texas Constitution requiring three-fourths of all net revenue generated by motor fuels taxes to be used only for acquiring right-of-way; constructing, maintaining, and policing public roadways; or for the payment of principal and interest on certain road district bonds or warrants. In the unlikely event that federal and state dollars are both unavailable, Texas has contingency solutions ranging from short-term cash management techniques to longer-term access to credit and capital markets.

4.4 Financial Condition of the Project Sponsor

The City of Laredo is rated by Moody's and Standard and Poor's (August 2016) and has received a strong credit rating from both agencies. As a 100-year-old organization, TxDOT also has the financial wherewithal to see the Laredo Gateway Project through to completion. TxDOT oversees a biennial budget of $8.6 billion and is able to access capital markets by selling general obligation debt backed by the full faith and credit of the state government. This debt is rated "AAA" by all three national rating agencies.

4.5 Ability to Manage Funding and Grants

The City of Laredo has successfully managed multiple CBI funds (including roadway projects) over the past few years. The city is also familiar with federal funding requirements, specifically programs like FASTLANE. Past projects include the construction of U.S. 59 (future I-69W) mainlanes over McPherson Road and construction along Loop 20 from Business U.S. 59 to State Highway 359.

The financial strength of TxDOT goes hand-in-hand with past success in managing several federal grants and hundreds of federal contracts, both as a recipient and a pass-through agency for sub-recipients. TxDOT complies with all federal government expenditure and reporting

requirements, including the general requirements of the Office of Management and Budget's "Super Circular" and the transportation specific guidance outlined in the Stewardship and Oversight Agreement between TxDOT and FHWA.

4.6 Future Eligible Cost

The future eligible cost of this project is $98,000,000 (including contingency) for construction, which is an eligible cost under this funding program.

4.7 Availability and Commitment of Funds

Table 4-1 shows that the City of Laredo is requesting $78 million in INFRA funds to construct the I-35/I-69W International Freight Gateway project. This amount will be matched with $52 million in committed other federal/state/local funds for a total project cost and funding of $130 million. As previously described, funding commitment and availability is shown in **Table 4-1**.

4.8 Federal Funds Already Provided

The construction of the U.S. 59/I-69W overpass at I-35 has been identified by TxDOT, the City of Laredo, Webb County, and the Webb County-City of Laredo Regional Mobility Authority as a priority project for the region. This component is identified in TxDOT's Unified Transportation Plan (UTP) and Statewide Transportation Improvement Program (STIP) as well as the Laredo MPO's TIP and Metropolitan Transportation Plan (MTP). The I-69W additional mainlanes are not identified in the UTP. This segment of I-69W is part of the future I-69 corridor by the Texas Transportation Commission, TxDOT, and FHWA. Federal law requires that this roadway must be upgraded to interstate standards by 2035. The Federal funds identified are $78,000,000 in INFRA grant funds and $24,000,000 in CBI Federal funds.

The five direct connectors at the Milo Interchange are not identified in the UTP. However, three of them (WB-NB, SB-EB, and WB-SB) are identified in the Laredo MPO's 2010-2035 MTP as projects needed for congestion relief, economic development, and improved safety.

5 Merit Criteria

5.1 Support for National or Regional Economic Vitality

Funds from this INFRA grant are necessary to complete the proposed projects expeditiously, eliminate delays in the project delivery process and reduce project costs due to escalation. ***The construction of the five direct connectors is crucial to provide valuable benefits to the region of reduced traffic congestion; minimized accident counts through improved traffic safety; improved shipping times resulting in decreased pollution from queued motor vehicles and savings to shippers; and increased job growth.*** Impediments to trade with Mexico have direct and indirect impacts on jobs – not only in border regions – but also other parts of Texas, the U.S., and North America. The current configuration of U.S. 59/I-69W with its discontinuous mainlanes, at-grade intersections, and railroad crossing, and only three of eight direct connectors with I-35 open to traffic, is becoming an increasingly strained bottleneck for

the movement of people and goods in the region as well as cross-border movements at the World Trade Bridge in Laredo.

The I-35/I-69W International Freight Gateway project improvements would increase the efficiency and reliability of truck and passenger vehicle movements in the study area, and the economic benefits from increasing throughput of goods and people in and out of the region and the international border crossing would enhance the competitiveness of the region, state, and U.S. By 2040, trade values of all outbound, inbound, or internal freight movement will more than double in the Laredo region. The economic benefits from additional trade and the movement of people in the region and the international border crossing would enhance the global economic competitiveness of the region, state, and nation. From a regional perspective, the Laredo economy relies heavily on the international movement of freight due to its geographic location and job specialization characteristics. North American Free Trade Agreement (NAFTA) has created a strong demand for trucking, warehousing, and support service industries in the region; and employment in trade, transportation, and utilities has accounted for approximately 33 percent of the jobs in Webb County since 2000.

In support of this INFRA grant application, a Benefit Cost Analysis (BCA) was performed to assess the cost-effectiveness of the project. The results of the BCA are shown in **Table 5-1**. ***Based on the BCA results, this project will result in public benefits of $4.32 for every $1 spent.***

Table 5-1: Summary of Results from the Benefit Cost Analysis

Statistics	Undiscounted	Discounted at 7%	Discounted at 3%
Total Benefits	**$1,315.7 M**	**$392.4 M**	**$745.0 M**
Total Travel Time Savings	$1,002.5 M	$300.4 M	$568.8 M
Total Emission Cost Savings	$151.3 M	$43.7 M	$84.4 M
Total Vehicle Operating Cost Savings	$14.2 M	$4.1 M	$7.9 M
Total Accident Cost Savings	$147.7 M	$44.3 M	$83.8 M
Incremental O&M	$0.0 M	$0.0 M	$0.0 M
Total Capital Costs	**$115.0 M**	**$90.8 M**	**$103.7 M**
Total Right of Way Costs	$11.5 M	$9.1 M	$10.4 M
Total Construction Costs	$103.5 M	$81.7 M	$93.3 M
Net Present Value		$301.6 M	$641.3 M
Benefit-Cost Ratio		4.32	7.18
ROI		332%	618%
IRR	28.8%		

The period of analysis used in the estimation of the I-35/I-69W International Freight Gateway project benefits and costs corresponds to 34 years, including 2 years of project development (design and construction) and 30 years of operation. Annual costs and benefits are estimated

through 2050. Construction of all the improvements is expected to be completed in 2021. Benefits will accrue during the full operation of the improvements constructed for the project (30 years).

Considering all monetized benefits (user as well as non-user) and costs (capital as well as operations and maintenance costs), the estimated internal rate of return of the I-35/I-69W International Freight Gateway project is estimated at 28.8 percent. The payback period is estimated at 3.18 years. With a 7 percent discount rate, the project will result in a net present value of nearly $301.6 million and a benefit-cost ratio of 4.32. With a 3 percent real discount rate, the net present value of the project would increase to more than $641.3 million, for a benefit-cost ratio of 7.18 (see **Table 5-2**). The detailed information on the BCA can be found in **Appendix B.**

Table 5-2: Summary of Benefit Metrics

Project Evaluation Metric	7% Discount Rate	3% Discount Rate
Total Discounted Benefits	**$392.4**	**$745.0**
Total Discounted Costs	**$90.8**	**$103.7**
Net Present Value	$301.6	$641.3
Benefit / Cost Ratio	4.32	7.18
Internal Rate of Return (%)	28.8%	
Payback Period (years)	3.18	

The I-35/I-69W International Freight Gateway has other ancillary project benefits, including general improvements in freight resiliency and improvements in travel time reliability for all motorists.

5.2 Leveraging of Federal Funding

The funding package for the projects is a mix of federal, state, and local dollars, with overall funding comprised of Coordinated Border Infrastructure (CBI) program funds and an INFRA grant award, as well as a financial commitment from the State of Texas and City of Laredo. Sixty (60) percent of total funding is attributed to the anticipated federal INFRA grant award; the remaining 40 percent of funding is attributed to the federal CBI funds (18%) and local sources (22%). **Table 4-1** illustrates the various funding mechanisms and sorts them by funding type. Funds from this INFRA grant are necessary to complete the proposed projects expeditiously, eliminate delays in the project delivery process, and reduce project costs due to escalation. The construction of the I-35/I-69W International Freight Gateway project is crucial to provide valuable benefits to the region of reduced traffic congestion; minimized accident counts through improved traffic safety; improved shipping times resulting in decreased pollution from queued motor vehicles and savings to shippers; and increased job growth.

5.3 Potential for Innovation

TxDOT will develop a unified Border and Gateway Plan beginning in November 2017. The entire border region, to include Texas and Mexico and all modal freight users, will be represented to ensure issues and needs are identified, goals and objectives are developed, projects and programs are recommended, policies are reviewed, performance metrics are established, and that continuous planning will be pursued. This will ensure all of the Texas-

Mexico border crossings and freight corridors receive continuous attention to support economic growth, efficient and reliable mobility, safety improvement, environmental quality, and quality of life for Americans and Mexicans.

5.4 Performance and Accountability

A project implementation schedule is provided in **Figure 5-1**. The schedule details anticipated timeframes for major milestones such as preliminary and final design, environmental approvals, project award, contract execution, contractor notice to proceed for construction activities, and construction completion. All of the projects within the I-35/I-69W International Freight Gateway project meet all identified schedule requirements for obligation of INFRA grant funds.

Figure 5-1: Project Schedule

6 Project Readiness

6.1 Technical Feasibility

All portions of the I-35/I-69W International Freight Gateway project are anticipated to begin construction within 18 months of notice of award of the INFRA grant. The projects within the I-35/I-69W International Freight Gateway are at different phases of development. Project design criteria conforms to the TxDOT Roadway Design Manual, TxDOT Bridge Design Manual, Texas Manual on Uniform Traffic Control Devices (TMUTCD), and other state and federal design standards, as applicable.

The statement of work for the projects includes:

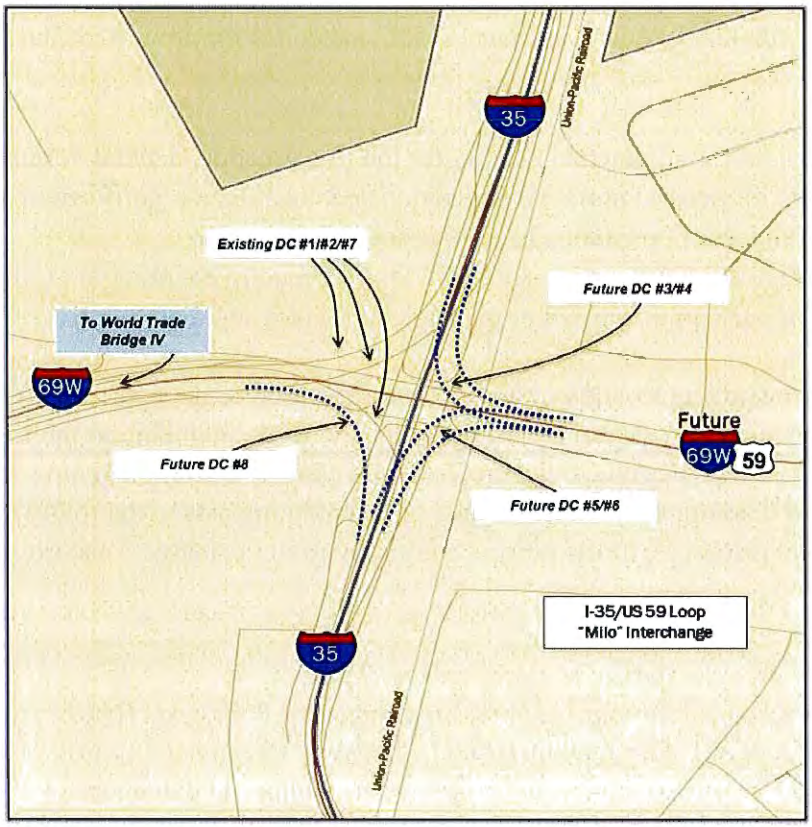
- Construction of five direct connectors at the I-35/U.S. 59 Interchange: westbound U.S. 59 to southbound I-35, westbound U.S. 59 to northbound I-35, eastbound I-69W to southbound I-35, northbound I-35 to eastbound U.S. 59, and southbound I-35 to eastbound U.S. 59. The work includes pavement approaches, earthwork, direct connector bridge substructure and superstructure, and signage and pavement markings.

- Construction of 1.8 miles of two mainlanes, one eastbound and one westbound on I-69 W from the entrance of World Trade Bridge to 0.3 miles west of I-35, constructing one additional 12-foot main lane, in each direction, with 10-foot shoulders.

The director connectors are shown in **Figure 6-1** below.

The project cost estimate, which includes agency, financial, design, construction costs, and contingency, is based on a detailed review of the preliminary design drawings, similar projects, and concessionaire information. A 10-percent project contingency is included in the cost estimate.

Figure 6-1: Milo Interchange Direct Connectors



6.3 Required Approvals

An Environmental Assessment (EA) was completed in the early 1990s by the Federal Highway Administration (FHWA) in conjunction with TxDOT that covered the construction of the existing I-35 frontage roads and mainlanes; widening of the I-35 mainlanes over the U.S. 59 frontage roads; construction of eight direct connectors between I-35 and U.S. 59; and construction of the U.S. 59 frontage roads and mainlanes. Of the cleared improvements, the U.S. 59 frontage roads, widening of I-35 mainlanes, three of the eight direct connectors, and the McPherson Road overpass were complete. In the early 2000s, FHWA and TxDOT Environmental Affairs Division determined that all remaining work in this area would be required to be re-cleared as standalone Categorical Exclusions (CEs).

The direct connectors project has not yet received environmental clearance, but it is anticipated to be cleared as a CE by June 2018, which would be nearly one year prior the anticipated letting date. Coordination with the following agencies is anticipated for the environmental review of the direct connectors:

- Texas Council on Environmental Quality for the Construction General Permit;
- City of Laredo for general project coordination and construction notification including MS4 permitting and floodplain administration; and
- Texas Parks and Wildlife Department (TPWD) may require coordination if there are any anticipated impacts to threatened or endangered species and their habitats.

Previous studies in the project location indicate that there would be no significant (or substantial) impacts to either the human or natural environment by this work, including to threatened or endangered species, particularly due to the project being contained within existing TxDOT right-of-way. TxDOT will determine the extent, if any, of potential impacts to the following resources: air quality, biological resources, traffic noise, community, water resources, historic, and archeological.

6.3.1.1 Discussions with the Federal Highway Administration

FHWA assigned its responsibility for National Environmental Policy Act (NEPA) to TxDOT through a Memorandum of Understanding (MOU) signed on December 14, 2014. This delegation authorized TxDOT to review and approve environmental documents without seeking approval from FHWA. As such, outside of the previously discussed agency review, no discussions with U.S. Department of Transportation offices or headquarters are required for the grant application's projects.

6.3.1.2 *Public Engagement*

Public engagement has occurred throughout the development of the entire interchange project, including during the EA. Comments received to date have shown general public support for the project, and local officials strongly support construction of the I-35/I-69W International Freight Gateway. Due to the minimal impacts associated with the I-35/I-69W International Freight Gateway, public involvement through public meetings or hearings are not required. Meetings with affected property owners and open houses may occur as environmental review proceeds for the direct connectors and I-69W widening projects.

6.3.1.3 *State and Local Approvals and Planning*

The I-35/I-69W International Freight Gateway project is identified as priority project for the region by the City of Laredo, Webb County, Webb County-City of Laredo Regional Mobility Authority, and TxDOT. The I-35/I-69W International Freight Gateway project is included in the Laredo Metropolitan Organization's (MPO) 2015-2040 Metropolitan Transportation Plan (MTP) as funded and illustrative projects. The project is listed in the MTP as a project that will provide congestion relief, economic development, and improved safety. The U.S. 59 mainlanes project is also listed in the Laredo MPO's 2015-2018 Transportation Improvement Plan, which was incorporated in the Statewide Transportation Improvement Plan (STIP) in August 2015. The I-35/I-69W International Freight Gateway project has wide support from multiple sectors of government including the City of Laredo, Webb County, and Texas legislature. Once clearance is received for all three projects, the project will satisfy all required state and local approvals to move forward with construction within 18 months of INFRA funding obligation.

