## Technical Memorandum

DATE: February 5, 2021
FROM: Sonia Perez, El Paso
TO: Salvador Gonzalez-Ayala

CC: Claudia Valles, Roger Williams
RE: Destino MTP Amendment - Network coding

## Executive Summary

The following are the additions/changes made to the TDM to reflect the MTP 2045 Amendments. Please refer to information in attribute "EDIT_Amend" for description of edits. Also, please refer to Build year and Remove year attribute for information on network year the link is enabled. The link ID numbers listed in the memo correspond to the ID attribute in the shapefile not the FID.

## A) Projects moved from the $\mathbf{2 0 3 0}$ to $\mathbf{2 0 4 0}$ network year:

A1.- Spur 601 Widening (Project ID: P402X-05A, CSJ: 1046-03-004)
Project Description: Widen from 4 to 6 lanes.
Limits: From Airport road to SL 375 (Purple Heart Highway).
Amendment: Project was moved from 2030 to forecast year 2040. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2040.

Coding error was also corrected. Link IDs 9939 and 6202 were updated to FUNCL=5 and number of lanes $=2$ to reflect project as reflected in the schematics provided by TxDOT. In addition, link IDs 6204, 6209 and 9942 were updated to FUNCL=5.
https://cityofelpaso-
my.sharepoint.com/:f:/g/personal/perezsa elpasotexas gov/EocUMI2sXQBJiJ9DO5ctlsoBxWnFEsoQOts YFBil9GeRNA?e=Fx9gWp


A2.- FM 659 Zaragoza Rd/George Dieter Dr. - Segment 2 (ProjectID: P428X-CAP-2, CSJ 1046-01-020)

Project Description: Widen from 4 to 6 lanes including roadway and operational improvements on existing 6 lane segment.
Limits: From IH 10 to SL 375 (Joe Battle BLVD)
Amendment: Project was moved from 2030 to forecast year 2040. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2040.


A3.- FM 659 Zaragoza Rd. widening - Segment 3 (Project ID: P530X-MOD, CSJ 1046-01-022)
Project Description: Widen from 4 to 6 lanes including roadway and operational improvements. Limits: From IH 10 to FM 76 (North Loop DR)
Amendment: Project was moved from 2030 to forecast year 2040. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2040.


A4.- US 62 (Montana) Expressway Ph4 widening (Project ID: F407D-CAP, CSJ:0374-02-102)
Project Description: Widen from 4-lanes undivided to 6-lanes divided and construct overpass Limits: From FM 659 (Zaragoza Rd) to Desert Meadows.
Amendment: Project was moved from 2030 to forecast year 2040. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2040.

Links 10195 and 10196 were added from 2030 and beyond to provide connectivity from mainlane directional links west of Zaragoza to the bi-directional link east of Zaragoza. This project was not detail coded with directional links at the overpass since there is no schematic yet developed for this project to be able to detail code. The number of lanes for links 10195 and 10196 increases from 2 to 3 in 2040 to represent the widening in 2040.


As part of the model update, multiple links were deleted since they were previously coded as part of an old project in Horizon MTP (F404C-CAP) but are no longer needed nor considered in future projects for Destino 2045 Amendment. A total of 59 links were deleted.

