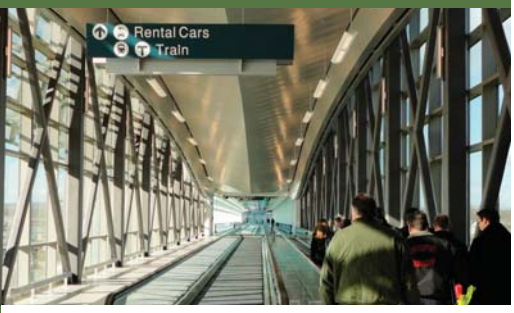
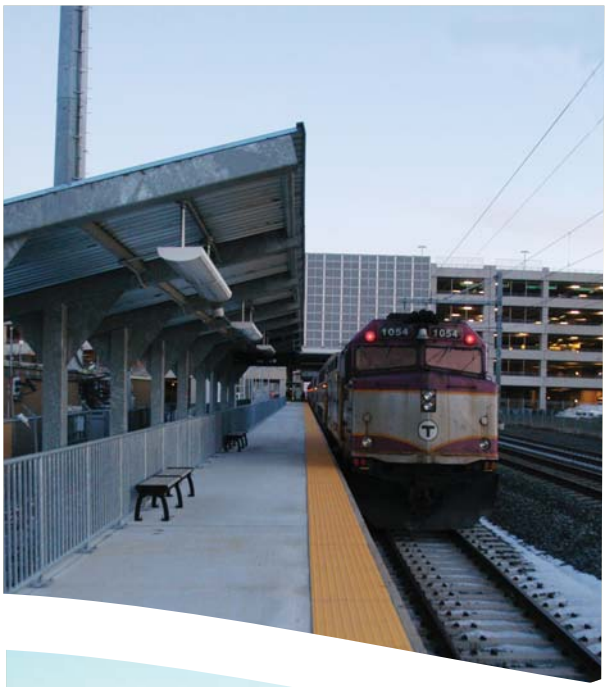
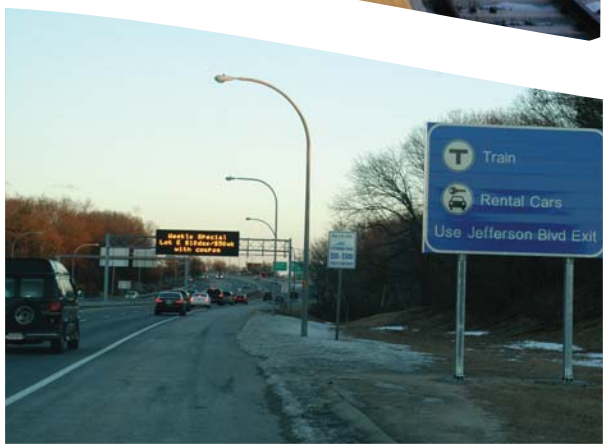
INTERLINK

Multimodal Transportation Safety and Efficiency Assessment

Warwick, Rhode Island
January 5-7, 2011







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1 - Introduction

1.1 Background

The InterLink, located in Warwick, Rhode Island, is a unique facility designed to connect planes, trains, buses, bicyclists, pedestrians, and cars. The InterLink, which opened in late October 2010, provides a direct connection to T.F. Green Airport and is easily accessible from Interstate 95 and US Route 1. It is located only 10 miles from Downtown Providence and 65 miles from Boston, providing an option for commuters from Central/Southern Rhode Island to these major cities and vice versa. It also houses a consolidated rental car facility for the airport, consisting of 9 rental car companies. This facility provides a new option for bus service to connect air, rail and rental cars. The rail access is located along Amtrak's Northeast Corridor and there is a potential for future service to the InterLink.

The InterLink project was made possible through the collaboration of the following partners:

- Rhode Island Airport Corporation (RIAC)
- Rhode Island Department of Transportation (RIDOT)
- Federal Highway Administration (FHWA)
- City of Warwick
- Rhode Island Public Transit Authority (RIPTA)

Upon the substantial completion of the InterLink project officials representing these 5 agencies decided to perform a multimodal transportation safety and efficiency assessment (MTSEA) of the InterLink facilities. Timing of the MTSEA was driven by the ability to evaluate safety and efficiency of the fully operational facility as well as the ability to maximize the opportunity of the presence of the project's construction manager, Gilbane Building Company, RIAC's project manager, PB Americas, and designer of record, Jacobs Consultants, Inc (JCI). Both firms are currently on-site and under contract with RIAC and RIDOT. Existing issues and opportunities that can be

mitigated, enhanced, or enabled with "near-term" recommendations can be performed through existing delivery processes and relationships, thus expediting implementation.

One reason to conduct this assessment was based on lessons learned from the opening of the North Terminal of the Detroit Metropolitan Airport (DTW), which found that effective wayfinding was a key component to the success of the airport and was an ongoing issue during the first year of operation.

The coordination and collaboration with potential developments in the immediate area was taken into consideration as part of the MTSEA. There are a number of major developments proposed adjacent to the InterLink, including the Airport Improvement Program Draft EIS, the 800 Jefferson Boulevard property (D'Ambra), and the Warwick Station Development Districts (including the Intermodal, Gateway North, and Gateway South sub-districts). To ensure that these developments meet visions, goals and objectives of the InterLink multimodal aspect, it was critical to include these proposed developments into the assessment.

The MTSEA was conducted from January 5th to January 7th, 2011, on the InterLink facilities, including the T.F. Green Airport Campus and the Adjacent Roadway Network. An executive briefing and preliminary findings and recommendations presentation was held on January 7th at the RIAC offices for RIDOT, RIAC, RIPTA, City of Warwick, and FHWA officials. The presentation is included in Appendix E.

1.2 Objective of the Multimodal Transportation Safety and Efficiency Assessment

The objective of this project is to perform a Multimodal Transportation Safety and Efficiency Assessment (MTSEA) in the vicinity of the newly constructed InterLink in Warwick, Rhode Island. The MTSEA team reviewed how each mode of transportation (pedestrians, bicycles, rail, bus, taxi, shuttles, autos, etc.) joins together at this facility and how they work collectively. This assessment considered the operations and mobility of the facilities and roadway network under current conditions and with projected growth from planned/proposed developments and improvements. The assessment study area is shown in **Figure 1-1**. There are four specific areas that the assessment covered, including the:

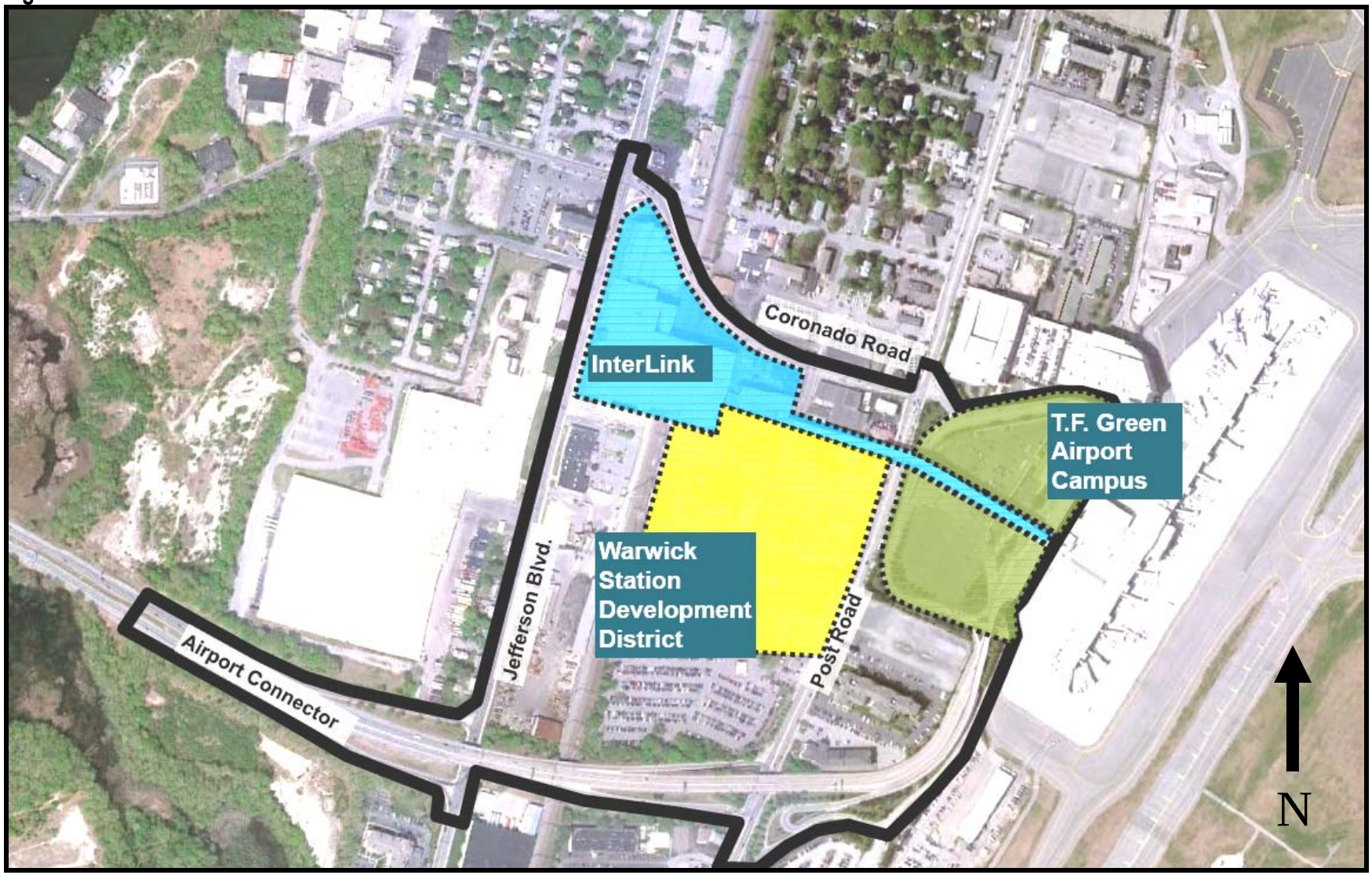
- InterLink facility,
- T.F. Green Airport Campus,
- Warwick Station Development District, and
- Adjacent Roadway Network.

The MTSEA team first reviewed relevant documents including traffic and collision data, the Massachusetts Bay Transportation Authority (MBTA) and the Rhode Island Public Transit Authority (RIPTA) schedules and current ridership, commuter rail

ridership projections, and InterLink as-built plans. In addition to these documents, key information about airport operations, including peak airport arrival/departure times and InterLink facility rental car and commuter operations, was considered. The team also reviewed proposed projects including the development adjacent to the InterLink along Jefferson Boulevard and the Warwick Station Development District Draft Master Plan. Proposed improvements, visions, and strategies were taken into consideration when the team made observations and recommendations.

Next, the MTSEA team reviewed the facilities and operations in the field. The team made observations during peak traffic, commuter, and airport activity time periods between 5:30 AM and 8:00 PM. The MTSEA team then summarized the issues and proposed a variety of measures to address these safety and efficiency concerns. These countermeasures were grouped into near, intermediate, and long-term implementation timeframes.

Figure 1-1 MTSEA General Assessment Area



Source: Google Earth

1.3 Objective of Road Safety Assessments

This MTSEA followed federal guidelines for conducting a Road Safety Assessment (RSA). The Federal Highway Administration (FHWA) defines an RSA as:

"A formal safety performance evaluation of an existing or future road or intersection by an independent, multidisciplinary team".

RSAs are a valuable tool for transportation agencies to evaluate road safety issues contributing to injuries and deaths and to identify opportunities for improvement. RSAs are also an effective tool for proactively improving roadway and roadside safety for all road users, motorized and non-motorized. A RSA also helps identify and mitigate localized, reoccurring congestion along segments of a roadway and at intersections. As such, the RSA process may be employed on any type of facility and during any stage of the project development process, including system planning, project development and design, construction, and on existing facilities open to traffic. The success of RSAs has led to the FHWA including the RSA process as one of its "Nine Proven Crash Countermeasures".

Some element of safety is considered on every project. However, sometimes conditions merit a more detailed safety review. The Interlink's unique, multimodal characteristics create a more complex dynamic that is critically assessed during an RSA. RSAs examine these conditions in detail by pulling together a multidisciplinary team that looks at the issues from different perspectives – perspectives which are often not a part of a traditional safety review.

RSAs also consider safety from a human factors point of view which aims to answer the following questions:

- How and why are people reacting to the roadway conditions?
- What do people sense and how do they react to those senses?
- What are the associated risks with those elements?

The multidisciplinary team approach helps to answer these questions. Interactions between all road users (e.g., pedestrians and motor vehicles, commuter traffic and recreational vehicle traffic, bicycles and motor vehicles, etc.) are investigated to determine potential risk and to identify programs and measures to help reduce those risks and create safer environments for all road users.

An RSA typically follows a formal 8 step process, as listed below and illustrated in **Figure 1-2**.

1. Identify RSA project (design-stage) or existing road (in-service).
2. Select an independent, multi-disciplinary RSA team.
3. Conduct a start-up meeting to review project information and drawings.
4. Perform field reviews in various conditions.
5. Conduct the RSA analysis and prepare preliminary findings presentation.
6. Present preliminary RSA findings to project owner/design team.
7. Prepare formal response.
8. Incorporate findings into the project when appropriate.

Figure 1-2 RSA 8 Step Process

Source: FHWA

Additional information about RSAs, including resources, training opportunities, and contacts can be found on the FHWA website: http://safety.fhwa.dot.gov/rsa/.

1.4 MTSEA Interdisciplinary Team

The interdisciplinary MTSEA Team for the InterLink assessment consisted of engineers, planners, operation specialists, and officials from the RIAC, City of Warwick Planning Department, RIDOT, RIPTA, PB Americas, and FHWA. Representatives from Vanasse Hangen Brustlin (VHB) facilitated the MTSEA. The members of the MTSEA team are as follows:

- Ann Clarke, Sr. Vice President Planning, Engineering and Environment – RIAC
- Tim Pimental, Air Service Marketing Analyst – RIAC
- Steve Cahill, Police Captain – RIAC
- Nathen Brown, RIAC Liason – PB Americas
- Rick Crenca, City Planner – City of Warwick
- Bob Rocchio, Traffic Engineering Manager – RIDOT
- Steve Devine, Intermodal Planning Chief – RIDOT
- Mike Gannon, Highway Engineer – RIDOT
- Edward Brown, Scheduling Dept. – RIPTA
- Corey Bobba, Senior Operations Engineer – FHWA
- Jacinda Russell, Safety & Operations Engineer – FHWA
- Kyle McKenna, Student – Embry-Riddle Aeronautical University
- Dan Nabors, Safety Engineer – VHB
- Peter Pavao, Traffic Engineer – VHB
- Bill Ashworth, Traffic Engineer – VHB

Rhode Island Airport Corporation

SEAL OF THE CITY OF WARWICK, R.I. 1642 — 1931

STATE OF RHODE ISLAND HOPE

RIPTA RHODE ISLAND PUBLIC TRANSIT AUTHORITY

DEPARTMENT OF TRANSPORTATION UNITED STATES GOVERNMENT

2 - Relevant Data Review

To help the MTSEA team identify existing issues and constraints as well as potential issues, an extensive amount of data was collected and reviewed prior to and during the MTSEA. The documents include:

- Warwick Station Development District Draft Master Plan (November 2010)
- T.F. Green Airport Improvement Program, Draft Environmental Impact Statement, (July 2010)
- Warwick Intermodal Station Environmental Assessment (May 1999)
- South County Commuter Rail Ridership Operations Plan
- MBTA Schedule and Ridership Data
- RIPTA Schedule and Ridership Data
- Roadway Traffic Volumes
- Roadway Collision Data
- Signalized Intersection Timings/Phasing Plans
- 800 Jefferson Boulevard Development Traffic Impact Study
- InterLink As-Built Construction Plans

These documents, supplemented with field reviews and stakeholder feedback received during the MTSEA were considered during the initial data review, the field assessment of the area, and the development of suggested countermeasures. The following section gives an overview of this documented data, categorized by the four main areas of this assessment: the InterLink, T.F. Green Airport Campus, the Warwick Station Development District, and the Adjacent Roadway Network.

To fully assess and understand the impacts of each mode of transportations impact, the peak activity periods of all modes was considered and field observations were made. **Table 2-1** shows the peak activity periods for the MBTA commuter rail, T.F. Green Airport, and Adjacent Roadway Network.

Table 2-1 Peak Activity Periods by Mode

Mode	Morning Peak	Afternoon Peak
MBTA Commuter Rail	6:00 – 7:15 AM	6:00 – 7:30 PM
T.F. Green Airport	5:30 – 7:00 AM	4:00 – 6:00 PM
Adjacent Roadway Network	7:30 – 8:30 AM	4:30 – 5:30 PM

2.1 InterLink

The InterLink offers multiple transportation functions, including the T.F. Green Airport rental car operations, parking for and access to the MBTA commuter rail, and RIPTA bus service. In order to assess the safety and operational efficiency of these functions, the following key items were observed and discussed: internal operations, vehicular and pedestrian circulation, access points and commuter rail and transit schedule and ridership.

■

2.1.1 Internal Operations

The InterLink Garage is comprised of six floors with 2,500 parking spaces for rental cars and 640 spaces for commuters. There are four general destinations, including Rental Car operations, Monthly Cardholder Commuter lot, Daily Commuter lot, and the Pick-up/Drop-Off lot. The first two floors are separated between Monthly Cardholder Commuter parking on the east side of the railway platform and the Daily Commuter and Pick-Up/Drop-Off (1st floor only) parking on the west side of the platform. There is no vehicle travel between these two garages. The 3rd floor (on the west side of the platform) is shared between Rental Car operations and Daily Commuter parking and the 4th and 5th floors are for rental car operations only. The 6th floor is currently for storage only.

The InterLink offers weekday daily parking only for the MBTA commuter rail customers and does not offer overnight parking. However, the Rental Car entrance is open 24 hours a day/7 days a week. The daily rate for commuters is $6.75, while the monthly commuters have a rate of $110 per month. There is a $30.00 per night surcharge that is applied to any vehicle in either the daily or monthly lot that remains overnight.

The Quick-Turn-Around (QTA) facilities are located on the 3rd, 4th, and 5th floors and contain fueling platforms, vacuuming facilities, car wash bays and operation offices for the rental car operators at each level. The QTA is not accessible to the public and was not included as part of this assessment.

2.1.2 Access Points

There are four public access points for the InterLink, with three directly off of Jefferson Boulevard and one indirectly off of Post Road (via Fresno Road). The access points for the InterLink are illustrated in **Figure 2-1**.

The Rental Car Return entrance and the Daily Commuter Lot entrance operate as unsignalized driveways off of Jefferson Boulevard They are spaced approximately 50 feet apart from each other.

The Rental Car/Daily Commuter exit intersects Jefferson Boulevard, approximately 300 feet north of the entrances. The intersection is controlled by an actuated traffic signal. However, during the MTSEA, the traffic signal was not yet in operation and the Rental Car/Daily Commuter exit operated under STOP sign control.

The Monthly Commuter entrance/exit is located at the west end of Fresno Road. Fresno Road can be accessed from either Coronado Road or Post Road.

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2.1.3 Vehicular Circulation

The 1st floor consists of a one-way vehicular circulation pattern while the other floors consist of both one-way and two-way vehicular circulation patterns. As stated above, there is no vehicular access between the Monthly Cardholder Commuter lot and the remainder of the InterLink, as the Amtrak tracks are located in the area. The egress points for Daily Commuter lot, Pick-up/Drop-off lots, and Rental Car operations all converge at a single location, adjacent to the exit driveway along Jefferson Boulevard

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2.1.4 Pedestrian Circulation

Pedestrian circulation on the 1st floor (west side of railway platform) is the most dynamic area in the InterLink, consisting of travel between the rail platform and either Jefferson Boulevard (walkers, bikes, or transit), the Daily Commuter and Pick-up/Drop-off lots, and the stairwell to the 3rd floor to access the Monthly Cardholder Commuter lot, the Rental Car reservation area, or the airport terminal via the skywalk.

The 2nd floor consists of pedestrians traveling to/from the Daily Commuter lot. Pedestrian activity on the 3rd floor is generated by mostly rental car operations, including pick-up and drop-offs and operations at the Customer Service Operations (CSO) building as well as access to/from the airport terminal via the skywalk. Also, because there is no pedestrian access between rail platform and Monthly Cardholder Commuter lot on first 2 floors, these pedestrians must travel through the 3rd floor to access between the rail platform and their vehicle. The 4th, 5th and 6th floors consist of rental car activity only.

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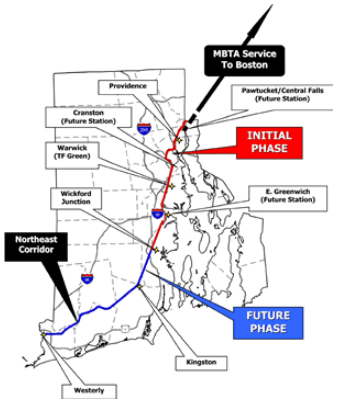
2.1.5 MBTA Commuter Rail Operations

The MBTA Commuter Rail provides service between the InterLink and the Providence Station, Attleboro, Canton, and South Station in Boston on the Providence-Stoughton line. The InterLink stop is 1 of 2 proposed new stops as part of the South County Commuter Rail (SCCR) Phase 1 project. Wickford Junction, which is scheduled to open late 2011, is the other stop that is currently proposed. Currently, the service runs during the morning and evening peak commute times only, until ridership demand warrants extended times. The current service times are as follows (peak times listed in bold):

- Inbound from Providence Station
  - 6:01 AM, 6:25 AM, **6:17 PM, 6:53 PM, 7:26 PM**
- Outbound to Providence Station
  - **6:13 AM, 6:52 AM, 7:15 AM**, 6:27 PM, 7:36 PM, 7:53 PM



The ridership for the opening week of the MBTA service (December 6-10th 2010) was provided to the MTSEA team. The average ridership per day during that period was **82 passengers outbound** and **87 passengers inbound**, for an average total daily ridership of 169 passengers per day. The majority of these trips were commuters traveling to the Boston area.

The ridership for the commuter rail is expected to increase, as documented in the *Warwick Intermodal Station Environmental Assessment*[1]. Based on this document, the ridership for the commuter rail is expected to increase to almost 1,000 daily passengers, an **increase of 500%** over existing ridership.

Not included in this number is the projected ridership from Amtrak passengers, who are projected to increase the total ridership to/from the InterLink to over 1,800 passengers per day. It should be noted at that this time there is no commitment from Amtrak at this time to provide service at the InterLink.

All existing and projected ridership data is included in Appendix B.

[1] Warwick Intermodal Station Environmental Assessment, Table 3.3 – Warwick Station Daily Ridership Demand – Trips

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2.1.6 RIPTA Transit Operations

The RIPTA currently provides service to the InterLink on Route 8. This route operates between Kennedy Plaza in Providence and the Buttonwoods and Greenwood neighborhoods in Warwick, and offers peak service only (6-7 trips per day). The only ridership activity from the InterLink is inbound to downtown Providence in the afternoon, averaging less than 1 passenger per day.

There is a Warwick Intermodal Station Plan for Feeder Bus Service that proposed the rededication of existing bus services and the addition of new services focusing on enabling people to use RIPTA to access the InterLink and the airport from adjacent areas. This plan and other bus route data are included in Appendix C.

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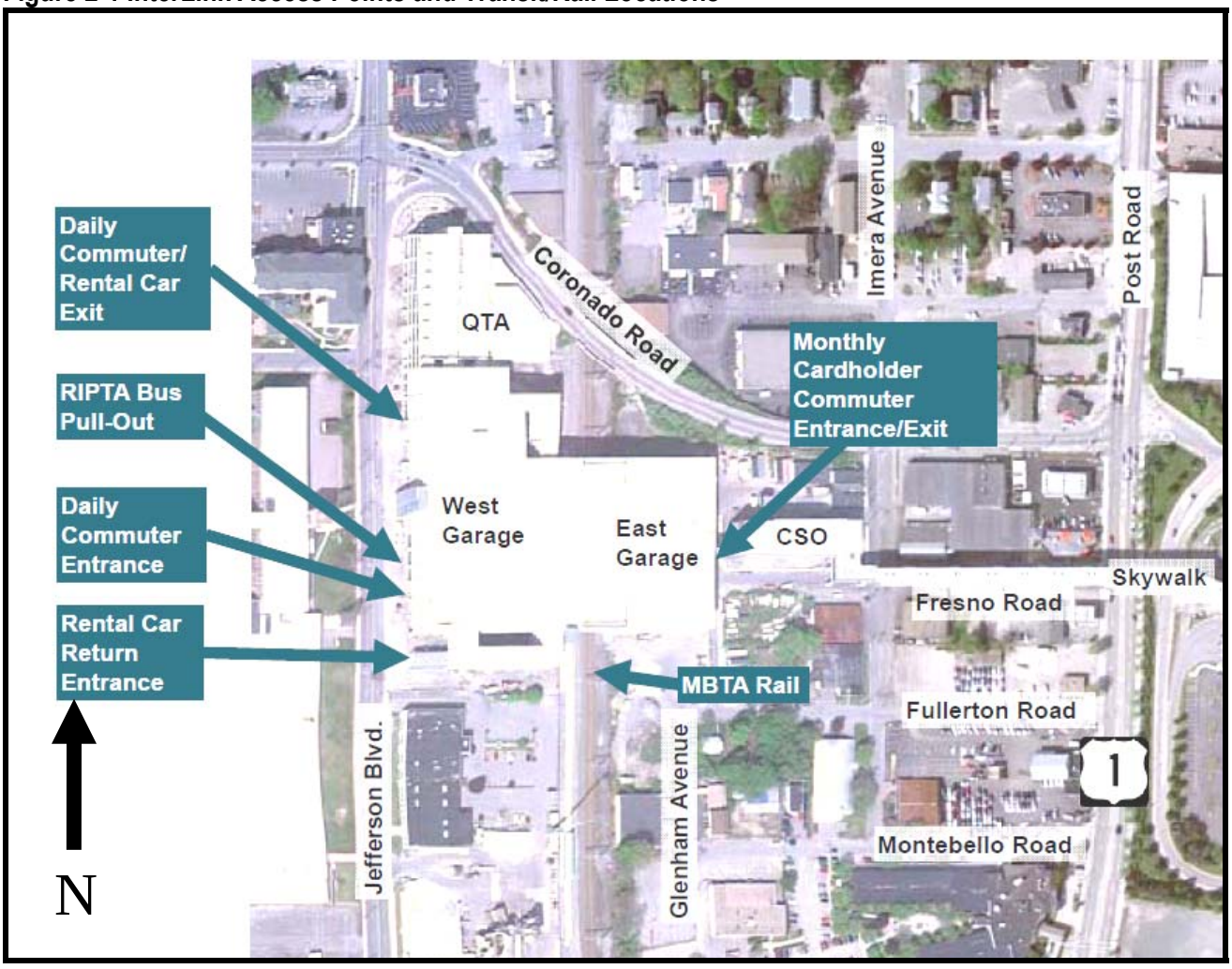
2.1.7 Shuttle Operations

A designated area for the hotel shuttle drop-off/pick-up, located at the Monthly Cardholder Commuter entrance/exit, was created after Interlinks opening to meet an unanticipated demand. This unanticipated demand is mostly for airline passengers that arrive later in the day, take a shuttle to their hotel and stay overnight, and then take a shuttle in the morning to the InterLink to get their rental car. The shuttles were observed using Fresno Road to access the drop-off/pick-up location and egress through Fullerton Road and Montebello Road.

Figure 2-1 InterLink Access Points and Transit/Rail Locations



Source: Google Earth

2.2 T.F. Green Airport Campus

To determine the connectivity and the behavioral patterns between the Airport Campus and the InterLink, the MTSEA team conducted a general assessment of the access points to T.F. Green Airport Campus and the internal "Ring Road" that connect the access points, arrival/departure areas, and the parking lots within the Airport Campus. The general area assessed by the MTSEA team is shown in **Figure 2-2**.

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2.2.1 Airport Activity

The peak arrival and departure times for the airport were provided by RIAC officials to help determine the related peak times of pedestrian and vehicular traffic in and

around the Airport Campus and the InterLink. The morning departure peak occurs between 5:30 – 7:00 AM and the evening arrival peak occurs between 4:00 – 6:00 PM. The MSTA team observed pedestrian and vehicular activity during these peak periods to document issues and concerns during these critical peak times as well as the adjacent roadway and MBTA commuter peak periods.

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2.2.2 Access Points

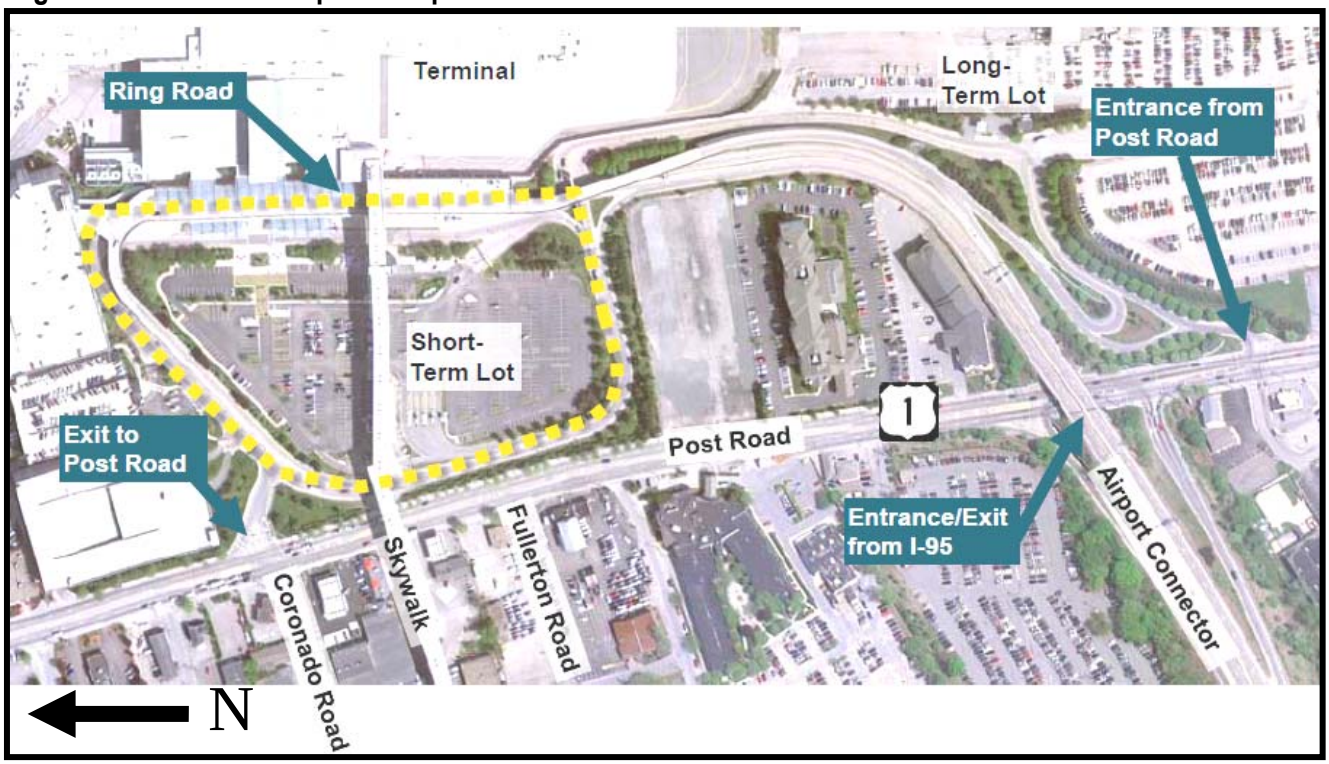
There are 3 public access points to the T.F. Green Airport Campus (not including access points to on-site parking garages) and they are illustrated in **Figure 2-2**. The 3 access points are the Airport Connector, the Post Road entrance, and the Post Road exit.