6.4 Project Risks and Mitigation Strategies

The I-35/I-69W International Freight Gateway project will be implemented within the existing right-of-way footprints of I-35, U.S. 59, and I-69. Furthermore, the construction of both the U.S. 59 and the I-69 mainlanes are within the corresponding frontage roads, which dramatically minimizes the risk to encounter unforeseen issues that could delay the development and construction of the projects. The complete interchange obtained NEPA clearance through an Environmental Assessment in the early 1990s, thus minimizing the possibility of encountering major issues when pursuing the NEPA clearance documents for the direct connectors through a Categorical Exclusion. No major utility relocations are anticipated for these projects. **Table 6-1** below shows the general categories of risk assessed and mitigation strategies.

Table 6-1: Project Risks and Mitigation

1 = Low 2 = Minor 3 = Moderate 4 = Significant

Risk #	Risk Category	Risk Name	Description	Likelihood	Impact		Mitigation Strategies
					Cost	Schedule	
1	Financial	Loss of Public or Private Funding	Loss of funding because of unforeseen circumstances	1	2	2	Given public and private benefits, this project will need both Federal and State sources to be completed in a timely manner. If a funding source does not materialize, the project will be delayed.
2	Management	Stakeholders	Stakeholders may have varying procedures and objectives	1	2	2	TxDOT has successfully worked numerous times with the groups involved, and feels all obstacles could be overcome with stakeholder communication to address potential concerns.
3	Contracting & Procurement	Administrative Burden	TxDOT will manage all contracts	1	1	1	TxDOT will administer all contracts. It has successfully completed many capital projects, in the past, with a similar scope.
4	Contracting & Procurement	Availability of Qualified Contractors	Project involves specialized construction, and is being undertaken in a rural area	1	1	1	TxDOT has experience delivering capital projects. It will manage resources in line with the funding requirements and established time requirements.
5	Construction	Traffic	Roadway traffic congestion resulting from construction and site infrastructure	2	1	2	Project phasing will reduce impact. Coordination by TxDOT with the local jurisdiction, and other highway users and stakeholders will occur prior to scheduling work and any potential outages or road closures or detours in order to minimize potential impacts.
6	Construction	Business Disruption	The region's existing businesses may be impacted by construction	1	1	2	Project phasing and stakeholder coordination will reduce impact. Coordination with customers will occur to minimize business disruption.
7	Environmental	State Historic Preservation Officers (SHPO)	Historic/ archaeological/ cultural resources discoveries	1	2	2	Required regulations will be followed and responded to accordingly by TxDOT and other stakeholders, if any such resources are found in the area.

Risk #	Risk Category	Risk Name	Description	Likelihood	Impact		Mitigation Strategies
					Cost	Schedule	
8	Environmental	Wetlands	Project impact on existing wetlands	2	2	2	Required environmental regulations will be followed and responded to accordingly.
9	Environmental	Endangered Species	Impact to any endangered species within the project area	1	1	2	Required environmental regulations will be followed and responded to accordingly, if any known threatened or endangered species are discovered within the project area.
10	Environmental	NEPA	Compliance with NEPA because of federal funding	2	2	2	Identify lead agency and cooperating agencies that can use the project's NEPA clearance document as their decision document. Potential environmental issues include environmental justice, community impacts, noise analysis, cultural resources, habitat and biota, water resources, and hazardous materials.
11	Real Estate	Property acquisitions	Need for property acquisition	2	2	2	Property acquisitions are required per preliminary design.
12	Utilities	Utility Relocations	Need for some utilities to be relocated as a result of project	2	2	2	Coordination is ongoing with affected utility companies to relocate utility lines as necessary.

7 Large/Small Project Requirements

I-35/I-69W International Freight Gateway project is considered a Large Project under the INFRA grant program requirements. The project meets the criteria listed in the Notice of Funding Opportunity (NOFO), as detailed below.

The Project Generates National or Regional Economic, Mobility, and Safety Benefits

Based on the convergence of three major freight corridors at the project location (i.e., I-35/ I-69W/Ports-to-Plains Trade Corridor between Canada, U.S., and Mexico) as it approaches the busiest inland POE in the U.S. that supports millions of jobs in Laredo, Texas, and the U.S., ***this project would clearly generate local, regional, national, and international benefits by enhancing the movement of goods to the Laredo POE***. Over 22 percent of the state economy and approximately 465,000 jobs in Texas are dependent on U.S.-Mexico trade.

This project would also provide safety benefits by enhancing commercial traffic flows into and through this portion of Laredo, which contains the World Trade International Bridge POE and the drayage/customs brokers' facilities that serve international trade crossing at Laredo. These safety benefits would result from the removal of traffic signals at the I-35/I-69W/U.S. 59 Loop interchange, which are the primary causative reason for accidents in this portion of Laredo.

7.1 The Project is Cost Effective

The project upgrades would be highly cost effective to implement, as the World Trade Bridge is a vital international freight crossing between U.S. and Mexico. This POE handles up to 11,000-12,000 truck crossings per day on average totaling over 1.8 million per year and is the busiest inland POE in the U.S. This international crossing handles more trucks than any other of the U.S.-Mexico-Canada border crossings (approximately 17.8 percent in 2015). The trade value of the international cargoes crossing at this POE, and carried on these connecting roadways, was valued at approximately $280 billion, or 7 percent of the U.S. international trade in 2014. ***Based on the BCA results, this project will result in public benefits of $4.32 for every $1 spent.***

7.2 The Project Contributes to One or More of the Goals Listed under 23 USC 150

Safety. Current analysis indicates that the majority of all accidents are located at the signalized intersections in this portion of the US 59/I-69W Loop. This project would enhance safety by eliminating the need for traffic to stop at the existing signalized intersections along this portion of the Loop. ***This project will provide nearly $45 million in Total Accident Cost Savings (discounted at 7%).***

Congestion Reduction. Current analysis indicates that congestion on this portion of the U.S. 59/I-69W Loop is associated with the existing signalized intersections along this portion of the Loop. This project would eliminate the need for all traffic to use these signalized intersections. ***This project will result in over $300 million in Total Travel Time Savings (discounted at 7%).***

System Reliability/Freight Movement and Economic Vitality. The proposed upgrades enhance the reliability of these roadways by eliminating the need for all traffic to utilize the signalized intersections. Freight movement and economic vitality would be enhanced by this proposed work, including by the addition of an I-69W Loop mainlane for eastbound traffic leaving the World Trade International Bridge that would be utilizing the pre-certified/pre-inspected "FASTLANE" (not a reference to the FASTLANE Grant program) being proposed by the City of Laredo at the World Trade Bridge. ***This project will provide over $4 million in Total Vehicle Operating Cost Savings (discounted at 7%).***

Environmental Sustainability. This project would enhance the performance of this intertwined transportation and international bridge system without contributing to any substantial environmental impacts; by moving traffic more efficiently, the project would contribute to improved air quality by reducing emissions by cars and heavy trucks at the existing signalized intersections. ***This project will provide over $43 million in Total Emission Cost Savings (discounted at 7%).***

Reduced Project Delivery Delays. This grant funding would allow the City to accelerate the construction of the project sooner than the current longer-term phased approach. This in turn, will reduce project inflationary costs that would be incurred without this grant funding. It would also promote jobs as well as the local, state, national and international economies by expediting the movement of people and international trade goods.

7.3 The Project is Based on the Results of Preliminary Engineering

This project is located at the I-35/US 59 Loop (formerly Loop 20) interchange that has seen ongoing engineering design and construction phases since the construction of the Loop and the World Trade Bridge in the late 1990s. This interchange has had an approved design schematic since this time and continues to be used as the basis of the engineering in each of the construction phases.

7.4 The Project has One or More Stable and Dependable Funding or Financing Sources

The City of Laredo currently has a fund balance exceeding $44 million and has the capacity to utilize or leverage that funding towards the issuance of bonds/debt service in the future if the project were to exceed the anticipated budget.

The Project Cannot be Easily and Efficiently Completed without Other Federal Funding

This project would need to compete for traditional and available state funding with other much needed projects in Laredo with the actual implementation of this project's work completed in piecemeal fashion over time.

7.5 The Project is Reasonably Expected to Begin Construction No Later than 18 Months from Obligation

The PS&E development for the rest of the project phases included in the application are either currently under development by TxDOT (i.e. the remaining five US 59 Loop/I-35 interchange direct connectors) or would begin in late 2017 (i.e. the additional eastbound mainlane between the World Trade Bridge and I-35 interchange). It is anticipated that these phases would begin construction within 18-months of the obligation of the funds as no additional right-of-way would be required and the appropriate environmental clearances and PS&E packages would be completed within this timeframe.

8 Federal Wage Certification Letter

Signed certification stating that the City of Laredo will comply with the requirements of Subchapter IV of Chapter 31 of Title 40, United States Code (federal wage rate requirements) as required by the FY2016 Appropriations Act is completed and attached as Appendix C.

9 Standard Form 424 (Application for Federal Assistance)

The City of Laredo has completed the Standard Form 424 and has uploaded it to grants.gov.

10 Standard Form 424C (Budget Information for Construction Projects)

The City of Laredo has completed the Standard Form 424C and has uploaded it to grants.gov.

Appendix A. Letters of Support

JOHN CORNYN
TEXAS

United States Senate

WASHINGTON, DC 20510–4305

October 17, 2017

The Honorable Elaine Chao
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590

Dear Secretary Chao:

I am writing to express my support for the INFRA application submitted to the Department of Transportation by the City of Laredo.

As you and your staff review the proposal, I trust you will give full consideration to the many strengths of this application. As you may know, the City of Laredo is the busiest inland port in the nation and the third largest U.S. Customs District. As trade with Mexico continues to grow, it is critical that the World Trade Bridge IV continues to function as efficiently as possible despite traffic and congestion issues. This grant, if awarded, would enable the City of Laredo to add capacity and relieve congestion along a corridor that sees over 12,000 daily commercial truck crossings. The additions will ultimately improve freight corridors for trade and facilitate safer movement of truck and vehicle traffic.

I would appreciate your efforts to ensure that I am kept informed of the progress of this application. Please contact Andrea McGee (Andrea_McGee@cornyn.senate.gov), my Grants Coordinator, with any developments regarding this proposal as soon as they are available.

Thank you for your assistance and consideration.

Sincerely,

John Cornyn

JOHN CORNYN
United States Senator

COMMITTEE ON
APPROPRIATIONS
SUBCOMMITTEES:
DEFENSE
HOMELAND SECURITY

WASHINGTON OFFICE
2209 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
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TOLL FREE: 1-877-780-8025

DEMOCRATIC STEERING AND
POLICY COMMITTEE
SENIOR WHIP

HENRY CUELLAR, PH.D.
U.S. HOUSE OF REPRESENTATIVES

October 10, 2017

The Honorable Elaine L. Chao
U.S. Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

Dear Secretary Chao:

I would like to express my support for the joint City of Laredo and the Texas Department of Transportation *Infrastructure For Rebuilding America* (INFRA) grant application to upgrade I-35 & I-69W interstates in Laredo, Texas. This is a significant project to the nation that will foster economic development, create jobs and alleviate congestion on the Primary Highway Freight System.

The City of Laredo's World Trade Bridge is the largest inland port in the nation, and second largest port for total trade among the nation's roughly 450 airports, seaports and border crossings. The Laredo Customs District is the third largest in the nation – second only to Los Angeles and New York. Last year, the Laredo Customs District processed $283.18 billion in total trade, accounting for over 60 percent of all U.S.-Mexico trade that is over 14,000 daily commercial truck crossings and 22 trains. The State of Texas was responsible for over $650 billion in international trade in 2015, making Texas the nation's largest exporter and the world's 10th largest economy. Of the total international trade through Texas, 32 percent was attributed to the Laredo border crossings.

The regional and national impact of the City of Laredo cannot be understated. The Texas Comptroller estimates that the trade processed through the City of Laredo contributes 363,000 net jobs to Texas and a minimum of $52 billion to the Texas economy. Furthermore, a 2016 Texas Department of Transportation time series analysis of the Truck-Freight Flow from the border in Laredo to the rest of the United States revealed that trucks originating in Laredo, Texas, traveled to every state in the contiguous United States of America in just one week.

The City of Laredo functions as the most effective and efficient inland port in the nation despite congestion issues caused by tremendous growth and outdated roadways to and from our port of entry. The rate of trade at the World Trade Bridge continues to grow and has increased 7.33 percent in the first eight months of this year compared to 2016. The U.S. Customs and Border Protection recognizes the importance of the World Trade Bridge and has announced a $100 million plan to increase technology and modernize their cargo processing facility. Congestion at our port of entry is costing consumers across the country. The International Trade Administration has estimated that wait times at five of the busiest ports of entry along our southern border result in an economic loss of $166 million per minute.

LAREDO
602 EAST CALTON ROAD
SUITE 2
LAREDO, TX 78041
PHONE: (956) 725-0639
FAX: (956) 725-2647

SAN ANTONIO
615 EAST HOUSTON STREET
SUITE 563
SAN ANTONIO, TX 78205
PHONE: (210) 271-2831
FAX: (210) 277-0871

MISSION
117 EAST TOM LANDRY STREET
MISSION, TX 78572
PHONE: (956) 424-3942
FAX: (956) 424-3936

RIO GRANDE CITY
100 NORTH FM. 3167
SUITE 208
RIO GRANDE CITY, TX 78582
PHONE: (956) 487-5603
FAX: (956) 488-0952

To address this, the City of Laredo in conjunction with the Texas Department of Transportation have proposed significant infrastructure improvements including the following:

1. The construction of 1.4 miles of additional lanes on I-69 W, extending to and from World Trade Bridge port of entry to the I-35 direct access points.
2. The construction of five direct connectors at the U.S. 59/I-69W interchange with I-35.

The completion of these projects will alleviate congestion, improve safety conditions, and reduce emissions. This will result in savings to manufacturers, shippers and consumers nation-wide, and a safer, cleaner community.

I fully support this national, significant project. Thank you for your time and consideration. I hope you choose to approve the joint City of Laredo and the Texas Department of Transportation INFRA grant application to help improve the Primary Highway Freight System.

Sincerely,

Henry Cuellar, Ph.D.
U.S. Congressman
28th District of Texas

HC: js

TEXAS HOUSE OF REPRESENTATIVES

HOUSE COMMITTEE ON HUMAN SERVICES
CHAIR

HOUSE COMMITTEE ON JUDICIARY
AND CIVIL JURISPRUDENCE

RICHARD PEÑA RAYMOND

STATE REPRESENTATIVE
DISTRICT 42

October 12, 2017

The Honorable Elaine L. Chao
U.S. Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

Dear Secretary Chao:

I would like to express my support for the joint City of Laredo and the Texas Department of Transportation *Infrastructure For Rebuilding America* (INFRA) grant application to upgrade I-35 & I-69W interstates in Laredo, Texas. This is a significant project to the nation that will foster economic development, create jobs and alleviate congestion on the Primary Highway Freight System.

The City of Laredo's World Trade Bridge is the largest inland port in the nation, and second largest port for total trade among the nation's roughly 450 airports, seaports and border crossings. The Laredo Customs District is the third largest in the nation – second only to Los Angeles and New York. Last year, the Laredo Customs District processed $283.18 billion in total trade, accounting for over 60 percent of all U.S.-Mexico trade that is over 14,000 daily commercial truck crossings and 22 trains. The State of Texas was responsible for over $650 billion in international trade in 2015, making Texas the nation's largest exporter and the world's 10th largest economy. Of the total international trade through Texas, 32 percent was attributed to the Laredo border crossings.

