

21. TRANSPORTATION

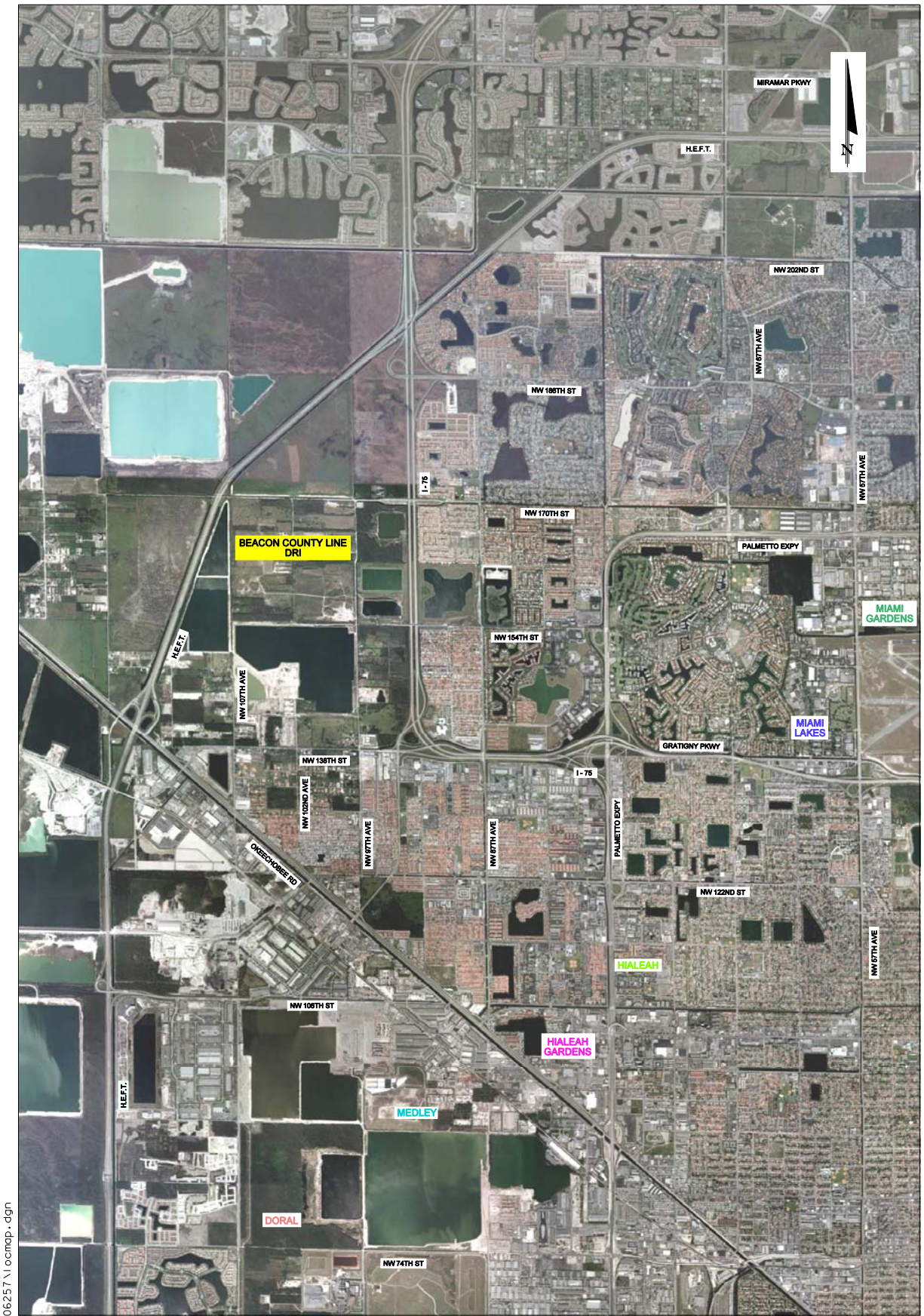
- A. Using Map J or a table as a base, indicate existing conditions on the highway network within the study area (as previously defined on Map J), including AADT, peak –hour trips, directional traffic split, levels of service and maximum service volumes for the adopted level of service (LOS). Identify 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 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 improvement plans, budgets and programs showing the schedules and types of work and letters from the appropriate agencies stating the current status of the planned, programmed and committed improvements.**

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 500 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 as shown in **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		
Land Use	Intensity	Acres
Warehouse	4,300,000 Sq. Ft.	270
Office	750,000 Sq. Ft.	58
Retail	350,000 Sq. Ft.	51
Hotel	350 Rooms	8
City Park & Municipal Center (Includes Police & Fire Facilities)	-	60
Source: The Curtis Group		



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Source: David Plummer & Associates

Exhibit 21-1
PROJECT LOCATION
Beacon Countyline DRI

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.

The traffic impact area, shown on **Map J – Traffic Impact Area** located 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 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 five percent 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 Miami-Dade County and other municipalities in the study area. The analysis reflects PM peak hour 100th 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 Adjustment 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. 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 two of these lanes can be considered auxiliary, HCS+ was run with for this segment to determine the adequacy of eight lanes. Worksheets are included in **Appendix 21-3(R) – HCS+ Analysis**. The analysis shows that this segment of I-75 will meet the adopted LOS standard for future conditions with 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; eight 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 , eight lanes are currently needed;
- Miami Gardens Drive (NW 186 Street) between I-75 and NW 87 Avenue, six lanes are currently needed; and,
- NW 138 Street, between NW 97 Avenue and Beacon Station Boulevard, four lanes are currently needed. However, six lanes are programmed for improvement in the Miami-Dade County TIP.