The Airport Connector is a limited access facility that provides a direct connection between I-95 and the Airport Campus. Upon entering the campus, the roadway divides into the arrival area and the departure area. There is outbound access from the Ring Road to the Airport Connector to access I-95.

The airport entrance from Post Road is located south of the Airport Connector overpass. The airport exit is located north of the Airport Connector overpass, and is across from Coronado Road. Both the Post Road entrance and exit are signalized intersections with channelized right-turn movements.

As part of the Airport Improvement Program Draft EIS, there are proposed access point modifications including the addition of a "Gateway" entrance/exit along Post Road. Related information from the Draft EIS is included in Appendix D and listed in Section 2.3.4.

Figure 2-2 T.F. Green Airport Campus Access Points



Source: Google Earth

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2.2.3 Vehicular Circulation

The Ring Road is a one-way roadway with a counter-clockwise circulation pattern around the airport short-term lot. When vehicles arrive into the campus, they have a choice between the arrival area, which is on the lower level of the terminal, and the departure area, which is on the upper level of the terminal. Access to the on-site parking lots is also available from both the arrival and departure areas.

Upon leaving the arrival or departure area, vehicles circulate the Ring Road to either exit the Airport Campus or return to the arrival/departure areas if needed. Vehicular access between the Airport Campus and the InterLink facility can be made via the Post Road entrance and exits only.

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2.2.4 Pedestrian Circulation

Pedestrian activity outside the terminal occurs mostly on the lower level, in the arrival area. Pedestrians in this area are either picked-up by a personal vehicle, or cross the Ring Road to take a hotel shuttle, on-site shuttle, taxi, to long-term parking lots, or walk to the short-term lot. Pedestrians seeking other on-site lots and the InterLink can do so internally via the Skywalk without having to cross the Ring Road.

There is a sidewalk along a portion of the Ring Road, and is only intended for access between the terminal and on-site parking lots and Post Road.

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2.2.5 RIPTA Transit Operations

The RIPTA provides service to the Airport Campus on Bus Service Routes 14 and 20. The boardings for these routes occur in the arrival area and the alightings occur in the departure area.

Route 14 operates between Kennedy Plaza in Providence and Newport or Narragansett. This service runs 6 days a week and offers 14 trips per day during the week and 7 trips on Saturday. The daily ridership from the airport inbound to downtown Providence averages between 1-2 passengers per trips and less than 1 passenger per trip outbound from Providence.

Route 20 operates between Kennedy Plaza in Providence and the airport. This service runs 7 days a week and offers 35 trips per day during the week and 20+ trips on weekends. The ridership from the airport inbound to downtown Providence averages 66-67 passengers per trip and 40-46 passengers per trip outbound from Providence.

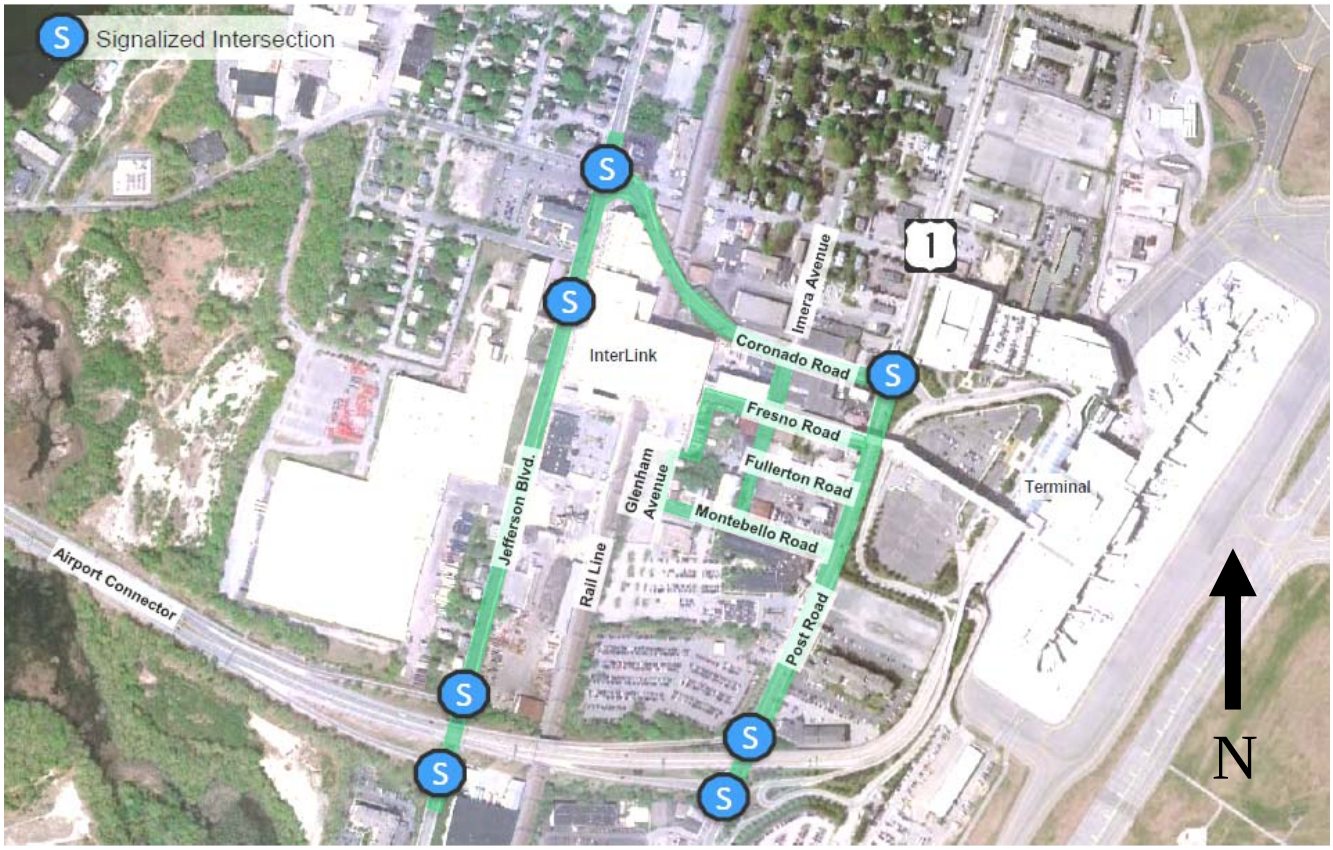
As previously mentioned, there is a Warwick Intermodal Station Plan for Feeder Bus Service that proposed the rededication of existing bus services and the addition of new services focusing on enabling people to use RIPTA to access the InterLink and the airport from additional locations. This plan and other bus route data are included in Appendix C.

2.3 Adjacent Roadway Network

To help understand how the InterLink and T.F. Green Airport Campus are accessed the roadway network that serves these facilities were reviewed by the MTSEA team, as illustrated in **Figure 2-3**. Roadway data such as site characteristics, traffic volumes and operations and collision data were compiled and reviewed. Destination signing to the InterLink and Airport Campus was also reviewed along the local roadways, the Airport Connector, I-95, and I-295. The following roadways were included as part of this assessment:

- Airport Connector
- Post Road (US Route 1)
- Jefferson Boulevard
- Coronado Road
- Fresno Road
- Imera Avenue
- Glenham Avenue
- Fullerton Road
- Montebello Road

Figure 2-3 Adjacent Roadway Network



Source: Google Earth

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2.3.1 Site Characteristics

The Airport Connector is a limited access freeway that connects I-95 (Exit 13) to three destinations (exits): Jefferson Boulevard, Post Road, and the T.F. Green Airport Campus. The freeway consists of two travel lanes with shoulders in each direction.

Post Road (US Route 1) is a principal arterial bisecting the City of Warwick, with numerous hotels, restaurants, and other businesses along this roadway. Within the assessment area, Post Road consists of two travel lanes with narrow shoulders and sidewalks in each direction. There is a continuous center left-turn lane that provides refuge for left-turning vehicles in both directions. Parking is not allowed along Post Road within the assessment area. The T.F. Green Airport Campus entrance and exit is located off of Post Road. Post Road offers access to the I-95 by the way of the Airport Connector. Also, Post Road offers access to Route 37, a limited access freeway that intersects with I-95 and I-295. Post Road also offers access to the Monthly Cardholder Commuter lot via Fresno Road.

Jefferson Boulevard is a minor arterial that mainly serves commercial and industrial uses along its entire length. Within the assessment area, Jefferson Boulevard consists of two travel lanes with narrow shoulders and sidewalks in each direction. Parking is not allowed along Jefferson Boulevard within the study area. The Rental Car operations and Daily Commuter lot are accessed from Jefferson Boulevard. Jefferson Boulevard offers access to I-95 via the Airport Connector.

Coronado Road is a collector roadway that spans the Amtrak rails and connects Post Road and Jefferson Boulevard The road consists of one travel lane with shoulders in both directions. The Monthly Cardholder Commuter lot can be accessed off of Coronado Road via Imera Avenue. There is sidewalk on either side of Coronado Road, west of Imera Avenue.

This is only 1 or 3 roadways in the area that offer a cross connection between the east and west sides of the rail. The other 2 access point are the Airport Connector, with limited access, and Lincoln Avenue, which operates with alternating two-way traffic due to sight-distance and width constraints from the rail bridge overpass.

Fresno Road is a local road that connects Post Road with the Monthly Cardholder Commuter lot. There are also a few small businesses along the short roadway. There are no pavement marking along the roadway, but it operates with two-way in one travel lane in each direction. The road lies under the InterLink skywalk. There are no posted or striped parking restrictions along Fresno Road. As part of the InterLink project, new sidewalk was added to the north side of Fresno Road, west of Imera Avenue.

Imera Avenue is a local road connecting Coronado Road and Montebello Road. Vehicles can access the Monthly Cardholder Commuter lot from Coronado Road via Imera Avenue to Fresno Road. There are a few small businesses located along the short roadway. There are no pavement markings along the roadway, but it operates with two-way in one travel lane in each direction. There are no posted or striped parking restrictions along this road. As part of the InterLink project, new sidewalk was added to the west side of Imera Avenue, between Fresno Road and Coronado Road.

Glenham Avenue, Fullerton Road, and Montebello Road are local roads within the Warwick Station Development District. There are some residential and small businesses, including airport parking uses along these short roadways. There are no pavement markings along the roadway, but all operate with two-way in one travel lane in each direction, and there are no sidewalks present. There are no posted or striped parking restrictions along these roadways, except on Montebello Road, immediately adjacent to the Radisson hotel. Fullerton Road and Montebello Road both intersect Post Road.

As part of the InterLink project, a new drive was constructed adjacent to the InterLink and Customer Service Office building on the east side of the rail. North of Fresno Road, this roadway is restricted to Interlink use only. South of Fresno Road, the road is one-way southbound, which is primarily used by vehicles exiting the Monthly Cardholder Commuter lot and the shuttle that drops off passengers seeking the rental car facility. There is sidewalk located along portions of this new drive.

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2.3.2 Traffic Volumes and Operations

Traffic volumes were collected and reviewed from various sources for the major roadways in the area. **Table 2-2** lists the average daily traffic (ADT) volumes for Post Road, Jefferson Boulevard, and the Airport Connector, and is presented in vehicles per day (vpd):

Table 2-2 Daily Traffic Volume

Subject Roadway	ADT (vpd)
Airport Connector	50,600
Jefferson Boulevard	13,200
Post Road	33,800

Source: T.F. Green EIS. July 2010

To help determine congestion and capacity issues adjacent to the InterLink, capacity analyses were reviewed for the major signalized intersections within the adjacent roadway network, including:

- Post Road at Coronado Road/Airport Campus Exit
- Post Road at Airport Connector Ramps

- Jefferson Boulevard at Coronado Road/Kilvert Street
- Jefferson Boulevard at Airport Connector Ramps
- Jefferson Boulevard at InterLink Exit (not in operation as of this assessment)

The peak hour along the adjacent roadways occurs between 7:30 – 8:30 AM for the morning peak and between 4:30 – 5:30 PM during the evening peak.

All the study area intersections operate with overall acceptable levels of service. Under future conditions, the Post Road/Coronado Road intersection is projected to operate near capacity during the evening peak hour with some approaches operating with high delays.

As part of the InterLink project, roadway improvements along Jefferson Boulevard were implemented. The Jefferson Boulevard intersection with Coronado Road has recently been reconstructed to provide exclusive left-turn lanes and updated signal equipment. The Jefferson Boulevard intersections with the Airport Connector ramps have new traffic signal equipment installed.

■

2.3.3 Crash Analysis

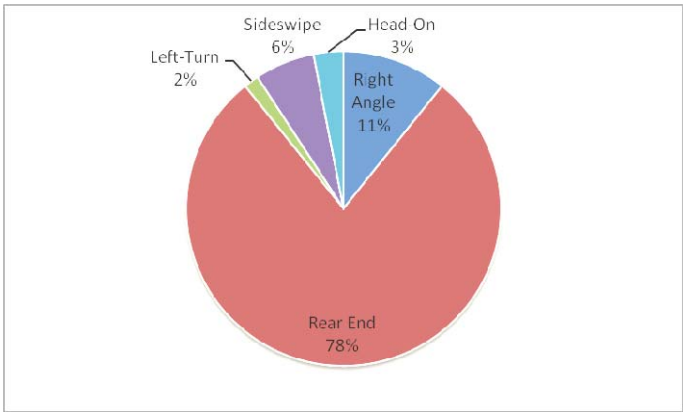
Crash data for the assessment area was provided by RIDOT for the three-year period between January, 2008 and December, 2010. The MTSEA team reviewed the crash data to identify any trends. The following areas were assessed:

- Post Road, between Montebello Road and Coronado Road
- Post Road at Airport Connector Ramps
- Jefferson Boulevard at Coronado Road
- Jefferson Boulevard at Airport Connector Ramps

Post Road, between Montebello Road and Coronado Road experienced 65 reported crashes over the last three years. **Figure 2-4** illustrates the breakdown of the crashes by collision type. From the crash data, the following crash trends were identified:

- **65 crashes** were reported with **51 (78%)** being rear-end type crashes
- **33 of the 51** rear-end crashes **(65%)** occurred at the Post Road approaches to the Coronado Road intersection
- **14 crashes (22%)** resulted in an injury
- **53 crashes (82%)** occurred during daytime conditions

Figure 2-4 Crash Type – Post Road, between Montebello Road and Coronado Road

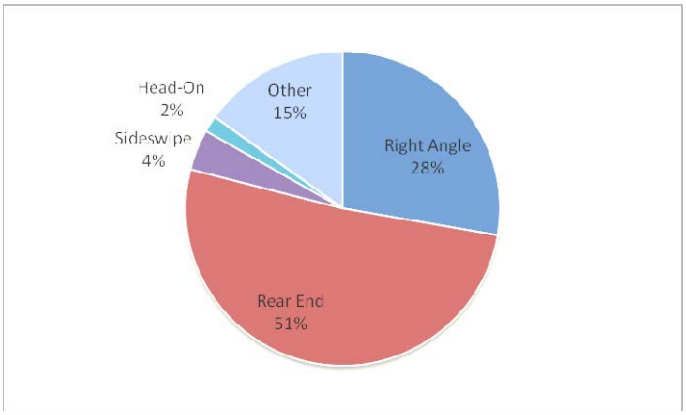


Collision diagrams illustrating the approximate location of the crashes are included in Appendix A.

The Post Road at the Airport Connector Ramps intersection experienced 119 reported crashes that over the last three years. **Figure 2-5** illustrates the breakdown of the crashes by collision type. From the crash data, the following crash trends were identified:

- **119 crashes** were reported with **61 (51%)** being rear-end type crashes
- **33 of the 119** crashes **(28%)** were right-angle crashes
- **30 crashes (25%)** resulted in an injury
- **84 crashes (71%)** occurred during daytime conditions

Figure 2-5 Crash Type – Post Road at the Airport Connector Ramps

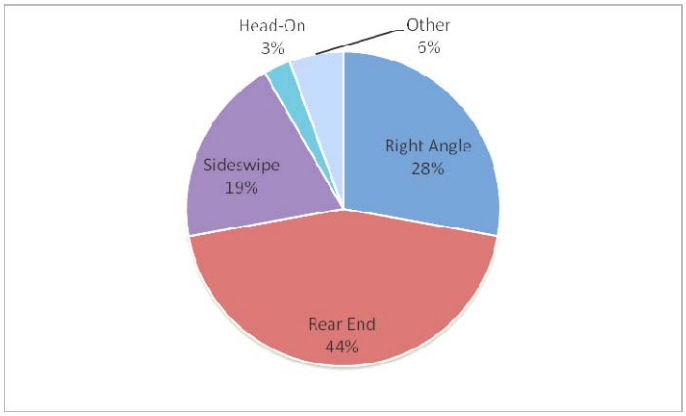


The **Jefferson** Boulevard **at Coronado Road/Kilvert Street intersection** experienced 36 reported crashes over the last three years. **Figure 2-6** illustrates the breakdown of the crashes by collision type. From the crash data, the following crash trends were identified:

- **36 crashes** were reported with **16 (44%)** being rear-end type crashes
- **3 crashes (8%)** resulted in an injury

- **31 crashes (86%)** occurred during daytime conditions

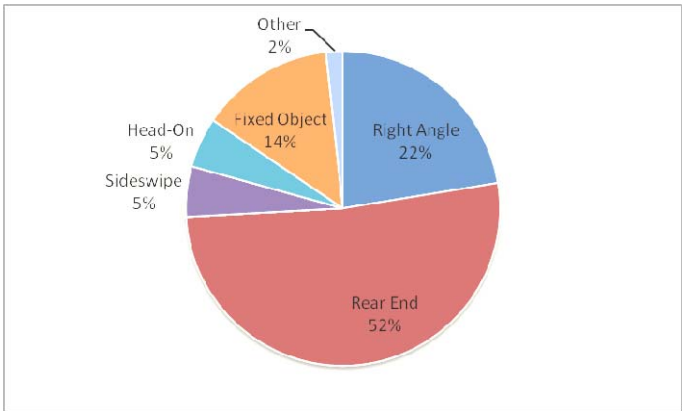
Figure 2-6 Crash Type – Jefferson Boulevard at Coronado Road/Kilvert Street



The Jefferson Boulevard at the Airport Connector Ramps intersection experienced 58 reported crashes over the last three years. **Figure 2-7** illustrates the breakdown of the crashes by collision type. From the crash data, the following crash trends were identified:

- **58 crashes** were reported with **30 (52%)** being rear-end type crashes
- **13 crashes (22%)** resulted in an injury
- **50 crashes (86%)** occurred during daytime conditions

Figure 2-7 Crash Type – Jefferson Boulevard at the Airport Connector Ramps



Overall trends from the intersections analyzed indicate that rear-end crashes are the most common crash type, which is typical for signalized intersections. Also, the majority of the crashes occur during daylight, indicating that roadway lighting may not be a significant cause of the crashes. 22-25% of the crashes in the area resulted in an injury. One indication may be high speeds along these roadways.

■

2.3.4 Proposed Developments/Roadway Infrastructure Improvements

As part of the assessment, the MTSEA team reviewed planned roadway infrastructure improvements related to proposed developments and improvement projects. The following planned projects were noted in the assessment area:

- **Warwick Station Development District** – see Section 2.4 for detailed information.
- **800 Jefferson Boulevard Property** – As currently proposed, the traffic generation from the development of this site requires the following improvements along Jefferson Boulevard:
  - New traffic signal at the site driveway (south of the InterLink)
  - Reconfiguration of the Airport Connector Ramps
- **T.F. Green Airport Improvement Program** – As part of the EIS for the airport's improvement program, the following is currently proposed:
  - Close existing airport south entrance
  - Construct new south access road, near Strawberry Field Road
  - Construct new Gateway entrance, between Coronado Road and the Airport Connector

2.4 Warwick Station Development District

As part of this assessment, the MTSEA team reviewed the Warwick Station Development District's Draft Master Plan (November 2010) in reference to safety and efficiency along the Adjacent Roadway Network and internal to the district. They also observed the existing roadways within the "Intermodal" sub-district, adjacent to the InterLink facility. The entire district is shown in **Figure 2-8**; and the area included in this assessment is defined as the area bounded by Fresno Road to the north, Montebello Road to the south, Post Road to the east, and Glenham Road to the west. This area is illustrated in **Figure 1-1**. The MTSEA did not include the Gateway North and Gateway South sub-districts as part of this assessment.

The master plan addresses issues related to the traffic generated from the proposed developments within the district. It also made a series of recommendations to mitigate any impacts created by the district, both on the adjacent roadway network and internal to the district. It also gave an overview of the street design, key pedestrian links and other visions for the district.

The MTSEA team estimated how the development of the district would impact the adjacent roadway network and the adjacent InterLink facility. Long-term suggestions, which are intended to supplement the master plan's mitigation of the districts' impact to the adjacent roadway network and how it functions with the

different modes of transportation generated by the InterLink, have been summarized in **Table 3-4**.

Figure 2-8 Warwick Station Development District

Source: City of Warwick

3 – Assessment Findings & Recommendations

During the site condition review, the MTSEA team noted potential efficiency and safety issues and conflicts within the assessment area. Positive safety features were also documented. The following section summaries the findings of the assessment and the MTSEA team's recommendations for mitigation.

3.1 Safety and Efficiency Benefits of Existing Features

Based on a review of existing site conditions, there are several positive safety and efficiency elements of the InterLink, T.F. Green Airport facility, and Adjacent Roadway Network. Also, the InterLink project has recently been completed. There were some ongoing details still in the process of being constructed or installed as of this assessment. The following are additional improvements/enhancements that are in the process of being designed or installed by RIAC:

- Additional lighting on the Jefferson Boulevard entrances to the Daily Commuter and Rental Car lots.
- Conduct a sign and pavement marking audit within the InterLink.
- Provide additional way finding signing and pavement markings within the InterLink. See **Figure 3-1** for a sample of the proposed pedestrian walkway within the InterLink on the 3rd floor.

Figure 3-1 Rendering of Proposed 3rd Floor Walkway

Source: Jacobs

Some of the positive safety and efficiency elements in and around the InterLink are:

- **Pedestrian wayfinding from terminal to InterLink** – To help direct arriving passengers from the airport terminal to the InterLink, signage has been added in the terminal, including kiosks, providing wayfinding.
- **Enhanced lane use signage at the InterLink Monthly Cardholder Commuter lot** – At the Monthly Cardholder Commuter lot entrance/exit, there are illuminated dynamic lane usage signs. These signs can be changed as needed to allow for additional capacity during peak demands.

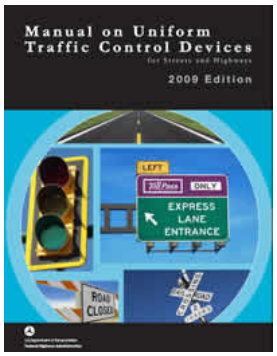
- **Recent improvements at study area intersections** – There have been several improvements, as part of the InterLink project, to address issues at the Jefferson Boulevard intersections with the Airport Connector on- and off-ramps and Coronado Road. Specifically, there has been traffic signal improvements increased capacity at the Coronado Road intersection and new traffic signal equipment at the Airport Connector ramps. These intersections have been designed for the increase in traffic generated from the InterLink. There also is a traffic signal (not currently in operation) with signalized pedestrians crossings installed at the InterLink exit along Jefferson Boulevard Once operational, this intersection will provide pedestrians with a crossing of Jefferson Boulevard adjacent to the InterLink.

3.2 Identified Safety and Efficiency Issues and Recommendations for Improvement

The MTSEA Team identified several safety and efficiency issues and opportunities within the assessment area. The Team prioritized these issues in order of perceived importance and developed suggestions to mitigate the safety concerns and efficiency issues and opportunities. The existing safety and efficiency issues and suggestions are summarized in **Tables 3-1 through 3-4** for the InterLink, T.F. Green Airport Campus, Adjacent Roadway Network, and Warwick Station Development District, respectively. The recommended improvements are categorizing into near-term, intermediate, and long-term implementation timeframes, as well as differentiating between engineering, enforcement, and education/encouragement for the near-term countermeasures. These recommendations are generally prioritized in order of importance. **Figures 3-2 through 3-9** illustrate some of these improvements.

■

3.2.1 Manual on Uniform Traffic Control Devices (MUTCD) Compliance



As part of the suggested improvements for this assessment, it is recommended that all work being performed comply with all standards from the latest version of the MUTCD. The MUTCD *"shall be recognized as a national standard for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel."* It is critical for the road user to have a seamless journey and notice no differences across the multiple agencies and jurisdictions (State owned roads and highways to Airport owned roads).

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
1	**Pick-Up/Drop-Off area is over-capacity during evening pick-up.** – There are insufficient parking spaces for the existing demand. There are currently 20 available parking spaces plus 2 ADA spaces. During the evening commuter peak, the MTSEA team observed 25+ vehicles waiting to pick-up passengers. – Vehicles parked on sidewalk due to lack of parking. – The vehicle queue almost extended to the entrance on Jefferson Blvd. This is from vehicles stopping along the entrance to look for available parking. – The ridership is projected to increase by 400% by 2020. This will lead to additional capacity issues in the pick-up/drop-off area.	 ***Vehicles waiting to pick-up passengers during the evening commuter peak period. Some vehicles park along the sidewalk due to the lack of available parking spaces in the pick-up/drop-off lot.***	– Allow 15 or 30 minute parking at no charge in the commuter lot for passenger pick-up. – Allow parking in the service area, adjacent to the garage exit during the evening pick-up period. Additional directional signage would also be required to direct vehicles to this location.	– Enforce the 15/30 minute time restriction to ensure that commuters are not using this area for all-day parking.	– Provide detailed directions, indentifying which entrance to use, on media such as: Website Pamphlets	– Reconfigure the parking layout to provide additional parking spaces to meet demands based on projected ridership volumes.	

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
2	**Lack of clear, consistent wayfinding within the InterLink.** – Some of the existing wayfinding signage is too small to be easily legible by drivers/pedestrians. – The existing directional arrow symbol is the same size as the mode symbols. – Some wayfinding signage is obstructed from the driver's perspective. – There is a lack of signage directing vehicles to the exit. – There is a lack of signage/delineation along the curves of the ramps between floors. – The lack of pavement markings may cause driver confusion. During this assessment, a vehicle was observed exiting through the commuter entrance. – The existing arrow pavement marking within the InterLink are yellow. Typical arrow pavement markings are white.	 ***The directional arrow symbol is similar in size/shape to the mode symbols.***  ***The locations of some wayfinding signs are difficult to see.***  ***The sizes of the wayfinding signs are difficult to see.***	– Perform a comprehensive wayfinding study to evaluate and implement new signing and pavement markings. As of this assessment, this has already been programmed by RIAC. Items suggested to be included are: - Signs with larger fonts and symbols. - Direction arrow on signs that differs from other symbol size/shape. - Locate signs so that they are visible to both pedestrians and drivers. - Direction arrow and/or word pavement markings (white). - Provide Colored pedestrian path between platform and bus stop on Jefferson Blvd.				

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
3	**The Rental Car lot and Daily Commuter lot entrances off Jefferson Blvd. may cause driver confusion.** – The Daily Commuter Lot's narrow driveway and the gate makes it looks like a service entrance. – No lighting for entrance banners makes then difficult to see at night. – Lack of wayfinding signage for commuter lot entrance. – Rental entrance sign font too small and located after entrance. Entrance signs typically located before the driveway. – No entrance/way finding signs for vehicles entering from the north. – The MTSEA team received feedback in the field from rental car patrons noting the difficulties of finding the entrance.	 ***Lack of way finding/entrance signage for vehicles entering the parking garage from the north on Jefferson Blvd.***  ***The Daily Commuter lot entrance may be difficult to find due to lack of clear signing and other features that minimize its presence.***	– Provide lighting for entrance banners – Provide additional diagrammatic signage to identify the entrances and help differentiate between the commuter and rental car return entrances. Install this signage on both the approaches from Jefferson Blvd. (See Figure 3-1 for detailed information).		– Provide detailed directions, indentifying which entrance to use, on media such as: Website Pamphlets		

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
4	**Inadequate Destination Signing to the InterLink from Interstate 95.** – There is inadequate destination signing to the InterLink for vehicles from Interstate 95. – The driver's attention is drawn to the DMS sign and away from the only InterLink destination sign on the Airport Connector. – The trailblazing sign at the off-ramp to Jefferson Blvd. is not visible prior to the decision point. – The trailblazing sign at the off-ramp to Jefferson Blvd. and at the end of the ramp are inconsistent (different MBTA symbols) with the other trailblazing signs used along Jefferson Blvd. and Post Road.	 ***This is only destination sign along the Airport Connector to the InterLink.***  ***The trailblazing sign is in an ineffective location and may be confusing to drivers.***  ***The trailblazing sign on the off-ramp (right) is inconsistent with the other trailblazing signs along Jefferson Blvd. and Post Road (left).***	– Provide a supplemental destination sign closer to the Jefferson Blvd. exit. (See Figure 3-1 for location) – Revise wording on existing destination sign to be in compliance with MUTCD. Replace "Use Jefferson Blvd. Exit" with "Next Exit". – Relocate the trailblazing sign further down the Jefferson Blvd. off-ramp. – Revise the trailblazing signs on the Jefferson Blvd. off-ramp to be consistent with the trailblazing signs along Jefferson Blvd.			– Provide conceptual overhead destination signing for the Airport Connector.	– Provide overhead destination signage to include reference to the InterLink.