The regional and national impact of the City of Laredo cannot be understated. The Texas Comptroller estimates that the trade processed through the City of Laredo contributes 363,000 net jobs to Texas and a minimum of $52 billion to the Texas economy. Furthermore, a 2016 Texas Department of Transportation time series analysis of the Truck-Freight Flow from the border in Laredo to the rest of the United States revealed that trucks originating in Laredo, Texas, traveled to every state in the contiguous United States of America in just one week.

The City of Laredo functions as the most effective and efficient inland port in the nation despite congestion issues caused by tremendous growth and outdated roadways to and from our port of entry.

The rate of trade at the World Trade Bridge continues to grow and has increased 7.33 percent in the first eight months of this year compared to 2016. The U.S. Customs and Border Protection recognizes the importance of the World Trade Bridge and has announced a $100 million plan to increase technology and modernize their cargo processing facility. Congestion at our port of entry is costing consumers across the country. The International Trade Administration has estimated that wait times at five of the busiest ports of entry along our southern border result in an economic loss of $166 million per minute.

To address this, the City of Laredo in conjunction with the Texas Department of Transportation have proposed significant infrastructure improvements including the following:

1. The construction of 1.4 miles of additional lanes on I-69 W, extending to and from World Trade Bridge port of entry to the I-35 direct access points.
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The completion of these projects will alleviate congestion, improve safety conditions, and reduce emissions. This will result in savings to manufacturers, shippers and consumers nation-wide, and a safer, cleaner community.

I fully support this national, significant project. Thank you for your time and consideration. I hope you choose to approve the joint City of Laredo and the Texas Department of Transportation INFRA grant application to help improve the Primary Highway Freight System.

If you have questions regarding my support of this proposed development, please contact me at (956) 286-9500.

Sincerely,

Richard Peña Raymond

Richard Peña Raymond
State Representative

Tracy O. King
State Representative

October 17, 2017

The Honorable Elaine L. Chao
U.S. Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

Dear Secretary Chao:

Please accept this letter of support for the joint City of Laredo and the Texas Department of Transportation Infrastructure For Rebuilding America (INFRA) grant application to upgrade I-35 & I-69W interstates in Laredo, Texas. This is a significant project to the nation that will foster economic development, create jobs and alleviate congestion on the Primary Highway Freight System.

The City of Laredo's World Trade Bridge is the largest inland port in the nation, and second largest port for total trade among the nation's roughly 450 airports, seaports and border crossings. The Laredo Customs District is the third largest in the nation – second only to Los Angeles and New York. Last year, the Laredo Customs District processed $283.18 billion in total trade, accounting for over 60 percent of all U.S.-Mexico trade that is over 14,000 daily commercial truck crossings and 22 trains. The State of Texas was responsible for over $650 billion in international trade in 2015, making Texas the nation's largest exporter and the world's 10th largest economy. Of the total international trade through Texas, 32 percent was attributed to the Laredo border crossings.

The regional and national impact of the City of Laredo cannot be understated. The Texas Comptroller estimates that the trade processed through the City of Laredo contributes 363,000 net jobs to Texas and a minimum of $52 billion to the Texas economy. Furthermore, a 2016 Texas Department of Transportation time series analysis of the Truck-Freight Flow from the border in Laredo to the rest of the United States revealed that trucks originating in Laredo, Texas, traveled to every state in the contiguous United States of America in just one week.

The City of Laredo functions as the most effective and efficient inland port in the nation despite congestion issues caused by tremendous growth and outdated roadways to and from our port of entry. The rate of trade at the World Trade Bridge continues to grow and has increased 7.33 percent in the first eight months of this year compared to 2016. The U.S. Customs and Border

P.O. Box 2910 • Austin, Texas 78768-2910 • 512-463-0194 • Email: district80.king@house.state.tx.us

Protection recognizes the importance of the World Trade Bridge and has announced a $100 million plan to increase technology and modernize their cargo processing facility. Congestion at our port of entry is costing consumers across the country. The International Trade Administration has estimated that wait times at five of the busiest ports of entry along our southern border result in an economic loss of $166 million per minute.

To address this, the City of Laredo in conjunction with the Texas Department of Transportation have proposed significant infrastructure improvements including the following:

1. The construction of 1.4 miles of additional lanes on I-69 W, extending to and from World Trade Bridge port of entry to the I-35 direct access points.
2. The construction of five direct connectors at the U.S. 59/I-69W interchange with I-35.

The completion of these projects will alleviate congestion, improve safety conditions, and reduce emissions. This will result in savings to manufacturers, shippers and consumers nation-wide, and a safer, cleaner community.

I respectfully request a thorough and favorable review of the joint City of Laredo and the Texas Department of Transportation INFRA grant application to help improve the Primary Highway Freight System. Thank you for your time and attention to this important matter and for your leadership in improving our nations roadways.

Respectfully,

Tracy O. King

WEBB COUNTY–CITY OF LAREDO
REGIONAL MOBILITY AUTHORITY

7917 McPherson Road, Suite 203
Laredo, Texas 78045
956-723-9841

October 17, 2017

The Honorable Elaine L. Chao
U.S. Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

Dear Secretary Chao:

On behalf of the WC-CL RMA Board, I would like to express my support for the joint City of Laredo and the Texas Department of Transportation *Infrastructure For Rebuilding America* (INFRA) grant application to upgrade I-35 & I-69W interstates in Laredo, Texas. This is a significant project to the nation that will foster economic development, create jobs and alleviate congestion on the Primary Highway Freight System.

The City of Laredo's World Trade Bridge is the largest inland port in the nation, and second largest port for total trade among the nation's roughly 450 airports, seaports and border crossings. The Laredo Customs District is the third largest in the nation -- second only to Los Angeles and New York. Last year, the Laredo Customs District processed $283.18 billion in total trade, accounting for over 60 percent of all U.S.-Mexico trade that is over 14,000 daily commercial truck crossings and 22 trains. The State of Texas was responsible for over $650 billion in international trade in 2015, making Texas the nation's largest exporter and the world's 10th largest economy. Of the total international trade through Texas, 32 percent was attributed to the Laredo border crossings.

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To address this, the City of Laredo in conjunction with the Texas Department of Transportation have proposed significant infrastructure improvements including the following:

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The completion of these projects will alleviate congestion, improve safety conditions, and reduce emissions. This will result in savings to manufacturers, shippers and consumers nation-wide, and a safer, cleaner community.

I fully support this national, significant project. Thank you for your time and consideration. I hope you choose to approve the joint City of Laredo and the Texas Department of Transportation INFRA grant application to help improve the Primary Highway Freight System.

Sincerely,

Ruben Soto Jr

Ruben Soto, Jr., CPA
Chairman
Webb County-City of Laredo RMA

LaredoChamber
of Commerce

October 19, 2017

The Honorable Elaine L. Chao
U.S. Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590

Dear Secretary Chao:

Please accept this as a letter of support for the City of Laredo and the Texas Department of Transportation *Infrastructure for Rebuilding America* (INFRA) grant application (to upgrade I-35 & I-69W interstates in Laredo, Texas) currently under consideration by the U.S. Department of Transportation.

The City of Laredo's World Trade Bridge is the largest inland port in the nation, and second largest port for total trade among the nation's roughly 450 airports, seaports and border crossings. The Laredo Customs District is the third largest in the nation – second only to Los Angeles and New York. Last year, the Laredo Customs District processed $283.18 billion in total trade, accounting for over 60 percent of all U.S.-Mexico trade that is over 14,000 daily commercial truck crossings and 22 trains. The State of Texas was responsible for over $650 billion in international trade in 2015, making Texas the nation's largest exporter and the world's 10th largest economy. Of the total international trade through Texas, 32 percent was attributed to the Laredo border crossings.

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P.O Box 790 2310 San Bernardo Ave. Laredo, Texas 78040 P. 956-722-9895 F. 956-791-4503
www.laredochamber.com

To address this, the City of Laredo in conjunction with the Texas Department of Transportation have proposed significant infrastructure improvements including the following:

1) The construction of 1.4 miles of additional lanes on I-69 W, extending to and from World Trade Bridge port of entry to the I-35 direct access points.
2) The construction of five direct connectors at the U.S. 59/I-69W interchange with I-35.
   The completion of these projects will alleviate congestion, improve safety conditions, and reduce emissions. This will result in savings to manufacturers, shippers and consumers nation-wide, and a safer, cleaner community.

We urge you to give this application your utmost consideration. Your approval of this joint City of Laredo and Texas Department of Transportation INFRA grant application will undoubtedly help improve America's Primary Highway Freight System.

Thank you.

Sincerely,

Miguel A. Conchas
President and CEO

LAREDO
MOTOR
CARRIERS
ASSOCIATION
- KEEPS OUR WORLD MOVING -

October 17, 2017

The Honorable Elaine L. Chao
U.S. Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

Dear Secretary Chao:

I would like to express my support for the joint City of Laredo and the Texas Department of Transportation *Infrastructure For Rebuilding America* (INFRA) grant application to upgrade I-35 & I-69W interstates in Laredo, Texas. This is a significant project to the nation that will foster economic development, create jobs and alleviate congestion on the Primary Highway Freight System.

The City of Laredo's World Trade Bridge is the largest inland port in the nation, and second largest port for total trade among the nation's roughly 450 airports, seaports and border crossings. The Laredo Customs District is the third largest in the nation -- second only to Los Angeles and New York. Last year, the Laredo Customs District processed $283.18 billion in total trade, accounting for over 60 percent of all U.S.-Mexico trade that is over 14,000 daily commercial truck crossings and 22 trains. The State of Texas was responsible for over $650 billion in international trade in 2015, making Texas the nation's largest exporter and the world's 10th largest economy. Of the total international trade through Texas, 32 percent was attributed to the Laredo border crossings.

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LAREDO
MOTOR
CARRIERS
ASSOCIATION
- KEEPS OUR WORLD MOVING -

Secretary Elaine L. Chao

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The completion of these projects will alleviate congestion, improve safety conditions, and reduce emissions. This will result in savings to manufacturers, shippers and consumers nation-wide, and a safer, cleaner community.

I fully support this national, significant project. Thank you for your time and consideration. I hope you choose to approve the joint City of Laredo and the Texas Department of Transportation INFRA grant application to help improve the Primary Highway Freight System.

Sincerely,

Rafael Tawil
President
Laredo Motor Carriers Association

216 W. VILLAGE BLVD LAREDO, TX. 78045 (956) 334-6771 WWW.LAREDOMCA.COM INFO@LAREDOMCA.COM

LAREDO LIC.
U.S. CUSTOMS BROKERS ASSOC., INC.
2310 SAN BERNARDO AVE.
LAREDO, TEXAS 78040
TEL: (956) 722-9898 FAX: (956) 722-8785
Web Site: http://www.lluscba.org E-mail: admin@lluscba.org

October 12, 2017

The Honorable Elaine L. Chao
U.S. Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

Dear Secretary Chao:

I would like to express my support for the joint City of Laredo and the Texas Department of Transportation *Infrastructure For Rebuilding America* (INFRA) grant application to upgrade I-35 & I-69W interstates in Laredo, Texas. This is a significant project to the nation that will foster economic development, create jobs and alleviate congestion on the Primary Highway Freight System.

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The completion of these projects will alleviate congestion, improve safety conditions, and reduce emissions. This will result in savings to manufacturers, shippers and consumers nation-wide, and a safer, cleaner community.

I fully support this national, significant project. Thank you for your time and consideration. I hope you choose to approve the joint City of Laredo and the Texas Department of Transportation INFRA grant application to help improve the Primary Highway Freight System.

Sincerely,

Enrique Gonzalez
President
LLUSCBA

Appendix B. Benefit Cost Analysis

Benefit-Cost Analysis Supplementary Documentation
INFRA Grants Program

I-35/I-69W International Freight Gateway

City of Laredo, Texas

November 2, 2017

Contents

Tables

Benefit-Cost Analysis Supplementary Documentation

1. Executive Summary

The Benefit-Cost Analysis conducted for this grant application compares the costs associated with the proposed investment to the benefits of the project. To the extent possible, benefits have been monetized. Where it was not possible to assign a dollar value to a benefit, efforts have been made to quantify it. A qualitative discussion is also provided when a benefit is anticipated to be generated but is not easily monetized or quantified.

The Port of Laredo is the busiest inland port/gateway/border crossing along the U.S. – Mexican border, facilitating over $195 billion in imports and exports in 2015. As a gateway and the premier port of entry (POE) along the 1,969 mile U.S. – Mexican border, smart investments in transportation infrastructure are important in meeting current and future challenges of moving people, goods and commodities in the bi-national region, the nation and enhancing economic competitiveness of the U.S. economy. The roadways, railways and commercial/industrial areas that connect and serve Laredo's four (4) POEs act as the backbone of commerce for the region and nation. One of the busiest POEs is the World Trade Bridge, which on average, handles about 11,000 to 12,000 trucks per day.

The I-35/I-69W interchange is the nexus of trade moving in all directions through the Laredo Gateway to include the busiest POE between the U.S. and Mexico, the World Trade Bridge. I-69W passes over I-35 and the Union Pacific Railroad (UPRR) track. This project will construct the final five (of eight) direct connectors between I-69W (formerly U.S. 59) and I-35 in north Laredo (three (3) connectors between I-35 and I-69W have already been constructed), also known as the "Milo" interchange. Each connector will span approximately 3,000 feet and will require bridges to flyover the existing I-35 and I-69W main lanes and frontage roads. The project will also upgrade a 1.8-mile segment of I-69W to interstate standards by adding one additional 12-foot mainline in each direction and widening to 10-foot inside/outside shoulders.

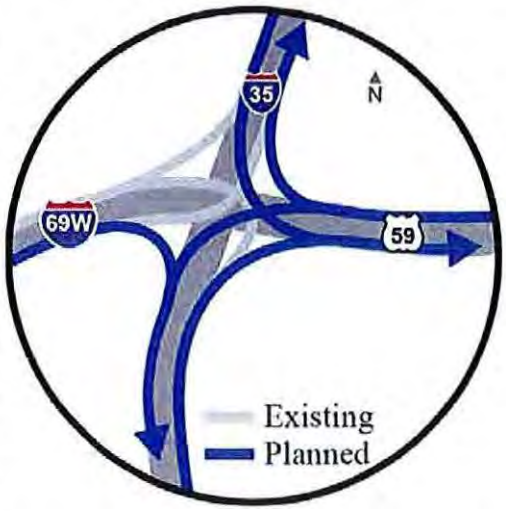

Figure 1: Planned Project Connectors

Laredo, the county seat of Webb County, Texas, is located on the north bank of the Rio Grande River in South Texas, across from Nuevo Laredo, Tamaulipas, Mexico. The Laredo Urbanized Area (ID 47854) has a population of almost 270,000 (2016) .As shown in Figure 2, the I-35/I-69W International Freight Gateway project is located near the World Trade Bridge and other major freight corridors in the region. The Juarez-Lincoln International Bridge, which is the fourth busiest port of entry for non-commercial vehicles at the U.S./Mexico border, is

located approximately eight miles to the south.

A table summarizing the changes expected from the project, and the associated benefits, is provided below including both monetized and non-monetized benefits.