|  | 比 Dataview1-ep2045 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - - | ID | Length |  | TAZ\|COUNTY |
|  | - | 8817 | 0.02 | 1 | 826 El Paso TX |
|  | - | 8834 | 0.13 | 1 | 741 El Paso TX |
|  | - | 8860 | 0.33 | 1 | 741 El Paso TX |
|  | - | 8861 | 0.29 | 1 | 741 El Paso TX |
|  | - | 8863 | 0.01 | 1 | 668 El Paso TX |
|  | - | 8864 | 0.37 | 1 | 668 El Paso TX |
|  | - | 8865 | 0.01 | 1 | 741 El Paso TX |
|  | - | 8866 | 0.02 | 1 | 826 El Paso TX |
|  | - | 8867 | 0.01 | 1 | 826 El Paso TX |
|  | - | 8868 | 0.01 | 1 | 668 El Paso TX |
|  | - | 8889 | 0.33 | 1 | 668 El Paso TX |
|  | - | 9658 | 0.02 | 1 | 668 El Paso TX |
|  | - | 9659 | 0.13 | 1 | 741 El Paso TX |
|  | - | 9660 | 0.18 | 1 | 826 El Paso TX |
|  | - | 9661 | 0.42 | 1 | 826 El Paso TX |
|  | - | 9662 | 0.10 | 1 | 741 El Paso TX |
|  | - | 9663 | 0.10 | 1 | 826 El Paso TX |
|  | - | 9665 | 0.06 | 1 | 668 El Paso TX |
|  | - | 9666 | 0.35 | 1 | 826 El Paso TX |
|  | - | 9667 | 0.33 | 1 | 668 El Paso TX |
|  | - | 9668 | 0.04 | 1 | 668 El Paso TX |
|  | - | 9669 | 0.04 | 1 | 826 El Paso TX |
|  | - | 9671 | 0.06 | 1 | 826 El Paso TX |
|  | - | 9673 | 0.04 | 1 | 668 El Paso TX |
|  | - | 9674 | 0.04 | 1 | 826 El Paso TX |


| - | ID | Length |  | TAZ\|COUNTY | LOCAL_STRE |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - | 6570 | 0.01 | 0 | 668 El Paso TX | Rene Dr |
| - | 8869 | 1.15 | 0 | 671 El Paso TX | Rene Dr |
| - | 8870 | 0.23 | 1 | 671 |  |
| - | 8872 | 0.31 | 1 | 672 |  |
| - | 8873 | 0.13 | 1 | 672 |  |
| - | 8874 | 0.31 | 1 | 673 |  |
| - | 8875 | 0.28 | 1 | 673 |  |
| - | 8876 | 0.04 | 1 | 673 |  |
| - | 8877 | 0.05 | 1 | 673 |  |
| - | 8878 | 0.05 | 1 | 748 |  |
| - | 8879 | 0.05 | 1 | 748 |  |
| - | 8880 | 0.58 | 1 | 748 |  |
| - | 8881 | 0.88 | 1 | 748 |  |
| - | 8882 | 0.02 | 0 | 748 El Paso TX | Desert Meadows Rd |
| - | 8884 | 0.05 | 1 | 673 |  |
| - | 8885 | 0.05 | 1 | 748 |  |
| - | 8886 | 0.11 | 1 | 600 |  |
| - | 8887 | 1.02 | 1 | 600 |  |
| - | 8888 | 0.78 | 1 | 671 |  |
| - | 8890 | 0.29 | 0 | 671 | cc |
| - | 8891 | 0.58 | 0 | 672 | cc |
| - | 8892 | 0.94 | 0 | 600 | cc |
| - | 8893 | 0.64 | 0 | 673 | cc |
| - | 8894 | 1.39 | 1 | 600 |  |
| - | 8895 | 0.43 | 1 | 600 |  |
| - | 8897 | 0.88 | 1 | 673 |  |
| - | 8898 | 0.11 | 1 | 672 |  |
| - | 8899 | 0.24 | 1 | 672 |  |
| - | 8900 | 0.24 | 1 | 600 |  |
| - | 8994 | 0.09 | 1 | 826 |  |
| - | 8995 | 0.36 | 0 | 826 El Paso TX | cc |
| - | 9111 | 0.01 | 0 | 826 El Paso TX |  |
|  | 9664 | 1.39 | 1 | 671 |  |
|  | 9670 | 0.08 | 1 | 668 |  |

A5.- Global Reach Dr. reconstruction of existing mainlanes and addition of frontage roads (ProjectID: F405X-CAP CSJ:924-06-532)

Project Description: Reconstruction of existing mainlanes (6 lanes, 3 in each direction) at Global Reach Dr. and addition of frontage roads, construct 4 lane frontage roads ( 2 in each direction), and single lane direct connectors at SS 601 NB to WB and EB to SB.
Limits: From (On Global Reach DR) US 62/180 Montana Ave. to SS 601
Amendment: Project was moved from 2030 to forecast year 2040. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2040.