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
5	**Vehicles parking along Jefferson Blvd. and in the bus pull-out to pick-up/drop -off commuters** – Some people dropping-off/picking-up commuters are not aware of the complimentary parking offered and park along Jefferson Blvd. and/or in the bus stop pull-off to pick-up or drop-off the commuters. This was brought to the attention of the MTSEA team by commuters who gave input. – The entering vehicle queue to the daily commuter lot almost extended to Jefferson Blvd. This can be from the lack of parking in the pick-up/drop-off lot.	 ***Vehicle parked in the bus pull-off off Jefferson Blvd.***	– Explore, evaluate, and implement additional wording on internal signage that states the complimentary parking is available 15 minutes and list the daily rated for more than 15 minutes. – Install supplemental NO PARKING signs along Jefferson Blvd. and in the bus pull-out. – Delineate no parking areas through pavement markings (cross hatching).	– Continued enforcement of the parking restriction along Jefferson Blvd. and the bus pull-out, especially during the evening commuter pick-up period.	– Provide detailed directions, indentifying which entrance to use, on media such as: Website Pamphlets	– Reconfigure the parking layout to provide additional parking spaces to meet demands based on projected ridership volumes.	

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
6	**Vehicles exiting commuter lot have limited sight distance of pedestrians crossing the designated route between the rail platform and the Jefferson Blvd. entrance/exit.** – Exiting traffic from the commuter lot has limited sight distance for pedestrians crossing from the right. – Even though vehicles will be stopped for the gate to open, they may rush out, especially if they have been waiting in a queue approaching the gate.	 ***Vehicles exiting the daily commuter lot have limited sight distance for pedestrians crossing along the marked crosswalk.***	– Provide pedestrian warning signs on the concrete wall or overhead for vehicles. – Provide warning signs for pedestrians to watch for oncoming vehicle.				
7	**Traffic control unclear at the exit onto Jefferson Blvd.** – Exiting traffic from the rental car lot, commuter lot, and pick-up/drop-off lot converge at one location before exiting onto Jefferson Blvd. – The existing traffic control was confusing and did not assign priority.	 ***The pick-up/drop off- lot exit must stop to rental car lot exiting traffic, then yield to exiting traffic from the daily commuter lot.***	– Install ground mounted/overhead traffic control signs that establish priority on all approaches to the intersection. – Make all approaches stop controlled.				

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

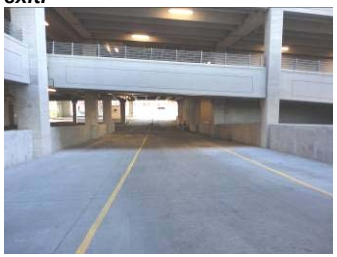
			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
8	**Signing for vehicles exiting onto Jefferson Blvd. unclear.** – Directional signing unclear, especially important for vehicles exiting the rental car lot as most may be from out of state and unfamiliar with the local roadway network. – There is a lack of lane use signage at the exit. There are pavement markings in place, but are not visible until vehicles are at the intersection. This could lead to abrupt lane changes and inefficient lane usage exiting the parking garage. – There is a lack of lane use signage on the rental car lot approach to the exit. Unfamiliar motorists may need additional time to make a decision of what lane they need to be in.	 ***View of the existing trailblazing shields for I-95, US-1, and the airport at the parking garage exit.***  ***There is a lack of lane use signs for exiting vehicles from the rental car lot. See photo in item No. 9 below.***	– Install enhanced direction signing at the exit. Examples of enhancements can include larger shields and destination wording such as “PROVIDENCE” and “TO POST ROAD”. – Install overhead or side mounted lane use signs on the approach to the exit on the rental car lot ramp. Locate this sign ahead of the intersection and at the approach to the intersection. – Install pavement markings that help indicate lane use assignments.				

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

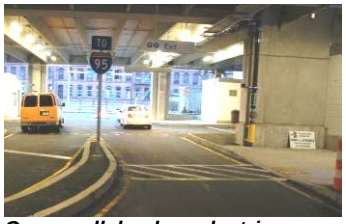
			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
9	**Non-continuous crosswalk near exit.** – There is a crosswalk across the rental car lot exit, connecting a stairwell (with no public access) to a median with no curb cut.	 ***Crosswalk leads pedestrians into median, with no crossing and no curb cut.***	– Remove crosswalk painting. Ramp on stairwell side can be signed and considered a service area only with no public access allowed.				
10	**Potential for RIPTA based pedestrians to cut-through commuter entrance.** – The predominant pedestrian route (desire line) from the bus stop on Jefferson Blvd. to the rail platform appears to be through the commuter entrance/driveway, not the designated route via the north stairwell. – There is a lack of way finding signage for alighting passengers on Jefferson Blvd. to the preferred entrance to the rail platform. – There appears to be insufficient directional guidance for passengers arriving by rail going to the bus on Jefferson Blvd.	 ***There is lack of wayfinding for passengers alighting from the RIPTA bus stop along Jefferson Blvd.***	– Provide diagrammatic signage to direct passengers to the preferred route to the rail platform. – Provide enhanced signage directing arriving passengers from the rail platform to the bus stop via the preferred route. See Item 2 for recommendations. – Provide pavement markings along the preferred pedestrian route between the rail platform and the bus stop. See Item 2 for recommendations.	– Monitor the commuter entrance for pedestrian activity.	– Provide detailed directions, indentifying preferred entrances and routes, on such media as: Website Pamphlets Maps		– Extend the bus pull-out closer to the preferred entrance to the rail platform.

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
11	**Lack of directional guidance for pedestrians traveling from hotel shuttle pick-up/drop-off area to rental car counters.** – There is a pick-up/drop-off area near the monthly commuter lot entrance/exit. Once passengers are dropped-off, there is a lack of wayfinding signage within the garage directing them to the rental car counters.	  ***Shuttles drop off/pick up passengers near the monthly commuter lot entrance/exit.***	– Provide way finding within the garage for passengers between the pick-up/drop-off area and the rental car counters.		– Educate shuttle drivers/users and provide detailed directions, indentifying preferred entrances and routes, on such media as: Website Pamphlets Maps		

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
12	**New traffic signal at the InterLink Exit/Jefferson Blvd. intersection not operational yet.** – As of this assessment, the newly installed traffic signal at the InterLink exit at Jefferson Blvd. was not in operation yet. Therefore, exiting traffic from the InterLink was controlled by STOP signs.	 ***The traffic signal at the InterLink exit is not in operation as of the assessment.***	– When traffic signal is accepted (turned on), the following should be performed: - Restripe the intersection to conform to MUTCD standards. - Remove the STOP signs. - Keep the DO NOT ENTER signs that are mounted on the same pole as the STOP signs and supplement with ONE WAY signs.				
13	**Bike racks located too far from the rail platform.** – Bikes were observed locked up to the fence separating the platform from the pick-up/drop-off lot instead of the bike racks located farther from the platform, even though they had sufficient space.	 ***This bike has been locked up to the fence close to the platform entrance. There was sufficient space to store bikes on the bike racks.***	– Relocate bike racks closer to the rail platform.				

Table 3-1 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities at the InterLink

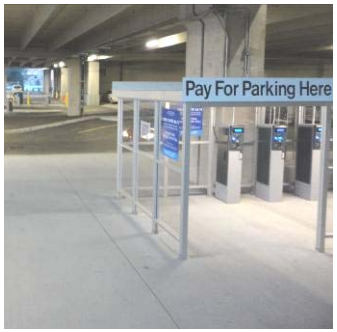
			SPECIFIC NEAR TERM IMPROVEMENTS (IMPELMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
14	**Some rail passengers unclear where and how to purchase MBTA ticket.** – The MTSEA team observed some passengers that did not have cash to purchase a ticket. They were not aware of the purchasing options offered. – There is no signage on where to purchase the MBTA ticket.	 ***There is clear signage where to pay for parking; however, there is no signage where and how to pay for a MBTA ticket.***	– Provide an ATM at the rail platform. – Provide signage on how and where to purchase a MBTA ticket.		– Provide detailed directions on how and where to purchase MBTA tickets, on such media as: Website Pamphlets	– Provide a Charlie Card machine at this location. This will allow ticket purchases to be made with cash or credit card. Based on discussions with rail officials, the capability to bring a Charlie Card machine online is in the near future.	

Table 3-2 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the T.F. Green Airport Campus

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPLEMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
1	**Inadequate directional signing to the InterLink** – There is lack of directional signage to direct motorists from the Airport Campus to the InterLink. – The rental car and InterLink symbol on the overhead sign from the arrival area are too small and difficult to see.	 ***The rental car and InterLink symbols on overhead sign (right) are difficult to see.***	– Provide additional direction signage to the InterLink and to US-1 and I-95. – Provide larger rental car symbol on the overhead sign. – Relocate the InterLink symbol to the sign post or make ground mounted.				
2	**Limited sight distance at pedestrian crossing between short-term lot and terminal.** – Pedestrians were observed to cross close to the column on the south (near) side of the crosswalk, leaving limited sight distance for vehicles approaching the crosswalk. – The in-road pedestrian crossing sign is located after the crosswalk.	 ***View of the airport arrival pick-up where there is limited sight distance between vehicles and pedestrians crossing from the short-term lot. Note the pedestrian crossing sign is located AFTER the crosswalk.***	– Evaluate means to better channelize pedestrians away from the column, closer to the center of the crosswalk.				

Table 3-2 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the T.F. Green Airport Campus

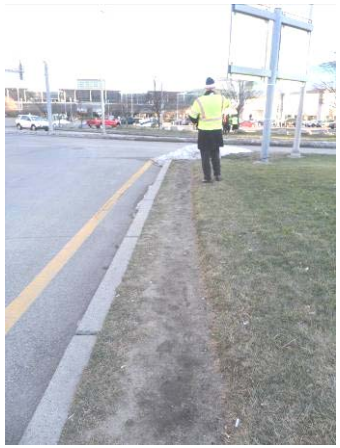
			SPECIFIC NEAR TERM IMPROVEMENTS (IMPLEMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
3	**Pedestrians were observed using a worn path ("goat path") between Post Road and the Ring Road.** – There is a "goat path" from the Post Road/Airport Exit intersection that's leads directly into the Ring Roads. – The majority of users of this path are assumed to be airport employees, with destinations along Post Road, typically during breaks. – There is a sidewalk located between the on-site parking lots and the terminal. This path, however, is longer and less direct as it skirts around the Ring Road. Pedestrians often seek the path of least resistance, even if a path is not provided.	 ***Photo showing the "goat path" along the airport terminal exit, illustrating the pedestrian desire lines between Post Road and the terminal. The consensus of the MTSEA team was that this path is predominately made by airport employees.***	– Provide way finding signage to terminal from Post Road.		– Provide maps and information to employees as to the designated pedestrian routes and responsibilities of pedestrians. Inform employees of potential risks of not using designated routes.	– Move crosswalk at the intersection with Post Road to the north side. This would require additional signal equipment and phasing changes. – Provide a ground level connection to the skywalk. This will enable pedestrians to cross the Ring Roads and Post Road to get the destination on Post Road, without having to go through the InterLink garage.	– Consider a barrier or landscaping along the south side of the Airport Exit, where the "goat path" exists as part of the WSDD Master Plan.

Table 3-2 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the T.F. Green Airport Campus

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPLEMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
4	**The signs along the Ring Road provide conflicting messages to the motorists for the ramp from the departure area.** – The yield bar pavement markings conflicts with the "Added Lane" and Merge signs.	 ***There is pavement marking and signage conflicts at the departure/Ring Road merge area.***	– Evaluate revising the traffic control to be in compliance with the MUTCD, which may include the following: - Remove the yield bar markings. - Remove the "Merge" sign. - Relocate the "Added Lane" sign to the merge area between the parking lot and the Ring Road. - Add a supplemental "Added Lane" sign across the relocated sign. - Install a "Lane Ends" sign on the departure ramp approach.				

Table 3-2 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the T.F. Green Airport Campus

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPLEMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
5	**Lane use for the road between Lot E and the Ring Road may be unclear.** – The faded centerline striping and directional signage on this road may be confused for two one-way lanes instead of the intended two directional lanes.	 ***The faded striping combined with the position and messaging on the directional signage could appear that the left lane is for I-95 and the right lane is for Post Road/US- 1.***	– Restripe this road to provide high visibility centerline pavement markings.			– Revise the signage to state "I-95 Next Left" and Post Road/US-1 Next Right" or similar wording.	
6	**Sign conformance and clearance issues.** – There are numerous signs throughout the Airport Campus, including regulatory, warning, and way-finding, signs. Placement of the signs in relation to other signs has created issues related to confusion and legibility – There are clearance issues with the mounted height of some signs.	 ***In the short-term lot, there is conflicting DO NOT ENTER and STOP signs.***	– Consider a comprehensive sign audit to evaluate sign height, retroreflectivity, current sign standards, location, consistency, redundancy, and unnecessary signs. Implement the findings from the audit.				

Table 3-2 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the T.F. Green Airport Campus

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NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
7	**Pedestrian signal heads at crosswalk between short-term lot and terminal turned off.** – The pedestrian signal heads have been turned off due to operational issues. They did not function efficiently with the amount of pedestrian traffic crossing during peak times. – This can cause confusion for unfamiliar pedestrians, especially if they use the push button and wait for a "Walk" signal to come up for them to cross.	 ***There are pedestrian signal heads not in operation at the crosswalk from the terminal to the short-term lot.***	– Consider placing bags over the pedestrian signal heads to indicate they are not operational.				– Remove pedestrian signal equipment.

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPLEMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
1	**Limited sight distance for vehicles exiting Fresno Road onto Post Road.** – The fence for the private development limits the sight distance for vehicles wanting to exit onto Post Road from Fresno Road.	 ***There is limited sight distance looking north onto Post Road from Fresno Road.***	– Install guide signage to direct vehicles to use Coronado Road to access US-1 north and use Montebello Road to access US-1 south and to I-95.			– Consider converting Fresno Road to one-way westbound.	

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

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NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
2	**Lack of roadway delineation along Fresno Road and Imera Avenue** – The roadway extents and designated usage may be difficult to interpret due to the lack of pavement markings along Fresno Road. – Vehicles park in between the columns along Fresno Road, often blocking a portion of the roadway. – Vehicles that are parked close to Post Road may cause conflicts with vehicles turning into Fresno Road. – It is difficult to differentiate between travel lane and parking lot for adjacent businesses.	 ***Vehicles park along Fresno Road, including between the columns.***  ***Inadequate pavement markings and on-street parking makes it difficult to determine if the road is one-way or two-way travel.***	– Stripe roadways with center and edge lines to delineate travel lanes. – Restrict parking along entire length/specific area of Fresno Road and Imera Avenue, between Coronado Road and Fresno Road, through signing and/or striping. Two 10'-12' travel lanes should be provided at the minimum. – Stripe the parking spaced for adjacent businesses. This can help delineate the proper places for the business vehicles to park.			– Consider converting Fresno Road to one-way westbound. – This recommendation will also eliminate the issue of the limited sight distance for vehicles exiting Fresno Road onto Post Road.	– Consider creating a buffer from the columns with the addition of sidewalks that would provide access to additional entry points on the skywalk. This will also create good access management.

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPLEMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
3	**Barriers located along Fresno Road have a blunt end.** – The barriers that shield the skywalk columns create a potential hazard, having blunt ends on Fresno Road.	 ***The barriers along Fresno Road that shield the columns create a blunt end for vehicles.***	– Install reflective delineators on the barriers to increase visibility. – The implementation of Items No.1 & 2 may help mitigate this issue.			– Consider converting Fresno Road to one-way westbound.	– Consider creating a buffer from the columns with the addition of sidewalks that would provide access to additional entry points on the skywalk. This will also provide good access management.
4	**Lack of continuity of pedestrian facilities at the signalized intersections.** – There is no marked crosswalk on the north leg of the Post Road/Coronado Road intersection. – Pedestrians were observed crossing at the unmarked crossing because it was a more direct route; otherwise some pedestrians would have to cross three legs of the intersection, which increases exposure to conflicts with vehicular traffic. – There are numerous obstructions in the sidewalk with ADA clearance issues on the Post Road/Coronado Road southwest corner.	 ***There are numerous obstructions along the sidewalk near the Post Road/Coronado Road intersection.***	– Install direction signage directing pedestrians seeking the InterLink to the signalized crossing at the InterLink exit driveway.			– Install marked crosswalks and pedestrian signal heads on the south leg of the Jefferson Blvd./Coronado Road intersection. – Install marked crosswalks and pedestrian signal heads on the north leg of the Post Road/Coronado Road intersection. – Install countdown timers at both signalized intersections. – At the Post Road/Coronado Road southwest corner, Provide minimum clearances through sidewalk widening. This may require ROW strip takings.	

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

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NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
5	**High crash occurrence at the Post Road/Airport Connector Off-Ramp intersection.** – There are no back plates on the signal heads. The MTSEA team observed significant sun glare during their observations. – There is a lack of delineation for the dual-left movement onto Post Road northbound. The NO RIGHT TURN ON RED sign not compliant with MUTCD standards.	 ***The NO RIGHT TURN ON RED sign located in the off-ramp on the eastbound approach. This sign is not compliant with MUTCD standards.***	– Install back plated on all the signal heads. – Install supplemental lane use signs for the off-ramp eastbound approach and/or on the mast arm. – Install pavement parking that delineate the dual left-turn movement. – Install MUTCD standard NO RIGHT TURN ON RED sign (R10-11 series) – Install supplemental InterLink wayfinding signage for vehicles that may have missed the correct exit.	– The NO RIGHT TURN ON RED sign should be enforced.			

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

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NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
6	**Inadequate snow removal on sidewalks.** – The sidewalks along the Adjacent Roadway Network to the InterLink were not clear of snow. This can cause pedestrians to walk in the street. – The bus stops/shelters were also not clear of snow. Pedestrians were observed waiting for the bus in the roadway.	 ***The sidewalks along Jefferson Blvd. adjacent to the InterLink were not cleared of snow.***		– Enforcement the adjacent property owners to abide by the City of Warwick ordinance to maintain a clear path adjacent to their property. – Maintain clear area at/around bus stops/shelters.			

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

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NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
7	**Incomplete/non-continuous pedestrian facilities along Fresno Road, Imera Avenue, and Glenham Avenue.** – There are recently installed sidewalks/curbing along Fresno Road and parts of Imera Avenue and Glenham Avenue adjacent to the InterLink. However, there is a lack of ADA ramps and complete sidewalks at some locations. – The pedestrian crossing north of the Monthly Cardholder Commuter entrance/exit is in an ineffective location. – The sidewalk on the north side of the Customer Service Office building ends abruptly.	 ***Missing ADA ramps at the Fresno Rd/Imera Ave intersection.***  ***The pedestrian crossing is located too far from the intersection. The crossing should be at the intersection.***  ***Missing ADA ramp at Glenham Ave/Fullerton Rd intersection.***	– Install ADA ramps at the following locations: - Northwest corner of the Fresno Road/Imera Avenue intersection - Southeast corner of the Fresno Road/Monthly Cardholder Commuter Entrance/Exit. - North corners of the Glenham Avenue/ Fullerton Road intersection. – Relocate the pedestrian crosswalk north of the Monthly Cardholder Commuter entrance/exit closer to the Fresno Road intersection. – Install sidewalk along the north side of the Customer Service Office building.				

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

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NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
8	**Post Road/Coronado Road intersection projected to operate with high delay during peak periods.** – The intersections operate with an acceptable overall level of service, but individual movements are projected to operate near capacity with high delay under future conditions. – There is a lack of back plated installed on the signal heads.	 ***There are missing backplates on the signal heads at the Post Road/Coronado Road intersection***.	– Install back plated on all the signal heads.			– Investigate and optimize signal timing and phasing.	– Incorporate Adaptive Signal Control to optimize traffic operations.

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

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NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
9	**No adjacent roadways are "suitable" for bicycles.** – None of the adjacent roadways leading to the InterLink are deemed "suitable" for bicycle travel, based on RIDOT's "A Guide to Cycling in the Ocean State 2009-10". – The InterLink facility offers bike racks but no designated routes for bikes to get to the facility.	 ***Jefferson Blvd. has narrow shoulders not suitable for bicycle travel.***	– Provide bike racks on busses that serve the InterLink. – Investigate the potential to implement a "road diet" along Jefferson Blvd., south of Coronado Road. The "road diet" would change the roadway cross-section by reducing the number of through lanes from 4 to 2. This would allow shoulders suitable for bicycle travel to be striped. – Narrowing a 4 lane roadway to 2 lanes typically works with average daily traffic (ADT) volumes of 18,000 vehicles per day (vpd) or less. The ADT for Jefferson Blvd. is 13,000 vpd today. Any consideration for a "road diet" must take into account			– Implement the "road diet" if it is determined feasible. – Consider including "zig-zag" pavement markings at potential conflict points between bicycles and vehicles. See the field evaluation from VDOT here: http://www.virginiadot.org/newsroom/northern_virginia/2011/zig-zag_pavement_markings_have50600.asp	

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

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NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
			any future growth in the area that might increase the traffic volumes along Jefferson Blvd. – Consider similar “road diet” for Post Road, between East Avenue and Post Road By-Pass. This can provide continuous connection for bicycles between the InterLink and the Apponaug area and other bicycle networks.				

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPLEMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
10	**Airport destination signing not easily visible.** – Several ground-mounted "Airport" destination signs are installed along Jefferson Blvd. and Post Road. Placement of the signs in relation to other signs and potential obstructions has created issues related to sign visibility. – The overhead "Airport Entrance: sign for Post Road southbound vehicles is difficult to see as it blends into the bridge structure behind it. Also difficult to see at night from the glare from the traffic signals.	 ***The Airport destination sign located behind a utility pole, limited its visibility to vehicles.***  ***The overhead Airport Entrance sign can be difficult to see due to the glare from the traffic signal.***	– Consider an airport related sign audit to check sign height, retroreflectivity, current sign standards, location, consistency, redundancy, and unnecessary signs. – Relocate and improve visibility of signs identified by MTSEA. – Any overhead sign need to be illuminated. – Provide consistent symbols. Most airport destination signing has the "airplane" symbol, while the overhead 'Airport Entrance" sign uses all text.			– Replace the existing Airport Entrance overhead sign with a larger, more visible sign.	

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

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NO.	ISSUES/CONCERNS	EXAMPLE OF ISSUES	ENGINEERING	ENFORCEMENT	EDUCATION & ENCOURAGEMENT	ENGINEERING	ENGINEERING
11	**Center turn lane arrow on Post Road lead to no turns on south side.** – The center turn lane along Post Road consists of left-turning arrows for both directions. However, between Coronado Road and Montebello Road, there are no driveways/streets to make a left-turn into from Post Road southbound.	 ***The center turn lane along Post Road consists of left-turn arrows for both directions. There are no driveways/streets along the south side of Post Road to turn into.***	– Remove the left-turn arrow pavement markings where not applicable. – Stripe exclusive left-turn lane for Fresno Road (monthly commuter entrance)				

Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

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NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
12	**Traffic control unclear at the Fresno Road/Imera Avenue intersection.** – There is missing traffic control on 2 of the 4 approaches to this intersection. – There is a knocked down stop sign located on a property adjacent to the intersection. – The lack of curbing/roadway edge delineation creates difficult in placing traffic control devices.	 ***A knocked down Stop sign is located in an adjacent business.***  ***There is a Stop sign on 2 of the 4 approaches. Before the construction of the InterLink, this intersection operated with a 4-way stop condition.***	– Install Stop sign on all approaches.				– Consider converting Fresno Road to one-way westbound and create a buffer from the columns with the addition of sidewalks that would provide access to additional entry points on the skywalk. This will also create good access management.

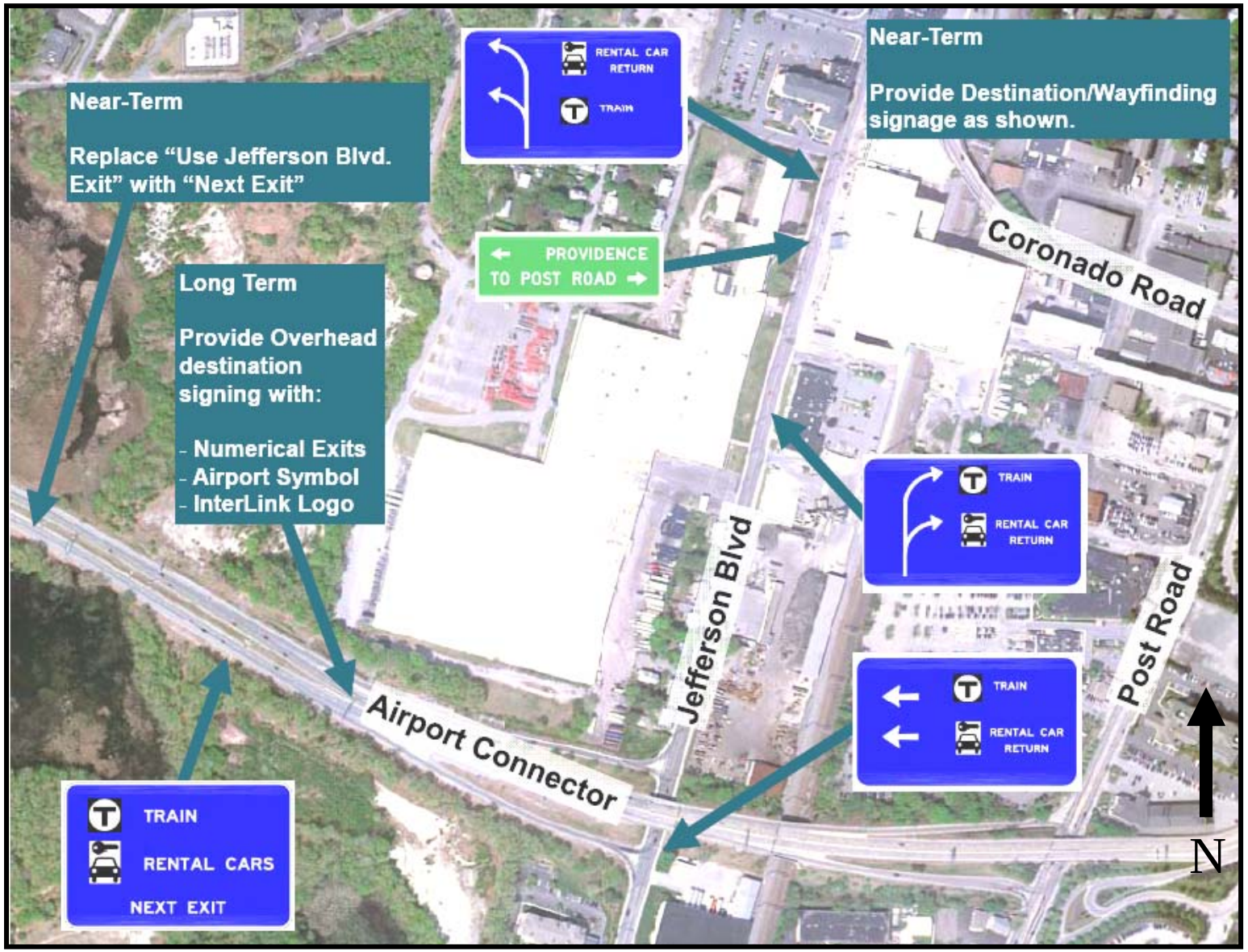
Table 3-3 Summary of Safety/Efficiency Issues and Suggestions for Existing Facilities on the Adjacent Roadway Network

			SPECIFIC NEAR TERM IMPROVEMENTS (IMPLEMENTATION PERIOD 1-6 MONTHS)			POTENTIAL INTERMEDIATE TERM IMPROVEMENTS (6 MONTHS - 2 YEARS)	POTENTIAL LONG TERM IMPROVEMENTS (2 OR MORE YEARS)
NO.	**ISSUES/CONCERNS**	**EXAMPLE OF ISSUES**	**ENGINEERING**	**ENFORCEMENT**	**EDUCATION & ENCOURAGEMENT**	**ENGINEERING**	**ENGINEERING**
13	**There is non-standard redundant messaging at the channelized right-turn at the Jefferson Blvd. /Coronado Road intersection.** – The channelized right-turn has a yield bar pavement marking for the crosswalk and a yield sign to control entering traffic onto Coronado Road. The two yield locations may be seen as one by the motorist, causing confusion.	 ***The channelized right-turn onto Coronado Road requires vehicles to yield for pedestrians in the crosswalk and upon entering Coronado Road.***	– Install redundant signage at both yield locations and restripe pavement markings to alert motorists of the "double yield" condition.				– Redesign channelized right-turn with a tighter angle to improve driver's visibility of pedestrians and reduce speeds.