Table ES-1: Merit Criteria and Cost-Effectiveness - Summary of Infrastructure Improvements and Associated Benefits

Current Status or Baseline & Problems to be Addressed	Changes to Baseline / Alternatives	Type of Impacts	Economic Benefit	Summary of Results	Page Reference
Trends and forecasts indicate growing traffic demand in the "Milo" interchange will result in significant intersection congestion in all directions at the interchange, further exacerbating what is already a critical bottleneck for accessing the World Trade Bridge.	Constructing the remaining five direct connectors will alleviate traffic at intersections by providing motorists the opportunity to bypass signalized intersections to access the corresponding freeways	Reduced travel time costs from increases in average traffic speed	Reduced Travel Time Costs	$300.4 M	Pg. 18
		Avoided emission costs from reduced vehicle miles travelled and increases in average traffic speed	Avoided Emission Costs	$4.1 M	Pg. 21
		Reduced non-fuel vehicle operating costs from reduced vehicle miles travelled	Reduced Vehicle Operating Costs	$7.5 M	Pg. 19
		Reduced fuel vehicle operating costs from reduced vehicle miles travelled and increases in average traffic speed		$36.1 M	Pg. 19
		Avoided accident costs from diverting traffic away from signalized intersections	Avoided Accident Cost Savings	$44.3 M	Pg. 24
		Avoided intersection delays improves travel time reliability for freight, eliminating critical bottleneck	Freight Resiliency	N/A	Pg. 26

In addition to benefits that can be monetized and quantified, a number of qualitative benefits are also likely to be generated by this improvement. Given the economic and population growth on both sides of the border, traffic has and is expected to continue to increase. Without the project improvements, intersection delays at the Milo interchange as well as adjacent intersections will reach a level of service (LOS) F, exacerbating a critical bottlenecking for accessing the World Trade Bridge. By constructing these improvements, the bottleneck can be eliminated, improving freight resiliency and improving travel time reliability for all motorists.

The period of analysis used in the monetization of benefits and costs corresponds to 34 years, including 2 years of construction and 30 years of operation. The total project costs are $115 million dollars and are expected to be financed by Federal, State, and local funds according to the distribution shown in Table ES-2.

Table ES-2: Summary of Project Costs and Anticipated Funding Sources, in 2016 Dollars

Funding Source	Capital Costs	Operation & Maintenance Costs	Total Project Cost	Percent of Total Cost Financed by Source
Federal	$78,000,000		$78,000,000	68%
State	$5,000,000		$5,000,000	4%
Local	$32,000,000		$32,000,000	28%
Private			$0	0%
TOTAL	**$115,000,000**	**$0**	**$115,000,000**	**100%**

A summary of the relevant data and calculations used to derive the monetized benefits and costs of the project are shown in Tables ES-3, ES-4, (in dollars of 2016) and ES-5. Based on the analysis presented in the rest of this document, the project is expected to generate $392.4 million in discounted benefits and $90.8 million in discounted costs, using a 7 percent real discount rate. Therefore, the project is expected to generate a Net Present Value of $301.6 million and a Benefit/Cost Ratio of 4.32.

Table ES-3: Summary of Pertinent Data, Quantifiable Benefits and Costs

Calendar Year	Project Year	Total Benefits	Total Costs	Undiscounted Net Benefits	Discounted Total Benefits (7%)	Discounted Total Costs (7%)	Discounted Net Benefits (7%)
2017	1	-	-	-	-	-	-
2018	2	-	-	-	-	-	-
2019	3	-	$57,500,000	-$57,500,000	-	$46,937,128	-$46,937,128
2020	4	-	$57,500,000	-$57,500,000	-	$43,866,475	-$43,866,475
2021	5	$35,773,523	-	$35,773,523	$25,506,027	-	$25,506,027
2022	6	$36,424,712	-	$36,424,712	$24,271,324	-	$24,271,324
2023	7	$36,997,088	-	$36,997,088	$23,039,927	-	$23,039,927
2024	8	$37,569,896	-	$37,569,896	$21,866,022	-	$21,866,022
2025	9	$38,182,942	-	$38,182,942	$20,768,991	-	$20,768,991
2026	10	$38,787,303	-	$38,787,303	$19,717,498	-	$19,717,498
2027	11	$39,372,778	-	$39,372,778	$18,705,723	-	$18,705,723
2028	12	$39,941,022	-	$39,941,022	$17,734,292	-	$17,734,292
2029	13	$40,555,725	-	$40,555,725	$16,829,184	-	$16,829,184
2030	14	$41,209,826	-	$41,209,826	$15,981,881	-	$15,981,881
2031	15	$41,869,264	-	$41,869,264	$15,175,348	-	$15,175,348
2032	16	$42,544,615	-	$42,544,615	$14,411,333	-	$14,411,333
2033	17	$43,159,305	-	$43,159,305	$13,663,131	-	$13,663,131
2034	18	$43,834,902	-	$43,834,902	$12,969,166	-	$12,969,166

Calendar Year	Project Year	Total Benefits	Total Costs	Undiscounted Net Benefits	Discounted Total Benefits (7%)	Discounted Total Costs (7%)	Discounted Net Benefits (7%)
2035	19	$44,499,039	-	$44,499,039	$12,304,355	-	$12,304,355
2036	20	$45,238,144	-	$45,238,144	$11,690,396	-	$11,690,396
2037	21	$45,904,953	-	$45,904,953	$11,086,647	-	$11,086,647
2038	22	$46,593,200	-	$46,593,200	$10,516,699	-	$10,516,699
2039	23	$47,335,604	-	$47,335,604	$9,985,298	-	$9,985,298
2040	24	$48,059,065	-	$48,059,065	$9,474,682	-	$9,474,682
2041	25	$48,089,510	-	$48,089,510	$8,860,453	-	$8,860,453
2042	26	$48,095,707	-	$48,095,707	$8,281,864	-	$8,281,864
2043	27	$48,115,739	-	$48,115,739	$7,743,283	-	$7,743,283
2044	28	$48,139,018	-	$48,139,018	$7,240,215	-	$7,240,215
2045	29	$48,167,614	-	$48,167,614	$6,770,575	-	$6,770,575
2046	30	$48,197,942	-	$48,197,942	$6,331,625	-	$6,331,625
2047	31	$48,242,570	-	$48,242,570	$5,922,885	-	$5,922,885
2048	32	$48,233,710	-	$48,233,710	$5,534,390	-	$5,534,390
2049	33	$48,268,426	-	$48,268,426	$5,176,050	-	$5,176,050
2050	34	$48,335,892	-	$48,335,892	$4,844,191	-	$4,844,191
Total		**$1,315,739,035**	**$115,000,000**	**$1,200,739,035**	**$392,403,455**	**$90,803,603**	**$301,599,853**

Table ES-4: Summary of Project Benefits by Benefit Type

Calendar Year	Project Year	Reduced Travel Time Costs	Reduced Vehicle Operating Costs	Reduced Emission Costs	Avoided Accident Costs
2017	1	-	-	-	-
2018	2	-	-	-	-
2019	3	-	-	-	-
2020	4	-	-	-	-
2021	5	$27,774,936	$3,562,745	$344,629	$4,091,212
2022	6	$28,174,014	$3,747,459	$353,167	$4,150,071
2023	7	$28,578,827	$3,846,604	$361,880	$4,209,777
2024	8	$28,989,455	$3,939,329	$370,770	$4,270,342
2025	9	$29,405,984	$4,065,339	$379,841	$4,331,778
2026	10	$29,828,498	$4,175,612	$389,096	$4,394,098
2027	11	$30,257,082	$4,259,843	$398,539	$4,457,315
2028	12	$30,691,825	$4,319,584	$408,173	$4,521,441
2029	13	$31,132,814	$4,422,377	$414,045	$4,586,489
2030	14	$31,580,139	$4,553,198	$424,015	$4,652,473
2031	15	$32,033,891	$4,681,779	$434,186	$4,719,407
2032	16	$32,494,163	$4,818,585	$444,563	$4,787,304

Calendar Year	Project Year	Reduced Travel Time Costs	Reduced Vehicle Operating Costs	Reduced Emission Costs	Avoided Accident Costs
2033	17	$32,961,049	$4,886,932	$455,148	$4,856,177
2034	18	$33,434,642	$5,008,273	$465,945	$4,926,042
2035	19	$33,915,041	$5,110,128	$476,959	$4,996,911
2036	20	$34,402,342	$5,278,809	$488,193	$5,068,800
2037	21	$34,896,644	$5,366,934	$499,652	$5,141,723
2038	22	$35,398,049	$5,468,115	$511,340	$5,215,696
2039	23	$35,906,658	$5,614,954	$523,260	$5,290,732
2040	24	$36,422,575	$5,734,224	$535,418	$5,366,848
2041	25	$36,422,575	$5,760,039	$540,048	$5,366,848
2042	26	$36,422,575	$5,766,236	$540,048	$5,366,848
2043	27	$36,422,575	$5,781,638	$544,677	$5,366,848
2044	28	$36,422,575	$5,800,288	$549,307	$5,366,848
2045	29	$36,422,575	$5,824,255	$553,936	$5,366,848
2046	30	$36,422,575	$5,849,952	$558,566	$5,366,848
2047	31	$36,422,575	$5,889,951	$563,196	$5,366,848
2048	32	$36,422,575	$5,876,461	$567,825	$5,366,848
2049	33	$36,422,575	$5,906,548	$572,455	$5,366,848
2050	34	$36,422,575	$5,969,385	$577,084	$5,366,848
Total		**$1,002,504,379**	**$151,285,576**	**$14,245,962**	**$147,703,119**

In addition to the monetized benefits presented in Table ES-4, the project would generate other benefits that are difficult to monetize, but can be quantified using units that are not dollar values. These quantified benefits are presented below, as are qualitative benefits of the project.

- **Freight Resiliency:** Growth in trade and related activities, coupled with significant economic and population growth on both sides of the border has significantly increased border traffic on Laredo's four international bridges. With the improvements at the Milo interchange, intersection delay in all directions can be avoided, eliminating a critical bottleneck for freight accessing the World Trade Bridge.

Calendar Year	Project Year	Person Hours Saved	Gasoline Consumption Avoided (gallons)	Diesel Consumption Avoided (gallons)	Accidents Avoided	Fatalities Avoided	Injuries Avoided	PDO Avoided
2017	1	-	-	-	-	-	-	-
2018	2	-	-	-	-	-	-	-
2019	3	-	-	-	-	-	-	-
2020	4	-	-	-	-	-	-	-
2021	5	1,771,498	921,015	263,397	46.3	0.2	21.3	63.0
2022	6	1,796,951	934,265	267,187	47.0	0.2	21.6	63.9
2023	7	1,822,770	947,706	271,031	47.7	0.2	21.9	64.8
2024	8	1,848,960	961,341	274,930	48.3	0.2	22.3	65.7
2025	9	1,875,527	975,171	278,885	49.0	0.2	22.6	66.7
2026	10	1,902,475	989,201	282,898	49.7	0.2	22.9	67.6
2027	11	1,929,810	1,003,432	286,968	50.5	0.2	23.2	68.6
2028	12	1,957,538	1,017,869	291,096	51.2	0.2	23.6	69.6
2029	13	1,985,664	1,032,513	295,284	51.9	0.2	23.9	70.6
2030	14	2,014,195	1,047,367	299,532	52.7	0.2	24.2	71.6
2031	15	2,043,136	1,062,435	303,842	53.4	0.2	24.6	72.6
2032	16	2,072,492	1,077,720	308,213	54.2	0.2	24.9	73.7
2033	17	2,102,270	1,093,225	312,647	55.0	0.2	25.3	74.7
2034	18	2,132,476	1,108,953	317,145	55.8	0.2	25.7	75.8
2035	19	2,163,116	1,124,908	321,708	56.6	0.2	26.0	76.9
2036	20	2,194,196	1,141,092	326,336	57.4	0.2	26.4	78.0
2037	21	2,225,723	1,157,508	331,031	58.2	0.2	26.8	79.1
2038	22	2,257,703	1,174,161	335,794	59.0	0.2	27.2	80.3
2039	23	2,290,142	1,191,053	340,625	59.9	0.2	27.6	81.4
2040	24	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2041	25	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2042	26	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2043	27	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2044	28	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2045	29	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2046	30	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2047	31	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2048	32	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2049	33	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2050	34	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
Total		63,940,167	33,251,015	9,509,330	1,671.9	5.5	769.7	2,273.2

Table ES-5: Summary of Pertinent Quantifiable Data

2. Introduction

This document provides detailed technical information on the economic analyses conducted in support of the Grant Application for the I-35/I-69W International Freight Gateway project.

Section 3, Methodological Framework, introduces the conceptual framework used in the Benefit-Cost Analysis. To the extent possible, and as recommended in the Notice of Funding Opportunity (NOFO), monetized benefits and costs are estimated through a Benefit-Cost Analysis (BCA) framework, which is described in this section. Section 4, Project Overview, provides an overview of the project, including a brief description of existing conditions and proposed alternatives; a summary of cost estimates and schedule; and a description of the types of effects that the I-35/I-69W International Freight Gateway is expected to generate. Monetized, quantified, and qualitative effects are highlighted. Section 5, General Assumptions, discusses the general assumptions used in the estimation of project costs and benefits, while estimates of travel demand and traffic growth can be found in Section 6, Demand Projections. Specific data elements and assumptions pertaining to the merit criteria are presented in Section 7, Estimation of Economic Benefits, along with associated benefit estimates. Estimates of the project's Net Present Value (NPV), its Benefit/Cost ratio (BCR) and other project evaluation metrics are introduced in Section 8, Summary of Findings and BCA Outcomes. Additional data tables are provided in Section 9, Aggregate Annual Benefits and Costs, including annual estimates of benefits and costs to assist DOT in its review of the application.[1]

3. Methodological Framework

The Benefit-Cost Analysis (BCA) conducted for this project includes the monetized benefits and costs measured using USDOT guidance on this area, as well as the quantitative and qualitative merits of the project. A BCA provides estimates of the anticipated benefits that are expected to accrue from a project over a specified period and compares them to the anticipated costs of the project. Costs include both the resources required to develop the project and the costs of maintaining the new or improved asset over time. Estimated benefits are based on the projected impacts of the project on both users and non-users of the facility, valued in monetary terms.[2]

While BCA is just one of many tools that can be used in making decisions about infrastructure investments, USDOT believes that it provides a useful benchmark from which to evaluate and compare potential transportation investments.[3]

The specific methodology established for this application was developed using the BCA guidance promoted by USDOT and is consistent with the INFRA program guidelines. In particular, the methodology involves:

- Establishing existing and future conditions under the build and no-build scenarios;

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[1] While the models and software themselves do not accompany this appendix, they are provided separately as part of the application.

[2] USDOT, Benefit-Cost Analysis Guidance for TIGER and INFRA Applications.

[3] Idem.

- Assessing benefits that align with those identified in the INFRA BCA guidance;
- Measuring benefits in dollar terms, whenever possible, and expressing benefits and costs in a common unit of measurement;
- Using DOT guidance for the valuation of travel time savings, safety benefits and reductions in air emissions, while relying on industry best practice for the valuation of other effects; and
- Discounting future benefits and costs with the real discount rates recommended by the DOT (7 percent, and 3 percent for sensitivity analysis).

4. Project Overview

Laredo, the county seat of Webb County, Texas, is located on the north bank of the Rio Grande River in South Texas, across from Nuevo Laredo, Tamaulipas, Mexico. The Laredo Urbanized Area has a population of almost 270,000 (2016). As shown in Figure 2, the I-35/I-69W International Freight Gateway project is located near the World Trade Bridge and other major freight corridors in the region. The Juarez-Lincoln International Bridge, which is the fourth busiest port of entry for non-commercial vehicles at the U.S./Mexico border, is located approximately eight miles to the south.

Industrial facilities in the area are the nerve centers for cross-border freight traffic in the Laredo region. These facilities serve as the origins and destinations of the majority of commercial traffic, and the project is located within a 10-mile radius of these facilities. Growth in trade and related activities, coupled with significant economic and population growth on both sides of the border has significantly increased traffic on Laredo's four international bridges and the existing railroad bridge over the Rio Grande River/International border. The I-35/I-69W interchange is vital in accommodating the additional freight traffic resulting from continued growth in trade between the U.S. and Mexico. This project will construct the final five (of eight) direct connectors between I-69W and I-35 in north Laredo. Each connector will span approximately 3,000 feet and will require bridges to flyover the existing I-35 and I-69W main lanes and frontage roads. The project will also upgrade a 1.8-mile segment of I-69W to interstate standards by adding one additional 12-foot mainline in each direction and widening to 10-foot inside/outside shoulders.

