

BEACON COUNTYLINE DRI
Responses to the Statement of Information Needed
Third Round – October 15, 2008

**COMMENTS FROM THE
SOUTH FLORIDA REGIONAL PLANNING COUNCIL**

Comment 21.F: Recommended Improvements - The Applicant's responses remains insufficient since the Applicant has not identified any recent rail feasibility studies (or other premium transit) or analyzed the potential for rail along I-75 between Miramar Parkway and the Homestead Extension of the Florida Turnpike.

Response: Question 21 has been revised to discuss long term transit improvements planned for I-75 in the South Florida Strategic Plan and the I-75 Master Plan.

COMMENTS FROM MIAMI DADE EXPRESSWAY AUTHORITY

Comment: During our review, we were not able to reproduce the numbers on the “% Project” column in Table 21-7 (R). Please verify.

Response: The column labeled % Project has been revised to reflect 100% of the project trips. A graphic showing this revised distribution has been incorporated in Question 21 as Exhibit 21-6. Please note that the project assignment on Table 21-7 (R) listed under Project Traffic, and previously included as FDOT VI Attachment 2, did reflect and continues to reflect the assignment of 100% of the trip generation established in Table 21-4 (R). A summary of the trip distribution in the vicinity of the project has been included in Appendix 21-6 of Question 21.

COMMENTS FROM FLORIDA'S TURNPIKE ENTERPRISE

Remaining Comment: A project assignment graphic documenting 100% assignment of external project traffic is not included.

Response: See response to MDX's comment above.

PLANNED AND COMMITTED IMPROVEMENTS

Current Comment: The NW 170th Street interchange is not in the Turnpike's Cost Feasible Plan and the applicant has not committed to funding the proposed new interchange at NW 170th Street. Therefore, the development order for this project

should clearly identify development restrictions and/or alternative mitigation, in case that the NW 170th Street interchange is not approved and/or funded.

Response: The sensitivity analysis provided in Appendix 21-14 (R) – Sensitivity Analysis was prepared to demonstrate the amount of development that can be supported prior to the need for an interchange on the HEFT at NW 170 Street. The analysis shows that without the interchange, development generating up to 2,000 pm peak hour trips can be supported by the street network. The Applicant contemplates that the 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:

Land Use	Sample Intensity
Warehouse	3,000,000 Square Feet
Retail	100,000 Square Feet
Office	225,000 Square Feet

Furthermore, the sensitivity analysis was performed for the build-out year (2018). Identifying committed funding for the interchange is not feasible at this time. That will require extensive discussions with Florida’s Turnpike Enterprise. However, the Applicant has agreed that the DRI will not proceed through build-out until the interchange is constructed.

INTERSECTION AND RAMP ANALYSIS

Current Comment: The application does not include the most recent ramp merge/diverge analysis provided to the FTE separately from the SIN 2 submittal.

Response: The latest merge/diverge analysis is provided in Appendix 21-3 (R).

Current Comment: The ramp roadway analysis was not provided. Preliminary review of the ramp volume information indicates that a second ramp lane is required northbound HEFT to northbound I-75 ramp. The improvement has not been identified by the applicant.

Response: The ramp roadway analysis is provided in Appendix 21-3 (R). Improvements needed to support existing as well as future conditions are included in Question 21.

PROPORTIONATE SHARE CALCULATIONS

Remaining Comment: Proportionate fair share calculations have not been incorporated into the application.

Response: Proportionate Share is included as Attachment 1.

**COMMENTS FROM KITTELSON & ASSOCIATES, INC. ON
BEHALF OF FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT 6**

SECTION 1: OUTSTANDING ADA COMMENTS

Existing Conditions

Operational Analyses

Comment: After reviewing SIN 2 FDOT District VI Attachment 1 – Ramp Volumes and Appendix 21-3 (R) HCS Analysis, KAI has the following observations:

(1) It is unclear how the Background Traffic Volumes on the ramps were obtained for both AM and PM peak hour conditions. Please justify or revise.

Response: The average growth rate of both expressways was used to establish future background growth for all the ramps in the study area. This explanation was included in FDOT District VI Attachment 1 (SIN 2) note (2).

(2) The PM peak hour Future Traffic Volumes with and without Project reported in the FDOT District VI Attachment 1 are inconsistent with Table 21-6 (R) and Table 21-8 (R). The applicant should revise the FDOT District VI Attachment 1 to be consistent with the tables included in the report.