Table 3-4 Summary of Potential Safety/Efficiency Issues and Suggestions for the Warwick Station Development District Master Plan

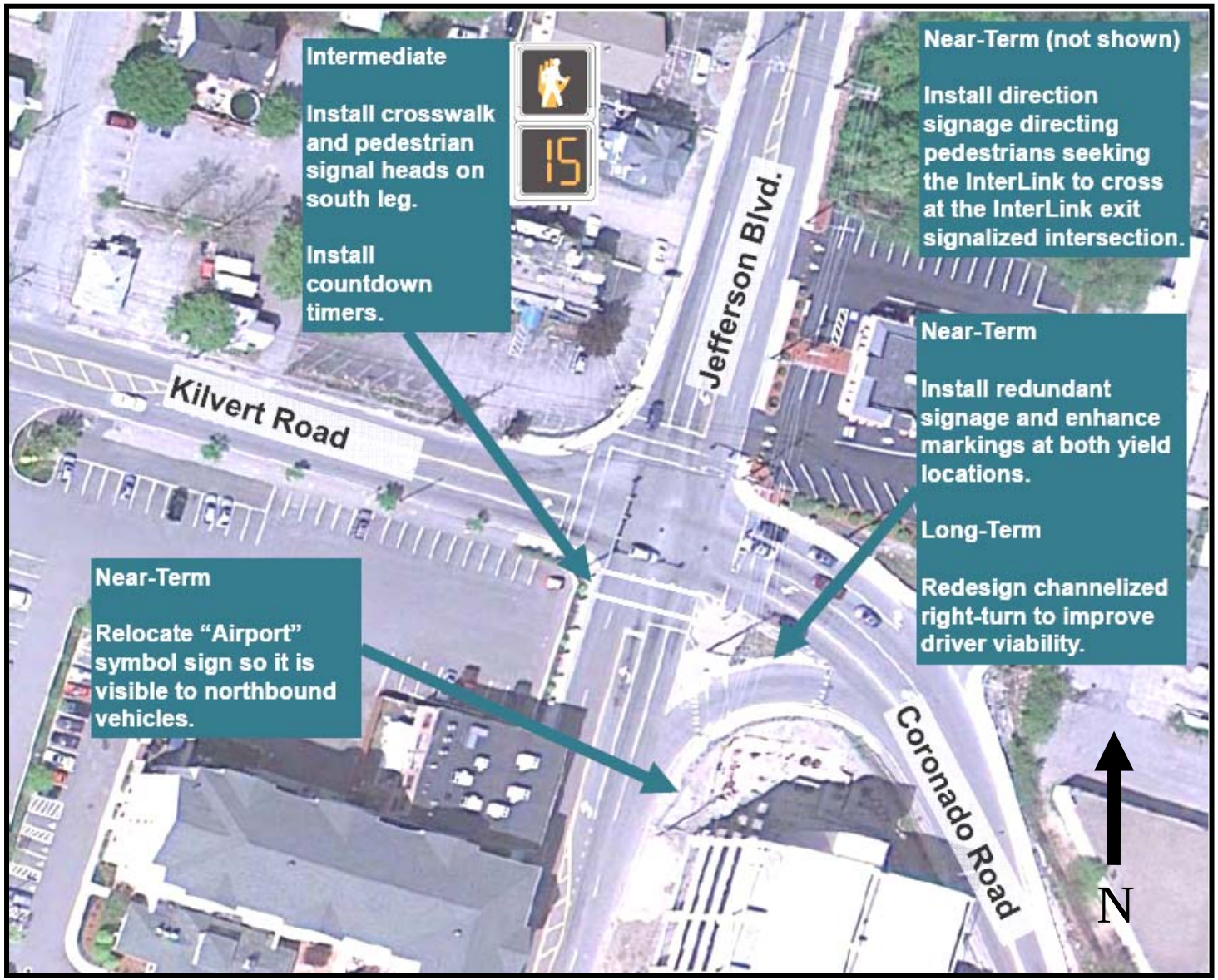
NO.	POTENTIAL ISSUES/CONCERNS	POTENTIAL LONG TERM IMPROVEMENTS ENGINEERING
1	**Additional traffic generated from the developments may cause added delay to an already congestion roadway network.** – The Post Road/Coronado Road intersection is near capacity under existing conditions. Any additional traffic added to this intersection can cause high delay and long vehicle queues. – The short segment of Coronado Road between Jefferson Blvd. and Post Road compiled with an additional connection from the development district can cause high delays along Coronado Road.	– Consider connection between Warwick Station Development District and the Airport Connector to provide alternative local east –west connection over the railroad tracks.
2	**There is limited sight distance for vehicles exiting Fresno Road onto Post Road.** – There is limited sight distance from the fence on private property for vehicles looking north onto Post Road. – The barriers shielding the columns along Fresno Road for the skywalk crated a blunt end.	– Convert Fresno Road to one-way westbound. This is recommended under near-term conditions. – Consider sidewalks along Fresno Road to shield the barriers from the traveled way.
3	**Access point on Post Road will most likely require a traffic signal. The location of this traffic signal may cause unconventional or back-to-back intersections along Post Road, causing additional congestion.** – There is a proposed traffic signal adjacent for the proposed "Gateway" entrance as part of the EIS Improvement Program. If not coordinated with the plans from the Warwick Station Development District, there could be the potential for multiple signalized intersections in a small segment of roadway.	– Consider limiting full access along Post Road to one access point. Supplemental access can be provided in the form of right-in/right-out driveways along Post Road. – Coordinate with the T.F. Green Airport's Improvement Program when designing the district's main entrance. As part of this program, a "Gateway" entrance is proposed on the east side of Post Road in the area of the district.
4	**The development may increase the pedestrian traffic in the area. This traffic may cross Post Road.** – The development of the district will cause increased pedestrian traffic. Some traffic will want to cross Post Road.	– Consider ground-level access to the InterLink and skywalk from the district. This will provide access for pedestrian seeking to cross Post Road.
5	**Access management and circulation** – Access management in, through, and around this area needs to be evaluated and coordinated to ensure safe and efficient travel for all road users.	– Fully coordinate development of this district with the Airport Improvement Program, RIPTA plans for service, and RIDOT's transportation program. State, municipal, and federal modal partners should collaborate to ensure safe and efficient travel is incorporated.

Figure 3-2 Examples of Proposed Destination Signing to/from the InterLink



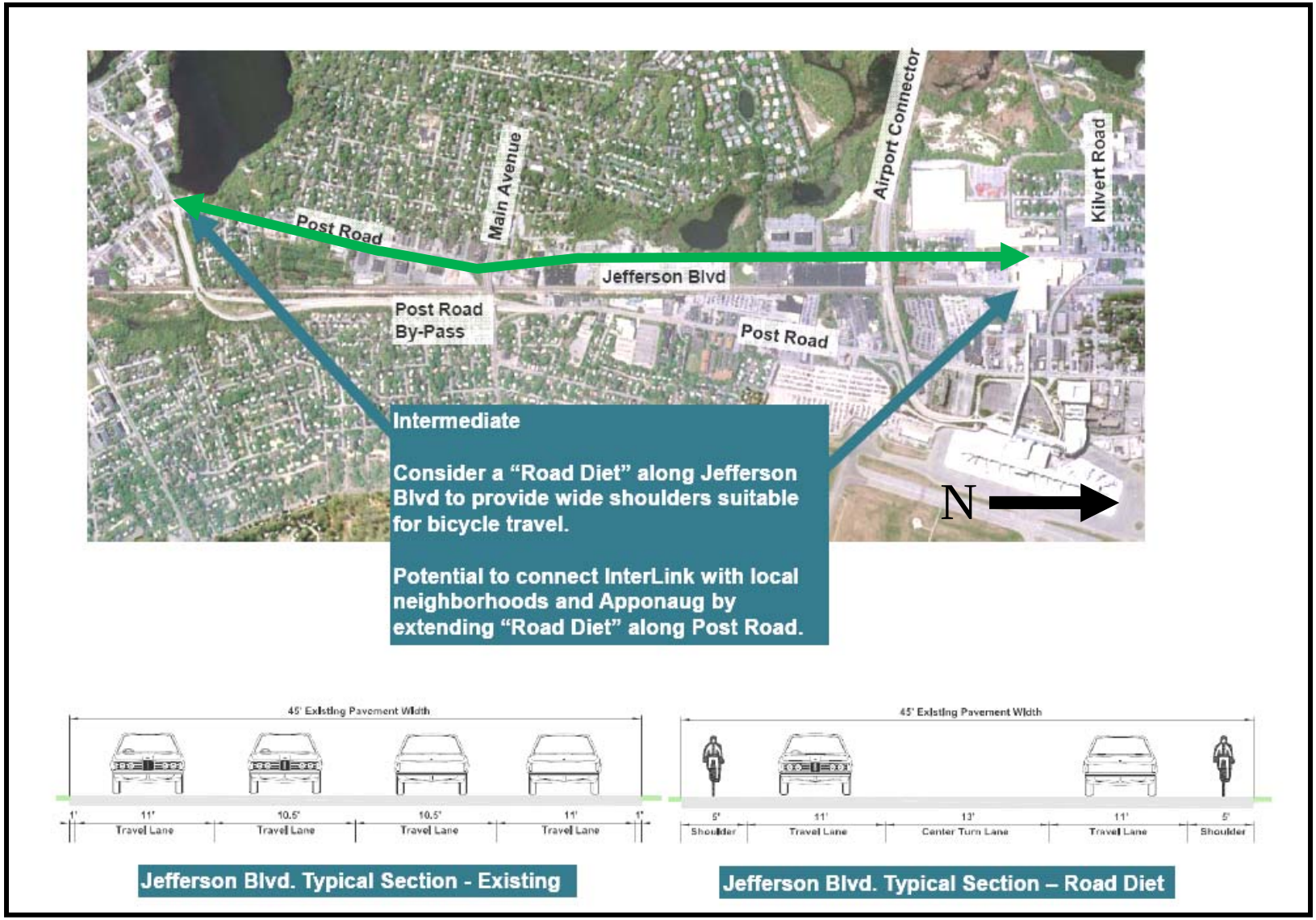
Source: Google Earth

Figure 3-3 Examples of Jefferson Boulevard Conceptual Improvements/Recommendations



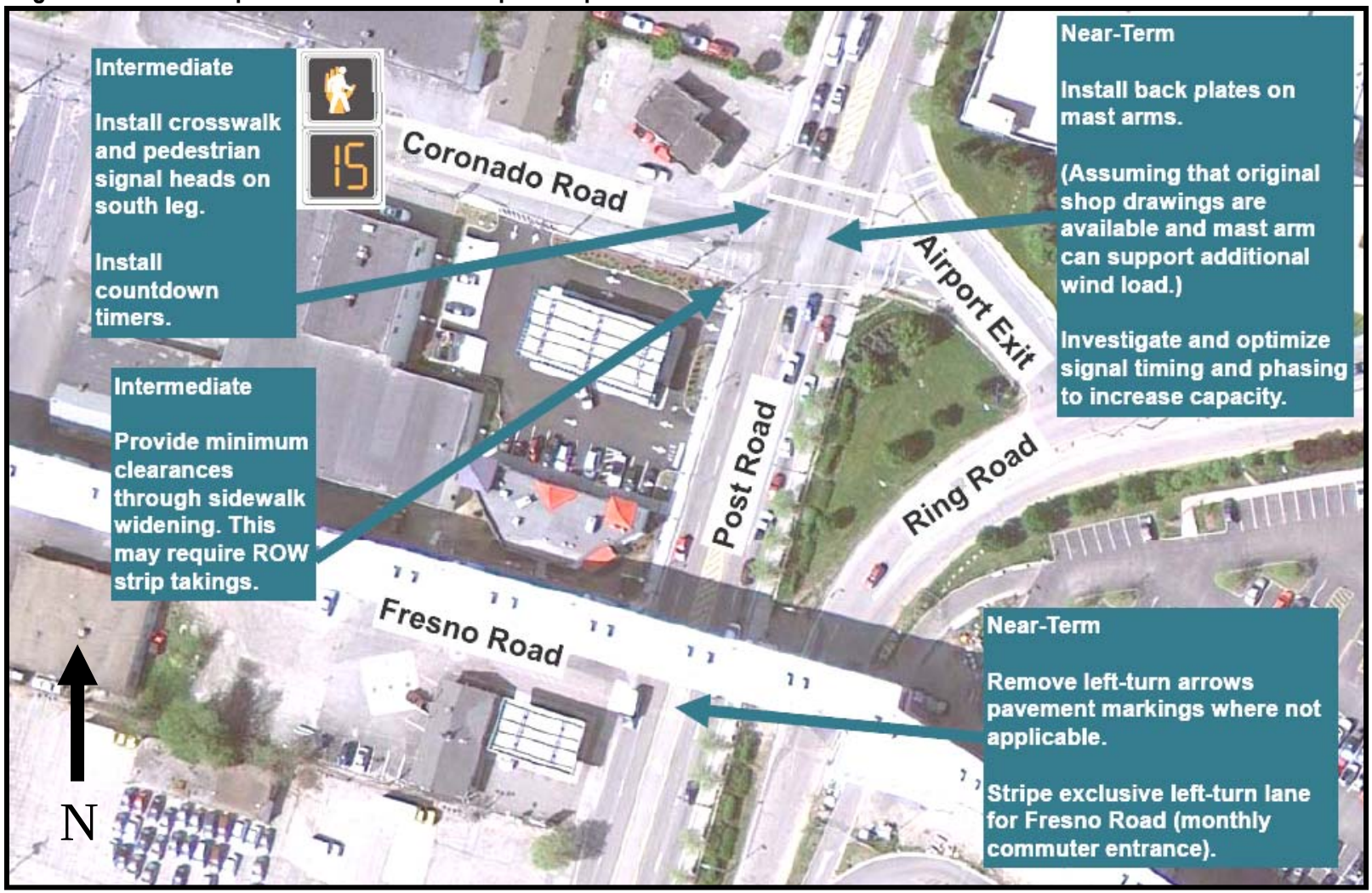
Source: Google Earth

Figure 3-4 Jefferson Blvd. 'Road Diet" Conceptual Improvements



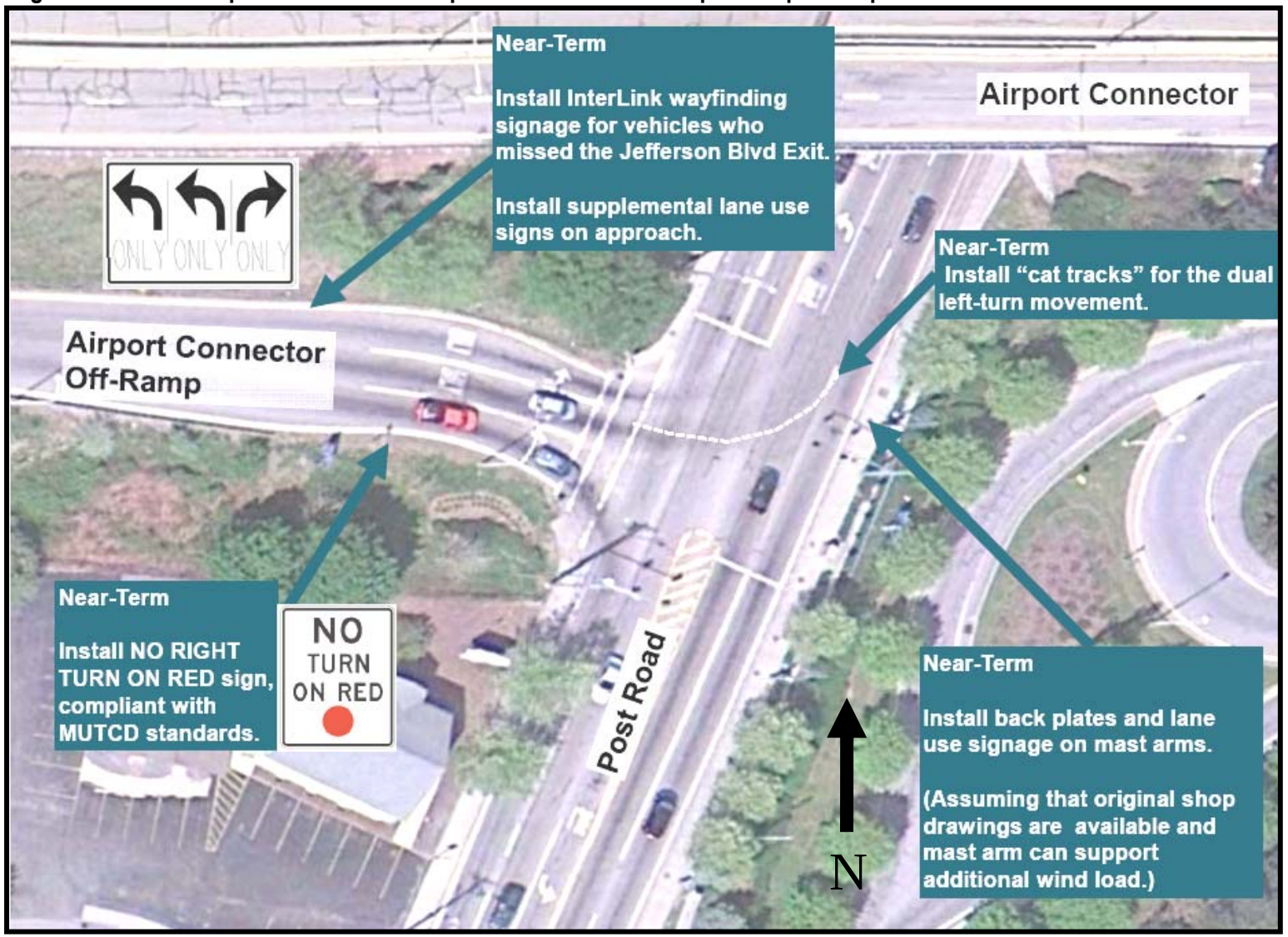
Source: Google Earth

Figure 3-5 Examples of Post Road Conceptual Improvements/Recommendations



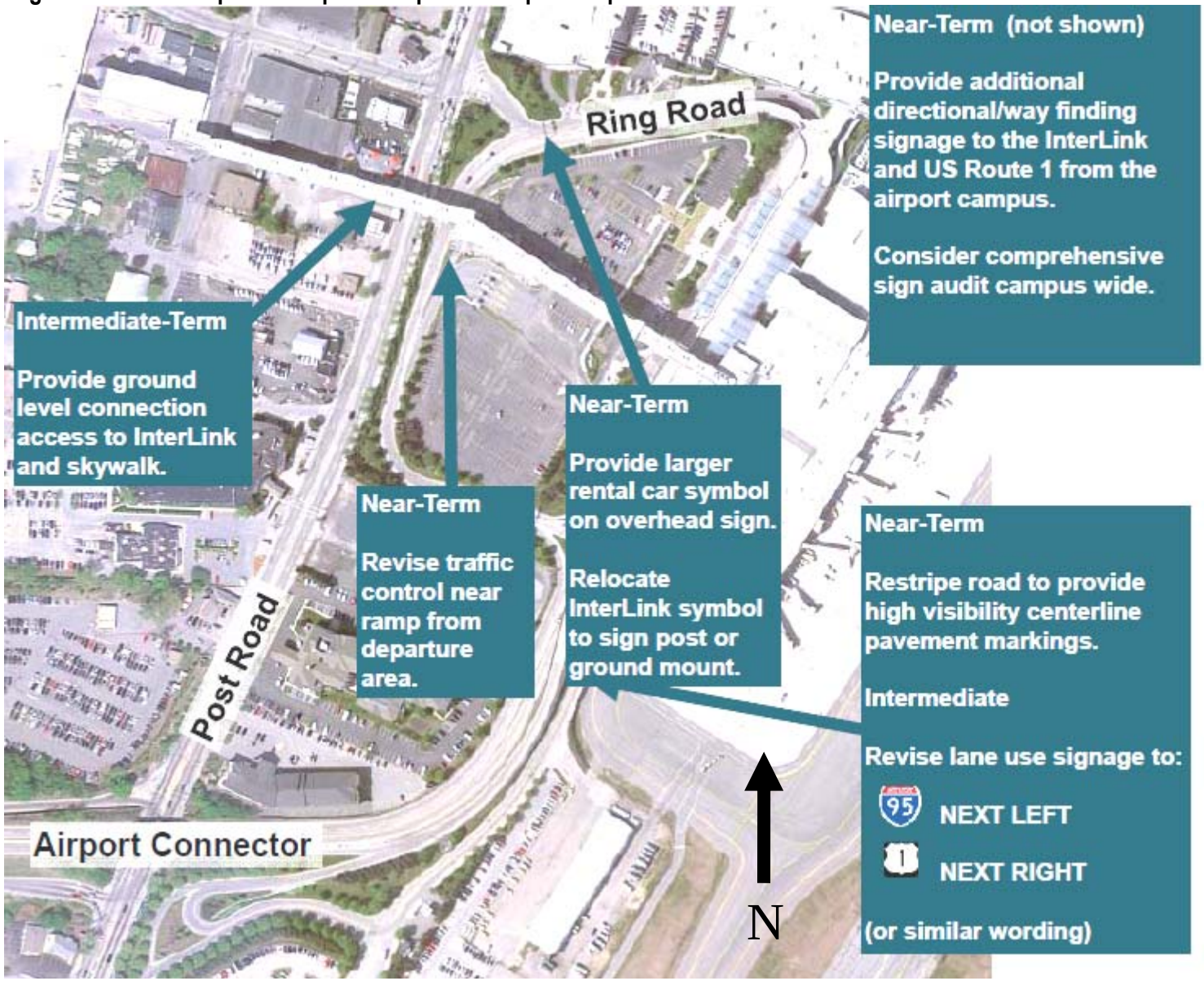
Source: Google Earth

Figure 3-6 Examples of Post Road/Airport Connector Off-Ramp Conceptual Improvements/Recommendations



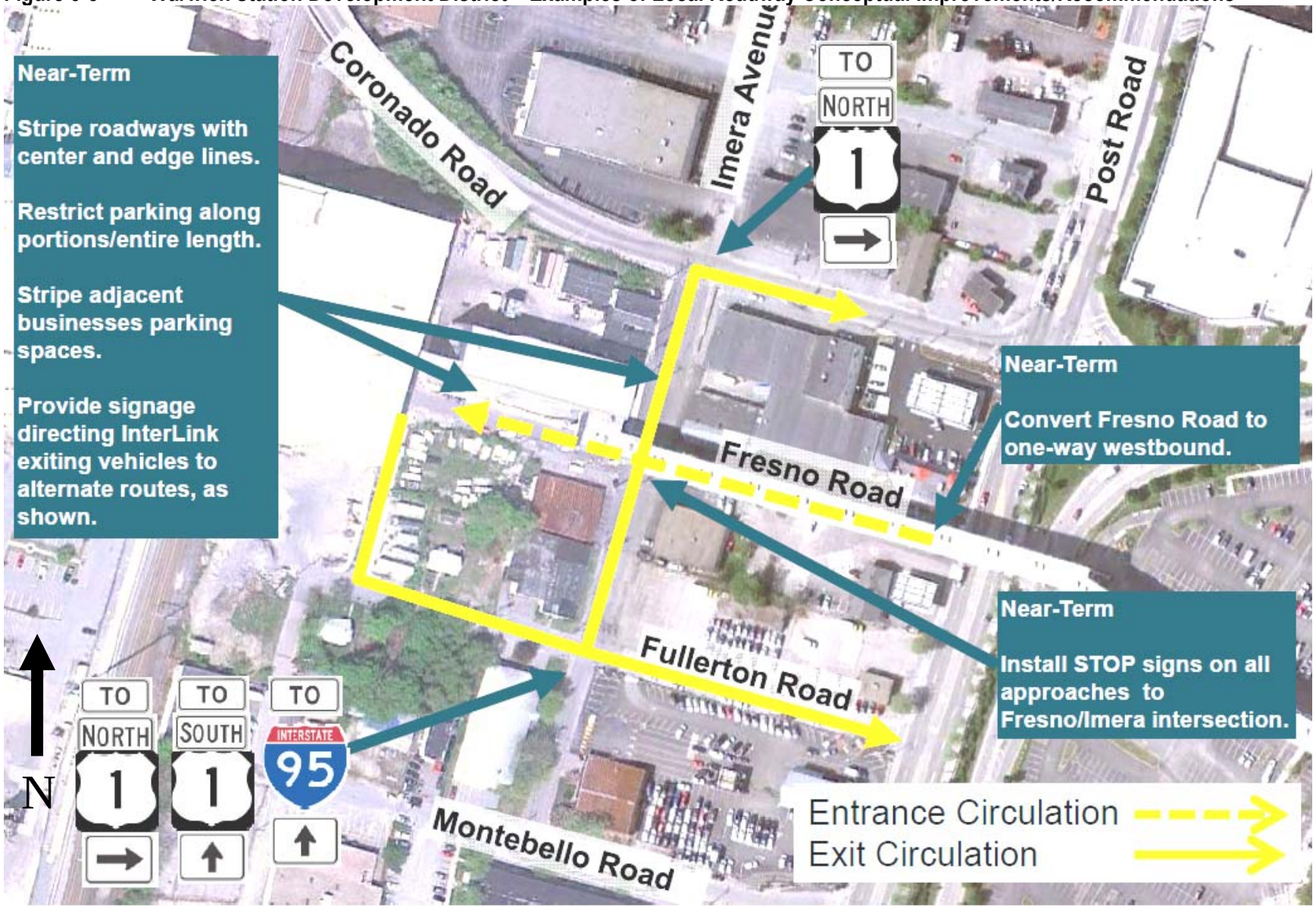
Source: Google Earth

Figure 3-7 Examples of Airport Campus Conceptual Improvements/Recommendations



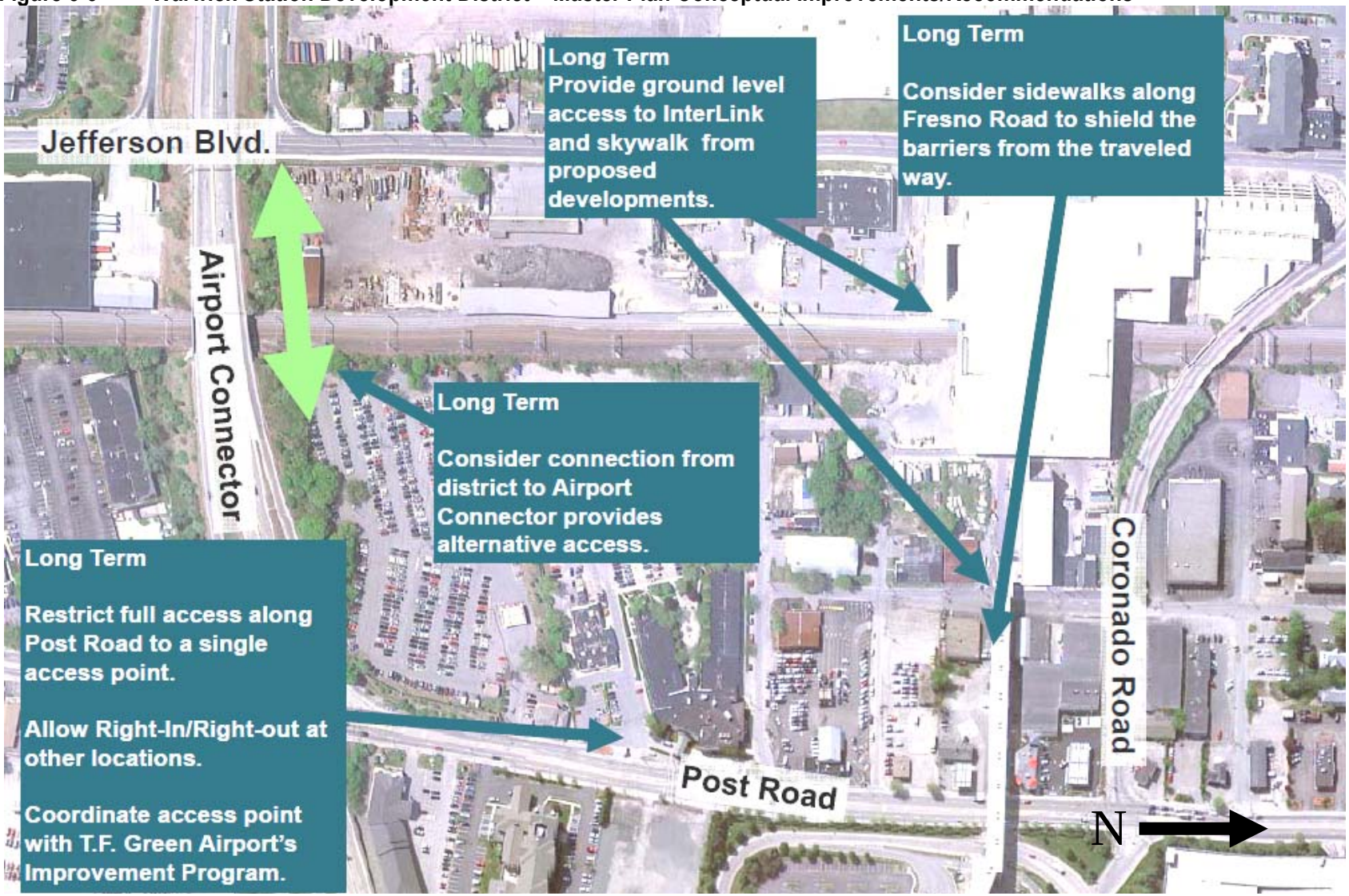
Source: Google Earth

Figure 3-8 Warwick Station Development District – Examples of Local Roadway Conceptual Improvements/Recommendations



Source: Google Earth

Figure 3-9 Warwick Station Development District – Master Plan Conceptual Improvements/Recommendations



Source: Google Earth

4 - Conclusions

The objective of this project was to perform a Multimodal Transportation Safety and Efficiency Assessment (MTSEA) in the vicinity of the newly constructed InterLink Intermodal Facility in Warwick, Rhode Island. The MTSEA team reviewed the different modes of transportation (pedestrians, bicycles, rail, bus, taxis, shuttles, autos, etc.) that interact at this facility and evaluated safety and operational efficiency of these modes collectively. This assessment considered the operations of the facilities and roadway network under current conditions and with projected growth from planned/proposed developments and improvements.

The MTSEA team first reviewed relevant documents including traffic and collision data, MBTA and RIPTA schedules and current ridership, as well as commuter rail ridership projections, and InterLink as-built construction plans. In addition to these documents, key information about airport operations, including peak airport arrival/departure times, and InterLink facility, including rental car and commuter operations, was provides by essential airport staff.

The team also reviewed proposed projects including the development adjacent to the InterLink along Jefferson Boulevard, the T.F. Green Airport Improvement Program Draft EIS, and the Warwick Station Development District Draft Master Plan. Proposed improvements, visions, strategies were taken into consideration when the team made observations and recommendations.

Next, the MTSEA team reviewed safety and operations of the facilities in the assessment area in the field. The team made observations during peak traffic, commuter, and airport activity time periods between 5:30 AM and 8:00 PM.

The MTSEA team then summarized the issues and categorized by the following: the InterLink, T.F. Green Airport Campus, Adjacent Roadway Network, and Warwick Station Development District. Some of the overall issues throughout the assessment area that were found by the MTSEA team are:

- Lack of adequate destination signing to the InterLink.
- Lack of wayfinding signage and pavement markings within the InterLink.
- Lack of available parking in the commuter rail pick-up/drop-off lot.

- Inadequate pedestrian facilities around the InterLink facility along adjacent roadways.
- Lack of bicycle facilities adjacent to the InterLink.
- Potential for adjacent developments in the Warwick Station Development District to be developed considering the safe and efficient multi-modal access given the unique features detailed in this report.

