

Existing Traffic & Circulation Element



SECTION 6 – EXISTING TRAFFIC AND CIRCULATION

A well designed traffic and circulation system is essential to the functional vitality of the community. This portion of the master plan will examine the current roadways within the municipality as to their jurisdiction, right-of-way widths, function, and high accident locations.

Garwood is a municipality with less than one square mile within its boundaries. With that being said, Garwood residents are never very far from other locations in the Borough. North and South Avenues are centrally located and no residential property is less than a half mile from these commercial rights of way.

Street Classification

There is approximately 13.019 miles of roadway in the Borough of Garwood. Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service that they are intended to provide. Categories of public roads based on the service they are intended to provide. Smaller, less traveled roadways provide motorists with a high degree of access. Larger roadways provide motorists with a high degree of mobility. The functional classification system has been developed in cooperation with county and Metropolitan Planning Organization officials.

Garwood's street system is categorized into three major classifications. These classifications, their essential functions, the width standards necessary for them to fulfill their function and the streets proposed for each classification are divided into urban collectors, minor urban arterial, and local access categories.

It should be noted that the existing roadway system in Garwood has *not* been classified utilizing the Residential Site Improvement Standards (RSIS). The RSIS are standards for proposed new roadways. The current roadway system in Garwood already exists and therefore this classification system does not accurately reflect these roads. Furthermore, as indicated by the title, the RSIS only apply to residential roadways that are under the jurisdiction of the municipality. Any future residential roadways will have to comport with the RSIS.

Table 6-1:
Roadway Lengths in
Borough of Garwood

<u>Street Name</u>	Length	
	<u>Miles</u>	<u>Feet</u>
2nd	0.7567	3,995.38
3rd	0.6848	3,615.74
4th	0.4411	2,329.01
Anchor	0.1096	578.69
Beech	0.4387	2,316.34
Cedar	0.2105	1,111.44
Center	0.6120	3,231.36
Chestnut	0.0752	397.06
East	0.4663	2,462.06
Gallows Hill	0.1156	610.37
Hazel	0.3426	1,808.93
Hemlock	0.3103	1,638.38
Hickory	0.3090	1,631.52
Kennedy Plaza	0.0488	257.66
Lexington	0.2594	1,369.63
Liberty	0.0577	304.66
Lincoln	0.0985	520.08
Locust	0.5914	3,122.59
Maple	0.4187	2,210.74
Myrtle	0.9144	4,828.03
New	0.1477	779.86
North	0.9754	5,150.11
Oak	0.5196	2,743.49
Pine	0.3154	1,665.31
Rankin	0.2682	1,416.10
South	1.0251	5,412.53
Spruce	0.7858	4,149.02
Union	0.0979	516.91
Walnut	0.2031	1,072.37
West	0.3237	1,709.14
Willow	0.9919	5,237.23
Winslow	0.1048	553.34
TOTAL	13.0199	68,745.07

Urban Collectors

Of the 13.0199 miles of roadway in Garwood, 0.63275 miles or 4.86 percent are classified as Urban Collector Roads. The following roadways are classified as arterial roads:

1. New Jersey Route 28 (Lincoln Avenue)

Lincoln Avenue is designated as State Route 28. There is approximately 520 linear feet (0.0985 miles) of this state highway within the municipal limits. There are two signalized intersections within Garwood along Route 28 at North and South Avenues.

2. Center Street and Spruce Avenue

Center Street from South Avenue to Spruce Avenue, and then Spruce Avenue to the municipal boundary with Westfield has been classified as an Urban Collector. There is approximately 2,820 linear feet (0.53425 miles) of this Urban Collector within the municipal limits. There are two signalized intersections within Garwood along this route, at South Avenue and at Spruce Avenue.

Urban Minor Arterial Roads

Of the 13.0199 miles of roadway in Garwood, 1.025 miles or 7.87 percent are classified as Urban Minor Arterial Roads. The following roadway is classified as collector roads:

1. South Avenue

There is approximately 5,412 linear feet (1.025 miles) of this roadway within the municipality. This roadway is an important east-west connection between Westfield, through Garwood to Cranford. The roadway is signalized at its intersection with Center and East Street.