Updates to centroid connectors were also needed to reflect change in network year.
Links 9788 and 10011 were divided and new links created $(10119,10120)$ as a model update.


A6.- Border Highway East (BHE) - Phase 1(F059X-CAP-1, CSJ 0924-06-591)
Project Description: Build 4 lanes divided highway including 2-lanes direct connectors at SL 375 (WB-WB and EB-EB direction coming in/out of BHE) and connection to Pan American at Winn Road.
Limits: From SL 375 (Americas Avenue) to Nuevo Hueco Tanks Extension.
Amendment: Project was moved from 2030 to forecast year 2040. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2040.

Centroid connector ID 10024 was disabled since is no longer needed due to the network change.
Connection to Pan American was added to reflect TxDOT's concept provided. Link ID 6503. Project description was also changed in project list.

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my.sharepoint.com/:b:/g/personal/perezsa elpasotexas gov/Ec2Tqctt1aNEpKckGWOWJfoBtNgMnlYwqEBfDwJiyPi2w?e=kZiV26


A7.- FM 659 (Zaragoza Road) widening. (P428X-MOD, CSJ 1046-01-021)
Project Description: Widening 4 lanes to 6 lanes divided, to include transitional work from LP 375 to SunfireLimits: From Loop 375 to US 62/180 (Montana Ave.).
Amendment: Project was moved from 2030 to forecast year 2040. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2040.

Updates to links 8868 and 8865 were needed to reflect change in network year.


A8.- Mesa Park extension (A136X-CAP, CSJ 0924-06-590)
Project Description: Build 4 lanes undivided road extension.
Limits: From IH-10 to SH 20 (Doniphan Dr.)
Amendment: Project was moved from 2030 to forecast year 2040. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2040.

B) Projects moved from the $\mathbf{2 0 2 0}$ to $\mathbf{2 0 3 0}$ network year:

B1.- Loop 375 (Purple Heart) Widening and Construction of Frontage Roads. (Project ID: F057X-CAP CSJ: 2552-02-028)

Project Description: Widen 4 to 6 lanes on mainlanes and construct 2 lane frontage roads in each direction.
Limits: From Spur 601 to US 62/180 (Montana Ave)
Amendment: Project was moved from 2020 to forecast year 2030. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2030. The additional lane was coded as a separate inside link in Destino 2045 as an alternative to a potential managed lane. It has been kept as a separate link in the amendment.

Link IDs 9737, 9714, 9730,9719 were moved to 2030 in addition to centroid connectors.


## C) Projects moved from the $\mathbf{2 0 4 0}$ to $\mathbf{2 0 3 0}$ network year:

C1.- Nuevo Hueco Tanks extension- Phase I (Project ID: A527X-CAP-1, CSJ: 0924-06-607)
Project Description: Build 4 lane roadway

Limits: From FM 76 North Loop Dr. to SH 20 - Alameda Avenue
Amendment: Project A527X-CAP was divided into two phases. Phase I was moved from 2040 to forecast year 2030. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2030. The street name was also updated from "Old" Hueco Tanks to "Nuevo" Hueco Tanks.


## C2.- Tierra Este (Arterial 1) (Project ID: P002X-CAP-1 and P002X-CAP-2)

Project Description: Build 6 lane divided with bicycle lanes
Limits: From Pellicano to Cozy Cove.
Amendment: Project was moved from 2040 to forecast year 2030. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2030. Ultimate Project ID P002X-CAP-2 will be coded in the model.