TABLE 21-1 (R)
Existing Traffic Conditions (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Directi on	Directional # of Lanes	Roadway Type	Municipality	LOS STD	Volume (2007)	Service Volume	VISV	Meets LOS STD?	Backlogged Facility? (1)	
	From	To											
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlum Rd	EB	3 LD	FHS	Miami Lakes	D	7,053	5,410	1.30	No	Yes	
	NW 67 Av/Ludlum Rd	Miami Lakes Drive	WB	3 LD	FHS	Miami Lakes	D	5,486	5,410	1.01	No	Yes	
	Miami Lakes Drive	I-75	SMB	3 LD	FHS	Miami Lakes	D	7,791	5,410	1.44	No	Yes	
	I-75	W 68 SUNW 122 Street	NB	3 LD	FHS	Miami Lakes	D	6,060	5,410	1.12	No	Yes	
	W 68 SUNW 122 Street	W 49 Street/NW 103 St	SB	3 LD	FHS	Miami Lakes	D	7,791	5,410	1.44	No	Yes	
	W 49 Street/NW 103 St	W 49 Street/NW 103 St	NB	4 LD	FHS	Hialeah	D	6,060	5,410	1.12	No	Yes	
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	SB	4 LD	FHS	Hialeah	D	9,040	7,380	1.22	No	Yes	
	Okeechobee Rd/US 27	NW 74 Street	NB	4 LD	FHS	Hialeah	D	7,031	7,380	0.95	Yes	No	
	NW 74 Street	NW 170 Street	SB	4 LD	FHS	Hialeah	D	9,443	7,380	1.28	No	Yes	
	NW 170 Street	Miami Gardens Drive	NB	4 LD	FHS	Hialeah/Hialeah Gardens	D	7,344	7,380	1.00	Yes	No	
NW 87 Avenue / West 28 Avenue	Miami Gardens Drive	NW 170 Street	SB	5 LD	FHS	Miami-Dade Medley	D	9,817	9,340	1.05	No	Yes	
	NW 170 Street	Miami Lakes Drive	NB	5 LD	FHS	Miami-Dade Medley	D	7,635	9,340	0.82	Yes	No	
	Miami Lakes Drive	I-75	SB	5 LD	FHS	Miami Lakes	D	10,278	9,340	1.10	No	Yes	
	I-75	HEFT	SB	5 LD	FHS	Miami Lakes	D	7,994	9,340	0.86	Yes	No	
	HEFT	NW 186 Street	NB	1 L (no LT lanes)	Collector	Miami-Dade	D	288	608	0.47	Yes	No	
	NW 186 Street	NW 138 Street	SB	1 L (no LT lanes)	Collector	Miami-Dade	D	448	608	0.74	Yes	No	
	NW 138 Street	NW 154 Street	NB	NA	NA	Miami Lakes	NA	0	NA	NA	NA	NA	NA
	NW 154 Street	HEFT	SB	NA	NA	Miami Lakes	NA	0	NA	NA	NA	NA	NA
	HEFT	NW 162 Street	NB	2 LD	Collector	Miami Lakes	D	1,108	1,620	0.68	Yes	No	
	NW 162 Street	NW 138 Street	SB	2 LD	Collector	Miami Lakes	D	848	1,620	0.52	Yes	No	
NW 97 Avenue	NW 138 Street	NW 106 Street	NB	4 LD	FHS	Miramar	D	8,441	7,480	1.13	No	Yes	
	NW 106 Street	NW 162 Street	SB	4 LD	FHS	Miramar	D	7,039	7,480	0.94	Yes	No	
	NW 162 Street	NW 186 Street	NB	4 LD	FHS	Miami-Dade	D	7,587	7,380	1.03	No	Yes	
	NW 186 Street	NW 138 Street	SB	4 LD	FHS	Miami-Dade	D	6,326	7,380	0.86	Yes	No	
	NW 138 Street	NW 138 Street	NB	4 LD	FHS	Miami	D	7,397	7,380	1.03	No	Yes	
	NW 138 Street	SR 826	SB	4 LD	FHS	Lakes/Hialeah	D	6,326	7,380	0.86	Yes	No	
	SR 826	NW 154 Street	NB	4 LD	FHS	Miami	D	5,053	NA(2)	NA(2)	Yes(2)	No(2)	
	NW 154 Street	NW 170 Street	WB	4 LD	NA	Lakes/Hialeah	D	6,059	NA(2)	NA(2)	Yes(2)	No(2)	
	NW 170 Street	NW 138 Street	NB	NA	NA	Hialeah	NA	0	NA	NA	NA	NA	
	NW 138 Street	NW 154 Street	SB	NA	NA	Hialeah	NA	0	NA	NA	NA	NA	
NW 107 Avenue	NW 154 Street	NW 138 Street	NB	NA	Collector	Hialeah/Hialeah Gardens	D	232	760	0.31	Yes	No	
	NW 138 Street	NW 162 Street	SB	1 L	Collector	Hialeah/Hialeah Gardens	D	136	760	0.18	Yes	No	
	NW 162 Street	NW 154 Street	NB	NA	NA	Hialeah/Hialeah Gardens	NA	0	NA	NA	NA	NA	
	NW 154 Street	NW 138 Street	SB	NA	NA	Hialeah/Hialeah Gardens	NA	0	NA	NA	NA	NA	
	NW 138 Street	NW 138 Street	NB	1LU	Collector	Hialeah/Hialeah Gardens	D	120	608	0.20	Yes	NA	
	NW 138 Street	Okeechobee Rd/US 27	SB	1LU	Collector	Hialeah/Hialeah Gardens	D	117	608	0.19	Yes	NA	
	Okeechobee Rd/US 27	I-75	NB	2 LD	Collector	Hialeah Gardens	D	458	1,620	0.28	Yes	No	
	I-75	NW 170 Street	SB	2 LD	FHS	Miramar	D	337	1,620	0.21	Yes	No	
	NW 170 Street	Okeechobee Rd/US 27	NB	2 LD	FHS	Miramar	D	3,163	3,560	0.86	Yes	No	
	Okeechobee Rd/US 27	NW 106 Street	SB	2 LD	FHS	Miami-Dade	D	2,178	3,560	0.61	Yes	No	
HEFT	NW 106 Street	NW 74 Street	NB	3 LD	FHS	Miami-Dade	D	5,713	5,530	1.03	No	Yes	
	NW 74 Street	Okeechobee Rd/US 27	SB	3 LD	FHS	Miami-Dade	D	3,934	5,530	0.71	Yes	No	
	Okeechobee Rd/US 27	NW 106 Street	NB	3 LD	FHS	Miami-Dade	D	5,713	5,530	1.03	No	Yes	
	NW 106 Street	NW 74 Street	SB	3 LD	FHS	Miami-Dade	D	3,934	5,530	0.71	Yes	No	
	NW 74 Street	NW 106 Street	NB	3 LD	FHS	Miami-Dade	D	6,064	5,530	1.10	No	Yes	
	NW 106 Street	NW 74 Street	SB	3 LD	FHS	Miami-Dade	D	4,176	5,530	0.76	Yes	No	
	NW 74 Street	NW 106 Street	NB	3 LD	FHS	Miami-Dade	D	6,555	5,530	1.19	No	Yes	
	NW 106 Street	NW 74 Street	SB	3 LD	FHS	Miami-Dade	D	4,514	5,530	0.82	Yes	No	

Notes:
(1) HB 7203, passed by the Florida Legislature in 2007, has established that DRI is 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 necessary for existing conditions to meet adopted level of service standards in the study area.
(2) See HCS-2 analysis provided in Appendix 21-3.
Revised July 2008

Source: David Plummer and Associates, Inc.

As agreed 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 87 Avenue/NW 122 Street (W 68 Street), and
- NW 97 Avenue/NW 122 Street (W 68 Street)

Currently, both 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 21.3 – NW 170 Street Interchange Configuration**.

It was also agreed during methodology discussions that ramp analyses (merging/diverging) 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 I-75/Miramar Parkway interchange, was checked to identify the ramps that meet these 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.

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 north-east bound to I-75 northbound ramp, add northbound through lane (I-75) at merge area;
- I-75 eastbound to SR 826 southbound ramp, add one 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 for existing traffic conditions are provided in **Appendix 21-3 (R) – HCS Analysis**.



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Exhibit 21 - 3
 HEFT / NW 170 ST INTERCHANGE CONFIGURATION
 BEACON COUNTYLINE DRI

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 three years of the TIP or five 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.

TABLE 21-2 (R)					
Committed Roadway Improvements					
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	I-75	Widening: 2 to 6 lanes	CST 2012
PW0000326	NW 138 Street Bridge	Bridge over Miami River	NW 138 St	Bridge Construction	CST 2008
PW0000031	NW 74 St	NW 87 Ave	NW 84 Ave	New construction: 4 lanes	
PW0000075	W 60 St	W 12 Ave	W 4 Ave	Widening: 2 to 3 lanes	CST 2008
PW0000328	NW 62 Ave (W 8 Ave)	NW 138 St	NW 105 St	Widening: 2 to 3 lanes	
PW0000501	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 2008 Transportation Improvement Program.					
Source: David Plummer and Associates, Inc.					

