

CITY OF GREENACRES COMPREHENSIVE PLAN

TRANSPORTATION ELEMENT

September 2008
Amendments resulting from the 2006 EAR

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I. INTRODUCTION

The transportation system now in place within the City of Greenacres - bus, street, highway, and pedestrian routes has evolved in concert with the growth of the City and the transportation technologies of the time. Transportation systems are one of several public investments responsible for the nature and character of development within the City. The other public facilities and infrastructure provide definition to the City's development pattern, but none are as influential as the transportation system.

Growth of the area was originally stimulated by the construction of Military Trail and Lake Worth Road. The enlargement of the City beyond the immediate area of the original Town of Greenacres was primarily facilitated by the growth of the auto as a means of transportation and the construction of highways and major streets to serve it. Finally, the major growth period of the City was advanced in part by the construction and improvements to Military Trail, Lake Worth Road, Jog Road, Forest Hill Boulevard, and other access routes such as the Florida Turnpike.

The City, located primarily between the residential developments in Western Palm Beach County and employment areas to the east in West Palm Beach, has experienced considerable growth in vehicular traffic on east/west arterial networks due in large part to development outside of Greenacres. This trend of heavy vehicular growth of all east/west arterial networks is particularly due to the developments to the East and West of Greenacres.

All transportation improvements will continue to affect the nature and pattern of development in the City of Greenacres. This element outlines the traffic circulation in relationship to existing and future networks and states the various city goals, objectives, and policies. In addition, it shall be noted that mass transit (bus transit) is operated and planned on a regional basis in Palm Beach County (see Inventory and Analysis Existing Traffic Circulation Data - Other Transportation Facilities).

A. PURPOSE OF ELEMENT

The purpose of the Transportation Element is to plan for the future motorized and non-motorized traffic circulation systems with the improvement to those existing system networks throughout the City of Greenacres. Special emphasis is placed on public transportation systems.

The primary responsibility for providing adequate transportation is shared by state, county, and municipal governments. The inventory of the existing network will serve as a database from which goals, objectives and policies are outlined for the existing transportation network. A projection of future traffic conditions is included along with recommended improvements to mitigate the adverse impacts on the roadway network.

II. DEFINITIONS OF RELEVANT TERMS

The following definitions, which are in concert with Rule 9J-5, describe the transportation terms referenced throughout this element.

A. URBAN PRINCIPAL ARTERIAL ROAD - is defined as routes which are relatively continuous and of relatively high traffic volume, long trip length, and high operating speed.

B. URBAN MINOR ARTERIAL ROAD - is defined as routes which generally interconnect with and augment urban principal arterial routes and provide services to trips of shorter length and a lower level of travel mobility. Such routes include all arterials not classified as "principal" and contain facilities that place more emphasis on land access than the higher system.

C. COUNTY AND CITY COLLECTOR STREET - is defined as routes which provide both land access and traffic circulation between local roads and low arterial roads. A collector provides service that is relatively moderate in volume, of moderate trip length, and moderate speed.

D. LOCAL STREET - is defined as routes which primarily permit direct access to abutting property and connections to a higher order roadway. A local street provides service that is relatively low in volume and short average trip length or minimal through traffic movement.

E. BICYCLE AND PEDESTRIAN WAYS - is defined as any road, path or way which is open to bicycle travel and foot traffic and from which motor vehicles are excluded.

F. LEVEL OF SERVICE - is defined in the Capital Improvements Element, Definitions of Relevant Terms Section.

G. MASS TRANSIT - is defined as passenger services provided by public, private or non-profit entities such as the following surface transit modes: commuter rail, rail rapid transit, light rail transit, light guideway transit, express bus, and local fixed route bus.

H. ROADWAY FUNCTIONAL CLASSIFICATION - is defined as the assignment of roads into categories according to the character of service they provide in relation to the total road network. Basic functional categories include limited access facilities, arterial roads, and collector roads, which may be subcategorized into principal or minor levels. Those levels may be further grouped into urban, county or city categories.

III. INVENTORY - EXISTING TRAFFIC CIRCULATION DATA

The City has conducted an inventory of the existing roadway networks to determine the functional classification of each roadway, number of through-lanes, service level capacities and daily traffic service level volumes. All inventories are provided below.

A. INVENTORY

1. Functional Classification

The functional classification for roadways within the City of Greenacres are shown in Table 1 and illustrated on Map 1.

Those roadways identified as City Collectors are being maintained by the City and those identified as County Collectors are maintained by the County. Lake Worth Road, Military Trail and Forest Hill Boulevard are State roadways, classified as arterials and are being maintained by the Florida Department of Transportation. Jog Road, 10th Avenue North, Haverhill Road and Melaleuca Lane are arterials being maintained by the County.

This classification is based upon the Federal Functional Classification System.

As shown in Table 1, the City's road and street network is made up of the following components:

URBAN PRINCIPAL ARTERIAL - these roads include Lake Worth Road, Military Trail, Forest Hill Boulevard and Jog Road. They retain a type of sub-regional road, acting as the major link between adjacent communities. As such, they carry a very heavy volume of traffic and abut continuing land use activities which draw from several communities.

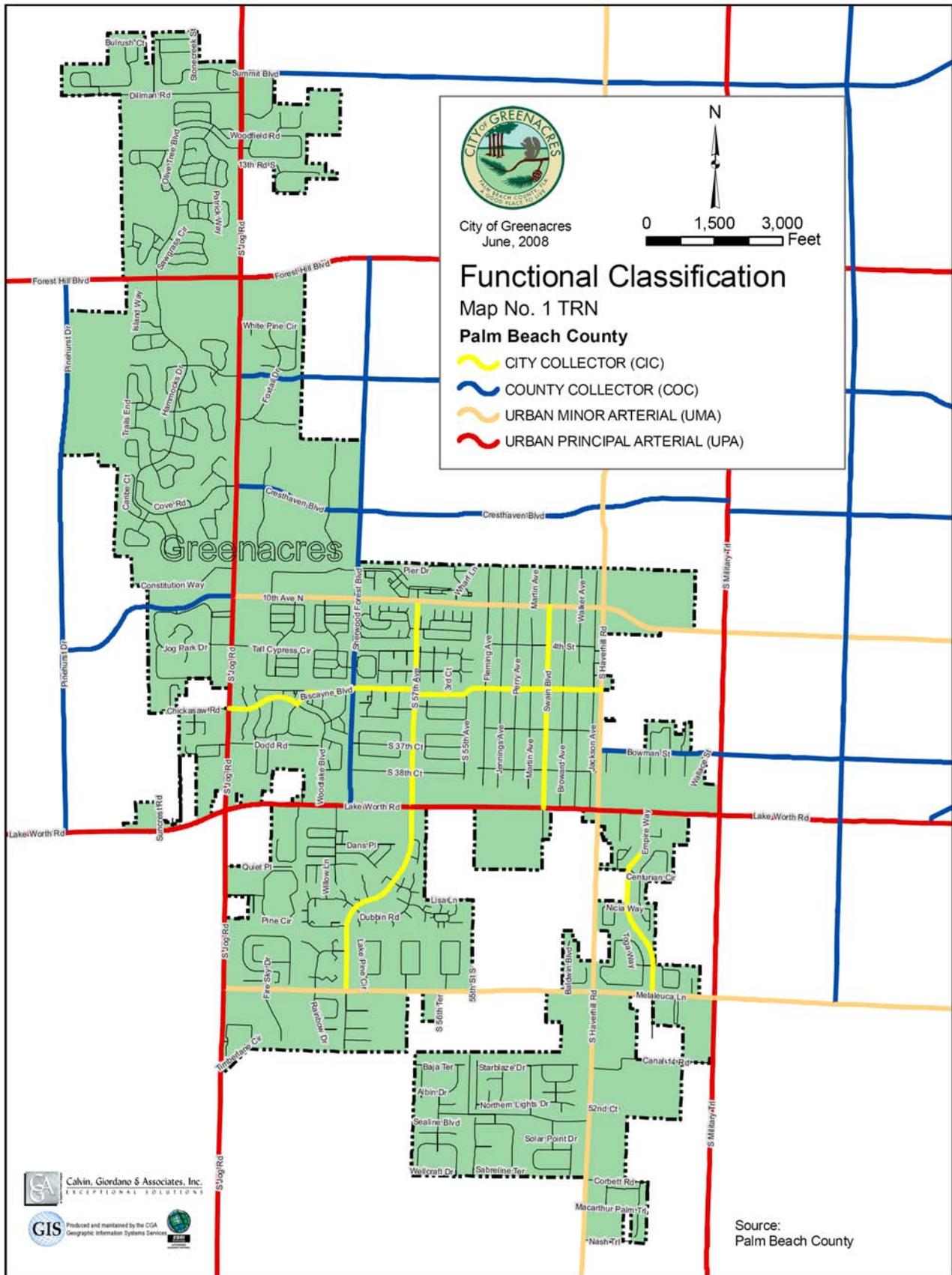
URBAN MINOR ARTERIAL - these roads include Tenth Avenue North, Melaleuca Lane and Haverhill Road. They act as the major access streets through the community and serve to link the major destinations of the community such as its shopping centers and other places of employment.

