

Draft CSX Intermodal Sub-Area Study Technical Memorandum



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1.0 Introduction

The Hillsborough County Metropolitan Planning Organization (MPO), in cooperation with Florida Department of Transportation (FDOT) District Seven, tasked URS Corporation (URS) to conduct a Freight Sub-Area Study focusing on the access needs of the CSX Intermodal (CSXI) Terminal, as well as the general truck circulation within the area including the FDOT Strategic Intermodal System (SIS) connector between Interstate 4 (I-4) and the terminal.

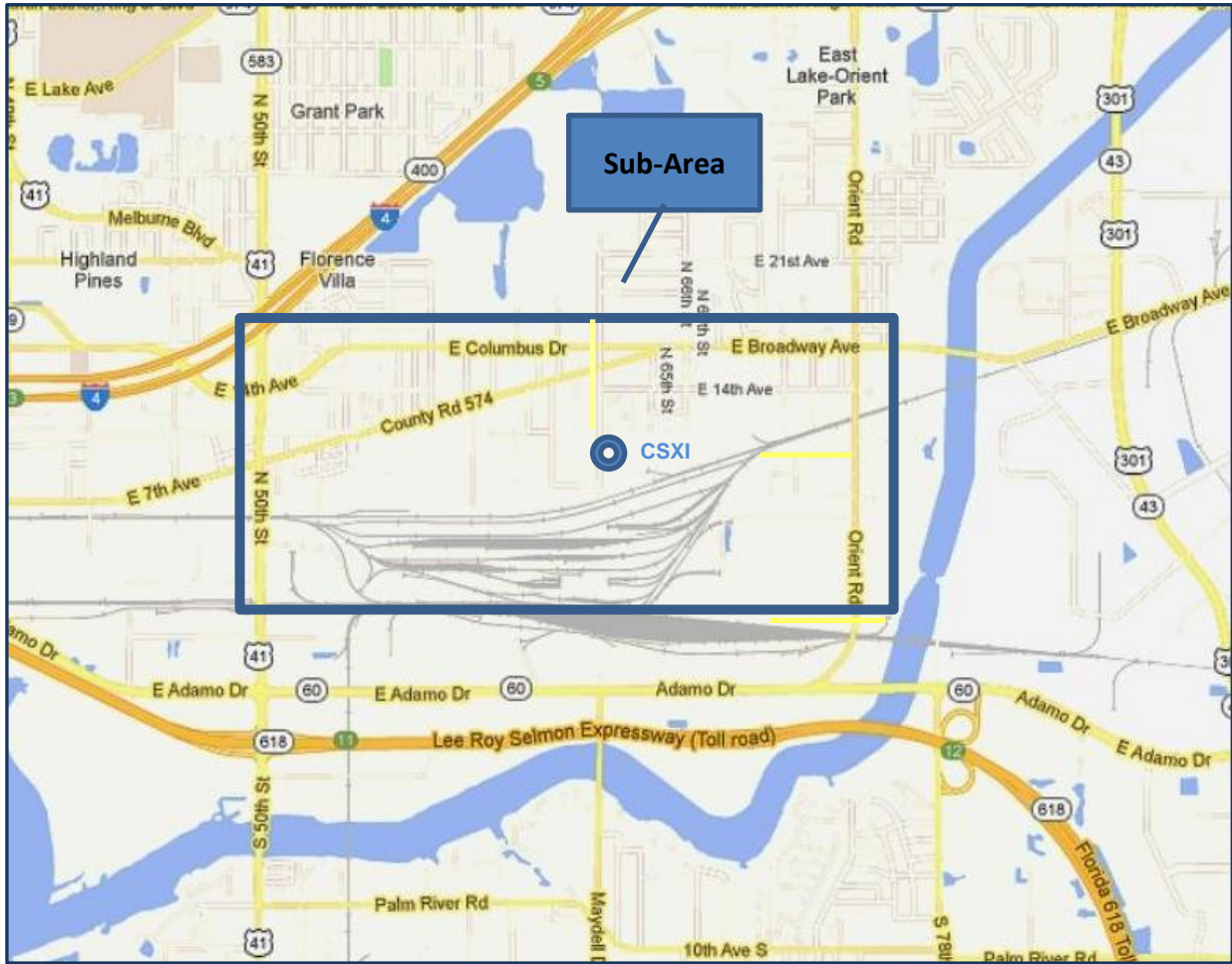
The roadway connections within this sub-area have high concentrations of heavy truck traffic that accesses an intermodal rail terminal, distribution centers, trucking company yards, scrap yards, and other manufacturing businesses. Many of the roads connecting these facilities to the main highway system are inadequate and/or not designed for large trucks. Besides the industrial uses, the area has the remnants of small residential clusters mostly in the form of mobile home parks and scattered single-family residences that do not fit the character of the area.

A major truck generator located within this sub-area is the CSXI Terminal, which generates between 200 and 500 truck trips per day. The only access road is 62nd Street, which is a narrow, formerly residential street with open drainage and deep ditches on both sides. During the early stages of the Tampa Bay Regional Goods Movement Study (TBRGMS), drivers surveyed at the terminal entrance gate identified access to this facility as problematic.

The project team interviewed industry stakeholders, at a sampling of truck generating facilities to help identify issues and garner recommendations from a freight-related perspective. The study identifies short-term, low-cost improvements that would have an immediate positive effect on trucking operations, as well as long-term solutions achievable at reasonable cost for improving truck circulation within the area.

The project sub-area is located south of I-4 and north of the CSXI Terminal rail yard (**Figure 1**) in east Tampa.

FIGURE 1
SUB-AREA LOCATION MAP



2.0 Purpose and Need

2.1 Project Purpose

The purpose of this Sub-Area Study is to assist the Hillsborough County MPO in identifying freight-related issues and assessing potential solutions to truck circulation and mobility within the sub-area. The MPO is interested in a list of proposed improvements for programming in MPOs plans. Of particular interest are small, low-cost improvements that would have an immediate impact on trucking operations within the area. A secondary purpose is to evaluate and estimate the cost and make recommendations regarding the relocation of the CSXI Terminal access gate from its current location to an access point off Orient Road. The *Tampa Bay Regional Rail Study* (2007) identified this relocation and designated Orient Road the SIS Connector, as a potential improved access point to the intermodal yard.

2.2 Project Need

The CSXI Terminal is an important element in the local economy. The Tampa Bay region imports hundreds of containers daily full of merchandise and supplies required by local businesses and manufacturers. As a result, the CSXI Terminal generates approximately 200 to 400 truck trips daily and up to 500 trips during the holiday season (September through February). Additionally, numerous other truck-generating businesses populate the sub-area between Broadway Avenue and the CSXI Terminal. These businesses generate approximately 100 to 120 truck trips daily and have a substantial impact on local truck circulation. Finally, there are numerous through truck trips on Broadway Avenue and on Columbus Drive. Many of these trips are generated by industrial uses located between US 301 and Orient Road.

The TBRGMS identified CSXI Terminal access issues during the early stages of the study and the *Tampa Bay Regional Rail Study* reaffirmed these issues in 2007. Truck driver surveys obtained during the TBRGMS identified specific operational and physical issues. These included difficulty making left turns from 62nd Street to Broadway Avenue, and turning difficulties at 50th Street and Broadway Avenue. The drivers also expressed a need for a traffic signal at 62nd Street and Broadway Avenue.

3.0 Sub-Area Description

3.1 Sub-Area Boundaries

The project sub-area is bounded by Columbus Drive on the north, Orient Road on the east, 6th Avenue and the CSXI Terminal rail yard on the south, and US 41/50th Street on the west (**Figure 2**). The project area is located within the East-Central Tampa-CSX Regional Freight Activity Center (FAC) as identified in the FDOT's TBRGMS and the Regional Strategic Freight Plan.

FIGURE 2
SUB-AREA BOUNDARY MAP



3.2 Land Use

The existing land use within the project area is predominantly light to heavy industrial with small pockets of residential, mainly in the form of mobile home parks south of Columbus Drive and an area of residential homes north of Columbus Drive near 50th Street. **Figure 3** shows the existing land use and identifies the locations of the major truck generating facilities.

FIGURE 3
EXISTING LAND USE MAP



Heavy industrial uses include the CSXI Terminal rail yard, several scrap metal and recycling operations, large trucking companies, and manufacturing. Light industrial uses include small engine and truck engine repair, auto-body shops, and small-scale scrap dealers. A complete description of each of the major truck generating operations can be found in Section 3.6. The Future Land Use is mainly light and heavy industrial south of Broadway Avenue with commercial and transitional uses south of Columbus Drive to 14th Avenue between 62nd Street and 65th Street. The future land use maintains the small residential area north of Broadway Avenue and west of 58th Street (**Figure 4**).