Response: An exact match of traffic volumes between ramp projections and roadway segments analyzed is not possible for several reasons. First, existing counts (obtained from the FDOT database) do not always match between the mainline segments and the ramps. Second, a different background growth rate has been applied to each expressway in the study area (as agreed during methodology discussions). The following methodology, discussed with FDOT District VI during this sufficiency, was used to obtain future ramp volumes:

1. Obtain from Table 21-1 the existing volumes on the mainline for the segment adjacent to the merge/diverge area analyzed (HEFT – I-75 to 170 Street; and, I-75 north of HEFT).
2. Obtain counts from FDOT's 2006 Florida Traffic Information for the ramps. Adjust as follows:
 - (i) reflect 2007 conditions using the average growth rate of both expressways for the ramp;
 - (ii) reflect peak season conditions using seasonal factors, and

- (iii) reflect the truck use consistent with T factor provided in the count.
3. Obtain future background conditions at the project's buildout year (2018) using half of the average growth rate of both expressways for 11 years.
4. Add committed developments and project traffic to obtain future traffic without and with Project.
5. For the diverge areas, the mainline volumes from 1 above and ramp volumes from 2 above are used in the HCS analysis. Existing conditions for the mainline matches Table 21-1; Future without Project for the mainline matches Table 21-7, and Future with Project on the mainline matches Table 21-8.
6. For the merge areas, the adjusted existing ramp volume from 2 above is subtracted from the existing mainline volume after the merge (as obtained from table 21-1) to obtain the upstream volume for existing conditions. The resulting existing upstream volume is grown at the same rate of the expressway. Although this was done to better balance this volume to the adjacent link volume in Table 21-1, the resulting volumes at the merge/diverge areas do not fully match upstream and downstream for either existing, or future conditions. Committed development and project traffic is then assigned to both the mainline and the ramp to obtain future traffic with and without Project. These volumes were used in the HCS analysis.

Tables depicting the breakdown of all volumes used in the analyses, as well as graphics, have now been included in the revised Question 21 as Appendix 21-14 (R).

(3) FDOT District VI Attachment 1 should be revised to show balanced traffic volumes up and downstream of the interchanges analyzed under the Future without Project Scenario and Future with Project Scenario. For example, the PM peak hour Future without Project volume on northbound I-75 mainline before the on-ramp should be 6,880 vph, which corresponds to the difference between the traffic volume on northbound I-75 mainline after merge (10,213) and the volume on I-75 northbound on-ramp (3,333). However, a 7,183 traffic volume is shown in the attachment mentioned above. KAI recognizes that the applicant used the balanced values for the HCS analysis; however, FDOT District VI Attachment 1 should be revised to note this.

Response: See response to FDOT District VI comment 2 above.

(4) The AM peak hour growth rates reported in the FDOT District VI Attachment 1 should be revised to be consistent with the PM peak hour conditions.

Response: Please note that existing pm peak hour conditions, traffic volumes on the mainline were obtained from Table 21-1 (R). Growth rates are only listed for the ramps in column 7 of the attachment since the mainline volumes in the segment analysis were already adjusted to 2007 conditions during the pm peak. For AM peak conditions, FDOT

2006 counts were adjusted to 2007 conditions for both the mainline and the ramps, this rate is listed in column 7. Column 10 shows the growth rate used to obtain future background conditions. The growth rate for AM and PM conditions for this scenario is the same for both ramps and mainline.

(5) In the SIN2 FDOT District VI section, Attachment 1, the Ramp Volume Table and the Project Volume on Ramps in Study Area table are not consistent with one another and should be revised where appropriate.

Response: The table depicting project traffic on the study area ramps has been revised and is included in Appendix 21-13 (R).

(6) FDOT District VI Attachment 1 should include the existing and projected ramp volumes on the I-75 and NW 186th Street interchange and on the northbound on-ramp and southbound off-ramp of the I-75 and NW 138th Street interchange to justify that the project does not have insignificant impact.

Response: Appendix 21-13 (R) includes a table depicting project traffic on the aforementioned ramps. Project traffic on these ramps is projected as follows:

<u>Location</u>	<u>PM Peak Hour Project Trips</u>
I-75 at NW 186 Street NB Off-Ramp	4
I-75 at NW 186 Street NB On-Ramp	0
I-75 at NW 186 Street SB Off-Ramp	0
I-75 at NW 186 Street SB On-Ramp	8
I-75 at NW 138 Street NB On-Ramp	8
I-75 at NW 138 Street SB Off-Ramp	4

(7) The following was observed regarding the ramp analyses provided in Appendix 21-3 (R).