COUNTY AND CITY COLLECTOR - these streets are as follows: Summit Boulevard, Sherwood Forest Boulevard, Cresthaven Boulevard, Purdy Lane, Pinehurst Drive South 57th Avenue, Swain Boulevard, Empire Way, and Biscayne Drive. These streets enter the residential neighborhoods of the City, collect the traffic from local streets and channel it into the arterial system. The system primarily provides a land access service and carries local traffic movements within residential neighborhoods and commercial areas.

**TABLE 1
FUNCTIONAL CLASSIFICATION - EXISTING NETWORK**

Roadway	From	To
Urban Principle Arterials		
Lake Worth Road	Military Trail	West City Limits
Military Trail	South City Limits	North City Limits
Jog Road	Summit Boulevard	LWDD L-14 Canal
Forest_Hill Boulevard	Military Trail	Pinehurst Drive
Urban Minor Arterial		
Tenth Avenue North	Jog Road	East City Limits
Melaleuca Lane	Jog Road	Military Trail
Haverhill Road	LWDD L-10 Canal	Nash Trail
County Collectors		
Tenth Avenue North	Pinehurst Drive	Jog Road
Summit Boulevard	East City Limits	Jog Road
Sherwood Forest Boulevard	Forest Hill Boulevard	Lake Worth Road
Cresthaven Boulevard	Sherwood Forest Boulevard	Jog Road
Purdy Lane	East City Limits	Jog Road
Pinehurst Drive	North City Limits	South City Limits
City Collectors		
South 57th Avenue	Tenth Avenue North	Melaleuca Lane
Swain Boulevard	Tenth Avenue North	Lake Worth Road
Empire Way	Lake Worth Road	Melaleuca Lane
Biscayne Drive	Haverhill Road	Jog Road (via Woodlake Boulevard)

Source: Palm Beach County Federal Function Classification



2. Lane Geometry

The existing roadway network classified by the number of lanes for each road is provided on Map 2. The number of lanes and their relationship to the existing functional classification road networks of the City is detailed as follows:

Lake Worth Road: Six (6) lane divided from the western City boundary to Military Trail.

Military Trail: Six (6) lane divided from the south City boundary to the north City boundary.

Jog Road: Six (6) lane divided from the Lake Worth Drainage District L-14 Canal to Summit Boulevard.

Forest Hill Boulevard Six (6) lane divided from the western City boundary to the eastern City boundary.

Tenth Avenue North: Two (2) lane from the western City boundary to Jog Road; four (4) lane divided (partial length) from Jog Road to the eastern City boundary.

Sherwood Forest Boulevard: Two (2) lane from the north City boundary to Lake Worth Road.

Melaleuca Lane: Four (4) lane from the Jog Road intersection to the east City boundary.

Cresthaven Boulevard: Two (2) lane from Jog Road to Sherwood Forest Boulevard.

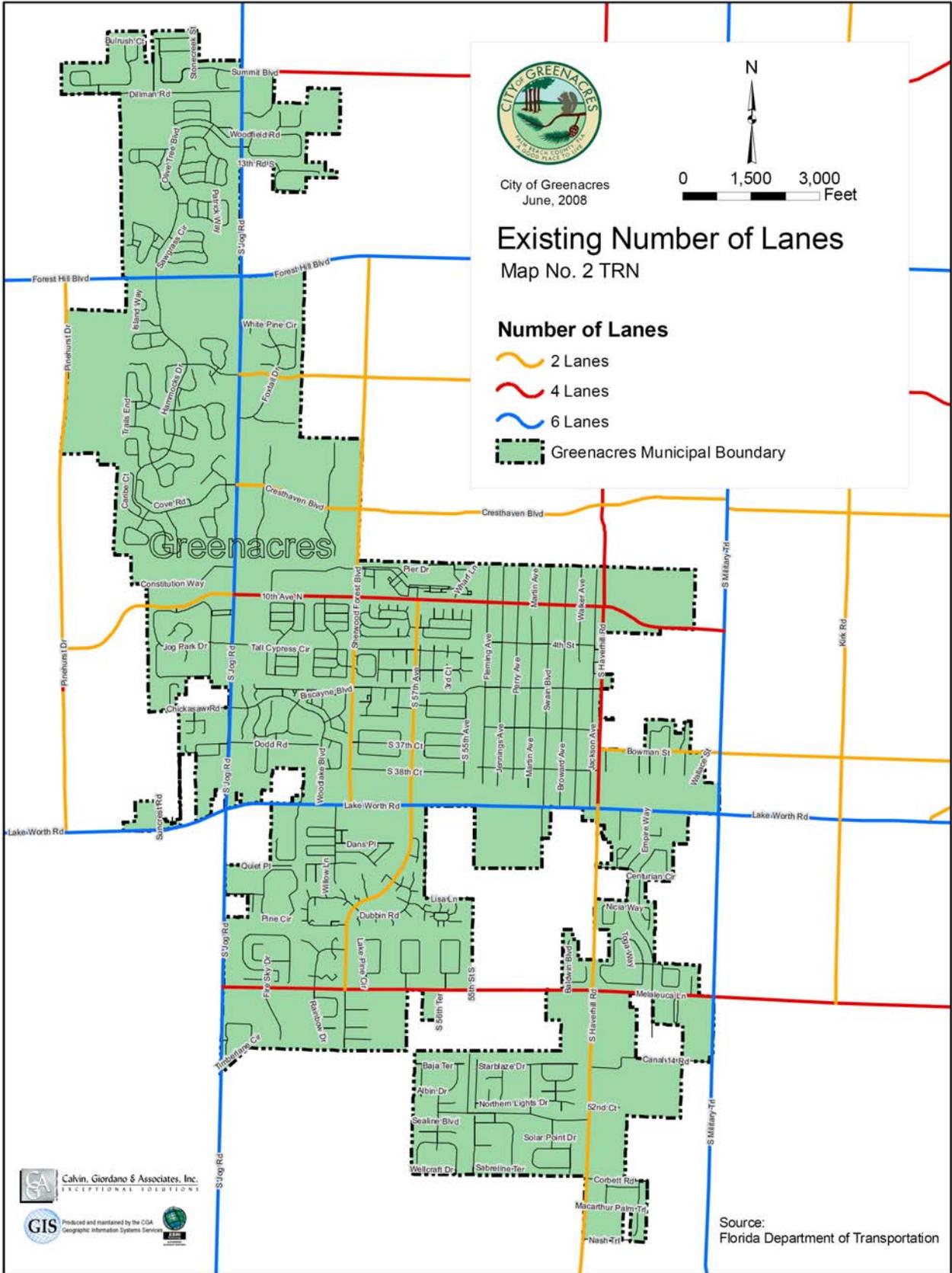
Purdy Lane: Two (2) lane from Jog Road to the east City limits.

South 57th Avenue: Two (2) lane from Tenth Avenue North to Melaleuca Lane.

Swain Boulevard: Two (2) lane from the L-10 Canal to Lake Worth Road.

Empire Way: Two (2) lane from Lake Worth Road to Melaleuca Lane.

Biscayne Drive: Two (2) lane from Woodlake Boulevard to Haverhill Road.



3. Sidewalks

As part of the City's Subdivision Regulations, developers are required to provide sidewalks on both sides of the roadways within a residential subdivision. Therefore, the majority of residential development contains sidewalks. All the roadways identified as collectors and arterials have sidewalks/bicycle paths on at least one side and, in most every case, on both sides.

4. Service Level Capacities

Table 2 indicates the adopted level of service characteristics and generalized service volumes for various roadway facility types as provided by the Florida Department of Transportation. The service volumes shown in Table 2 were compared to the traffic volumes obtained in the inventory of existing conditions. The following describe the various levels of service as defined by the 1994 update to the Highway Capacity Manual, Transportation Research Board.

LEVEL OF SERVICE A - describes primarily free flow-operations at average travel speeds usually about 90 percent of the free flow speed for the arterial class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.

LEVEL OF SERVICE B - represents reasonably unimpeded operations at average travel speeds usually about 70 percent of the free flow speed for the arterial class. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension.

