Daytona Beach Greyhound Bus Terminal Connector

Introduction

Daytona Beach is a seasonal town with large groups of out-of-towners descending upon the city for various events, most notably for Speed weeks in early February when over 200,000 NASCAR fans come to attend the season-opening Daytona 500. Other events include the NASCAR Coke Zero 400 race in July, Bike Week and spring break in early March, Biketoberfest in mid October, and the Rolex 24 Hours of Daytona endurance race in January. Daytona Beach Greyhound provides one way and round trip bus transportation services to Jacksonville, Orlando, Miami, and other major cities around the state. The bus terminal includes a Ticket Office, a Western Union window, Security Lockers, and a Southern Komfort Taxi station and the terminal operates from 7:00 am to 10:30 pm. Daytona Beach Greyhound Bus Terminal Connector as shown in Figure 2E-1 provides direct access for buses between the subject hub and I-95, a Florida Interstate Highway System facility.

The bus terminal meets distance criterion as the terminal is located greater than 50 miles from the nearest SIS hub of the same type, and meets Emerging SIS minimum size criteria as the terminal handles 50,000 interstate or interregional passengers per year.

Existing Conditions

The connector is a 5.1-mile segment and traverses US 92 and US 1. Land use along the connector is primarily retail and residential as shown in Figure 2E-2. VOTRAN Routes 9, 10, 11 and 60 are operational on the connector. Sidewalks are present along US 92 providing walk access from primarily retail facilities to fixed route VOTRAN service. Daily Level of Service (LOS) analysis for the segments of the connector was conducted using FDOT Generalized Quality Level of Service tables and is summarized in Table 2E-1. It indicates that segment of US 92 between Williamson Boulevard and Bill France Boulevard is currently operating deficiently. The results of PM peak-hour intersection LOS analysis conducted using SYNCHRO is shown in Table 2E-2. It indicates that the US 92 intersections, at Williamson Boulevard, Nova Road and at US 1 are operating deficiently. Existing intersection geometry including turn-radius, lane width, etc. is shown in Figures 2E-3a through 2E-3e.

Table 2E-1: Existing Daily Arterial LOS

<table>
<thead>
<tr>
<th>Road Name</th>
<th>From</th>
<th>To</th>
<th>Section Length (mi)</th>
<th>Area Type</th>
<th>Facility Type</th>
<th>Lanes</th>
<th>Year 2007 AADT</th>
<th>Peak Hour Directional Volumes</th>
<th>FDOT LOS Std.</th>
<th>Year 2007 LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 92</td>
<td>I-95 Ramps</td>
<td>Williamson</td>
<td>0.71</td>
<td>urban</td>
<td>arterial</td>
<td>6</td>
<td>46,500</td>
<td>5.28</td>
<td>2,465</td>
<td>D</td>
</tr>
<tr>
<td>US 92</td>
<td>Williamson</td>
<td>Bill France</td>
<td>1.13</td>
<td>urban</td>
<td>arterial</td>
<td>6</td>
<td>49,500</td>
<td>5.12</td>
<td>2,622</td>
<td>D</td>
</tr>
<tr>
<td>US 92</td>
<td>Bill France</td>
<td>Clyde Morris</td>
<td>0.86</td>
<td>urban</td>
<td>arterial</td>
<td>6</td>
<td>42,500</td>
<td>5.28</td>
<td>2,198</td>
<td>D</td>
</tr>
<tr>
<td>US 92</td>
<td>Clyde Morris</td>
<td>Nova Road</td>
<td>0.93</td>
<td>urban</td>
<td>arterial</td>
<td>6</td>
<td>45,000</td>
<td>4.18</td>
<td>2,328</td>
<td>D</td>
</tr>
<tr>
<td>US 92</td>
<td>Nova Road</td>
<td>MLK Blvd</td>
<td>0.78</td>
<td>urban</td>
<td>arterial</td>
<td>4</td>
<td>29,000</td>
<td>5.28</td>
<td>1,674</td>
<td>D</td>
</tr>
<tr>
<td>US 92</td>
<td>MLK Blvd</td>
<td>US 1</td>
<td>0.38</td>
<td>urban</td>
<td>arterial</td>
<td>4</td>
<td>29,000</td>
<td>5.28</td>
<td>1,661</td>
<td>D</td>
</tr>
<tr>
<td>US 1</td>
<td>Orange Ave</td>
<td>US 92</td>
<td>0.30</td>
<td>urban</td>
<td>arterial</td>
<td>4</td>
<td>32,000</td>
<td>5.45</td>
<td>1,552</td>
<td>D</td>
</tr>
</tbody>
</table>