- ***HEFT NB to I-75 NB Merge: The number of lanes in the ramp should be revised to be 1 instead of 2 since the most constrained condition should be analyzed.***

Response: Although we disagree with this interpretation of the existing lane configuration since HCS allows for different length acceleration lanes at ramps at a junction, the analysis was revised as requested. Note that the conclusions and lane need do not change.

- ***I-75 SB to HEFT SWB Diverge: The length of the first and second acceleration lanes should be identical.***

Response: Although we disagree with this interpretation of the existing lane configuration since I-75 widens from 4 to 5 lanes approximately 2,400' north of the ramp and only 4 lanes continue south of the ramp, the analysis was revised as requested. Note that the conclusions and lane need do not change.

- ***NW 138 Street EB to I-75 EB Ramp Merge: The number of lanes in the freeway assumed for the PM peak hour Future without Project Analysis should be revised to be 4 lanes instead of 5.***

Response: The analysis reflects 4 lanes in the mainline.

- ***SR 826 NB to I-75 WB Ramp Diverge: The length of the second deceleration lane should be revised to approximately 600 feet.***

Response: The analysis has been revised, as requested. The conclusions remain the same.

(8) The PM peak hour HCS ramp analysis reports listed below are not included in Appendix 21-3 (R). The applicant should provide the HCS reports in order to review the analysis.

- ***HEFT NEB to I-75 NB Diverge (Future without Project Scenario, Future with Project Scenario, and Future with Project with Improvements Scenario).***
- ***I-75 EB to SR 826 SB Diverge (Future with Project Scenario).***
- ***I-75 EB to SR 826 SB Merge (Future with Project with Improvements Scenario).***

Response: Appendix 21-3 (R) provides a complete set of HCS analysis worksheets for ramps and intersections.

(9) Table 21-9 (R) should be revised as follows:

- ***A PM peak hour level-of-service C should be reported on HEFT NEB to I-75 NB Merge for existing conditions.***
- ***The level-of-service for the Future with Project with Improvements Scenario on NW 138th Street to I-75 EB Merge should be reported.***
- ***The results for all ramp analysis on the HEFT and NW 170th Street interchange should be summarized.***

- *The table references the reader to two notes; however, the note descriptions are not provided.*

Response: Table 21-9 (R) has been revised.

(10) Figures showing the traffic volumes at the analyzed interchanges should be provided.

Response: Appendix 21-14 (R) includes these figures.

(11) Appendix 21-3 (R) needs to include the intersection analyses of NW 170th Street/NW 87th Avenue and NW 170th Street/NW 77th Avenue since the segment between these two intersections was found to be significant and failing under Future Traffic Conditions with Project.

Response: Appendix 21-3 (R) includes analysis of these intersections.

(12) A table summarizing the existing and projected turning movements at each of the intersections analyzed should be provided (an example table is being attached). The current information provided is not sufficient. KAI was not able to clearly follow the projected turning movements at the intersections analyzed. In addition, the signal timing sheets provided by the County for the intersection of NW 122 Street and NW 87 Avenue must be included in the appendix for review purposes.

Response: This table was provided in the responses to the first sufficiency. It was not subsequently provided since changes were not warranted. The table has been updated to include the NW 170 Street/NW 87 Avenue and NW 170 Street/NW 78 Avenue intersections, and is included in Appendix 21-14 (R) of the revised Question 21.

The signal timing sheet for the intersection of NW 122 Street and NW 87 Avenue was included in Appendix 21-2 of the previous submittal. The intersection is located within the City of Hialeah, and the signal timing sheet is labeled with the Hialeah street numbering system, that is W 68 Street and W 28 Avenue.

Year 2018 Future Traffic Conditions (without the project)

Operational Analyses

18. All twelve points identified under Comment 12, Existing Conditions Operational Analyses comments are applicable to the 2008 Future Traffic Conditions (without the project) analyses and should be addressed under this scenario accordingly.

Response: The information and analysis is provided in Question 21 (R).