Revised April 2008

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) – Committed Roadway Improvements**. It is the Applicant's intent to use 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.

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 four lane road (the Project needs four 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 two lane road;
- NW 107 Avenue between NW 166 Street and NW 138 Street, new two lane road; and,
- NW 97 Avenue between NW 170 Street and NW 154 Street, new four 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**.

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	I	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	I	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	I	Funded by 2009	NW 74 Street	HEFT to NW 87 Avenue	New 2 Lanes
10	I	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	I	Funded by 2009	NW 107 Avenue	Okeechobee Road to NW 138 Street	Widen from 2 to 5 Lanes
14	I	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	I 75	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	I 75 to HEFT	Widen from 4 to 6 Lanes
22	IV	2021-2030	I 75	SR 826 to NW 138 Street	Widen from 4 to 8 Lanes
23	IV	2021-2030	Miami Gardens Drive	I 75 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	I 75 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	I 75	NW 138 Street to MD/Broward Line	Widen from 4 to 8 Lanes
31	IV	Unfunded	I 75 / 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

Source: Miami-Dade County Long Range Transportation Plan.

- 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 pre-application conference stage.

Trip generation was estimated using rates and/or equations (as applicable) published by ITE in *Trip Generation*, 7th Edition, shown on **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 percent of the trips are *pass-by*. However, FDOT’s *Site Impact Handbook* suggests that the number of *pass-by* trips should not exceed 10 percent of the traffic passing-by on 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 percent 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) – Pass-by 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”. FDOT’s *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 percent of the retail trips. For purposes of this analysis diverted linked trips constitute five percent of the retail trips, as long as the diverted volume does not exceed 10 percent of the volume on the streets where the diversions come from. Diversions are limited to the Homestead

Extension of Florida's 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.

TABLE 21-4 (R)
Trip Generation and Internalization
Beacon County Line DRI

Unconstrained Internalization Demand - PM Peak Hour

Retail		Office		Warehouse		Hotel		Park			
Land Use 820 350,000 SF GLA		Land Use 710 750,000 SF GFA		Land Use 150 4,300,000 SF GFA		Land Use 310 350 Rooms		Land Use 412 60 Acres			
n (Trips) = 0.66 Ln (1,000 SF) + 3.4		Trips = 0.37 (1,000 SF) + 60.08		Ln (Trips) = 0.79 Ln (1,000 SF) + 0.54		0.59 Trips / Room		0.06 Trips / Acre			
In	Out	In	Out	In	Out	In	Out	In	Out		
687	744	156	763	318	955	109	98	1	2	3,833	TOTAL ITE
	3% 22	15% 22	23		2% 19	2% 2					
2% 14		23% 14	175	0% 0	2 0	0%	0				
	3% 22		22	15% 48							
2% 14			14		23% 220						
	12% 89		34			31% 34					
9% 62			52			53% 52					
		1% 8	8	6% 19							
	6% 9		9		1% 10						
		2% 15			2% 2						
	0% 0				0		0%				

Balanced Internalization Demand - PM Peak Hour

Retail		Office		Warehouse		Hotel		Park			
Land Use 820 350,000 SF GLA		Land Use 710 750,000 SF GFA		Land Use 150 4,300,000 SF GFA		Land Use 310 350 Rooms		Land Use 412 60 Acres			
n (Trips) = 0.66 Ln (1,000 SF) + 3.4		Trips = 0.37 (1,000 SF) + 60.08		Ln (Trips) = 0.79 Ln (1,000 SF) + 0.54		0.59 Trips / Room		0.06 Trips / Acre			
In	Out	In	Out	In	Out	In	Out	In	Out		
687	744	156	763	318	955	109	98	1	2	3,833	TOTAL ITE
	-22	-22		0	-2	-2					Adjustment Factors
-14	0		-14	0			0				0%
	0				0						-100%
	-15					-15					-55%
-23			-8	-8			-23				0%
		-9			-9						0%
			-2		-2						
	0						0				
650	707	125	741	310	944	92	75	1	2	3,647	External Trips
	5.17%		5.77%		1.51%		19.41%			4.86%	
-10	-11	-2	-11	-5	-14	-1	-1	0	0	-1.5%	Transit/Pedestrians
-55	-55									-8%	Pass-By
-33	-33									-5%	Diverted Linked Trips
552	608	123	730	305	930	91	74	1	2	3,416	Net New External Trips
				54	164					0.85	Truck Adjustment Factor (f HV)
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: $f_{HV} = 1 / (1 + 0.35 (1.5 - 1))$ as calculated from equation 21-4 in page 21-7 of the HCM 2000
 Revised July 2008

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 percent (transit ridership) was used.

Due to the proposed warehouse component of the Project, vehicle classification counts were taken at a nearby Beacon Lakes DRI, which is of a similar scale and with similar intended uses (and was also 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 Florida’s 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 six percent annually. However, data forecasts obtained from the 2000 and 2030 Modified MPO’s Adopted Long Range Transportation Plan FSUTMS model for this area of Miami-Dade County show that population is anticipated to grow annually at a rate of 1.1 percent, while employment is anticipated to grow at an annual rate of 1.8 percent. 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 percent per year between 2012 and 2032.

The six percent 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 Beacon Countyline DRI	
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.

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 **Appendix 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 Background and Committed Developments Traffic**. Intersection capacity analyses worksheets for this scenario are provided in **Appendix 21-3 (R) – HCS Analysis**.

**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 Multifamily Hotel	1,980	4,021
FEC Park of Commerce DRI (2)	Warehouse Office Retail Hotel	689	1,276
Country Lakes West DRI (3)	Trips Retail Light Industrial Office Hotel Single Family Multifamily	814	2,318
Blue Grass Lakes (4)	Single Family Retail	528	475
Dunwoody Estates (5)	Residential/Commercial	417	205
Graham Vested Development East (5)	Mixed Use	753	371
Graham Vested Development West (5)	Mixed Use	1,761	867
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.