Table 1: Cost Summary Table, 2016 Dollars

The proposed upgrades would fully integrate with each other, thus improving connectivity between the trade gateways and transportation corridors. Given the forecasts, supported by trends of growth of commercial and non-commercial traffic, improvements in infrastructure

capacity are needed to meet increasing demand. System linkages, such as the proposed improvements to the Milo interchange, are required to support projected growth in cross-border trade, freight volumes, and population growth. Additionally, improved traffic flow provides the added benefits of the efficient movement of people and goods, increased mobility and access to opportunities, and enhanced safety.

Base Case and Alternatives

The base case, also referenced as the "no build" case, is defined as only 3 direct connectors exist at the project location, going northbound to westbound, southbound to westbound, and eastbound to northbound. In addition, an overpass which will allow traffic travelling on I-69W to bypass the signalized intersection with I-35, is assumed to have been constructed by the time the I-35/I-69W International Freight Gateway project opens. This overpass is expected to begin construction in late 2017, and take two years to complete.

In the build scenario, the remaining five connectors between I-69W and I-35 are constructed, allowing traffic to avoid frontage roads to transfer from one interstate to the next. The intersection will have a total of eight direct connectors, and the overpass for eastbound and westbound traffic on I-69W over I-35. In both cases, traffic growth is expected to be identical, as referenced in the demand projection section below.

Types of Impacts

The I-35/I-69W International Freight Gateway project is expected to have significant travel time savings. The construction of the remaining five connectors will allow traffic to avoid delays caused by signalized intersections significantly reducing the vehicle hours spent travelling. This will also yield vehicle operating cost and accident cost savings. In addition, the project will provide a more direct route for vehicles to travel, reducing the vehicle miles travelled. Over the lifecycle of the analysis, installation of the direct connectors will save an estimated 63.9 million person hours and 42.7 million gallons of fuel. Accident cost savings will result from diverting traffic away from signalized intersections, where a significant number of crashes occur. Crash modification factors suggest fatal accidents will diminish by 42%, injury accidents will diminish by 57% and property damage only accidents will diminish by 36% by allowing traffic to avoid the signalized at-grade intersection. The project will also yield benefits from avoided emissions, due to increased speeds and fewer vehicle miles travelled.

Project Cost and Schedule[4]

The project costs are $115 million in 2016 dollars. The majority of those funds, $103.5 million are allocated for the construction of direct connectors, and the remaining $11.5 million is allocated for right of way costs. Construction is expected to begin in 2019 and will take two years, allowing the project to open in 2021. Table ES-2 outlines the distribution of spending between involved parties.

[4] All cost estimates in this section are in millions of dollars of 2016, discounted to this year using a 7 percent real discount rate.

Table 1: Cost Summary Table, 2016 Dollars

Calendar Year	Capital Expenditures
2019	$57,500,000
2020	$57,500,000
Total	**$115,000,000**

INFRA Merit Criteria

The main benefit categories associated with the project are identified in the table below and align with Criterion #1 (Support for National or Regional Economic Vitality) as stated in the INFRA program's NOFO.

Table 2: Expected Effects on Benefit Categories

Benefit or Impact Categories	Description	Monetized	Quantified	Qualitative
Travel Time Savings	Reduced Vehicle Hours travelled from avoiding delays at intersection	Yes	-	-
Avoided Emission Cost Savings	Avoided emissions from reduced vehicle miles travelled and increases in average traffic speed	Yes	-	-
Vehicle Operating Cost Savings	Reduced fuel consumption from decreases in vehicle miles travelled and increases in speed	Yes	-	-
Vehicle Operating Cost Savings	Reduced non-fuel operating costs due to decrease in vehicle miles travelled	Yes	-	-
Accident Cost Savings	Reduced accident costs from reducing traffic at intersections, where significant number of crashes occur	Yes	-	-
Freight Resiliency	Elimination of bottleneck caused by intersection delays in accessing World Trade Bridge	-	-	Yes

5. General Assumptions

The BCA measures benefits against costs throughout a period of analysis beginning at the start of construction and including 30 years of operations.

The monetized benefits and costs are estimated in 2016 dollars with future dollars discounted in compliance with INFRA requirements using a 7 percent real rate, and sensitivity testing at 3 percent.

The methodology makes several important assumptions and seeks to avoid overestimation of benefits and underestimation of costs. Specifically:

- Input prices are expressed in 2016 dollars;

- The period of analysis begins in 2017 and ends in 2051. It includes project development and construction years (2019 - 2020) and 30 years of operations (2021 - 2050);
- A constant 7 percent real discount rate is assumed throughout the period of analysis. A 3 percent real discount rate is used for sensitivity analysis;
- Opening year demand is an input to the BCA and is assumed to be fully realized in 2021, the first year of operations (no ramp-up); and
- Unless specified otherwise, the results shown in this document correspond to the effects of the Full Build alternative (the installation of the remaining five direct connectors).

6. Demand Projections

Accurate demand projections are important to effectively estimate the benefits in a BCA. Demand projections for this project were estimated from a micro-simulation model of the IH-35 and Loop 20 Direct Connector Analysis provided by the Texas Transportation Institute (TTI).[5] The model output results provided vehicle miles travelled and vehicle hours travelled. Additional information was provided by TxDOT including percentage of trucks, and average vehicle occupancy was assumed to be equivalent to national averages provided in US DOT guidance.

Methodology

Growth in trade and related activities, coupled with significant economic and population growth on both sides of the border has significantly increased border traffic on Laredo's four international bridges and the existing railroad bridge over the Rio Grande River/International border. The table below indicates the growth in traffic volumes surrounding the project location, the Milo interchange. As shown in the average annual growth over the 13 year period, traffic continues to rapidly increase around the International Freight Gateway.

Table 3: High-Traffic Volume Growth Locations Close to the Project Area[6]

Road	Location	2002 Traffic	2015 Traffic	Absolute Growth	Percent Growth	Average Annual Growth
US 59	I-35 and McPherson (east of Milo interchange)	15,500	44,647	29,147	188%	8.5%
US 59	Del Mar Boulevard and US 59 (4.6 miles east of Milo Interchange)	19,900	35,874	15,974	80%	4.6%
I-35	FM 1472 and US 59 (south of Milo interchange)	48,000	57,474	9,474	20%	1.4%
I-35	Carlton Road and Mann Road (3.6 miles south of Milo interchange)	104,000	117,864	13,864	13%	1.0%
US 59	McPherson and Del Mar Boulevard (1 mile east of Milo interchange)	8,700	29,266	20,566	236%	9.8%

[5] *IH-35 and Loop 20 Direct Connector Analysis*. TTI. October 2016.

[6] Created using data from 2002 and 2015 Laredo District Traffic Map by TxDOT.

The micro-simulation model provided information on traffic volumes in both the no build and build case for a base year (2020) and a forecast year (2040), in terms of vehicle miles travelled and vehicle hours travelled. Traffic volumes for the years between the base and forecast year were estimated through a geometric growth pattern, calculated using the results from the micro-simulation model.

Assumptions

Based on the micro-simulation data shown in Table 5, traffic growth, measured in both vehicle miles travelled and vehicle hours travelled, was calculated and assumed to be growing annually at a rate of 1.44% in both the build and no build case. Due to the uncertainty in years past 2040, traffic growth was assumed to be 0% to present a conservative estimate of benefits.

Table 4: Assumptions used in the Estimation of Demand

Variable Name	Unit	Value	Source
VMT Growth (2017-2040)	%	1.44%	Calculated based on micro-simulation model. Traffic growth in build and no build cases identical. Assumed to be 0% after 2040 due to uncertainty.
VHT Growth (2017-2040)	%	1.44%	
VMT Growth (2040+)	%	0.00%	
VHT Growth (2040+)	%	0.00%	
Trucks	%	16.00%	TxDOT
Passenger Vehicles	%	84.00%	

Demand Projections

The resulting projections for vehicle miles travelled and vehicle hours travelled are presented in the table below. The project opens in 2021, at which time it is expected that nearly 1.9 million vehicle miles travelled can be avoided, as well as saving 1.4 million vehicle hours travelled. By 2040, the direct connectors are expected to save 1.7 million vehicle hours and avoid 2.4 million vehicle miles travelled.

Table 5: Demand Projections

		In Project Opening Year (2021)	2031	2041
No Build	Annual Vehicle Miles Travelled (mi)	42,005,362	48,455,172	55,102,590
	Annual Vehicle Hours Travelled (hrs)	2,408,104	2,777,752	3,158,710
	Annual Average Speed (mph)	17.44	17.44	17.44
Build	Annual Vehicle Miles Travelled (mi)	40,105,599	46,263,654	52,610,370
	Annual Vehicle Hours Travelled (hrs)	1,073,743	1,238,782	1,408,900
	Annual Average Speed (mph)	37.35	37.35	37.34

7. Estimation of Economic Benefits

Benefits Measurement, Data and Assumptions

This section describes the measurement approach used for each benefit or impact category identified in Section 4 (Types of Impacts) and provides an overview of the associated methodology, assumptions, and estimates.

LIST OF BENEFITS ANALYZED

The benefits assessed for the I-35/I-69W International Freight Gateway project are the following:

- Travel Time Savings: captures the reduced travel time for automobiles and trucks under the build scenario as a result of avoiding delays at signalized intersections.
- Vehicle Operating Cost Savings: captures the reduced vehicle operating costs for automobiles and trucks under the build scenario as a result of fewer vehicle miles travelled from the construction of direct connectors.
- Emission Cost Savings: captures the reduced emissions from automobiles and trucks under the build scenario as a result of fewer vehicle miles travelled and increases in the average speed.
- Accident Cost Savings: captures the expected reduction in accident cost savings under the build scenario as a result of removing traffic from signalized intersections.

METHODOLOGIES USED TO ESTIMATE BENEFITS

Benefits were estimated as a result of the installation of five additional direct connectors at the Milo interchange, preventing motorists from exiting the interstate system and avoiding congesting the frontage roads. These connectors will reduce vehicle hours travelled, vehicle operating costs, emissions, and accidents, all of which can be monetized using US DOT guidance. Travel time and accident savings were calculated based on the value of an hour of time and a statistical life, while emissions and vehicle operating costs were estimated using rates per metric ton and mile respectively. Comparing the build to the no build scenarios yielded the benefits described in further detail below.

ASSUMPTIONS USED TO ESTIMATE ECONOMIC BENEFITS

The assumptions used in the estimation of economic benefits for the I-35/I-69W International Freight Gateway project are summarized in the tables below.

Table 6: Assumptions used in the Estimation of Economic Benefits

Variable Name	Unit	Year	Value	Source
Discount Rate	%	2017-2050	7.00%	US DOT Guidance 2017
Days/Year	days	2017-2050	365	Known
Construction Begins	year		2017	TxDOT
Project Opens	year		2021	
Percent Trucks	%	2017-2050	16.00%	
Percent Automobiles	%	2017-2050	84.00%	

METHODOLOGIES USED TO ESTIMATE TRAVEL TIME BENEFITS

Travel time savings are calculated based on the vehicle hours travelled as determined by interpolation from the micro-simulation model. Annual vehicle hours were broken out to truck hours and automobile hours to account for the differences in the value of time for the different types of vehicles. Vehicle hours travelled were then converted to person hours, based on the average vehicle occupancy values recommended in the US DOT guidance. Annual person hours were then monetized using the US DOT guidance for the value of time.

ASSUMPTIONS USED TO ESTIMATE TRAVEL TIME BENEFITS

In addition to the economic variables listed above, the following assumptions were used in the estimation of travel time benefits.

Table 7: Assumptions used in the Estimation of Travel Time Benefits

Variable Name	Unit	Year	Value	Source
Average Vehicle Occupancy - Auto	people/vehicle	2017-2050	1.39	Federal Highway Administration Highway Statistics 2015, Table VM1
Average Vehicle Occupancy - Truck	people/vehicle	2017-2050	1.00	
Value of Time - Auto	$/hr	2017-2050	14.1	Revised Departmental Guidance on Valuation of Travel Time in Economic Analysis https://www.transportation.gov/officepolicy/transportation-policy/reviseddepartmental-guidance-valuationtravel-time-economic
Value of Time - Truck	$/hr	2017-2050	27.2	

TRAVEL TIME BENEFIT ESTIMATES

The table below shows the benefit estimates calculated over the life cycle of the project, due to a reduction in vehicle hours travelled from the installation of the direct connectors. At a 7% discount rate, travel time benefits total $300.4 million over the project lifecycle.

Table 8: Estimates of Travel Time Benefits, 2016 Dollars

	Over the Project Lifecycle		
	In Constant Dollars	Discounted at 7 Percent	Discounted at 3 Percent
Travel Time Benefits	$1,002,504,379	$300,391,681	$568,836,038

METHODOLOGIES USED TO ESTIMATE VEHICLE OPERATING COST BENEFITS

Vehicle operating cost savings were broken out to fuel and non-fuel cost savings. Fuel savings were calculated based on the breakout of annual vehicle miles by truck and automobiles. Given the average speed in the build and no build cases, fuel consumption rates were applied using estimates from California. The values were then multiplied by the retail price of diesel and gasoline as provided by the EIA in the Annual Energy Outlook 2017, less taxes to determine annual fuel costs. Non-fuel costs were estimated through US DOT guidance, less fuel costs. These costs were applied to the vehicle miles travelled to capture the differences between the build and no build case.

ASSUMPTIONS USED TO ESTIMATE VEHICLE OPERATING COST BENEFITS

The following assumptions were used to estimate the vehicle operating cost benefits.

Table 9: Assumptions used in the Estimation of Vehicle Operating Cost Benefits

Variable Name	Unit	Year	Value	Source
Non-Fuel Operating Cost - Auto	$/mi	2017-2050	0.33	US DOT Guidance 2017, AAA Your Driving Costs value of $0.40/mile less fuel costs. Fuel costs net of taxes calculated separately.
Non-Fuel Operating Cost - Truck	$/mi	2017-2050	0.56	US DOT Guidance 2017, American Transportation Research Institute value of $0.96/mile less fuel costs. Fuel costs net of taxes calculated separately. Value inflated from 2015 $ to 2016 $.
Gasoline Retail Price	2016 $/gallon	2017	1.89	EIA Annual Energy Outlook Forecast 2017, net price of fuel less taxes. Gasoline prices are assumed constant past 2050 due to uncertainty and to allow estimates to be made conservatively.
		2018	1.85	
		2019	2.07	
		2020	2.19	
		2021	2.31	
		2022	2.42	
		2023	2.46	
		2024	2.48	
		2025	2.53	
		2026	2.57	
		2027	2.58	
		2028	2.57	
		2029	2.60	
		2030	2.64	
		2031	2.69	
		2032	2.73	
		2033	2.73	
		2034	2.76	
		2035	2.78	
		2036	2.84	
		2037	2.85	
		2038	2.87	

Variable Name	Unit	Year	Value	Source
		2039	2.91	
		2040	2.94	
		2041	2.96	
		2042	2.96	
		2043	2.98	
		2044	2.99	
		2045	3.00	
		2046	3.02	
		2047	3.04	
		2048	3.02	
		2049	3.04	
		2050	3.08	
Diesel Retail Price	2016 $/gallon	2017	2.14	EIA Annual Energy Outlook Forecast 2017, net price of fuel less taxes. Diesel prices are assumed constant past 2050 due to uncertainty and to allow estimates to be made conservatively.
		2018	2.41	
		2019	2.60	
		2020	2.72	
		2021	2.80	
		2022	2.91	
		2023	2.96	
		2024	3.00	
		2025	3.09	
		2026	3.14	
		2027	3.19	
		2028	3.20	
		2029	3.25	
		2030	3.31	
		2031	3.37	
		2032	3.44	
		2033	3.44	
		2034	3.49	
		2035	3.51	
		2036	3.58	
		2037	3.59	
		2038	3.61	
		2039	3.65	
		2040	3.67	
		2041	3.68	
		2042	3.68	
		2043	3.68	
		2044	3.69	
		2045	3.71	

Variable Name	Unit	Year	Value	Source
		2046	3.73	
		2047	3.78	
		2048	3.79	
		2049	3.82	
		2050	3.86	
Gasoline Consumption	gallons/mi	2017-2051	0.05	California Department of Transportation, determined to be comparable to project location. Gasoline consumption is dependent on speed, with the variables referring to a 17 mph speed and 37 mph speed respectively.
	gallons/mi	2017-2050	0.03	
Diesel Consumption	gallons/mi	2017-2050	0.12	California Department of Transportation, determined to be comparable to project location. Diesel consumption is dependent on speed, with the variables referring to a 17 mph speed and 37 mph speed respectively.
	gallons/mi	2017-2050	0.08	

VEHICLE OPERATING COST BENEFIT ESTIMATES

The table below shows the benefit estimates calculated over the life cycle of the project, broken out by fuel and non-fuel cost savings. Fuel cost savings were a result of increases in average speeds the direct connectors provide, and non-fuel cost savings were a result of reduced vehicle miles travelled from the construction of direct connectors. Vehicle operating cost benefits total $43.7 million over the project lifecycle, discounted at 7%.

