

FM 969 CORRIDOR

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APPENDIX G

**FM 969 TRAVEL DEMAND MODEL
TECHNICAL MEMORANDUM**



**TECHNICAL
MEMORANDUM**

Client: **City of Austin**
Project Name: **FM 969 Corridor Study**
Location: **Austin, Texas**
Project Number:
Issue Date: **June 19, 2011**

TO: **City of Austin**

FROM: **URS Team**

SUBJECT: **Task 3.2.4 – FM 969 Travel Demand Model Technical Memorandum**

The purpose of this memo is to describe the travel demand modeling work that URS prepared for the FM 969 Corridor Study Project under Task 3.2.4.

In this modeling work, URS developed an updated CAMPO 2035 Travel Demand Model to project future traffic volumes in the FM 969 corridor. The updated Travel Demand Model (TDM) used an updated demographics and transportation network and included a URS Toll Diversion module to produce traffic assignments for daily, peak and non-peak periods.

The updated demographics include new population and employment data at Traffic Analysis Zone (TAZ) level that was developed by McCann Adams Studio (MAS) in January 2012. MAS proposed different scenarios of the demographics based on various assumptions for land development in the FM 969 influencing area and compared them to the default demographics in the CAMPO 2035 model. Three alternate scenarios were proposed:

- High Trip Table Scenario – where more aggressive land development is assumed.
- Moderate Trip Table Scenario – where moderate aggressive land development is assumed.
- Low Trip Table Scenario – where more conservative land development is assumed.

MAS further met with City of Austin demographers to develop the most realistic scenario of population and employment for the FM 969 TDM work which is considered the moderate trip table scenario.

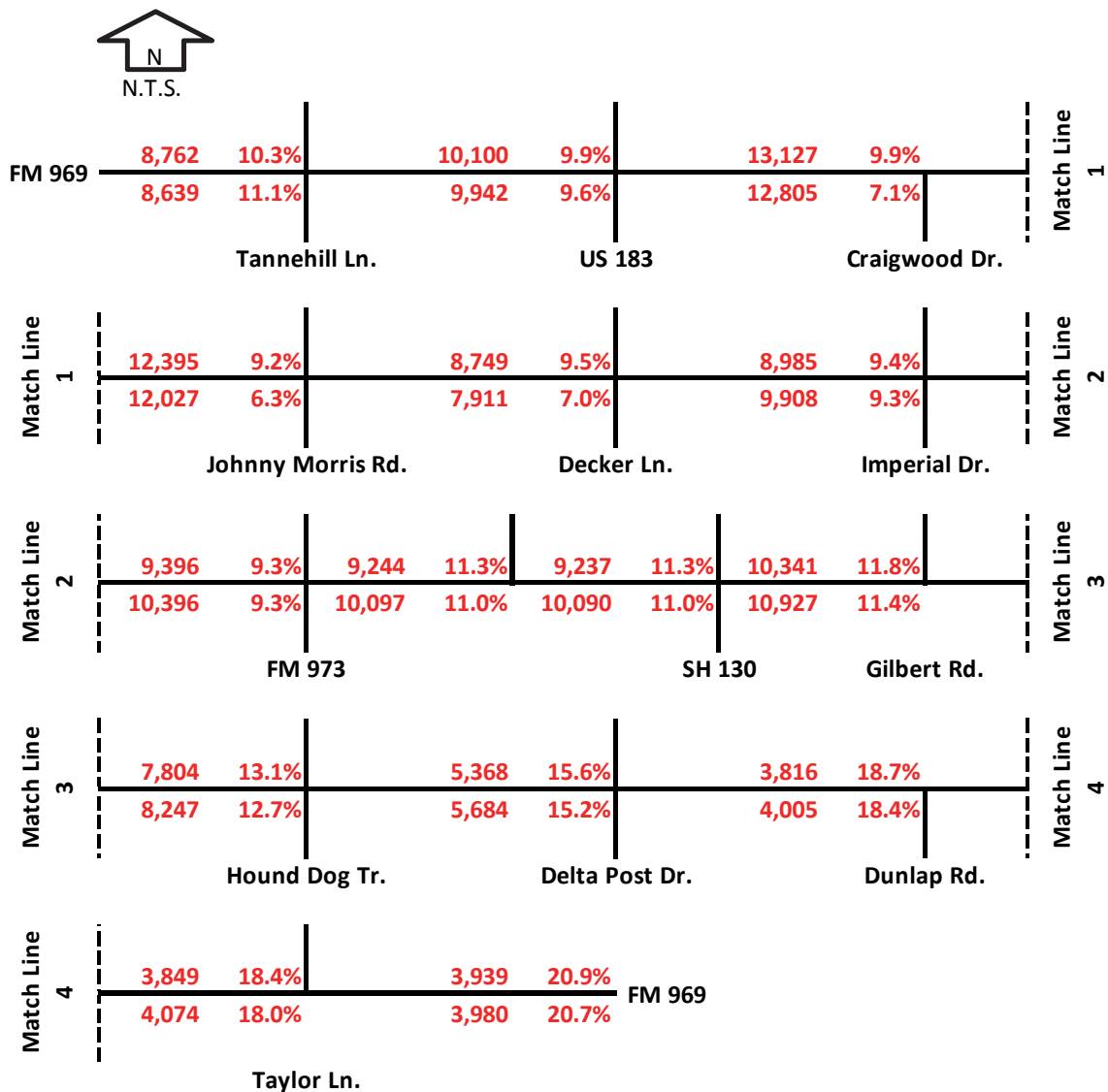
URS further updated the TDM network with existing plus committed (E+C) network improvements for future years. These improvements include all the improvements identified in the CAMPO 2035 Model and also committed projects that URS has collected such as FM 969 pass-through finance project and Gilbert Road extension etc.