3.3 Description of CSXI Operations

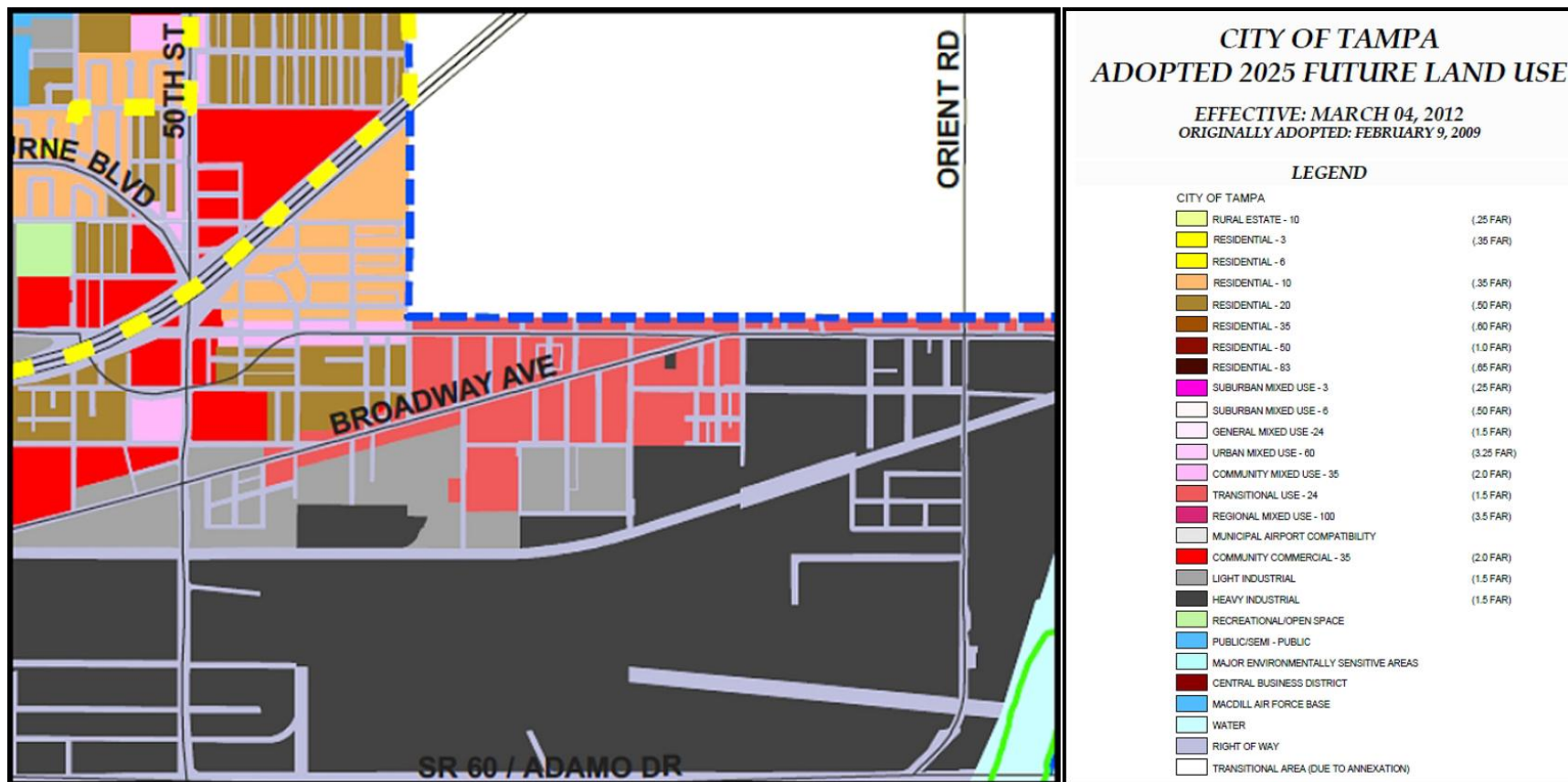
The CSXI Terminal is located at the south end of N 62nd Street on the north side of the CSX rail yard complex and is a designated Emerging Florida SIS facility.¹ The terminal contains two parallel tracks separated by a container storage and loading area. It serves as the transfer point between the rail and roadway systems in the Tampa Bay region. Containers range in size from small 20-foot and 40-foot international containers to large 53-foot domestic containers. Additionally, trailers-on-flat-cars (TOFC) are also transferred at this terminal.



Double-stacking a 53-foot domestic container onto a rail intermodal car at the Tampa CSXI Terminal.

¹ Source: SIS and Emerging SIS Hubs, Corridors, and connectors Map for FDOT District Seven, July 20, 2008.

FIGURE 4
FUTURE LAND USE MAP



CSXI serves more than two thirds of the U.S. population and continues to expand. CSXI provides reliable service from 30 intermodal terminals generating approximately 450 intermodal trains a week system-wide. CSXI serves every major port on the east coast and interconnects with all of the Class I railroads serving the east and west coast of the U.S., as well as the Florida East Coast Railroad.²

Although container trains are assembled in different lengths depending on the daily need, the maximum length of a train assembled in the Tampa terminal is 8,800 feet. This is due to the length of the shortest passing siding along the route between Tampa and Jacksonville. Because there are no height restrictions along the rail corridor, CSXI is able to employ double-stacking of containers. A typical intermodal train leaving Tampa hauls between 200 and 300 containers and trailers.³

The vast majority of loaded containers are in-bound to Tampa for local distribution. Outbound containers are generally empty due to the limited backhaul available from the region. There are also a small number of containers drayed to and from the Port of Tampa for shipment. In the future, these containers would be loaded onto intermodal trains on the port, which would eliminate the truck drays between the port and the intermodal terminal. Additionally, United Parcel Service (UPS) provides loaded trailers for transport on a daily basis. By using TOFC, UPS is able to reduce the costs of transportation incurred by long distance highway transportation.

Currently there are two inbound and one outbound trains daily. These trains generate approximately 200 to 400 truck trips a day and up to 500 during the peak season of September through February.

3.4 Existing SIS Connector

The Florida SIS consists of SIS facilities and emerging SIS facilities including the CSXI Terminal and SIS corridors (I-4, I-75, I-275, and SR 60) and local roads designated as SIS Connectors in the *Statewide Strategic Intermodal System Plan*. State policy allows for only one SIS connector per SIS facility. In the case of the CSXI Terminal, the emerging SIS connector begins at I-4 (SIS) and 50th Street (US 41), runs south on 50th Street to east on Columbus Drive and south on 62nd Street to the terminal (**Figure 5 Inset A**).

This connector assumes that most of the container traffic flows between the intermodal facility and I-4/I-75/I-275. This more than likely based on truck counts at the intersections of I-4 and Columbus Drive and at the I-4 ramps. However, visual observation and interviews with drivers accessing the intermodal facility indicate that perhaps there is nearly an even split between the existing connector and the 50th Street and Broadway Avenue to 62nd Street and the intermodal terminal route. It appears that most of the truck traffic on Columbus Drive is east-west though traffic and bulk carriers from the CCC/CTL yard and not containers. Although truck classification counts can determine the number and size of trucks using a corridor, they cannot determine the actual type of truck (i.e., container vs. other cargo types). To establish the actual use of the SIS connector the study team collected data of trailers vs. containers at Columbus Drive and 50th Street, as well as at 62nd Street and Columbus Drive, and 62nd Street and Columbus Drive. The results of the data collection are discussed in Section 4.1.

² Source: CSXI website www.csxi.com.

³ Interview with CSXI Terminal Operations Supervisor.

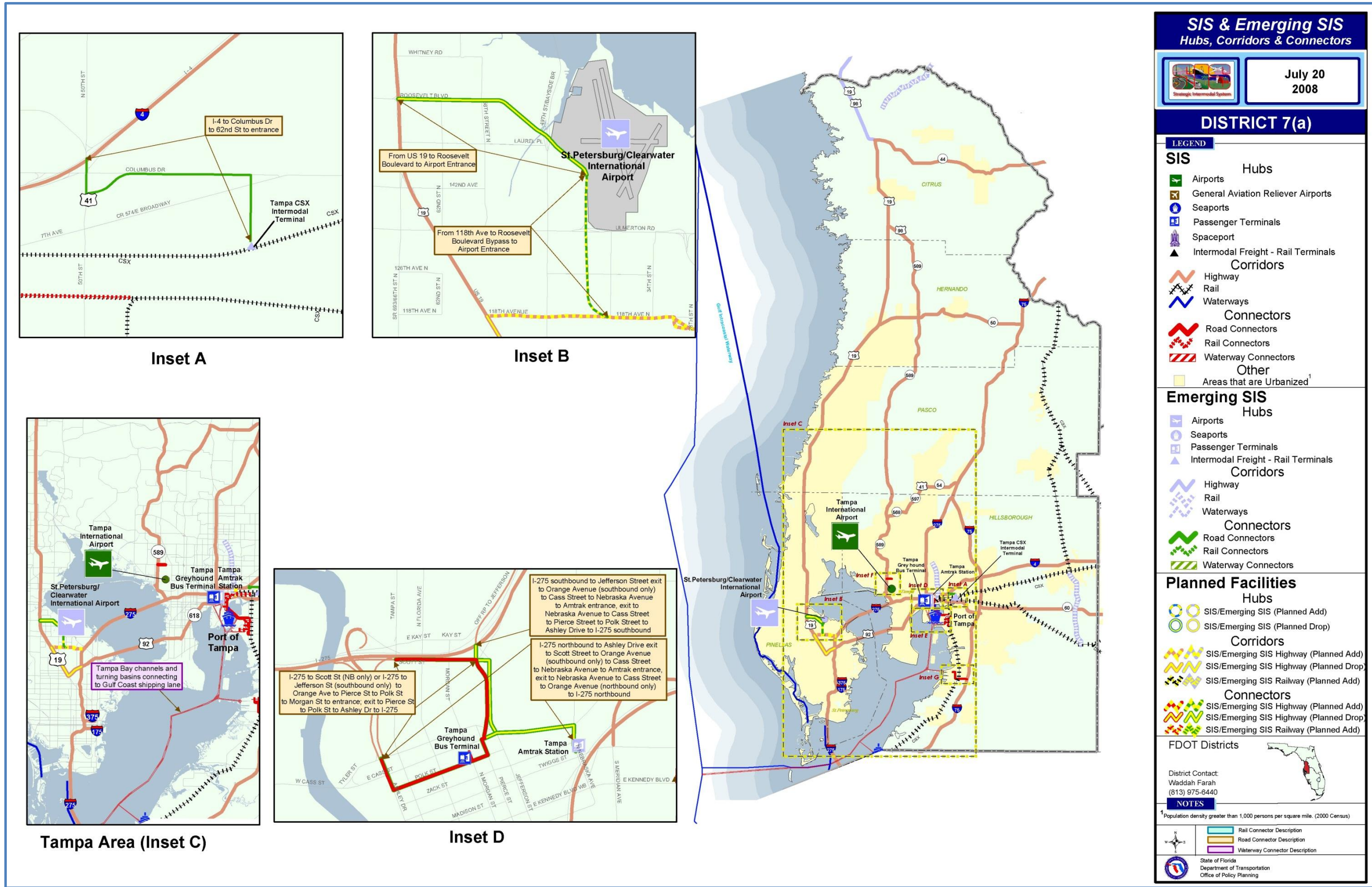


FIGURE 5
 SIS CONNECTOR MAP

3.5 Sub-Area Truck Routes

Trucks primarily use the following roads to access and circulate within the sub-area:

