

## Executive Summary

The *2015 Biennial Inspection Report* documents the inspections performed in 2015 to fulfill the Tampa Hillsborough Expressway Authority's (THEA) bond and lease purchase agreement requirements. The requirements help ensure accountability and transparency from THEA as they report this information to the general public, bond holders and other interested parties. These inspections provide the general physical condition of the roadways with recommended repairs as well as verification of capital need projects. The report includes inspection results on THEA's bridges, drainage structures, roadway pavement conditions, signage, pavement markings, other roadside paraphernalia, vegetation (turf and landscaping), buildings and lighting. The inspections were strictly visual, photographs were taken and deficiencies noted. This effort did not include testing, analyses or subsurface investigations, nor did it duplicate the efforts performed separately by the Florida Department of Transportation (FDOT) for the structural inspection of bridges and overhead signs. However, the findings of the separate FDOT inspections were reviewed and incorporated into this report for further consideration.



The *2015 Biennial Inspection Report* is assembled in four sections in relation to the segments of the Expressway.

**Brandon Feeder Roads:**

These roads are significantly improved county streets that are now within THEA right-of-way and serve as a gateway and collector network for the eastern end of the Reversible Express Lanes (REL). This roadway network is comprised of Brandon Parkway, Brandon Main Street, Lakewood Drive and the Pauls Drive connector.

**Meridian Avenue:**

Meridian Avenue is a significantly improved downtown street that is now within THEA right-of-way and serves as a gateway to the western end of the REL. Meridian Avenue begins at Channelside Drive and proceeds north to Twiggs Street.

**Gandy Boulevard to the East End of the Viaduct:**

This segment of the Expressway begins at Gandy Boulevard and proceeds northeast through the viaduct, which ends in the vicinity of 19<sup>th</sup> Street, on the east side of downtown. This segment comprises the original portion of the Expressway that was previously referred to as the “Southern Expressway” and was built in 1975.

**East End of the Viaduct to Town Center Boulevard:**

This segment includes a portion of the Expressway that was constructed in 1979, and then called the “Eastern Expressway,” as well as the REL that was completed in August 2006. Some reconstruction of the original Eastern Expressway was required during construction where the REL is at grade. This section of the Expressway begins near 19<sup>th</sup> Street and proceeds to the end of the REL at Town Center Boulevard in Brandon. The old Eastern Expressway terminates at I-75 and is currently referred to as the “local lanes” to differentiate it from the elevated REL. The REL was constructed predominantly on an elevated structure that is located within the median of the Expressway, with slip ramps connecting the local lanes to the REL at several locations.

The Interstate 4/Selmon Expressway Connector carries traffic between Interstate 4, the Expressway, and the Port of Tampa, which is located west of Ybor City. All movements were open to traffic on

January 6, 2014, and direct connections to the Port of Tampa are only open to trucks. In conjunction with the I-4/Selmon Connector project, THEA widened the section of the downtown viaduct from just east of Morgan Street to 20<sup>th</sup> Street from four lanes to six lanes.

### **FINDINGS AND RECOMMENDATIONS:**

The executive summary provides a brief overview of the findings discussed in more depth and detail in the full *2015 Biennial Inspection Report*. A detailed discussion of all findings, with additional photographs, is provided within the sections of the report for each Expressway segment.

#### **Routine / Minor Maintenance:**

The field data sheets within the full report will be copied and provided to THEA's asset maintenance contractor, Transfield, Inc. / Broad Spectrum. An overview of the routine and minor maintenance category findings include:

- Sections of damaged or missing hand railing and/or fencing should be replaced.
- Hardscape issues should be addressed including damaged brick pavers, worn or missing truncated domes; sidewalk tripping hazards, and damaged benches.
- Damaged shoulder gutter, curb and gutter and concrete ditch pavement should be repaired.
- Overgrown vegetation should be removed from drainage structures, retaining wall and right-of-way fencing.
- Worn or missing pavement markings such as striping and/or symbols should be replaced.
- All litter and graffiti should be cleaned up.
- Landscape and mulch should be maintained.
- Broken, missing or burnt out landscape lighting should be addressed.



#### **Structure Maintenance:**

Bridge inspections were conducted by ICA to assess the existing bridge conditions along the Expressway, and their specific observations / findings are summarized in the *Bridge Inspection*

*Reports.* The following issues were documented: superficial / surface to moderate cracking; delamination in deck surface, underside, or beams; spalling adjacent to previously repaired areas along with exposed reinforcement; honeycombing of deck underside; corrosion, deterioration and scaling; minor adhesion / cohesion failure along the joints with seepage; random open joints; cracked and settled slope panels; unsealed intermittent vertical joints in MSE coping; missing hardware from bridge rail mounted sign; accumulation of dirt / debris in abutment caps; and early evidence of paint system distress (chalking, peeling and / or curling).