Planned/Programmed Improvements

FDOT adopted FY2008-2013 Work Program includes resurfacing of US 92 from 0.2 miles west of CR 415 to Clyde Morris Boulevard (SR 483) (Item # 4195951) and widening of Clyde Morris Boulevard from 4 lanes to 6 between Beville Road (SR 400) and US 92 (SR 600, International Speedway Blvd), including sidewalks (Item # 4081781).

Future Conditions and Recommendations

Figure 2E-4 shows the proposed and approved development projects in the immediate vicinity of the connector. Table 2E-3 provides summary of PM peak-hour intersection LOS analysis for the years 2020 and 2030 for both no-build and build conditions. The recommendations for build conditions are listed in Table 2E-4 for phased implementation.

Table 2E-2: Existing PM Peak-Hour Intersection LOS

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Adopted LOS</th>
<th>2007 Intersection LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-95 NB off-ramp @ US 92</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ Indigo Dr.</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>US 92 @ Thames Rd</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>US 92 @ Williamson Blvd.</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>US 92 @ Kennel Club</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>US 92 @ Fentress Blvd.</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>US 92 @ Best Buy</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>US 92 @ Industrial Pkwy.</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>US 92 @ Bill France Blvd.</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>US 92 @ Midway Ave.</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>US 92 @ Hagen Terrace</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>US 92 @ Clyde Morris Blvd.</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ White St.</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>US 92 @ Senaca Blvd.</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ Nova Rd.</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>US 92 @ Adams St.</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ Lincoln St.</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ Martin Luther King Blvd.</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ US 1</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>

Table 2E-3: Summary of PM Peak-Hour Intersection LOS Analysis
<table>
<thead>
<tr>
<th>Intersection</th>
<th>Adopted LOS</th>
<th>2020 No-Build LOS</th>
<th>2020 Build LOS</th>
<th>2030 No-Build LOS</th>
<th>2030 Build LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-95 NB off-ramp @ US 92</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ Indigo Dr.</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ Thames Rd.</td>
<td>D</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ Williamson Blvd.</td>
<td>D</td>
<td>F</td>
<td>D</td>
<td>F</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ Kennel Club</td>
<td>D</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ Fentress Blvd.</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>US 92 @ Best Buy</td>
<td>D</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>US 92 @ Industrial Pkwy.</td>
<td>D</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ Bill France Blvd.</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ Midway Ave.</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ Hagen Terrace</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>US 92 @ Clyde Morris Blvd.</td>
<td>D</td>
<td>E</td>
<td>D</td>
<td>E</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ White St.</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ Senaca Blvd.</td>
<td>D</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ Nova Rd.</td>
<td>D</td>
<td>E</td>
<td>D</td>
<td>F</td>
<td>D</td>
</tr>
<tr>
<td>US 92 @ Adams St.</td>
<td>D</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ Lincoln St.</td>
<td>D</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ Martin Luther King Blvd.</td>
<td>D</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>US 92 @ US 1</td>
<td>D</td>
<td>F</td>
<td>D</td>
<td>F</td>
<td>D</td>
</tr>
</tbody>
</table>
Table 2E-4: Daytona Beach Greyhound Bus Terminal Connector Recommended Improvements

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Geometric*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Operational</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Add second SB right turn at Williamson Blvd. ***</td>
<td>$1,166,400</td>
<td>Add a second EB left turn lane at US 92 and Nova Rd.</td>
<td>$1,267,200</td>
<td>Add a second NB left turn lane at US 92 and Williamson Blvd. ***</td>
<td>$619,200</td>
<td></td>
</tr>
<tr>
<td>Modify SB through and shared right turn to exclusive through and right turn lanes at US 92 and Nova Rd.(add a right turn lane)</td>
<td>$460,800</td>
<td>Modify SB through and shared right turn to exclusive through and right turn lanes at US 92 and US 1(add a right turn lane)</td>
<td>$388,800</td>
<td>Add a second SB left turn lane at US 92 and Williamson Blvd. ***</td>
<td>$403,200</td>
<td></td>
</tr>
<tr>
<td>Add a second SB left turn lane at US 92 and Williamson Blvd. ***</td>
<td>$403,200</td>
<td>Modify NB through and shared right turn to exclusive through and right turn lanes at US 92 and Nova Rd.(add a right turn lane)</td>
<td>$446,400</td>
<td>Modify NB through and shared right turn to exclusive through and right turn lanes at US 92 and Nova Rd.(add a right turn lane)</td>
<td>$475,200</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Directional signage improvements along the connector.</td>
<td>$50,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>$1,627,200</td>
<td>-</td>
<td>$2,102,400</td>
<td>-</td>
<td>$1,497,600</td>
</tr>
</tbody>
</table>