TABLE 21-6 (R)
Future Traffic Conditions without Project - (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Directi on	Directional # of Lanes	Roadway Type	Municipality	LOS STD	Volume (2018)	Service Volume	V/SV	Meets LOS STD?
	From	To									
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlum Rd	EB	3 LD	FHS	Miami Lakes	D	8,172	5,410	1.51	No
		Miami Lakes Drive	WB	3 LD	FHS	Miami Lakes	D	6,695	5,410	1.24	No
		I-75	SWB	3 LD	FHS	Miami Lakes	D	8,852	5,410	1.64	No
			NB	3 LD	FHS	Miami Lakes	D	7,156	5,410	1.32	No
			SB	3 LD	FHS	Miami Lakes	D	9,074	5,410	1.68	No
			NB	3 LD	FHS	Hialeah	D	7,103	5,410	1.31	No
			NB	4 LD	FHS	Hialeah	D	10,530	7,380	1.43	No
			NB	4 LD	FHS	Hialeah	D	8,379	7,380	1.14	No
			NB	4 LD	FHS	Hialeah	D	10,916	7,380	1.48	No
			NB	4 LD	FHS	Hialeah	D	8,686	7,380	1.18	No
NW 87 Avenue / West 28 Avenue		Okeechobee Rd/US 27	NB	5 LD	FHS	Hialeah/Hialeah	D	11,274	9,340	1.21	No
		NW 74 Street	NB	5 LD	FHS	Medley	D	8,971	9,340	0.96	Yes
			NB	5 LD	FHS	Medley	D	11,782	9,340	1.26	No
			NB	5 LD	FHS	Medley	D	9,468	9,340	1.01	No
			NB	2 LD (1)	Collector	Miami-Dade	D	483	1,620	0.30	Yes
			NB	2 LD (1)	Collector	Miami-Dade	D	759	1,620	0.47	Yes
			NB	2 LD (1)	Collector	Miami Lakes	D	53	1,620	0.03	Yes
			NB	2 LD (1)	Collector	Miami Lakes	D	108	1,620	0.07	Yes
			NB	2 LD	Collector	Miami Lakes	D	1,203	1,620	0.74	Yes
			NB	2 LD	Collector	Miami Lakes	D	905	1,620	0.56	Yes
I-75		HEFT	NB	4 LD	FHS	Miramar	D	10,183	7,480	1.36	No
			NB	4 LD	FHS	Miami-Dade	D	9,397	7,480	1.26	No
			NB	4 LD	FHS	Miami-Dade	D	9,098	7,380	1.23	No
			NB	4 LD	FHS	Miami	D	8,439	7,380	1.14	No
			NB	4 LD	FHS	Miami	D	8,839	7,380	1.20	No
			NB	4 LD	FHS	Miami	D	7,826	7,380	1.06	No
			NB	4 LD	FHS	Miami	D	6,894	NA (3)	NA (3)	Yes (3)
			NB	4 LD	FHS	Miami	D	7,391	NA (3)	NA (3)	Yes (3)
			NB	2 LD (2)	NA	Hialeah	D	89	1,620	0.05	Yes
			NB	2 LD (2)	NA	Hialeah	D	106	1,620	0.07	Yes
NW 97 Avenue			NB	2 LD (1)	Collector	Hialeah	D	89	1,620	0.05	Yes
			NB	2 LD (1)	Collector	Hialeah	D	106	1,620	0.07	Yes
			NB	1 L	Collector	Hialeah/Hialeah	D	259	760	0.34	Yes
			NB	1 L	Collector	Hialeah/Hialeah	D	157	760	0.21	Yes
			NB	1 L (2)	Collector	Hialeah/Hialeah	D	0	760	0.00	Yes
			NB	1 L (2)	Collector	Hialeah/Hialeah	D	0	760	0.00	Yes
			NB	1 L (2)	Collector	Hialeah/Hialeah	D	0	760	0.00	Yes
			NB	1 L (2)	Collector	Hialeah/Hialeah	D	0	760	0.00	Yes
			NB	1 L (2)	Collector	Hialeah/Hialeah	D	124	760	0.16	Yes
			NB	1 L (2)	Collector	Hialeah/Hialeah	D	121	760	0.16	Yes
HEFT		Okeechobee Rd/US 27	NB	2 LD (1)	Collector	Gardens Hialeah Gardens	D	471	1,620	0.29	Yes
			NB	2 LD (1)	Collector	Hialeah Gardens	D	348	1,620	0.21	Yes
			NB	2 LD (1)	FHS	Miramar	D	4,717	3,580	1.32	No
			NB	2 LD	FHS	Miramar	D	3,475	3,580	0.97	Yes
			NB	3 LD	FHS	Miami-Dade	D	8,393	5,530	1.52	No
			NB	3 LD	FHS	Miami-Dade	D	6,073	5,530	1.10	No
			NB	3 LD	FHS	Miami-	D	8,387	5,530	1.52	No
			NB	3 LD	FHS	Dade/Hialeah	D	6,014	5,530	1.09	No
			NB	3 LD	FHS	Miami-	D	9,054	5,530	1.64	No
			NB	3 LD	FHS	Dade/Medley	D	6,486	5,530	1.17	No

Notes:
(1) Committed Roadway Improvement. (2) Project related Improvement. (3) See HCS+ analysis provided in Appendix 21-3.

TABLE 21-6 (R) Future Traffic Conditions without Project - (weekday, one-way, PM peak) Beacon Countyline DRI												
Roadway	Limits		Directional # of Lanes	Roadway Type	Municipality	LOS STD	Volume (2018)	Service Volume	V/SV	Meets LOS STD?		
	From	To										
Miami Gardens Drive (NW 186 Street)	I-75	NW 87 Avenue	EB WB	2 LD 2 LD	State Minor Arterial	SUMA	2,545 1,088	1,800 1,800	1.41 0.60	No Yes		
		NW 87 Avenue	NW 77 Avenue	EB WB	2 LD 2 LD	State Minor Arterial	SUMA	1,540 926	1,800 1,800	0.86 0.51	Yes Yes	
	NW 77 Avenue	NW 67 Avenue	EB WB	2 LD 2 LD	State Minor Arterial	SUMA	2,159 1,707	1,800 1,800	1.20 0.85	No Yes		
		NW 67 Avenue	NW 57 Avenue (Red Rd)	EB WB	2 LD 2 LD	State Minor Arterial	HE	1,945 1,556	1,800 1,800	1.08 0.86	No Yes	
	HEFT	NW 97 Avenue	EB WB	2 LD (2) 2 LD (2)	Collector	Miami- Dade/Hialeah	D	315 231	1,620 1,620	0.19 0.14	Yes Yes	
		NW 97 Avenue	I-75	WB EB	1 L (2) 1 L (2)	Collector	Miami- Dade/Hialeah	D	212 140	798 798	0.27 0.17	Yes Yes
	NW 87 Avenue	NW 87 Avenue	EB WB	1 L 1 L	Collector	Miami- Dade/Hialeah	D	267 228	760 760	0.35 0.30	Yes Yes	
		NW 87 Avenue	NW 77 Avenue	EB WB	1 L 1 L	Collector	Miami- Dade/Hialeah	D	621 554	760 760	0.82 0.73	Yes Yes
	NW 77 Avenue	NW 67 Avenue	EB WB	1 L 1 L	Collector	Miami- Dade/Hialeah	D	450 469	760 760	0.59 0.62	Yes Yes	
		NW 67 Avenue	NW 107 Avenue	EB WB	2 LD 2 LD	Collector	Miami- Dade/Hialeah	D	633 452	1,620 1,620	0.39 0.28	Yes Yes
NW 138 Street	Okeechobee Rd/US 27	NW 97 Avenue	EB WB	2 LD (1) 2 LD (1)	Collector	Miami- Dade/Hialeah	D	597 422	1,620 1,620	0.37 0.26	Yes Yes	
		NW 97 Avenue	Hialeah Gardens Drive	EB WB	2 LD (1) 2 LD (1)	Collector	Miami- Dade/Hialeah	D	724 690	1,620 1,620	0.45 0.43	Yes Yes
	NW 97 Av	NW 87 Av	EB WB	1 L 1 L	County Minor Arterial	Miami- Dade/Hialeah	D	394 567	760 760	0.52 0.75	Yes Yes	
		NW 87 Av	W of SR 826	EB WB	1 L 1 L	County Minor Arterial	Miami- Dade/Hialeah	D	584 645	760 760	0.77 0.85	Yes Yes
	West	NW 87 Av	EB WB	1 L 1 L	County Minor Arterial	Miami- Dade/Hialeah	C	425 503	760 760	0.56 0.66	Yes Yes	
		HEFT	NW 138 Street	NWB SEB	2 LD 2 LD	FIHS	Hialeah Gardens	C	1,383 1,169	2,500 2,500	0.56 0.47	Yes Yes
	HEFT	NW 138 Street	NWB SEB	3 LD 3 LD	FIHS	Hialeah Gardens	D	1,366 1,209	2,790 2,790	0.49 0.43	Yes Yes	
		NW 138 Street	Hialeah Gardens Drive	NWB SEB	3 LD 3 LD	FIHS	Hialeah Gardens	D	1,316 1,110	2,790 2,790	0.47 0.40	Yes Yes
	Hialeah Gardens Drive	NW 87 Avenue	NWB SEB	3 LD 3 LD	FIHS	Hialeah Gardens	D	2,241 1,996	2,790 2,790	0.80 0.72	Yes Yes	
		NW 87 Avenue	SR 826	NWB SEB	3 LD 3 LD	FIHS	Hialeah Gardens	D	2,449 2,184	2,790 2,790	0.88 0.78	Yes Yes
Okeechobee Rd/US 27	SR 826	NW 74 St	NWB SEB	3 LD 3 LD	State Principal Arterial	Hialeah E + 20%	3,133 2,239	3,348 3,348	0.94 0.67	Yes Yes		
		US 27/NW 138 Street	NWB SEB	3 LD 3 LD	Collector	Hialeah Gardens	D	396 531	760 760	0.52 0.70	Yes Yes	
	NW 107 Avenue	Hialeah Gardens Blvd	NWB SEB	1 L 1 L	Collector	Hialeah Gardens	D	489 245	760 760	0.64 0.32	Yes Yes	
		NW 87 Avenue	NW 87 Avenue	NWB SEB	1 L 1 L	Collector	Hialeah Gardens	D	272 291	760 760	0.36 0.38	Yes Yes
	NW 87 Avenue	NW 77 Avenue	NWB SEB	1 L 1 L	Collector	Hialeah Gardens	D	766 349	760 760	1.01 0.46	No Yes	
		SR 826	Red Road/NW 4 Av	EB WB	3 LD 3 LD	FIHS	Hialeah/Miami Lakes	D	3,287 2,970	5,410 5,410	0.61 0.55	Yes Yes
	Okeechobee Road	NW 97 Avenue	EB WB	1 L 1 L	Collector	Hialeah Gardens	D	327 237	608 608	0.54 0.39	Yes Yes	
		NW 97 Avenue	NW 87 Av / W 28 Av	EB WB	1 L 1 L	County Minor Arterial	Hialeah	D	566 611	608 608	0.83 1.01	Yes No
	NW 87 Av / W 28 Av	SR 826	EB WB	2 LD 2 LD	County Minor Arterial	Hialeah	D	1,385 1,666	1,620 1,620	0.86 1.03	Yes No	