Next, the MTSEA team suggested a variety of measures to address these safety and efficiency concerns. These countermeasures were grouped into near, intermediate, and long-term categories. Some of the primary measures proposed are:

- Enhance destination and wayfinding signage to the InterLink from I-95, adjacent roadways, and the T.F. Green Airport Campus.
- Enhance wayfinding signage and pavement markings within the InterLink facility to help guide vehicles and pedestrians to desired destinations.
- Revise pick-up/drop-off lot to increase available parking to meet projected demands.
- Provide ADA compliant facilities within the assessment area.
- Provide education and enforcement directed towards pedestrians and motorists on InterLink operations, including hours of operation, and parking rates. This can be done through signs in the airport terminal, brochures, and the web.
- Provide options for bicycles to access the InterLink, including a suitable route connecting bicyclists from local businesses and residential areas and other bicycle routes to the InterLink.
- Ensure that any development in the Warwick Station Development District conforms to urban design principles, including an access management plan, offering multiple route alternatives to avoid already congested intersections and developing slow speed roadways to promote pedestrian and bicycle use.

5 - Next Steps

Timing of the MTSEA was driven by the ability to evaluate safety and efficiency of the fully operational facility as well as the ability to maximize the opportunity of the presence of the project's construction manager, Gilbane Building Company, RIAC's project manager, PB Americas, and designer of record, Jacobs Consultants, INC (JCI). Both firms are currently on-site and under contract with RIAC and RIDOT. Existing issues and opportunities that can be mitigated, enhanced, or enabled with "near-term" recommendations can be performed through existing delivery processes and relationships, thus expediting implementation. It is the RIAC's and RIDOT's intent to quickly implement these agreed upon near-term improvements in cooperation with the interested parties.

The remaining intermediate-term and long-term improvements can be incorporated in upcoming contracts that are in the vicinity or the City/State can pursue them through the Transportation Improvement Program (TIP). Recommendations made toward the Warwick Station Development District may be included in the master plan so these recommended strategies and design standards can be applied when the district is developed.

All recommendations have been reviewed and addressed by the RIAC and RIDOT officials. A "Recommendation and Resolution Plan" (**Table 5-1**) has been developed to identify the recommended improvements, the timeframe in which the recommendations are expected to be implemented, the action that should be taken to address and implement the recommendations, and the responsible parties for implementation.

Table 5-1 Recommendation & Resolution Plan

		Recommendation	Resolution	Responsible Party
Near-Term	1	Consider allowing15 or 30 minute parking at no charge in the daily commuter lot for passenger pick-up. See Table 3-1. Item No.1.	Will be addressed through Recommendation/Action No. 60	RIAC
	2	Explore additional wording on internal signage that states the complimentary parking is available 15 minutes and list the daily rated for more than 15 minutes. See Table 3-1, Item No.5.	Will be addressed through Recommendation/Action No. 60	RIAC
	3	Expand parking spaces in the Drop-off/Pick-up lot during the evening pick-up period for passenger pick-up. See Table 3-1, Item No.1.	Will be addressed through Recommendation/Action No. 60	RIAC
	4	Enforce the 15/30 minute time restriction to ensure that commuters are not using this area for all-day parking. See Table 3-1, Item No.1.	Will be addressed through Recommendation/Action No. 60	RIAC
	5	For the InterLink, provide detailed directions, indentifying which entrance to use, on media such as: Website, Pamphlets. See Table 3-1, Item Nos. 1, 3, 5, 10, 14.	In Progress	RIAC
	6	Provide maps and information to employees as to the designated pedestrian routes and responsibilities of pedestrians. Inform employees of potential risks of not using designated routes. See Table 3-2, Item No.3.	In Progress	RIAC
	7	Provide an ATM at the rail platform. See Table 3-1, Item No.14.	Monitor need to determine feasibility	RIAC
	8	Provide bike racks on RIPTA buses that serve the InterLink. See Table 3-3, Item No.9.	Coordination with RIPTA	RIDOT
	9	Continued enforcement of the parking restriction along Jefferson Blvd. and the bus pull-out, especially during the evening commuter pick-up period. See Table 3-1, Item No.5.	Coordination with City of Warwick	RIDOT
	10	Remove crosswalk painting at the rental car exit. See Table 3-1, Item No.9.	Near Term Scope	RIAC
	11	At the InterLink Exit/ Jefferson Blvd. traffic, install supplemental ground mounted ONE WAY (R6-1) signs and NO LEFT TURN (R3-2) signs on the mast arm to deter vehicles from entering the InterLink exit. See Table 3-1, Item No.12.	Near Term Scope	RIAC
	12	Relocate bike racks closer to the rail platform in the InterLink. See Table 3-1, Item No.13.	Near Term Scope	RIAC
	13	At the arrival area pedestrian crossing on the Airport Campus, channelize pedestrians away from the column, closer to the center of the crosswalk. Relocate in-road pedestrian crossing sign into/before the crosswalk for increased effectiveness. See Table 3-2. Item No.2.	Near Term Scope	RIAC
	14	At the pedestrian crossing at the arrival area adjacent to the Ring Road, place bags over the pedestrian signal heads to indicate they are not operational. See Table 3-2. Item No.7.	Near Term Scope	RIAC
	15	Within the Airport Campus, consider a comprehensive sign audit to check sign height, retroreflectivity, current sign standards, location, consistency, redundancy, and unnecessary signs. See Table 3-2, Item No.6.	Near Term Scope	RIAC
	16	Enforcement the adjacent property owners to abide by the City of Warwick ordinance to maintain a clear path adjacent to their property. See Table 3-3, Item No.6.	Advise City of Warwick	RIDOT
	17	Provide diagrammatic signage within and immediately outside the InterLink to direct passengers to the preferred route to the rail platform from the RIPTA bus stop. Provide awning at the InterLink entrance to provide attract pedestrian to the correct entrance. See Table 3-1, Item No.10.	Near Term Scope	RIAC
	18	Provide bus shelters along Jefferson Blvd., adjacent to the InterLink entrance.	Near Term Scope	RIAC

Table 5-1 Recommendation & Resolution Plan

	Recommendation		Resolution	Responsible Party
	19	Perform a comprehensive wayfinding study and install new signing and pavement markings within the InterLink. See Table 3-1, Item No.2.	In Progress	RIAC
	20	Provide wayfinding within the garage for passengers between the pick-up/drop-off area and the rental car counters. See Table 3-1, Item No.11.	In Progress	RIAC
	21	Provide signage on how and where to purchase a MBTA ticket. See Table 3-1, Item No.14.	In Progress	RIAC
	22	Provide pedestrian warning signs on the concrete wall or overhead at the daily commuter exit gate. Provide warning signs for pedestrians to watch for oncoming vehicles from the daily commuter exit gate. Assumes 2 pedestrian warning (W11-2/W16-7p) signs. See Table 3-1, Item No.6.	Near Term Scope	RIAC
	23	Install ground mounted/overhead traffic control signs where the daily commuter lot, pick-up/drop-off lot, and the rental car exit intersect. Establish priority on all approaches to the intersection. Assumes 4 STOP (R1-1) signs and 12" stop bar pavement markings for all approaches. See Table 3-1, Item No.7.	Near Term Scope	RIAC
	24	Install overhead or side mounted lane use signs on the approach to the exit on the rental car exit ramp. Locate this sign ahead of and at the approach to the intersection. Assume 3 lane use (W3-6 series or similar) signs. Also install pavement markings that help indicate lane use assignments. See Table 3-1, Item No.8.	Near Term Scope	RIAC
	25	Provide additional directional signage to the InterLink from the Airport Campus. Assume 10 ground mounted directional signs. See Table 3-2, Item No.1.	Near Term Scope	RIAC
	26	At the overhead sign along the Ring Road, provide larger rental car symbol on the overhead sign and relocate the InterLink symbol to the sign post or ground mount. See Table 3-2, Item No.1.	Near Term Scope	RIAC
	27	Evaluate pedestrian crossing at arrivals roadway. See Table 3-2, Item No.2.	Near Term Scope	RIAC
	28	At the Ring Road/departure ramp merge area; revise the traffic control to be in compliance with the MUTCD. May include the removal of the yield bar markings, removal of the "Merge" (W4-1) sign, the relocation of the "Added Lane" (W4-3) sign to the merge area between the parking lot and the Ring Road, adding a supplemental "Added Lane" (W4-3) sign across the relocated sign, and installing a "Lane Ends" (W9-1) sign on the departure ramp approach. See Table 3-2, Item No.4.	Near Term Scope	RIAC
	29	Restripe the road between Lot E and the arrival area to provide high visibility centerline pavement markings. Revise the signage on the guide sign on the road between Lot E and the arrival area to state "I-95 Next Left" and Post Road/US-1 Next Right" or similar wording. See Table 3-2, Item No.5.	Near Term Scope	RIAC
	30	Install ADA ramps at the following locations: Northwest corner of the Fresno Road/Imera Avenue intersection, Southeast corner of the Fresno Road/Monthly Cardholder Commuter Entrance/Exit, Southeast corner of the Fresno Road/Monthly Cardholder Commuter Entrance/Exit, and North corners of the Glenham Avenue/Fullerton Road intersection. See Table 3-3, Item No.7.	Near Term Scope	RIAC
	31	Relocated the pedestrian crosswalk north of the Monthly Cardholder Commuter entrance/exit closer to the Fresno Road intersection. Assume 2 ADA compliant ramps. See Table 3-3, Item No.7.	Near Term Scope	RIAC
	32	Provide additional diagrammatic signage to identify the InterLink entrances and help differentiate between the daily commuter and rental car return entrances. Includes three ground mounted signs along Jefferson Blvd. (on the northbound and southbound approaches to the InterLink entrance and at the end of the off-ramp from the Airport Connector). See Table 3-1, Item No.3.	Near Term Scope	RIDOT
	33	Provide a supplemental destination sign closer to the Jefferson Blvd. gore area, along the Airport Connector. See Table 3-1, Item No.4.	Near Term Scope	RIDOT

Table 5-1 Recommendation & Resolution Plan

		Recommendation	Resolution	Responsible Party
Near-Term	34	Revise wording on existing destination sign along the Airport Connector. Replace "Use Jefferson Blvd. Exit" with "Next Exit". See Table 3-1, Item No.4.	Near Term Scope	RIDOT
	35	Revise the trailblazing signs on the Airport Connector Off-Ramp to Jefferson Blvd. to be consistent with the trailblazing signs along Jefferson Blvd. Includes the sign at the Airport Connector exit to Jefferson Blvd. and the sign the Jefferson Blvd./Airport Connector Off-Ramp intersection. Also, relocate the trailblazing sign located at the Jefferson Blvd. off-ramp further down the ramp. See Table 3-1, Item 4.	Near Term Scope	RIDOT
	36	Install enhanced direction signing at the InterLink exit. See Table 3-1, Item No.8.	Near Term Scope	RIDOT
	37	Consider the addition of the airport symbol on the destination signs on I-95 North and South for the Airport Connector. (Exit 13)	Near Term Scope	RIDOT
	38	Install back plates on all the signal heads at the Post Road/Airport Connector Off-Ramp intersection. (Assuming that original shop drawings are available and mast arm can support the additional wind load.) See Table 3-3, Item No.5.	Near Term Scope	RIDOT
	39	Install supplemental lane use signs for the Airport Connector Off-Ramp to Post Road approach and/or on the mast arm at the Post Road/Airport Connector Off-Ramp intersection. See Table 3-3, Item No.5.	Near Term Scope	RIDOT
	40	Install pavement marking that delineates the dual left-turn movement at the Post Road/Airport Connector Off-Ramp intersection See Table 3-3, Item No.5.	Near Term Scope	RIDOT
	41	Install MUTCD standard NO RIGHT TURN ON RED sign (R10-11 series) at the Post Road/Airport Connector Off-Ramp intersection. See Table 3-3, Item No.5.	Near Term Scope	RIDOT
	42	Install back plates on all the signal heads at the Post Road/Coronado Road intersection. (Assuming that original shop drawings are available and mast arm can support the additional wind load.) See Table 3-3, Item No.8.	Near Term Scope	RIDOT
	43	Install supplemental InterLink wayfinding signage for vehicles that may have missed the correct exit. Assume 2 wayfinding signs. See Table 3-3, Item No.5.	Near Term Scope	RIDOT
	44	Revise the overhead sign on Post Road (mounted on the Airport Connector overpass) for the airport entrance to provide the airport symbol. See Table 3-3, Item No.10.	Near Term Scope	RIDOT
	45	Consider an airport related sign audit along local roadways to check sign height, retroreflectivity, current sign standards, location, consistency, redundancy, and unnecessary signs. Relocate and improve visibility of signs. See Table 3-3, ItemNo.10.	Near Term Scope	RIDOT
	46	Remove the left-turn arrow pavement markings where not applicable along Post Road, adjacent to the airport. Stripe exclusive left-turn lane for Fresno Road (monthly commuter entrance). See Table 3-3, Item No.11.	Near Term Scope	RIDOT
	47	At the Jefferson Blvd. /Coronado Road intersection, install redundant signage at both yield locations and restripe pavement markings to alert motorists of the "double yield" condition for the channelized right-turn. See Table 3-3, Item No.13.	Near Term Scope	RIDOT
	48	Install supplemental NO PARKING signs along Jefferson Blvd., adjacent to the InterLink and in the bus pull-out to adhere to State statute. Assume 10 (R7-1) signs. See Table 3-1, Item No.5.	Near Term Scope	City of Warwick
	49	Install guide signage to direct vehicles to use Coronado Road to access US-1 north and use Montebello Road to access US-1 south and to I-95. Assume 4 locations. See Table 3-3, Item No.1.	Near Term Scope	City of Warwick
	50	Stripe Fresno Road and Imera Avenue with center and edge lines to delineate travel lanes. See Table 3-3, Item No.2.	Near Term Scope	City of Warwick

Table 5-1 Recommendation & Resolution Plan

		Recommendation	Resolution	Responsible Party
Near-Term	51	Restrict parking along entire length/specific area of Fresno Road and Imera Avenue, between Coronado Road and Fresno Road, through signing and/or striping. Assume 10 (R7-1) signs. This may lead to a decrease in activity of pedestrians crossing Post Road and utilizing the "goat path" (See Table 3-2, Item No.3) to access the airport terminal from Fresno Road. See Table 3-3, Item No.2.	Near Term Scope	City of Warwick
	52	Stripe the parking spaced for adjacent businesses to help delineate the proper places for the business vehicles to park. See Table 3-3, Item No.2.	Near Term Scope	City of Warwick
	53	Install reflective delineators on the barriers along Fresno Road to increase visibility. Assume 10 barriers. See Table 3-3, Item No.3.	Near Term Scope	City of Warwick
	54	Install direction signage along Jefferson Blvd. directing pedestrians seeking the InterLink to the signalized crossing at the InterLink exit intersection. Assume 4 pedestrian wayfinding signs. See Table 3-3, Item No.4.	Near Term Scope	City of Warwick
	55	Install Stop signs and "STOP" pavement markings on all approaches at the Fresno Road/Imera Avenue intersection. Assume 4 STOP (R1-1) signs. See Table 3-3, Item No.12.	Near Term Scope	City of Warwick
	56	Investigate the potential to implement a "road diet" along Jefferson Blvd., south of Coronado Road. The "road diet" would change the roadway cross-section by reducing the number of through lanes from 4 to 2 to without the need for roadway widening (restriping only). This would allow shoulders suitable for bicycle travel to be striped. Cost estimate assumes road diet along Jefferson Blvd. between East Avenue and Coronado Road and along Post Road between East Avenue and Post Road By-Pass. There may be additional work (widening) needed at intersections, depending on the number of lanes required based on capacity analyses. See Table 3-3, Item No.9.	Near Term Scope	RIDOT
	57	Consider converting Fresno Road to one-way westbound through striping and signing. See Table 3-3, Item No.s 1, 2, 3, 12 and Table 3-4, Item No.2.	Near Term Scope	RIAC
	58	Evaluate cost estimate of the installation of overhead destination signage for the InterLink along the Airport Connector. See Recommendation/Action No.69	Near Term Scope	RIDOT
	59	Evaluate cost estimate of the replacement of the existing Airport Entrance overhead sign with a larger, more visible sign. See Recommendation/Action No.66	Near Term Scope	RIDOT
	60	Reconfigure the pick-up/drop-off parking layout to provide additional parking spaces to meet demands based on projected ridership volumes. See Table 3-1, Item No.1.	In Progress	RIAC
Intermediate-Term	61	Provide a Charlie Card machine. See Table 3-1, Item No.14.	In Progress	MBTARIAC
	62	Investigate and optimize signal timing and phasing at the Post Road/Coronado Road intersection. (Assuming no additional signal equipment needed.) See Table 3-3, Item No.8.	Monitor intersection and optimize as necessary with the additional traffic from the WSDD and other local projects.	RIDOT
	63	Install marked crosswalks and pedestrian signal heads with countdown timers on the south leg of the Jefferson Blvd./Coronado Road intersection. Install countdown timers on all other approaches. See Table 3-3, Item No.4.	RIDOT to include in future contracts.	RIDOT
	64	Install marked crosswalks and pedestrian signal heads with countdown timers on the north leg of the Post Road/Coronado Road intersection. Install countdown timers on all other approaches. See Table 3-3, Item No.4.	RIDOT to include in future contracts.	RIDOT
	65	At the Post Road/Coronado Road southwest corner, provide minimum clearances through sidewalk widening. This may require ROW strip takings. See Table 3-3, Item No.4.	RIDOT to include in future contracts.	RIDOT

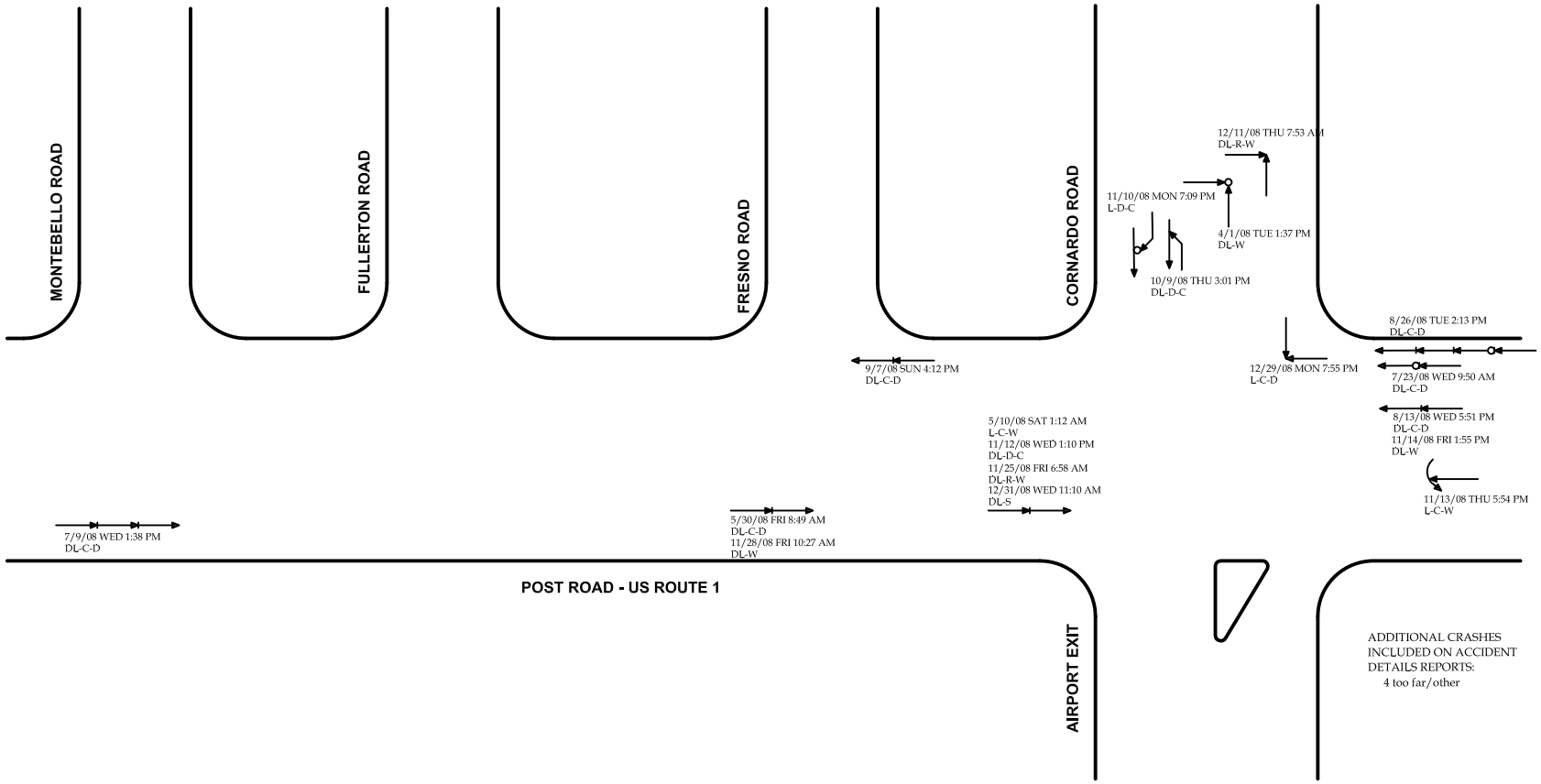
Table 5-1 Recommendation & Resolution Plan

		Recommendation	Resolution	Responsible Party
	66	Implement the "road diet" is determined feasible. Consider including "zig-zag" pavement markings at potential conflict points between bicycles and vehicles. See Table 3-3, Item No.9.	RIDOT to include in future contracts.	RIDOT
	67	Replace the existing Airport Entrance overhead sign with a larger, more visible sign. See Table 3-3, Item No.10.	RIDOT to include in future contracts.	RIDOT
	68	Provide a ground level connection to the skywalk. This will enable pedestrians to cross the Ring Roads and Post Road to get the destination on Post Road, without having to go through the InterLink garage. See Table 3-2, Item No.3 and Table 3-4, Item No.4.	RIAC to determine feasibility.	RIAC
Long-Term	69	Remove pedestrian signal equipment at the Ring Road pedestrian crossing arrival area. See Table 3-2, Item No.7.	Monitor need for usage.	RIAC
	70	Provide overhead destination signage for the InterLink along the Airport Connector. See Table 3-1, Item No.4.	RIDOT to include in future contracts.	RIDOT
	71	Redesign channelized right-turn with a tighter angle to improve driver's visibility of pedestrians and reduce speeds. See Table 3-3, Item No.13.	RIDOT to include in future contracts.	RIDOT
	72	Consider a barrier and or landscaping along the south side of the Airport Exit, where the "goat path" exists. See Table 3-2, Item No.3.	Consider feasibility as part of the WSDD Master Plan.	RIAC
	73	Extend the bus pull-out closer to the preferred entrance to the rail platform. Assume 100 feet extension. See Table 3-1, Item No.10.	Consider feasibility as RIPTA ridership increases.	RIPTA/City of Warwick
	74	Along Fresno Road, create a buffer from the columns with the addition of sidewalks that would provide access to additional entry points on the skywalk. This will also create good access management. See Table 3-3, Item Nos. 1, 2, 3, 12 and Table 3-4, Item No.2.	Consider feasibility as part of the WSDD Master Plan.	City of Warwick
	75	Consider connection between Warwick Station Development District and the Airport Connector to provide alternative local east – west connection over the railroad tracks. See Table 3-4, Item No.1.	Consider feasibility as part of the WSDD Master Plan.	RIDOT/ City of Warwick
	76	Incorporate Adaptive Signal Control to optimize traffic operations at Post Road/Coronado Road. See Table 3-3, Item No.8	RIDOT to include in future contracts.	RIDOT

City of Warwick - City of Warwick Planning Department
RIAC – Rhode Island Airport Corporation
WSDD – Warwick Station Development District
RIPTA – Rhode Island Public Transit Authority
RIDOT – Rhode Island Department of Transportation
MBTA – Massachusetts Bay Transit Authority
In Progress – RIAC is currently in the process of addressing these recommendations
Near-Term Scope – Recommendations are being resolved through a near-term improvement project.

6 - Appendices

Appendix A – Collision Diagrams and Crash Data



ADDITIONAL CRASHES INCLUDED ON ACCIDENT DETAILS REPORTS:
4 too far/other

COLLISION DIAGRAM

VHB

INTERSECTION Post Road (US Route 1), between Montebello Road and Coronado Road
PERIOD 2008 FROM January 2008 TO December 2008
MUNICIPALITY Warwick, Rhode Island PREPARED BY
JOB NUMBER 72315.06 DATE PREPARED

PAVEMENT/WEATHER/LIGHTING

D	DRY
C	CLEAR
W	WET
R	RAIN
F	FOGGY
S	SNOWY, ICY
O	OTHER
DL	DAYLIGHT
N	DARK - NO LIGHTS
L	DARK - LIGHTED

TYPES OF COLLISION

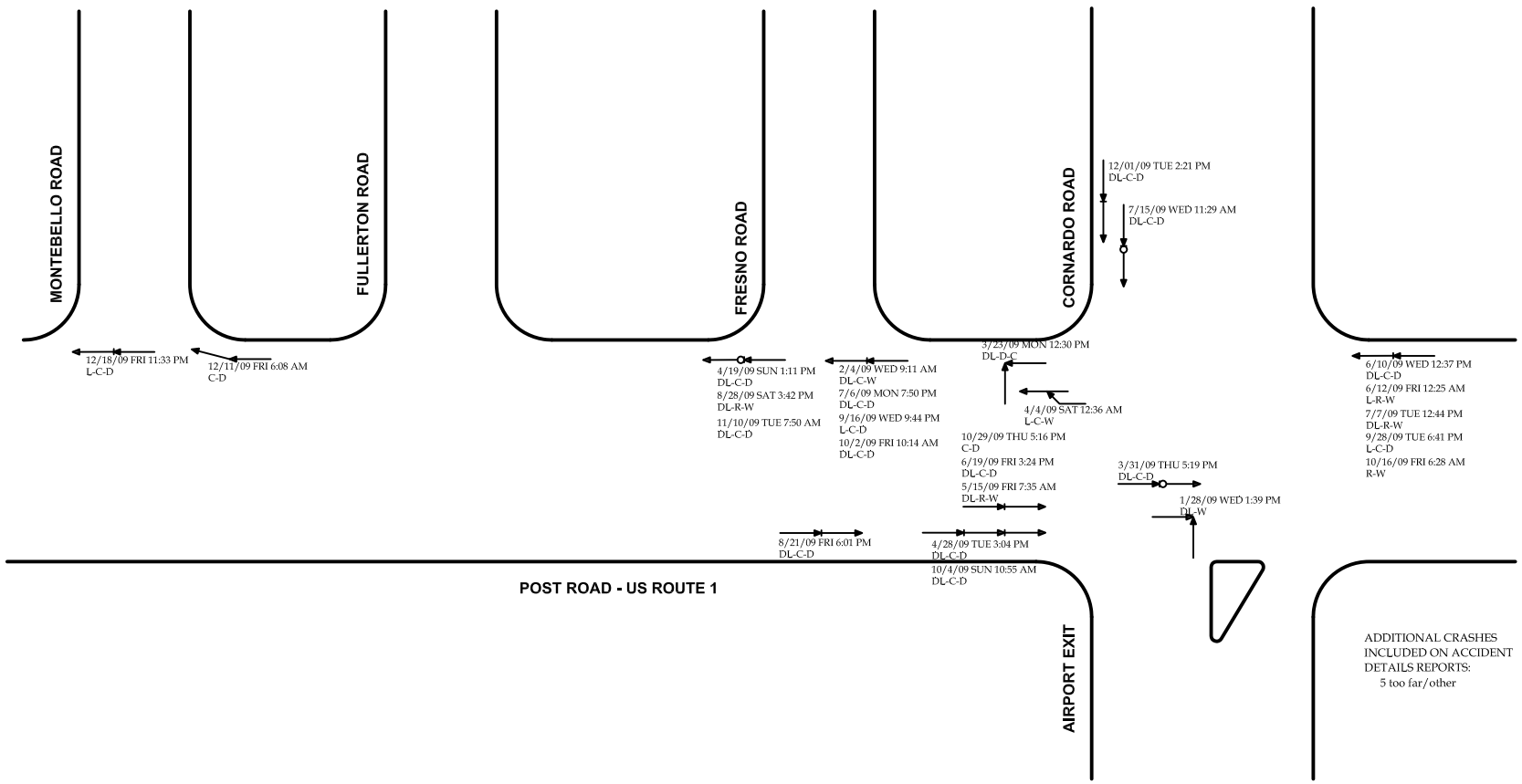
REAR END
HEAD ON
SIDE SWIPE
OUT OF CONTROL
LEFT TURN
RIGHT ANGLE

SYMBOLS

MOVING VEHICLE
BACKING VEHICLE
PEDESTRIAN
PARKED VEHICLE
FIXED OBJECT
FATAL ACCIDENT
INJURY ACCIDENT

ACCIDENT SUMMARY

	DAYLIGHT			NIGHT			TOTALS			
TYPE	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	TOTAL
RIGHT ANGLE		1	1			1		1	2	3
REAR-END		2	9			1		2	10	12
HEAD-ON										
LEFT TURN						1			1	1
SIDESWIPE			1		1			1	1	2
FIXED OBJECT										
PARKED CAR										
OTHER										
TOTAL		3	11		1	3		4	14	18



ADDITIONAL CRASHES INCLUDED ON ACCIDENT DETAILS REPORTS:
5 too far/other

COLLISION DIAGRAM

VHB

INTERSECTION Post Road (US Route 1), between Montebello Road and Coronado Road
PERIOD 2009 FROM January 2009 TO December 2009
MUNICIPALITY Warwick, Rhode Island PREPARED BY
JOB NUMBER 72315.06 DATE PREPARED

