

APPENDIX B

METHODOLOGY SUMMARY

**Regional DRI Transportation Study
St. Lucie County**

METHODOLOGY

1. Develop future 2025 traffic volumes using the Treasure Coast FSUTMS
 - Include all currently approved and proposed DRIs in the area (St. Lucie West, LTC Ranch, The Reserve, Westchester DRI, and PGA Village)
 - Include the following projects: Glassman Property and Winterlakes PUD
 - Projects above will be adjusted to generate ITE trip generation by the model
 - Adjustments to the roadway network will be performed as neededThis traffic will be referred to as Total Daily Traffic.
2. Perform select zone to determine traffic assignment for both: Westchester DRI and PGA Village DRI. (PGA Village DRI includes The Reserve as part of its traffic).
3. Determine percentage project assignment on the roadway network for each DRI included in item 2. above.
4. Determine daily project traffic assignment for each of the DRIs included in item 2. above. (For example: 10% assignment of Westchester DRI along a roadway segment will be equal to the daily external trip generation of this DRI times 0.1).
5. Take Total Daily Traffic projected in the year 2025 and subtract daily traffic for PGA Village and Westchester DRIs. The remaining traffic will be referred to as Unadjusted Background Daily Traffic.
6. Determine Adjusted Background Daily Traffic using the factors as follows:

v/c between 0.85 and 1.15

Adjusted background daily traffic = Unadjusted Background Daily Traffic / (v/c)

v/c > 1.15

Adjusted background daily traffic = (Unadjusted Background Daily Traffic - Constant) / 1.15
Constant = v - (c*1.15)

v/c < 0.85

Adjusted background daily traffic = (Unadjusted Background Daily Traffic - Constant) / 0.085
Constant = v - (c*0.85)

Where: v = 1996 projected model volume
c = 1996 count

7. Determine PM Peak Hour Directional Traffic for both PGA Village and Westchester DRI along the roadway network. (For example: 10% assignment of Westchester DRI along a roadway segment will be equal to the PM peak hour external trip generation times 0.1. The directional characteristics will be developed based on the location of the project and its in/out split).
8. Determine roadway links significantly impacted by project traffic for each DRI. Significantly impacted roadway links are those carrying project traffic equal to or greater than five percent (5%) of the adopted service volume.
9. Determine Background PM Peak Hour Directional Traffic using Adjusted Background Daily Traffic and K and D factors developed for the roadways within the study area.
10. Determine Total PM Peak Hour Traffic using Background PM Peak Hour Directional Traffic plus traffic assignment for both PGA Village and Westchester DRIs.
11. Compare Total PM Peak Hour Directional Traffic with existing traffic volumes to validate the study results.
12. Adjust total PM peak hour traffic as necessary.
13. Compare Total PM Peak Hour Directional Traffic with adopted service volumes to determine roadway deficiencies.
14. Determine roadway improvements necessary to maintain the roadway network at the adopted level of service.