LEVEL OF SERVICE C - represents stable operations. However, ability to maneuver and change lanes in midblock locations may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50 percent of the average free flow speed for the arterial class. Motorists will experience an appreciable tension while driving.

LEVEL OF SERVICE D - borders on a range on which small increases in flow may cause substantial increases in approach delay and, hence, decreases in arterial speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free flow speed.

LEVEL OF SERVICE E - is characterized by significant approach delays and average travel speeds of one-third the free flow speed or lower. Such operations are caused by some combination or adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.

LEVEL OF SERVICE F - characterizes arterial flow at extremely low speeds below one-third to one-quarter of the free flow speed. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse progression is frequently a contributor to this condition.

TABLE 2 LEVELS OF SERVICE - SERVICE VOLUMES PEAK HOUR DIRECTIONAL					
Level of Service	Characteristics	2 Lane Arterial	4 Lane Divided Arterial	6 Lane Divided Arterial	6 Lane Expressway
A	Free Flow	N/a	n/a	n/a	1660
B	Stable Flow	N/a	n/a	n/a	2640
C	Slight Delay	460	1020	1550	3970
	Stable Flow Acceptable Delay				
D	Approaching Unstable Flow Tolerable Delay	760	1640	2510	5030
E	Unstable Flow Congestion	840	1800	2710	6340
F	Jammed Condition	N/a	n/a	n/a	n/a

Source: Florida's Level of Service Standards and Guideline Manual for Planning
Florida Department of Transportation, 1995

5. Peak Hour Directional Traffic Circulation Service Level Volumes

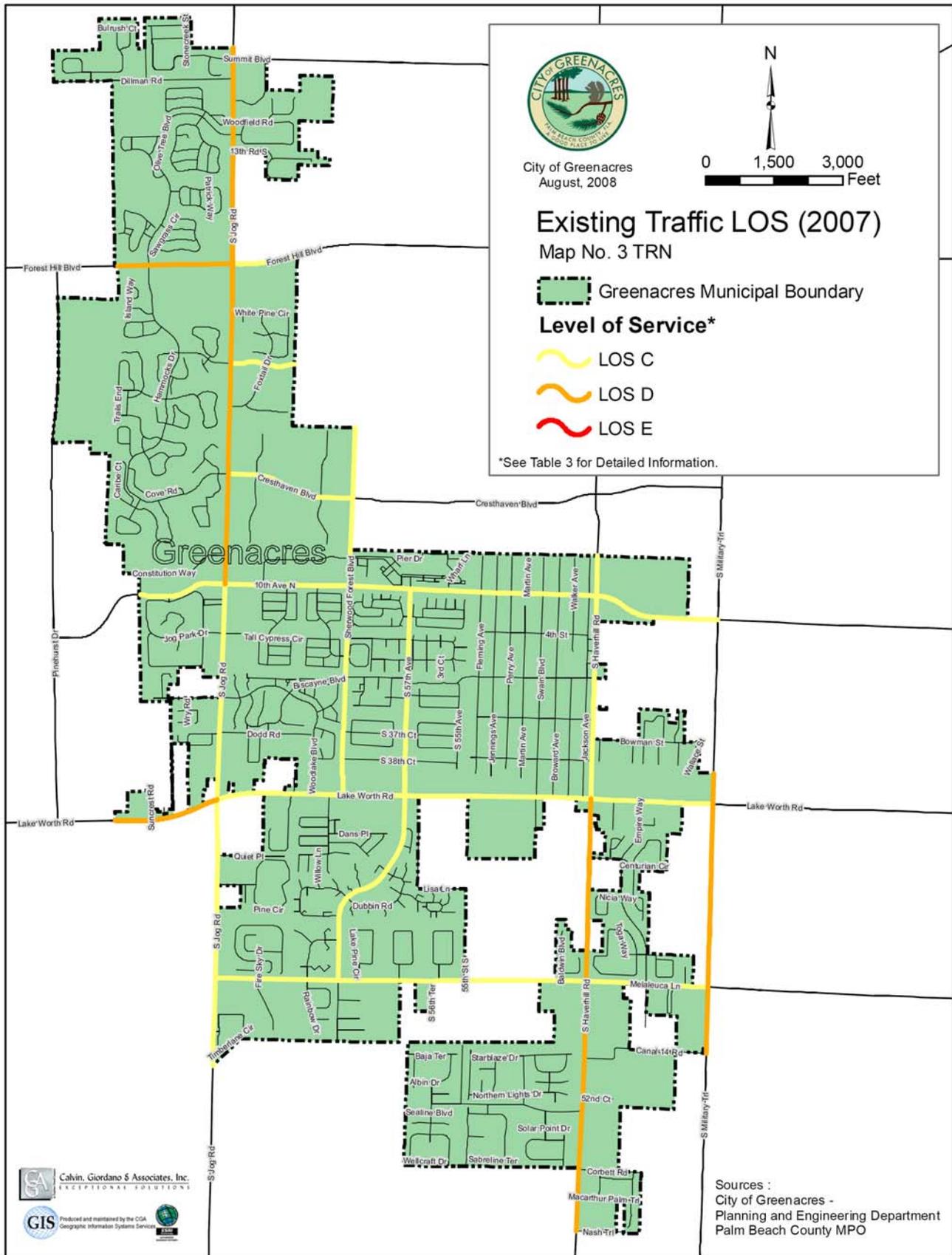
The City's transportation network service level volumes, as provided by the Metropolitan Planning Organization, 2007 Traffic Counts data, and the Florida Department of Transportation's service volume thresholds are shown in Table 3. Map 3 depicts the 2007 level of service for the street network in the City.

**TABLE 3
GREENACRES COMPREHENSIVE PLAN
CAPACITY ANALYSIS OF ROADWAY SYSTEM**

Roadway		Functional Class	Number of Lanes	Pk Hr/Pk Dir LOS 'D' Capacity	2007 Pk Hr/Pk Dir Volume	2007 LOS
From	To					
Jog Road						
Summit Blvd.	Forest Hill Blvd.	Urban Collector	6LD	4,680	4,322	D
Forest Hill Blvd.	10th Ave. North	Urban Collector	6LD	4,680	4,352	D
10th Ave. North	Lake Worth Rd.	Urban Collector	6LD	4,680	3,390	C
Lake Worth Rd.	LWDD L-14 Canal	Urban Collector	6LD	4,680	3,793	C
South 57th Ave.						
10th Ave. North	Lake Worth Rd.	City Collector	2L	1,460	520 ⁽¹⁾	C
Lake Worth Rd.	Melaleuca Lane	City Collector	2L	1,460	602 ⁽¹⁾	C
Military Trail						
North City Limits	Lake Worth Rd.	Urban Principle Arterial	6LD	4,680	3,930	D
Lake Worth Rd.	LWDD L-14 Canal	Urban Principle Arterial	6LD	4,680	3,902	D
Forest Hill Boulevard						
West City Limits	Jog Rd.	Urban Minor Arterial	6LD	4,680	4,061	D
Jog Rd.	East City Limits	Urban Minor Arterial	6LD	4,680	3,732	C
Purdy Lane						
Jog Rd.	East City Limits	Urban Collector	2L	1,460	770	C
Cresthaven Boulevard						
Jog Rd.	Sherwood Forest Blvd.	Urban Collector	2L	1,460	655	C
10th Avenue North						
West City Limits	Jog Rd.	Urban Collector	4LD	3,110	1,607	C
Jog Rd.	South 57th Ave.	Urban Collector	4LD	3,110	1,607	C
South 57th Ave.	Military Trail	Urban Collector	5L	3,110	1,807	C
Lake Worth Road						
West City Limits	Jog Rd.	Urban Principle Arterial	6LD	4,680	4,101	D
Jog Rd.	South 57th Ave.	Urban Principle Arterial	6LD	4,680	3,533	C
South 57th Ave.	Military Trail	Urban Principle Arterial	6LD	4,680	3,743	C
Haverhill Road						
North City Limits	Lake Worth Rd.	Urban Collector	5L	3,110	1,593	C
Lake Worth Rd.	South City Limits	Urban Collector	2L	1,460	1,379	D
Sherwood Forest Boulevard						
North City Limits	Lake Worth Rd.	Urban Collector	2L	1,460	563	C
Melaleuca Lane						
Jog Rd.	Haverhill Rd.	Urban Collector	5L	3,110	1,341 ⁽²⁾	C
Haverhill Rd.	Military Trail	Urban Collector	5L	3,110	2,039	C

Notes: (1) Peak Hour Volume determined from intersection counts at Lake Worth Road & South 57th Avenue
(2) 2007 Peak Season Peak Hour Volume counts not available, 2006 counts used.