## D) New Phases

Nuevo Hueco Tanks Extension- Phase II (Project ID: A527X-CAP-2, CSJ: 0924-06-607)

Project Description: Build 4 lane roadway
Limits: From SH 20 - Alameda Avenue to Border Highway East (BHE)
Amendment: Project A527X-CAP was divided into two phases (A527X-CAP-1 and A527X-CAP-2). This segment stays in the 2040 network. Only the street name and the Project ID were changed to reflect phase 2 (Links 9898, 9897)


## E) Road Diets

E1.- CBD IV (ProjectID: R307D, CSJ: 0924-06-562)
Campbell St./Kansas St. from Eighth Ave. to Paisano Dr. ( 0.38 miles) Campbell St/Kansas St. will be reduced from 3 to 2 lanes ( 2 -each direction) to accommodate the proposed 2-way cycle track in 2030. Campbell St. and Kansas St. are model as a pair. One segment three lanes in each direction. There are 5 links that will have to be updated from 3 to 2 lanes in 2030. In addition, link ID 732 (from Eight Ave. to Loop 375) will be reduced to 1 lane in each direction in 2020 to code existing conditions. Kansas is now closed to at the Loop 375 and Campbell only has access to the westbound lanes of Loop 375.

For information on the downtown connectivity to Border Highway West MPO used the following schematics:
https://cityofelpaso-my.sharepoint.com/:b:/g/personal/perezsa elpasotexas gov/EQ4HAo iJwZBIQBYpZWqSIBkFUVkwNq2MHY9cOFIdmJRQ?e=fmci7N


E2.- Downtown Bicycle Improvements Phase I (ProjectID: M089A, CSJ: 0924-06-570)
a) Campbell St. from Missouri Ave. to Paisano Dr. ( 0.56 miles)

This segment of Campbell St. will be reduced from 3 to 2 lanes to accommodate the proposed 2way cycle track facility in 2030. Campbell St. and Kansas St. are coded as a pair, one segment with three lanes in each direction. There are 13 links that will have to be updated from 3 to 2 lanes in the northbound direction (LANES_AB).
b) Mills Ave. from Sheldon Ct. to Virginia St. ( 0.5 miles)

This segment of Mills Ave. will be reduced from 3 to 2 lanes (one-lane per each direction) to accommodate the proposed sharrows \& bike lane in year 2030. Mills Ave. is only coded in the model from Sheldon Ct. to Mesa St. The segment from Sheldon Ct. to Oregon St. is coded as a 3-lane one-way street and from Oregon St. to Mesa St. is coded as a bi-directional street oneway each direction.

Network edits: Link ID 970 was divided at Sheldon Ct. to create a new link from node 7127 to 3143 (El Paso St to Oregon St) with DIR=0 and one-lane per each direction. The new link is enabled from years 2030 and beyond. Links 8397 and new link 10067 were disabled from years 2030 and beyond.

## c) Missouri from Mesa St to Campbell. ( 0.19 miles)

This segment of Missouri will be reduced from 3 to 2 lanes to accommodate the proposed 2-way cycle track facility in 2030. The model will be updated to reflect the reduction to 2 lanes.

Link IDs: 932,934,935,8376,8381.
d) San Antonio from Anthony to Virginia. ( 0.84 miles)

The segment of San Antonio Ave. from El Paso St. to Campbell St. will be reduced from existing 3 lanes ( $2 \mathrm{~EB} / 1 \mathrm{WB}$ ) to 2 lanes (one each direction) to accommodate the proposed sharrows and bike lane in 2030.

This segment of San Antonio is modeled as a pair link with Overland St. with-3-lanes each direction. The segment from Pasano Dr. to El Paso St. only needs a change in the local street name to San Antonio/Overland. For the segment from El Paso St. to Magoffin/Myrtle, 13 links will have to be coded as 2 lanes in the westbound direction and 2 lanes in the eastbound direction to represent the lane reduction (road diet).

## e) Magoffin from San Antonio to Virginia:

Magoffin Ave. (EB one-way street) will be reduced from 3 lanes to 2 lanes from San Antonio Ave. to Virginia St. to accommodate a bike facility in 2030. The road is coded as a pair with Myrtle Ave. (WB one-way street). Two links will have to be reduced from 3 to 2 lanes in the Eastbound direction (AB_Lanes). Link ID 996 will have to be divided at Virginia St. to detail code the limits. "Local_Street" also needs to be updated to Magoffin Ave./Myrtle Ave. to identify the correct street pair. New Link ID = 10068 Topology direction is inverted (AB_Lane is westbound direction), therefore for this link the BA_Lanes was coded as 2 lanes. Please see below item F7 for model update coding in 2020 along Myrtle Ave.