Year 2018 Future Traffic Conditions (with the project)

Trip Generation and Distribution/Assignment:

23. The model outputs do not match the trip distribution assigned to the project. Additional information must be provided to describe the trip distribution methodology applied to the project. In addition, the trip distribution in Attachment 2 does not total 100% on the roadway network adjacent to the site. In addition to the model output not matching the trip distribution, the trip distribution provided in FDOT District VI Attachment 2 – Project Distribution does not match the trip assignment provided in FDOT District VI Attachment 3 – Project Assignment and Table 21-7 (R). For instance, in Table 21-7 (R) the segment on NW 170th Street between HEFT and NW 97th Avenue is shown to carry 48.09% of the net new external project traffic, which implies a total of 1,748 new trips on the segment (542 eastbound and 1,206 westbound). However, the applicant shows a total of 1,206 new trips on the segment (386 eastbound and 820 westbound). It appears that only the proposed development outbound trips have been applied to the total traffic volume, while the total net new external trips (inbound and outbound) should be applied. The applicant should revise the trip assignment to correspond with the trip distribution, and all figures and tables should be modified where necessary.

Response: See response to MDX comment.

Operational Analyses

25. All twelve points identified under Comment 12, Existing Conditions Operational Analyses comments, are applicable to the 2018 Future Traffic Conditions (without the project) analyses and should be addressed under this scenario accordingly.

Response: The information and analysis is provided in Question 21 (R).

HEFT/NW 170th Street Interchange Sensitivity Analysis

26. In the SIN2 applicant response to the FDOT D6 comments, the sensitivity analysis development program is not consistent with the sensitivity analysis development program in the revised ADA Question 21 on Page 21-28 (R2). The sensitivity analysis development program listed in the response to comments is less intense than the sensitivity analysis development program listed in the revised ADA. The ADA should be revised accordingly.

Response: The information was revised in Question 21 (R).

SECTION 2: OUTSTANDING APRIL 2008 SIN1 COMMENTS

27. 28. 29. All review agencies participating in the DRI review process do not participate in the development order process. Therefore, it is critical that proportionate share calculations and responsibilities are clearly identified in the DRI submittals. Historically, DRI's reviewed by the Department have contained this information in the ADA through the SIN2 submittals as it is a requirement of Question 21.

Furthermore, a letter of intent was prepared and distributed by the Department of Community Affairs stating that the HB 7203 does not change the DRI proportionate share calculation methodology. Attached is an email from DCA stating this interpretation. All segments that are significant and failing must have proportionate share calculations documented in the revised submittal.

Response: In the DRI process, review agencies establish the parameters of the traffic study, and ensure that the study is consistent with the agreed upon methodology. The traffic study then serves as the basis for the calculation of proportionate share. The review is intended to be technical in nature and should not be influenced by the amount of the proportionate share or intended developer improvements.

The proportionate share is included as Attachment 1. The proportionate share calculation methodology is not impacted by HB 7203.

SECTION 3: AUGUST 2008 SIN2 COMMENTS

30. Due to three rounds of review, the updated submittals should clearly outline what sections have been updated; this includes appendices.

Response: Question 21, Tables and Exhibits that experience changes from SIN 2 have been labeled Revised October 2008 and highlighted.

31. The project percent consumption in Table 21-8 (R) should be revised for consistency with Table 21-7 (R).

Response: See response to MDX comment.

32. Appendix 21-12 (R) was not updated to reflect the trip generation and distribution on the SIN2. In addition, the project assignment to Miramar Parkway ramps is unclear. Please revise the table to clearly identify the northbound and southbound I-75 mainline volumes, and specify the percent of traffic using the southbound on-ramp.

Response: Appendix 21-12 (R) is included in Question 21 (R). The assignment to the Miramar Parkway ramps is consistent with what was agreed with FDOT District IV during methodology discussions. The ramp volumes were compared to the mainline volume to obtain a proportion of ramp to mainline volume. This proportion was then applied to project traffic. This process was applied to the northbound direction. The same ramp-to-mainline percent was applied to the opposite ramp movement for the southbound ramps. Please note that the southbound project volume on mainline I-75 south of Miramar Parkway is 148 vehicles per hour (vph), which in itself is less than the 200 vph threshold established by FDOT to analyze ramps.

**COMMENTS FROM FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT 4**

Comment 17: It is still unclear how the project traffic is assigned beyond NW 97th Avenue. Please clearly show the percent distribution from the project site; the percent assigned to external roads should add up to 100 percent, and track all project trip percentages until they are less than 5 percent of the adopted service volumes.

Response: See Response to MDX's Comment.

