## 21. TRANSPORTATION

## Background

Beacon Countyline DRI is a proposed commercial mixed-use development that is expected to energize a largely underutilized area of the City of Hialeah. The Project seeks to redevelop a former construction and demolition landfill area into warehouse, office, retail and hotel uses. The Property consists of approximately 496 acres located east of the Homestead Extension of the Florida Turnpike (HEFT) and west of I-75 within the City of Hialeah. The Site is bounded on the north by NW 170 Street; on the east by NW 97 Avenue; on the south by NW 154 Street; and, on the west by NW 107 Avenue (see Exhibit 21-1, Project Location).

The Project will be developed over a 10 year period, anticipating two years of site preparation and eight years of construction. Buildout is anticipated to occur 10 years after the issuance of a Development Order, or the year 2018. The proposed development program is shown below.

Beacon Countyline DRI
Proposed Development Program

| Beacon Countyline DRI <br> Proposed Development Program |  |  |  |
| :---: | :---: | :---: | :---: |
| Land Use | Intensity | Acres |  |
| Warehouse | $4,300,000$ Square Feet | 270 |  |
| Retail | 750,000 Square Feet | 58 |  |
| Office | 350,000 Square Feet | 51 |  |
| Hotel | 350 Rooms | 8 |  |
| City Park \& Municipal Center <br> (Includes Police \& Fire Facilities) | - | 60 |  |
| Source: The Curtis Group |  |  |  |

This section of the Application for Development Approval (ADA) analyzes and discusses existing and future traffic conditions including programmed roadway improvements, background traffic growth, traffic generated by other developments in the area, and Project traffic.
A. Using Map J or a table as a base, indicate existing conditions on the highway network within the study area (as previously defined on Map J), including AADT, peak-hour trips, directional traffic split, levels of service and maximum service volumes for the adopted level of service (LOS). Identify the assumptions used in this analysis, including " $K$ " factor, directional " $D$ " factor, facility type, number of lanes and existing signal locations. (If levels of service are based on some methodology other than the most recent procedures of the Transportation Research Board and FDOT, this should be agreed upon at the pre-application conference stage.) Identify the adopted LOS

standards of the FDOT, appropriate regional planning council, and local government for roadways within the identified study area. Identify what improvements or new facilities within this study area are planned, programmed, or committed for improvement. Attach appropriate excerpts from published capital improvements plans, budgets and programs showing schedules and types of work and letters from the appropriate agencies stating the current status of the planned, programmed and committed improvements.

The traffic impact area (see Map J, Traffic Impact Area, in Question 9 - Maps) was defined during the methodology discussions at the projects Pre-Application Conference in consultation with the South Florida Regional Planning Council and other review agencies. For ease of review, the approved methodology is included in Appendix 21-1(R), Approved Methodology. The traffic analysis study area was initially defined as Miramar Parkway to the north, NW 74 Street to the south, NW 57 Avenue (Red Road) to the east, and theoretical NW 157 Avenue to the west. It was also agreed during methodology discussions that the ultimately boundaries of the final study area, as well as the segments to be analyzed, will be established by determining which links are significantly impacted] by Project traffic. According to DRI rules, significant impact is measured as development traffic volumes consuming $5 \%$ or more of the roadway's peak hour service volume (as described in the corresponding section). The preliminary study area would be extended if significant consumption is established beyond the proposed initial limits. Project consumption for all the regionally significant roadways in the study area has been determined based on the analysis described in subsequent sections. The preliminary study area was found adequate.

Comprehensive Plans for the local municipalities in the study area were reviewed to establish the analysis period for roadways within their boundaries. PM peak period average annual traffic conditions (the average of the two highest consecutive hours of traffic volume during a weekday) were analyzed for existing conditions on all roadways within the MiamiDade County and municipalities in the study area. The analysis reflects PM peak hour $100^{\text {th }}$ highest hour conditions on all FIHS roadways, consistent with Florida Department of Transportation (FDOT) standards for these facilities. For traffic impact purposes, the year 2007 was considered existing conditions. It was agreed at the Pre-Application Conference that only PM peak period (peak hour on FIHS roads) traffic volumes would be reported and analyzed. However, as requested in the questionnaire, Annual Average Daily Traffic (AADT) volumes are shown where available (for reference purposes only) in Exhibit 21-2 (R), 2006 Annual Average Daily Traffic, for regionally significant roadways in the study area. These are the latest available counts from FDOT at this time. They were updated to 2007 conditions using the background growth rates listed in Section D of this report.

Service volumes for regionally significant roadways were obtained from the Generalized Service Volumes Tables published in FDOT's 2002 Quality/Level of Service Handbook and the supplemental Level of Service Issues - 2002 QLOS Handbook Addendum-May 17 2007.

Traffic data for the regionally significant roadways in the study area were obtained from several sources. Existing traffic counts were obtained from the Miami-Dade County Public


Works Traffic Engineering Section, the latest available counts from Broward County, Florida Department of Transportation (FDOT) 2006 traffic count volume data, and, where necessary, 24-hour machine counts and/or peak hour intersection turning movement counts secured by David Plummer and Associates.

Counts taken in 2006 were adjusted to 2007 conditions using the area background traffic growth rate. Daily traffic counts were converted to directional peak period counts by applying " $K$ " and " $D$ " factors published in the Miami-Dade County, Broward County or FDOT data bases. K and D factors used on all FIHS roads were checked against the FDOT's minimums. All traffic counts and factors used to establish existing traffic conditions are included in Appendix 21-2 (R), Traffic Counts and Factors.

Table 21-1 (R), Existing Traffic Conditions, shows the number of lanes, traffic volumes, service volumes, existing volume to service volume ratios and the applicable LOS standard for each regionally significant roadway that was analyzed. Exhibit 21-3 - Existing (2006) Traffic Volumes graphically portrays the traffic volume used in the analysis reflected in Table 21-1. HCS+ freeway analysis was performed for the portion of I-75 between NW 138 Street and SR 826. This facility operates as a 10 lane facility, with lanes to and from the ramps at the interchanges on either side extending through the length of the segment. However, since 2 of these lanes can be considered auxiliary, HCS+ was run with for this segment to determine the adequacy of 8 lanes. Worksheets are included in Appendix 213(R), HCS+ Analysis. The analysis shows that this segment of I-75 will meet the adopted LOS standard for existing as well as for future conditions with and without the project.

A column is also included in Table 21-1 (R), Existing Traffic Conditions showing roadways that are currently backlogged. The Florida Legislature enacted House Bill 7203, effective July 1, 2007, to ensure that Developments of Regional Impact should mitigate its impacts on the transportation network, but that it should not be responsible for the additional cost of reducing or eliminating backlogs. Backlogs can be interpreted in two ways: as roadways not meeting the applicable level of service standard at the Project's buildout year prior to the addition of Project traffic (including other growth and approved projects); or, as roadways currently not meeting the adopted level of service standards.

Presently, the following roadway improvements are needed to meet the adopted level of service standards in the area based on the existing traffic demands:

- SR 826 - Palmetto Expressway, between Red Road (NW 57 Avenue) and NW 67 Avenue; 8 lanes are currently needed;
- SR 826 - Palmetto Expressway, between NW 67 avenue and NW 122 Street, 10 lanes are currently needed;
- SR 826 - Palmetto Expressway, between NW 122 Street and NW 74 Street, 12 lanes are currently needed;
- I-75 between Miramar Parkway and NW 138 Street, 10 lanes are currently needed;
- The Homestead Extension of the Florida Turnpike (HEFT), between I-75 and NW 74 Street, 8 lanes are currently needed;

