

## FLORIDA'S TURNPIKE ENTERPRISE

### Overall

1. **Methodology relating to the incorporation/interpretation of HB 7203 in the project's DRJ analysis was not discussed and a methodology was not approved related to this. A meeting with all reviewing agencies to discuss the appropriate incorporation/interpretation of HB 7203 in the DRI analysis methodology is necessary to revise and finalize the DRI analysis.**

A table has been prepared and is included as Attachment 21-2 to show each component of the traffic forecasts developed for future (2018) traffic conditions.

2. **The final approved methodology should be included in the application appendices for reference.**

The document requested has been included as Appendix 21-1 (R).

3. **Please revise the heading in all tables for the "# of Lanes" column to "Directional # of Lanes" for additional clarification.**

All link analysis tables have been revised, as requested.

### Existing Conditions & Data Collection

4. **The documentation should include an existing lane geometry figure.**

A map showing the number of lanes on the regional significant roadways is included in Appendix 21-2 (R).

### Adjustments

5. **The development and use of K, D and T factors for Turnpike facilities was not reviewed with the FTE prior to their use in the application, as requested in the methodology comments. Since the analysis presented for DRI approval is a planning level analysis, K & D for the 100th hour are recommended.**

K<sub>100</sub> and D<sub>100</sub> factors for segments analysis along HEFT were obtained from the 200 Highest Hour Report published by FDOT in the 2006 Florida Traffic Information DVD for station 9934, HEFT, S of I-75 Interchange. This is the only continuous count station on this facility within the study area. Documentation is provided in Appendix 21-2 (R).

### Planned and Committed Improvements

6. **An interchange at this location is subject to the Department's policies, procedures and guidelines for approval of an interchange. Approval must be given by the FTE and have concurrence from FDOT District 6 and Central Office. In addition, the interchange must be included in local government adopted plans.**

The Applicant is aware that the interchange approval must follow the customary process used by the State of Florida for this purpose.

- 7. An interchange at NW 170<sup>th</sup> Street is not in the Turnpike's Cost Feasible Plan and as such, there is no approved Joint Participation Agreement (JPA). Therefore, the design of a potential interchange has not been developed. Selection of interchange configuration is determined considering many factors as part of a PD&E and design process. Interchange funding, the availability of right-of-way and access impacts would also be considered. For the purposes of this analysis, it is recommended that the applicant conservatively present and analyze a standard diamond configuration.**

A diamond configuration was used in the analysis with full access to and from the east and to and from the north and the south.

- 8. The analysis assumes that NW 107<sup>th</sup> Avenue from NW 166<sup>th</sup> Street to NW 138<sup>th</sup> Street will be two-lane divided roadway for capacity calculations. Please specify in the description of developer improvements that this roadway will be constructed consistent with this cross-section.**

This improvement is identified as a project related improvement in the text of Question 21, and in Table 21-6 (R). The road will be a 2 lane facility as reflected in the analysis.

### **Committed Development**

- 9. Please clarify why only ½ of the committed development traffic for the East Miramar Areawide DRI is incorporated. The determination of inclusion of committed development trips should be based upon traffic impacts from an approved project on the segments determined to be in your project's significant impact area/study area, not on the location of the project.**

Project traffic is not significant in any of the segments analyzed north of the Miami-Dade/Broward Countyline. Although the preliminary study area for this Project extends to Miramar Parkway to the north, the northern limit of the final study area once consumption is established should not extend into Broward County. However, the analysis is included in the ADA, and it includes committed developments within the preliminary study area. The majority of the East Miramar Area-wide DRI is located north of Miramar Parkway. Therefore, half of the trips generated were assumed to be generated within the preliminary study area. Notwithstanding this, the revised study does include all trips for this Development.

### **Project Traffic**

- 10. The development of trip diversions from the model information is not clear. Please provide a detailed presentation of the methodology and application for review.**

Documentation on how the diversions were established has been provided in Appendix 21-5 (R).

### **Trip Distribution and Assignment**

11. **Please provide maps showing the project assignment percentages used for both scenarios with and without (for sensitivity analysis) a proposed interchange at NW 170<sup>th</sup> Street.**

The maps are provided as Attachment 21-6.

12. **The Turnpike version of the Miami-Dade Model was project validated by using time penalties at the US 27 ramps to obtain more accurate volume/count ratios in the validation year. It is customary for all future year models to have the same validation adjustments as the base year; therefore, all future year models incorporate time penalties at US 27. Since NW 170<sup>th</sup> Street will serve the same local area as US 27, a new interchange at NW 170<sup>th</sup> Street should have the same time penalties as US 27. Not using time penalties at NW 170<sup>th</sup> Street will overestimate traffic volumes using the interchange as it would appear to be more desirable than US 27. Please modify the TCARDS file as follows to include the following time penalties at NW 170<sup>th</sup> Street:**

T 2645 2706 2306 300  
T 2716 2805 2866 350  
T 2403 2406 2407 150  
T 2310 2387 2400 50

The model was run to incorporate the suggested adjustments. The analysis was revised to reflect the updated results. Updated model printouts are included in Appendix 21-11 (R).

### **Intersection and Ramp Analysis**

13. **The applicant presents truck data for a comparable development. However, the analysis has utilized standard defaults. Additionally, the applicant has not provided and used specific truck information for the HEFT.**

Truck data obtained at a similar development was used to obtain a vehicle equivalency ratio using equation 21-4 of the Highway Capacity Manual (HCM). The trip generation for the warehouse component of the Project was then adjusted using this factor. The resultant adjustment for trucks is shown at the bottom of Table 21-4 (R).

As requested, volumes for all FIHS roads were adjusted to reflect the actual truck factors. Attachment 21-6 shows the calculation of the heavy vehicle adjustment factors used. Actual T factors were obtained from the 2006 FDOT Traffic Information disk for each roadway. Input value assumptions were obtained for each road (by type) from the FDOT's LOS Handbook by road category. An adjustment factor was obtained using HCM Equation 21-4 for the difference between the actual and the default value, which is already accounted for in the generalized service volumes. The roadway volumes were adjusted to account for the additional truck traffic on these roads.

14. **Table 21-9 - Intersection and Ramp Analysis Results and the text are not consistent in describing the scenarios of improvement needs. The table identifies ramp merge/diverge failures for the I-75 southbound to HEFT southbound diverge and the I-75 eastbound to SR 826 southbound merge. These failures do not occur without the project. The text does not describe them similarly.**

Table 21-9 (R) has been revised to reflect the results in the Appendix.

### **Other Modes of Transportation**

- 15. Please include the project location on Exhibit 21-5, Existing Transit Routes.**

Exhibit 21-5 (R) has been revised as requested.

### **Proportionate Share Calculations**

- 16. The applicant has not included proportionate share calculations in the application.**

Proportionate share calculations are typically provided once **Question 21 - Transportation** is found sufficient.

### **Appendices**

#### **Appendix 21-7 - Alternative HEFT Analysis**

- 17. The volumes on the HEFT segments between I-75 and Okeechobee Road/US 27 should not change, since no interchange is assumed for this analysis.**

For the alternative analysis provided, an interchange at NW 170 Street with HEFT was assumed. The projected volumes on HEFT change north and south of the interchange. Appendix 21-14 (R), Sensitivity Analysis, shows the interim phase without an interchange. Note that for the scenario in Appendix 21-14 (R), volumes on HEFT remain the same north and south of NW 170<sup>th</sup> Street.

- 18. What is the purpose/intent of this analysis?**

To show that traditional methods overestimate the lane requirement on HEFT compared to what is forecasted by the model.