- 50th Street/US 41 from Columbus Drive to Broadway Avenue
- Broadway Avenue from 50th Street to Orient Road
- Columbus Drive from 50th Street to Broadway Avenue
- Orient Road from Broadway Avenue to 6th Avenue
- East 14th Avenue from 62nd Street to Orient Road
- North 62nd Street from Columbus Drive to the CSXI Terminal entrance
- 65th Street from Broadway to 14th Avenue
- North 66th Street from Broadway Avenue to the Enviro Focus Technologies plant
- 70th Street from Broadway Avenue to the SAIA Terminal

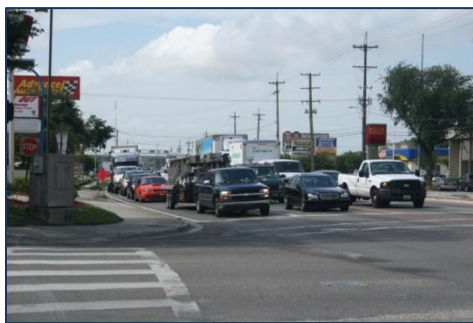
3.5.1 Right-of-Way

The right-of-way (ROW) throughout the area is generally adequate, although the pavement surfaces are generally narrow and in fair to poor condition. Appendix A contains aerial maps with estimated ROW callouts at various locations within the area. It is anticipated that the existing ROW would be sufficient for any recommended changes. The ROW for each identified corridor is described in Section 3.5.2 below.

3.5.2 Existing Conditions

The following subsections describe the existing conditions on the truck circulation roads within the sub-area.

50th Street/US 41



This highway forms the western boundary of the sub-area and provides a north/south, connection between I-4 and SR 60, as well as access to various Port of Tampa facilities. The highway is a six-lane urban divided facility with curb and gutter drainage and dedicated left-turn lanes at major intersections, including Columbus Drive and Broadway Avenue. There are sidewalks adjacent to both sides of the roadway. Traffic signals are located at Broadway Avenue, Columbus Drive, and the I-4 ramps. The existing ROW width varies between 100 and

130 feet. The roadway is located within a highly congested industrial/commercial area with both high average annual daily traffic (AADT) and high truck counts. Commercial land uses include a shopping center and several fast food restaurants with access driveways located on both sides of the roadway.

Broadway Avenue

Broadway Avenue is a 1.8-mile-long rural two-lane typical section facility with 12-foot lanes, no paved shoulders, and open drainage. There is a sidewalk located along the north side of the facility between 50th Street and Columbus Drive. There are no pedestrian

- HART Route 15 runs along Broadway Avenue with stops at the following locations:
- 73rd Street (EB)
 - 71st Street (WB)
 - 70th Street (EB)
 - Locicero Drive (WB)
 - 68th Street (WB)
 - 64th Street (WB & EB)
 - 62nd Street (WB)
 - 61st Street (WB & EB)
 - 59th Street (EB)
 - 58th Street (EB)
 - 53rd Street (WB)
 - 52nd Street (WB)
 - 51st Street (EB)
 - 50th Street (WB & EB)

facilities east of this location. Traffic signals are located at 50th Street/US 41 and Orient



Road. The ROW width varies between 65 feet west of 62nd Street to 110 feet at 70th Street and 85 feet between 71st Street and Orient Road. Broadway Avenue is on a Hillsborough Area Rapid Transit (HART) bus route with nine westbound and eight eastbound stops between Columbus Drive and 50th Street. The land use adjacent to the roadway is almost entirely light industrial with some commercial facilities at 50th Street and at Orient Road. There is a large CCTS/CONCAR truck yard located between 68th Street and 70th Street on the south side of Broadway Avenue that generates over 100 truck trips daily. There is also a residential area located on the north side between 52nd and 54th Streets.

Columbus Drive

Columbus Drive is a 1.25-mile facility between 50th Street and Broadway Avenue. The first quarter mile includes a four-lane urban divided typical section with turning lanes at 50th Street, E 14th Avenue/Kathy’s Lane, and at Old Columbus Drive. There are sidewalks on both sides. The remainder of the road is a rural residential typical section from Old Columbus Drive to Broadway Avenue with open drainage and sidewalks on the south side of the facility. The only traffic signal is located at 50th Street. The ROW



widens from 120 feet to 160 feet between 50th Street and E 14th Street and then tapers back down to 65 feet the remainder of the route to Broadway Avenue. The land use along this facility is a mixture of residential, small office, small commercial, and industrial. Access to the CCC/CTL truck yard is located on the south side to the east of 57th Street. This facility generates approximately 200 to 300 truck trips daily.

Orient Road

Orient Road is a two-lane facility that connects I-4 with SR 60. Within the study area, the facility is 0.5 miles in length between Broadway Avenue and 6th Avenue and includes 11-foot travel lanes, 4-foot paved shoulders, and no sidewalks. The CSX “A” Line crosses Orient Road 1,100 feet south of Broadway Avenue with two tracks before entering the rail yard to the west. The ROW is approximately 55 feet wide along this portion of the roadway. The existing land use is commercial, industrial, public, and includes the Hillsborough County Correctional Facility located on the east side at East 6th Avenue.

East 14th Avenue

East 14th Avenue is a rural residential typical section east/west facility between Orient Road and 62nd Street. East 14th Avenue provides access to the industrial operations to the south; however, this roadway was not designed for heavy truck usage. Although the ROW varies from 50 to 70 feet wide, the roadway surface is 22 to 24 feet wide throughout and is without roadway striping. Land use is light and heavy industrial with a small residential (mobile home park) area at the corner of 62nd Street. SAIA Motor Freight is located at 71st Street and generates approximately 100 to 130 trips daily.



North 62nd Street

North 62nd Street is part of the SIS connector between Columbus Drive and the CSXI Terminal. The road surface and rural residential typical section were not designed for use by heavy trucks and tractor-trailers. The ROW is 45 feet wide from Columbus Drive to Broadway Avenue and 55 feet wide from Broadway Avenue to the CSXI Terminal. The pavement is 22 feet wide and is un-striped for two-way traffic. There are no turning lanes at the intersection of 62nd Street and Broadway Avenue even though about 50 percent of all northbound trucks turn left at this intersection and 40 percent of the westbound trucks turn left to southbound 62nd street. Land use is light and heavy industrial except for the mobile home park at the corner of N 62nd Street and E 14th Avenue. Including the CSXI Terminal, two metal recyclers, and NFI Distribution, there are approximately 400 to 600 combined in/out tractor trailer and container trips daily Monday through Friday on 62nd Street.



North 65th Street

North 65th Street is a rural residential typical section roadway. North 65th Street is bounded by Broadway Avenue on the north and Jewel Avenue on the south. This road is occasionally used as an alternative connector between Broadway Avenue and E 14th Avenue. There are five residential properties located along the east side and one along the west side. The paved surface is 16 feet wide and not designed for the large trucks that use it.

North 66th Street

North 66th Street is a rural residential typical section roadway. Broadway Avenue bounds N 66th Street on the north and the Enviro Focus Technologies plant bounds the road on the south. Numerous trucks access the Enviro plant on N 66th Street and often park on the side of the road between E 14th Avenue and the entrance gate awaiting permission to enter the plant yard. The paved surface varies between 20 and 24 feet and is un-striped for two lanes. Land use is light and heavy industrial.



North 70th Street

North 70th Street is a rural residential typical section and serves as a connector between Broadway Avenue on the north and E 14th Avenue on the south. It is primarily used to access Helena Chemical Company and SAIA Motor Freight facility located on E 14th Avenue. The paved surface is 20 feet wide with no shoulders and open drainage and is not designed for large trucks. The surface pavement has been extensively patched at the tie-in with Broadway Avenue to approximately 150 feet south of Broadway Avenue due to the heavy truck use.

3.6 Sub-Area Truck Generators

The following businesses are major truck generators within the sub-area. All but one, CCC/CTL Transportation, are located south of Broadway Avenue. The locations and short descriptions of these truck generators are shown in **Table 1** and on **Figure 6**.