| TABLE 21-1 ( R ) <br> Existing Traffic Conditions (weekday, one-way, PM peak) <br> Beacon Countyline DRI |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Roadway | Limits |  | $\left\|\begin{array}{c} \text { Directi } \\ \text { on } \end{array}\right\|$ | Directional \# of Lanes | Roadway Type | Municipality | $\begin{aligned} & \text { LOS } \\ & \text { STD } \end{aligned}$ | Volume (2007) | Service Volume | VISV | $\begin{gathered} \text { Meets } \\ \text { LOS } \\ \text { STD? } \\ \hline \end{gathered}$ | Backlogged Facility? (1) |
|  | From | To |  |  |  |  |  |  |  |  |  |  |
| Palmetto Expressway (SR 826) | Red Road/NW 57 Av | NW 67 Av/Ludlam Rd | EB | 3 LD | FIHS | Miami Lakes | D | 7,053 | 5,410 | 1.30 | No | Yes Yes |
|  |  |  | WB | 3 LD |  |  |  | 5,486 | 5,410 | 1.01 | No |  |
|  | NW 67 Av/Ludlam Rd | Miami Lakes Drive | NEB | 3 LD | FIHS | Miami Lakes | D | 7,791 | 5,410 | 1.44 | No | Yes |
|  |  |  | SWB | 3 LD |  |  |  | 6,060 | 5,410 | 1.12 | No | Yes |
|  | Miami Lakes Drive | I-75 | NB | 3 LD | FIHS | Miami Lakes | D | 7,791 | 5,410 | 1.44 | No | Yes |
|  |  |  | SB | 3 LD |  |  |  | 6,060 | 5,410 | 1.12 | No | Yes |
|  | 1-75 | W 68 St/NW 122 Street | NB | 4 LD | FIHS | Hialeah | D | 9,040 | 7,380 | 1.22 | No | Yes |
|  |  |  | SB | 4 LD |  |  |  | 7,031 | 7,380 | 0.95 | Yes | No |
|  | W 68 St/NW 122 Street | W 49 Street/NW 103 St | NB | 4 LD | FIHS | Hialeah | D | 9,443 | 7,380 | 1.28 | No | Yes |
|  |  |  | SB | 4 LD |  |  |  | 7,344 | 7,380 | 1.00 | Yes | No |
|  | W 49 Street/NW 103 St | Okeechobee Rd/US 27 | NB | 5 LD | FIHS | Hialeah/Hialeah Gardens Medley | D | 9,817 | 9,340 | 1.05 | No | Yes |
|  |  |  | SB | 5 LD |  |  |  | 7,635 | 9,340 | 0.82 | Yes | No |
|  | Okeechobee Rd/US 27 | NW 74 Street | NB | 5 LD | FIHS |  | D | 10,278 | 9,340 | 1.10 | No | Yes |
|  |  |  | SB | 5 LD |  |  |  | 7,994 | 9,340 | 0.86 | Yes | No |
| NW 87 Avenue / West 28 Avenue | Miami Gardens Drive | NW 170 Street | NB | 1 L (no LT lanes) | Collector | Miami-Dade | D | 288 | 608 | 0.47 | Yes | No |
|  |  |  | SB | 1 L (no LT lanes) |  |  |  | 448 | 608 | 0.74 | Yes | No |
|  | NW 170 Street | Miami Lakes Drive | NB | NA | NA | Miami Lakes | NA | 0 | NA | NA | NA | NA |
|  |  |  | SB | NA |  |  |  | 0 | NA | NA | NA | NA |
|  | Miami Lakes Drive | 1-75 | NB | 2 LD | Collector | Miami Lakes | D | 1,108 | 1,620 | 0.68 | Yes | No |
|  |  |  | SB | 2 LD |  |  |  | 848 | 1,620 | 0.52 | Yes | No |
| 1-75 | Miramar Parkway | HEFT | NB | 4 LD | FIHS | Miramar | D | 8,441 | 7,480 | 1.13 | No | Yes |
|  |  |  | SB | 4 LD |  |  |  | 7,039 | 7,480 | 0.94 | Yes | No |
|  | HEFT | NW 186 Street | NB | 4 LD | FIHS | Miami-Dade | D | 7,587 | 7,380 | 1.03 | No | Yes |
|  |  |  | SB | 4 LD |  |  |  | 6,326 | 7,380 | 0.86 | Yes | No |
|  | NW 186 Street | NW 138 Street | NB | 4 LD | FIHS | Miami Lakes/Hialeah | D | 7,587 | 7,380 | 1.03 | No | Yes |
|  |  |  | SB | 4 LD |  |  |  | 6,326 | 7,380 | 0.86 | Yes | No |
|  | NW 138 Street | SR 826 | EB | 4 LD | FIHS | Miami Lakes/Hialeah | D | 5,053 | NA (2) | NA (2) | Yes (2) | No (2) |
|  |  |  | WB | 4 LD |  |  |  | 6,059 | NA (2) | NA (2) | Yes (2) | No (2) |
| NW 97 Avenue | NW 170 Street | NW 154 Street | NB | NA | NA | Hialeah | NA | 0 | NA | NA | NA | NA |
|  |  |  | SB | NA |  |  |  | 0 | NA | NA | NA | NA |
|  | NW 154 Street | NW 138 Street | NB | NA | NA | Hialeah | NA | 0 | NA | NA | NA | NA |
|  |  |  | SB | NA |  |  |  | 0 | NA | NA | NA | NA |
|  | NW 138 Street | W 68 Street | NB | 1 L | Collector | Hialeah/Hialeah Gardens | D | 232 | 760 | 0.31 | Yes | No |
|  |  |  | SB | 1 L |  |  |  | 136 | 760 | 0.18 | Yes | No |
| NW 107 Avenue | NW 166 Street | NW 162 Street | NB | NA | NA | Hialeah/Hialeah Gardens | NA | 0 | NA | NA | NA | NA |
|  |  |  | SB | NA |  |  |  | 0 | NA | NA | NA | NA |
|  | NW 162 Street | NW 154 Street | NB | NA | NA | Hialeah/Hialeah Gardens | NA | 0 | NA | NA | NA | NA |
|  |  |  | SB | 1LU |  |  |  | 0 | NA | NA | NA | NA |
|  | NW 154 Street | NW 138 Street | NB | 1LU | Collector | Hialeah/Hialeah Gardens | D | 120 | 608 | 0.20 | Yes | NA |
|  |  |  | SB | NA |  |  |  | 117 | 608 | 0.19 | Yes | NA |
|  | NW 138 Street | Okeechobee Rd/US 27 | NB | 2 LD | Collector | Hialeah Gardens | D | 456 | 1,620 | 0.28 | Yes | No |
|  |  |  | SB | 2 LD |  |  |  | 337 | 1,620 | 0.21 | Yes | No |
| HEFT | NW 57 Av (Red Road) | 1-75 | NB | 2 LD | FIHS | Miramar | D | 3,163 | 3,580 | 0.88 | Yes | No |
|  |  |  | SB | 2 LD |  |  |  | 2,178 | 3,580 | 0.61 | Yes | No |
|  | 1-75 | NW 170 Street | NB | 3 LD | FIHS | Miami-Dade | D | 5,713 | 5,530 | 1.03 | No | Yes |
|  |  |  | SB | 3 LD |  |  |  | 3,934 | 5,530 | 0.71 | Yes | No |
|  | NW 170 Street Okeechobee Rd/US 27 | Okeechobee Rd/US 27 | NB | 3 LD | FIHS | MiamiDade/Hialeah | D | 5,713 | 5,530 | 1.03 | No | Yes |
|  |  |  | SB | 3 LD |  |  |  | 3,934 | 5,530 | 0.71 | Yes | No |
|  |  | NW 106 Street | NB | 3 LD | FIHS | MiamiDade/Medley Miami-Dade | D | 6,064 | 5,530 | 1.10 | No | Yes |
|  |  |  | SB | 3 LD |  |  |  | 4,176 | 5,530 | 0.76 | Yes | No |
|  | NW 106 Street | NW 74 Street | NB | 3 LD | FIHS |  | D | 6,555 | 5,530 | 1.19 | No | Yes |
|  |  |  | SB | 3 LD |  |  |  | 4,514 | 5,530 | 0.82 | Yes | No |
| Notes: |  |  |  |  |  |  |  |  |  |  |  |  |
| (1) HB 7203, passed by the Florida Legislature in 2007, has established that DRIs are responsible to mitigate its impacts on the transportation system but are not responsible for the additional cost of reducing or eliminating backlogs. The improvements listed in these columns are the improvements necesary for existing conditions to meet adopted level of service standards in the study area. <br> (2) See HCS+ analysis provided in Appendix 21-3. |  |  |  |  |  |  |  |  |  |  |  |  |
| Revised July 2008 Source: David Plummer and Associates, Inc. |  |  |  |  |  |  |  |  |  |  |  |  |




Source: David Plummer \& Associates

Miami Gardens Drive (NW 186 Street) between I-75 and NW 87 Avenue, 6 lanes are currently needed; and,

- NW 138 Street, between NW 97 Avenue and Beacon Station Boulevard, 4 lanes are currently needed. However, 6 lanes are programmed for improvement in the MiamiDade County TIP.

As agreed upon at the Pre-Application Conference, intersection capacity analyses was performed where the adjacent link is projected to operate below the adopted level of service standard and Project traffic consumption is five percent or more of the adopted LOS standard Service Volume. The following intersections meet the above referenced guideline:

- NW 170 Street / NW 87 Avenue;
- NW 170 Street / NW 78 Avenue;
- NW 87 Avenue / NW 122 Street (W 68 Street), and
- NW 97 Avenue / NW 122 Street (W 68 Street).

Currently, these intersections operate within the adopted level of service standards.
In addition, since the exact location of all proposed Project driveways have not yet been determined, the following intersections will be analyzed for future traffic conditions. These will serve as the principal Project access points to and from the external roadway network:

- NW 107 Avenue / NW 162 Street,
- NW 97 Avenue / NW 170 Street,
- NW 97 Avenue / NW 162 Street, and
- NW 102 Avenue / NW 170 Street.

At the request of the Florida Turnpike Enterprise, the at-grade intersections of the proposed HEFT/ NW 170 Street interchange were analyzed. Although the configuration of the interchange has not been formally determined at this time, full access (all movements) to the HEFT interchange is anticipated. The assumed configuration is shown in Exhibit 21-4 (R), NW 170 Street Interchange Configuration.

It was also agreed during methodology discussions that ramp analyses (ramp roadway analysis, as well as merge/diverge analysis) would be performed for ramps where the Project traffic is projected to reach or exceed 200 vph , consistent with FDOT guidelines. The assignment of Project traffic on all ramps, including the l-75/Miramar Parkway interchange, was checked to identify the ramps that meets this criteria. The following ramps were analyzed:

- HEFT/I-75,
- I-75 / NW 138 Street Ramps to/from the east, and,
- I-75 / SR 826 to/from the south.


Exhibit 21-4 (R)

AM Peak hour analyses were performed in the reverse direction for the impacted ramps.
Weaving, as defined in the Highway Capacity Manual, is created when a merge area is closely followed by a diverge area or when an on-ramp is closely followed by an off ramp and the two are joined by an auxiliary lane. Based on the above definition, weaving analysis is not applicable at the junction of HEFT and I-75, since the on and off ramps are not placed in close proximity and are not connected by an auxiliary lane. HCM recommends that each merge/diverge movement be considered separately using the ramp terminal (merge/diverge) methodology, as performed above.

Based on the analysis performed, the following ramp improvements are needed for existing conditions to meet the adopted level of service standards:

- HEFT south-west bound to I-75 southbound ramp, add southbound ramp lane.
- I-75 eastbound to SR 826 southbound ramp, add 1 ramp lane at diverge area;
- I-75 eastbound to Palmetto Expressway (SR 826) southbound, add a mainline thru lane (SR 826) at merge area.

Intersection Capacity Analysis and Ramp Analysis worksheets (including ramp roadway capacity) for existing traffic conditions are provided in Appendix 21-3 (R), HCS Analysis.

Miami-Dade County's and Broward County's 2008 Transportation Improvement Programs (TIP) were reviewed to determine which roadways in the study area are programmed for improvements. Corresponding TIP page excerpts are included in Appendix 21-4 (R), Transportation Improvements Documentation. The City of Hialeah was also consulted to ensure that all programmed improvements within the City are included in the analysis. Only those improvements programmed for construction in the first 3 years of the TIP or 5 years of the local Capital Improvement Elements were considered in the analysis. Table 21-2 (R), Committed Roadway Improvements presents a list of committed developments in the study area.