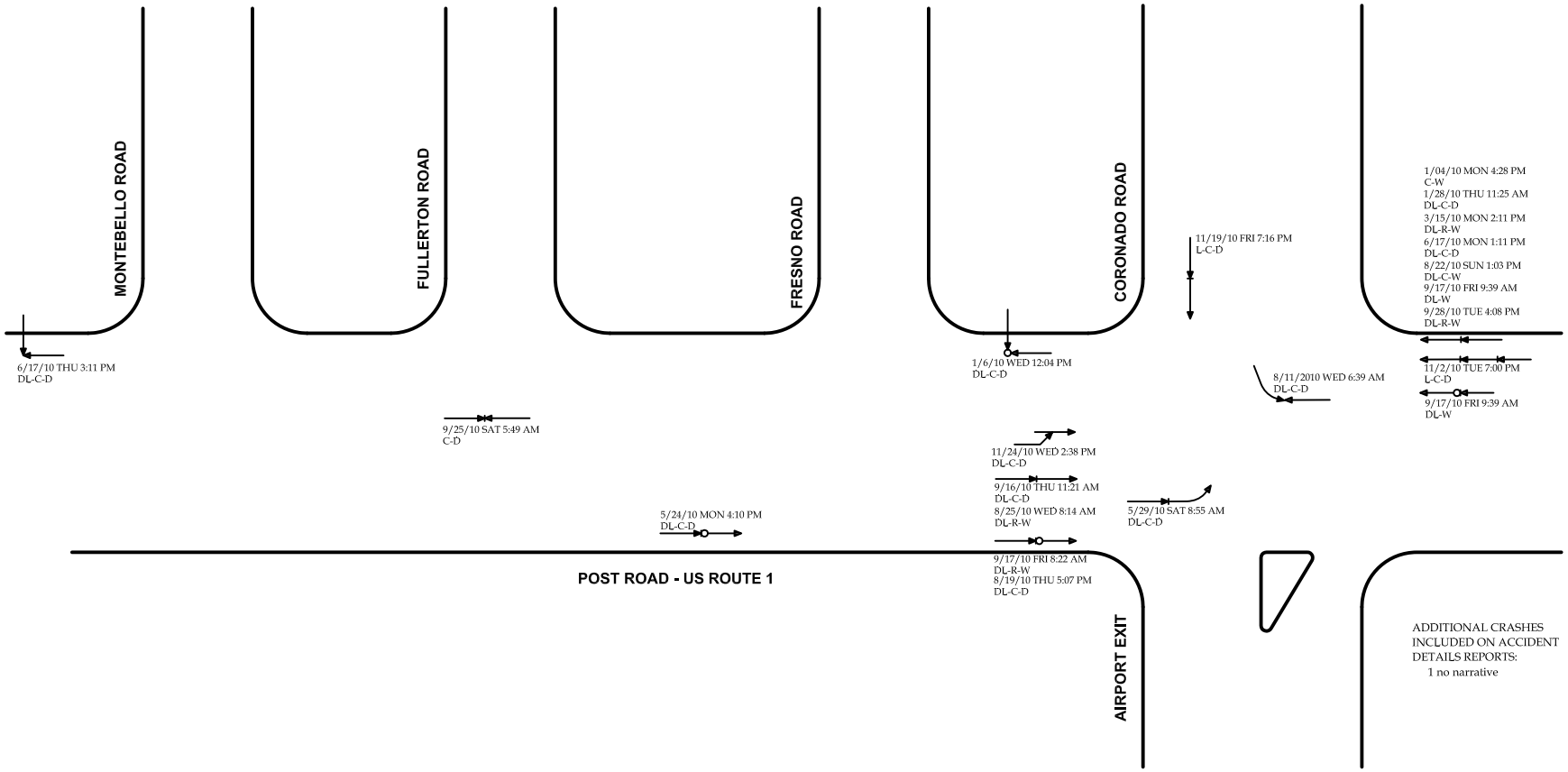
PAVEMENT/WEATHER/LIGHTING	
D	DRY
C	CLEAR
W	WET
R	RAIN
F	FOGGY
S	SNOWY, ICY
O	OTHER
DL	DAYLIGHT
N	DARK - NO LIGHTS
L	DARK - LIGHTED

TYPES OF COLLISION
REAR END
HEAD ON
SIDE SWIPE
OUT OF CONTROL
LEFT TURN
RIGHT ANGLE

SYMBOLS
MOVING VEHICLE
BACKING VEHICLE
PEDESTRIAN
PARKED VEHICLE
FIXED OBJECT
FATAL ACCIDENT
INJURY ACCIDENT

ACCIDENT SUMMARY

	DAYLIGHT			NIGHT			TOTALS			
TYPE	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	TOTAL
RIGHT ANGLE			2						2	2
REAR-END		5	13			5		5	18	23
HEAD-ON										
LEFT TURN										
SIDESWIPE						1			1	1
FIXED OBJECT										
PARKED CAR										
OTHER										
TOTAL		5	15			6		5	21	26



ADDITIONAL CRASHES INCLUDED ON ACCIDENT DETAILS REPORTS:
1 no narrative

PAVEMENT/WEATHER/LIGHTING	
D	DRY
C	CLEAR
W	WET
R	RAIN
F	FOGGY
S	SNOWY, ICY
O	OTHER
DL	DAYLIGHT
N	DARK - NO LIGHTS
L	DARK - LIGHTED

TYPES OF COLLISION

REAR END
HEAD ON
SIDE SWIPE
OUT OF CONTROL
LEFT TURN
RIGHT ANGLE

SYMBOLS

MOVING VEHICLE
BACKING VEHICLE
PEDESTRIAN
PARKED VEHICLE
FIXED OBJECT
FATAL ACCIDENT
INJURY ACCIDENT

ACCIDENT SUMMARY

	DAYLIGHT			NIGHT			TOTALS			
TYPE	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	TOTAL
RIGHT ANGLE		1	1					1	1	2
REAR-END		4	10			2		4	12	16
HEAD-ON			2						2	2
LEFT TURN										
SIDESWIPE			1						1	1
FIXED OBJECT										
PARKED CAR										
OTHER										
TOTAL		5	14			2		5	16	21

COLLISION DIAGRAM

VHB

INTERSECTION Post Road (US Route 1), between Montebello Road and Coronado Road
PERIOD 2010 FROM January 2010 TO December 2010
MUNICIPALITY Warwick, Rhode Island PREPARED BY
JOB NUMBER 72315.06 DATE PREPARED

TF GREEN AIRPORT INTERLINK
MTSA
Warwick, Rhode Island

	Total
Right Angle	33
Rear End	61
Left-Turn	0
Sideswipe	5
Head-On	2
Fixed Object	0
Other	18
	119

[redacted]

	Total
Dry	86
Wet	30
Snow	2
Rain	
Ice	1
Other	0
	119

[redacted]

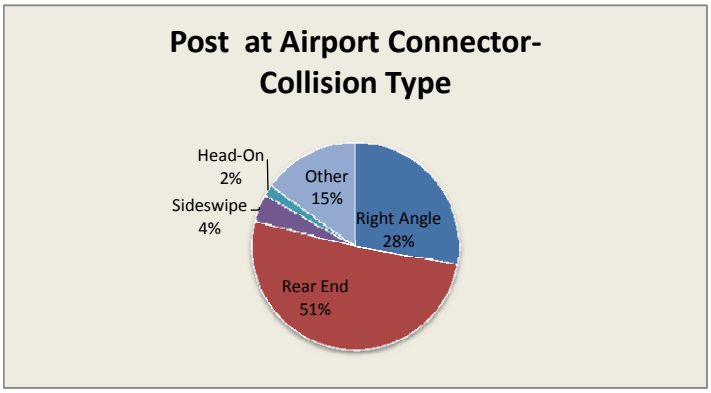
	Total
Daylight	84
Nighttime	35
	119

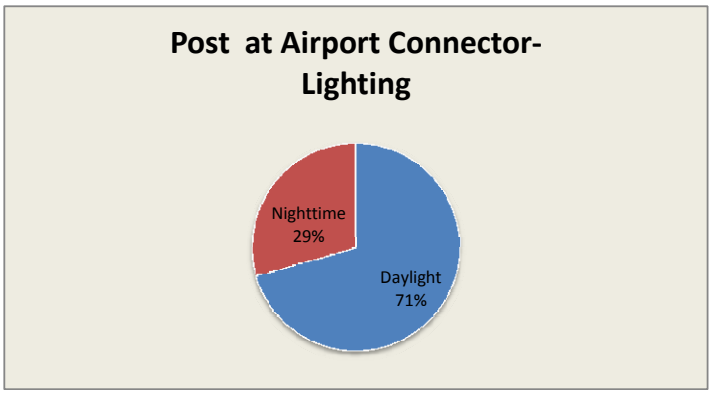
[redacted]

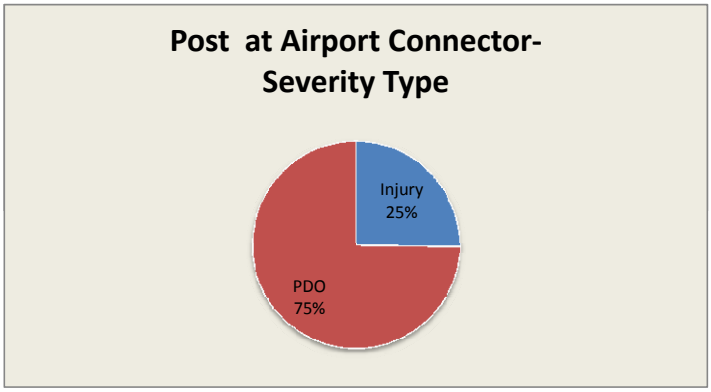
	Total
Injury	30
PDO	89
	119

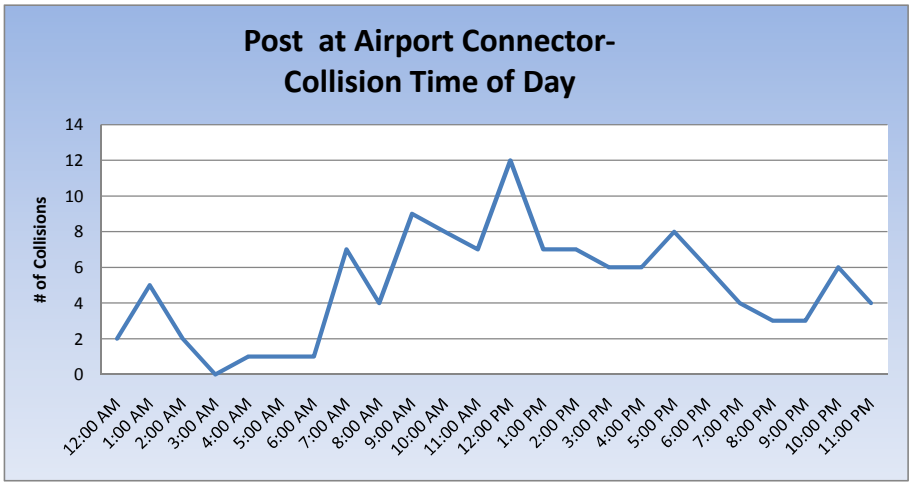
[redacted]

Time	Total
12:00 AM	2
1:00 AM	5
2:00 AM	2
3:00 AM	0
4:00 AM	1
5:00 AM	1
6:00 AM	1
7:00 AM	7
8:00 AM	4
9:00 AM	9
10:00 AM	8
11:00 AM	7
12:00 PM	12
1:00 PM	7
2:00 PM	7
3:00 PM	6
4:00 PM	6
5:00 PM	8
6:00 PM	6
7:00 PM	4
8:00 PM	3
9:00 PM	3
10:00 PM	6
11:00 PM	4
	119









TF GREEN AIRPORT INTERLINK
MTSA
Warwick, Rhode Island

	Total
Right Angle	7
Rear End	51
Left-Turn	1
Sideswipe	4
Head-On	2
Fixed Object	0
Other	0
	65

[redacted]

	Total
Dry	41
Wet	23
Snow	1
Rain	0
Ice	0
Other	0
	65

[redacted]

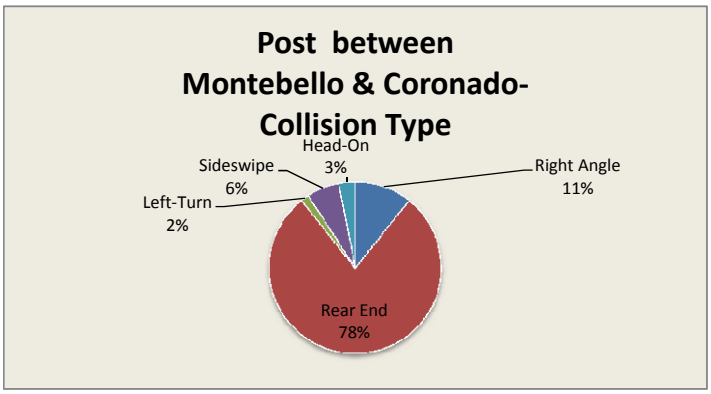
	Total
Daylight	53
Nighttime	12
	65

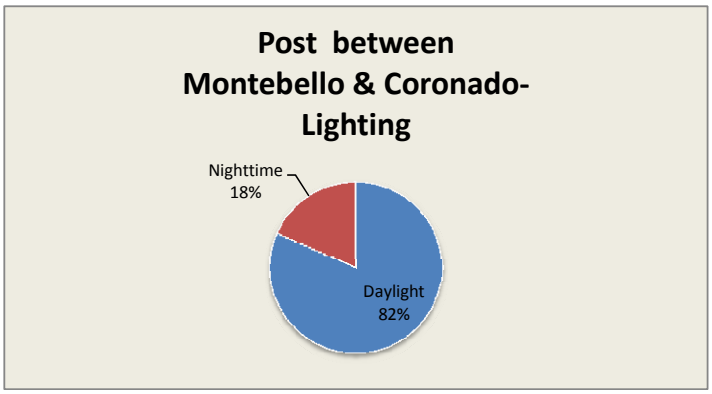
[redacted]

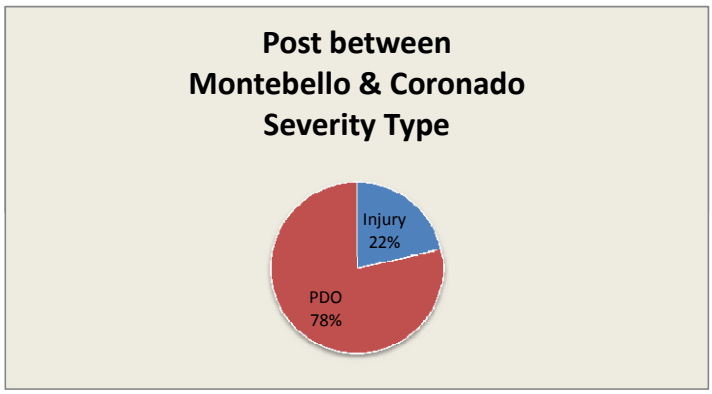
	Total
Injury	14
PDO	51
	65

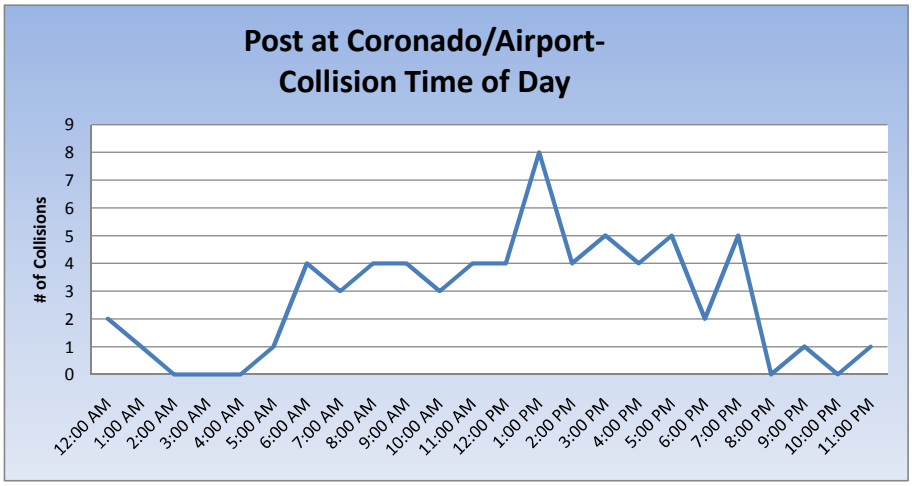
[redacted]

Time	Total
12:00 AM	2
1:00 AM	1
2:00 AM	0
3:00 AM	0
4:00 AM	0
5:00 AM	1
6:00 AM	4
7:00 AM	3
8:00 AM	4
9:00 AM	4
10:00 AM	3
11:00 AM	4
12:00 PM	4
1:00 PM	8
2:00 PM	4
3:00 PM	5
4:00 PM	4
5:00 PM	5
6:00 PM	2
7:00 PM	5
8:00 PM	0
9:00 PM	1
10:00 PM	0
11:00 PM	1
	65









TF GREEN AIRPORT INTERLINK
MTSA
Warwick, Rhode Island

	Total
Right Angle	10
Rear End	16
Left-Turn	0
Sideswipe	7
Head-On	1
Fixed Object	0
Other	2
	36

[redacted]

	Total
Dry	27
Wet	6
Snow	2
Rain	0
Ice	1
Other	0
	36

[redacted]

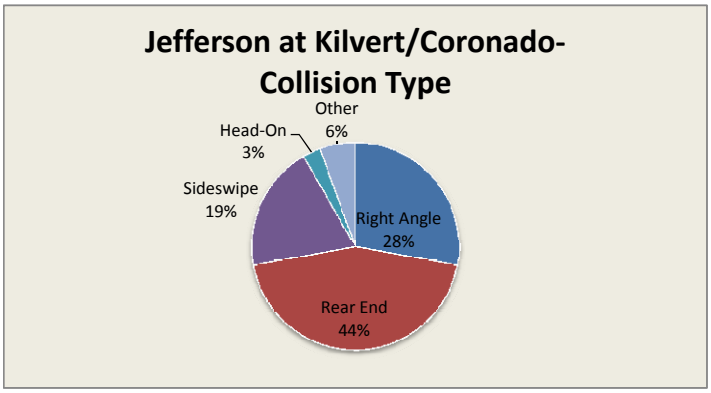
	Total
Daylight	31
Nighttime	5
	36

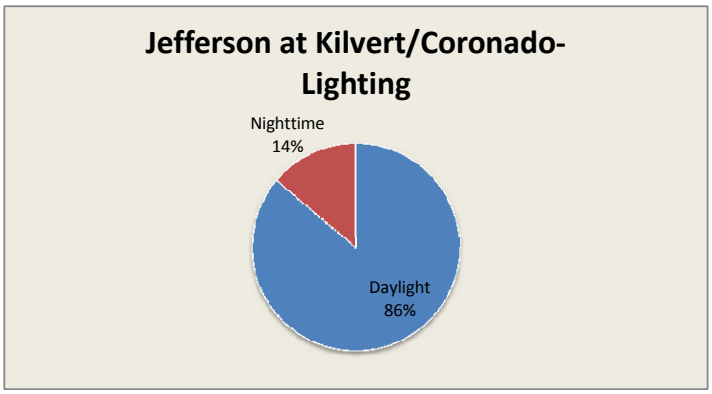
[redacted]

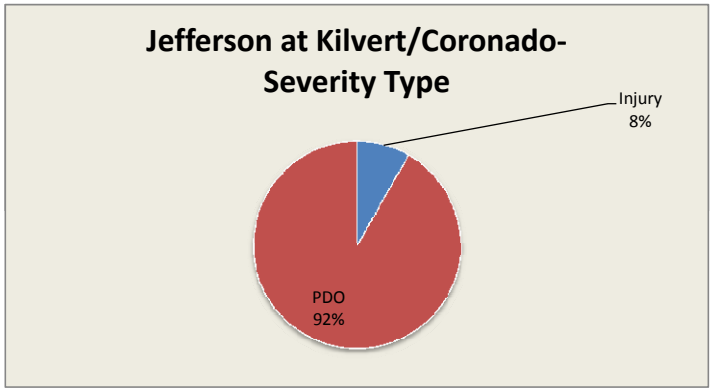
	Total
Injury	3
PDO	33
	36

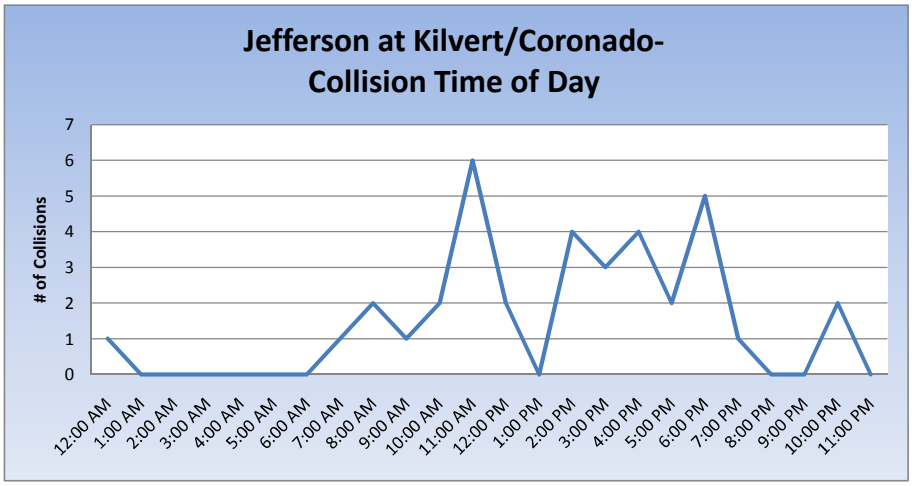
[redacted]

Time	Total
12:00 AM	1
1:00 AM	0
2:00 AM	0
3:00 AM	0
4:00 AM	0
5:00 AM	0
6:00 AM	0
7:00 AM	1
8:00 AM	2
9:00 AM	1
10:00 AM	2
11:00 AM	6
12:00 PM	2
1:00 PM	0
2:00 PM	4
3:00 PM	3
4:00 PM	4
5:00 PM	2
6:00 PM	5
7:00 PM	1
8:00 PM	0
9:00 PM	0
10:00 PM	2
11:00 PM	0
	36









TF GREEN AIRPORT INTERLINK
MTSA
Warwick, Rhode Island

	Total
Right Angle	13
Rear End	30
Left-Turn	0
Sideswipe	3
Head-On	3
Fixed Object	8
Other	1
	58

[redacted]

	Total
Dry	39
Wet	17
Snow	1
Rain	0
Ice	1
Other	0
	58

[redacted]

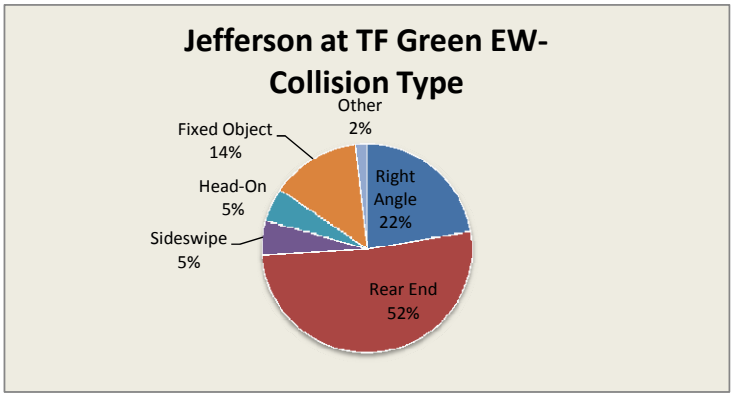
	Total
Daylight	50
Nighttime	8
	58

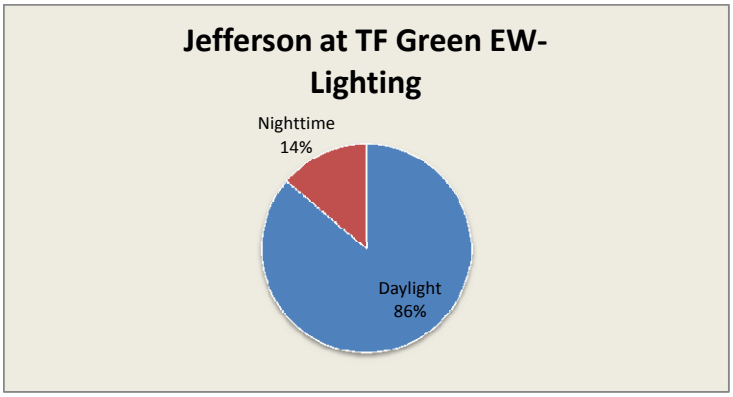
[redacted]

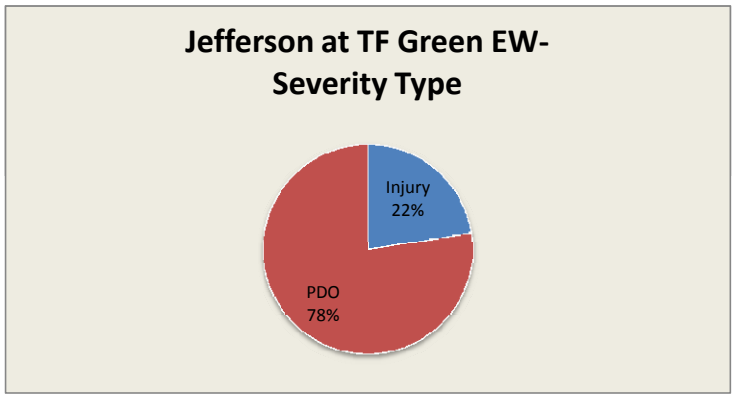
	Total
Injury	13
PDO	45
	58

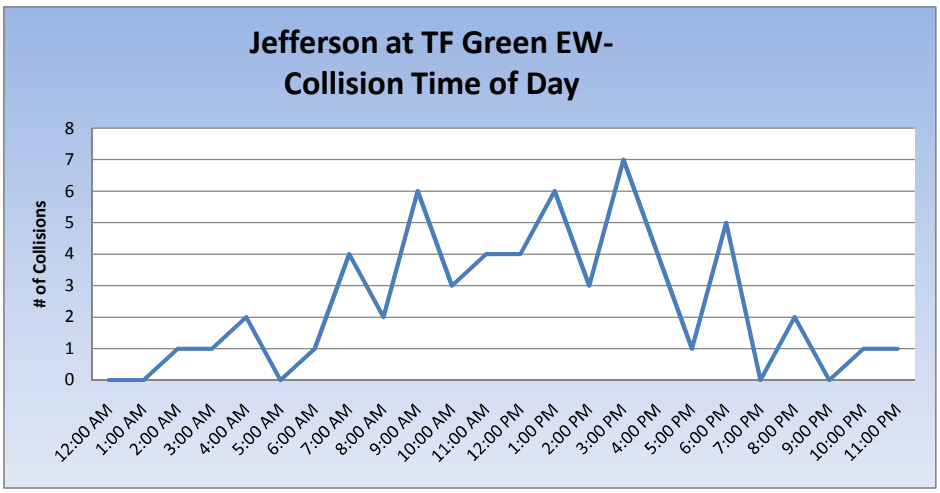
[redacted]

Time	Total
12:00 AM	0
1:00 AM	0
2:00 AM	1
3:00 AM	1
4:00 AM	2
5:00 AM	0
6:00 AM	1
7:00 AM	4
8:00 AM	2
9:00 AM	6
10:00 AM	3
11:00 AM	4
12:00 PM	4
1:00 PM	6
2:00 PM	3
3:00 PM	7
4:00 PM	4
5:00 PM	1
6:00 PM	5
7:00 PM	0
8:00 PM	2
9:00 PM	0
10:00 PM	1
11:00 PM	1
	58









TF GREEN AIRPORT INTERLINK
MTSA
Warwick, Rhode Island

	Total
Right Angle	1
Rear End	0
Left-Turn	0
Sideswipe	0
Head-On	0
Fixed Object	0
Other	2
	3

[redacted]

	Total
Dry	3
Wet	0
Snow	0
Rain	0
Ice	0
Other	0
	3

[redacted]

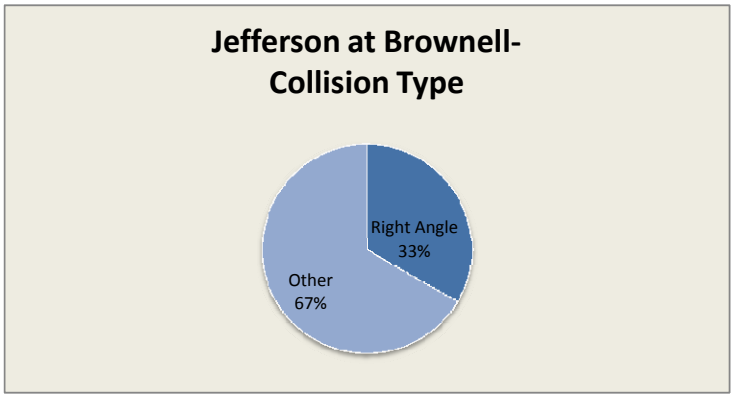
	Total
Daylight	3
Nighttime	0
	3

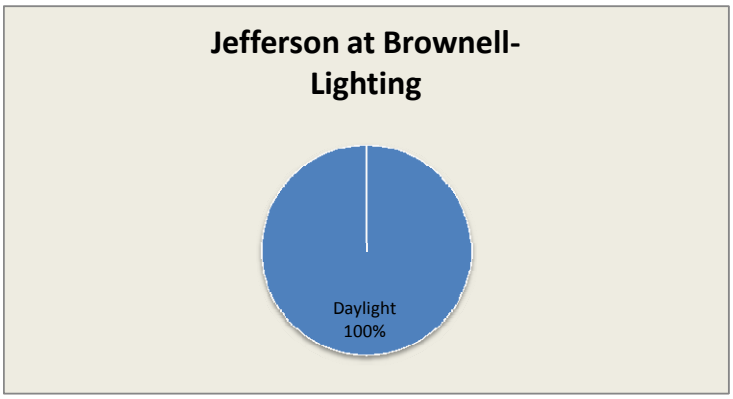
[redacted]

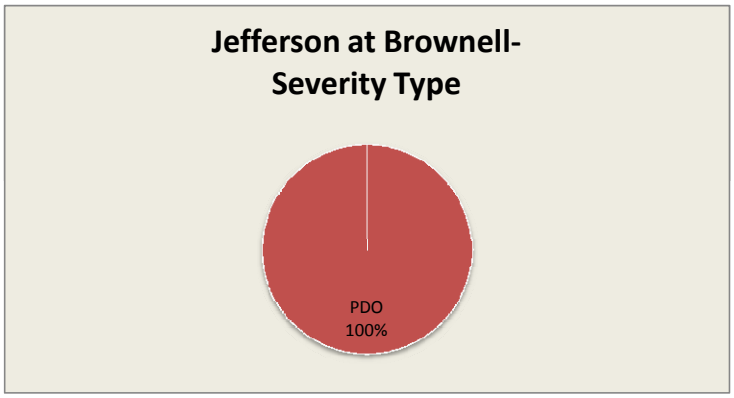
	Total
Injury	0
PDO	3
	3

[redacted]

Time	Total
12:00 AM	0
1:00 AM	0
2:00 AM	0
3:00 AM	0
4:00 AM	0
5:00 AM	0
6:00 AM	0
7:00 AM	0
8:00 AM	0
9:00 AM	1
10:00 AM	0
11:00 AM	0
12:00 PM	0
1:00 PM	1
2:00 PM	0
3:00 PM	0
4:00 PM	0
5:00 PM	1
6:00 PM	0
7:00 PM	0
8:00 PM	0
9:00 PM	0
10:00 PM	0
11:00 PM	0
	3