Table 10: Estimates of Vehicle Operating Cost Benefits, 2016 Dollars

	Over the Project Lifecycle		
	In Constant Dollars	Discounted at 7 Percent	Discounted at 3 Percent
Fuel Cost Savings	$126,103,937	$36,110,890	$70,154,925
Non Fuel Cost Savings	$25,181,639	$7,544,900	$14,287,979
Total	**$151,285,576**	**$43,655,790**	**$84,442,904**

METHODOLOGIES USED TO ESTIMATE EMISSION COST BENEFITS

Emission cost savings were calculated based on speeds in the build and no build case. These emission factors for carbon dioxide, nitrogen oxides, fine particulate matter, sulfur oxides, and volatile organic compounds were applied to the vehicle miles travelled, broken out by automobile and truck, to determine the metric tons produced in each case. The value of each greenhouse gas was then applied based on the US DOT guidance, converted from dollars per short ton to dollars per metric ton.

ASSUMPTIONS USED TO ESTIMATE EMISSION COST BENEFITS

The following assumptions were used to estimate the emission cost benefits.

Table 11: Assumptions used in the Estimation of Emission Reduction Benefits

Variable Name	Unit	Year	Value	Source
Grams/Metric ton	grams/metric ton	2017-2050	1,000,000	Known

Variable Name	Unit	Year	Value	Source
Volatile Organic Compounds (VOC)	$/metric ton	2017-2050	2,063.53	Corporate Average Fuel Economy for MY2017-MY2025 Passenger Cars and Light Trucks (August 2012), page 922, Table VIII16, "Economic Values Used for Benefits Computations (2010 dollars)" http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/FRIA_2017-2025.pdf, converted values to $/metric ton.
Nitrogen Oxides (NOx)	$/metric ton	2017-2050	8,131.75	
Fine Particulate Matter (PM2.5)	$/metric ton	2017-2050	371,984.89	
Sulfur Dioxide (SO2)	$/metric ton	2017-2050	48,060.78	
Carbon Dioxide Domestic Adjustment	%	2017-2050	24.58%	Calculated based on US proportion of World GDP based on World Bank values from 2016.
CO2 Emission Rate - Auto	g/mi	2017-2050	583.34	California Department of Transportation, determined to be comparable to project location. Emission rate is dependent on speed, with the variables referring to a 17 mph speed and 37 mph speed respectively. Based on 2016 model fleet.
	g/mi	2017-2050	313.28	
NOx Emission Rate - Auto	g/mi	2017-2050	0.19	
	g/mi	2017-2050	0.14	
PM Emission Rate - Auto	g/mi	2017-2050	0.01	
	g/mi	2017-2050	0.00	
SOx Emission Rate - Auto	g/mi	2017-2050	0.01	
	g/mi	2017-2050	0.00	
VOC Emission Rate - Auto	g/mi	2017-2050	0.12	
	g/mi	2017-2050	0.05	
CO2 Emission Rate - Truck	g/mi	2017-2050	1123.76	
	g/mi	2017-2050	785.54	
NOx Emission Rate - Truck	g/mi	2017-2050	2.83	
	g/mi	2017-2050	1.76	
PM Emission Rate - Truck	g/mi	2017-2050	0.04	
	g/mi	2017-2050	0.02	
SOx Emission Rate - Truck	g/mi	2017-2050	0.01	
	g/mi	2017-2050	0.01	
VOC Emission Rate - Truck	g/mi	2017-2050	0.31	
	g/mi	2017-2050	0.10	
Carbon Dioxide Price	2016 $/ton	2017	10.98	Interagency on the Social Working Cost of Capital, 2013. Values adjusted using carbon dioxide domestic adjustment to account for domestic value only. Domestic adjustment created by taking US proportion of World GDP. Prices assumed constant past 2050 to account for benefits conservatively.
		2018	11.26	
		2019	11.54	
		2020	11.82	
		2021	11.82	
		2022	12.10	
		2023	12.38	
		2024	12.66	
		2025	12.95	
		2026	13.23	
		2027	13.51	
		2028	13.79	

Variable Name	Unit	Year	Value	Source
		2029	13.79	
		2030	14.07	
		2031	14.35	
		2032	14.63	
		2033	14.92	
		2034	15.20	
		2035	15.48	
		2036	15.76	
		2037	16.04	
		2038	16.32	
		2039	16.60	
		2040	16.88	
		2041	17.17	
		2042	17.17	
		2043	17.45	
		2044	17.73	
		2045	18.01	
		2046	18.29	
		2047	18.57	
		2048	18.85	
		2049	19.14	
		2050	19.42	

EMISSION COST BENEFIT ESTIMATES

The table below shows the benefit estimates calculated over the life cycle of the project, broken out by emission type. Emission cost savings were a result of increases in average speeds and reduced vehicle miles travelled from the construction of direct connectors. At a 7% discount rate, emission cost benefits total $4.1 million over the project lifecycle.

Table 12: Estimates of Emission Reduction Benefits, 2016 Dollars

	Over the Project Lifecycle		
	In Constant Dollars	Discounted at 7 Percent	Discounted at 3 Percent
Volatile Organic Compounds (VOC)	$303,335	$90,886	$172,112
Nitrogen Oxides (NOx)	$2,886,893	$864,975	$1,638,019
Fine Particulate Matter (PM)	$3,682,628	$1,103,395	$2,089,518
Sulfur Dioxide (SO2)	$217,819	$65,263	$123,590
Carbon Dioxide (CO2)	$7,155,286	$1,976,413	$3,916,591
Total	**$14,245,962**	**$4,100,932**	**$7,939,831**

METHODOLOGIES USED TO ESTIMATE ACCIDENT COST BENEFITS

Accident costs are reduced in the build case as the direct connector allows interstate traffic to bypass an at grade intersection. Crash data for the Milo interchange intersection between 2014 and 2016 was gathered from TxDOT's Crash Records Information System (C.R.I.S.) to calculate the crash rates per million vehicle miles in the no build case. For the build case, accident rates were calculated to have decreased through the use of crash modification factors from CMF Clearinghouse. Holding VMT constant between the build and no build scenario, the number of accidents was estimated for each case. Using the crash data, the number of fatalities and injuries were estimated based on the type of crash. These were applied to the number of accidents to create the estimated number of injuries and fatalities. These were then monetized through values provided by U.S. DOT.

ASSUMPTIONS USED TO ESTIMATE ACCIDENT COST BENEFITS

The following assumptions were used to estimate the accident cost benefits.

Table 13: Assumptions used in the Estimation of Accident Cost Benefits

Variable Name	Unit	Year	Value	Source
Crash Modification Factor - Fatalities		2017-2050	0.58	CMF Clearinghouse, replacing at grade intersection with grade separated interchange; CMF ID 459. CMF determined to mirror installation feature
Crash Modification Factor - Injuries		2017-2050	0.43	CMF Clearinghouse, replacing at grade intersection with grade separated interchange; CMF 460. CMF determined to mirror installation feature
Crash Modification Factor - PDO		2017-2050	0.64	CMF Clearinghouse, replacing at grade intersection with grade separated interchange; CMF 461. CMF determined to mirror installation feature
Average Fatalities per Fatal Accident	events/accident	2017-2050	1.0	Calculated based on accident data at project location, intersection of I-35 and I-69W, between 2014 and 2016.
Average Injuries per Injury Accident	events/accident	2017-2050	1.54	
Average Injuries per Fatal Accident	events/accident	2017-2050	0.0	
Average Vehicles Damaged per PDO	events/accident	2017-2050	1.95	California Department of Transportation, TASAS Unit, 2007-2009, determined to be comparable region to project location.
Cost of a Fatality	$/accident	2017-2050	9,600,000	Guidance on Treatment of the Economic Value of a Statistical Life in U.S. Department of Transportation Analyses (2016) https://www.transportation.gov/officepolicy/transportation-policy/reviseddepartmental-guidance-on-valuation-of-astatistical-life-in-economic-analysis
Cost of an Injury	$/accident	2017-2050	110,663	Calculated weighted average of injuries based on US DOT Guidance 2017 values for injuries. Distribution of injuries gathered from 2014 Traffic Safety Facts, FARS/GES Annual Report, Publication #812139, Table 54 on page 106.
Cost of a PDO	$/accident	2017-2050	4,252	The Economic and Societal Impact of Motor Vehicle Crashes, 2010

Variable Name	Unit	Year	Value	Source
Fatal Accident Rate - No Build	accidents/Million VMT	2017-2050	0.01	Calculated based on crash data collected by TxDOT at the intersection of project location
Injury Accident Rate - No Build	accidents/Million VMT	2017-2050	0.58	
Property Damage Only Accident Rate - No Build	accidents/Million VMT	2017-2050	2.14	
Fatal Accident Rate - Build	accidents/Million VMT	2017-2050	0.01	
Injury Accident Rate - Build	accidents/Million VMT	2017-2050	0.25	
Property Damage Only Accident Rate - Build	accidents/Million VMT	2017-2050	1.37	

ACCIDENT COST BENEFIT ESTIMATES

The table below shows the benefit estimates calculated over the life cycle of the project, broken out by accident type. Accident cost savings were a result of removing traffic from signalized intersections; instead allowing traffic to take a grade separated direct connector. At a 7% discount rate, accident cost benefits total $44.3 million over the project lifecycle.

Table 14: Estimates of Accident Cost Benefits, 2016 Dollars

	Over the Project Lifecycle		
	In Constant Dollars	Discounted at 7 Percent	Discounted at 3 Percent
Fatalities Avoided	$52,860,176	$15,838,053	$29,992,803
Injuries Avoided	$85,177,196	$25,520,932	$48,329,442
PDO Avoided	$9,665,747	$2,896,067	$5,484,333
Total	**$147,703,119**	**$44,255,053**	**$83,806,578**

AGGREGATION OF BENEFIT ESTIMATES

The table below identifies the values of monetized benefits, based on the assumptions presented above. The project is estimated to produce benefits valued at $392.4 million at a 7% discount factor over the project lifecycle. Travel time savings are by far the largest and most significant benefit, accounting for over three-quarters of the total benefits, a result of avoiding nearly 64 million person hours of travel. Accident cost savings and vehicle operating cost savings provide the majority of the remaining benefits. Throughout the analysis period, a total of 42.7 million gallons of fuel are saved compared to the no build scenario, and an estimated 2,273 accidents are avoided.

Table 15: Estimates of Economic Benefits, 2016 Dollars

	Over the Project Lifecycle	
	In Constant Dollars	Discounted at 7 Percent
Travel Time Savings	$1,002,504,379	$300,391,681
Emission Cost Savings	$14,245,962	$4,100,932
Vehicle Operating Cost Savings	$151,285,576	$43,655,790
Accident Cost Savings	$147,703,119	$44,255,053
Total	**$1,315,739,035**	**$392,403,455**

Comparison of Benefits and Costs

The monetized benefits of the project are significantly greater than the costs. It is estimated that every dollar spent on this project will generate $4.32 in benefits. Travel time savings account for over 75% of the benefits for the I-69/I-35W International Freight Gateway project. Due to the high volume of truck traffic on the freight corridor, and the projected economic growth in the region, the absence of the I-35/I-69W International Freight Gateway project will yield significant delays at signalized intersections on local roads. Installation of the additional five direct connectors will improve traffic flow for both interstate and local traffic; interstate traffic will be able to merge onto either the I-35 or I-69W at faster speeds over shorter distances, while intersections carrying local traffic will become less congested. The additional monetized benefits are primarily driven by vehicle operating cost savings and accident cost savings, a result of lower fuel consumption due to increased speeds and a reduction in the vehicle miles travelled. Additionally, the project will result in improved resiliency in the U.S. freight network by eliminating a bottleneck critical to the transportation of goods between U.S. and Mexico.

8. Summary of Findings and BCA Outcomes

The tables below summarize the BCA findings. Annual costs and benefits are calculated over the lifecycle of the project (34 years). As stated above, construction is expected to be completed by 2021, at which point benefits begin to accrue.

Table 16: Overall Results of the Benefit Cost Analysis, Millions of 2016 Dollars*

Project Evaluation Metric	7% Discount Rate	3% Discount Rate
Total Discounted Benefits	$392.4	$745.0
Total Discounted Costs	$90.8	$103.7
Net Present Value	$301.6	$641.3
Benefit / Cost Ratio	4.32	7.18
Internal Rate of Return (%)	28.8%	
Payback Period (years)	3.18	

** Unless Specified Otherwise*

Considering all monetized benefits and costs, the estimated internal rate of return of the project is 29% percent. With a 7 percent real discount rate, the $90.8 million investment would result in $392.4 million in total benefits and a Benefit/Cost ratio of approximately 4.32.

With a 3 percent real discount rate, the Net Present Value of the project would increase to $641.3 million, for a Benefit/Cost ratio of 7.18.

Table 17: Benefit Estimates for the Full Build Alternative

Benefit Categories	7% Discount Rate	3% Discount Rate
Travel Time Savings	$300,391,681	$568,836,038
Vehicle Operating Cost Savings	$43,655,790	$84,442,904
Accident Cost Savings	$44,255,053	$83,806,578
Emissions Cost Savings	$4,100,932	$7,939,831
Total Benefit Estimates	**$392,403,455**	**$745,025,351**

9. Aggregate Annual Benefits and Costs

This section reports annual, aggregate benefits and costs associated with the I-35/I-69W International Freight Gateway and an annual breakdown of benefits by category. Detailed information and calculations by benefit category are provided in the spreadsheet used to conduct this BCA.