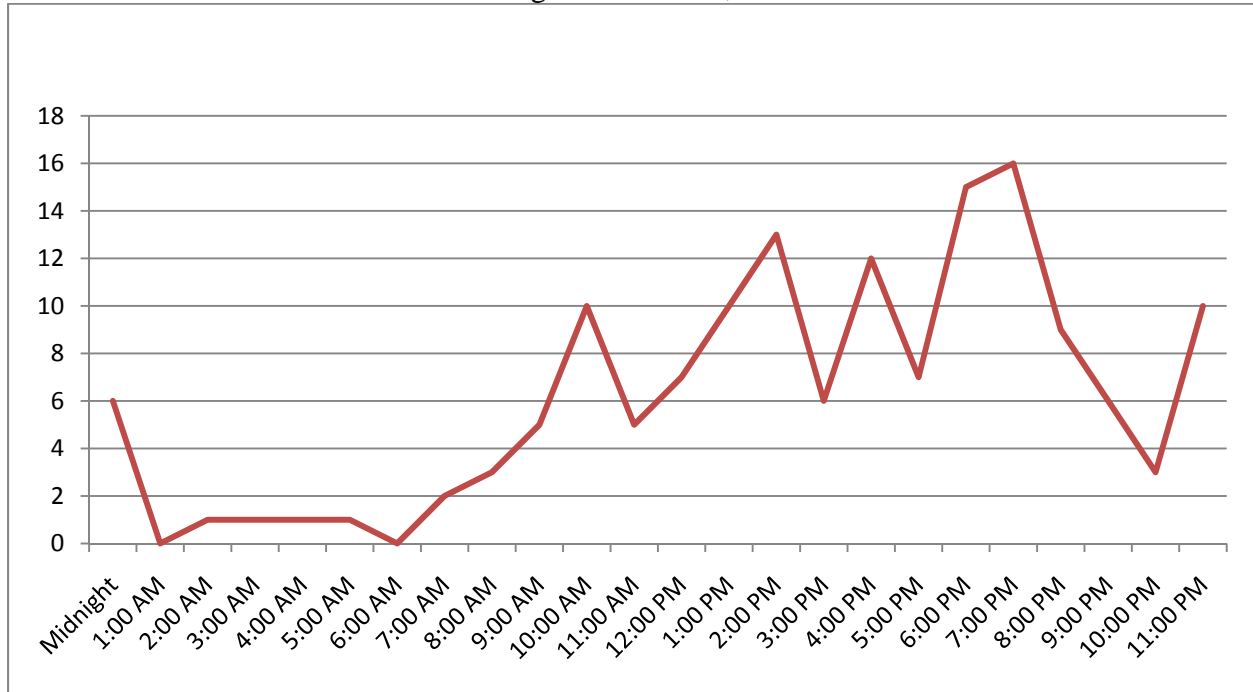
Local Access Roads

Of the 13.0199 miles of roadway in Garwood, 11.36 miles or 87.26 percent are classified as local access roads. These roads provide access individual to lots.

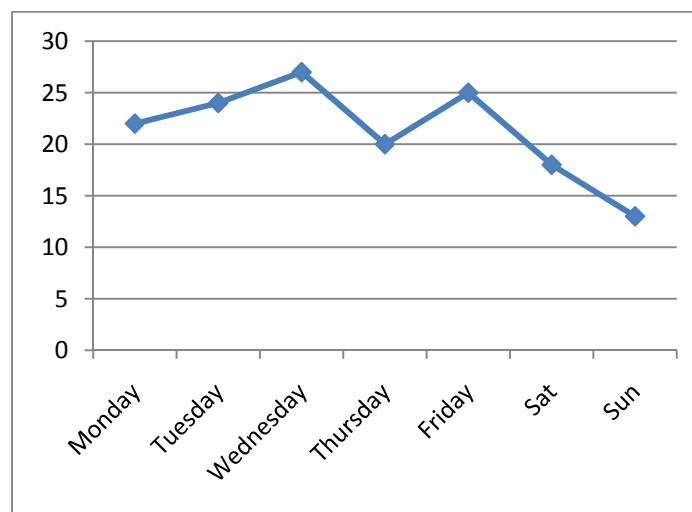
Accident Location

The last complete year the New Jersey Department of Transportation had accident data for Garwood was 2006. This data suggests that most accidents occur between 6 pm and 7 pm. Wednesday tends to be the day with the most accidents and Sunday the least amount. A majority of the accidents occur on private properties with accidents on municipal roads accounting for twenty nine (29) percent.