6. Other Transportation Facilities

At the present time, the City of Greenacres does not have other modes of transportation as outlined in Section 9J5-007. Those modes include, but are not limited to:

- 1) Airports
- 2) Heliports
- 3) Navigation Ports
- 4) Railroad lines
- 5) High Speed Rail Lines
- 6) Intermodal Terminals

Vehicular transportation is the primary mode of transportation, however, this includes bus services as provided by Palm Tran, the bus service company serving Palm Beach County. This service is depicted on Map 4.

7. Bus Transit System

Eight (8) Palm Tran routes (3, 4, 5, 46, 60, 61, 62 and 64) serve the City of Greenacres in 2007. They are as follows:

- 1) Route 3 – Palm Beach Gardens to Boca Raton via Military Trail
- 2) Route 4 – West Palm Beach to Greenacres via Haverhill Road
- 3) Route 5 – Greenacres Crosstown
- 4) Route 46 – West Palm Beach to Wellington via Forest Hill Boulevard
- 5) Route 60 – Greenacres to Palm Springs via Purdy Lane & 10th Avenue North
- 6) Route 61 – Greenacres to Lake Worth via Cresthaven Boulevard & 10th Avenue North
- 7) Route 62 – Wellington to Lake Worth via Lake Worth Road
- 8) Route 64 – Greenacres to Lake Worth via Melaleuca/6th Avenue South

The eight (8) routes which serve the City of Greenacres operate all days of the week. Table 4 shows their approximate starting and ending times for weekday, Saturday, and Sunday service.

Table 4

Palm Tran Bus Route Schedule

Route	Weekday	Saturday	Sunday
3	5:35 am-10:10 pm	6:35 am-10:15 pm	8:40 am – 5:55 pm
4	6:22 am-6:05 pm	7:15 am-5:05 pm	No Service
5	5:50 am-6:45 pm	No Service	No Service
46	6:25 am-6:55 pm	7:45 am-6:25 pm	9:25 am-4:25 pm
60	5:30 am-6:30 pm	7:30 am-5:30 pm	No Service
61	6:30 am-6:30 pm	6:30 am-6:30 pm	9:25 am-3:30 pm
62	6:00 am-7:30 pm	7:20 am-5:30 pm	10:24 am-4:26pm
64	6:15 am-6:45 pm	6:15 am-6:45 pm	No Service

Source: Palm Tran Route Schedule, December 21, 2007

The headways between buses on the eight (8) routes vary from 30 minutes to one hour. Table 5 shows the headway between buses on the five routes for peak and off peak periods.

Table 5
Palm Tran Bus Route Headway (minutes)

Route	Peak	Off-Peak
3	30	30
4	60	60
5	60	60
46	30	60
60	60	60
61	60	60
62	30	30
64	60	60

Source: Palm Tran Route Schedule, December 21, 2007. Routes 3, 46 and 62 are the only three routes that operate at 30 minute headways during the peak hour.

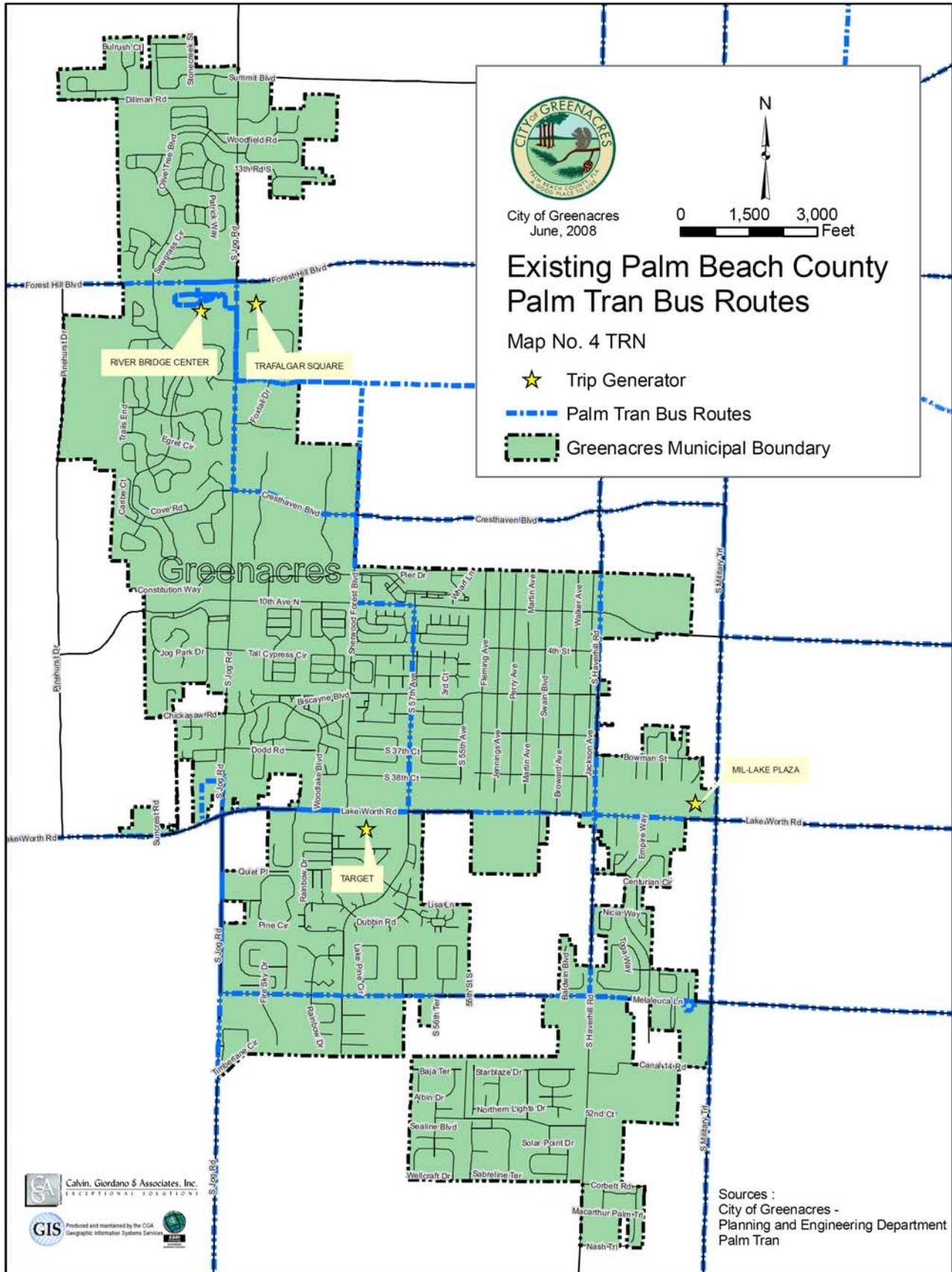


Table 6 below identifies Palm Tran ridership per route for fiscal year 2007. Route 3 has the both the longest hours of operation and the highest volume of ridership for fiscal year 2007.

Table 6
Palm Tran Ridership for FY 2007

Route	Oct-06	Nov-07	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	FY 2007 Total
3	100,095	101,057	95,244	97,600	94,737	109,530	97,255	102,448	88,129	85,838	93,589	88,056	1,153,578
4	5,429	5,114	5,229	4,922	4,015	4,989	4,310	5,199	3,862	3,774	4,693	4,590	56,126
5	2,838	3,413	2,993	3,025	3,005	3,372	3,035	2,857	2,886	2,942	3,273	2,908	36,547
46	19,924	19,978	18,896	19,328	19,120	22,797	18,861	21,470	17,102	16,337	21,140	20,614	235,567
60	3,722	3,611	4,009	3,601	3,571	3,518	3,514	3,729	3,313	3,254	3,884	3,481	43,207
61	14,047	13,190	12,955	14,103	12,139	12,499	12,598	13,564	12,971	12,435	15,333	12,523	158,357
62	41,504	40,887	39,817	41,987	41,702	46,241	43,370	42,872	38,142	38,948	41,539	39,501	496,510
64	5,131	4,868	4,325	4,772	4,526	5,275	4,244	5,823	5,765	4,640	5,552	4,751	59,672
Monthly Totals	192,690	192,118	183,468	189,338	182,815	208,221	187,187	197,962	172,170	168,168	189,003	176,424	2,239,564

Source: Palm Tran Ridership by Route, January 2008.

8. Tri-Rail

Tri-Rail is South Florida's commuter rail, providing service to residents and visitors of Miami-Dade, Broward and Palm Beach County. The northernmost point of the rail line is in Mangonia Park and the rail continues south for 72 miles terminating at the Miami Airport. The rail line has been under reconstruction, including a \$333.8 million project to add a second mainline track. This double-tracking was completed in early 2007.