Notes:
(1) Committed Roadway Improvement.
(2) Project related Improvement.
(3) See HCS+ analysis provided in Appendix 21-3.
Revised July 2008

Source: David Plummer and Associates, Inc.

- 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 trips/existing 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 percent of the net new external trips obtained from the adjusted trip generation as described in sections above.

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 existing service volumes. In addition, Project traffic on all the 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.

TABLE 21-7 (R)
Project Traffic Assignment (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	Directional # of Lanes	Roadway Type	LOS STD	Service Volume	Net New External Project Traffic	
	From	To						Project Traffic	% Consumption
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	3 LD	FHS	D	5,410	157	2.9%
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	WB	3 LD	FHS	D	5,410	70	1.3%
	Miami Lakes Drive	I-75	SB	3 LD	FHS	D	5,410	92	1.7%
			NB	3 LD	FHS	D	5,410	41	0.8%
	I-75	W 68 St/NW 122 Street	SB	3 LD	FHS	D	5,410	92	1.7%
			NB	3 LD	FHS	D	5,410	92	1.7%
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	SB	4 LD	FHS	D	7,380	123	1.7%
			NB	4 LD	FHS	D	7,380	275	3.7%
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	SB	4 LD	FHS	D	7,380	103	1.4%
			NB	4 LD	FHS	D	7,380	229	3.1%
Okeechobee Rd/US 27	NW 74 Street	SB	5 LD	FHS	D	9,340	86	0.9%	
		NB	5 LD	FHS	D	9,340	191	2.0%	
Miami Gardens Drive	NW 170 Street	SB	5 LD	FHS	D	9,340	92	1.0%	
		NB	5 LD	FHS	D	9,340	205	2.2%	
NW 170 Street	Miami Lakes Drive	SB	2 LD	Collector	D	1,620	72	4.4%	
		NB	2 LD	Collector	D	1,620	32	2.0%	
Miami Lakes Drive	I-75	SB	2 LD	Collector	D	1,620	0	0.0%	
		NB	2 LD	Collector	D	1,620	0	0.0%	
Miramar Parkway	HEFT	SB	2 LD	Collector	D	1,620	3	0.4%	
		NB	2 LD	Collector	D	1,620	7	0.4%	
NW 186 Street	NW 138 Street	SB	4 LD	FHS	D	7,480	329	19.02%	
		NB	4 LD	FHS	D	7,480	148	2.0%	
NW 138 Street	SR 826	SB	4 LD	FHS	D	7,380	0	0.0%	
		NB	4 LD	FHS	D	7,380	0	0.0%	
NW 154 Street	NW 154 Street	SB	2 LD	NA	D	1,620	224	21.73%	
		NB	2 LD	NA	D	1,620	321	19.8%	
NW 138 Street	W 68 Street	SB	2 LD	Collector	D	1,620	404	51.95%	
		NB	2 LD	Collector	D	1,620	899	24.9%	
NW 166 Street	NW 154 Street	SB	1 L	Collector	D	760	13	1.71%	
		NB	1 L	Collector	D	760	30	3.9%	
NW 154 Street	NW 138 Street	SB	1 L	Collector	D	760	79	10.17%	
		NB	1 L	Collector	D	760	176	23.2%	
NW 106 Street	Okeechobee Rd/US 27	SB	1 L	Collector	D	760	236	30.42%	
		NB	1 L	Collector	D	760	527	69.3%	
NW 170 Street	I-75	SB	2 LD	FHS	D	3,580	137	7.89%	
		NB	2 LD	FHS	D	3,580	61	1.7%	
NW 170 Street	Okeechobee Rd/US 27	SB	3 LD	FHS	D	5,530	466	26.91%	
		NB	3 LD	FHS	D	5,530	209	3.8%	
Okeechobee Rd/US 27	NW 106 Street	SB	3 LD	FHS	D	5,530	320	18.50%	
		NB	3 LD	FHS	D	5,530	144	5.8%	
NW 106 Street	NW 74 Street	SB	3 LD	FHS	D	5,530	320	18.50%	
		NB	3 LD	FHS	D	5,530	144	5.8%	

Notes: (1) See HCS+ analysis provided in Appendix 21-3.
 Revised July 2008
 Source: David Plummer and Associates, Inc.