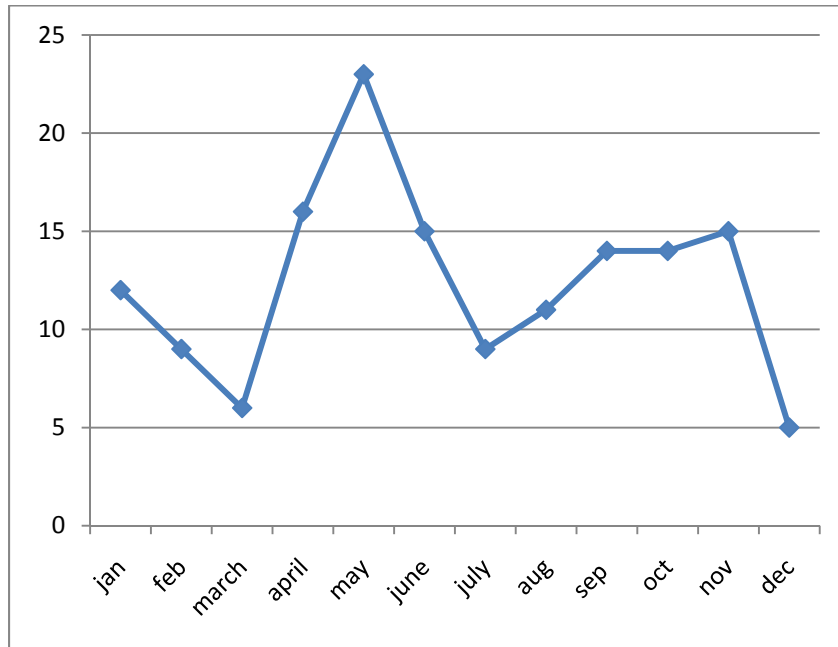
Time of Accidents
Borough of Garwood, 2006



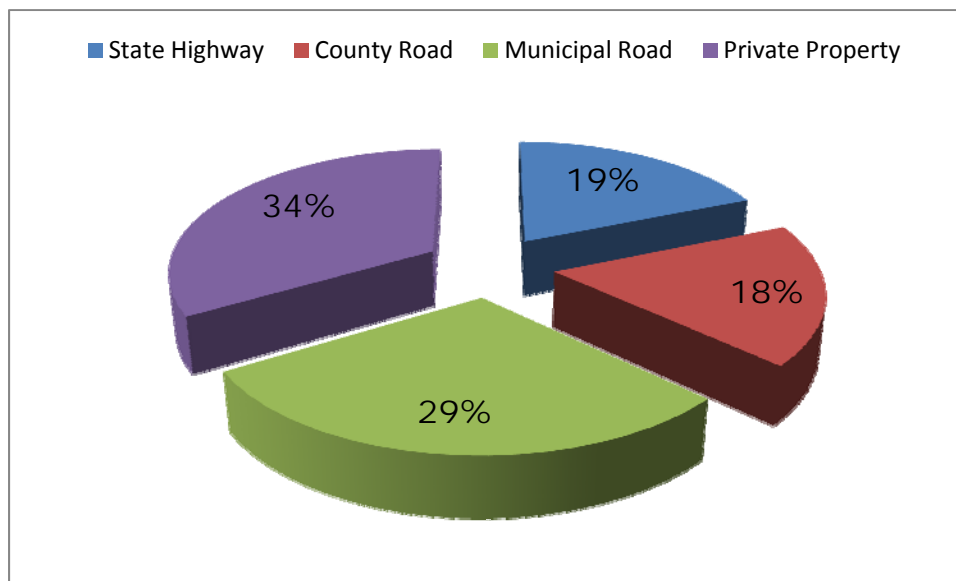
Day of Accidents
Borough of Garwood, 2006