Tri-Rail also operates shuttle bus services from many of its stations to areas surrounding the rail lines. There are 6 rail stations within Palm Beach County, with Palm Tran bus service interfaces at each station. Table 7 identifies the location of the six Tri-Rail stations in Palm Beach County and the associated Palm Tran routes serving them. Palm Tran Routes 61 and 62 which service the City of Greenacres have a direct connection with the Lake Worth Tri-Rail Station.

Table 7
Tri-Rail Stations with Palm Tran Service

Station	Address	Palm Tran Route
Mangonia Park Station	1415 45th Street	20,31, 33
West Palm Beach Station	203 South Tamarind Ave.	2, 31, 40, 43, 44, 45, 50, 55
Lake Worth Station	1703 Lake Worth Road	61, 62
Boynton Beach Station	2800 High Ridge Road	70, 71
Delray Beach Station	345 South Congress Ave.	2, 70, 81
Boca Raton Station	601 N.W. 53rd Street	2, 94

Source: Palm Beach County Transit Development Plan, 2006 - 2016

9. Major Trip Generators

There are two major trip generators located in the northern region of the City. They are River Bridge Centre at the southwest quadrant of Jog Road and Forest Hill Boulevard and Trafalgar Square located at the southeast quadrant of Jog Road and Forest Hill Boulevard. There are also two major trip generators located in the southern region of the City: Target on Lake Worth Road at Sherwood Forest Boulevard and Mil-Lake Plaza at the northwest quadrant of Lake Worth Road and Military Trail. These generators comprise a variety of non-residential land use including commercial retail and office. The River Bridge Centre serves as a transfer location for most routes serving the City. Map 4 shows the location of these generators.

IV. ANALYSIS

A. EXISTING TRAFFIC CIRCULATION DATA

The current (2007) service demand on the roadway system is measured as peak hour demand estimated from average daily conditions and is shown in Table 3. Map 3 depicts the 2007 roadway level of service. As would be expected, the urban principal arterials have experienced the highest service demand.

The design capacities of the existing major streets are reflected primarily by the number of through lanes. An inventory of through lanes was conducted and is shown on Map 2. A comparison of service demand to design capacity based upon through lanes was developed to establish the level of service provided by the transportation network segments. The relationship of traffic volume and number of lanes to level of service is shown in Table 3.

The level of service analysis shown on Map 3 and in Table 3 indicates that all travel segments are operating at LOS "D" or better.

B. FUTURE TRAFFIC CIRCULATION ANALYSIS

The future traffic circulation analysis was carried out for the short range (through 2012) and long range (through 2030) planning timeframes to determine if any roadways will drop below the adopted level of service. Traffic projections through year 2012 were calculated by adding the traffic from approved but un-built projects, as reported in the Palm Beach County Traffic Division's database, to the existing peak hour counts. A nominal half-percent background annual growth rate was added to account for future growth not associated with approved projects. The resulting traffic projections through 2012 are shown on Table 8 and Map 6 respectively. All roads within the City of Greenacres meet the adopted LOS "D", with the exception of the link of Jog Road from Summit Boulevard to Forest Hill Boulevard and Haverhill Road from Lake Worth Road to the South City Limits (both are projected to operate at a LOS E). Table 9 identifies the year by year level of service for the two roadway links.

The link of Jog Road from Summit Boulevard to Forest Hill Boulevard fails to meet LOS "D" in year 2011 (year 4) by 33 trips and in year 2012 (year 5) by 55 trips. The link of Haverhill Road from Lake Worth Road to the South City Limits fails to meet LOS "D" beginning in year 2008.

Both Haverhill Road and Jog Road are County owned and maintained right-of-way. Palm Beach County's Five-Year Road Program (2008-2012) has committed funding for the widening of Haverhill Road beginning in Fiscal Year 2008 to resolve capacity issues. The County's Five-Year Road Program does not identify an improvement for the link of Jog Road (which is currently built to its ultimate width) between Summit Boulevard and Forest Hill Boulevard at this time. The City will be coordinating with the County to determine if a roadway improvement or alternative operational solution is necessary to correct the potential deficiency on Jog Road. If necessary, an improvement will be planned and funded using the local option gas tax, traffic impact fees, or a combination thereof.

The traffic projections for year 2030 were reviewed with respect to the future roadway networks identified on Map 5. The resulting traffic projections through 2030 are shown on Table 10 and Map 7 respectively. Links that fail to meet the LOS "D" standard as adopted within the City in year 2030 are as follows:

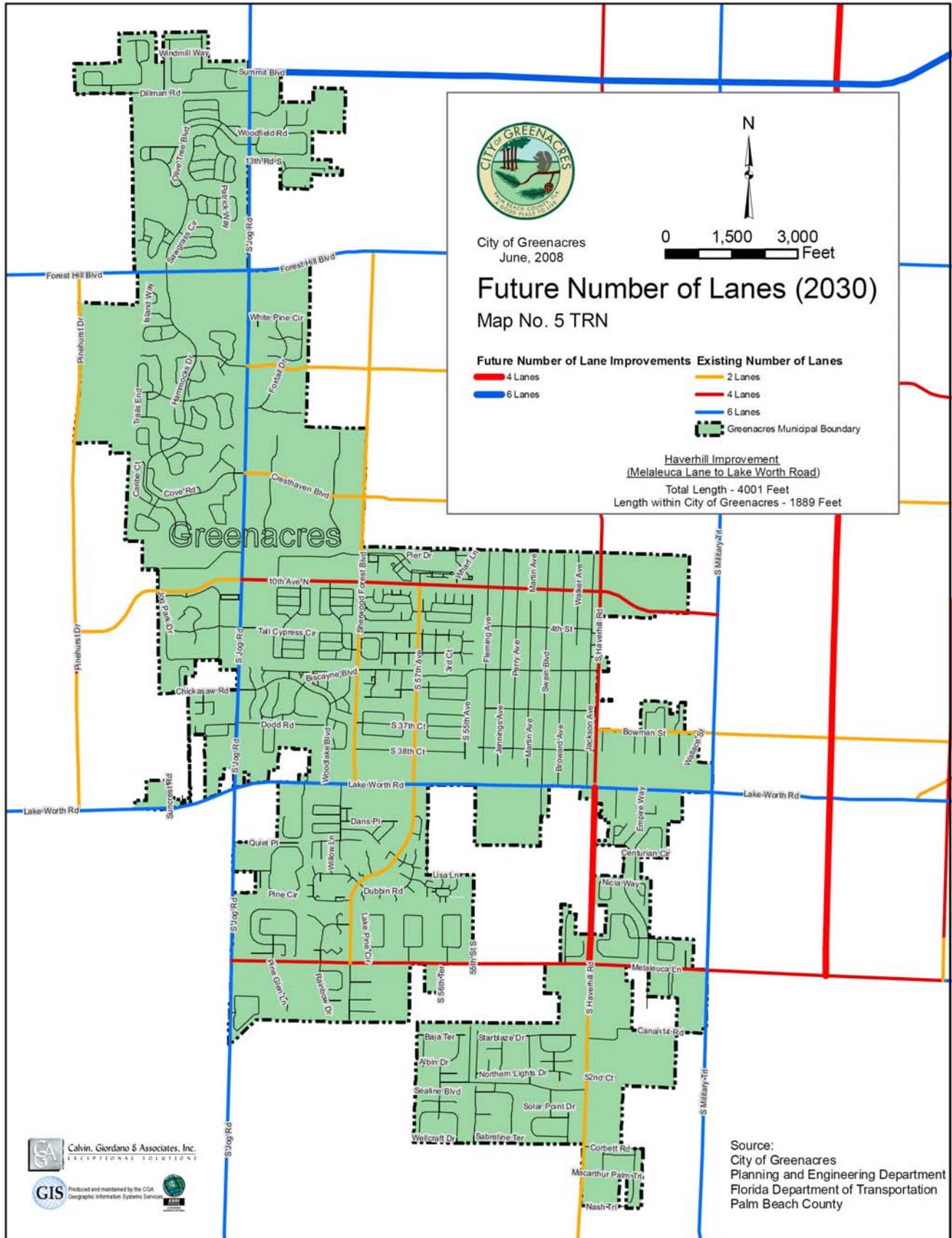
2030

Jog Road – Lake Worth Road to LWDD L-14 Canal (LOS E)

Forest Hill Boulevard – West City Limits to Jog Road (LOS E)

Forest Hill Boulevard – Jog Road to East City Limits to (LOS E)

Haverhill Road - Lake Worth Road to the South City Limits (LOS E)