TABLE 1
TRUCK GENERATORS

Map ID	Company Name	Address	Comments
1	CSXI	1901 N 62 nd Street	Intermodal truck to rail container yard
2	NFI Distribution Center	1920 N 62 nd Street	TL/LTL trucking, intermodal shipping, and warehousing
3	R&L Metals, Inc.	1913 N 62 nd Street	Metal recycling
4	R&L Metals, Inc.	1902 Orient Road	Metal recycling
5	Enviro Focus Technologies	1902 N 66 th Street	Lead recycling
6	Penske Truck Leasing/ CCTS/COMCAR	6801 E Broadway Avenue	Large truck rentals, local bulk trucking
7	SAIA Motor Freight	214 N 71 st Street	LTL trucking
8	Harsco Infrastructure	6811 E 14 th Avenue	Scaffolding and other products for construction projects
9	Airgas South	6601 E 14 th Avenue	Industrial gas distribution
10	CCC/CTL Transportation	5619 E Columbus Drive	Local bulk trucking
11	Tampa Bay Steel	6901 E 6 th Avenue	Steel fabrication, structural steel, stainless steel, steel plate, sheet steel tube, and pipe
12	Certified Spring Brake	5730 E Columbus Drive	Large truck brake maintenance
13	Helena Chemical Company	2405 N 71 st Street	Ad products/pest control products
14	CMC Recycling	1900 N 62 nd Street	Scrap metal recycling
15	Integrity Tank Repair	5801 E Broadway Avenue	Repair and maintenance of tank trailers
16	Kimmins Corp	1921 N 53 rd Street	Aggregates and scrap metal recycling
17	McKenzie Tank Lines	1918 N 57 th Street	Bulk liquid distribution
18	Preferred Materials	1811 N 57 th Street	Metal recycling
19	Western International Gas	1502 Orient Road	Industrial and medical gases distribution



FIGURE 6
MAJOR TRUCK GENERATORS

4.0 Data Collection

4.1 Truck Classification and Turning Movement Counts

Detailed truck classification counts and turning movement were not available and the estimated number of trucks were calculated using the T-factor from the following FDOT count stations:

- 62nd Street, south of 14th Avenue;
- Columbus Drive, between 53rd and 54th Streets (SIS);
- 7th Avenue, east of 22nd Street (the traffic at this station was applied along Broadway Avenue and does not reflect the estimated traffic within the study area);
- US 41/50th Street, north of Broadway Avenue; and
- US 41/50th Street, south of Broadway Avenue.

Table 2 shows the estimated truck counts on Broadway Avenue, Columbus Drive, 62nd Street, and US 41/50th Street as reported on the FDOT Traffic Online Website.

**TABLE 2
TRUCK COUNTS**

	AADT	T-Factor	Trucks
Broadway/7 th Avenue (109148)	3,400	5.6	190
Columbus Drive (1080120)	7,700	11.5	885
62 nd Street (108011)	1,700	43.2	734
US 41/50 th Street (105104)	38,000	11.4	4,332
US 41/50 th Street (105107)	42,500	13.4	5,695

The truck counts for Broadway Avenue appear too low. The reason for this is that the count station is located on 7th Avenue to the east of 22nd Street in Ybor City. The traffic at this location does not adequately represent what is going on in the study area based on observation and manual counts taken for the study. A better estimate at Broadway Avenue and 62nd Street would be comparable to that of Columbus Drive.

To obtain a better understanding on the potential freight traffic within the area, manual truck counts and turning movement counts, focused on tractor-trailers and tractor-containers, were conducted at Broadway Avenue and 62nd Street in August 2012 and at Broadway and 62nd Street, Columbus Drive and 62nd Street, and at Columbus Drive and US 41/50th Street in September 2012.

Table 3 shows the results of the August 2012 intersection counts obtained during a field review visit. During this count the trucks and the containers were not differentiated.

**TABLE 3
BROADWAY AVENUE AT 62ND STREET TRUCK COUNTS
(AUGUST 1, 2012; 11:55 A.M. TO 12:55 P.M.)**

	Broadway Avenue							62nd Street							Grand Total
	WB	WB/RT	WB/LT	EB	EB/RT	EB/LT	Total	NB	NB/RT	NB/LT	SB	SB/RT	SB/LT	Total	
Trucks	12	0	9	19	4	1	45	5	1	4	6	4	1	21	66

Tables 4 through 6 show the results of the truck counts conducted in September 2012. The focus was to differentiate between regular tractor-trailer trucks and containers and determine the approximate split, especially for container traffic, between Broadway Avenue and the SIS connector route that includes 62nd Street north of Broadway Avenue and Columbus Drive west of 62nd Street. Non-tractor-trailer type trucks were not counted. The highlighted cells indicate the trailers and containers using the designated SIS Connector route.

**TABLE 4
BROADWAY AVENUE AT 62ND STREET TRUCK COUNTS
(SEPTEMBER 25, 2012; 9:10 A.M. TO 11:10 A.M.)**

	Broadway Avenue							62nd Street							Grand Total
	WB	WB/RT	WB/LT	EB	EB/RT	EB/LT	Total	NB	NB/RT	NB/LT	SB	SB/RT	SB/LT	Total	
Trucks	23	0	14	28	4	1	70	9	16	1	7	0	0	33	103
Containers	0	0	11	2	6	0	19	10	4	9	9	0	1	33	52
Total	23	0	25	30	10	1	89	19	20	10	16	0	1	66	155

At this intersection, the westbound left turn and eastbound right turn on Broadway Avenue, as well as the northbound right turn and northbound left turn on 62nd Street containers are accessing or departing from the intermodal yard along Broadway Avenue to either 50th Street or towards Orient Road (blue highlight). The 2-hour non-SIS container count was 30 (57.7 percent). The two eastbound containers were pass-through, as was the one southbound left turn. On 62nd Street, only the containers going north or south are on the SIS connector (pink highlight). The total count on the SIS was 19 (36.5 percent). The non-container traffic on 62nd Street south of Broadway Avenue is scrap metal for R&L Materials and CMC Recycling, trailers for the NFI Distribution Center on 62nd Street, or SAIA trucking located on 14th Avenue at 71st Street.

**TABLE 5
COLUMBUS DRIVE AT 62ND STREET TRUCK COUNTS
(SEPTEMBER 25, 2012; 9:10 A.M. TO 11:10 A.M.)**

	Columbus Drive							62nd Street							Grand Total
	WB	WB/RT	WB/LT	EB	EB/RT	EB/LT	Total	NB	NB/RT	NB/LT	SB	SB/RT	SB/LT	Total	
Trucks	16	0	0	0	7	0	23	0	0	10	0	0	0	10	33
Containers	0	0	0	0	10	0	10	0	0	9	0	0	0	9	19
Total	16	0	0	0	17	0	33	0	0	19	0	0	0	19	52

At Columbus Drive and 62nd Street, the SIS connector is the northbound to westbound left turn and the eastbound to southbound right turn. As shown in the table, the total container counts match those of the northbound and southbound movements at Broadway Avenue. There were also 17 trailers that used the SIS connector route. All of these trailers crossed Broadway Avenue to access 14th Avenue and the SAIA truck terminal located at 71st Street. The remainder of the truck traffic on Columbus Drive is mostly westbound through traffic that splits from Broadway Avenue near 64th Street. The eastbound through traffic uses 62nd Street to access Broadway Avenue due to left turn issues where Columbus Drive and Broadway Avenue intersect at an acute angle.

**TABLE 6
COLUMBUS DRIVE AT 50TH STREET/US 41 TRUCK COUNTS
(SEPTEMBER 25, 2012; 9:10 A.M. TO 11:10 A.M.)**

	Columbus Drive							50th Street/US41							Grand Total
	WB	WB/RT	WB/LT	EB	EB/RT	EB/LT	Total	NB	NB/RT	NB/LT	SB	SB/RT	SB/LT	Total	
Trucks	25	15	3	8	39	1	91	114	6	23	105	3	11	262	353
Containers	6	1	0	7	4	0	18	6	0	1	6	0	1	14	32
Total	31	16	3	15	43	1	109	120	6	24	111	3	12	276	385

At Columbus Avenue and 50th Street a total of 32 containers entered the intersection. Of these, 15 (47 percent) utilized the SIS Connector. Of the 353 trucks entering the intersection, 68 (19 percent) utilized the SIS connector.

4.2 Stakeholder Interviews

Stakeholder interviews were conducted between July and October. Stakeholders included a sampling of representatives of the major truck generators in the area, as well as truck drivers accessing the CSXI Terminal. The survey that was used to interview the facility stakeholders solicited the types of products shipped into and out of the business, hours of operation, approximate number of truck trips generated, identification of known issues, and recommendations that would help improve access to their facilities. Driver surveys assessed the primary access points and travel routes between their internal destinations and travel corridors outside the area, as well as specific operational issues, locations, and recommended solutions from a driver’s perspective. Information from the stakeholder interviews are summarized below.

4.2.1 Truck Generator Facility Interviews

The following stakeholders were interviewed and were determined to be representative of the various types of truck operators located within the study area:

- CSX Intermodal (CSXI)
- NFI National Distribution Center (NFI)
- R&L Metals, Inc. (R&L)
- SAIA Motor Freight (SAIA)
- CCC Transportation
- Kimmins Corporation
- McKenzie Tank Lines



In general, CSXI, NFI, and R&L operate Monday through Friday during normal business hours of 7:00-7:30 a.m. to 4:00-5:00 p.m. As a result, all of their generated trips (400 to 600) occur between these hours of operation and have a significant impact on the intersection of Broadway Avenue and 62nd Street. The main issue with all of these stakeholders was difficulty in crossing or turning due to the lack of a signal at Broadway Avenue and 62nd Street. Improving the line of sight and adding a northbound left-turn lane on 62nd Street was also mentioned.

A secondary concern is the northbound and southbound turns on to eastbound 50th Street due to the 10-foot wide receiving lane and the tight corner radius at the southeast corner. The issue has been mitigated to a minor extent by moving the westbound to southbound left turn stop bar back approximately 40 feet reducing the interference for wide turns.



SAIA expressed concerns about the overall traffic on Broadway Avenue to the east of Columbus Drive that makes it difficult for its drivers to make left turns on and off of 71st Street. This was the reason given for a portion of their drivers using 62nd Street, which has slightly less traffic due to a portion of the westbound Broadway Avenue traffic diverting to Columbus Drive. Vehicles making left turns along Broadway Avenue result in delay to other vehicles due to the lack of left-turn lanes.

