

2. Introduction

It is necessary for Corpus Christi Metropolitan Planning Organization (CCMPO) to maintain an accurate, up to date regional transportation model in order to conform to State and Federal regulations for air quality and transportation projects. The MPO updates and calibrates its model using current information on the roadway network, area development, and other relevant characteristics. The MPO updates their travel time and speed data periodically.

For this 2010 study, the MPO contracted with Jacobs Engineering Group Inc. (Jacobs) to collect roadway characteristics, field-measured travel time, and speed data for use in calibrating and validating the regional transportation model. The primary purpose of this year's 2010 Travel Speed Study was to expand on the 2006 effort to cover more of the network and to develop a trend for those previously included. Also, the Mid-day peak period was studied on select corridors identified by the MPO for the first time.

Mapping and travel time runs were conducted on arterials and freeways. The breakdown of mileage by peak period is shown below:

- 330 centerline miles AM and PM peak periods
- 65 centerline miles of routes in the Mid-day peak period.

The routes that were studied in 2010 are shown in **Figure 1**.

Apart from this, the 2010 study also included an assessment of relative roughness of the pavements in the study network using the 3D accelerometer method developed by Jacobs.

As part of the 2010 study, the roadway attributes that were collected in the field were Intersection Controls, Speed Limits, School Zones, number of lanes, median type, bike lanes, and construction zones. Travel time runs were performed on the selected routes using GPS equipment which recorded the position and speed of the vehicle every second. Digital video of peak conditions was also recorded as part of the floating car runs apart from 1-second GPS speed information.

Through the methodology developed and the additional data assembled, the data collected in this study has a variety of additional uses. Because the information is all housed in the GIS system, queries can group data by area for use in individual planning processes. The database can be used for background information for signal timing projects, signing and pavement marking projects, school zone issues, and other transportation related projects.

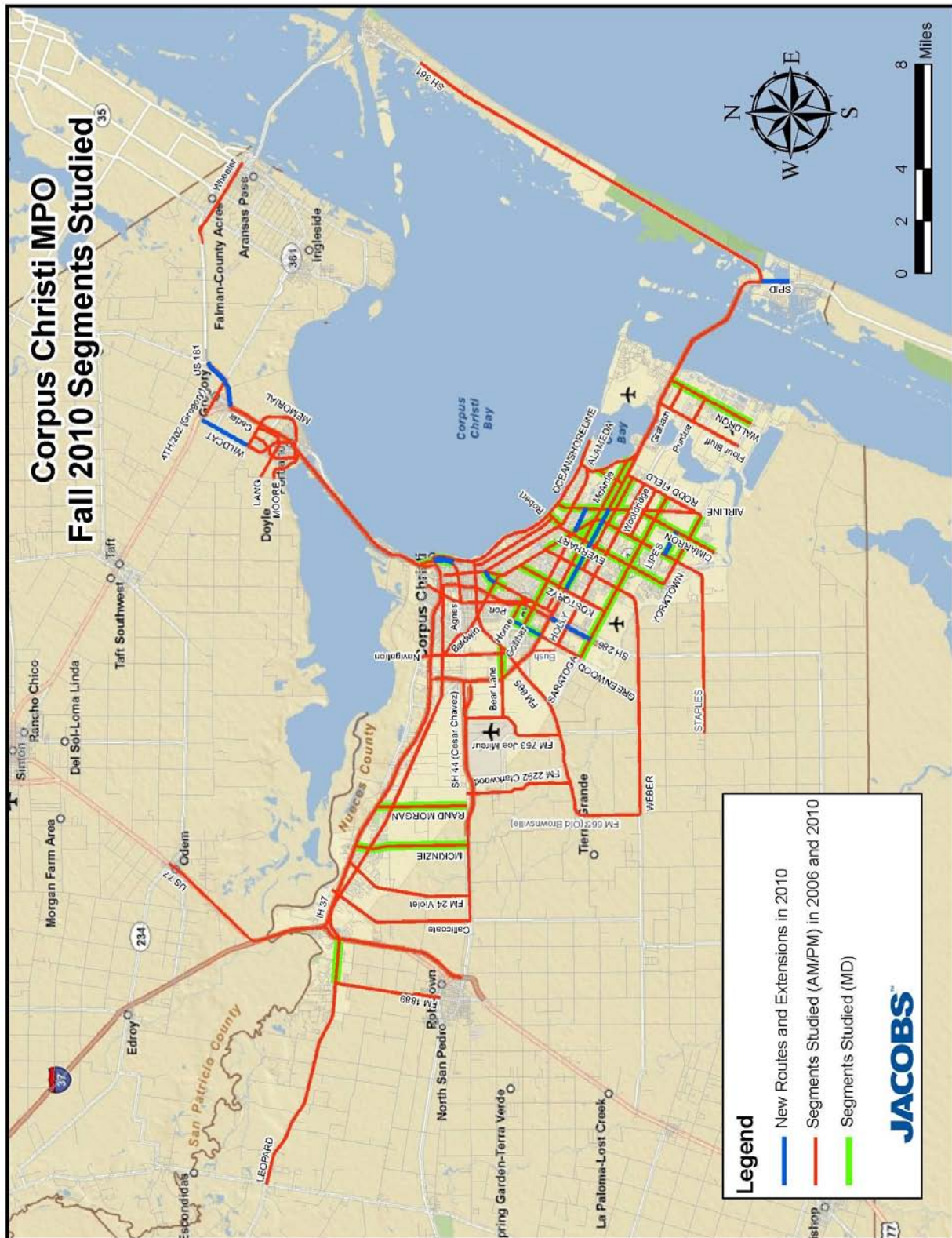


Figure 1 – Fall 2010 Study Limits