The Developer of Beacon Countyline DRI is committed to pursuing an interchange at HEFT/NW 170 Street and has determined that they do not intend to proceed with development beyond a certain amount of Project trips until the contemplated interchange is committed, constructed and/or caused to be constructed. The construction of this interchange has been included in the analysis, in addition to the committed roadway improvements listed in Table 21-2 (R). It is the Applicant's intent to uses this analysis to establish the appropriate timing of the interchange. The interchange will be subject to justification and approval of Florida's Turnpike Enterprise. Analysis of future traffic conditions includes an interchange at this location

- NW 107 Avenue between NW 166 Street and NW 138 Street, new 2 lane road; and,
- NW 97 Avenue between NW 170 Street and NW 154 Street, new 4 lane road.

| TABLE 21-2 ( R ) <br> Committed Roadway Improvements <br> Beacon Countyline DRI |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Project Number | Roadway | Limits |  | Type of Work | Phasing |
| DT2499412 | SR 823 / NW 57 Ave | SR 934 / W 21 St | W 34 S | Add Lanes \& Reconstruct |  |
| DT4164233 | SR 25 / Okeechobee Rd | NW 138 St |  | Intersection (Minor) |  |
| DT4164234 | SR 25 / Okeechobee Rd | NW 105 Way |  | Add turn lane(s) |  |
| DT4075772 | SR 25 / NW 103 St | NW 103 St | W 2 Ave | Intersection (Minor) | CST 2008 |
| PS0000102A | NW 112 Ave | NW 84 St | NW 85 St | 2 lanes, sidewalks, and drainage |  |
| PS0000102B | NW 82 St | NW 113 Ave | NW 117 Ave | 2 lanes, sidewalks, and drainage |  |
| PS0000101A | NW 82 St | NW 114 Ave | NW 115 Ave (so. Side) | 2 lanes, sidewalks, and drainage |  |
| PS000023 | NW 107 Ave | NW 122 St | S River Dr | Reconstruct NW 107 Ave / New flyover ramp |  |
| PS000025 | NW 90 St | NW 114 Ave | NW 112 Ave | New construction: 2 lanes |  |
| PW0000110 | NW 97 Ave | NW 138 St | NW 154 St | New 4 lanes |  |
| PW0000111 | NW 138 St | NW 107 Ave | 1-75 | Widening: 2 to 6 lanes | CST 2012 |
| PW000326 | NW 138 Street Bridge | Bridge over Miami River | NW 138 St | Bridge Construction | CST 2008 |
| PW000031 | NW 74 St | NW 87 Ave | NW 84 Ave | New construction: 4 lanes |  |
| PW000075 | W 60 St | W 12 Ave | W 4 Ave | Widening: 2 to 3 lanes | CST 2008 |
| PW000328 | NW 62 Ave (W 8 Ave) | NW 138 St | NW 105 St | Widening: 2 to 3 lanes |  |
| PW000501 | NW 112 Ave / 138 St | Miami Canal |  | Sonovoid Bridge Renovation | Completed |
| PW20040271 | NW 87 Ave | NW 162 St | NW 170 St | Widening: 2 to 4 lanes |  |
| PW20040355 | NW 74 St | HEFT | NW 82 Ave | New 6 lanes | CST 2009 |
| PW20040390 | NW 87 Ave | NW 154 St | NW 186 St | Widening: 2 to 4 lanes | CST 2010 |
| PW610157S | W 24 Ave | W 52 St | W 76 St | Widening: 2 to 5 lanes | CST 2012 |
| PW662347 | NW 72 Ave | NW 74 St | Okeechobee Rd | Widening: 2 to 4 lanes and bridge | CST 2009 |
| PW662347S | NW 72 Ave | NW 74 St | Okeechobee Rd | Widening: 2 to 4 lanes and bridge | CST 2009 |
| PW671916 | NW 62 Ave | NW 105 St | NW 138 St | Widening: 2 to 3 lanes |  |
| DT4161171 | SR 826 / NW 122 St | West 21 Ct | East of W 20 | Intersection (Major) | CST 2011 |
| DT4147312 | SR 934 / NW 74 St | SR 821 / HEFT | NW 79 Ave | New Road Construction | CST 2008 |
| PW671951 | W 68 St | W 19 Ct | W 17 Ct | Add lane on south side and signalize | CST 2008 |
| TP2519381 | Homestead Extension | Florida Turnpike (HEFT) | I-75 Interchange | Interchange (Major) |  |
| Notes: Based on the Miami-Dade adopted 2008Transportation Improvement Program. |  |  |  |  |  |
| Source: David Plummer and Associates, Inc. |  |  |  |  |  |

Other improvements to the external roadway network included in the analysis are listed below:

- NW 170 Street between the HEFT and NW 97 Avenue, new 4 lane road (the Project needs 4 lanes in this section. The developer on the north side of NW 170 Street will be responsible for the additional two-lanes during the development of this property at a later time);
- NW 170 Street between NW 97 Avenue and I-75 overpass, new 2 lane road;

In order to establish the impact of the proposed interchange and the proposed roadway network, the transportation model was run first for future (2018) traffic conditions without Project with the committed roadway network, and then with the committed network plus the interchange and roadways listed above. Appendix 21-5 (R), Diversions Documentation, provides a detailed explanation of the diversions obtained from the traffic patterns in the area, as well as model runs for the area, and exhibits graphically portraying these.

Planned improvements within the study area were also researched in both the Miami-Dade and Broward County's Long Range Transportation Plan. These improvements are provided for informational purposes only in Table 21-3, Planned Roadway Improvements.
B. Provide a projection of vehicle trips expected to be generated by this development. State all standards and assumptions used, including trip end generation rates by land use types, sources of data, modal split, persons per vehicle, etc., as appropriate. The acceptable methodology to be used for projecting trip generation (including the Florida Standard Urban Transportation Model Structure or the Institute of Transportation Engineers trip generation rates) shall be determined at the preapplication conference stage.

Trip generation was estimated using rates and/or equations (as applicable) published by ITE in Trip Generation, 7th Edition (see Table 21-4 (R), Trip Generation). All ITE Land Use Codes and rates or equations utilized for each of the proposed land uses for this DRI have been identified. ITE prescribed adjustments to the trip generation are described in the following sections.

ITE recognizes that data obtained to establish trip generation rates and/or equations is collected at single-use, free-standing sites, and that mixed-use developments provide a potential for interaction of trips within the site, which must be accounted for separately. This will be a mixed-use project and features to encourage interaction between the proposed land uses will be incorporated into the design, resulting in a portion of the Project trips satisfied on-site (internal trips). As noted earlier, the relatively isolated location of this property will further encourage internalization within the Project.

Research shows that a percentage of retail trips to and from a site are "pass-by" trips. ITE describes pass-by as trips "attracted from traffic passing the site on an adjacent street". Pass-by trips are already using the existing roadway network. ITE has established that, typically, for retail centers with approximately 350,000 square feet of gross leasable space (SF GLA), such as the one proposed, approximately $28 \%$ of the trips are pass-by.

TABLE 21-3
Planned Roadway Improvements
Beacon County Line DRI

| Map Number | Priority | Funding Availability | Roadway | Limits | Type of Work |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | I | Funded by 2009 | SR 826 | FEC Railroad to NW 103 Street | Widen from 8 to 10 Lanes |
| 2 | I | Funded by 2009 | Okeechobee Road (SR 25) | W 12 Avenue to W 19 Street | Widen from 4 to 6 Lanes |
| 3 | I | Funded by 2009 | NW 87 Avenue | NW 74 St to Okeechobee Road | New 4-lane Road |
| 4 | 1 | Funded by 2009 | NW 57 Avenue (SR 823) | W 21 (SR 934) to W 49 (SR 932) Street | Widen from 4 to 6 Lanes |
| 5 | I | Funded by 2009 | NW 57 Avenue (SR 823) | Okeechobee Road to W 21 St (SR 934) | Widen from 4 to 6 Lanes |
| 6 | I | Funded by 2009 | Okeechobee Road (SR 25) | SR 826 to W 12 Avenue | Add Lanes |
| 7 | 1 | Funded by 2009 | NW 72 Avenue | NW 74 St to Okeechobee Road | Widen from 2 to 4 Lanes \& bridge |
| 8 | I | Funded by 2009 | W 24 Avenue | W 52 to 76 Street | Widen from 2 to 4 Lanes |
| 9 | 1 | Funded by 2009 | NW 74 Street | HEFT to NW 87 Avenue | New 2 Lanes |
| 10 | 1 | Funded by 2009 | NW 74 Street | NW 87 to 84 Avenue | New 4 Lanes |
| 11 | I | Funded by 2009 | NW 122 Street | Okeechobee Road to NW 87 Avenue | Widen from 2 to 5 Lanes |
| 12 | I | Funded by 2009 | NW 138 Street | NW 107 to 97 Avenue | Widen from 2 to 5 Lanes |
| 13 | 1 | Funded by 2009 | NW 107 Avenue | Okeechobee Road to NW 138 Street | Widen from 2 to 5 Lanes |
| 14 | 1 | Funded by 2009 | NW 87 Avenue | NW 154 Street to Miami Gardens Dr | New Construction |
| 15 | I | Funded by 2009 | NW 62 Avenue | NW 105 to 138 Street | Widen from 2 to 3 Lanes |
| 16 | I | Funded by 2009 | Hialeah Expressway (SR 934) | SR 826 to NW 57 Avenue | Widen from 4 to 6 Lanes |
| 17 | I | Funded by 2009 | NW 57 Avenue (SR 823) | W 49 St (NW 103 St) to NW 138 St | Widen from 4 to 6 Lanes |
| 49 | II | 2010-2015 | I-75 | at NW 154 Street | New Interchange |
| 50 | II | 2010-2015 | NW 74 Street | HEFT to SR 826 | Widen to 6 Lanes |
| II | II | 2010-2015 | Okeechobee Road (SR 25) | At Krome, NW 138 St \& 95 St | Construct grade separated free-flow lanes |
| III | III | 2016-2020 | HEFT | at NW 74 Street | New Interchange |
| III | III | 2016-2020 | 175 | at Miami Gardens Drive | Interchange Improvements |
| 18 | III | 2016-2020 | NW 87 Avenue | NW 58 Street to Okeechobee Rd | Widen to 6 Lanes |
| 19 | III | 2016-2020 | W 60 Street | W 4 to 12 Avenue | Widen from 2 to 3 Lanes |
| 20 | IV | 2021-2030 | HEFT | US 27 to I 75 | Widen to 8 Lanes |
| 21 | IV | 2021-2030 | HEFT | SR 836 to US 27 | Widen from 6 to 8 Lanes+ 2 Aux Lanes |
|  | IV | 2021-2030 | HEFT | 175 to HEFT | Widen from 4 to 6 Lanes |
| 22 | IV | 2021-2030 | 175 | SR 826 to NW 138 Street | Widen from 4 to 8 Lanes |
| 23 | IV | 2021-2030 | Miami Gardens Drive | 175 to NW 57 Avenue | Widen from 4 to 6 Lanes |
| 24 | IV | 2021-2030 | NW 72 Avenue | NW 122 to 138 Street | Widen from 2 to 3 Lanes |
| IV | IV | 2021-2030 | Okeechobee Road (SR 25) | at Krome, Hialeah Gardens Boulevard / NW 116 \& 105 Way, NW 87 \& NW 79 Avenue | Construct grade separated free-flow lanes |
| 25 | IV | 2021-2030 | SR 924 | Eastern Terminus of SR 924 to Okeechobee Road | Expressway Extension |
| 26 | IV | 2021-2030 | W 68 Street | W 21 Court to W 19 Court | Add Lane on south side |
| 27 | IV | 2021-2030 | W 76 Street | W 36 to 20 Avenue | Widen from 2 to 5 Lanes |
| 28 | IV | 2021-2030 | SR 826 | 175 to Golden Glades Interchange | Add 2 HOV Lanes |
| 29 | IV | Unfunded | Hialeah Light Rail Transit | Miami Intermodal Center to I 75 | Light Rail Transit |
| 30 | IV | Unfunded | 175 | NW 138 Street to MD/Broward Line | Widen from 4 to 8 Lanes |
| 31 | IV | Unfunded | 175 / HEFT | SW 8 St to Broward County Line | Premium Transit |
| 32 | IV | Unfunded | NW 97 Avenue | NW 74 to 90 Street | New 4-lane Road |
| 33 | IV | Unfunded | NW 87 Avenue | NW 183 Street to County Line | New 2-4 Lanes |
| 34 | IV | Unfunded | NW 107 Avenue | NW 138 to 170 Street | New 2 Lanes |
| 35 | IV | Unfunded | NW 154 Street | NW 87 to 107 Avenue | New 2 Lanes |
| 36 | IV | Unfunded | NW 97 Avenue | NW 138 to 183 Street | 2 Lanes |
| 37 | IV | Unfunded | NW 90 Street | NW 107 to 87 Avenue | New 2 Lanes |