CSXI Operations Supervisor was interviewed during a field tour of their container facility. In addition to the issues at Broadway Avenue and 62nd Street, they noted a safety concern within their facility where the containers must cross the mainline to reach the container and trailer loading and storage area. Although the crossing is gated, there have been many near misses and even a few collisions at this crossing in the past. The study team mentioned the possibility of relocating the entrance gate to 6th Avenue and received a positive response from the assistant terminal manager.

CSXI also noted that there is currently an Intermodal Logistics Center in Polk County currently under construction. However, there are no plans at this time to close CSXI Terminal facility. There is still some uncertainty as to future impacts.

Kimmins Corporation and McKenzie Tank Line are located west of 62nd Street. Nearly all of their vehicles travel to 50th Street. McKenzie is a 24/7 operation with drivers leaving and returning to the yard empty at the end of their shift. They pick up their loads at the Port of Tampa and deliver gasoline and diesel to stations throughout central and southwest Florida. Their main driver complaint was the surface condition of Broadway Avenue. Kimmins drivers on the other hand make multiple trips in and out of the facility daily. Their primary access point is 50th Street and Broadway Avenue and the turning radius issue is important to them, although they stated that it has been improved since the stop bar was relocated. Kimmins recycles asphalt and concrete into bulk materials for road base material and they have loaded trucks running both in and out of the facility.

The CCC/CTL truck yard operates 24/7. The dispatcher for CCC stated that he controls only 30 trucks, but there are four other dispatchers at the yard that operate more vehicles. The trucks include dry and liquid bulk carriers that support the phosphate and fertilizer industries. Trucks leave the yard empty and return empty at the end of a driver's shift. Trips are generated between the Port and the various phosphate and fertilizer plants in the region. Approximately 150 trucks operate out of this facility. The access point is on Columbus Drive and 50th Street, although some trucks return from the east via Orient Road and Broadway Avenue to Columbus Drive.

5.0 Problem Analysis

Based on the surveys conducted, truck counts, and field observations, the following issues/problems/needs were identified for further analysis.

- Lack of signalization at 62nd Street and Broadway Avenue
- The need for left-turn lanes along Broadway Avenue to reduce delay
- The need for northbound to westbound and westbound to southbound left-turn lanes at 62nd Street and Broadway Avenue
- Potential safety issues at the CSX "A" Line grade-crossing between the intermodal gate and the intermodal yard

- General truck turning radii issues throughout the area
- Pedestrian safety concerns throughout the area

5.1 Lack of Signalization at 62nd Street and Broadway Avenue

Stakeholders including truck drivers and CSXI staff have expressed the need for a traffic signal at the 62nd Street intersection due to the amount of traffic on Broadway Avenue resulting in varying amounts of delay for trucks attempting to cross Broadway Avenue or turning left onto Broadway Avenue. These needs were documented in interviews conducted as part of the US 41 Corridor Study and interviews with CSXT and other truck generators as part of this study.

5.2 Need for Left-Turn Lanes at 62nd Street and Broadway Avenue

Along with the need for a signal at 62nd Street, there is a need for a westbound left-turn lane on Broadway Avenue. Broadway Avenue has only a single travel lane in each direction. Both trucks and other vehicles accessing streets and businesses along the corridor block the travel lanes while awaiting clearance to make left turns. Adding a westbound left-turn lane at 62nd Street would allow passage of through trucks without interference by left-turning vehicles that block the travel lane.

5.3 Lack of Left-Turn Lanes along Broadway Avenue

As stated above, the lack of left-turn lanes along Broadway Avenue contributes to both congestion and truck delay in both directions. While CSXI contributes a significant number of trucks along this corridor, there are several other truck yards, small distribution warehouses, scrap yards, and manufacturing business located between Broadway Avenue and the CSXI rail yard that also contribute to truck traffic on this corridor. Additionally, there is significant truck through traffic generated by large warehousing and manufacturing sites to the east of Orient Road. Finally, local small businesses located along Broadway Avenue can result in vehicles making left turns at virtually any point along the corridor.

5.4 Grade Crossing of CSX “A” Line between the CSXI Terminal Gate and the Intermodal Yard

The CSXI access gate is separated from the intermodal yard by a mainline through track. Trucks exiting the gate must make a right turn and go up a short embankment to cross this line. Trains on the line pass through the yard at speeds up to 65 miles per hour (mph) (Amtrak) and although this crossing is gated, there have been several close calls, as well as collisions at this crossing. Currently, between 200 and 500 trucks cross this line during daily terminal operating hours. That equates to between 25 and 65 trucks per hour. There are four Amtrak crossings daily, as well as several freight trains that close this crossing and contribute to occasional delay and congestion within the terminal.

5.5 Truck Turning Radii and Other Related Issues

The side streets along Broadway Avenue and Columbus Drive, as well as other internal circulator streets were not designed for large trucks resulting in turning issues that result in road surface, soft shoulder, and occasional infrastructure damage caused by off-tracking trucks. All of the streets include open drainage ditches on both sides of the roadways, and narrow paved surfaces. Trucks and other vehicles

on the receiving roads often interfere with truck turning movements forcing trucks to off-track while making turns. There are also issues with truck parking along the sides of local side streets used to access many of the industrial sites located south of Broadway Avenue.

5.7 Pedestrian Safety

Pedestrian and bicycle safety is an issue within the study area. There are no bike lanes with in the area and sidewalks exist at only the following locations:

- On the north side of Broadway Avenue between Columbus and 50th Street,
- Along the south side of Columbus Drive from 60th Street to 50th Street,
- Along E Jewel Avenue between 64th Street and 66th Street, and
- Along the north side of 10th Avenue from Broadway Avenue to west of north Whittier Street.

In additions, sidewalks should be extended along the north side of Broadway Avenue from Columbus Drive to Orient Road as part of any upgrade to Broadway Avenue.

Although there is street lighting along the north side of Broadway Avenue the distance between the lights varies, which reduces its effectiveness. Any improvements to Broadway Avenue should include upgraded street lighting along the entire length of the corridor.

6.0 Alternative Analysis

Below is a list of the alternatives considered and are discussed further in the following subsections.

- **Alternative 1:** Install a traffic signal and improve the intersection of Broadway Avenue and 62nd Street. (Note that this alternative was also submitted by FDOT as a SIS quick fix project.)
- **Alternative 2:** Install a traffic signal at Broadway Avenue and 62nd Street, improve the intersection at 62nd Street and Broadway Avenue, improve the turning radii at Columbus Drive and 62nd Street, and widen 62nd Street to two 12-foot lanes from Columbus Drive to the CSXI Terminal.
- **Alternative 3:** Improve Broadway Avenue from US 41/50th Street to Orient Road including a traffic signal at Broadway Avenue and 62nd Street. Change the designated SIS connector from Columbus Drive to Broadway Avenue.
- **Alternative 4:** Relocate the CSXI Terminal access gate from 62nd Street to the south side of the yard near 6th Avenue and make no improvements to Broadway Avenue. Change the designated SIS connector from Columbus Drive to Orient Road and 6th Avenue.

- **Alternative 5:** Relocate the CSXI Terminal gate and improve Broadway Avenue (Combination of Alternatives 3 and 4). Change the designated SIS connector to Orient Road and 6th Avenue.

6.1 Alternative 1

Install a traffic signal and improve the intersection of Broadway Avenue and 62nd Street. Note that this alternative was also identified to FDOT District Seven as a potential SIS quick fix project and has been approved for a PD&E study in FY 2012/13.

This alternative is the simplest improvement. It would satisfy the need expressed by both truck drivers and the CSXI staff regarding intermodal terminal access. This alternative assumes the SIS connector remains on Columbus Drive and 62nd Street and provides relief to trucks attempting to cross Broadway Avenue or turn left from northbound 62nd Street to westbound Broadway Avenue. This intersection was brought to the attention of the FDOT SIS Administrator and recommended as a SIS quick fix project. FDOT District Seven submitted this project to the Central Office and a PD&E for the intersection was approved for FY 2012/13. Implementation by FDOT would satisfy this alternative without cost to Hillsborough County or the City of Tampa.

6.1.1 Proposed Improvements

The intersection modification would include:

- A traffic signal at 62nd Street and Broadway Avenue,
- A westbound left-turn lane, and
- Corner roadway surface improvements and tie-ins.

Alternative 1 addresses the following circulation issues in the immediate area of Broadway Avenue and Columbus Drive at 62nd Street.

- Trucks accessing the CSXI Container yard from Columbus Drive must cross Broadway Avenue at 62nd Street. Delay often occurs at this intersection due to the traffic on Broadway Avenue.
- Eastbound trucks on Columbus Drive have a difficult time merging with Broadway Avenue due to the extreme acute angle. As a result, they generally use southbound 62nd Street and turn left at Broadway Avenue. 62nd Street is narrow and does not have a left-turn lane resulting in delay to container trucks attempting to cross Broadway Avenue to access the intermodal yard.
- 62nd Street south of Broadway Avenue is also narrow and there is no northbound left-turn lane for trucks turning westbound on Broadway Avenue resulting in occasional queues at this intersection.
- There are no left-turn lanes on Broadway Avenue at 62nd Street resulting in delay to all traffic while trucks attempt to turn to southbound 62nd Street.

6.1.2 Advantages of Alternative 1

Alternative 1 would improve the traffic circulation by improving the intersection to include a traffic signal and add a left-turn lane at the westbound approach. The advantages of this alternative are:

- The alternative can be accomplished without additional ROW, which is 65 feet on Broadway Avenue, and 56 Feet on 62nd Street south of Broadway Avenue and 45 feet north of Broadway Avenue.
- Traffic flow on Broadway Avenue would improve because the westbound lane would not be disrupted by turning trucks.
- The traffic signal would permit trucks to safely cross Broadway Avenue in both directions.
- This alternative would have the lowest overall cost.
- This alternative could be funded by FDOT via SIS funding sources.
- FDOT would be funding a PD&E to study this intersection and the current SIS connector and further improvements may be identified.