URS conducted the model runs with the updated TDM for future year 2015 and 2025 based on discussion with the City of Austin. Traffic conditions were compared between 2015 and 2025 to identify future capacity needs, based on the projected traffic volumes and volume-to-capacity (v/c) ratios.

Figure 1 and **Figure 2** illustrate the modeling results of year 2015 and 2025 model runs, showing the predicted daily volumes with truck percentages on FM 969 corridor. It was observed that the predicted traffic volumes were in general not much higher than the traffic counts collected in 2010. More specifically, the traffic volumes on FM 969 between US 183 and Decker Ln. in year 2025 were even lower than the 2010 AADT counts because of the opening of the tolled facility US 183 S and the competition of Loyola Ln.

Figure 3 and **Figure 4** show the v/c ratios for daily, AM peak period and PM peak periods. It can be seen that while daily v/c ratio is not high in many segments of FM 969, it has approached or exceeded the capacity during the peak periods.

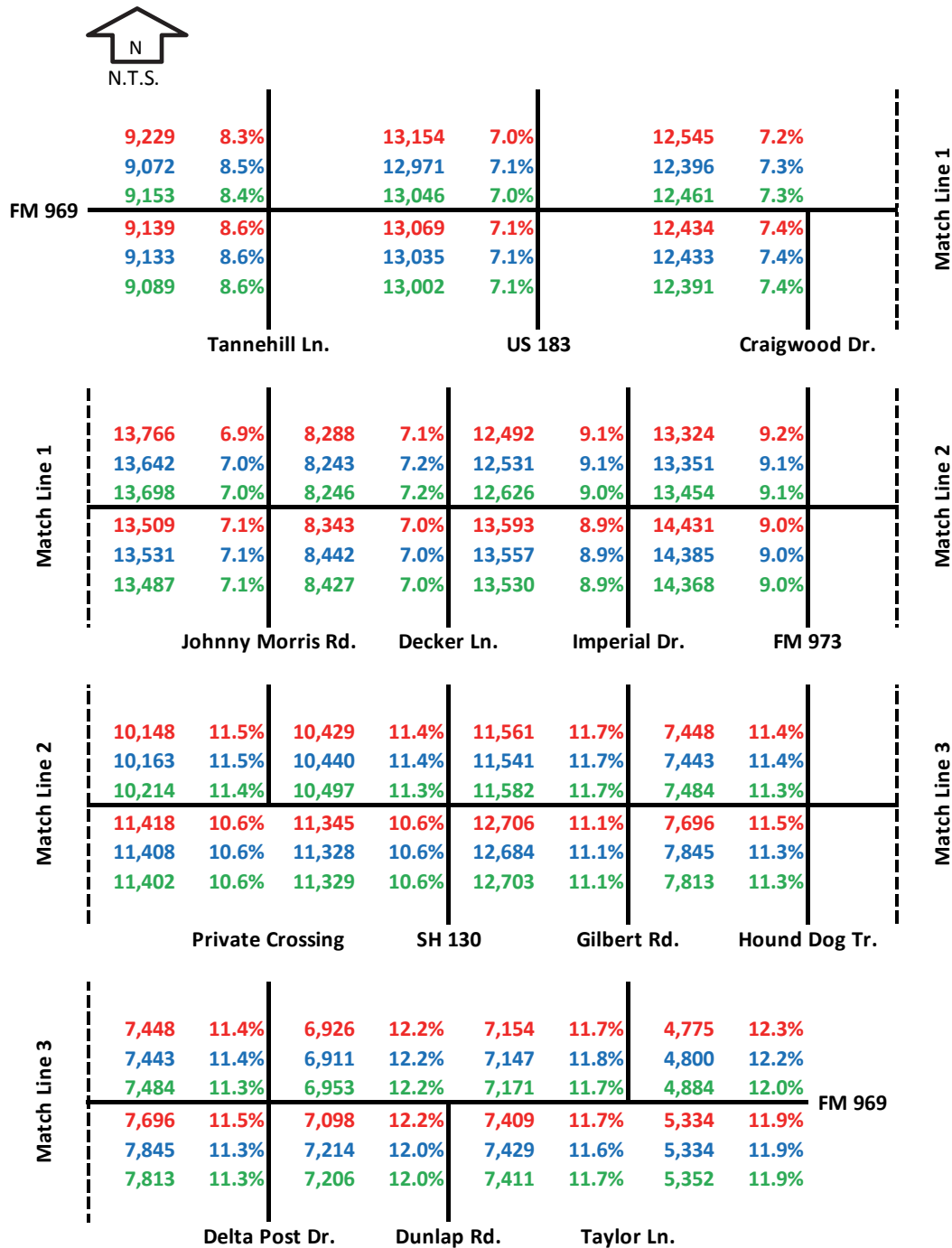
Figure 1 Year 2015 Model Run Results – Daily Volumes and Truck Percentages



Note:

XXX	X.X%	2015 Model Run Daily Volume and Truck Percentage (Uni-Directional)
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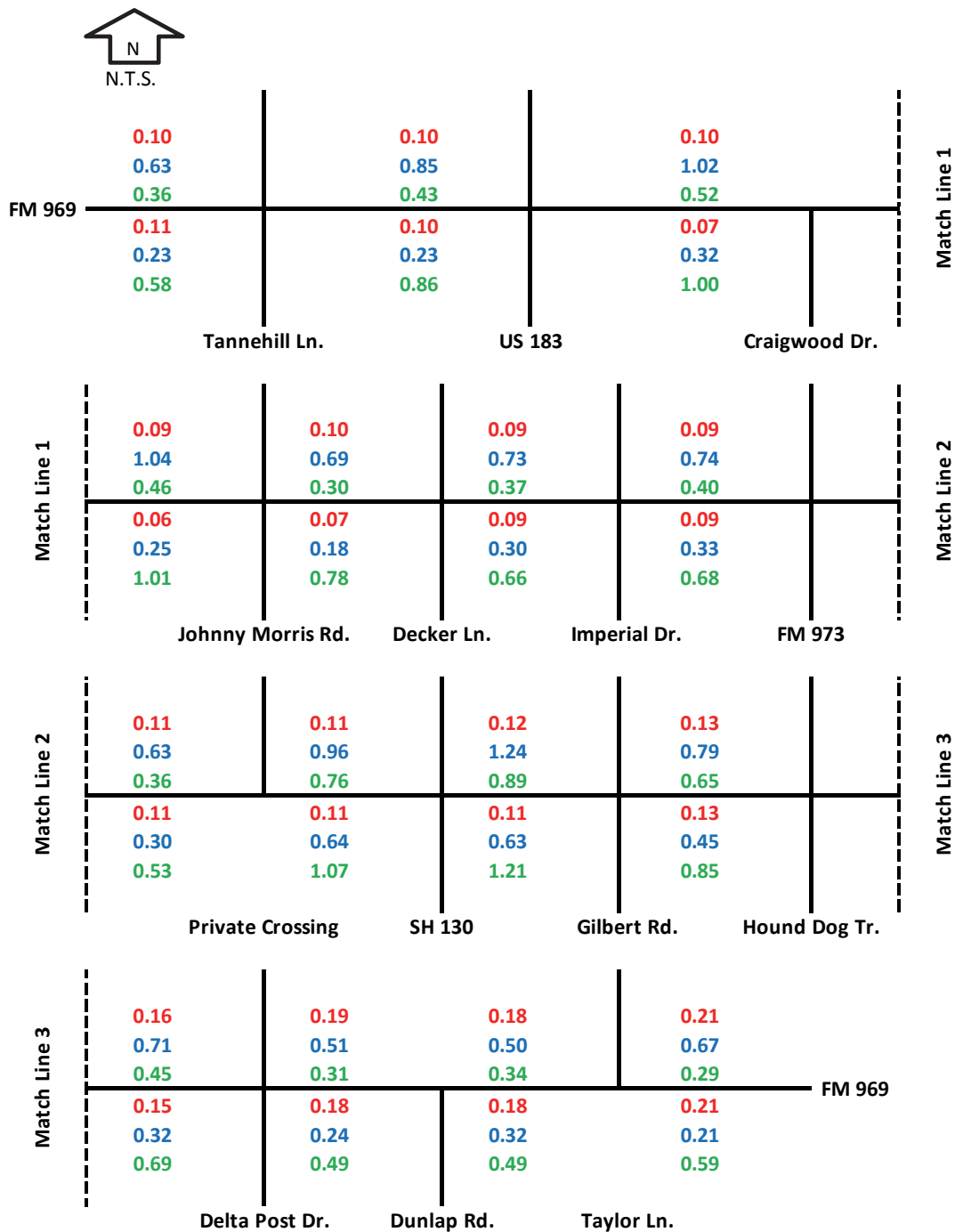
Figure 2 Year 2025 Model Run Results – Daily Volumes and Truck Percentages



Note:

XXX	X.X%	2025 Model Run Daily Volume and Truck Percentage, with High Trip Table Adjustment and Network Adjustment (Uni-Directional)
XXX	X.X%	2025 Model Run Daily Volume and Truck Percentage, with Moderate Trip Table Adjustment and Network Adjustment (Uni-Directional)
XXX	X.X%	2025 Model Run Daily Volume and Truck Percentage, with Low Trip Table Adjustment and Network Adjustment (Uni-Directional)