Month of Accidents
Borough of Garwood, 2006



Location of Accident
Borough of Garwood, 2006



New Jersey Straight Line Diagrams

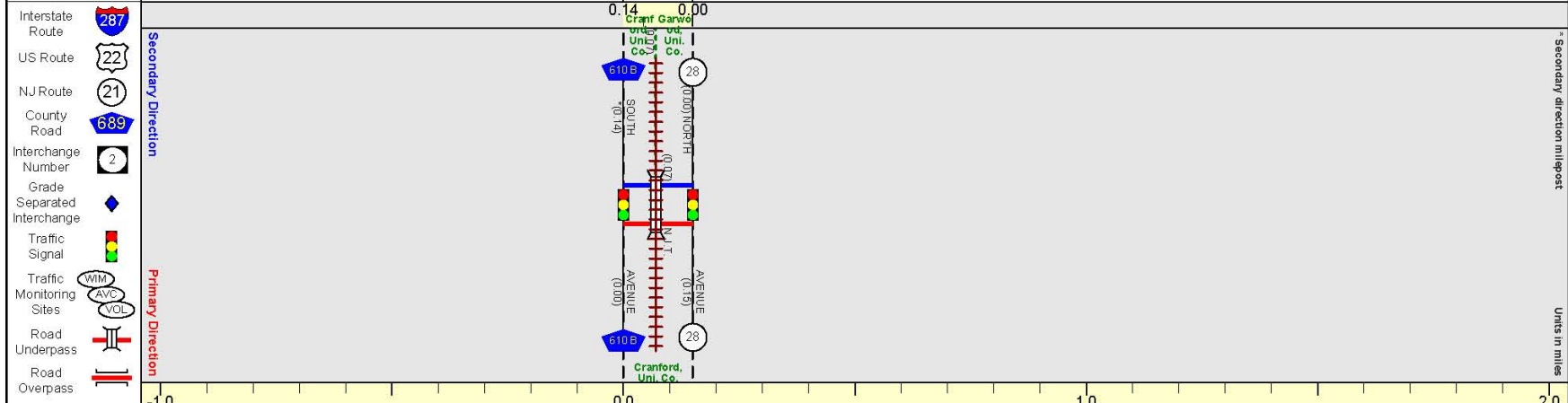
The New Jersey Straight Line Diagrams (SLDs) are a way of viewing roadways in a line format. The SLD network has been built for most State highways, National Highways and all County Roads. The top portion of the diagram indicates an overhead linear depiction of the road and below provides statistical information about said roadway. The legend for these maps is found below.

Straight Line Diagram Legend

ROUTE NUMBER/NAME (Direction By Description)		Route Mile Post Limits for This Sheet		
<h3>Symbol Legend</h3> <p>Federal Aid Interstate Route </p> <p>U.S. Numbered Route </p> <p>New Jersey Posted State Highways </p> <p>County Roads </p> <p>Interchange Number </p> <p>Grade separated interchange (full or partial) (Click symbol for interchange diagram if available) </p> <p>Traffic Monitoring Site (WIM, AVC, or VOL) </p> <p>Toll Plaza </p> <p>Undivided Roadway with Jug Handle and Traffic Signal </p> <p>Divided Roadway with Median cut and Jughandle </p> <p>Secondary Direction of Roadway </p> <p>Secondary Express Direction of Roadway </p> <p>Primary Express Direction of Roadway </p> <p>Primary Direction of Roadway </p> <p>Structures:</p> <p>Tunnel </p> <p>Cattle Overpass </p> <p>Cattle Underpass </p> <p>Road Overpass </p> <p>Road Underpass </p> <p>Pedestrian Overpass </p> <p>Pedestrian Underpass </p> <p>Railway </p> <p>Municipal Boundary </p> <p>Structure under 20 ft in length (Pipe) </p> <p>Structure under 20 ft in length (Culvert) </p> <p>Structure 20 ft and Over (Bridge) </p>				
Area Map				
	Pavement	Pavement width in feet of the driving lanes in the secondary direction if the roadway is divided.		
	Shoulder	Width in feet of the shoulder in the secondary direction if the roadway is divided.		
	Number of Lanes	Total number of traffic lanes in the secondary direction if the roadway is divided.		
	Speed Limit	Posted speed limit in miles per hour of the roadway in the secondary direction if the roadway is divided.		
	Street Name	Local street name of the route in the secondary direction if the roadway is divided.		
Route Diagram & General Information	MILES	Scale / Milepost in the secondary direction if the roadway is divided.		
MILCD	Scale / Milepost in the primary direction of the roadway.			
Street Name	Local street name of the route in the primary direction.			
Jurisdiction	Authority responsible for the mainline roadway.			
Functional Class	Classification of the road according to the character of service provided. Approved by F-HWA in 2002.			
Federal Aid Sys	Federal funding eligibility program.			
Contm. Section	Job number codes for internal NJDOT accounting purposes.			
Speed Limit	Posted speed limit in miles per hour of the roadway in the primary direction.			
Number of Lanes	Total number of lanes in BOTH directions of an undivided highway or only in the primary direction if the roadway is divided.			
Med. Type	Text description of the median.			
Med. Width	Width in feet of the median.			
Pavement	Total pavement width in feet of the driving lanes in BOTH directions of an undivided highway or only in the primary direction if the roadway is divided.			
Shoulder	Total width in feet of the shoulder in BOTH directions of an undivided highway or only in the primary direction if the roadway is divided.			
Traffic Volume	Traffic Volume estimate of the A.A.D.T. (Year Counted).			
Traffic Sta. ID	Internal NJDOT traffic monitoring station identification number.			
Structure No.	Authority structure identification number, if available.			
Enlarged Views	Appendix page number of an expanded view for the indicated area. Click to view.			
S.R.I. # (Standard Route Identifier)	Date last inventoried (Month/Year)			