**TABLE 8
GREENACRES COMPREHENSIVE PLAN
CAPACITY ANALYSIS OF ROADWAY SYSTEM - 2012**

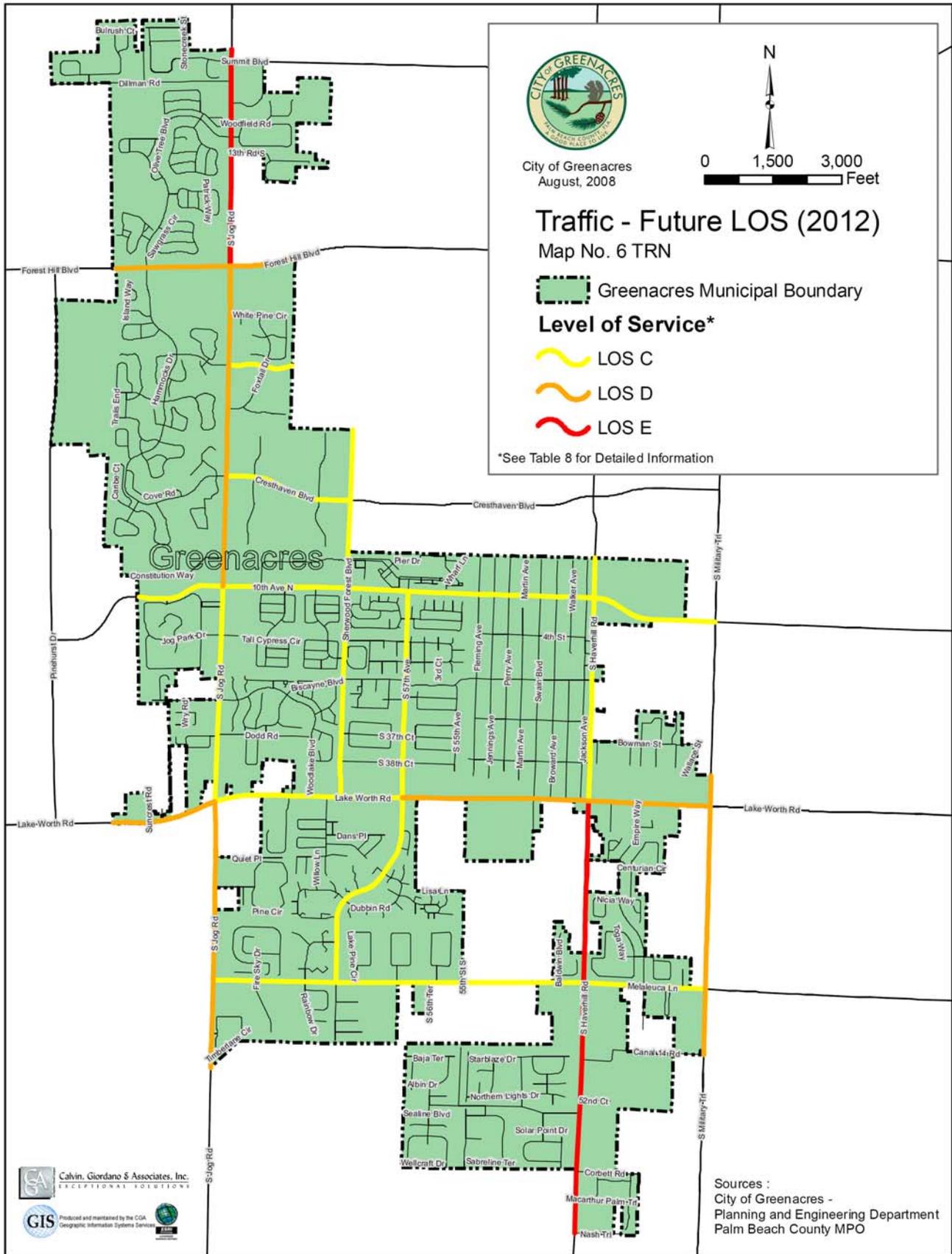
Roadway From	To	Functional Class	Number Of Lanes	Pk Hr/Pk Dir LOS 'D' Capacity	2012 Pk Hr/Pk Dir Volume	2012 LOS
Jog Road						
Summit Blvd.	Forest Hill Blvd.	Urban Collector	6LD	4,680	4,735	E
Forest Hill Blvd.	10th Ave. North	Urban Collector	6LD	4,680	4,649	D
10th Ave. North	Lake Worth Rd.	Urban Collector	6LD	4,680	3,686	C
Lake Worth Rd.	LWDD L-14 Canal	Urban Collector	6LD	4,680	4,014	D
South 57th Ave.						
10th Ave. North	Lake Worth Rd.	City Collector	2L	1,460	533	C
Lake Worth Rd.	Melaleuca Lane	City Collector	2L	1,460	617	C
Military Trail						
North City Limits	Lake Worth Rd.	Urban Principle Arterial	6LD	4,680	4,111	D
Lake Worth Rd.	LWDD L-14 Canal	Urban Principle Arterial	6LD	4,680	4,116	D
Forest Hill Boulevard						
West City Limits	Jog Rd.	Urban Minor Arterial	6LD	4,680	4,522	D
Jog Rd.	East City Limits	Urban Minor Arterial	6LD	4,680	4,000	D
Purdy Lane						
Jog Rd.	East City Limits	Urban Collector	2L	1,460	821	C
Cresthaven Boulevard						
Jog Rd.	Sherwood Forest Blvd.	Urban Collector	2L	1,460	693	C
10th Avenue North						
West City Limits	Jog Rd.	Urban Collector	4LD	3,110	1,683	C
Jog Rd.	South 57th Ave.	Urban Collector	4LD	3,110	1,737	C
South 57th Ave.	Military Trail	Urban Collector	5L	3,110	1,876	C
Lake Worth Road						
West City Limits	Jog Rd.	Urban Principle Arterial	6LD	4,680	4,386	D
Jog Rd.	South 57th Ave.	Urban Principle Arterial	6LD	4,680	3,746	C
South 57th Ave.	Military Trail	Urban Principle Arterial	6LD	4,680	3,890	D
Haverhill Road						
North City Limits	Lake Worth Rd.	Urban Collector	5L	3,110	1,669	C
Lake Worth Rd.	South City Limits	Urban Collector	2L	1,460	1,502	E
Sherwood Forest Boulevard						
North City Limits	Lake Worth Rd.	Urban Collector	2L	1,460	597	C
Melaleuca Lane						
Jog Rd.	Haverhill Rd.	Urban Collector	5L	3,110	1,540	C
Haverhill Rd.	Military Trail	Urban Collector	5L	3,110	2,254	C



**TABLE 9
GREENACRES COMPREHENSIVE PLAN
CAPACITY ANALYSIS OF 2012 LOS 'E' ROADWAY SYSTEM**

Roadway From	To	Functional Class	Number Of Lanes	Pk Hr/Pk Dir LOS 'D' Capacity	2008 Pk Hr/Pk Dir Volume	2008 LOS	2009 Pk Hr/Pk Dir Volume	2009 LOS	2010 Pk Hr/Pk Dir Volume	2010 LOS	2011 Pk Hr/Pk Dir Volume	2011 LOS	2012 Pk Hr/Pk Dir Volume	2012 LOS
Jog Road														
Summit Blvd.	Forest Hill Blvd.	Urban Collector	6LD	4,680	4,543	D	4,614	D	4,676	D	4,713	E	4,735	E
Haverhill Road														
Lake Worth Rd.	South City Limits	Urban Collector	2L	1,460	1,470	E	1,478	E	1,486	E	1,494	E	1,502	E