TABLE 21-7 (R) Project Traffic Assignment (weekday, one-way, PM peak) Beacon County/line DRI											
Roadway	Limits		Direction	Directional # of Lanes	Roadway Type	LOS STD	Service Volume (1)	Project Traffic	Net New External Project Traffic % Project	Project Traffic Consumption	
	From	To								One-Way	Two-Way
Miami Gardens Drive (NW 186 Street)	I-75	NW 87 Avenue	WB	2 LD	State Minor Arterial	SUMA	1,800	0	0.00%	0.0%	0.0%
	NW 87 Avenue	NW 77 Avenue	EB	2 LD	State Minor Arterial	SUMA	1,800	34	1.95%	1.9%	1.4%
	NW 77 Avenue	NW 67 Avenue	EB	2 LD	State Minor Arterial	SUMA	1,800	15	0.8%	0.8%	1.8%
	NW 67 Avenue	NW 57 Avenue (Red Rd)	WB	2 LD	State Minor Arterial	HE	1,800	20	2.59%	1.1%	1.1%
NW 170 Street	HEFT	NW 97 Avenue	WB	2 LD	State Minor Arterial	D	1,800	27	1.56%	0.7%	37.2%
	NW 97 Avenue	I-75	EB	2 LD	Collector	D	1,620	820	48.09%	50.6%	26.9%
	NW 87 Avenue	NW 87 Avenue	WB	1 L	Collector	D	798	296	17.11%	16.7%	28.2%
	NW 77 Avenue	NW 77 Avenue	WB	1 L	Collector	D	760	296	17.11%	17.5%	14.9%
	NW 67 Avenue	NW 67 Avenue	WB	1 L	Collector	D	760	157	9.05%	20.7%	12.3%
NW 138 Street	Okeechobee Rd/US 27	NW 107 Avenue	WB	2 LD	Collector	D	1,620	36	4.63%	2.2%	3.6%
	NW 107 Avenue	NW 97 Avenue	WB	2 LD	Collector	D	1,620	80	2.07%	4.9%	1.6%
	NW 97 Avenue	Hiialeah Gardens Drive	WB	2 LD	Collector	D	1,620	35	2.22%	2.2%	1.0%
NW 130 Street (W 76 Street)	NW 97 Av	Hiialeah Gardens Drive	WB	2 LD	County Minor Arterial	D	1,620	819	47.33%	50.6%	36.6%
	Hiialeah Gardens Drive	NW 87 Av	WB	1 L	County Minor Arterial	D	760	76	4.39%	10.0%	7.2%
	NW 87 Av	W of SR 826	WB	1 L	County Minor Arterial	D	760	64	3.71%	8.4%	6.1%
Okeechobee Rd/US 27	West HEFT	HEFT	WB	1 L	County Minor Arterial	C	760	29	0.80%	1.8%	1.3%
	HEFT	NW 138 Street	WB	2 LD	FIHS	C	2,500	25	3.23%	1.0%	1.6%
	NW 138 Street	Hiialeah Gardens Drive	WB	3 LD	FIHS	D	2,790	25	3.23%	2.2%	1.5%
	Hiialeah Gardens Drive	NW 87 Avenue	WB	3 LD	FIHS	D	2,790	56	12.56%	2.0%	5.6%
	NW 87 Avenue	SR 826	WB	3 LD	FIHS	D	2,790	217	7.8%	7.8%	4.5%
	SR 826	NW 74 St	WB	3 LD	State Principal Arterial	E + 20%	2,790	59	7.62%	4.7%	3.4%
West Okeechobee Rd / Frontage Road	US 27/NW 138 Street	NW 107 Avenue	WB	3 LD	Collector	D	3,348	64	3.71%	1.9%	1.4%
	NW 107 Avenue	Hiialeah Gardens Blvd	WB	1 L	Collector	D	760	0	0.00%	0.0%	0.0%
	Hiialeah Gardens Blvd	NW 87 Avenue	WB	1 L	Collector	D	760	29	1.67%	3.8%	2.8%
	NW 87 Avenue	NW 77 Avenue	WB	1 L	Collector	D	760	14	1.79%	1.7%	3.0%
	NW 77 Avenue	Red Road/W 4 Av	WB	1 L	Collector	D	760	16	0.92%	2.1%	1.5%
Gratigny Expressway	SR 826	Red Road/W 4 Av	WB	3 LD	FIHS	D	5,410	375	21.65%	6.9%	5.0%
W 68 Street/NW 122 Street	Okeechobee Road	NW 97 Avenue	WB	1 L	Collector	D	5,410	168	3.1%	3.1%	4.6%
	NW 97 Avenue	NW 87 Av / W 28 Av	WB	1 L	County Minor Arterial	D	608	39	2.23%	6.4%	5.5%
	NW 87 Av / W 28 Av	SR 826	WB	2 LD	County Minor Arterial	D	608	21	2.67%	7.6%	0.8%
	SR 826		WB	2 LD	County Minor Arterial	D	1,620	13	0.76%	0.8%	0.4%

Source: David Plummer and Associates, Inc.

Revised July 2008

Table 21-8 (R) – Future Traffic Conditions with Project shows total traffic on the regionally significant roadways with the Project. Intersection 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 21-14 (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 section of roadway was also not included in the model run. Model runs for this scenario are **Appendix 21-14 (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 21-14 (R) – Sensitivity Analysis** provides a more detailed description of the sensitivity 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.

TABLE 21-8 (R)
Future Traffic Conditions with Project - (weekday, one-way, PM peak)
Beacon Countyline DRI