E3.- Stanton Two-Way Cycle Track Roadway Improvements. (ProjectID: E303X, CSJ: 0924-06571)

The segment of Stanton St. from San Antonio Ave. to Rio Grande Ave. ( 0.57 miles) will be reduced from 3 to 2 lanes to accommodate the proposed 2-way cycle track in 2030. This segment is currently coded as 3 lanes northbound from San Antonio Ave. to Montana Ave. and 2 lanes NB/ 1 lane SB from Rio Grande Ave. to Montana Ave. as existing. There are 15 links that will have to be reduced from 3 to 2 lanes in the northbound direction (AB_Lanes). And 2 links $(8353,762)$ were reduced to 1 lane on each direction.


## F) Model updates

F1.- SH 178 Artcraft Road Interchange Improvements. (ProjectID: P136X, CSJ: 3592-01-009)
Artcraft (SH178) Interchange is expected to let in 2023 and open to traffic in late 2025. The interchange was detail coded in the 2030 network, including ramp reversal to ramps on I-10 north and south of the interchange as presented in the schematic provided by TxDOT.

## https://cityofelpaso-my.sharepoint.com/:b:/g/personal/perezsa elpasotexas gov/EZCpQAq-HfpOhfAoWwN5-XAB2m4bTZRTfdpJbQK2kIISdg?e=vqxu4I

Four (4) direct connector ramps will be built (SB-WB, EB-NB, EB-SB and NB-WB). The 1-10 Eastbound to SH 178 Westbound ramp is being suggested by TxDOT to be coded as 1-lane and the rest of the ramps as 2-lanes.

The interchange will be detail coded in the model in year 2030. Artcraft/Paseo del Norte segment from 0.28 Miles west of l-10 to Northwestern Dr. is coded as a one bi-directional link. This segment will have to be coded as two directional links to be able to add the direct connectors. Ramps are also proposed to be re-located along Artcraft and $\mathrm{I}-10$.

New links added: 10074, 10075, 10072,10071,10070,10073,10069 (DC-
Ramp),10080,10081,10083,10084,10095,10092,10093,10098,10099,10100,10106.
Links divided: 2924, 2921,2926,707,679,675,707,3258,668,676,7252,681,687,689,1152.
Links 2922 is shown as 4 lanes in the schematic but there are only 3 existing. Adding the lane will require changing the description in the project list. The links were kept as 3 lanes in 2030.

Ramps ID 667,671,672,3261 removed in 2030.

Link IDs: 1057, 2000, 3272, 7253, 7255, 7257 (removed in 2030, update coding to bi-directional)


F2.- IH 10 widening. (ProjectID: I405X-CAP, CSJ: 2121-01-094)
https://cityofelpasomy.sharepoint.com/:f:/g/personal/perezsa elpasotexas gov/EguLO3qU8ypKiDrSRBTftxQBwgY5XQ8Lqt pL3vCHwF6rng?e=4hlvai

Project Description: Widen from 4 to 6 lanes divided
Limits: From FM 1905 (TX/MX Stateline) to SH 20 (Mesa St.)
Amendment: The widening of IH 10 is already coded in the model in network year 2030. The additional lane was coded as a separate inside link in Destino 2045 as an alternative to a potential managed lane. The model update was to detail code the overpass at Los Mochis Dr. (ID=10153) and the ramp reversal as provided in the latest schematics.

Links divided: 254,3258,10104,665,3257,3255,9325,10142,10149,10143,9325,578,
$573,3254,9316,539,10166,10165,573,3254,51,41,43,9321,43,2665,165,10175,1649,351,93,9868,3250$,
91.