TF GREEN AIRPORT INTERLINK
MTSA
Warwick, Rhode Island

	Total
Right Angle	2
Rear End	0
Left-Turn	0
Sideswipe	0
Head-On	0
Fixed Object	1
Other	1
	4

[redacted]

	Total
Dry	4
Wet	0
Snow	0
Rain	0
Ice	0
Other	0
	4

[redacted]

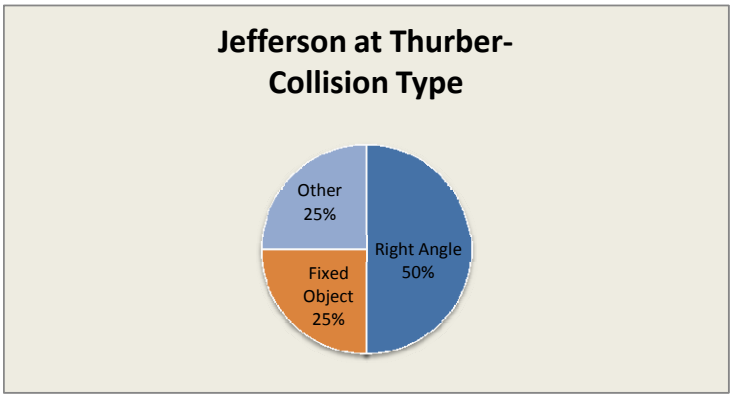
	Total
Daylight	2
Nighttime	2
	4

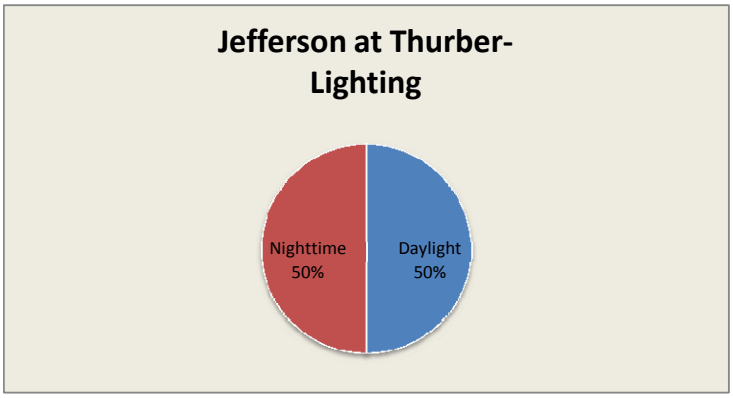
[redacted]

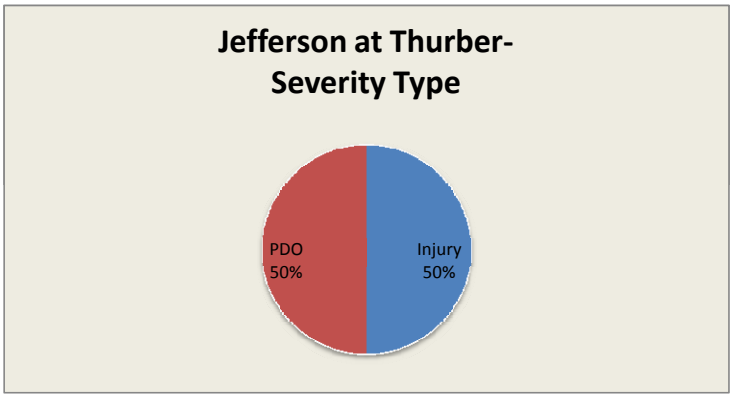
	Total
Injury	2
PDO	2
	4

[redacted]

Time	Total
12:00 AM	0
1:00 AM	0
2:00 AM	1
3:00 AM	0
4:00 AM	0
5:00 AM	0
6:00 AM	0
7:00 AM	0
8:00 AM	0
9:00 AM	1
10:00 AM	1
11:00 AM	0
12:00 PM	0
1:00 PM	0
2:00 PM	0
3:00 PM	0
4:00 PM	0
5:00 PM	0
6:00 PM	0
7:00 PM	0
8:00 PM	0
9:00 PM	0
10:00 PM	1
11:00 PM	0
	4







TF GREEN AIRPORT INTERLINK
MTSA
Warwick, Rhode Island

	Total
Right Angle	1
Rear End	2
Left-Turn	0
Sideswipe	0
Head-On	0
Fixed Object	0
Other	1
	4

[redacted]

	Total
Dry	1
Wet	2
Snow	0
Rain	0
Ice	1
Other	0
	4

[redacted]

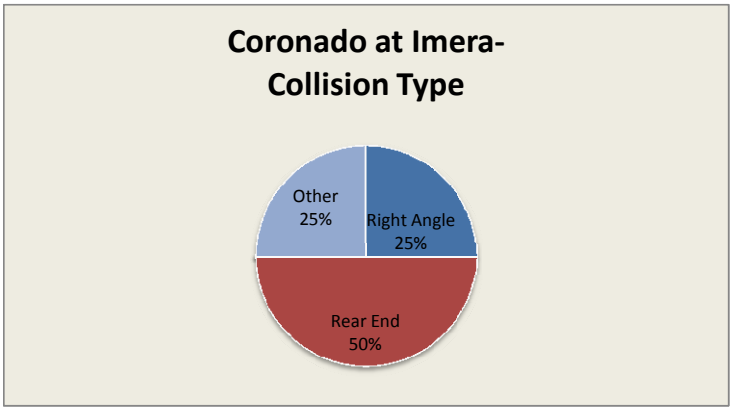
	Total
Daylight	2
Nighttime	2
	4

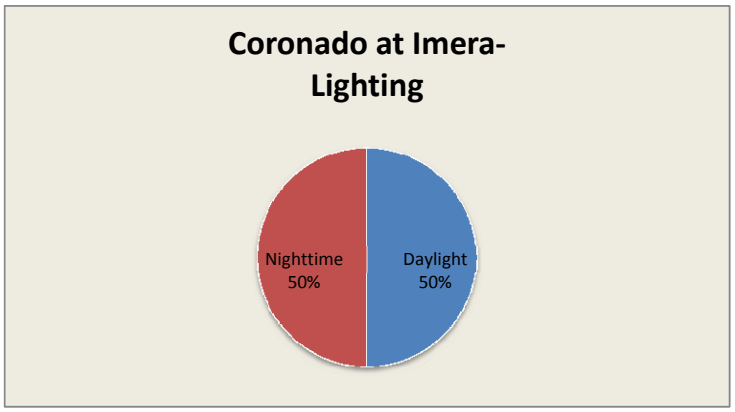
[redacted]

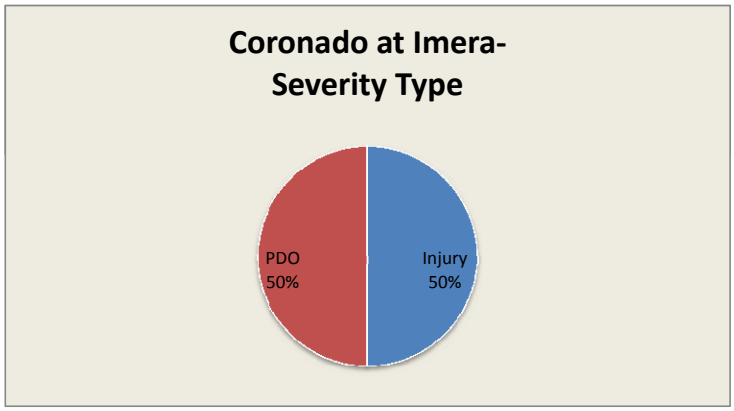
	Total
Injury	2
PDO	2
	4

[redacted]

Time	Total
12:00 AM	0
1:00 AM	1
2:00 AM	0
3:00 AM	0
4:00 AM	0
5:00 AM	0
6:00 AM	0
7:00 AM	0
8:00 AM	0
9:00 AM	0
10:00 AM	1
11:00 AM	0
12:00 PM	0
1:00 PM	0
2:00 PM	0
3:00 PM	0
4:00 PM	0
5:00 PM	0
6:00 PM	1
7:00 PM	1
8:00 PM	0
9:00 PM	0
10:00 PM	0
11:00 PM	0
	4







Appendix B – MBTA Data

Warwick Station EA - May 1999

3.12 Ridership

The proposed rail station at Warwick will accommodate both commuter rail service and Amtrak service. Amtrak service is intercity travel between the major cities of the Northeast Rail Corridor while commuter rail will be weekday work trips traditionally oriented to providing access to major employment centers such as Providence and Boston.

A certain amount of both the Amtrak and commuter rail ridership will be trips to or from Warwick with the purpose of getting to or departing from T.F. Green Airport. These airport related trips represent those trips that would make use of the people mover connection between T.F. Green Airport and the Warwick Rail Station.

The table below represents total projected daily trips at the Warwick Rail Station. Both Amtrak and commuter rail trips used to access or depart from the airport are indicated as well as total airport related trips. These airport related trips provide a picture of the number of trips that would utilize the people mover. These people mover trips do not include trips between the airport and future commercial uses that may be developed in the immediate area. The total airport related trips also provides insight into the local modal shift or number of automobile trips diverted from local roads to the rail system. A more complete discussion of ridership projections is presented in Appendix 6.6.

Table 3.3 Warwick Station Daily Ridership Demand – Trips*

Passengers	Year 2000	Year 2020
Amtrak	228	524
Amtrak – Airport Related	66	152
Commuter Rail	454	558
Commuter Rail – Airport Related	232	598
Total Rail Station	980	1832
Total Airport Related (and people mover trips)	298	750

*Trip is defined as a one-way movement (a person going to and returning from the airport is computed as making two trips.)

The table below represents total projected daily trips at the Warwick Rail Station. Both Amtrak and commuter rail trips used to access or depart from the airport are indicated as well as total airport related trips. These airport related trips provide a picture of the number of trips that would utilize the people mover. These people mover trips do not include trips between the airport and future commercial uses that may be developed in the immediate area. The total airport related trips also provides insight into the local modal shift or number of automobile trips diverted from local roads to the rail system. A more complete discussion of ridership projections is presented in Appendix 6.6.

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Total Rail Station	980	1832
Total Airport Related (and people mover trips)	298	750

*Trip is defined as a one-way movement (a person going to and returning from the airport is computed as making two trips.)

3.13 Water Quality Impacts

There are no surface water resources located within the project area as shown on the USGS map in Figure 1-1. The project area is within the Pawtuxet River Basin and Narragansett Bay Basin Watersheds as shown in Figure 3-2. According to RI Department of Environmental Management (RIDEM), Office of Water Resources, RIDEM has assigned a "degraded" water quality status to waters of the Pawtuxet River Basin and the Narragansett Bay Basin. For State waters having a "degraded" status, higher total suspended solids removal is required in the design of proposed stormwater management systems.

The proposed project is not within any of the three designated sole source aquifers in Rhode Island as shown on Figure 3-3. Groundwater within the project area is classified as GB, which is

SERVICE BETWEEN THE INTERLINK AND BOSTON, SOUTH STATION

INBOUND TO BOSTON, SOUTH STATION

Trains will depart from The Interlink, Inbound to Providence/South Station, at the following times:

- 6:13 a.m.; 6:52 a.m.; 7:15 a.m. - To Providence and South Station

- 6:27 p.m.; 7:36 p.m.; 7:51 p.m. - To Providence only, change train at 8:12 p.m. to continue to South Station

OUTBOUND RETURNING FROM BOSTON, SOUTH STATION

Trains will arrive at The Interlink, Outbound from Providence/South Station, at the following times:

- 6:01 a.m.; 6:25 a.m. - Arriving from Providence only

- 6:17 p.m.; 6:53 p.m.; 7:26 p.m. - Arriving from South Station and Providence

TF Green Airport Ridership

(1st Week Dec. 6 – 10)

		12/6	12/7	12/8	12/9	12/10
	From TF Green Airport					
6:13am	806	38	35	34	24	32
6:52	808	38	29	27	30	XX
7:15	810	16	17	12	17	40
6:27pm	8802	0	2	0	2	2
7:36	8804	3	2	1	0	8
7:53	8806	1	0	0	0	0
	Total	96	85	74	73	82

Avg/Day - 82 riders

	To TF Green Airport					
6:01am	8801	6	0	0	1	2
6:25	8803	0	0	0	0	1
6:17pm	815	61	44	44	39	49
6:53	817	25	31	15	23	21
7:26	819	10	5	13	19	27
	Total	102	80	72	82	100

Avg/Day - 87 riders

No. 808 on 12/10 cancelled account air problems. (Psgrs on No. 810, 23 minutes later.)

Appendix C

Appendix Table C-1: Daily Warwick Station Ridership Projections (One-Directional)

Passengers	Year 2000	Year 2020
Amtrak	228	524
Amtrak – Airport Related	66	152
Commuter Rail	454	558
Commuter Rail – Airport Related	232	598
Total Rail Station	980	1,832
Total Airport Related (and people mover trips)	298	750

Source: RIDOT Warwick Intermodal Station Environmental Assessment, May 1999 (Edwards and Kelcey)

Appendix Table C-2: Daily Warwick and Wickford Station Ridership Projections (One-Directional)

Route Segment	2000	2010	2025
Westerly-Providence	268	285	331
Kingston-Providence	1,367	1,455	1,689
Wickford Junction-Providence	2,869	3,053	3,544
Warwick-Providence	454	483	561
Total	**4,958**	**5,276**	**6,125**

Source: South County Commuter Rail Operations Plan, July 2001 (Edwards and Kelcey)

Appendix D

Appendix Table D-1: MBTA Providence Station Commuter Rail Ridership and Parking Demand Projections (1995)

Adjusted Inbound Boardings	640
Current Parking Supply	1,282
Current Parking Usage	794
Current Parking Usage Ratio (%)	62
Unconstrained Parking Demand	
2000	850-900
2010	950-1,100
2020	950-1,100
Maximum Projected Boardings (inbound) Based on Unconstrained Parking Supply	
2000	720
2010	750
2020	800

Source: Commuter Rail Station Parking Demand and Ridership Projections, 1996 (CTPS).

Appendix E

Vanasse Hangen Brustlin, Inc. draft memorandum dated September 17, 2001 (attached) presents ridership projections for Westerly to Providence commuter rail service. The method used by VHB is described in the National Cooperative Highway Research Program (NCHRP) Report 197: Quick Response Urban Travel Estimation Techniques and Transferable Parameters. The Quick Response or similar methods have been used

Appendix C – RIPTA Data

INTRODUCTION

Currently the bus service in the area of the new Warwick Intermodal Train Station is a series of radial north-south routes from Kennedy Plaza to various destinations that are connected by a crosstown route that runs from the shore of the bay to West Warwick. Three routes service the area directly. They are Routes 14 and 20 at Green Airport and Route 8 on Jefferson Blvd. This plan rededicates existing bus service and adds new service focusing on enabling people to use RIPTA to access the new Intermodal Station and the Airport, from adjacent areas to the east and west. See maps for details.

BUS SERVICE CHANGES

- Existing service on bus routes 23, 30 and 66 will integrate with the new plan in the service area but will remain unchanged.
- Existing service on bus routes 8, 13, 14, and 29 will be altered, rededicated and reinvested.
- New routing and new service will be offered on routes 15, 16, and 25.

DETAILS OF BUS ROUTE CHANGES

- Route 8 Buttonwoods/Jefferson Blvd
    - This existing route would be eliminated and the areas currently served would be included in new routes.
- Route 13 Arctic/Centre of New England
    - This existing route is restructured to provide train station access from West Warwick and Coventry to the station.
    - Route runs express from Kennedy Plaza to the airport, then travels to Jefferson Blvd. and Kilvert St., servicing the train station, then to Metro Center Drive, and Warwick Mall where transfers are available to the 23, 25, 29 and 30 routes. Then it heads south on Providence Street, through Arctic to Washington, to Centre of New England and then terminating at Amgen. This route provides mid day return to people using the Exit 6A and Exit 7 park and rides.
- Route 14 West Bay
    - This existing route change will enable riders from Cowesett and East Greenwich to reach the station directly.
    - The route will run on Jefferson Blvd between Route 95 and Main Avenue instead of Post Road.
- Route 15 Crompton/Tiogue
    - This new route will provide mid day return service to the Route 117 park and ride lot, and Providence based service to Crompton and the Kent County Courthouse which currently can only be reached from Providence by transfer.

- Route runs express from Kennedy Plaza to Route 117 Park and Ride lot, then west on Centreville Rd to left on Quaker Lane where transfers are available to routes 16 and 25. Route services the Kent County Courthouse, then crosses State Highway 2 to Stop & Shop, then goes west on Cowesett Avenue, to left on New London Ave, right on Tiogue Ave, terminating at Woodland Manor. Transfers available to the 13 route at Tiogue Avenue and Arnold Road.

- Route 16 Clyde/Phenix
  - This new route will connect several new places to the train station including the villages of Hope, Clyde, Arctic, and Phenix, as well as CCRI, Greenwood, and lower Jefferson Blvd.
  - Route runs express from Kennedy Plaza to Airport, then south on Post Road to west on Main Avenue to East Avenue, left into CCRI where transfers are available to route 23, 29, 30 & 66. Then it exits CCRI via Commonwealth Ave to Tollgate Rd to left on Route 2, right on Centerville Road, where transfers are available to the 15 and 25 routes. The route goes west on Centreville Rd to right on Main Street to Phenix Main Street and terminates at Hope in Scituate.
- Route 23 Pastore Center/Malls/CCRI
  - This existing route would remain unchanged but would obtain new riders through transfers from the new routes. (This route is the southern extension of route 22 which was broken in half by new bridge weight restrictions on Pontiac Avenue over the Pocasset River. Upgrades of this bridge will result in the 22 and 23 being re-merged into one route.)
- Route 25 Bald Hill Road
  - This new route fills a longstanding need for contiguous bus service on State Highway 2. Currently, Route 2 is serviced south of Frenchtown Rd to URI, and north of Warwick Mall to Providence, but is only sporadically serviced in between Warwick Mall and Frenchtown Road. The new Route 25 connects all destinations on State Highway 2 with the train station via transfers at different points.
  - Route runs express from Kennedy Plaza to Garden City then south on Route 2 to left on Frenchtown Road to the Frenchtown Road Park & Ride Lot where it terminates. Transfers are available at Garden City to Route 21, Warwick Mall to routes 13, 23, 29, and 30, and at Route 2 and Centreville Road to routes 15 & 16.
- Route 29 Warwick Connector
  - This existing route is rededicating current resources from a non radial route to a radial configuration from Kennedy Plaza. It connects eastern Warwick with the train station including the neighborhoods of Conimicut, Meadowbrook, Buttonwoods, and Tollgate.
  - Route runs express from Kennedy Plaza to airport then to Jefferson Blvd & Kilvert Street for train station passengers, the west on Metro Centre Drive to Warwick Mall, then to RI Mall, then CCRI, to Tollgate Road for service to Kent county Hospital, then east on route 117 to Apponaug where transfers are available to route 14, then east on West Shore Rd to Long Street, to left on

Buttonwoods Ave, left on Main Ave, right on Industrial Drive, right on Strawberry Field Road, left on Sandy Lane to Warwick Ave where transfers are available to route 3, then continue on Sandy Lane to left on West Shore Rd, terminating at West Shore Rd and Beach Street.

- Route 30 Oaklawn Ave
  - This existing route would remain unchanged but would obtain new riders through transfers from the new routes.
- Route 66 URI/Galilee
  - This existing route would remain unchanged but would obtain new riders through transfers from the new routes.

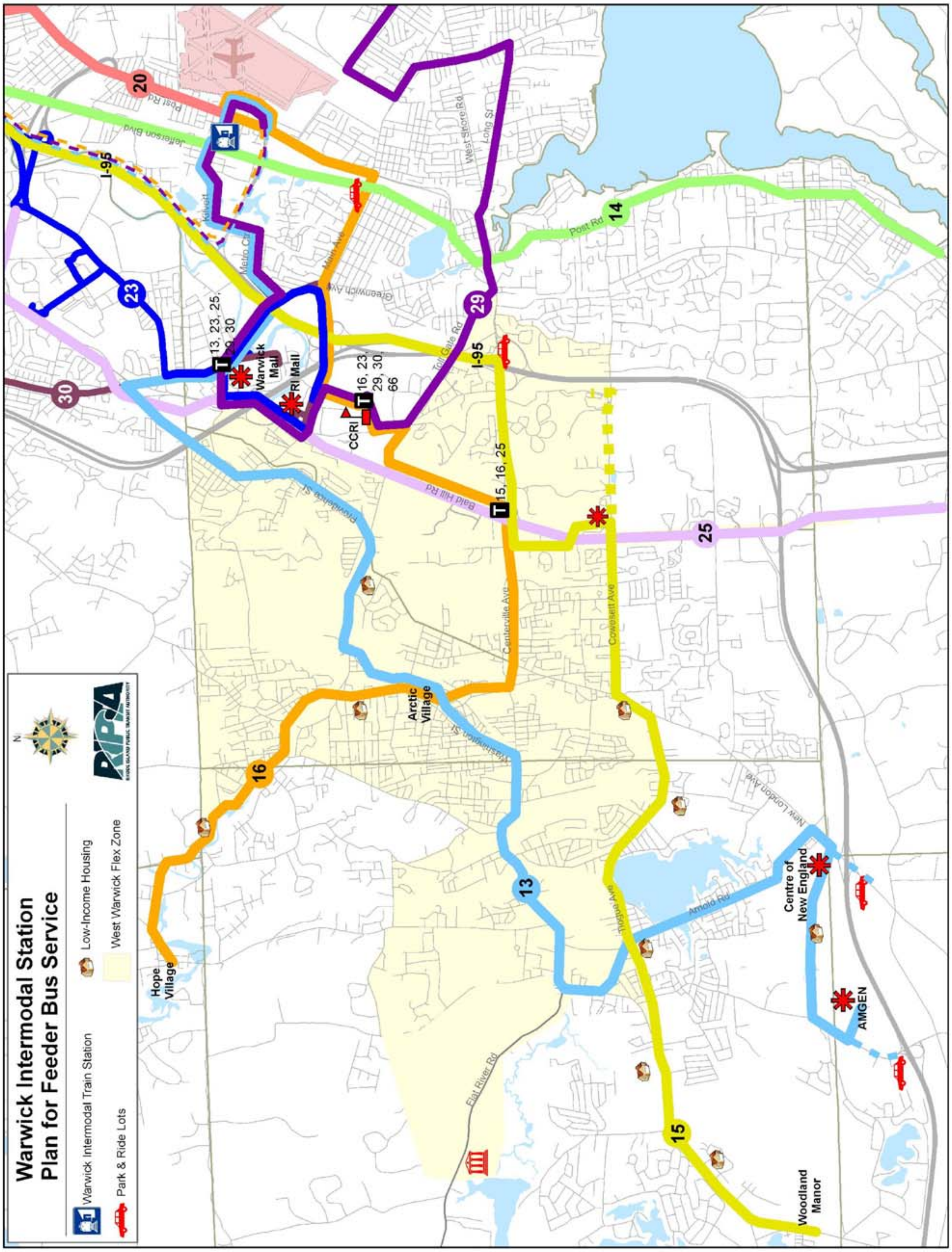
COSTS

- Operating Costs - The annual operating cost for this service is approximately $4,400,000 in year one. Costs are shown with a one percent annual increase.
- Vehicles - There would be a requirement for 13 additional peak vehicles to run this new service. Additionally, 3 spares would be needed. It is recommended that they be hybrid diesel/electric buses. Cost of these vehicles would be $9,600,000 for all
- Costs for the first five years are as estimated as follows:

FY	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Operating Cost	$4,400,000	$4,444,000	$4,488,000	$4,533,000	$4,578,000
Capital Costs	$9,600,000	0	0	0	0
Total Cost	$14,000,000	$4,444,000	$4,488,000	$4,533,000	$4,578,000

HEADWAYS AND PEAK VEHICLES FOR NEW SERVICES

New Route #	*New Route Name*	*Round Trip Time*	*Peak Vehicles*	*Peak Headway*	*Off Peak Vehicles*	*Off Peak Headway*	*Night Vehicles*	*Night Headway*	*Weekend Vehicles*	*Weekend Headway*	*Annual Hours*	*Annual Cost*
13	Arctic/Ctr of	193	5	39	4	48	2	97	3	64	19,666	$1,474,950
15	Crompton/	154	4	39	3	51	0	N/A	2	77	13,278	$995,850
16	Clyde/	154	4	38	3	51	0	N/A	2	77	13,278	$995,850
25	Bald Hill Rd	157	4	39	3	52	2	79	3	52	16,654	$1,249,050
29	Warwick	204	5	41	4	51	2	102	3	68	19,666	$1,474,950
										TOTALS	**82,542**	**$6,190,650**
				Existing Annual Hours and $ in Area to be Reinvested							*-24,199*	*-$1,814,925*
				Net Increase in Costs								**$4,375,725**


Warwick Intermodal Station
Plan for Feeder Bus Service
Warwick Intermodal Train Station
Park & Ride Lots
Low-Income Housing
West Warwick Flex Zone
Hope Village
Arctic Village
Woodland Manor
Centre of New England
AMGEN
Warwick Mall
RI Mall
CCRI
13, 23, 25, 29, 30
16, 23, 29, 30, 66
15, 16, 25
I-95
Post Rd
Jefferson Blvd
Bald Hill Rd
Centerville Ave
Cowesett Ave
Toll Gate Rd
Greenwich Ave
Providence St
Washington St
Flat River Rd
New London Ave
Arnold Rd
West Shore Rd
Long St
Kilvert
Metro Ctr
Main Ave


Warwick Intermodal Station
Plan for Feeder Bus Service
Warwick Intermodal Train Station
Park & Ride Lots
West Warwick Flex Zone
RIPTA
Conimicut
Warwick Neck
Oakland Beach
Apponaug
Warwick Mall
RI Mall
CCRI
Kent County Hospital
3, 29
13, 14, 16, 20, 29
14, 16
14, 29
13, 23, 25, 29, 30
16, 23, 29, 30, 66
Post Rd
Jefferson Blvd
Main Ave
Greenwich Ave
Strawberry Field
Industrial Dr
Buttonwoods Ave
West Shore Rd
Long St
Kilvert
Metro Ctr

RIPTA Ridership at and around TF Green Airport

& The Interlink

8 Jefferson Blvd. – Trips pass the Interlink on Jefferson Blvd.

Trips operating Inbound to Providence from Buttonwoods & Greenwood Neighborhoods
At The Interlink – 6 Trips per day
There is no ridership activity in the morning. The afternoon trips show an average of less than one boarding per day.

Trips operating outbound from Providence to Buttonwoods & Greenwood Neighborhoods
At The Interlink – 7 Trips per day
There is no current ridership activity within close vicinity of the Interlink.

Overall Ridership Summary
This service is a peak only service, which operates only on weekdays. It functions as a commuter service to and from downtown Providence for residents in the Buttonwoods & Greenwood Neighborhoods as well as a reverse commute to industries along Jefferson Blvd. from downtown Providence. The Jefferson Blvd. averages about 9.5 riders per trip on the outbound and 8 riders per trip on the inbound.

14 West Bay – Trips service TF Green Airport

Trips operating Inbound to Providence from Newport, Narragansett, North Kingstown & East Greenwich.
At TF Green - 14 Trips weekday, 8 trips on Saturday, no service on Sunday/Holiday

- Boardings - Ridership is steady all day, but only averages 1-2 passengers per trip.
- Alightings – Again ridership is steady all day at 1-2 passengers / trip.

Trips operating Outbound from Providence to Newport, Narragansett, North Kingstown & East Greenwich.
At TF Green -14 Trips weekday, 7 trips on Saturday, no service on Sunday/Holiday)

- Boardings - Ridership averages below 1 passenger per trip.
- Alightings – Again ridership is below 1 passenger / trip.

Overall Ridership Summary
This service operates 6 days a week and serves both commuters from East Greenwich, North Kingstown, Narragansett and Newport and all purpose riders along its' route. Trips operate express between downtown Providence and TF Green Airport. Trips continue local along Post Rd. (Rte. #1A) throughout East Greenwich, North Kingstown, & Narragansett. Trips terminate

at Salt Pond Plaza in Narragansett or operate via 138 East to and Newport Gateway Center. Major trip generating areas include, Apponaug, downtown East Greenwich, Gate Rd. Quonset Shopping Center, downtown Wickford, the shore side of Narragansett including the town beach, downtown Jamestown and downtown Newport. Although ridership isn't particularly heavy at TF Green, we still consider that a major trip generating destination providing those intermodal opportunities.

20 Elmwood / Airport – Trips originate/terminate at TF Green Airport

Trips operating Inbound from TF Green to Providence.
Boarding at TF Green - 35 Trips weekday, 25 trips on Saturday, and 21 trips on Sunday/Holiday

- Weekday – Average of 67 passengers per day boarding
- Saturday – Average of 66 passengers per day boarding
- Sunday – Average of 66 passengers per day boarding

Trips operating Outbound from Providence to TF Green.
Alighting at TF Green - 35 Trips weekday, 25 trips on Saturday, and 25 trips on Sunday/Holiday

- Weekday – Average of 46 passengers per day alighting.
- Saturday – Average of 44 passengers per day alighting.
- Sunday – Average of 40 passengers per day alighting.

Overall Ridership Summary
This service operates 7 days a week and serves the entire length of Elmwood Avenue from Trinity Square in Providence to Post Rd. in Warwick. The route then operates right on Post Rd. terminating at TF Green Airport. Service operates local and picks up and drops off along the entire route. Most trips operate to and from TF Green, but there are some trips that terminate in Auburn or at the intersection of Wellington Avenue & Elmwood. Ridership is heavy throughout Providence and overall averages 27 pass./trip weekday, 23 pass./trip Saturday and 20 pass./trip on Sunday/Holiday. This route carries almost 2700 passengers per day on weekdays, 1200 on Saturdays and 1000 on Sunday/Holiday. While this route carries most of its' ridership along the northern portion of Elmwood Avenue in Providence, this is the core service RIPTA offers between downtown Providence and TF Green. In terms of major trip generators, TF Green stands out as the focal destination on this route.

Current RIPTA Service within vicinity of
TF Green Airport / The Interlink / Warwick Station

Rte. #8 Jefferson Blvd. *(Operates Weekdays Only)*

Leaving Warwick Station Inbound to Providence

Lv.	Origin
a 705a	Buttonwoods
b 735a	Buttonwoods
308p	Jefferson & Main
416p	Jefferson & Main
446p	Jefferson & Main
545p	Buttonwoods

* Trips are based on times passing Warwick Station on Jefferson Blvd.