[^0]TABLE 21-4 (R)
Trip Generation and Internalization Beacon County Line DRI


| $\begin{array}{lccl} & \text { Balanced Internalization Demand - PM Peak Hour } \\ \text { Retail } & \text { Warehouse } & \text { Hotel } & \text { Park }\end{array}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | OfficeLand Use 710750,000 SF GFA |  | WarehouseLand Use 150$4,300,000$ SF GFA |  | $\begin{gathered} \text { Hotel } \\ \text { Land Use } 310 \\ \text { 350 Rooms } \end{gathered}$ |  | $\begin{gathered} \text { Park } \\ \text { Land Use } 412 \\ 60 \text { Acres } \end{gathered}$ |  | 3,833 | TOTAL ITE |
|  |  |  |  |  | $\operatorname{Ln}(\text { Trips })=0.79 \operatorname{Ln}(1,000 \text { SF) })+0.54$ | $\begin{gathered} 0.59 \\ \text { In } \\ \text { In9 } \\ \hline \end{gathered}$ | $\begin{gathered} \text { ps } / \text { Room } \\ \text { Out } \\ \mathbf{9 8} \\ \hline \end{gathered}$ | $\begin{array}{cc} 0.06 \text { Trips } / \text { Acre } \\ \text { In } & \text { Out } \\ 1 & 2 \\ \hline \end{array}$ |  |  |  |
|  | -22 | -22 |  | -2 |  | -2 |  |  |  |  | Adjustment Factors |
| -14 |  |  | -14 |  |  |  |  | -100\% |  |  |  |
|  | 0 |  |  | 0 |  |  |  |  |  |  |  |
|  | $-15$ |  |  |  |  | -15 | -23 |  |  |  |  |  | -55\% |
| -23 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $-9$ | $-8$ | - | -9 | -2 |  |  |  |  | 0\% |
|  |  |  | -2 |  |  |  |  |  |  |  |  |
|  |  | 0 |  |  |  |  |  |  |  |  |  |
| 650 | $\begin{gathered} 707 \\ 5.17 \% \end{gathered}$ | 125 | $\begin{gathered} 741 \\ 5.77 \% \end{gathered}$ | 310 | $\begin{gathered} 944 \\ \hline 1.51 \% \end{gathered}$ | 92 | $\begin{gathered} 75 \\ 19.41 \% \end{gathered}$ | 1 | 2 | $\begin{aligned} & 3,647 \\ & 4.86 \% \end{aligned}$ | External Trips |
| -10 | -11 | $-2$ | -11 | -5 | -14 | -1 | -1 |  | 0 | $-1.5 \%$$-8 \%$$-5 \%$ | Transit/Pedestrians <br> Pass-By <br> Diverted Linked Trips |
| -55 | -55 |  |  |  |  |  |  |  |  |  |  |
| -33 | -33 |  |  |  |  |  |  |  |  |  |  |
| 552 | 608 | 123 | 730 | 305 | 930 | 91 | 74 | 1 | 2 |  | Net New External Trips <br> Truck Adjustment <br> Factor (f HV) |
|  |  |  |  | 54 | 164 |  |  |  |  |  |  |
| 552 | 608 | 123 | 730 | 359 | 1,094 | 91 | 74 | 1 | 2 | 3,634 | Net New External Trips adjusted for Heavy |

Note: Adjustment Factor for Heavy Vehicles: $\quad \mathrm{f} \mathrm{HV}=1 /(1+0.35(1.5-1)) \quad$ as calculated from equation 21-4 in page 21-7 of the HCM 2000
Revised July 2008

However, FDOT's Site Impact Handbook suggests that the number of pass-by trips should not exceed $10 \%$ of the traffic passing-by on the adjacent street(s). Pass-by trips for this project are trips attracted from non-project related traffic on NW 170 Street and NW 97 Avenue. For the retail portion of this project, the rate of pass-by users is limited to $10 \%$ of the future (2015) traffic volume without project on NW 170 Street between NW 97 Avenue and HEFT. Consistent with ITE's recommendations in the Trip Generation Handbook, deductions for pass-by trips will be taken after internal trips are deducted. Pass-by trips were deducted from the total external trips. However, these were manually added to project driveways in order to properly establish the total project impacts. Appendix 21-6 (R), Passby and Diverted Linked Trips Assignment graphically portrays the assignment of these trips on the roadway network adjacent to the project.

ITE also recognizes that "diverted linked trips" are characteristic of shopping centers. ITE describes these as "trips attracted from the traffic volume on roadways within the vicinity of the generator but which require a diversion from that roadway to another roadway to gain access to the site". FDOTs Site Impact Handbook acknowledges that Diverted Trips are not new to the system overall. Diverted linked trips are already using roads in the area, but would deviate momentarily from those roads to access the Project. ITE data shows that for retail establishments approximately 350,000 square feet of gross leasable area, diverted linked trips could account for up to $21 \%$ of the retail trips. For purposes of this analysis diverted linked trips constitute $5 \%$ of the retail trips, as long as the diverted volume does not exceed $10 \%$ of the volume on the streets where the diversions come from. Diversions are limited to the Homestead Extension of the Florida Turnpike (HEFT). Diverted linked trips were deducted from the total external trips. However, these were manually added to roadways affected by those diversions, as well as to project driveways in order to properly establish the total project impacts. Appendix 21-6 (R), Pass-by and Diverted Linked Trips Assignment graphically portrays the assignment of these trips on the external roadway network.

A review of transit availability indicates that there are no existing Miami-Dade bus routes serving this area within a mile of the Project Site. The City of Hialeah Transit System offers two bus routes serving the City, which operate between 6:00 AM and 9:00 PM on weekdays. The City has expressed their commitment to extend existing transit services to the Site. It is anticipated that Miami-Dade Transit (MDT) may also extend its transit system to this area. For this analysis, the average countywide mode split of $1.5 \%$ (transit ridership) was used.

Due to the proposed warehouse component of the Project, vehicle classification counts were taken at a nearby site of a similar scale and with similar intended uses (developed by the Applicant) to identify the percent trucks generated by the Project. Appendix 21-7 (R),
Beacon Lakes Vehicle Classification Counts shows a summary of these counts. A Heavy-Vehicle adjustment factor was calculated using the Highway Capacity Manual 2000 (HCM 2000) equation 21-4. The net new external warehouse trips were then adjusted by the inverse of this factor to obtain a passenger car equivalent, as recommended in the Highway Capacity Manual.
C. Estimate the internal/external split for the generated trips at the end of each phase of development as identified in (B) above. Use the format below and include a discussion of what aspects of the development (i.e., provision of on-site shopping and recreation facilities, on-site employment opportunities, etc.) will account for this internal/external split. Provide supporting documentation showing how splits were estimated, such as the results of the Florida Standard Urban Transportation Model Structure (FSUTMS) model application. Describe the extent to which the proposed design and land use mix will foster a more cohesive, internally supported project.

Adjustments made to the trip generation estimates obtained from ITE trip generation rates and/or equations are discussed in the previous section.
Beacon Countyline DRI is a mixed-use commercial development incorporating warehouse, retail, office and hotel uses. The relatively unique location and mixed use nature of the Project will allow some trips to be satisfied within the site. Project design will incorporate many aspects of the Hialeah Heights Plan that is being promoted by the City to encourage coordination of internal movements between land uses by vehicles as well as pedestrians, and thus reduce the impact on the external network, such as on-site continuous driveway network throughout the entire Site and sidewalks to encourage pedestrian trips within the Site. Transit amenities to support the extension of the City of Hialeah and the Miami-Dade County Transit Services will be provided. These will include, but will not be limited to, bus stops, shelters, and benches.
D. Provide a projection of total peak hour directional traffic, with the DRI, on the highway network within the study area at the end of each phase of development. If these projections are based on a validated FSUTMS, state the source, date and network of the model and of the TAZ projections. If no standard model is available or some other model or procedure is used, describe it in detail and include documentation showing its validity. Describe the procedure used to estimate and distribute traffic with full DRI development in subzones at buildout and at interim phase-end years. These assignments may reflect the effects of any new road or improvements which are programmed in adopted capital improvements programs and/or comprehensive plans to be constructed during DRI construction; however, the inclusion of such roads should be clearly specified. Show these link projections on maps or tables of the study area network, one map or table for each phase-end year. Describe how these conclusions were reached.