Table 18: Annual Monetized Estimates of Total Project Benefits and Costs

Calendar Year	Project Year	Total Benefits ($2016)	Total Costs ($2016)	Undiscounted Net Benefits ($2016)	Discounted Net Benefits at 7%	Discounted Net Benefits at 3%
2017	1	-	-	-	-	-
2018	2	-	-	-	-	-
2019	3	-	$57,500,000	-$57,500,000	-$46,937,128	-$52,620,645
2020	4	-	$57,500,000	-$57,500,000	-$43,866,475	-$51,088,005
2021	5	$35,773,523	-	$35,773,523	$25,506,027	$30,858,555
2022	6	$36,424,712	-	$36,424,712	$24,271,324	$30,505,123
2023	7	$36,997,088	-	$36,997,088	$23,039,927	$30,082,018
2024	8	$37,569,896	-	$37,569,896	$21,866,022	$29,658,023
2025	9	$38,182,942	-	$38,182,942	$20,768,991	$29,264,046
2026	10	$38,787,303	-	$38,787,303	$19,717,498	$28,861,396
2027	11	$39,372,778	-	$39,372,778	$18,705,723	$28,443,733
2028	12	$39,941,022	-	$39,941,022	$17,734,292	$28,013,829
2029	13	$40,555,725	-	$40,555,725	$16,829,184	$27,616,475
2030	14	$41,209,826	-	$41,209,826	$15,981,881	$27,244,549
2031	15	$41,869,264	-	$41,869,264	$15,175,348	$26,874,287
2032	16	$42,544,615	-	$42,544,615	$14,411,333	$26,512,397
2033	17	$43,159,305	-	$43,159,305	$13,663,131	$26,112,089
2034	18	$43,834,902	-	$43,834,902	$12,969,166	$25,748,385
2035	19	$44,499,039	-	$44,499,039	$12,304,355	$25,377,180
2036	20	$45,238,144	-	$45,238,144	$11,690,396	$25,047,264
2037	21	$45,904,953	-	$45,904,953	$11,086,647	$24,676,174

Calendar Year	Project Year	Total Benefits ($2016)	Total Costs ($2016)	Undiscounted Net Benefits ($2016)	Discounted Net Benefits at 7%	Discounted Net Benefits at 3%
2038	22	$46,593,200	-	$46,593,200	$10,516,699	$24,316,641
2039	23	$47,335,604	-	$47,335,604	$9,985,298	$23,984,560
2040	24	$48,059,065	-	$48,059,065	$9,474,682	$23,641,875
2041	25	$48,089,510	-	$48,089,510	$8,860,453	$22,967,818
2042	26	$48,095,707	-	$48,095,707	$8,281,864	$22,301,726
2043	27	$48,115,739	-	$48,115,739	$7,743,283	$21,661,179
2044	28	$48,139,018	-	$48,139,018	$7,240,215	$21,040,446
2045	29	$48,167,614	-	$48,167,614	$6,770,575	$20,439,752
2046	30	$48,197,942	-	$48,197,942	$6,331,625	$19,856,914
2047	31	$48,242,570	-	$48,242,570	$5,922,885	$19,296,408
2048	32	$48,233,710	-	$48,233,710	$5,534,390	$18,730,936
2049	33	$48,268,426	-	$48,268,426	$5,176,050	$18,198,464
2050	34	$48,335,892	-	$48,335,892	$4,844,191	$17,693,107
Total		**$1,315,739,035**	**$115,000,000**	**$1,200,739,035**	**$301,599,853**	**$641,316,700**

Table 19: Annual Monetized Estimates of Total Project Benefits by Category

Calendar Year	Project Year	Travel Time Savings (Undiscounted $2016)	Vehicle Operating Costs Savings (Undiscounted $2016)	Accident Cost Savings (Undiscounted $2016)	Emissions Cost Savings (Undiscounted $2016)	Total Benefits (Undiscounted $2016)
2017	1	-	-	-	-	-
2018	2	-	-	-	-	-
2019	3	-	-	-	-	-
2020	4	-	-	-	-	-
2021	5	$27,774,936	$3,562,745	$4,091,212	$344,629	$35,773,523
2022	6	$28,174,014	$3,747,459	$4,150,071	$353,167	$36,424,712
2023	7	$28,578,827	$3,846,604	$4,209,777	$361,880	$36,997,088
2024	8	$28,989,455	$3,939,329	$4,270,342	$370,770	$37,569,896
2025	9	$29,405,984	$4,065,339	$4,331,778	$379,841	$38,182,942
2026	10	$29,828,498	$4,175,612	$4,394,098	$389,096	$38,787,303
2027	11	$30,257,082	$4,259,843	$4,457,315	$398,539	$39,372,778
2028	12	$30,691,825	$4,319,584	$4,521,441	$408,173	$39,941,022
2029	13	$31,132,814	$4,422,377	$4,586,489	$414,045	$40,555,725
2030	14	$31,580,139	$4,553,198	$4,652,473	$424,015	$41,209,826
2031	15	$32,033,891	$4,681,779	$4,719,407	$434,186	$41,869,264
2032	16	$32,494,163	$4,818,585	$4,787,304	$444,563	$42,544,615
2033	17	$32,961,049	$4,886,932	$4,856,177	$455,148	$43,159,305
2034	18	$33,434,642	$5,008,273	$4,926,042	$465,945	$43,834,902
2035	19	$33,915,041	$5,110,128	$4,996,911	$476,959	$44,499,039
2036	20	$34,402,342	$5,278,809	$5,068,800	$488,193	$45,238,144
2037	21	$34,896,644	$5,366,934	$5,141,723	$499,652	$45,904,953
2038	22	$35,398,049	$5,468,115	$5,215,696	$511,340	$46,593,200
2039	23	$35,906,658	$5,614,954	$5,290,732	$523,260	$47,335,604
2040	24	$36,422,575	$5,734,224	$5,366,848	$535,418	$48,059,065
2041	25	$36,422,575	$5,760,039	$5,366,848	$540,048	$48,089,510
2042	26	$36,422,575	$5,766,236	$5,366,848	$540,048	$48,095,707
2043	27	$36,422,575	$5,781,638	$5,366,848	$544,677	$48,115,739

Calendar Year	Project Year	Travel Time Savings (Undiscounted $2016)	Vehicle Operating Costs Savings (Undiscounted $2016)	Accident Cost Savings (Undiscounted $2016)	Emissions Cost Savings (Undiscounted $2016)	Total Benefits (Undiscounted $2016)
2044	28	$36,422,575	$5,800,288	$5,366,848	$549,307	$48,139,018
2045	29	$36,422,575	$5,824,255	$5,366,848	$553,936	$48,167,614
2046	30	$36,422,575	$5,849,952	$5,366,848	$558,566	$48,197,942
2047	31	$36,422,575	$5,889,951	$5,366,848	$563,196	$48,242,570
2048	32	$36,422,575	$5,876,461	$5,366,848	$567,825	$48,233,710
2049	33	$36,422,575	$5,906,548	$5,366,848	$572,455	$48,268,426
2050	34	$36,422,575	$5,969,385	$5,366,848	$577,084	$48,335,892
Total		**$1,002,504,379**	**$151,285,576**	**$147,703,119**	**$14,245,962**	**$1,315,739,035**

Table 20: Annual Demand Projections

Calendar Year	Project Year	VMT No Build	VHT No Build	Speed No Build	VMT Build	VHT Build	Speed Build
2017	1	39,672,591	2,274,406	17.44	39,672,591	2,274,406	17.44
2018	2	40,243,349	2,307,118	17.44	40,243,349	2,307,118	17.44
2019	3	40,822,317	2,340,300	17.44	40,822,317	2,340,300	17.44
2020	4	41,409,615	2,373,960	17.44	41,409,615	2,373,960	17.44
2021	5	42,005,362	2,408,104	17.44	40,105,599	1,073,743	37.35
2022	6	42,609,680	2,442,739	17.44	40,682,581	1,089,205	37.35
2023	7	43,222,692	2,477,872	17.44	41,267,864	1,104,891	37.35
2024	8	43,844,524	2,513,510	17.44	41,861,567	1,120,802	37.35
2025	9	44,475,301	2,549,661	17.44	42,463,812	1,136,942	37.35
2026	10	45,115,153	2,586,332	17.44	43,074,720	1,153,314	37.35
2027	11	45,764,211	2,623,531	17.44	43,694,418	1,169,923	37.35
2028	12	46,422,606	2,661,264	17.44	44,323,031	1,186,770	37.35
2029	13	47,090,474	2,699,540	17.44	44,960,688	1,203,860	37.35
2030	14	47,767,950	2,738,367	17.44	45,607,518	1,221,196	37.35
2031	15	48,455,172	2,777,752	17.44	46,263,654	1,238,782	37.35

Calendar Year	Project Year	VMT No Build	VHT No Build	Speed No Build	VMT Build	VHT Build	Speed Build
2032	16	49,152,282	2,817,703	17.44	46,929,229	1,256,621	37.35
2033	17	49,859,420	2,858,229	17.44	47,604,380	1,274,717	37.35
2034	18	50,576,732	2,899,338	17.44	48,289,244	1,293,074	37.34
2035	19	51,304,364	2,941,038	17.44	48,983,960	1,311,695	37.34
2036	20	52,042,464	2,983,338	17.44	49,688,672	1,330,584	37.34
2037	21	52,791,182	3,026,247	17.44	50,403,522	1,349,745	37.34
2038	22	53,550,673	3,069,772	17.44	51,128,655	1,369,182	37.34
2039	23	54,321,089	3,113,923	17.44	51,864,222	1,388,899	37.34
2040	24	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2041	25	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2042	26	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2043	27	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2044	28	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2045	29	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2046	30	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2047	31	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2048	32	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2049	33	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
2050	34	55,102,590	3,158,710	17.44	52,610,370	1,408,900	37.34
Total		1,678,647,696	96,229,853		1,610,059,278	48,067,630	

Table 21: Pertinent Quantifiable Impacts (1 of 2)

Calendar Year	Project Year	Person Hours Saved	Gasoline Consumption Avoided	Diesel Consumption Avoided	Accidents Avoided	Fatalities Avoided	Injuries Avoided	Damaged Vehicles Avoided
2017	1	-	-	-	-	-	-	-
2018	2	-	-	-	-	-	-	-
2019	3	-	-	-	-	-	-	-

Calendar Year	Project Year	Person Hours Saved	Gasoline Consumption Avoided	Diesel Consumption Avoided	Accidents Avoided	Fatalities Avoided	Injuries Avoided	Damaged Vehicles Avoided
2020	4	-	-	-	-	-	-	-
2021	5	1,771,498	921,015	263,397	46.3	0.2	21.3	63.0
2022	6	1,796,951	934,265	267,187	47.0	0.2	21.6	63.9
2023	7	1,822,770	947,706	271,031	47.7	0.2	21.9	64.8
2024	8	1,848,960	961,341	274,930	48.3	0.2	22.3	65.7
2025	9	1,875,527	975,171	278,885	49.0	0.2	22.6	66.7
2026	10	1,902,475	989,201	282,898	49.7	0.2	22.9	67.6
2027	11	1,929,810	1,003,432	286,968	50.5	0.2	23.2	68.6
2028	12	1,957,538	1,017,869	291,096	51.2	0.2	23.6	69.6
2029	13	1,985,664	1,032,513	295,284	51.9	0.2	23.9	70.6
2030	14	2,014,195	1,047,367	299,532	52.7	0.2	24.2	71.6
2031	15	2,043,136	1,062,435	303,842	53.4	0.2	24.6	72.6
2032	16	2,072,492	1,077,720	308,213	54.2	0.2	24.9	73.7
2033	17	2,102,270	1,093,225	312,647	55.0	0.2	25.3	74.7
2034	18	2,132,476	1,108,953	317,145	55.8	0.2	25.7	75.8
2035	19	2,163,116	1,124,908	321,708	56.6	0.2	26.0	76.9
2036	20	2,194,196	1,141,092	326,336	57.4	0.2	26.4	78.0
2037	21	2,225,723	1,157,508	331,031	58.2	0.2	26.8	79.1
2038	22	2,257,703	1,174,161	335,794	59.0	0.2	27.2	80.3
2039	23	2,290,142	1,191,053	340,625	59.9	0.2	27.6	81.4
2040	24	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2041	25	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2042	26	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2043	27	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2044	28	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2045	29	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2046	30	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6

Calendar Year	Project Year	Person Hours Saved	Gasoline Consumption Avoided	Diesel Consumption Avoided	Accidents Avoided	Fatalities Avoided	Injuries Avoided	Damaged Vehicles Avoided
2047	31	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2048	32	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2049	33	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
2050	34	2,323,048	1,208,189	345,526	60.8	0.2	28.0	82.6
Total		63,940,167	33,251,015	9,509,330	1,671.9	5.5	769.7	2,273.2

Table 22: Pertinent Quantifiable Impacts (2 of 2)

Calendar Year	Project Year	Annual Emissions Avoided - VOC (tonnes)	Annual Emissions Avoided - NOx (tonnes)	Annual Emissions Avoided - PM (tonnes)	Annual Emissions Avoided - SO_2 (tonnes)	Annual Emissions Avoided - CO_2 (tonnes)	Vehicle Hours Saved
2017	1	-	-	-	-	-	-
2018	2	-	-	-	-	-	-
2019	3	-	-	-	-	-	-
2020	4	-	-	-	-	-	-
2021	5	4.07	9.83	0.27	0.13	12,541	1,334,361
2022	6	4.13	9.97	0.28	0.13	12,721	1,353,533
2023	7	4.19	10.12	0.28	0.13	12,904	1,372,981
2024	8	4.25	10.26	0.29	0.13	13,090	1,392,709
2025	9	4.31	10.41	0.29	0.13	13,278	1,412,720
2026	10	4.37	10.56	0.29	0.13	13,469	1,433,018
2027	11	4.44	10.71	0.30	0.14	13,663	1,453,608
2028	12	4.50	10.87	0.30	0.14	13,860	1,474,494
2029	13	4.56	11.02	0.31	0.14	14,059	1,495,680
2030	14	4.63	11.18	0.31	0.14	14,261	1,517,170
2031	15	4.70	11.34	0.32	0.14	14,466	1,538,969
2032	16	4.76	11.51	0.32	0.15	14,675	1,561,082
2033	17	4.83	11.67	0.33	0.15	14,886	1,583,512

Calendar Year	Project Year	Annual Emissions Avoided - VOC (tonnes)	Annual Emissions Avoided - NOx (tonnes)	Annual Emissions Avoided - PM (tonnes)	Annual Emissions Avoided - SO_2 (tonnes)	Annual Emissions Avoided - CO_2 (tonnes)	Vehicle Hours Saved
2034	18	4.90	11.84	0.33	0.15	15,100	1,606,264
2035	19	4.97	12.01	0.33	0.15	15,317	1,629,343
2036	20	5.04	12.18	0.34	0.16	15,537	1,652,754
2037	21	5.12	12.36	0.34	0.16	15,761	1,676,501
2038	22	5.19	12.54	0.35	0.16	15,988	1,700,590
2039	23	5.27	12.72	0.35	0.16	16,218	1,725,024
2040	24	5.34	12.90	0.36	0.16	16,451	1,749,810
2041	25	5.34	12.90	0.36	0.16	16,451	1,749,810
2042	26	5.34	12.90	0.36	0.16	16,451	1,749,810
2043	27	5.34	12.90	0.36	0.16	16,451	1,749,810
2044	28	5.34	12.90	0.36	0.16	16,451	1,749,810
2045	29	5.34	12.90	0.36	0.16	16,451	1,749,810
2046	30	5.34	12.90	0.36	0.16	16,451	1,749,810
2047	31	5.34	12.90	0.36	0.16	16,451	1,749,810
2048	32	5.34	12.90	0.36	0.16	16,451	1,749,810
2049	33	5.34	12.90	0.36	0.16	16,451	1,749,810
2050	34	5.34	12.90	0.36	0.16	16,451	1,749,810
Total		147.0	355.01	9.90	4.53	452,755	48,162,223

Table 23: Travel Time Savings and Pertinent Quantifiable Impacts

Calendar Year	Project Year	Vehicle Hours Saved	Person Hours Saved	Travel Time Savings (Undiscounted)	Travel Time Savings (Discounted 7%)	Travel Time Savings (Discounted 3%)
2017	1	-	-	-	-	-
2018	2	-	-	-	-	-
2019	3	-	-	-	-	-