* Assume WB-62FL design vehicle.
** Costs of right-of-way, right-of-way support, landscaping, lighting, utility relocations and wetland mitigation are not included.
*** These recommended improvements are common for Greyhound Bus Terminal Connector and Greyhound Daytona Beach Connector.
Daytona Beach Greyhound Bus Terminal Connector - Existing (Year 2007) Land Use

- SIS Highway Connector
- Emerging SIS Highway Connector
- Daytona Beach Intl. Airport Connector

 existing Land Use:
- Acreage not zoned for agriculture
- Agricultural
- Centrally assessed
- Industrial
- Institutional
- Mining
- Other
- Public / semi-public
- Recreation
- ROW
- Retail / Office
- Vacant
- Vacant / non-residential
- Vacant residential
- Water

*SOURCE: Florida Geographic Data Library (FGDL)
Daytona Beach Greyhound Bus Terminal Connector
Intersection Geometry
Scale: 1 Inch = 100 Feet

US 92 @ Indigo Dr.

INTL SPEEDWAY BLVD W
12 Feet
R = 100 Feet
13 Feet
R = 90 Feet
25 Feet
R = 40 Feet
12 Feet
R = 50 Feet
12 Feet
R = 60 Feet
12 Feet
R = 70 Feet
12 Feet
R = 80 Feet
12 Feet
R = 90 Feet
12 Feet
R = 100 Feet

US 92 @ Thames Rd.

INTL SPEEDWAY BLVD W
12 Feet
R = 100 Feet
12 Feet
R = 90 Feet
33 Feet
R = 30 Feet
25 Feet
R = 40 Feet
12 Feet
R = 50 Feet
12 Feet
R = 60 Feet
12 Feet
R = 70 Feet
12 Feet
R = 80 Feet
12 Feet
R = 90 Feet
12 Feet
R = 100 Feet

US 92 @ Williamson Blvd.

INTL SPEEDWAY BLVD W
12 Feet
R = 100 Feet
12 Feet
R = 90 Feet
25 Feet
R = 40 Feet
12 Feet
R = 50 Feet
12 Feet
R = 60 Feet
12 Feet
R = 70 Feet
12 Feet
R = 80 Feet
12 Feet
R = 90 Feet
12 Feet
R = 100 Feet

US 92 @ Daytona Speedway Entrance

INTL SPEEDWAY BLVD W
12 Feet
R = 100 Feet
12 Feet
R = 90 Feet
33 Feet
R = 30 Feet
25 Feet
R = 40 Feet
12 Feet
R = 50 Feet
12 Feet
R = 60 Feet
12 Feet
R = 70 Feet
12 Feet
R = 80 Feet
12 Feet
R = 90 Feet
12 Feet
R = 100 Feet

Figure 2E-3a
Strategic Intermodal System (SIS)
Highway Connectors Assessment

I-95 NB @ US 92

US 92 @ Indigo Dr.

INTL SPEEDWAY BLVD W
175 Feet
R = 115 Feet
12 Feet
R = 12 Feet
65 Feet
R = 45 Feet
INTL SPEEDWAY BLVD W
125 Feet
R = 45 Feet
12 Feet
R = 85 Feet
INTL SPEEDWAY BLVD W
4009
US 92 @ Indigo Dr.
US 92 @ Thames Rd.
US 92 @ Williamson Blvd.
US 92 @ Daytona Speedway Entrance

Strategic Intermodal System (SIS)
Highway Connectors Assessment

Daytona Beach Greyhound Bus Terminal Connector
Intersection Geometry
Scale: 1 Inch = 100 Feet

Figure 2E-3a