**Attachment 1
PROPORTIONATE SHARE
Beacon Countyline DRI**

Roadway	Limits		Committed Lanes	E+C SV	Project	Improved		Total Volume	Project Consumption	Distance (miles)	# of Lanes for Prop Share	Cost (2) (3)	Prop Share
	From	To				Lanes	SV						
HEFT	I-75	NW 170 Street	5 LD 5 LD	5,530 5,530	466 209	5 LD 5 LD	9,440 9,440	8,859 6,282	8.4% 3.8%	2	2 L 2 L	\$70,400,000	\$6,076,700
	NW 170 Street	Okeechobee Rd/US 27	5 LD (1) 5 LD (1)	5,530 5,530	144 320	5 LD 5 LD	9,440 9,440	8,531 6,334	2.6% 5.8%	2	2 L 2 L	\$70,400,000	\$4,177,200
	Okeechobee Rd/US 27	Beacon Station Blvd	5 LD (1) 5 LD (1)	5,530 5,530	144 320	5 LD 5 LD	9,440 9,440	9,198 6,806	2.6% 5.8%	2	2 L 2 L	\$70,400,000	\$4,177,200
	Beacon Station Blvd	NW 74 Street	6 LD (1) 6 LD (1)	5,530 5,530	144 320	6 LD 6 LD	11,390 11,390	9,809 7,420	2.6% 5.8%	2	3 L 3 L	\$109,400,000	\$4,331,200
TOTAL												\$19,095,400	

(1) Facility currently does not need adopted level of service standard.

(2) For Non State Roads, the Cost of \$1,951,500 per lane mile was used from the proposed Miami-Dade Roadway Impact Fee Ordinance.

(3) For Improvement to HEFT, FTE's preliminary estimate were obtained for the Concept work for widening the HEFT (from SR 836 to N of NW 57th Avenue) from 6 to 8 lanes is \$17million per mile. A ratio of 1.07 was applied to obtain the cost of additional lanes. This was done by comparing the statewide LREs of improving (8 to 10 lanes)/(6 to 8 lanes). The following costs were used:

\$17 million per mile for 6 to 8 lane improvement

\$17 million x 1.07 = \$18.2 million per mile for 8 to 10 lane improvement

\$18.2 million x 1.07 = \$19.5 million per mile for 10 to 12 lane improvement

Intersection	Ramp/Intersection Improvement	Cost (4)	SV Increase	Project	Prop Share
HEFT north-east bound to I-75 northbound ramp	Add 2 NB T lanes (HEFT) at diverge area	NA (5)	NA	NA	NA
HEFT north-east bound to I-75 northbound ramp	Add 1 NB T lanes (I-75) at merge area	NA (5)	NA	NA	NA
I-75 southbound to HEFT south-westbound ramp	Add one mainline thru lane at diverge (I-75) area (1)	NA (5)	NA	NA	NA
I-75 southbound to HEFT south-westbound ramp	Add two through lanes at merge area (HEFT)	NA (5)	NA	NA	NA
I-75 southbound to HEFT south-westbound ramp	Add one ramp lane	\$5,100,000	1600	291	\$927,563
NW 138 Street eastbound to I-75 eastbound ramp	Add a ramp lane	\$5,100,000	1,600	770	\$2,450,000
I-75 eastbound to SR 826 southbound ramp	Add 1 ramp lane at diverge area (1)	\$5,100,000	1,600	273	\$870,000
I-75 eastbound to Palmetto Expressway (SR 826) southbound	Add 2 mainline thru lane (SR 826) at merge area (1)	NA (5)	NA	NA	NA
Palmetto Expressway (SR 826) northbound to I-75 westbound	Add a mainline thru lane (SR 826) at diverge area	NA (5)	NA	NA	NA
Palmetto Expressway (SR 826) northbound to I-75 westbound	Add a mainline thru lane (I-75) at merge area	\$2,125,000	2,100	122	\$120,000
NW 170 Street / NW 78 Avenue	Convert from 2-2way Stop Control, to all-way Stop Control	\$5,000	982	226	\$1,200
NW 170 Street / NW 97 Avenue	Signalization	\$150,000	4,156	771	\$30,000
NW 87 Avenue / NW 122 Street (W 68 Street) intersection	Signal re-timing	NA (5)	NA	NA	NA

TOTAL

\$4,398,800

Total Proportionate Share:

\$23,494,200

(4) For Ramp Improvements, FTE's preliminary estimate were obtained for the Concept work for widening the HEFT(from SR 836 to N of NW 57th Avenue) from 6 to 8 lanes is \$17million per mile. This cost was converted into a per lane mile cost, and used for the length of the ramp improvement.

(5) Cost of adding a mainline lane is included in the cost of improving the mainline segment.