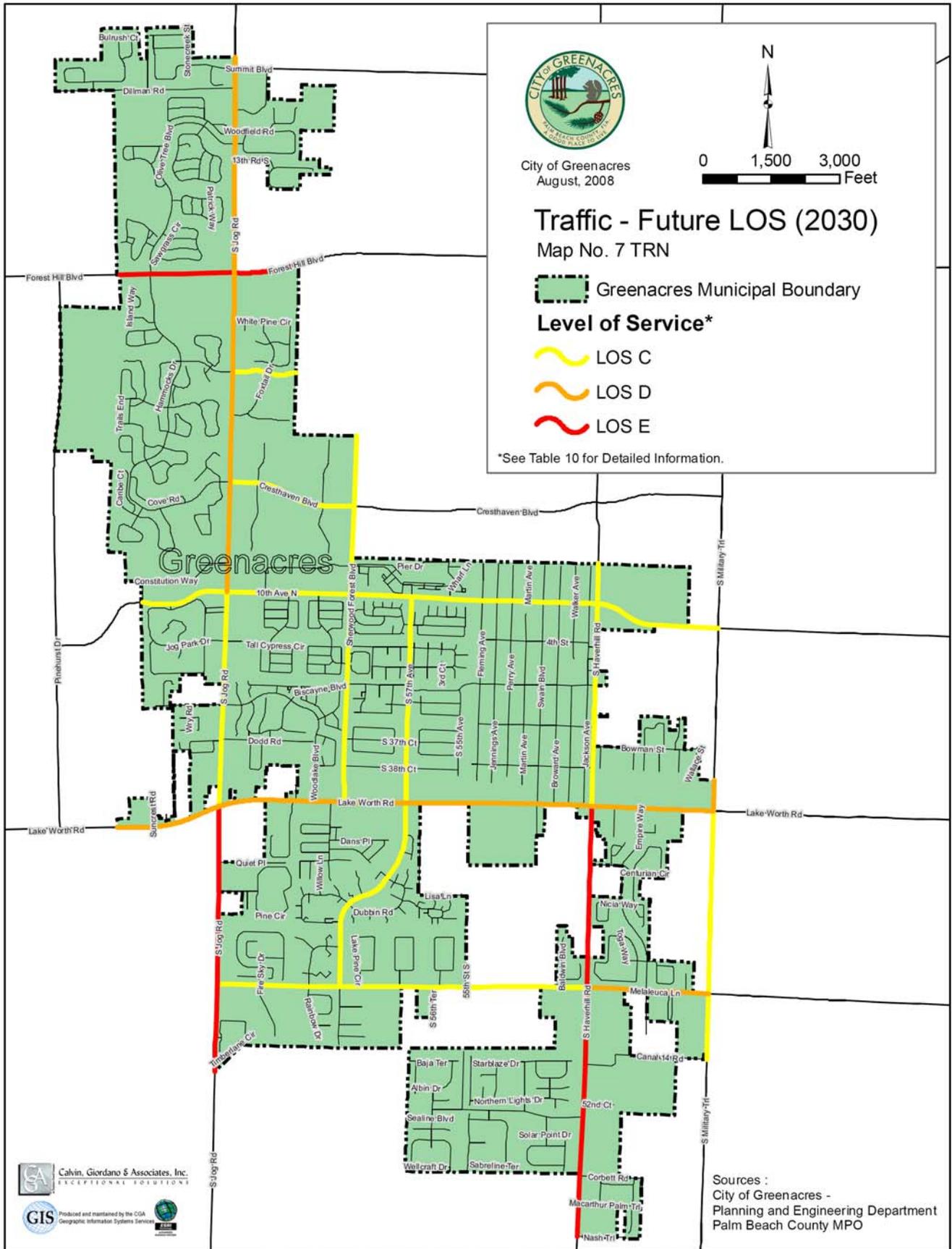




**TABLE 10
GREENACRES COMPREHENSIVE PLAN
CAPACITY ANALYSIS OF ROADWAY SYSTEM - 2030**

Roadway From	To	Functional Class	Number Of Lanes	AADT LOS 'D' Capacity	2030 AADT Volume	2030 Projected LOS
Jog Road						
Summit Blvd.	Forest Hill Blvd.	Urban Collector	6LD	49,200	48,450	D
Forest Hill Blvd.	10th Ave. North	Urban Collector	6LD	49,200	44,650	D
10th Ave. North	Lake Worth Rd.	Urban Collector	6LD	49,200	37,050	C
Lake Worth Rd.	LWDD L-14 Canal	Urban Collector	6LD	49,200	49,400	E
South 57th Ave.						
10th Ave. North	Lake Worth Rd.	City Collector	2L	15,400	9,500	C
Lake Worth Rd.	Melaleuca Lane	City Collector	2L	15,400	10,450	C
Military Trail						
North City Limits	Lake Worth Rd.	Urban Principle Arterial	6LD	49,200	44,650	D
Lake Worth Rd.	LWDD L-14 Canal	Urban Principle Arterial	6LD	49,200	37,050	C
Forest Hill Boulevard						
West City Limits	Jog Rd.	Urban Minor Arterial	6LD	49,200	49,400	E
Jog Rd.	East City Limits	Urban Minor Arterial	6LD	49,200	50,350	E
Purdy Lane						
Jog Rd.	East City Limits	Urban Collector	2L	15,400	6,650	C
Cresthaven Boulevard						
Jog Rd.	Sherwood Forest Blvd.	Urban Collector	2L	15,400	6,650	C
10th Avenue North						
West City Limits	Jog Rd.	Urban Collector	4LD	32,700	9,500	C
Jog Rd.	South 57th Ave.	Urban Collector	4LD	32,700	16,150	C
South 57th Ave.	Military Trail	Urban Collector	5L	32,700	21,850	C
Lake Worth Road						
West City Limits	Jog Rd.	Urban Principle Arterial	6LD	49,200	47,500	D
Jog Rd.	South 57th Ave.	Urban Principle Arterial	6LD	49,200	43,700	D
South 57th Ave.	Military Trail	Urban Principle Arterial	6LD	49,200	41,800	D
Haverhill Road						
North City Limits	Lake Worth Rd.	Urban Collector	5L	32,700	20,900	C
Lake Worth Rd.	South City Limits	Urban Collector	2L	15,400	16,000	E
Sherwood Forest Boulevard						
North City Limits	Lake Worth Rd.	Urban Collector	2L	15,400	7,600	C
Melaleuca Lane						
Jog Rd.	Haverhill Rd.	Urban Collector	5L	32,700	24,700	C
Haverhill Rd.	Military Trail	Urban Collector	5L	32,700	27,550	D





As previously stated, a roadway improvement for Haverhill Road has been planned and funded by Palm Beach County. The other roads that are projected to fail the LOS "D" standard will require coordination with Palm Beach County (Jog Road) and the Florida Department of Transportation (Forest Hill Boulevard) to identify potential improvements. Since the roadways identified above are owned and operated by Palm Beach County and the State and are already constructed to their ultimate width, no further improvements are anticipated by the County or the Florida Department of Transportation. Those existing cross sections are also consistent with the MPO 2030 network cross sections.

C. PALM BEACH MPO 2030 LONG RANGE TRANSPORTATION PLAN

The Palm Beach 2030 Long Range Transportation Plan (LRTP) integrates all modes of Transportation within Palm Beach County, including highway, public transportation, bicycle and pedestrian facilities, and intermodal facilities (airports and seaports). The LRTP includes the Year 2025 FIHS Cost Feasible Plan – 2003 Update, which identifies the roadway and interchange projects necessary to ensure that roadway facilities in Palm Beach County are operating at or above the adopted level of service "D" or better (excluding constrained roadways). This plan was developed through the joint efforts of the Florida Department of Transportation, the Palm Beach County Engineering Department and the Metropolitan Planning Organization in conjunction with participation from the general public. Local governments have cooperated with the process by providing background information to develop the forecast as well as render their input.

Within the City, the Adopted Year 2030 Cost Feasible Plan includes the widening of Haverhill Road between Lake Worth Road and Melaleuca Lane from two lanes to four lanes. Other noteworthy improvements within close proximity to the City include:

- The widening of Summit Boulevard from Jog Road to Kirk Road from four to six lanes
- An urban interchange at Lake Worth Road and State Road 7
- An urban interchange at Forest Hill Boulevard and State Road 7

D. NON-MOTORIZED TRANSPORTATION CONSIDERATIONS

The Non-Motorized Transportation System serves bicycles and pedestrians. At present, the City of Greenacres is coordinating with Palm Beach County to plan bikeway and pedestrian systems in a comprehensive manner so that it can be viewed as a meaningful adjunct to the City's total transportation system.

Being specific, given the nature of bicycle operators, the design of this system should minimize bicycle/automobile conflicts. While the best way of doing that would be to build exclusive bike paths, such a system would not be physically or economically feasible. Rather, a combination of exclusive, semi-exclusive, and shared-use bikeways are recommended alternatives.

The intent of a non-motorized system is to establish a city-wide network of bike paths and sidewalks allowing residents to safely bicycle and walk between residential areas and major destinations such as parks, schools, and commercial areas.

Bicycle and Pedestrian Routes

All roadways listed in the functional classification table of this Transportation Element contain sidewalks of at least 5 feet width on each side that serve bicycle and pedestrian traffic. South 57th Avenue between Lake Worth Road and the L-13 Canal is an exception and only contains a sidewalk on the east side. At present, there are no designated bike lanes that share right-of-way with any of the roads in the City of Greenacres. As major roads have been re-paved and re-stripped, undesignated bike lanes have been added.

Further consideration to non-motorized transportation is discussed in the Goals and Objectives and Policies Section.