Roadway	Limits		Direction	Roadway Type	Municipality	Volume (2018)	LOS STD	Service Volume	V/SV	Meets LOS STD?	Project % Consumption
	From	To									
Palmetto Expressway (SR 826)	Red Road/NW 57 Av	NW 67 Av/Ludlam Rd	EB	3 LD	Miami Lakes	8,329	D	5,410	1.54	No	2.9%
	NW 67 Av/Ludlam Rd	Miami Lakes Drive	WB	3 LD	Miami Lakes	6,765	D	5,410	1.25	No	1.3%
	Miami Lakes Drive	I-75	SWB	3 LD	Miami Lakes	8,944	D	5,410	1.65	No	1.7%
	I-75	W 68 St/NW 122 Street	NB	3 LD	Miami Lakes	7,197	D	5,410	1.33	No	0.8%
	W 68 St/NW 122 Street	W 49 Street/NW 103 St	SB	3 LD	Hiialeah	9,166	D	5,410	1.69	No	1.7%
	W 49 Street/NW 103 St	Okeechobee Rd/US 27	NB	4 LD	Hiialeah	7,195	D	5,410	1.33	No	1.7%
	Okeechobee Rd/US 27	NW 74 Street	NB	4 LD	Hiialeah	10,653	D	7,380	1.44	No	1.7%
	Miami Gardens Drive	NW 170 Street	SB	4 LD	Hiialeah	8,654	D	7,380	1.17	No	3.7%
	NW 170 Street	Miami Lakes Drive	NB	4 LD	Hiialeah	7,380	D	7,380	1.49	No	1.4%
	Miami Lakes Drive	HEFT	SB	4 LD	Hiialeah/Hiialeah	8,915	D	7,380	1.21	No	3.1%
NW 87 Avenue / West 28 Avenue	NW 170 Street	NW 170 Street	NB	5 LD	Medley	11,360	D	9,340	1.22	No	0.9%
	Miami Lakes Drive	Miami Lakes Drive	SB	5 LD	Miami-Dade	9,162	D	9,340	0.98	Yes	2.0%
	HEFT	NW 186 Street	NB	5 LD	Miami Lakes	11,874	D	9,340	1.27	No	1.0%
	NW 186 Street	NW 138 Street	SB	5 LD	Miami Lakes	9,663	D	9,340	1.03	No	2.2%
	NW 138 Street	SR 826	NB	2 LD	Miami-Dade	555	D	1,620	0.34	Yes	4.4%
	NW 138 Street	NW 138 Street	SB	2 LD	Miami Lakes	791	D	1,620	0.49	Yes	2.0%
	NW 138 Street	HEFT	NB	2 LD	Miami Lakes	53	D	1,620	0.03	Yes	0.0%
	NW 138 Street	NW 138 Street	SB	2 LD	Miami Lakes	108	D	1,620	0.07	Yes	0.0%
	NW 138 Street	NW 138 Street	NB	2 LD	Miami Lakes	912	D	1,620	0.56	Yes	0.4%
	NW 138 Street	SR 826	SB	2 LD	Miami Lakes	10,512	D	7,480	1.41	No	2.2%
NW 97 Avenue	NW 166 Street	NW 162 Street	NB	4 LD	Miami-Dade	9,545	D	7,480	1.28	No	0.9%
	NW 162 Street	NW 154 Street	SB	4 LD	Miami-Dade	9,098	D	7,380	1.23	No	4.4%
	NW 154 Street	NW 138 Street	NB	4 LD	Miami	8,439	D	7,380	1.14	No	2.0%
	NW 138 Street	SR 826	SB	4 LD	Miami	8,842	D	7,380	1.20	No	0.0%
	NW 138 Street	NW 138 Street	NB	4 LD	Miami	7,832	D	7,380	1.06	No	0.0%
	NW 138 Street	NW 138 Street	SB	4 LD	Miami	7,669	D	7,380	1.06	No	0.0%
	NW 138 Street	NW 138 Street	NB	4 LD	Miami	7,739	D	7,380	1.06	No	0.0%
	NW 138 Street	NW 138 Street	SB	4 LD	Miami	313	D	1,620	0.19	Yes (1)	0.1%
	NW 138 Street	NW 138 Street	NB	2 LD	Hiialeah	427	D	1,620	0.26	Yes	3.2%
	NW 138 Street	NW 138 Street	SB	2 LD	Hiialeah	493	D	1,620	0.30	Yes	2.1%
NW 107 Avenue	NW 166 Street	NW 162 Street	NB	2 LD	Hiialeah/Hiialeah	1,005	D	1,620	0.62	Yes	13.8%
	NW 162 Street	NW 154 Street	SB	1 L	Hiialeah/Hiialeah	272	D	1,620	0.36	Yes	19.8%
	NW 154 Street	NW 138 Street	NB	1 L	Hiialeah/Hiialeah	187	D	760	0.25	Yes	24.9%
	NW 138 Street	SR 826	SB	1 L	Hiialeah/Hiialeah	79	D	760	0.10	Yes	55.5%
	NW 138 Street	NW 138 Street	NB	1 L	Hiialeah/Hiialeah	176	D	760	0.23	Yes	1.7%
	NW 138 Street	NW 138 Street	SB	1 L	Hiialeah/Hiialeah	236	D	760	0.31	Yes	3.9%
	NW 138 Street	NW 138 Street	NB	1 L	Hiialeah/Hiialeah	527	D	760	0.69	Yes	10.4%
	NW 138 Street	NW 138 Street	SB	1 L	Hiialeah/Hiialeah	360	D	760	0.47	Yes	23.2%
	NW 138 Street	NW 138 Street	NB	1 L	Gardens	648	D	760	0.85	Yes	31.1%
	NW 138 Street	NW 138 Street	SB	1 L	Hiialeah Gardens	652	D	1,620	0.40	Yes	69.3%
HEFT	NW 57 Av (Red Road)	I-75	NB	2 LD	Miami-Dade	752	D	1,620	0.46	Yes	31.1%
	I-75	NW 170 Street	NB	2 LD	Miami-Dade	4,854	D	3,580	1.36	No	11.2%
	NW 170 Street	Okeechobee Rd/US 27	SB	2 LD	Miami-Dade	3,536	D	3,580	0.99	Yes	24.9%
	Okeechobee Rd/US 27	NW 106 Street	NB	3 LD	Miami-Dade	8,859	D	5,530	1.60	Yes	3.8%
	NW 106 Street	NW 106 Street	SB	3 LD	Miami-Dade	8,282	D	5,530	1.14	No	1.7%
	NW 106 Street	NW 106 Street	NB	3 LD	Miami-Dade	8,531	D	5,530	1.54	No	8.4%
	NW 106 Street	NW 106 Street	SB	3 LD	Miami-Dade	6,334	D	5,530	1.15	No	3.8%
	NW 106 Street	NW 106 Street	NB	3 LD	Miami-Dade	9,198	D	5,530	1.66	No	2.6%
	NW 106 Street	NW 106 Street	SB	3 LD	Miami-Dade	6,806	D	5,530	1.23	No	5.8%
	NW 106 Street	NW 106 Street	NB	3 LD	Miami-Dade	9,809	D	5,530	1.77	No	2.6%
			SB	3 LD	Miami-Dade	7,420	D	5,530	1.34	No	5.8%

(1) See HCS+ analysis provided in Appendix 21-
 Revised July 2008
 Source: David Plummer and Associates, Inc.

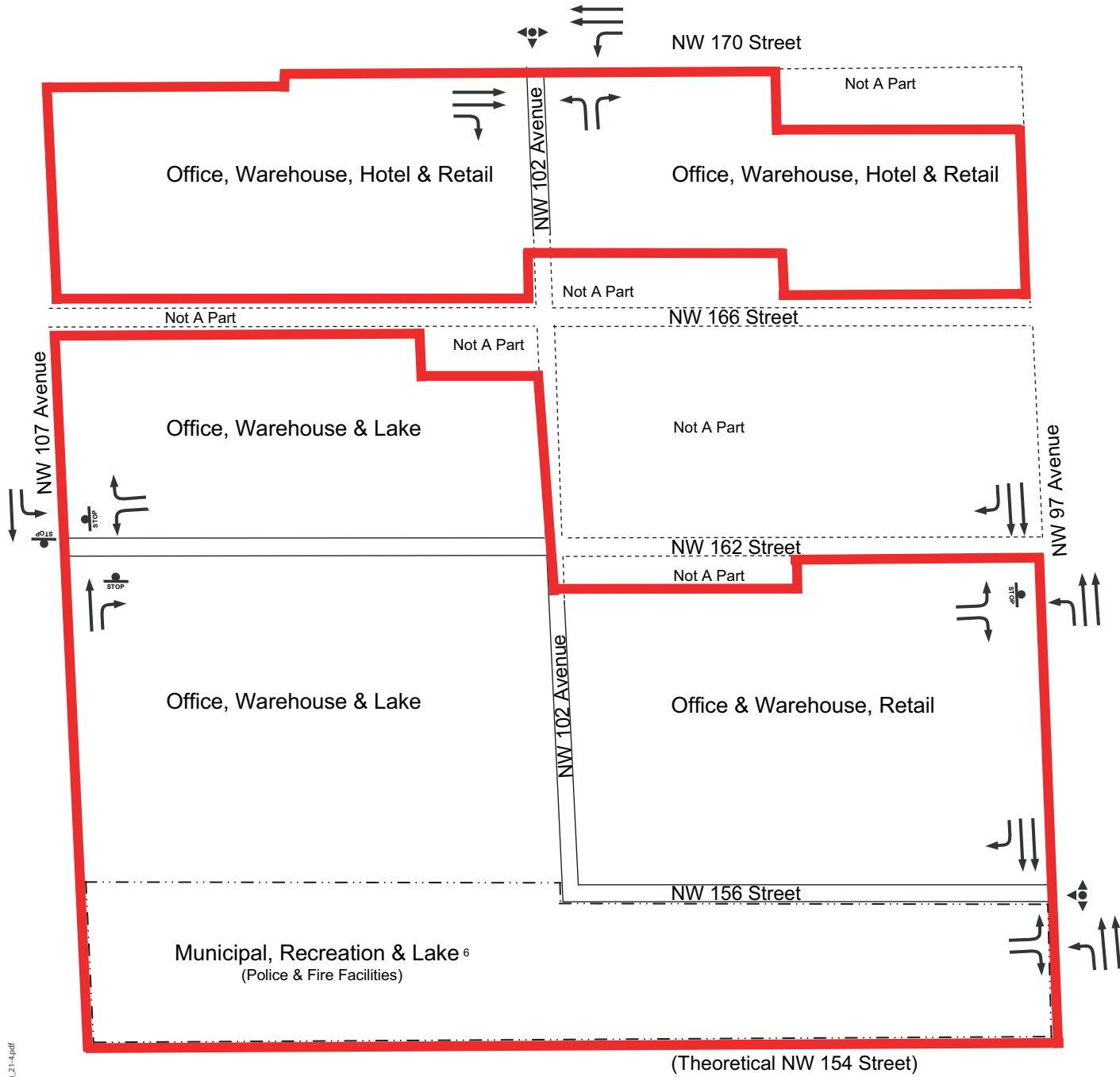
**Table 21-9 (R)
Intersection and Ramp Analysis Results
Beacon Countyline DRI**