Average Daily Traffic (ADT) counts published by FDOT, Miami-Dade and Broward Counties were reviewed to determine historic growth in traffic volumes along the roadway links within the study area. It was agreed during methodology discussions that different growth rates would be calculated for the surface streets, HEFT, I-75 and SR 826. Because of the different land use characteristics between the portions of the study area in Miami-Dade and Broward Counties, different growth rates were also calculated for each of these areas.

Background growth rate calculations are based on a five-year historical trend analysis of all roadways, except for the Homestead Extension of the Florida Turnpike (HEFT). A review of the traffic model projected volumes for this facility confirms that the high rate of traffic growth experienced in the last five years cannot be sustained over the next 10 years.

A 10 year trend analysis was performed at the only permanent count station on HEFT in the study area (at Okeechobee Plaza). The results show that during this time period, the facility grew $6 \%$ annually. However, zdata forecasts obtained from the 2000 and 2030 Modified MPO's Adopted Long Range Transportation Plan FSUTMS model for this area of MiamiDade County show that population is anticipated to grow annually at a rate of $1.1 \%$, while employment is anticipated to grow at an annual rate of $1.8 \%$. Furthermore, traffic volumes obtained from the FSUTMS model adjusted by the Turnpike Enterprise and used for the distribution of Project traffic shows that HEFT is forecasted to grow at an average rate of 2.3\% per year between 2012 and 2032.

The 6\% background growth rate based on the 10-year growth trend analysis is used in the analysis as the base for predicting future traffic conditions on HEFT. The result is a gross overestimation of future needs of this facility. The existing 6-lane facility between NW 106 Street and NW 74 Street might need to be widened to 12 lanes for future (2018) conditions. An alternate analysis of HEFT is provided in Appendix 21-8 (R), Alternate HEFT Analysis, showing growth consistent with the FSUTMS model projections for this facility. Future (2018) conditions will likely warrant improvements to HEFT to a total of 10 lanes along the sections mentioned above.

Calculations are provided in Appendix 21-9(R), Background Growth Rate Calculations. The following growth rates were determined for the study area:

## Background Growth Rates

| HEFT | $6.0 \%$ |
| :--- | :--- |
| I-75 | $2.3 \%$ |
| SR 826 | $1.4 \%$ |
| Miami-Dade County surface streets | $0.6 \%$ |

Historic increases in traffic comprise a number of components, including existing development traffic, normal changes in traffic volumes due to motorist travel behavior, and traffic generated by new development. The proposed analysis would specifically account for committed development projects. Therefore, it is anticipated that the compounded background traffic growth rate (excluding committed developments) will constitute half of the historic growth rate, in addition to committed developments in the area.

In consultation with the South Florida Regional Planning Council and local governments within the study area, a list of committed developments has been compiled. Consistent with guidelines pertaining to DRIs, all approved projects anticipated to generate 400 pm peak hour trips are considered committed in this study. Table 21-5, Committed Developments, provides a summary of developments and the pm peak hour trips associated with each development. Appendix 21-10 (R), Committed Developments Documentation provides additional information including the location, proposed land uses and sizes, trip generation and the source of the information for each committed development included in this study. When available, trip generation and external trip distribution for committed developments were obtained from traffic studies prepared during their approval process.

TABLE 21-5
Committed Developments Trip Generation Beacon Countyline DRI

| Development | Land Use | PM Peak Hour Trip Generation* |  |
| :---: | :---: | :---: | :---: |
|  |  | In | Out |
| East Miramar Areawide DRI (1) | Retail Office Industrial Single Family Multi Family Hotel | 1,980 | 4,021 |
| FEC Park of Commerce DRI (2) | Warehouse Office Retail Hotel | 689 | 1,276 |
| Country Lakes West DRI (3) | Trips <br> Retail <br> Lt Industrial <br> Office <br> Hotel <br> Single Family <br> Multi Family | 814 | 2,318 |
| Blue Grass Lakes (4) | Single Family Retail | 528 | 475 |
| Dunwoody Estates (5) | Residential/ Commercial | 417 | 205 |
| Graham Vested Development East (5) Graham Vested Development West (5) | Mixed Use Mixed Use | $\begin{gathered} 753 \\ 1,761 \end{gathered}$ | $\begin{aligned} & 371 \\ & 867 \\ & \hline \end{aligned}$ |
| Doral Place (6) | Residential | 373 | 188 |
| Islands of Doral (6) | Residential | 988 | 486 |

* PM Peak Hour trip generation for the approved unbuilt portion of the development.
(1) October 16, 2006 Annual Report. The largest portion of this site is located north of Miramar Parkway (outside the study area). Only $1 / 2$ of the trip generation of the remaining development was used for this analysis
(2) October 4, 2006 Annual Report.
(3) November 1, 2005 Annual Report.
(4) The originally approved Blue Grass Lakes DRI was abandoned and an amended Development Order dated 11/7/01 amended the uses to those reflected in this table.
(5) Town of Miami Lakes, January 2006, Concurrency Management Report,
(6) City of Doral Website.

For other developments, trip generation was obtained from the local municipality or it was performed using ITE rates and/or equations for the proposed land uses. For the developments listed in the Town of Miami Lakes, the trips estimated in their January 2006 Concurrency Management Report were used for this analysis. Committed development trips were assigned to the roadway network using either distributions from traffic studies, annual reports, or the appropriate cardinal distribution from the long range plan update published by Miami-Dade Metropolitan Planning Organization. Trip distributions for each committed development are also provided in 21-10 (R), Committed Developments Documentation. Link analysis of future traffic conditions without the Project for the study area is provided in Table 21-6 (R), Future (2018) Traffic Conditions without Project. Traffic volumes for this scenario are graphically portrayed in Exhibit 21-5. Intersection capacity and ramp analyses worksheets for this scenario are provided in Appendix 21-3 (R), HCS Analysis.
E. Assign the trips generated by this development as shown in (B) and (C) above and show, on separate maps or tables for each phase-end year, the DRI traffic on each link of the then-existing network within the study area. Include peak-hour directional trips. If location data is available, compare average trip lengths by purpose for the project and local jurisdiction. For the year of buildout and at the end of each phase estimate the percent impact, in terms of peak hour directional DRI trips/total peak hour directional trips and in terms of peak hour directional DRI tripslexisting peak hour service volume for desired LOS, on each regionally significant roadway in the study area. Identify facility type, number of lanes, and projected signal locations for the regionally significant roads.

The trip distribution and traffic assignment for the Project is based on a select-zone run using the Modified MPO's Adopted Long Range Transportation Plan FSUTMS model for Miami-Dade County with adjustments made by the Turnpike Enterprise for validation purposes. The Turnpike Enterprise has performed extensive up-to-date validation of the Miami Dade approved transportation model to accurately reflect existing volumes on this facility as well as on the surface streets in this area. This model extends HEFT into Broward County within the study area. Model outputs have been provided in Appendix 21-11 (R), Model Outputs.

The Site is in Miami-Dade County's Traffic Analysis Zone (TAZ) 7. The socio-economic data for TAZ 7 was adjusted to reflect Project traffic. Additionally, the subject data was interpolated to reflect the Project's buildout year (2018). The model's roadway network was also reviewed to verify that only committed roadway improvements were included.

The Project traffic assignment was obtained by tracking daily Project traffic via a select-zone analysis and converting it into a Project trip percent distribution. ITE pm peak hour trip generation was applied to the trip distribution to obtain the pm peak hour Project assignment. Assigned pm peak hour Project trips reflect at least $99 \%$ of the net new external trips obtained from the adjusted trip generation as described in sections above.