USING RIPTA TO WARWICK STATION FOR THE TRAIN TO BOSTON

(a) Connects with 7:15 AM Train to Boston, South Station

(b) Connects with 7:36am & 7:51am Trains to Prov. Then transfer to 8:12am Train to Boston, South Station

Arriving at Warwick Station from Providence

Arr.	Destination
629a	Buttonwoods
659a	Buttonwoods
758a	Jefferson & Main
833a	Jefferson & Main
402p	Jefferson & Main
509p	Buttonwoods
539p	Buttonwoods

* Trips are based on times passing Warwick Station on Jefferson Blvd.

NO CONNECTING PM SERVICE FOR THE TRAIN FROM BOSTON

Trains arrive after pm trip times

Current RIPTA Service within vicinity of TF Green Airport / The Interlink / Warwick Station

Rte. #14 West Bay *(Operates Weekdays & Saturdays)*

Leaving TF Green Inbound to Providence

WEEKDAY		**SATURDAY**	
Lv.	Origin	Lv.	Origin
a 548a	Newport	850a	Quonset
b 703a	Newport	1023a	Newport
803a	1a & 138 P-n-R Lot	1153a	Narragansett
849a	Newport	123p	Newport
1016a	Narragansett	253p	Narragansett
1115a	Newport	423p	Newport
1206p	Narragansett	557p	Narragansett
124p	Newport	724p	Newport
221p	Narragansett		
334p	Newport		
407p	Newport		
443p	Narragansett		
554p	Newport		
645p	Narragansett		

NEWPORT, N. KINGSTOWN & EAST GREENWICH TO BOSTON

(a) Connects with 6:13, 6:52 & 7:15 AM Train to Boston, South Station

(b) Connects with 7:15 AM Train to Boston, South Station

Arriving at TF Green from Providence

WEEKDAY		**SATURDAY**	
Arr.	Destination	Arr.	Destination
557a	Narragansett	802a	Newport
632a	Newport	932a	Narragansett
751a	Narragansett	1102a	Newport
849a	Newport	1232p	Narragansett
935a	Narragansett	202p	Newport
1102a	Newport	332p	Narragansett
1202p	Narragansett	502p	Newport
107p	Newport		
212p	Narragansett		
309p	Newport		
424p	Narragansett		
535p	Newport		
c 642p	Narragansett		
d 732p	Newport		

BOSTON TO E. GREENWICH, N. KINGSTOWN NARRAGANSETT & NEWPORT

(c) Connects with 6:17pm Train from Boston, South Station

(d) Connects with 6:53 & 7:26pm Trains from Boston, South Station

*Trips service the airport on the outer lane of the terminal

Current RIPTA Service within vicinity of TF Green Airport / The Interlink / Warwick Station

Rte. #20 Elmwood / Airport *(Operates 7 Days/Week)*

Leaving TF Green Inbound to Providence

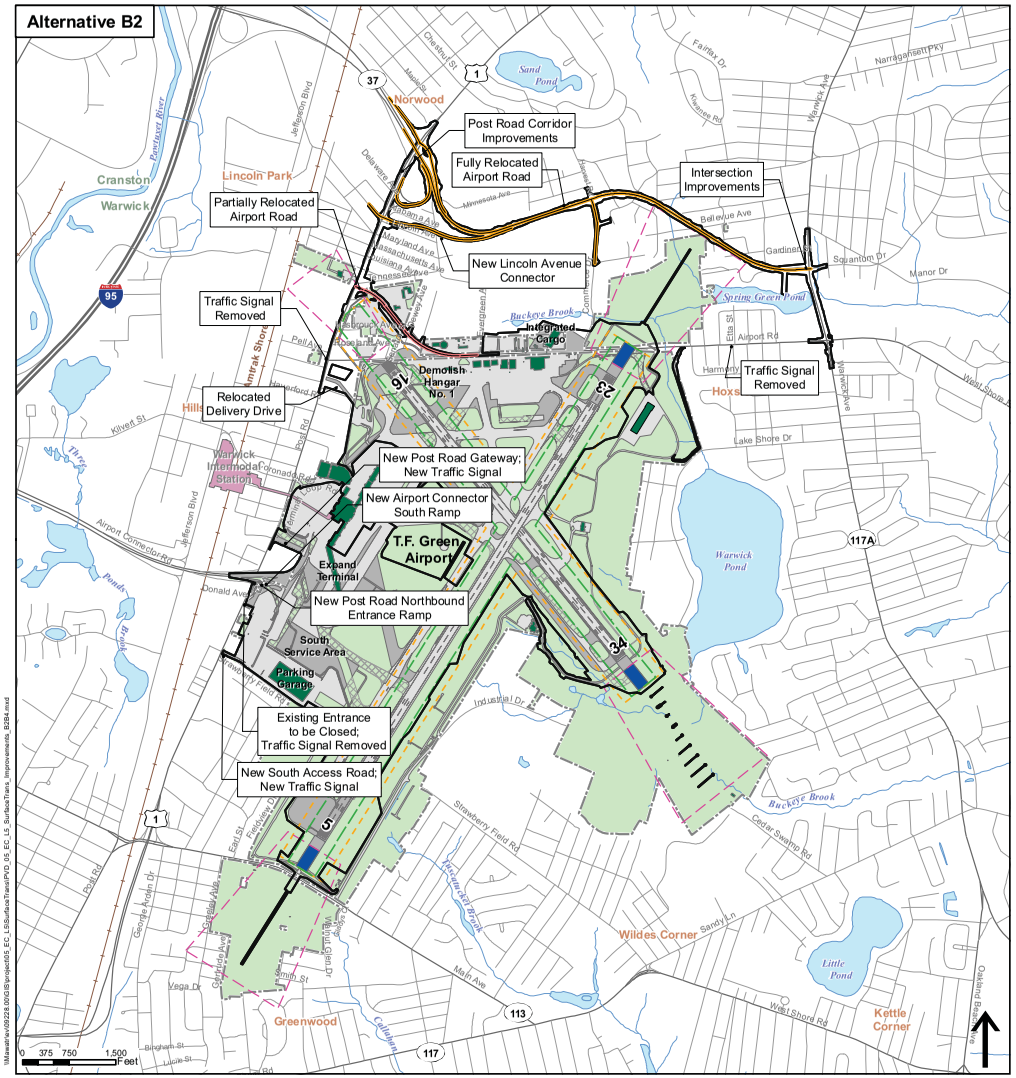
WEEKDAY	SATURDAY	SUNDAY/HOLIDAY
Lv.	Lv.	Lv.
544a	532a	534a
616a	624a	609a
635a	706a	657a
655a	748a	739a
717a	830a	825a
739a	912a	911a
758a	954a	957a
823a	1037a	1043a
907a	1119a	1129a
929a	1201p	1215p
951a	1243p	101p
1013a	126p	147p
1057a	208p	233p
1119a	250p	319p
1141a	332p	405p
1203p	415p	451p
1246p	457p	537p
108p	539p	623p
130p	621p	709p
152p	703p	755p
236p	745p	
259p	827p	
322p	909p	
345p	1025p	
433p		
459p		
529p		
608p		
643p		
718p		
803p		
848p		
933p		
1018p		
1103p		

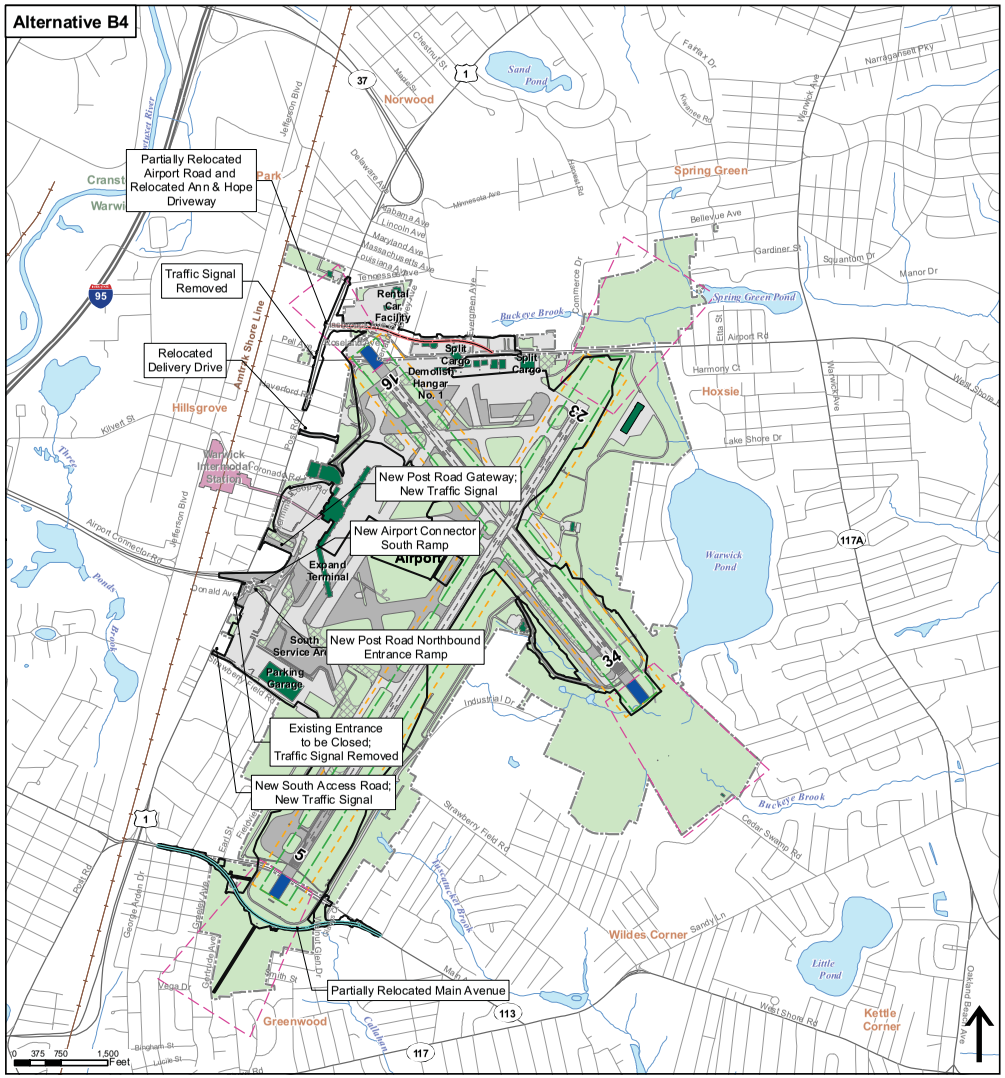
Arriving at TF Green from Providence

WEEKDAY	SATURDAY	SUNDAY/HOLIDAY
Arr.	Arr.	Arr.
537a	529a	530a
625a	614a	653a
700a	656a	732a
723a	738a	820a
749a	820a	906a
811a	902a	952a
855a	944a	1038a
917a	1026a	1124a
939a	1108a	1210p
1001a	1151a	1256p
1045a	1233p	142p
1107a	115p	228p
1129a	157p	314p
1151a	240p	400p
1235p	322p	446p
1257p	404p	532p
120p	446p	618p
143p	529p	704p
227p	611p	750p
249p	653p	818p
311p	735p	
333p	817p	
418p	859p	
441p	941p	
504p	1023p	
527p		
555p		
616p		
643p		
717p		
752p		
827p		
912p		
957p		
1042p		
1127p		

*Trips terminate/originate at the airport on the outer lane of the terminal

Appendix D – Airport Improvement Program Draft EIS Data





Legend

- No-Action Airport Property Boundary (2015)
- Airport Buildings
- 2020 Existing Pavement
- Proposed New Pavement
- Proposed Pavement to be Removed
- Fully Relocated Airport Road (2020)
- Partially Relocated Airport Road (2015)
- Realigned Main Avenue (2015)
- Limit of Disturbance
- Navigation Aids (Runway 34) Limit of Disturbance
- Runway Object Free Area
- Runway Protection Zone
- Runway Safety Area
- EMAS

Figure 39
T.F. Green Airport Improvement Program EIS

Level 5 Alternatives B2 and B4: Surface Transportation Modifications

Appendix E – Preliminary Findings and Recommendations Presentation

MULTIMODAL TRANSPORTATION SAFETY AND EFFICIENCY ASSESSMENT
PRELIMINARY FINDINGS MEETING

JANUARY 7, 2011

The Interlink at T.F. Green Airport
Warwick, Rhode Island

INTERLINK
connecting you to new england

Overview

- Purpose and Need
- Assessment Process
- Issues Identified
- Potential Solutions and Strategies
- Discussion
- Next Steps

Purpose and Need

Purpose

- Evaluate roadways and facilities under existing conditions, planned development, and projected growth for a safe and efficient multimodal transportation network

Need

- New facility uniquely joining multiple modes
- Operations are important to support airport, users, and economic development
- Facility increases demand by all users

What is a Road Safety Assessment?

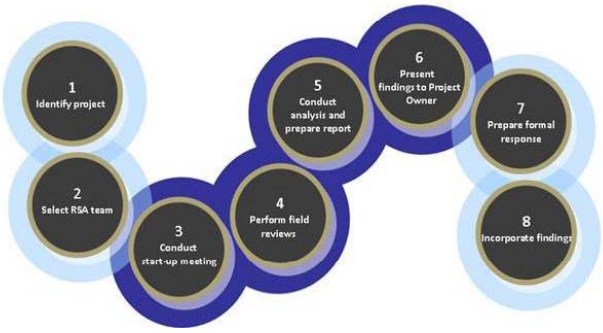
A formal safety performance evaluation of an existing or future road or intersection by an independent, multidisciplinary team.

How are RSAs conducted?

Responsibilities

RSA Team

Design Team / Project Owner



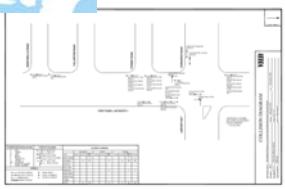
INTERLINK Stakeholders

- Rhode Island Airport Corporation
- Rhode Island Department of Transportation
- Federal Highway Administration
- City of Warwick
- Rhode Island Public Transit Authority

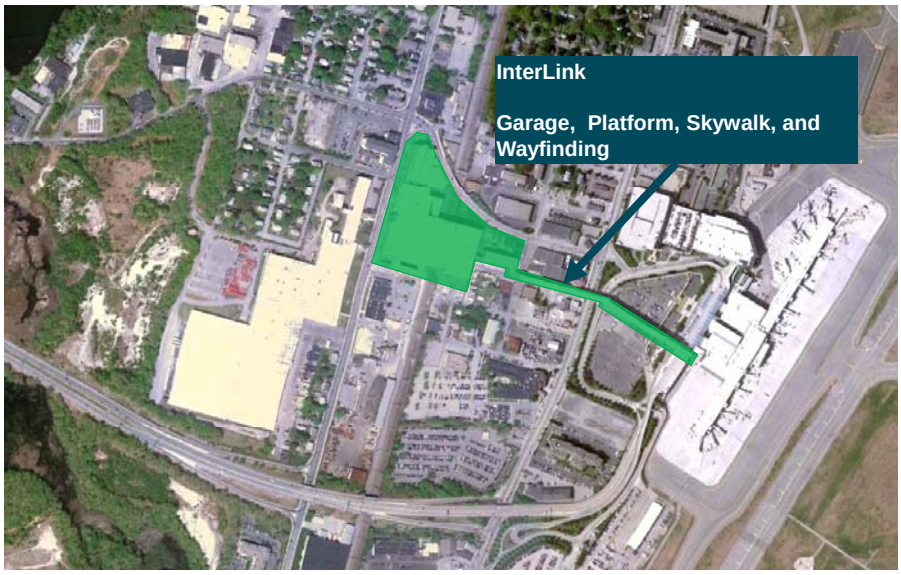
Rhode Island Airport Corporation

Relevant Documents Reviewed

- Warwick Station Development District Draft Master Plan
- TF Green EIS
- Warwick Intermodal Station E.A.
- South County Commuter Rail Ridership Operations Plan
- MBTA Schedule & Ridership Data
- RIPTA Schedule & Ridership Data
- RIDOT Collision Data
- Signal Timing/Phasing Plans
- Roadway Traffic Volumes
- Local Development Reports



Areas Addressed


InterLink
Garage, Platform, Skywalk, and Wayfinding


T.F. Green Campus
Ring Road and Commercial/Arrival Roads

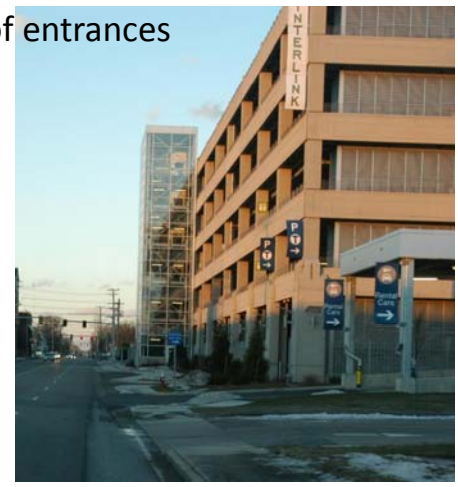

Local Roadways
Jefferson Blvd, Post Road,
& other roadways


Warwick Development District
Area between Coronado Road
& Montebello Road

INTERLINK ISSUES

Jefferson Blvd Entrance

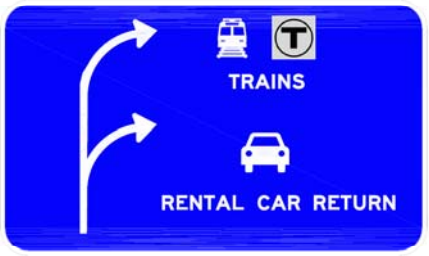
- Driver confusion: function of entrances
  - Commuter looks like service entrance
  - No lighting for entrance banners
  - Roadway signage
    - No roadway sign for commuter lot
    - Rental entrance sign
    - SB Jefferson
    - Pick-up/Drop-off



INTERLINK SUGGESTIONS

Jefferson Blvd Entrance

- Driver confusion: function of entrances
  - Provide lighting for entrance banners (programmed)
  - Provide additional signage
    - Entrance signs for commuter and rentals
    - SB Jefferson
    - Pick-up/Drop-off
      - Explore additional wording.
      - Add signing with 15 min no charge, commuter (daily) $6.75, overnight surcharge $30.00



INTERLINK ISSUES

Jefferson Blvd Entrance

- Vehicle observed exiting commuter entrance
- Potential for RIPTA based peds to cut thru entrance to get the bus pull-put (more direct route)

INTERLINK SUGGESTIONS

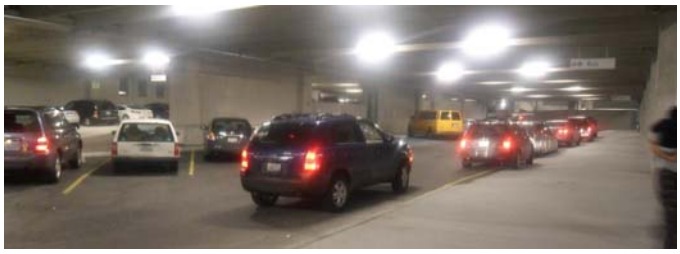
Jefferson Blvd Entrance

- MUTCD standard signing
  - Diagrammatical signs along Jefferson
  - DO NOT ENTER/ONE WAY signs on entrance facing into garage
- Pavement arrows at entrance
- Extend bus pull-put closer to entrance

INTERLINK ISSUES

Pick-up/Drop-off

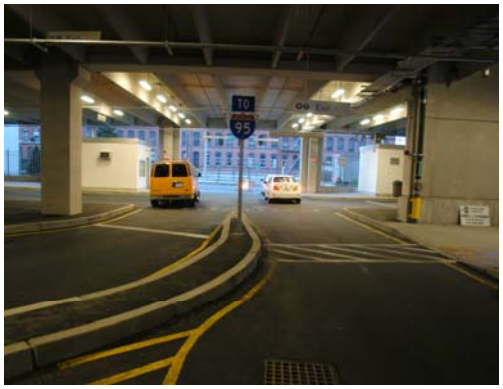
- Over-capacity with existing MBTA ridership during evening pick-up. Queuing almost to Jefferson.
- Consider alternatives to providing bus service (Pending RIPTA decision).



INTERLINK ISSUES

Jefferson Boulevard Exit

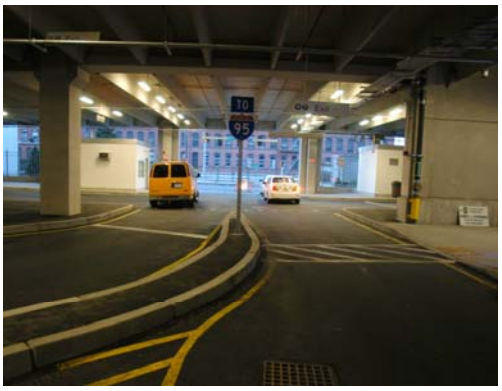
- Traffic control unclear
- Crosswalk from stairs has no curb cut on south side
- Directional signage unclear (I-95)
- Signals may affect driver behavior



INTERLINK ISSUES

Jefferson Boulevard Exit

- Remove crosswalk
- Need additional direction signing, overhead and/or shield pavement markings
- Advance signing



INTERLINK ISSUES

Post Road Entrance/Exit

- LED arrows at entrance
- Lack of pedestrian wayfinding from hotel shuttle drop-off to rental car counters
- Lack of ADA accommodations
- No directional guidance from the monthly commuter lot (safety/efficiency)

INTERLINK ISSUES

General Issues

- Wayfinding signage not clear, consistent
- Provide larger consistent signage
- Provide ground color markings to delineate ped path to/from Jefferson/Platform
- Provide RIPTA/T branding

INTERLINK ISSUES

Platform

- Riders don't have cash to pay for MBTA ticket.
  - Provide ATM machine
  - Provide Charlie Card machine
- Not clear where to pay for ticket
  - Provide signage for where to pay
- Bike rack located too far from platform, bikes observed to lock up bike along posts close to stairs to platform
  - Move bike racks closer to platform

INTERLINK ISSUES

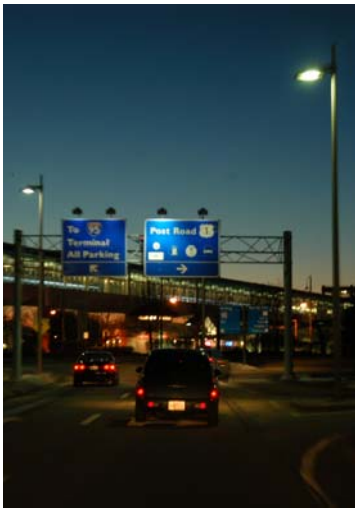
Airport Connector Signing

- Inadequate destination signing
  - Provide exit numbering
  - Revise overhead signage
- Poor location of trailblazing sign along Jefferson off-ramp
  - Relocate existing sign

AIRPORT CAMPUS ISSUES

Ring Road

- Lack of direction to Interlink, symbols on OH signs too small
  - Provide larger rental car symbol on OH sign, relocate "Interlink" symbol
  - Provide consistency throughout campus
  - Provide additional directional signage for rental cars



AIRPORT CAMPUS ISSUES

Ring Road

- Goat path north of Garage B crosses Ring Road.
  - Ground level connection to skywalk
- Conflicting yield bar and signs on the ramp from departures.
- Road from Lot E toward Ring Road, faded striping, confusing signage, looks like two one way lanes vs. two direction lanes.
- Stop sign for merge of shuttle/general roads confusing.

AIRPORT CAMPUS ISSUES

Ring Road

- Poor sight distance for ped crossing from short-term to terminal.
  - Create bulb-out, restripe
  - Channel pedestrians away from column
  - Relocate ped crossing sign before/in crosswalk

AIRPORT CAMPUS ISSUES

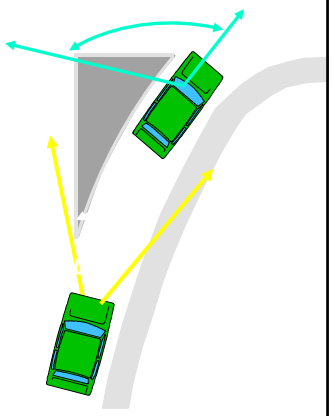
Terminal

- Stop Sign located in wrong location (at Limo/Bus entrance to short term lot)
  - Remove sign
- General signs located too low to ground
  - Provide required clearance
- Pedestrian Heads turned off from Terminal to Short-Term Lot

LOCAL ROADWAY ISSUES

Jefferson Blvd

- Bus pull-out (future uses)
- Overflow from Pick-up/Drop-off
- Accommodating cyclists
- Double yield on channelized right-turn
  - Install redundant signage and enhance markings
  - Redesign channel
- No pedestrian crossings on south leg



LOCAL ROADWAY ISSUES

Jefferson Blvd

- Airport sign on NB approach blocked
- Snow removal on sidewalks
  - Enforce adjacent property owners responsibilities.

LOCAL ROADWAY ISSUES

Frenso Road

- Lack of delineation
  - Provide pavement markings (24.5' width)
- Traffic control at Imera Ave
  - Implement desired traffic control
- Barrier located along road (blunt end)
  - Provide object markers
  - Other long term measures considering WDD
- Vehicles park along road and between columns
  - Stripe fire lane with no parking CSO(programmed)
  - Investigate comprehensive parking plan (perpendicular parking /enforce parking laws esp at intersection w/ Post)

LOCAL ROADWAY ISSUES

Frenso Road

- Convert to commercial loading only
- Convert to park (under WDD plan)

LOCAL ROADWAY ISSUES

Post Road

- Snow blocks sidewalks
- Center Turn Lane (TWLTL) arrows lead to no turns
  - Eradicate selected arrows
- Pedestrian accommodations
  - Investigate phasing and capacity.
  - ADA issues at the southwest corner of intersection with Coronado.

LOCAL ROADWAY ISSUES

Post Road

- Stop sign on channelized right-turn from Airport onto Post NB.
  - Look at intersection phasing for safety/congestion
- Hard to see OH sign on Connector for Airport Entrance

WDD ISSUES

Short-Term

- Lighting (especially under Fresno)
- Unauthorized parking on Fresno between pillars
- Add Route 1 Sign and 95 signs to bypass to use Coronado light.

WDD ISSUES

Individual Parcel Approach

- Comprehensive access plan needed
- Limit the effects to the Post/Coronado intersection
- Study East-West capacity between Post & Jefferson and conform with urban design standards

WDD ISSUES

District Wide Approach

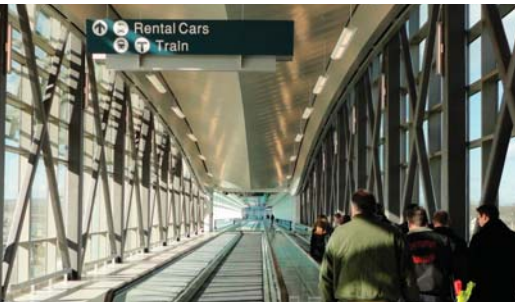
- Access points with Interlink
- Minimize external access points
- Maximize internal access for all modes

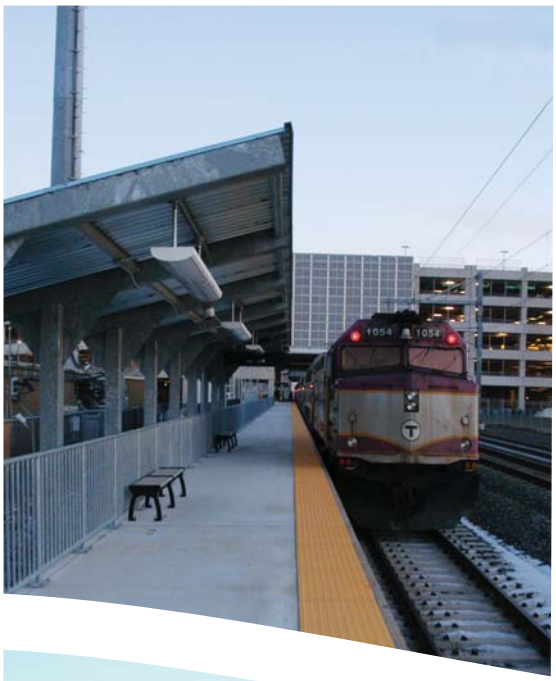
DISCUSSION

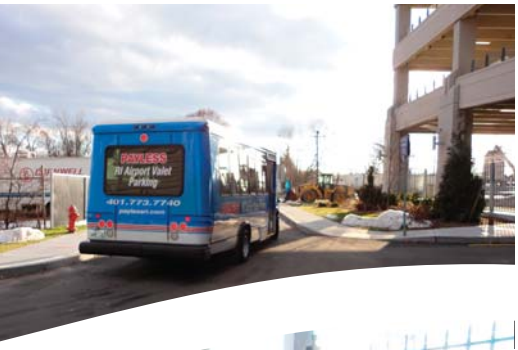
NEXT STEPS

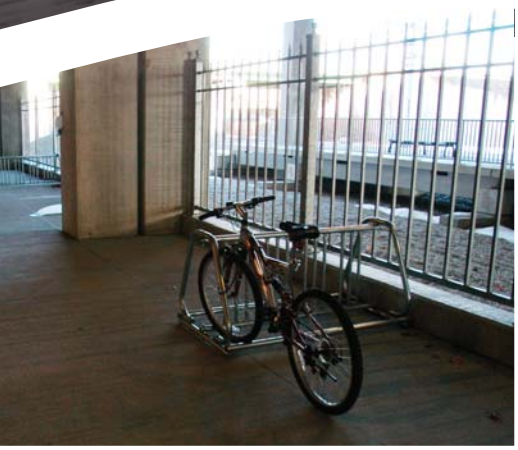
- Draft Report to MTSA team
- Stakeholders agree on implementation
- Final Report to MTSA team
- RIAC, RIDOT, and FHWA agree on funding level
- InterLink team implements solutions

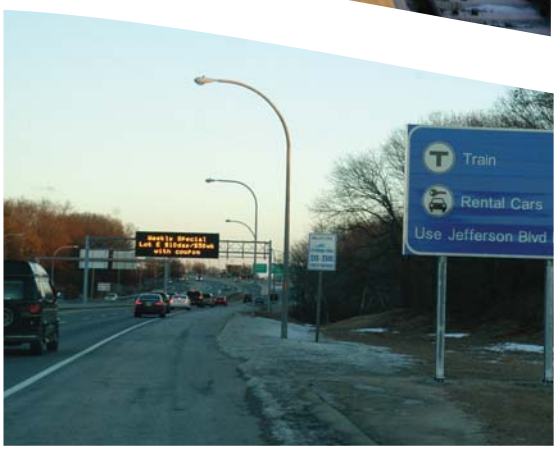
How do the stakeholders collaborate?











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