Intersection/Ramp	Time Period	Existing	Future w/o 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/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	A	B	B	B
	PM	F	F	F	C
I-75 SB to HEFT SWB Diverge	AM	C	F	F	(1)
	PM	A	B	B	(1)
I-75 SB to HEFT SWB Merge	AM	B	F	F	C
	PM	A	B	B	A
HEFT/NW 170 St Ramps ⁽²⁾	PM	---	---	---	C
NW 138 Street EB to I-75 EB Merge	AM	C	D	D	---
	PM	C	C	E	---
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	F	F	A
	PM	B	F	F	B

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 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 pm peak hour two-way trips:

Beacon Countyline DRI Proposed Development Program	
Land Use	Sample Intensity
Warehouse	4,300,000 Sq. Ft.
Office	750,000 Sq. Ft.
Retail	350,000 Sq. Ft.
Source: David Plummer & Associates	

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 Beacon Countyline, LLC would use. The goal was to develop a program whose trip generation would not exceed 2,000 pm peak hour net new trips, in order to maintain similar impacts on the street network.

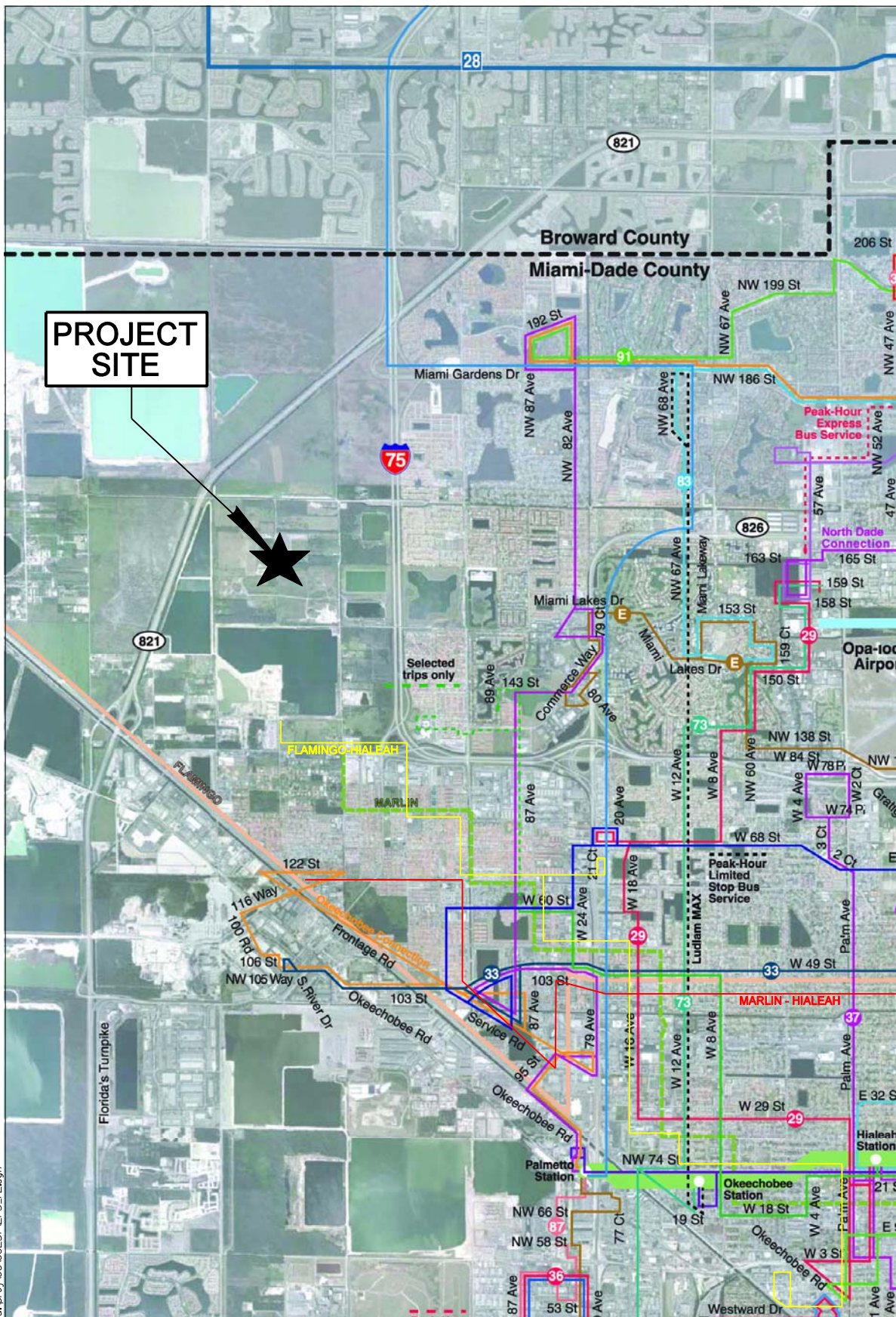


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- Legend:**
- Property Boundary
 - Approximate Municipal, Recreation Parcel Boundary ⁶
 - On-site Roadway
 - Off-site Roadway



Exhibit 21-4(R2)
Principal Project Access
Beacon Countyline
November 2007



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Source: David Plummer & Associates

Exhibit 21-5 (R2)
Existing Transit Routes
Beacon Countyline DRI

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- 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 NW 103 Street 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;
- 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 one mainline thru lane (HEFT) at diverge area;
- I-75 southbound to HEFT south-westbound ramp, add one mainline thru lane at diverge (I-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 I-75 and NW 122 Street, widen from 10 to 12 lanes;
- NW 170 Street / NW 102 Avenue, Signalization;
- NW 170 Street / NW 97 Avenue, Signalization;
- NW 97 Avenue / NW 156 Street, Signalization; and,
- NW 138 Street eastbound to I-75 eastbound ramp, add a ramp lane at the diverge area.

- 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 21-4 – 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 21-5 (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.

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 Miami-Dade 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 21-15 (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.