| TABLE 21-6 ( R )Future Traffic Conditions without Project - (weekday, one-way, PM peak)Beacon Countyline DRI |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Roadway | Limits |  | $\begin{array}{\|c\|} \hline \text { Directi } \\ \text { on } \\ \hline \end{array}$ | Directional \# of Lanes | $\begin{gathered} \hline \text { Roadway } \\ \text { Type } \end{gathered}$ | Municipality | $\begin{aligned} & \text { LOS } \\ & \text { STD } \end{aligned}$ | $\begin{gathered} \hline \text { Volume } \\ (2018) \\ \hline \end{gathered}$ | Service Volume | v/sv | $\begin{gathered} \text { Meets } \\ \text { LOS STD? } \end{gathered}$ |
| Miami Gardens Drive (NW 186 Street) |  |  |  |  |  |  |  |  |  |  |  |
|  | 1-75 | NW 87 Avenue | EB | 2 LD | State Minor | Miami-Dade | SUMA | 2,545 1,088 | 1,800 1800 | 1.41 0.60 | No |
|  | NW 87 Avenue | NW 77 Avenue | EB | 2 LD | State Minor | Miami-Dade | SUMA | 1,088 | 1,800 | 0.66 | Yes |
|  |  |  | WB | 2 LD | Arterial | Miami-Dade |  | 926 | 1,800 | 0.51 | Yes |
|  | NW 77 Avenue | NW 67 Avenue | EB | 2 LD | State Minor | Miami-Dade | SUMA | 2,159 | 1,800 | 1.20 | No |
|  |  |  | WB | 2 LD | Arterial |  |  | 1,707 | 1,800 | 0.95 | Yes |
|  | NW 67 Avenue | NW 57 Avenue (Red Rd) | EB | 2 LD | State Minor | Miami-Dade | HE | 1,945 | 1,800 | 1.08 | No |
|  |  |  | WB | 2 LD | Arterial |  |  | 1,556 | 1,800 | 0.86 | Yes |
| NW 170 Street | HEFT | NW 97 Avenue | EB | 2LD (2) | Collector | Miami- | D | 315 | 1,620 | 0.19 | Yes |
|  |  |  | WB | 2LD (2) |  | Dade/Hialeah |  | 231 | 1,620 | 0.14 | Yes |
|  | NW 97 Avenue | 1-75 | EB | 1 L (2) | Collector | Miami- | D | 212 | 798 | 0.27 | Yes |
|  |  |  | WB | 1 L (2) |  |  |  | 140 | 798 | 0.17 | Yes |
|  | 1-75 | NW 87 Avenue | EB | 1 L | Collector | Miami- | D | 267 | 760 | 0.35 | Yes |
|  |  |  | WB | 1 L |  |  |  | 228 | 760 | 0.30 | Yes |
|  | NW 87 Avenue | NW 77 Avenue | EB | 1 L | Collector | Miami- | D | 621 | 760 | 0.82 | Yes |
|  | NW 77 Avenue | NW 67 Avenue | EB | 1 L | Collector | Miami- | D | 450 | 760 | 0.73 0.59 | Yes |
|  |  |  | WB | 1 L |  |  |  | 469 | 760 | 0.62 | Yes |
| NW 138 Street | Okeechobee Rd/US 27 | NW 107 Avenue | EB | 2LD | Collector | Hialeah/Hialeah | D | 633 | 1,620 | 0.39 | Yes |
|  |  |  | WB | 2LD |  |  |  | 452 | 1,620 | 0.28 | Yes |
|  | NW 107 Avenue | NW 97 Avenue | EB | 2LD (1) | Collector | Hialeah/Hialeah | D | 597 | 1,620 | 0.37 | Yes |
|  |  |  | WB | 2LD (1) |  |  |  | 422 | 1,620 | 0.26 | Yes |
|  | NW 97 Avenue | Hialieah Gardens Drive | EB | 2 LD (1) | Collector | Hialeah | D | 724 | 1,620 | 0.45 | Yes |
|  |  |  | WB | 2 LD (1) |  |  |  | 690 | 1,620 | 0.43 | Yes |
| NW 130 Street (W 76 Street) | NW 97 Av | Hialieah Gardens Drive | EB | 1 L | County Minor | Hialeah | D | 394 | 760 | 0.52 | Yes |
|  |  |  | WB | 1 L | Arterial | Hialean |  | 567 | 760 | 0.75 | Yes |
|  | Hialieah Gardens Drive | NW 87 Av | EB | 1 L | County Minor | Hialeah | D | 584 | 760 | 0.77 | Yes |
|  |  |  | WB | 1 L | Arterial |  |  | 645 | 760 | 0.85 | Yes |
|  | NW 87 Av | W of SR 826 | EB WB | 1 L | County Minor | Hialeah | C | 425 503 | 760 760 | 0.56 0.66 | Yes |
| Okeechobee Rd/US 27 | West | HEFT | NWB | 2 LD | FIHS | Hialeah Gardens | C | 1,393 | 2,500 | 0.56 | Yes |
|  |  |  | SEb | 2 LD |  |  |  | 1,169 | 2,500 | 0.47 | Yes |
|  | HEFT | NW 138 Street | NWB | 3 LD | FIHS | Hialeah/Hialeah | D | 1,366 | 2,790 | 0.49 | Yes |
|  |  |  | SEB | 3 LD |  | Gardens |  | 1,209 | 2,790 | 0.43 | Yes |
|  | NW 138 Street | Hialieah Gardens Drive | NWB | 3 LD | FIHS | Hialeah Gardens | D | 1,316 | 2,790 | 0.47 | Yes |
|  |  |  | SEB | 3 LD |  |  |  | 1,110 | 2,790 | 0.40 | Yes |
|  | Hialieah Gardens Drive | NW 87 Avenue | NWB | 3 LD | FIHS | Hialeah Gardens | D | 2,241 | 2,790 | 0.80 | Yes |
|  |  |  | SEB | 3 LD |  |  |  | 1,996 | 2,790 | 0.72 | Yes |
|  | NW 87 Avenue | SR 826 | NWB | 3 LD | FIHS | Hialeah Gardens | D | 2,449 | 2,790 | 0.88 | Yes |
|  |  |  | SEB | 3 LD |  |  |  | 2,184 | 2,790 | 0.78 | Yes |
|  | SR 826 | NW 74 St | NWB | 3 LD | State Principal | Hialeah | E + 20\% | 3,133 | 3,348 | 0.94 | Yes |
|  |  |  | SEB | 3 LD | Arterial |  |  | 2,239 | 3,348 | 0.67 | Yes |
| West Okeechobee Rd Frontage Road | US 27/NW 138 Street | NW 107 Avenue | NWB | 1 L | Collector | Hialeah Gardens | D | 396 | 760 | 0.52 | Yes |
|  |  |  | SEB | 1 L |  |  |  | 531 | 760 | 0.70 | Yes |
|  | NW 107 Avenue | Hialeah Gardens Blvd | NWB | 1 L | Collector | Hialeah Gardens | D | 489 | 760 | 0.64 | Yes |
|  |  |  | SEB | 1 L |  |  |  | 245 | 760 | 0.32 | Yes |
|  | Hialeah Gardens Blvd | NW 87 Avenue | NWB | 1 L | Collector | Hialeah Gardens | D | 272 | 760 | 0.36 | Yes |
|  |  |  | SEB | 1 L |  |  |  | 291 | 760 | 0.38 | Yes |
|  | NW 87 Avenue | NW 77 Avenue | NWB | 1 L | Collector | Hialeah Gardens | D | 766 | 760 | 1.01 | No |
|  |  |  | SEB | 1 L |  |  |  | 349 | 760 | 0.46 | Yes |
| Gratigny Expressway | SR 826 | Red Road/W 4 Av | EB | 3 LD | FIHS | Hialeah/Miami | D | 3,247 | 5,410 | 0.60 | Yes |
|  |  |  | WB | 3 LD |  | Lakes |  | 2,951 | 5,410 | 0.55 | Yes |
| W 68 Street/NW 122 | Okeechobee Road | NW 97 Avenue | EB | 1 L | Collector | Hialeah Gardens | D | 327 | 608 | 0.54 | Yes |
|  |  |  | WB | 1 L |  |  |  | 237 | 608 | 0.39 | Yes |
|  | NW 97 Avenue | NW 87 Av/W 28 Av | EB | 1 L | County Minor | Hialeah | D | 566 | 608 | 0.93 | Yes |
|  |  |  | WB | 1 L | Arterial |  |  | 611 | 608 | 1.01 | No |
|  | NW 87 Av/W 28 Av | SR 826 | EB | 2 LD | County Minor | Hialeah | D | 1,385 | 1,620 | 0.86 | Yes |
|  |  |  | WB | 2 LD | Arterial |  |  | 1,666 | 1,620 | 1.03 | No |
| Notes: |  |  |  |  |  |  |  |  |  |  |  |
| (1) Committed Roadway Improvement. <br> (2) Project related Improvement. <br> (2) Project related Improvement. <br> (3) See HCS+ analysis provided in Appendix 21-3. |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Revised October 2008 Source: David Plummer and Associates, Inc. |  |  |  |  |  |  |  |  |  |  |  |



Source: David Plummer \& Associates

For Project traffic traveling north on I-75 into Broward County, a ratio was taken between existing mainline traffic volume and the volume on the off ramps. This percentage was applied to Project traffic traveling on the I-75 the mainline north of the HEFT junction to determine how much Project traffic will leave and/or enter I-75 at the Miramar Parkway interchange in Broward County. This analysis is provided in Appendix 21-12 (R), Broward County Project Trip Assignment.

The distribution of Project traffic on the regionally significant roadways analyzed in this study is shown in Table 21-7 (R), Project Traffic Assignment. As requested, the percent impact was calculated as a percentage of total DRI traffic and as a percentage of the committed service volumes. Project traffic distribution has been graphically portrayed in Exhibit 21-6; while the project assignment is graphically portrayed in Exhibit 21-7. Exhibit $21-8$ shows one-way project consumption on study area roadways analyzed. In addition, Project traffic on the remaining regionally significant roadways in the study area is provided in Appendix 21-13 (R), Project Consumption Calculations. The purpose of this data is to show the level of significance Project traffic represents on all the regionally significant roadways in the study area. In addition, a table has been included in Appendix 21-13 ( $R$ ) showing the assignment of Project traffic on all ramps in the study area, including the I75/Miramar Parkway interchange to show project consumption on all ramps in the study area.

Table 21-8 (R), Total Traffic Conditions with Project, shows total traffic on the regionally significant roadways with the Project. Future (2018) traffic volumes with the Project are graphically portrayed in Exhibit 21-9 (R). A summary of the traffic volume components for all roadway segments analyzed, as well as intersections and ramps is included in Appendix 21-14 (R), Traffic Components. Graphics of the traffic component for all roadway segment analyzed are provided throughout the main report, graphics are also included depicting the traffic components at intersections and freeway ramps analyzed in this study.

Intersection and Ramp Capacity Analyses for total traffic conditions are provided in Appendix 21-3 (R), HCS Analysis. The results are summarized in Table 21-9 (R), Intersection and Ramp Analysis Results.

In preparation for development order conditions, it is necessary to establish how much Project development can be supported before the interchange is needed at the HEFT/NW 170 Street. A sensitivity analysis was prepared and is included in Appendix 21-15 (R), Sensitivity Analysis. This sensitivity analysis was done to determine how much Project development can be supported by the existing and committed surface street network prior to the need for the interchange.