6.1.3 Disadvantages of Alternative 1

The disadvantages of this alternative include:

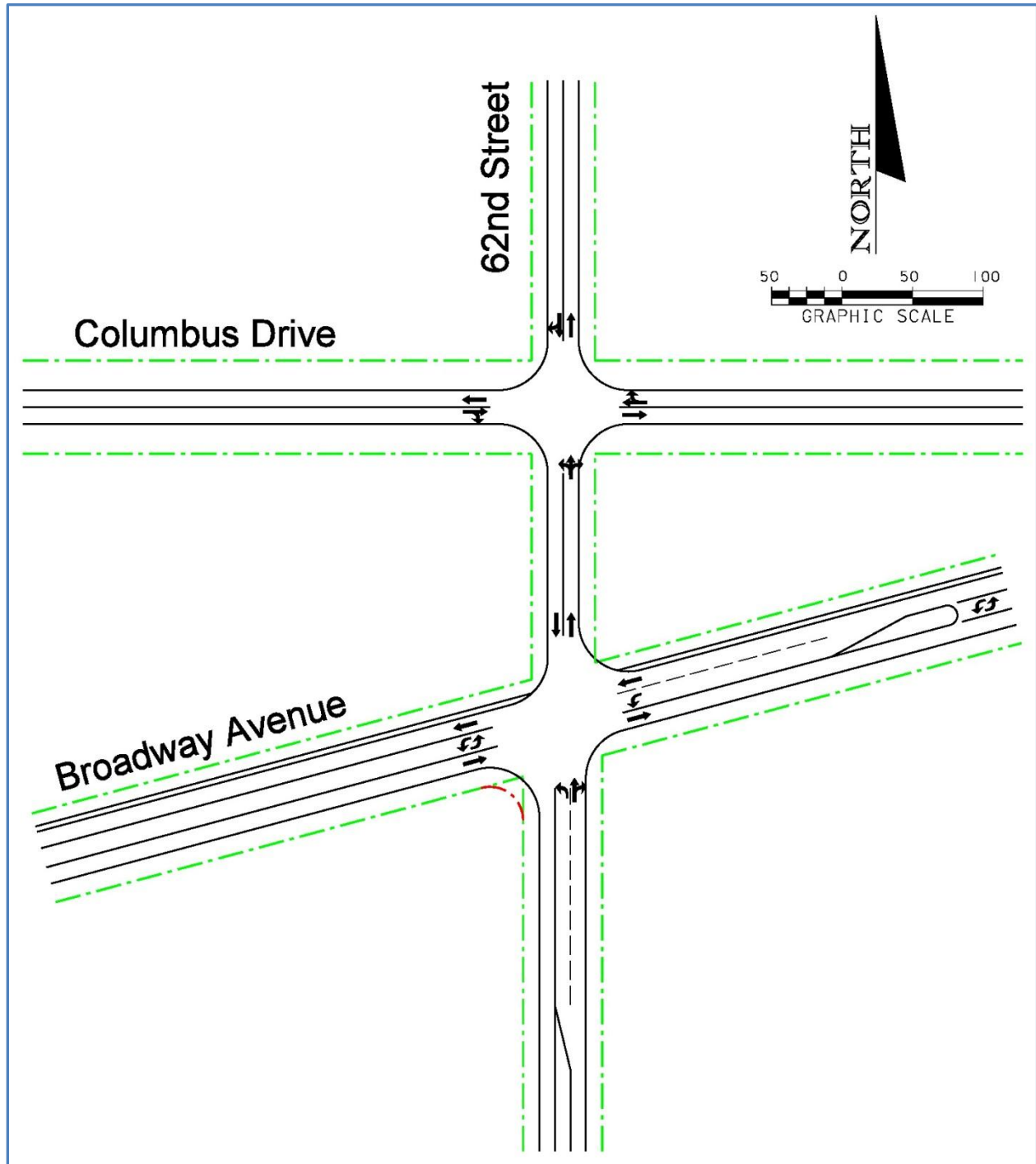
- It does not include a northbound to westbound left-turn lane on 62nd Street.
- It does not include improvements to 62nd Street from Columbus Drive to the CSXI Terminal. 62nd Street is a narrow road (20 feet paved with undivided lanes) designed for residential uses and with deep open drainage ditches on both sides.
- It may encourage additional use of eastbound Columbus Drive by trucks and 62nd Street between Columbus Drive. Broadway Avenue is not sufficiently long enough to handle the potential queue, which may result in backups on eastbound Columbus Drive.
- Leaves the existing designated SIS connector on Columbus Drive.

6.2 Alternative 2

Install traffic signal at Broadway Avenue and 62nd Street, improve the intersection at 62nd Street and Broadway Avenue, improve the turning radii at Columbus Drive and 62nd Street, and widen 62nd Street to two 12-foot lanes from Columbus Drive to the CSXI Terminal (see **Figure 7**).

While Alternative 1 satisfies the need for a traffic signal at 62nd Street and Broadway Avenue, it does not include improvements for trucks turning from and to the designated SIS connection of Columbus Drive to 62nd Street and improvements to the short segment of 62nd Street between Columbus Drive and Broadway Avenue. Alternative 2 addresses these issues by improving the intersections at Columbus Drive and 62nd Street and the short segment of 62nd Street between Columbus Drive and Broadway Avenue.

FIGURE 7
ALTERNATIVE 2



6.2.1 Proposed Improvement

Alternative 2 provides for additional intersection improvements at Broadway Avenue and 62nd Street and along 62nd Street as follows:

- Include a westbound to southbound left-turn lane on Broadway Avenue.
- Include a northbound to westbound left-turn lane on 62nd Street.
- Improve the right-turn radius at the southwest corner of Columbus Drive and 62nd Street. This may require acquisition of small amounts of ROW.
- Widen pavement surface of 62nd Street between Columbus Drive and Broadway Avenue to two 12-foot lanes.
- Widen 62nd Street from Broadway Avenue to the CSXI yard to two 12-foot lanes.

6.2.2 Advantages of Alternative 2

Alternative 2 includes all of the advantages stated for Alternative 1 above plus:

- It includes a northbound to westbound left-turn lane beginning north of 14th Avenue to accommodate left-turning trucks, which is the majority northbound movement at 62nd Street.
- It widens and improves the surface of 62nd Street to better accommodate trucks.

6.2.3 Disadvantages of Alternative 2

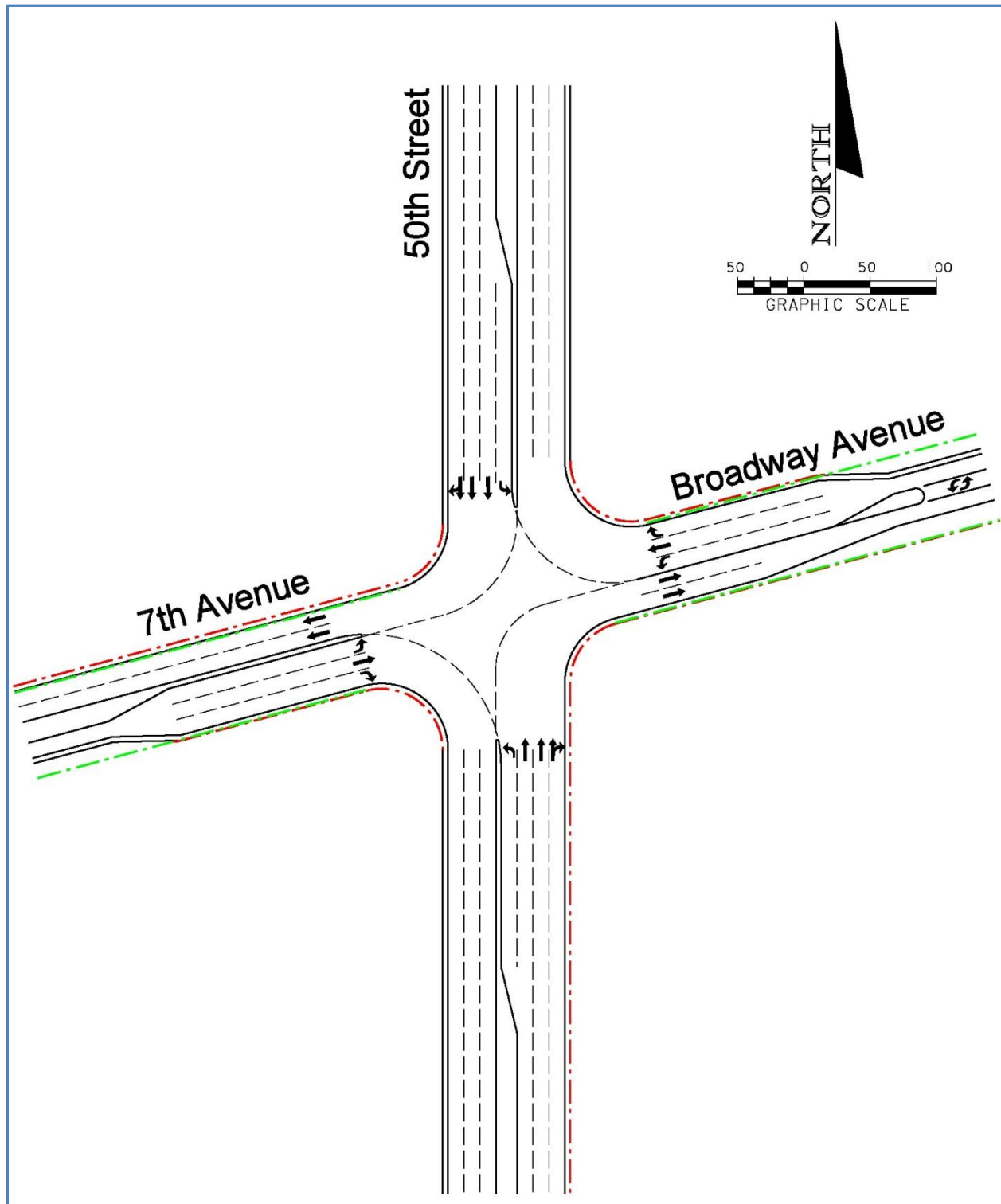
- It may encourage additional use of eastbound Columbus Drive and 62nd Street by trucks and 62nd Street between Columbus Drive and Broadway Avenue is not sufficiently long enough to handle the potential queue, which may result in backups on eastbound Columbus Drive.
- It leaves the existing designated SIS connector on Columbus Drive.
- It may require a minor amount of new ROW to accommodate the left-turn lane.
- The overall cost would be higher than Alternative 1 due to the minor widening of 62nd Street and adding the northbound to westbound left-turn lane.