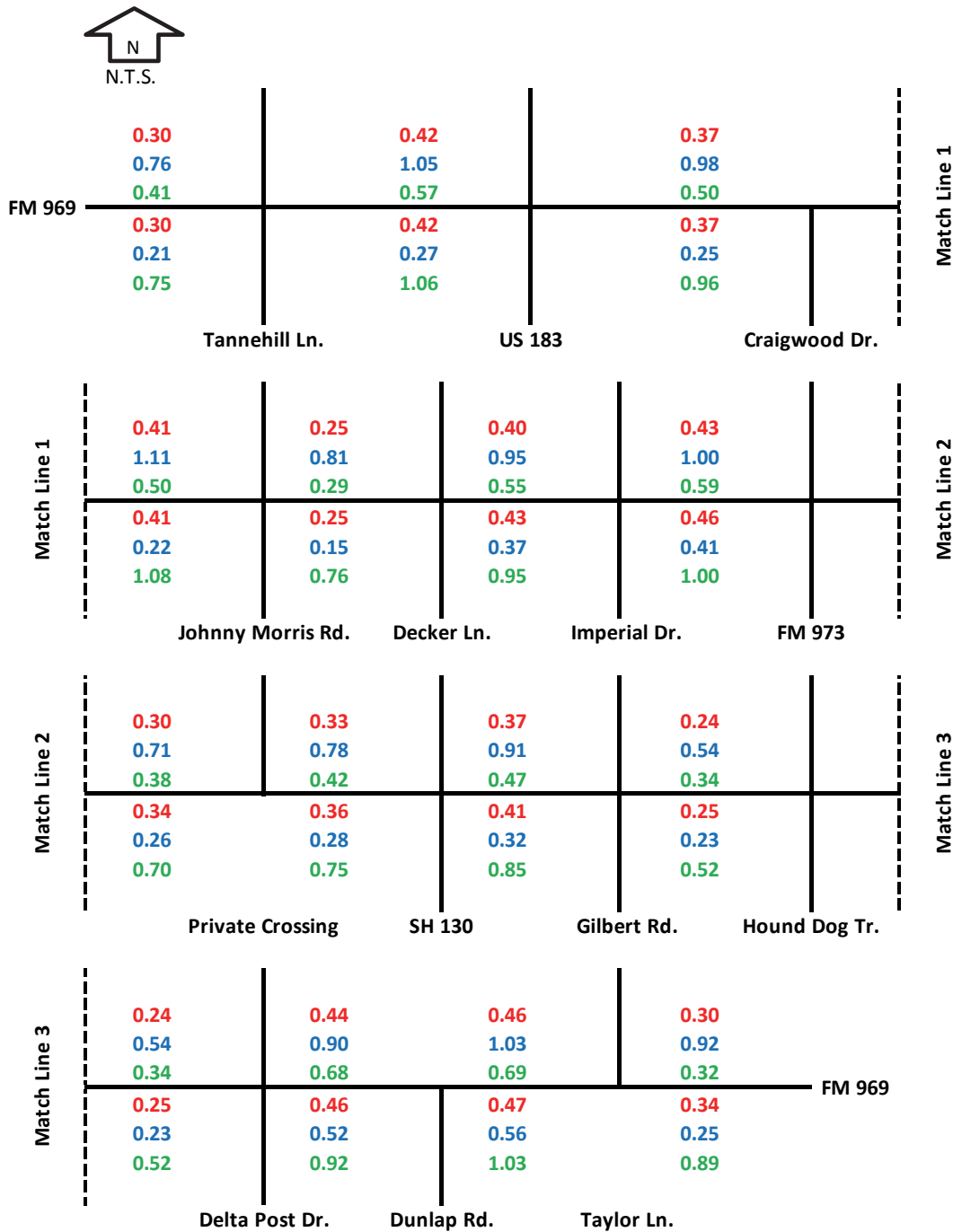
Figure 3 Year 2015 Model Run Results – V/C Ratio



Note:

X.X%	2015 daily volume-to-capacity (v/c) ratio by direction
X.X%	2015 AM Peak Period volume-to-capacity (v/c) ratio by direction
X.X%	2015 PM Peak Period volume-to-capacity (v/c) ratio by direction

Figure 4 Year 2025 Model Run Results – V/C Ratio



Note:

X.X%	2025 daily volume-to-capacity (v/c) ratio by direction
X.X%	2025 AM Peak Period volume-to-capacity (v/c) ratio by direction
X.X%	2025 PM Peak Period volume-to-capacity (v/c) ratio by direction