Table 21-7 (R), Project Traffic Assignment shows that at Projects buildout with the proposed interchange, 2,048 two-way pm peak hour project trips will use NW 107 Avenue and NW 97 Avenue south of NW 154 Street. A reduced development program was then established that would not exceed this limit. The transportation model was run to reflect this reduced program. The roadway network was adjusted to reflect conditions without the interchange. In addition, the Applicant has agreed not to fund the construction of the extension of NW 170 Street east of NW 97 Avenue until the interchange is completed. This





Source: David Plummer \& Associates


| Roadway | TABLE 21-8 ( R ) <br> Future Traffic Conditions with Project - (weekday, one-way, PM peak) Beacon Countyline DRI |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | From Lim | its ${ }^{\text {io }}$ | $\begin{gathered} \text { Directi } \\ \text { on } \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { Directional \# } \\ \text { of Lanes } \end{array}$ | Roadway Type | Municipality | $\begin{array}{\|c\|} \hline \text { Volume } \\ (2018) \\ \hline \end{array}$ | $\begin{aligned} & \text { LOS } \\ & \text { STD } \end{aligned}$ | Service Volume | VISV | $\begin{gathered} \text { Meets } \\ \text { LOS STD? } \end{gathered}$ | $\begin{gathered} \text { Project } \\ \% \text { Consumption } \\ \hline \end{gathered}$ |
| Palmetto Expressway (SR 826) | Red Road/NW 57 Av | NW 67 Av/Ludlam Rd | EB | 3 LD | FIHS | Miami Lakes | 8,329 | D | 5,410 | 1.54 | No | 2.9\% |
|  |  |  | WB | 3 LD |  |  | 6,765 |  | 5,410 | 1.25 | No | 1.3\% |
|  | NW 67 Av/Ludlam Rd | Miami Lakes Drive | NEB | 3 LD | FIHS | Miami Lakes | 8,944 | D | 5,410 | 1.65 | No | 1.7\% |
|  |  |  | SWB | 3 LD |  |  | 7,197 |  | 5,410 | 1.33 | No | 0.8\% |
|  | Miami Lakes Drive | 1-75 | NB | 3 LD | FiHS | Miami Lakes | 9,199 | D | 5,410 | 1.70 | No | 2.3\% |
|  |  |  | SB | 3 LD |  |  | 7,162 |  | 5,410 | 1.32 | No | 1.1\% |
|  | 1-75 | W 68 St/NW 122 Street | NB | 4 LD | FiHS | Hialeah | 10,653 | D | 7,380 | 1.44 | No | 1.7\% |
|  |  |  | SB | 4 LD |  |  | 8,654 |  | 7,380 | 1.17 | No | 3.7\% |
|  | W 68 St/NW 122 Street | W 49 StreetNW 103 St | NB | 4 LD | FIHS | Hialeah | 11,019 | D | 7,380 | 1.49 | No | 1.4\% |
|  |  |  | SB | 4 LD |  |  | 8,915 |  | 7,380 | 1.21 | No | 3.1\% |
|  | W 49 Street/NW 103 St | Okeechobee Rd/US 27 | NB | 5 LD | FiHS | Hialeah/Hialeah | 11,360 | D | 9,340 | 1.22 | No | 0.9\% |
|  |  |  | SB | 5 LD |  |  | 9,162 |  | 9,340 | 0.98 | Yes | 2.0\% |
|  | Okeechobee Rd/US 27 | NW 74 Street | NB | 5 LD | FiHS | Medley | 11,874 | D | 9,340 | 1.27 | No | 1.0\% |
|  | Miami Gardens Drive | NW 170 Street | SB NB | 5 LD 2 LD |  |  | 9,663 <br> 555 |  | 9,340 1,620 | 1.03 0.34 0 | No Yes | 2.2\% |
| NW 87 Avenue / West28 Avenue |  |  | NB SB | 2 LDD | Collector | Miami-Dade | 555 791 | D | 1,620 1,620 | 0.34 0.49 | Yes | 4.4\% |
|  | NW 170 Street | Miami Lakes Drive | NB | 2 LD | Collector | Miami Lakes | 53 | D | 1,620 | 0.03 | Yes | 0.0\% |
|  |  |  | SB | 2 LD |  |  | 108 |  | 1,620 | 0.07 | Yes | 0.0\% |
|  | Miami Lakes Drive | 1-75 | NB | 2 LD | Collector | Miami Lakes | 1,206 | D | 1,620 | 0.74 | Yes | 0.2\% |
|  |  |  | SB | 2 LD |  |  | 912 |  | 1,620 | 0.56 | Yes | 0.4\% |
| 1-75 | Miramar Parkway | HEFT | NB | 4 LD | FIHS | Miramar | 10,542 | D | 7,480 | 1.41 | No | 2.2\% |
|  |  |  | SB | 4 LD |  |  | 9,560 |  | 7,480 | 1.28 | No | 0.9\% |
|  | HEFT | NW 186 Street | NB | 4 LD | FIHS | Miami-Dade | 9,098 | D | 7,380 | 1.23 | No | 4.4\% |
|  |  |  | SB | 4 LD |  |  | 8,439 |  | 7,380 | 1.14 | No | 2.0\% |
|  | NW 186 Street | NW 138 Street | NB | 4 LD | FIHS | Miami | 8,843 | D | 7,380 | 1.20 | No | 0.0\% |
|  |  |  | SB | 4 LD |  |  | 7,834 |  | 7,380 | 1.06 | No | 0.0\% |
|  | NW 138 Street | SR 826 | EB | 4 LD | FIHS | Miami | 7,669 | D | NA (1) | NA (1) | Yes (1) | 0.1\% |
|  |  |  | WB | 4 LD |  |  | 7,739 |  | NA (1) | NA (1) | Yes (1) | 0.1\% |
| NW 97 Avenue | NW 170 Street | NW 154 Street | NB | 2 LD | Collector | Hialeah | 313 | D | 1,620 | 0.19 | Yes | 3.2\% |
|  |  |  | SB | 2 LD |  |  | 427 |  | 1,620 | 0.26 | Yes | 2.1\% |
|  | NW 154 Street | NW 138 Street | NB | 2 LD | Collector | Hialeah | 493 | D | 1,620 | 0.30 | Yes | 13.8\% |
|  |  |  | SB | 2 LD |  |  | 1,005 |  | 1,620 | 0.62 | Yes | 19.8\% |
|  | NW 138 Street | W 68 Street | NB | 1 L | Collector | Hialeah/Hialeah | 272 | D | 760 | 0.36 | Yes | 24.9\% |
|  |  |  | SB | 1 L |  |  | 187 |  | 760 | 0.25 | Yes | 55.5\% |
| NW 107 Avenue | NW 166 Street | NW 162 Street | NB | 1 L | Collector | Hialeah/Hialeah | 79 | D | 760 | 0.10 | Yes | 1.7\% |
|  |  |  | SB | 1 L |  |  | 176 |  | 760 | 0.23 | Yes | 3.9\% |
|  | NW 162 Street | NW 154 Street | NB | 1 L | Collector | Hialeah/Hialeah | 236 | D | 760 | 0.31 | Yes | 10.4\% |
|  |  |  | SB | 1 L |  |  | 527 |  | 760 | 0.69 | Yes | 23.2\% |
|  | NW 154 Street | NW 138 Street | NB | 1 L | Collector | Hialeah/Hialeah | 360 | D | 760 | 0.47 | Yes | 31.1\% |
|  |  |  | SB | 1 L |  | Gardens | 648 |  | 760 | 0.85 | Yes | 69.3\% |
|  | NW 138 Street | Okeechobee Rd/US 27 | NB | 2 LD | Collector | Hialeah Gardens | 652 | D | 1,620 | 0.40 | Yes | 31.1\% |
|  |  |  | SB | 2 LD |  |  | 752 |  | 1,620 | 0.46 | Yes | 69.3\% |
| HEFT | NW 57 Av (Red Road) | 1-75 | NB | 2 LD | FiHS | Miramar | 4,854 | D | 3,580 | 1.36 | No | 11.2\% |
|  |  |  | SB | 2 LD |  |  | 3,536 |  | 3,580 | 0.99 | Yes | 24.9\% |
|  | 1-75 | NW 170 Street | NB | 3 LD | FIHS | Miami-Dade | 8,859 | D | 5,530 | 1.60 | No | 3.8\% |
|  |  |  | SB | 3 LD |  |  | 6,282 |  | 5,530 | 1.14 | No | 1.7\% |
|  | NW 170 Street | Okeechobee Rd/US 27 | NB | 3 LD | FiHS | Miami- | 8,531 | D | 5,530 | 1.54 | No | 8.4\% |
|  |  |  | SB | 3 LD |  | Dade/Hialeah | 6,334 |  | 5,530 | 1.15 | No | 3.8\% |
|  | Okeechobee Rd/US 27 | NW 106 Street | NB | 3 LD | FiHS | Miami- | 9,198 | , | 5,530 | 1.66 | No | 2.6\% |
|  |  |  | SB | 3 LD |  | Dade/Medley | 6,806 |  | 5,530 | 1.23 | No | 5.8\% |
|  | NW 106 Street | NW 74 Street | NB | 3 LD | FIHS | Miami-Dade | 9,809 | D | 5,530 | 1.77 | No | 2.6\% |
|  |  |  | SB | 3 LD |  |  | 7,420 |  | 5,530 | 1.34 | No | 5.8\% |
| (1) See HCS analysis provided in Appendix 21- |  |  |  |  |  |  |  |  |  |  |  |  |




TABLE 21-9 (R)
Intersection and Ramp Analysis Results Beacon Countyline DRI

| Intersection/Ramp | Time Period | Existing | Future wo Project | Future w Project | Future w Project w Imps |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NW 122 St/NW 97 Av | PM | C | C | C | --- |
| NW 122 St/NW 87 Av | PM | D | D | D | D |
| NW 170 St/NW 87 Avenue | PM | B | C | C | --- |
| NW 170 St/NW 78 Avenue | PM | B | C | E | D |
| NW 170 St/HEFT West Ramp | PM | --- | --- | --- | B |
| NW 170 St/HEFT East Ramp | PM | --- | -- | --- | B |
| NW 170 St/ NW 102 Av | PM | --- | --- | --- | C |
| NW 170 St/ NW 97 Av | PM | --- | --- | --- | B |
| NW 162 St/ NW 107 Av | PM | --- | --- | --- | B |
| NW 162 St/ NW 97 Av | PM | --- | --- | --- | B |
| NW 156 St/ NW 97 Av | PM | --- | --- | --- | C |
| HEFT NEB to I-75 NB Diverge | AM | A | A | A | A |
|  | PM | A | F | F | A |
| HEFT NEB to I-75 NB Merge | AM | C | C | D | D |
|  | PM | D | F | F | D |
| I-75 SB to HEFT SWB Diverge | AM | F | F | F | (1) |
|  | PM | B | C | C | (1) |
| I-75 SB to HEFT SWB Merge | AM | C | F | F | C |
|  | PM | A | B | B | A |
| NB HEFT TO 170 St Diverge ${ }^{(2)}$ | PM | --- | --- | --- | D |
| WB 170 St to HEFT NB on Ramp ${ }^{(2)}$ | PM | --- | --- | --- | C |
| SB HEFT TO 170 St off Ramp ${ }^{(2)}$ | PM | --- | --- | --- | C |
| WB 170 St to HEFT SB on Ramp ${ }^{(2)}$ | PM | --- | --- | --- | C |
| NW 138 Street EB to I-75 EB Merge | AM | C | D | D | -- |
|  | PM | C | D | E | D |
| NW 138 Street EB to I-75 EB Diverge | AM | A | B | B | --- |
|  | PM | A | B | B | --- |
| I-75 EB to SR 826 SB Diverge | AM | F | F | F | A |
|  | PM | B | F | F | A |
| I-75 EB to SR 826 SB Merge | AM | B | F | F | B |
|  | PM | F | F | F | B |
| SR 826 NB to I-75 WB Diverge | AM | A | A | A | --- |
|  | PM | A | F | F | (1) |
| SR 826 NB to I-75 WB Merge | AM | A | A | A | (1) |
|  | PM | B | F | F | (1) |

Notes:
Revised October 2008
${ }^{(1)}$ Improved cross-section is beyond HCS capabilities
${ }^{(2)}$ Based on preliminary interchange configuration obtained from the Florida Turnpike Enterprise.
section of roadway was also not included in the model run. Model runs for this scenario are included in Appendix 21-15 (R), Sensitivity Analysis. Based on this modeling effort, a Project distribution was obtained.