6.3 Alternative 3

Improve Broadway Avenue from US 41/50th Street to Orient Road including a traffic signal at Broadway Avenue and 62nd Street (see **Figure 8**).

As stated in Section 5.3, Broadway Avenue is congested with heavy truck traffic and with numerous other vehicles making left turns to access side streets and local businesses. These turning movements result in delay because they disrupt the travel lanes while the vehicles are awaiting clearance to complete the turn.

FIGURE 8
ALTERNATIVE 3



6.3.1 Proposed Improvements

To combat the congestion, reduce delay, minimize potential collisions, and improve access to and from US 41/50th Street, Alternative 3 proposes modifying the typical section of Broadway Avenue by adding a continuous two-way left turn-lane (TWLT), as well as a circulation modification at US 41/50th Street. Specifically, improvements include:

- Changing the typical section to include two 12-foot lanes (one in each direction) and a 14-foot TWLT lane between US 41/50th Street and Orient Road (the minimum existing ROW is 65 feet and sufficient for this improvement).
- Improving the corner tie-ins at all intersections located on the south side of Broadway Avenue to accommodate large truck turns.
- Reconfiguring the east side of the Broadway Avenue and 50th Street intersection by:
 - Improving the turning radius at the southeast corner and install an eastbound auxiliary merge lane.
 - Shifting the westbound through/right-turn lanes and the westbound to southbound left-turn lane and north side sidewalk 10 feet to the north to allow for the additional eastbound lane. This would require a small amount of ROW from the north side property owner, but should not affect the business.
- As an alternative to the above, consider directing westbound trucks that would turn right at 50th Street along 10th Avenue instead and prohibit right turns at westbound Broadway Avenue and 50th Street. This would eliminate the need for the additional ROW on Broadway Avenue.
- Adding a traffic signal at 62nd Street and Broadway Avenue.
- Re-designating 50th Street/Broadway Avenue/62nd Street corridor as the emerging SIS connector route. This may require a recommendation from the Hillsborough County MPO, Hillsborough County, and the City of Tampa to the FDOT requesting this change.
- Relocating the CTL/CCC trucking yard access gate from Columbus Drive to Broadway Avenue. This would eliminate the need for large trucks to use Columbus Drive and the improvements to Broadway Avenue would improve access to the yard.
- Prohibiting through trucks on Columbus Drive. By accomplishing the above changes, there would be no need for trucks to use Columbus Drive between US 41/50th Street and Broadway Avenue. The City of Tampa would designate Broadway Avenue as the local truck route and prohibit through trucks from using Columbus Drive in their truck route ordinance.

6.3.2 Advantages of Alternative 3

- It creates a continuous TWLT lane the length of the corridor that permits trucks and other vehicles making left turns to side streets and commercial businesses to do so outside of the through lanes. This allows the through traffic to proceed unimpeded, reduces congestion, and eliminates delay of through traffic.
- It eliminates the northbound to eastbound right turn issue at 50th Street and Broadway Avenue by creating an eastbound merge lane on Broadway Avenue.
- It redistributes the eastbound and westbound through truck traffic and a majority of local truck traffic from Columbus Drive east of 50th Street by shifting the FDOT-designated SIS connector to the CSXI yard to the reconfigured Broadway Avenue and relocating the entrance to the CTL/CCC truck terminal to Broadway Avenue.
- It concentrates all truck traffic within the area onto a single, but improved truck friendly corridor.

6.3.3 Disadvantages of Alternative 3

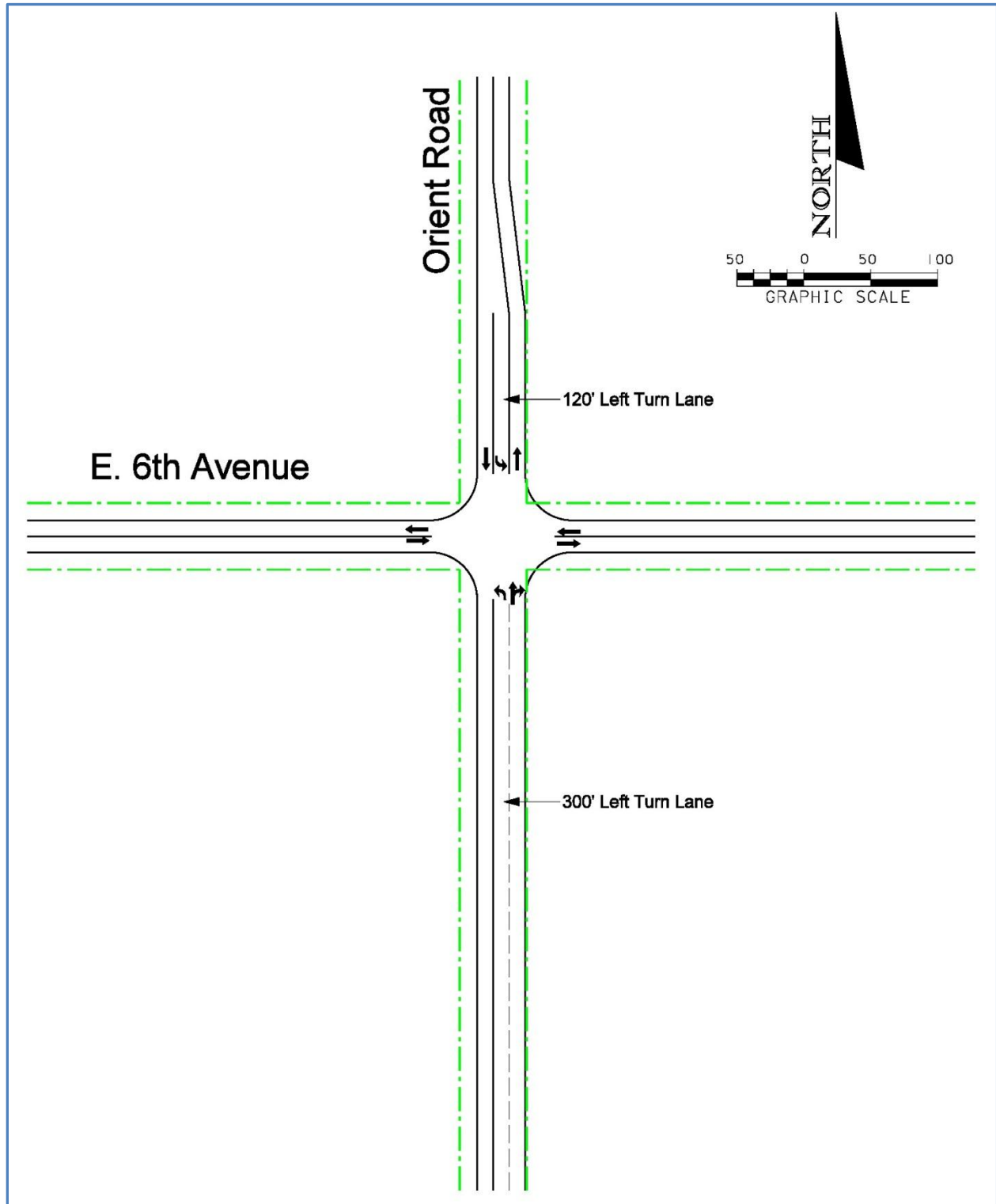
- It requires FDOT to shift the designated CSX Intermodal connector from Columbus Drive to Broadway Avenue.
- More trucks would be on Broadway Avenue, especially westbound.
- The cost would be substantially higher than Alternatives 1 and 2 due to:
 - The intersection improvements at 50th Street and Broadway Avenue in addition 62nd Street and Broadway,
 - The widening of approximately 1.5 miles of Broadway Avenue in order to improve to three lanes, and
 - The improved intersection tie-ins along the corridor to better accommodate trucks.

6.4 Alternative 4

Relocate the CSXI Terminal access gate from 62nd Street to the south side of the yard near 6th Avenue and make no improvements to Broadway Avenue (see **Figure 9**).

Based on the issues discussed with CSXI regarding the mainline crossing located between the terminal gate and the terminal yard, there is a potential to relocate the terminal gate facility (not the office building) to the south side of the Uceta rail yard. This would shift the access from 62nd Street to 6th Avenue and require the relocation of the designated SIS connector to facilitate connectivity to the terminal and yard. This alternative shifts approximately 200 to 500 truck trips from Broadway Avenue and 62nd Street to Orient Road.