**Lighting:**

Along the Expressway, there are three distinct areas of lighting, which include street lighting for the REL and lower lanes, underdeck lighting for AASHTO bridges and aesthetic or up lighting beneath the elevated bridges. Street lighting for both the reversible and lower lanes are inspected by Transfield, Inc. / Broad Spectrum on a monthly basis, and deficiencies are corrected on an ongoing basis. The predominant lighting deficiencies noted were outages associated with both the overhead street lights and overhead sign structure lights. In addition, many of the under lighting associated with the REL were not working, damaged, or missing. Refer to Appendices B and C for all lighting inspection deficiencies noted throughout the Expressway.

**Drainage:**

Overall, the drainage system along the Expressway is deemed functional and in fair to good condition, with the exception of a few specific issues that should be addressed. The typical drainage issues that should be addressed include: chipped / cracked / settled drainage structures, ditch pavement and shoulder gutter; broken-off manhole top; broken / missing dissipating bricks; erosion adjacent to drainage structures; excessive water build-up; and presence of overgrown vegetation, silt and debris / trash.



**Toll Facilities:**

As part of the All Electronic Toll (AET) conversion, all of the toll plazas were removed and replaced with toll gantries. The only remaining building structures are the administrative buildings associated with the old West and East Main Toll Plazas. Typical issues observed pertaining to the existing condition of the administrative buildings' interior include: unclean / dirty; broken stall / toilet; excessive condensation on the air conditioner handler; leaky window causing damaged drywall; stained ceiling tiles from leaky roof; missing ceiling tiles; several light fixtures do not work; peeling wallpaper; elevator does not work, and standing water in the tunnel. The typical issues associated with the existing condition of the administrative buildings' exterior and the adjacent area include: cracked / chipped curbing, sidewalk and pedestrian curb ramps; damaged and corroded concrete columns; corner of building and door frame are damaged from impact; hole in the exterior wall; broken / cracked blue exterior wall tiles; raveling/cracking pavement in the upper parking lot; broken water fountain; light base with missing fixture and exposed wiring; graffiti on retaining wall; worn / missing striping and pavement symbols; damaged/worn signs; side slope erosion; damaged drainage structure; drainage structures, retaining wall and perimeter fence overgrown with vegetation; and presence of debris.



**Pavement, including Markings:**

In general, the pavement and pavement markings are in good condition. The Expressway mainline pavement from Gandy Boulevard to Willow Avenue and the section of the REL from Twiggs Street to the west approach slab were milling and resurfaced in October 2014 and October 2015, respectively. The resurfacing project along the Expressway mainline did not include the paved shoulder and as a result, this pavement is in fair to good condition with both longitudinal and transverse cracking. There are isolated areas where alligator cracking and pavement raveling along the mainline and longitudinal cracking on the shoulders are prevalent. The pedestrian trails along

Meridian Avenue and the Brandon Feeder Roads had several locations where the pavement is cracking, especially adjacent to trees.

Overall the striping and pavement symbols along the Expressway are in good condition. Any specific deficiencies were noted in the inspection reports.



### **Guardrail:**

The guardrail and attenuators throughout the Expressway were inspected by Transfield, Inc. / Broad Spectrum. Refer to Appendix D for the corresponding *Guardrail Deficiency Summary Reports* and *Attenuator Deficiency Summary Report*. The following attenuator deficiencies were noted: compressed cartridges; backward cartridges; damaged racks in nose cone; loose / twisted hardware plates; debris and asphalt build-up. The guardrail deficiencies noted include: loose cable and bolts; missing locknuts, lap bolts and nails; damaged blocks (broken, split or twisted); damaged end treatment; missing reflectors; eroding and/or missing asphalt around posts; posts need to be reset; and graffiti on end reflective panel.



**Miscellaneous and Capital Projects:**

- A project to clean the underside of the Reversible Express Lanes (REL) will occur in 2016.
- A Design-Build will be undertaken in 2016 for the Selmon Greenway Pocket Parks project.
- A milling and resurfacing project from Meridian Avenue and Brandon Parkway (Feeder Roads) are anticipated to commence in 2017.
- The Design-Build for the Selmon West Extension (Elevated Lanes along the median of Gandy Boulevard from east of the Gandy Bridge to the Selmon Expressway) is expected to begin in June 2017.
- Construction associated with the rehabilitation of the West Toll Plaza Building is anticipated to begin in 2017.
- Construction for the East Selmon Improvements (Various Projects Including Widening / Slip Ramps from I-4 / Selmon Connector to I-75) is scheduled to begin in 2021.

**Statement of General Condition:**

HNTB finds the Selmon Expressway to be in good condition as confirmed by the Maintenance Rating Program.