Roadway analysis of future traffic conditions for this scenario of the regionally significant roadways in the study was performed and included in this appendix. Project volumes for this reduced development program accessing NW 107 Avenue and NW 97 Avenue south of NW 154 Street are highlighted and do not exceed 2,048 two-way pm peak hour project trips. Appendix 21-15 (R), Sensitivity Analysis provides a more detailed description of the sensitivy analysis.

The analysis, which is also included in this appendix, shows similar or lower impacts on all the regionally significant roadways than at buildout. Project traffic is not significant and adverse in any roadway link analyzed.

The Applicant contemplates that any development order issued for the Beacon Countyline DRI will contain a condition that will limit development to the issuance of certificates of occupancy for an equivalent amount of development which generates $2,000 \mathrm{pm}$ peak hour net new external trips prior to commence of construction of an interchange on the HEFT at NW 170 Street. The following sample mix of land uses would generate $2,000 \mathrm{pm}$ peak hour two-way trips:

Land Use<br>Warehouse<br>Retail<br>Office

| Sample Intensity |  |
| ---: | ---: |
| $3,000,000$ | Square Feet |
| 100,000 | Square Feet |
| 225,000 | Square Feet |

Note that the development program shown above and used as the basis for the analysis is intended as an example only and not necessarily the development program scenario that the Flagler Development would use. The goal was to develop a program whose trip generation would not exceed $2,000 \mathrm{pm}$ peak hour net new external trips, in order to maintain similar impacts on the street network.
F. Based on the assignment of trips as shown in (D) and (E) above, what modifications in the highway network (including intersections) will be necessary at the end of each phase of development, to attain and maintain local and regional level of service standards? Identify which of the above improvements are required by traffic not associated with the DRI at the end of each phase. For those improvements which will be needed earlier as a result of the DRI, indicate how much earlier. Where applicable, identify Transportation System Management (TSM) alternatives (e.g., signalization, one-way pairs, ridesharing, etc.) that will be used and any other measures necessary to mitigate other impacts such as increased maintenance due to a large number of truck movements.

Although proportionate share is only assessed on roadway segments projected to operate above the adopted level of service standard, and where Project traffic utilizes five percent or more of the road service volume, the DRI process requires that all deficient roadway segments be identified. The following improvements are needed for 2018 traffic conditions without the addition of Project traffic to support all area development. These improvements are in addition to the improvements listed in section 21.A, which are needed to eliminate backlogs for existing (2007) traffic conditions.

- SR 826 - Palmetto Expressway, between Red Road and Ludlam Road (NW 67 Avenue), and between Miami Lakes Drive I-75; widen from 8 to 10 lanes;
- SR 826 - Palmetto Expressway, between I-75 and NW 122 Street; widen from 10 to 12 lanes;
- SR 826 - Palmetto Expressway, between Okeechobee Road and NW 74 Street, widen from 12 lanes to 14 lanes;
- I-75 - Miramar Parkway to HEFT, widen from 10 lanes to 12 lanes;
- The Homestead Extension of the Florida Turnpike (HEFT), between Red Road (NW 57 Avenue) and I-75, widen from 4 lanes to 6 lanes;
- The Homestead Extension of the Florida Turnpike (HEFT), between I-75 and NW 106 Street, widen from 8 lanes to 10 lanes;
- The Homestead Extension of the Florida Turnpike (HEFT), between NW 106 Street and NW 74 Street, widen from 8 lanes to 12 lanes;
- Miami Gardens Drive, between NW 77 Avenue and NW 67 Avenue, widen from 4 to 6 lanes;
- Miami Gardens Drive, between NW 67 Avenue and NW 57 Avenue, widen from 4 to 6 lanes;
- West Okeechobee Road (Frontage Road), between NW 87 Avenue and NW 77 Avenue, widen from 2 lanes undivided to 2 lanes divided;
- NW 122 Street (W 68 Street), NW 97 Avenue and NW 87 Avenue, widen from 2 lanes to 4 lanes;
- NW 122 Street (W 68 Street), NW 87 Avenue and SR 826, widen from 4 lanes to 6 lanes;
- NW 87 Avenue / NW 122 Street (W 68 Street) intersection, signal re-timing;
- HEFT north-eastbound to I-75 northbound ramp, add two mainline thru lane (HEFT) at diverge area;
- HEFT north-eastbound to I-75 northbound, add one through lane at merge area;
- I-75 southbound to HEFT south-westbound ramp, add two mainline thru lane at diverge (1-75) area, and two through lanes at merge area (HEFT); and,
- Palmetto Expressway (SR 826) northbound to I 75 westbound ramp, add a northbound through lane (SR 826) at diverge area, and a westbound thru lane (I-75) at merge area.

The following additional improvements are needed to accommodate future traffic conditions once Project traffic is added to the street network.

- SR 826, between Okeechobee Road and NW 103 Street, widen from 12 to 14 lanes;
- NW 170 Street, between NW 87 Avenue and NW 77 Avenue, widen from 2 to 4 lanes;
- NW 170 Street / NW 102 Avenue, Signalization;
- NW 170 Street / NW 97 Avenue, Signalization;
- NW 97 Avenue / NW 156 Street, Signalization;
- NW 170 Street/ NW 78 Avenue, convert intersection from 2-way stop control to allway stop control, and,
- NW 138 Street eastbound to I-75 eastbound ramp, add a ramp lane.

Existing and improved ramp geometrics have been graphically portrayed and included in Appendix 21-14 (R), Volume Breakdown.
G. Identify the anticipated number and general location of access points for driveways, median openings and roadways necessary to accommodate the proposed development. Describe how the applicant's access plan will minimize the impacts of the proposed development and preserve or enhance traffic flow on the existing and proposed transportation system. This information will assist the applicant and governmental agencies in reaching conceptual agreement regarding the anticipated access points. While the ADA may constitute a conceptual review for access points, it is not a permit application and, therefore, the applicant is not required to include specific design requirements (geometry) until the time of permit application.

Exhibit 21-10 (R), Principal Project Access, shows the development plan and proposed principal project access points for the Project. Access to the Project is proposed through connections to NW 170 Street, NW 97 Avenue and NW 107 Avenue. One main connection is proposed at NW 170 Street at the proposed intersection with NW 102 Avenue. Two main connections are proposed at NW 97 Avenue, at NW 162 Street and NW 156 Street. Two main connections are proposed at NW 107 Avenue, at NW 166 Street and NW 162 Street. All main connections to the external roadway network have been analyzed in previous sections.
H. If applicable, describe how the project will complement the protection of existing, or development of proposed, transportation corridors designated by local governments in their comprehensive plans. In addition, identify what commitments will be made to protect the designated corridors such as interlocal agreements, right-of-way dedication, building set-backs, etc.


Beacon Countyline presents an opportunity to construct and/or contribute transportation improvements identified in the local government Comprehensive Plans. The Project will construct several roadways that will provide connectivity in this area of Hialeah. The extension of NW 107 Avenues and NW 97 Avenues north of NW 154 Street to NW 170 Street, which are both in the Miami-Dade County Long Range Plan. The extension of NW 170 Street from HEFT to the existing I-75 overpass will provide an additional east/west thoroughfare in the area. In addition, the Developer will work closely with the Turnpike Enterprise towards the construction of a new interchange at HEFT with NW 170 Street.
I. What provisions, including but not limited to sidewalks, bicycle paths, internal shuttles, ridesharing and public transit, will be made for the movement of people by means other than private automobile? Refer to internal design, site planning, parking provisions, location, etc.

A review of transit availability in the study area indicates that there are no existing Miami-Dade bus routes serving this area within a mile of the Site. The City of Hialeah Transit System offers two bus routes serving the City, which operate between 6:00 AM and 9:00 PM on weekdays. Exhibit 21-11 (R), Existing Transit, shows the existing routes serving the study area. The City has expressed their commitment to extend existing transit services to the Project Site. It is anticipated that Miami-Dade Transit (MDT) would also extend its transit system to this area.

Other long term planning studies in south Florida includes a Strategic Plan developed by the South Florida Regional Transit Authority with the purpose of developing and implementing a viable long range regional transportation system in South Florida. One of the objectives of the plan is to identify key regional transit corridors. The plan has identified the I-75 corridor as such. The I-75 Master Plan has also determined I-75 Transitway Characteristics will likely consist of a Bus Rapid Transit system with connections to the planned Central Broward East-West Transit System and to the Miami-Dade Metrorail. The Logical Termini has been described as the Office Depot Center/Sawgrass Mills to the north and the PalTran Metrorail Station (Palmetto Metrorail Station) to the south, with proposed stations at Miami Gardens Drive and Miramar Parkway. Appendix 21-17 (R) includes an excerpt from the I75 Master Plan locally preferred alternative for the Transitway Characteristics anticipated within the Beacon Countyline DRI study area.

Accommodations will be made within the Project for bus bays, bus stops, shelters and the like to promote transit ridership. Pedestrian linkages will be integrated into the Project design to ensure maximum non-vehicular travel. The developer will coordinate with MiamiDade Transit Agency to facilitate the extension of transit service closer to the site. Additionally, Transportation Demand Management (TDM) strategies, such as those listed in Appendix 21-16 (R), Transportation Demand Strategies, will be encouraged as part of this Project to improve mobility. These strategies include carpooling, vanpooling, telecommuting, and alternative work hours, to name a few.



[^0]:    Source: Miami-Dade County Long Range Transportation Plan.