FIGURE 9
ALTERNATIVE 4



6.4.1 Proposed Improvements

Alternative 4 includes the following proposed changes and improvements:

- Construct a new entry gate facility for container check-in/-out. There are two potential locations. The first is immediately along the south side of the lead track to the intermodal yard, and the second is within the intermodal yard at the east side between the two intermodal sidings.
- Construct/improve the road on CSXI property from 6th Avenue to the existing track crossing on the east end of the yard.
- Improve the road crossing over rail yard track.
- Change the emerging SIS connector to the SR 60/Orient Road/6th Avenue corridor to the CSXI yard.
- Add a northbound left-turn lane (300 feet to hold up to four trucks) and signal at Orient Road and 6th Avenue. Also, add southbound left-turn lane (120 feet to accommodate buses and other vehicles) for Orient Road Jail parking access.
- Mill and resurface 6th Avenue to accommodate heavy trucks with 12-foot lanes.
- Improve the turning radius at the end of 6th Avenue and the rail yard to better accommodate large truck turning movements. (This may require some new ROW at the corner clip.)

6.4.2 Advantages of Alternative 4

The advantages of Alternative 4 include:

- Diverting 200 to 500 containers per day from the existing SIS connector (Columbus Drive) and Broadway Avenue to Orient Road and 6th Avenue.
- Eliminating the safety issue at the rail crossing between the intermodal gate and the intermodal yard.
- A less congested alternative route between the intermodal yard and the Port of Tampa.

6.4.3 Disadvantages of Alternative 4

The disadvantages of Alternative 4 include:

- Designating a longer route for the SIS Connector from the interstate system to the rail yard.
- The addition of 200 to 500 trucks per day on Orient Road.

- Eliminating the connector between the intermodal yard and I-4 for westbound containers. (This could be mitigated by also designating Orient Road north to west on Dr. Martin Luther King, Jr. Boulevard to I-4 with no additional improvements other than those stated.)
- Does not reduce truck traffic on Broadway Avenue and Columbus Drive that is not associated with the CSXI Terminal yard including:
 - Eastbound and westbound through trucks accessing facilities east of Orient Road,
 - Trailers destined for distribution facilities located south of Broadway Avenue,
 - Heavy scrap metal haulers destined for scrapping facilities located south of Broadway Avenue between 50th and 62nd Streets,
 - Eastbound trucks on Columbus Drive that use 62nd Street to access eastbound Broadway Avenue, and
 - Trucks accessing the CTL/CCC yard on Columbus Drive.
- Does not address the issue of delay caused by left-turning vehicles on Broadway Avenue.
- Requires participation by CSXI to relocate their gate structure.
- Requires construction of a new access road from E 6th Avenue to the crossing at the east end of the intermodal yard and improvements to the crossing to accommodate container trucks.
- There is uncertainty of the status of the CSXI Terminal operations is due to the construction of the Intermodal Logistics Center in Polk County and the loading facility at the Port of Tampa.

6.5 Alternative 5

Relocate the CSXI Terminal gate and improve Broadway Avenue (Combination of Alternatives 3 and 4).

Alternative 5 combines Alternatives 3 and 4 and is the most comprehensive improvement within the sub-area. It improves the circulation along Broadway Avenue by adding the TWLT lane to provide access while at the same time allowing through trucks to proceed unimpeded. It improves the street tie-ins along the south side of Broadway Avenue to accommodate large truck turns and improves the right turn from US 41/50th Street to eastbound Broadway Avenue. It shifts 200 to 500 truck trips off Broadway Avenue and off 62nd Street and relocates the intermodal terminal gate to a safer location. Because it may take several years to plan, design, and complete the intermodal terminal gate move, this alternative could be completed in two or three phases beginning with the intersection improvements at Broadway Avenue and 62nd Street, followed by the typical change to Broadway Avenue and finally the terminal move and associated improvements to Orient Road and 6th Avenue.

6.5.1 Proposed Improvements

The following improvements are included in this alternative:

- Construct a new entry gate facility for container check-in/-out. There are two potential locations. The first is immediately along the south side of the lead track to the intermodal yard, and the second is within the intermodal yard at the east side between the two intermodal sidings.
- Construct/improve the road on CSXI property from 6th Avenue to the existing track crossing on the east end of the yard.
- Improve the road crossing over rail yard track.
- Change the emerging SIS connector to Orient Road from I-75 to SR 60 and 6th Avenue to the CSXI Terminal yard.
- Add a northbound left-turn lane (300 feet to hold up to four trucks) and signal at Orient Road and 6th Avenue. Also, add southbound left-turn lane (120 feet to accommodate buses and other vehicles) for Orient Road Jail parking access.
- Mill and resurface 6th Avenue to accommodate heavy trucks with a minimum of 12-foot lanes.
- Improve the turning radius at the end of 6th Avenue and the rail yard to better accommodate large truck turning movements. This may require some new ROW at the corner clip.
- Include two 12-foot lanes and a 14-foot TWLT lane on Broadway Avenue to facilitate truck operations. Existing ROW is 65 feet and sufficient for this improvement.
- Reconfigure the east side of the Broadway Avenue and 50th Street intersection by improving the turning radius at the southeast corner and install an eastbound auxiliary merge lane. Shift the westbound through lanes and the westbound to southbound left-turn lane and north side sidewalk 10 feet to the north to allow for the additional eastbound lane. This would require a small amount of ROW from the north side property owner but should not affect the business.
- As an alternative to the above, consider directing westbound truck that would turn right at 50th Street along 10th Avenue and prohibiting right turns at westbound Broadway and 50th Street. This would eliminate the need for the additional ROW on Broadway Avenue.
- Relocate the CTL/CCC access gate from Columbus Drive to Broadway Avenue.
- Prohibit through trucks from Columbus Drive between US 41/50th Street and Broadway Avenue.

6.5.2 Advantages of Alternative 5

The advantages of Alternative 5 include:

- The diversion of 200 to 500 container trucks per day from the intersection of 62nd Street to Orient Road while, at the same time, improving the overall truck flow by developing truck-friendly design along Broadway Avenue and the local industrial side streets.
 - Left turns from Broadway Avenue would not conflict with the through traffic lanes.
 - Signal protected left turns for trucks turning left to and from 62nd Street. Turns from 50th Street to Broadway Avenue would be easier due to the addition of an eastbound merge lane.
 - The improved turning radii for the connecting streets between Broadway Avenue and the industrial uses south of Broadway Avenue would make it easier for trucks to maneuver in this area.
 - Relocating the access to CCC/CTL would allow Columbus Drive to become a non-truck route.
- Elimination of the safety condition for trucks at the CSXI mainline crossing.
- The addition of a signal protected northbound left-turn lane and southbound left-turn lane at E 6th Avenue and the entrance to the Hillsborough County Correctional Facility.
- The potential to phase the implementation in stages beginning with the installation of the signal at 62nd Street and Broadway Avenue followed by the improvements to Broadway Avenue and the relocation of the CSXI Terminal gate facility and improvements to Orient Road and E 6th Avenue.

6.5.3 Disadvantages of Alternative 5

The disadvantages of Alternative 5 include:

- The addition of 200 to 500 trucks onto Orient Road.
- The need to construct a new roadway from 6th Avenue to an improved crossing within the CSX rail yard.
- The relocation and construction of a new gate facility within the CSXI Terminal that would require participation by CSX.
- The uncertainty of the status of the CSXI Terminal operations is due to the construction of the Intermodal Logistics Center in Polk County and a loading facility at the Port of Tampa.
- The overall cost.

7.0 Recommendations

Based on the advantages and disadvantages of the alternatives discussed above the following improvements are recommended:

- Collaborate with FDOT in developing the scope of services for the PD&E study on improvements to the SIS connector at 62nd Street and Broadway Avenue to include:
 - Changing the designation to Broadway Avenue as the new connector and
 - Improving Broadway Avenue from 50th Street to 62nd Street.
- Implement Alternative 3 phased with the FDOT improvements to the Broadway and 62nd Street intersection:
 - Add a TWLT lane from east of 50th Street to Orient Road,
 - Add an eastbound merge lane from northbound 50th Street to improve the turning conditions for trucks at this access point,
 - Widen the pavement on 62nd Street south of Broadway Avenue to two 12-foot lanes, and
 - Add a northbound left-turn lane at Broadway Avenue and 62nd Street (this may be included as part of the FDOT improvements).

While this recommendation does not result in the diversion of 200 to 500 trucks per day out of the Broadway Avenue corridor, it is the more cost effective and prudent alternative at this time. This is primarily a result of the uncertainty of the status of the CSXI Terminal facility due to the construction of the Intermodal Logistics Center in Polk County and the long-term potential to shift operations from Tampa to this facility. Additionally, the construction of the dockside rail terminal at the Port of Tampa that permits the transfer of containers to 65 car double-stacked intermodal unit trains would have a significant impact on the draying of containers between the port and the CSXI Terminal yard. Finally, if operations remain in Tampa, the number of containers shipped via this terminal could be significantly reduced due to the previous two reasons.

The recommended alternative also eliminates the cost of improving a second corridor to accommodate the containers diverted from Broadway Avenue, Columbus Drive, and 62nd Street. The single most important improvement is the addition of the signal and the intersection improvements at Broadway Avenue and 62nd Street. Designating Broadway Avenue as the SIS connector and relocating the CCC/CTL access point from Columbus Drive to Broadway Avenue would reduce the truck traffic on Columbus Drive to local delivery trips.

Improving the intersection of Broadway Avenue and 50th Street and Broadway Avenue to three lanes with a continuous TWLT lane, as well as improving the side street connections, would enhance trucking operations and reduce delay within the area. It would also allow the implementation of the truck-friendly design guidelines developed as part of the *Tampa Bay Regional Strategic Freight Plan*, Chapter 9.

The outcome of the approved PD&E study would likely determine if the connector will be changed, so it is important that the MPO, Hillsborough County, and the City of Tampa make their desires known during the PD&E process.