Calendar Year	Project Year	Vehicle Hours Saved	Person Hours Saved	Travel Time Savings (Undiscounted)	Travel Time Savings (Discounted 7%)	Travel Time Savings (Discounted 3%)
2020	4	-	-	-	-	-
2021	5	1,334,361	1,771,498	$27,774,936	$19,803,145	$23,958,904
2022	6	1,353,533	1,796,951	$28,174,014	$18,773,535	$23,595,293
2023	7	1,372,981	1,822,770	$28,578,827	$17,797,457	$23,237,201
2024	8	1,392,709	1,848,960	$28,989,455	$16,872,127	$22,884,544
2025	9	1,412,720	1,875,527	$29,405,984	$15,994,907	$22,537,238
2026	10	1,433,018	1,902,475	$29,828,498	$15,163,296	$22,195,204
2027	11	1,453,608	1,929,810	$30,257,082	$14,374,922	$21,858,360
2028	12	1,474,494	1,957,538	$30,691,825	$13,627,537	$21,526,628
2029	13	1,495,680	1,985,664	$31,132,814	$12,919,011	$21,199,931
2030	14	1,517,170	2,014,195	$31,580,139	$12,247,322	$20,878,192
2031	15	1,538,969	2,043,136	$32,033,891	$11,610,556	$20,561,336
2032	16	1,561,082	2,072,492	$32,494,163	$11,006,897	$20,249,288
2033	17	1,583,512	2,102,270	$32,961,049	$10,434,624	$19,941,976
2034	18	1,606,264	2,132,476	$33,434,642	$9,892,104	$19,639,329
2035	19	1,629,343	2,163,116	$33,915,041	$9,377,791	$19,341,274
2036	20	1,652,754	2,194,196	$34,402,342	$8,890,219	$19,047,742
2037	21	1,676,501	2,225,723	$34,896,644	$8,427,996	$18,758,666
2038	22	1,700,590	2,257,703	$35,398,049	$7,989,806	$18,473,976
2039	23	1,725,024	2,290,142	$35,906,658	$7,574,398	$18,193,607
2040	24	1,749,810	2,323,048	$36,422,575	$7,180,588	$17,917,493
2041	25	1,749,810	2,323,048	$36,422,575	$6,710,830	$17,395,625
2042	26	1,749,810	2,323,048	$36,422,575	$6,271,803	$16,888,956
2043	27	1,749,810	2,323,048	$36,422,575	$5,861,498	$16,397,045
2044	28	1,749,810	2,323,048	$36,422,575	$5,478,036	$15,919,461
2045	29	1,749,810	2,323,048	$36,422,575	$5,119,660	$15,455,787
2046	30	1,749,810	2,323,048	$36,422,575	$4,784,729	$15,005,619

Calendar Year	Project Year	Vehicle Hours Saved	Person Hours Saved	Travel Time Savings (Undiscounted)	Travel Time Savings (Discounted 7%)	Travel Time Savings (Discounted 3%)
2047	31	1,749,810	2,323,048	$36,422,575	$4,471,709	$14,568,562
2048	32	1,749,810	2,323,048	$36,422,575	$4,179,167	$14,144,235
2049	33	1,749,810	2,323,048	$36,422,575	$3,905,764	$13,732,267
2050	34	1,749,810	2,323,048	$36,422,575	$3,650,247	$13,332,298
Total		48,162,223	63,940,167	$1,002,504,379	$300,391,681	$568,836,038

Table 24: Vehicle Operating Cost Savings and Pertinent Quantifiable Impacts

Calendar Year	Project Year	Gasoline Consumption Avoided	Diesel Consumption Avoided	Fuel Cost Savings	Non-Fuel Cost Savings	Vehicle Operating Cost Savings (undiscounted)	Vehicle Operating Cost Savings (7%)	Vehicle Operating Cost Savings (3%)
2017	1	-	-	-	-	-	-	-
2018	2	-	-	-	-	-	-	-
2019	3	-	-	-	-	-	-	-
2020	4	-	-	-	-	-	-	-
2021	5	921,015	263,397	$2,865,263	$697,481	$3,562,745	$2,540,188	$3,073,255
2022	6	934,265	267,187	$3,039,942	$707,518	$3,747,459	$2,497,090	$3,138,438
2023	7	947,706	271,031	$3,128,906	$717,698	$3,846,604	$2,395,472	$3,127,641
2024	8	961,341	274,930	$3,211,304	$728,025	$3,939,329	$2,292,725	$3,109,743
2025	9	975,171	278,885	$3,326,838	$738,501	$4,065,339	$2,211,275	$3,115,744
2026	10	989,201	282,898	$3,426,485	$749,127	$4,175,612	$2,122,669	$3,107,047
2027	11	1,003,432	286,968	$3,499,936	$759,906	$4,259,843	$2,023,821	$3,077,401
2028	12	1,017,869	291,096	$3,548,744	$770,841	$4,319,584	$1,917,947	$3,029,670
2029	13	1,032,513	295,284	$3,640,445	$781,932	$4,422,377	$1,835,129	$3,011,424
2030	14	1,047,367	299,532	$3,760,014	$793,184	$4,553,198	$1,765,809	$3,010,200
2031	15	1,062,435	303,842	$3,877,182	$804,597	$4,681,779	$1,696,892	$3,005,056
2032	16	1,077,720	308,213	$4,002,411	$816,174	$4,818,585	$1,632,221	$3,002,783

Calendar Year	Project Year	Gasoline Consumption Avoided	Diesel Consumption Avoided	Fuel Cost Savings	Non-Fuel Cost Savings	Vehicle Operating Cost Savings (undiscounted)	Vehicle Operating Cost Savings (7%)	Vehicle Operating Cost Savings (3%)
2033	17	1,093,225	312,647	$4,059,013	$827,918	$4,886,932	$1,547,077	$2,956,674
2034	18	1,108,953	317,145	$4,168,442	$839,831	$5,008,273	$1,481,767	$2,941,833
2035	19	1,124,908	321,708	$4,258,212	$851,916	$5,110,128	$1,412,993	$2,914,234
2036	20	1,141,092	326,336	$4,414,635	$864,174	$5,278,809	$1,364,145	$2,922,749
2037	21	1,157,508	331,031	$4,490,325	$876,609	$5,366,934	$1,296,185	$2,884,991
2038	22	1,174,161	335,794	$4,578,892	$889,222	$5,468,115	$1,234,226	$2,853,768
2039	23	1,191,053	340,625	$4,712,936	$902,018	$5,614,954	$1,184,457	$2,845,051
2040	24	1,208,189	345,526	$4,819,227	$914,997	$5,734,224	$1,130,483	$2,820,858
2041	25	1,208,189	345,526	$4,845,042	$914,997	$5,760,039	$1,061,282	$2,751,026
2042	26	1,208,189	345,526	$4,851,239	$914,997	$5,766,236	$992,920	$2,673,773
2043	27	1,208,189	345,526	$4,866,641	$914,997	$5,781,638	$930,441	$2,602,830
2044	28	1,208,189	345,526	$4,885,291	$914,997	$5,800,288	$872,376	$2,535,171
2045	29	1,208,189	345,526	$4,909,258	$914,997	$5,824,255	$818,674	$2,471,501
2046	30	1,208,189	345,526	$4,934,956	$914,997	$5,849,952	$768,491	$2,410,103
2047	31	1,208,189	345,526	$4,974,954	$914,997	$5,889,951	$723,127	$2,355,905
2048	32	1,208,189	345,526	$4,961,464	$914,997	$5,876,461	$674,272	$2,282,047
2049	33	1,208,189	345,526	$4,991,551	$914,997	$5,906,548	$633,387	$2,226,924
2050	34	1,208,189	345,526	$5,054,388	$914,997	$5,969,385	$598,248	$2,185,063
Total		33,251,015	9,509,330	$126,103,937	$25,181,639	$151,285,576	$43,655,790	$84,442,904

Table 25: Emission Cost Savings

Calendar Year	Project Year	Emissions Cost Savings - VOC	Emission Cost Savings - NOx	Emission Cost Savings - PM	Emission Cost Savings - SO_2	Emission Cost Savings - CO_2	Emission Cost Savings (undiscounted)	Emission Cost Savings (7%)	Emission Cost Savings (3%)
2017	1	-	-	-	-	-	-	-	-

Calendar Year	Project Year	Emissions Cost Savings - VOC	Emission Cost Savings - NOx	Emission Cost Savings - PM	Emission Cost Savings - SO_2	Emission Cost Savings - CO_2	Emission Cost Savings (undiscounted)	Emission Cost Savings (7%)	Emission Cost Savings (3%)
2018	2	-	-	-	-	-	-	-	-
2019	3	-	-	-	-	-	-	-	-
2020	4	-	-	-	-	-	-	-	-
2021	5	$8,402	$79,964	$102,005	$6,033	$148,226	$344,629	$245,716	$297,280
2022	6	$8,523	$81,114	$103,472	$6,120	$153,938	$353,167	$235,330	$295,772
2023	7	$8,646	$82,281	$104,961	$6,208	$159,784	$361,880	$225,361	$294,241
2024	8	$8,770	$83,465	$106,471	$6,298	$165,767	$370,770	$215,791	$292,689
2025	9	$8,896	$84,666	$108,003	$6,388	$171,888	$379,841	$206,608	$291,116
2026	10	$9,024	$85,884	$109,556	$6,480	$178,152	$389,096	$197,797	$289,524
2027	11	$9,154	$87,119	$111,133	$6,573	$184,560	$398,539	$189,343	$287,913
2028	12	$9,286	$88,373	$112,731	$6,668	$191,115	$408,173	$181,234	$286,284
2029	13	$9,419	$89,644	$114,353	$6,764	$193,865	$414,045	$171,814	$281,945
2030	14	$9,555	$90,934	$115,998	$6,861	$200,667	$424,015	$164,440	$280,324
2031	15	$9,692	$92,242	$117,667	$6,960	$207,625	$434,186	$157,369	$278,688
2032	16	$9,832	$93,569	$119,360	$7,060	$214,742	$444,563	$150,589	$277,037
2033	17	$9,973	$94,915	$121,077	$7,161	$222,021	$455,148	$144,088	$275,372
2034	18	$10,117	$96,281	$122,819	$7,264	$229,464	$465,945	$137,856	$273,694
2035	19	$10,262	$97,666	$124,586	$7,369	$237,076	$476,959	$131,883	$272,003
2036	20	$10,410	$99,071	$126,379	$7,475	$244,859	$488,193	$126,158	$270,301
2037	21	$10,559	$100,496	$128,197	$7,583	$252,817	$499,652	$120,673	$268,588
2038	22	$10,711	$101,942	$130,041	$7,692	$260,954	$511,340	$115,416	$266,864
2039	23	$10,865	$103,409	$131,912	$7,802	$269,272	$523,260	$110,380	$265,132
2040	24	$11,022	$104,896	$133,810	$7,915	$277,776	$535,418	$105,556	$263,390
2041	25	$11,022	$104,896	$133,810	$7,915	$282,405	$540,048	$99,503	$257,930
2042	26	$11,022	$104,896	$133,810	$7,915	$282,405	$540,048	$92,994	$250,417
2043	27	$11,022	$104,896	$133,810	$7,915	$287,035	$544,677	$87,655	$245,208

Calendar Year	Project Year	Emissions Cost Savings - VOC	Emission Cost Savings - NOx	Emission Cost Savings - PM	Emission Cost Savings - SO_2	Emission Cost Savings - CO_2	Emission Cost Savings (undiscounted)	Emission Cost Savings (7%)	Emission Cost Savings (3%)
2044	28	$11,022	$104,896	$133,810	$7,915	$291,664	$549,307	$82,617	$240,089
2045	29	$11,022	$104,896	$133,810	$7,915	$296,294	$553,936	$77,863	$235,061
2046	30	$11,022	$104,896	$133,810	$7,915	$300,924	$558,566	$73,377	$230,122
2047	31	$11,022	$104,896	$133,810	$7,915	$305,553	$563,196	$69,145	$225,271
2048	32	$11,022	$104,896	$133,810	$7,915	$310,183	$567,825	$65,153	$220,508
2049	33	$11,022	$104,896	$133,810	$7,915	$314,812	$572,455	$61,387	$215,831
2050	34	$11,022	$104,896	$133,810	$7,915	$319,442	$577,084	$57,835	$211,239
Total		$303,335	$2,886,893	$3,682,628	$217,819	$7,155,286	$14,245,962	$4,100,932	$7,939,831

Table 26: Accident Cost Savings and Pertinent Quantifiable Impacts

Calendar Year	Project Year	Accidents Avoided	Fatality Cost Savings	Injury Cost Savings	PDO Cost Savings	Accident Cost Savings (undiscounted)	Accident Cost Savings (7%)	Accident Cost Savings (3%)
2017	1	-	-	-	-	-	-	-
2018	2	-	-	-	-	-	-	-
2019	3	-	-	-	-	-	-	-
2020	4	-	-	-	-	-	-	-
2021	5	46.31	$1,464,168	$2,359,314	$267,730	$4,091,212	$2,916,978	$3,529,116
2022	6	46.98	$1,485,233	$2,393,257	$271,582	$4,150,071	$2,765,368	$3,475,620
2023	7	47.65	$1,506,600	$2,427,688	$275,489	$4,209,777	$2,621,638	$3,422,934
2024	8	48.34	$1,528,275	$2,462,614	$279,453	$4,270,342	$2,485,378	$3,371,047
2025	9	49.03	$1,550,262	$2,498,043	$283,473	$4,331,778	$2,356,200	$3,319,947
2026	10	49.74	$1,572,565	$2,533,981	$287,551	$4,394,098	$2,233,737	$3,269,622
2027	11	50.45	$1,595,189	$2,570,437	$291,688	$4,457,315	$2,117,638	$3,220,059
2028	12	51.18	$1,618,139	$2,607,417	$295,885	$4,521,441	$2,007,574	$3,171,247
2029	13	51.92	$1,641,418	$2,644,929	$300,142	$4,586,489	$1,903,230	$3,123,176

Calendar Year	Project Year	Accidents Avoided	Fatality Cost Savings	Injury Cost Savings	PDO Cost Savings	Accident Cost Savings (undiscounted)	Accident Cost Savings (7%)	Accident Cost Savings (3%)
2030	14	52.66	$1,665,033	$2,682,981	$304,460	$4,652,473	$1,804,309	$3,075,833
2031	15	53.42	$1,688,987	$2,721,580	$308,840	$4,719,407	$1,710,530	$3,029,208
2032	16	54.19	$1,713,286	$2,760,735	$313,283	$4,787,304	$1,621,625	$2,983,289
2033	17	54.97	$1,737,935	$2,800,452	$317,790	$4,856,177	$1,537,341	$2,938,067
2034	18	55.76	$1,762,938	$2,840,742	$322,362	$4,926,042	$1,457,438	$2,893,530
2035	19	56.56	$1,788,301	$2,881,611	$327,000	$4,996,911	$1,381,688	$2,849,668
2036	20	57.38	$1,814,028	$2,923,067	$331,704	$5,068,800	$1,309,874	$2,806,472
2037	21	58.20	$1,840,126	$2,965,121	$336,476	$5,141,723	$1,241,793	$2,763,930
2038	22	59.04	$1,866,600	$3,007,779	$341,317	$5,215,696	$1,177,251	$2,722,032
2039	23	59.89	$1,893,454	$3,051,051	$346,227	$5,290,732	$1,116,063	$2,680,770
2040	24	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$1,058,056	$2,640,134
2041	25	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$988,837	$2,563,237
2042	26	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$924,147	$2,488,579
2043	27	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$863,689	$2,416,096
2044	28	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$807,186	$2,345,725
2045	29	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$754,379	$2,277,403
2046	30	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$705,027	$2,211,070
2047	31	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$658,904	$2,146,670
2048	32	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$615,798	$2,084,146
2049	33	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$575,512	$2,023,443
2050	34	60.75	$1,920,694	$3,094,945	$351,209	$5,366,848	$537,862	$1,964,507
Total		1,671.9	$52,860,176	$85,177,196	$9,665,747	$147,703,119	$44,255,053	$83,806,578

Federal Wage Rate Certification

The City of Laredo, Texas, certifies that it will ensure compliance with the requirements of Subchapter IV of Chapter 31 of Title 40, United States Code (federal wage rate requirements), as required by the FY 2017 Appropriations Act for any projects that receive federal funding under the Nationally Significant Freight and Highway Projects Program (INFRA Grants) for Fiscal Years 2017 and 2018.

Horacio De Leon
City Manager
City of Laredo, Texas

11/1/17

Date

Appendix C. Federal Wage Certification Letter