F3.- LP 375 @ Spur 601 (Direct Connectors) (ProjectID: P448X-CAP, CSJ: 1046-03-005)
Project Description: Construct 2-lane Northbound to Westbound and 2-lane Eastbound to Southbound direct connectors.
Limits: Spur 601 Liberty Expy at Loop 375 (Purple Heart)
Amendment: Project was moved from 2020 to 2030 network year. The attributes were updated to reflect the change to 2030 network. Operational Improvements. Coded as Model update. Not part of the conformity determination.

Link IDs: 6700, 9726, 9945.

F4.- SL 375 Interchange (at SGT Major) (ProjectID: F409X-MOD CSJ: 2552-02-035)
Project Description: Operational improvements for the intersections of Sargent Major Blvd Limits: 1.0 miles north of SGT Major to 1.0 miles south of SGT Major
Amendment: New project in 2030 network, detail coding of u-turn $(10129,10136)$ at intersection was coded. A model update was needed in 2020 to be able to detail code the u-turns in 2030. Links $10123,10124,10127,10128,10131,10132,10133,10135$ to detail code the intersection.

Divided links: 9387, 9399, 6234, 7485, 9404,7099.


F5.- Mesa Park Dr. (ProjectID: A126X-CAP) Moved to 2030.
Project Description: Build 4 lane divided
Limits: From IH-10 to Mesa Ave.
Amendment: Project was moved from 2020 to forecast year 2030. Roadway attributes (FUNCL, LANES, BuiltYear, ProjectID, etc.) were updated to reflect project in 2030. Project was incorrectly coded in year 2020 in the Destino 2045 TDM.

F6.- Street Car and Bike lanes -Model update (EDIT_Amend= "Street Car")
Project Description: New transit service intended to reduce congestion and CO emissions. Initiated operations in 2019.
Limits: segment of Stanton street is from Rio Grande to Baltimore (Segment that was reduced 1 lane in each direction to accommodate the bike lanes and street car/turn lane).
Amendment: Reduce one lane in each direction in 2020 network.


F7.- Myrtle from Ochoa St. to Cotton (Links: 996,997,1151,8503)
This segment of Myrtle is coded as a pair with Magoffin Ave. There was a reduction of lanes due to angle parking from 3 to 2 lanes. The network was updated to reflect this change in 2020. Please be aware of the link's topology direction since it varies along this segment. In some links it is the $A B$ _Lanes that were updated and other links was the BA_Lanes.

F8.- El Paso St. (EDIT_Amend= "Paseo de las Luces")
El Paso St. North of Paisano Dr. (from node 3153 to 7127) was converted from a one-way three lane street to a bi-directional street one-lane each direction. New links $(10198,101998,10200)$ were created with DIR=0 and one-lane per each direction. These links are enable from years 2020 and beyond. Links 970, 971, 973, 8413, 8559 were disabled from years 2020 and beyond.

Similarly, El Paso St. South of Paisano Dr. Link IDs: 646,651,652, and 8431 were reduced from 3 lanes one-way to 2 lanes one-way in 2020 to reflect existing conditions.

F9.- Winn Rd./Rio del Norte (Links 9109, 9110)
Segment of Rio del Norte from the Zaragoza POE Campus to Winn Rd. was updated to reflect existing 4 lanes (2 lanes in each direction) and the Functional Classification was updated to FUNCL=4 for consistency with Winn Rd. This is a detail coding (update) to a project in the Amended Horizon 2040 MTP for the 2020 network.


F10.- US (Patriot Fwy) Mainlanes (MPO ID: F001B-15A, CSJ: 0167-01-122)
Project Description: Build 4 lane divided Hwy and grade separations
Limits: From Kenworthy St. to FM 2529 (mCcOMBS St)
Amendment: The mainlanes are already coded in the model in network year 2030. The model update was to detail code the ramp reversal as provided in the latest schematics.
https://cityofelpaso-
my.sharepoint.com/:f:/g/personal/perezsa elpasotexas gov/ElmJZT94h1JLtkEZvwi9WtkBdMnCV1qBPB guOnx-I2EPOQ?e=2igzd0

Links divided: 1902,1907,2610,6693,6695,6697,1893,6695,6696,6697
New links: 10205-10225