E. EVACUATION DISASTER ROUTES

In general, the City of Greenacres recommends that all its residents remain in the City in the event of an impending natural disaster. However, there are two mobile home parks which may need to be evacuated depending on the severity of an approaching storm. These are Pickwick Mobile Home Park located on 10th Avenue North, east of Sherwood Forest Boulevard and Colonial Coach Estates located on Lake Worth Road.

In the event that evacuation of these two mobile home parks becomes necessary, residents are recommended to retreat to the two Red Cross shelters within the City of Greenacres. They are John I. Leonard High School at 4701 10th Avenue North and Heritage Elementary School at 5100 Melaleuca Lane.

If residents desire to leave the City in the event of an impending natural disaster, the most likely routes will be Forest Hill Boulevard, 10th Avenue North, Melaleuca Lane and Lake Worth Road leading to I-95 and Florida's Turnpike.

V. PLAN FOR TRAFFIC CIRCULATION

Since a majority of the City's traffic circulation system is operated and maintained by the Florida Department of Transportation or Palm Beach County, the City will continue to coordinate its efforts regarding all existing future roadway improvements with them. In addition, Greenacres will coordinate the traffic circulation system with other ground transportation modes such as bus, bicycle and pedestrian systems.

Again, the City's primary responsibility in traffic circulation is to coordinate with programmed County and State Roadway Improvements and provide for local input to the Palm Beach County Five (5) Year Roadway Plan. Projects in the Five-Year Roadway Plan which impact roads within the City of Greenacres are listed in Table 1B of the Capital Improvements Element.

VI. GOALS, OBJECTIVES AND POLICIES

GOAL 1. It shall be the goal of the City of Greenacres to develop a multimodal transportation system to provide a safe, efficient movement of people, goods, and services within and through the community at a reasonable cost with a minimum detriment to the environment.

Objective 1

Develop an efficient and effective roadway network which meets existing and future needs.

Policy a)

Provide current and future land use plans socioeconomic data for use by the Metropolitan Planning Organization in developing regional transportation plans upon request.

Policy b)

Require engineering review to coordinate street access of existing and new development to enhance traffic safety, traffic capacity, and traffic flow along arterial and collector roadways.

Policy c)

Provide coordination of City and required private development roadway improvements with programmed County and State roadway improvements.

Policy d)

Require conveyance of roadway, intersection, and interchange rights-of-way consistent with the adopted Palm Beach County Thoroughfare Right-of-Way Protection Map on all development orders issued by the City unless dedication shall be contrary to law or constitute a substantial taking.

Policy e)

The City shall continue to promote developments that provide a mix of uses at appropriate densities and intensities, redevelopment projects, commercial revitalization projects and projects supportive of an efficient transportation system.

Policy f)

The City adopts peak hour level of Service Standard “D” for all roads within the

City's jurisdiction. Development Orders issued by the City shall be consistent with the level of service standards set forth in Palm Beach County's Transportation Element and the Countywide Traffic Performance Standard Ordinance.

Policy g)

The City shall investigate the creation of a Transportation Master Plan to analyze the existing conditions of automobile, transit, pedestrian and bicycle infrastructure to identify strategies for improvement of facilities related to users of all modes. The plan should identify specific projects and improvements targeted towards each of the four modes, along with cost estimates, prioritization and funding sources.

Policy h)

Development projects shall provide, to the maximum extent possible, vehicular and pedestrian connections to more than one adjacent roadway. Adjacent projects shall be coordinated to provide, whenever possible, vehicular and pedestrian cross-connections to reduce vehicle trips and reduce demand on the arterial and collector roadway system.

Policy i)

To improve efficiency of service delivery to existing City residents, future annexation areas, and the City of Atlantis, the City shall seek the dedication of road right-of-way and the construction of vehicular and pedestrian improvements to create a local street connection between Haverhill Road and Military Trail south of the L-14 Canal and north of Lantana Road. This may be accomplished in conjunction with new development and redevelopment in the area and through other appropriate means.

Objective 2

Provide adequate design standards to improve safety, reduce congestion, and reduce maintenance.

Policy a)

Further develop and maintain design standards that are compatible with the County and State design standards.

Policy b)

Require private development to conform to the Manual on Uniform Traffic Control Devices for on-site traffic control.

Policy c)

Require engineering review for safe vehicular and non-vehicular traffic flow and

parking arrangements in private development.

Policy d)

Improve the safety and operation of City streets, through site-access control, and other traffic operation improvements.

Objective 3

The City will cooperate with other agencies to minimize and reduce the negative impacts and enhance the positive impact of the development and growth of Greenacres.

Policy a)

Greenacres will work with the Palm Beach County Department of Engineering and Public Works, Palm Beach County MPO and the Florida Department of Transportation to improve State and County roadways within the City's limits.

- 1) Monitor and provide local input into Palm Beach County's Five (5) Year Roadway Plan to ensure that all county and state roads within the City achieve and maintain the Level of Service standard of "D".
- 2) Collect Palm Beach County Traffic Impact Fees on all new development within the City and transfer said fees collected to Palm Beach County to fund its 5 year Roadway Plan.
- 3) Coordinate with the Palm Beach County Department of Engineering and Public Works to ensure that all developments comply with Roadway Improvements Agreements.

Objective 4

Develop future plans for traffic circulation consistent with the future land use plan to provide an adequate level of service.

Policy a)

Continue to cooperate with the County to implement the County Traffic Performance Standard to ensure traffic conditions on roadways within the City's jurisdiction will operate at Levels of Service equal to or better than those in Objective 1, Policy f above.

Policy b)

Proposed land use plan changes, property rezonings, land subdivisions, special exception petitions and site plan approvals and amendments shall be approved only with traffic circulation impact studies and mitigation measures to maintain required

level of service on affected facilities.

GOAL 2. Coordinate the traffic circulation system of the City with other ground transportation modes such as a bus, bicycle and pedestrian system.

Objective 1

The City shall develop a bicycle and pedestrian transportation system which provides safe and accessible routes to major public and private facilities.

Policy a)

By 2013, the City shall develop a Comprehensive Bicycle and Pedestrian Master Plan.

Policy b)

The City shall require development to provide adequate pedestrian facilities during site plan approval or the functional equivalent.

Policy c)

To the maximum extent financially feasible, the City shall adopt the following transportation strategies to enhance the pedestrian environment:

1. Assess the City's sidewalks to identify deficiencies in widths, connections, obstructions, and need for handicap accessibility. Sidewalks are recommended to be at least six feet in width on collector and arterial roads to provide a safe and comfortable walking experience.
2. Develop a program to address any deficiencies identified in the sidewalk assessment that are within the jurisdiction of the City. For sidewalks under the County's or FDOT's jurisdiction, coordinate with the respective agencies to address their deficiencies.
3. Ensure pedestrian connections between new developments and the surrounding roadways are provided through the land development review process.
4. Work with developers and business owners to provide transit shelters within their developments when adjacent to existing bus routes or dedicate easements for provision of transit related and pedestrian facilities by the City when not currently served by Palm Tran.

Objective 2

Ensure that the residents of the City are serviced by the Palm Beach County Bus Transportation System.

Policy a)

The City shall distribute operation information regarding the bus system (PALM TRAN).

Policy b)

The City will continue to inform the MPO of information pertaining to new developments, building permits and build out rates and annexations through the Land Development Staff review process, concurrency management process and annual reports in order for the MPO to plan and provide the necessary public transportation to ensure compliance with the adopted level of service for mass transit which is .05 percent transit trip for each vehicular trip.

Objective 3

The City shall preserve and protect existing and future right-of-ways from building encroachment by strict adherence to the Palm Beach County Thoroughfare Right-of-Way Protection Map.

Policy a)

Require conveyance of roadway, intersection, and interchange right-of-ways consistent with the adopted Palm Beach County Thoroughfare Right-of-Way Protection Map on all development orders issued by the City unless dedication shall be contrary to law or constitute a substantial taking.

VII. NOTES

1. Florida Department of Community Affairs Chapter 9J-5, Definitions 9J-5.003, pg. 4
2. Palm Beach County Traffic Division
3. Florida Department of Community Affairs Chapter 9J-5, Definitions 9J-5.003, page 6
4. Greenacres City Comprehensive Plan, - Capital Improvements Element, Definitions of Relevant Terms.
5. 1994 Update to the Highway Capacity Manual, Transportation Highway Research Board, 1985.
6. Palm Tran System Route Map
7. West Palm Beach Urban Study Area (WPBUSA) Year 2015 Cost Feasible Plan, Final 1996.

REVISION HISTORY

September 15, 2008 Ord. 2008-03