Pavement	24
Shoulder	0
Number of Lanes	2
Speed Limit	25
Street Name	Lincoln Ave



Street Name	Lincoln Avenue
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Collector
Federal Aid Sys	STP
Control Section	2009
Speed Limit	25
Number of Lanes	2
Med. Type	Curbed
Med. Width	VAR
Pavement	24
Shoulder	0
Traffic Volume	11,452 (2003)
Traffic Sta. ID	3-4-339
Structure No.	2009150
Enlarged Views	

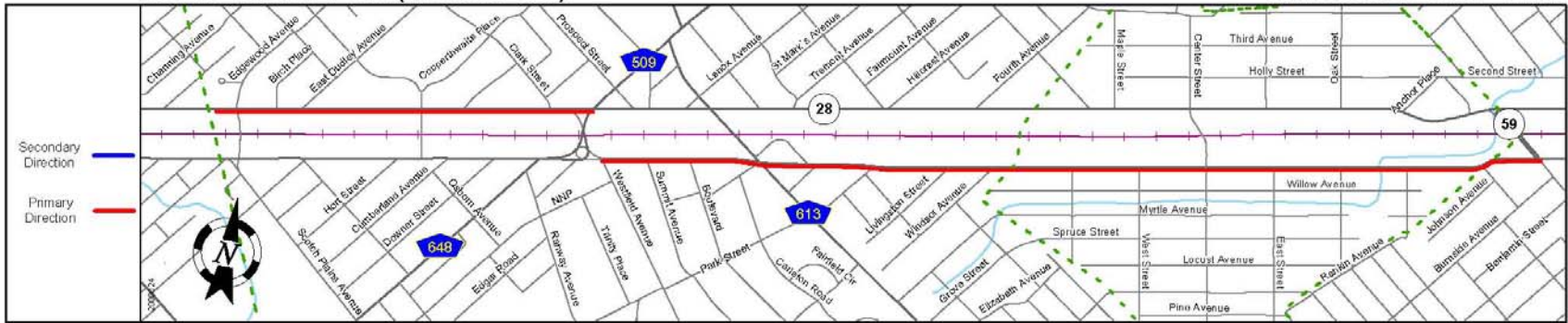
SRI = 0000059__

Date last inventoried: March 2006

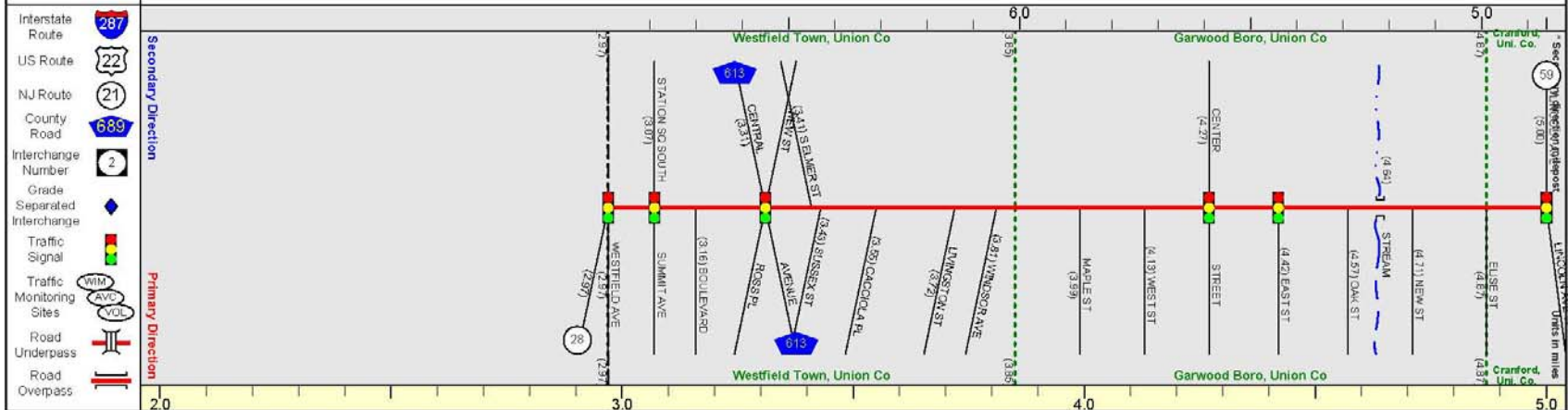
Page Created May 2007

UNION COUNTY 610 (West to East)

Mile Posts: 2.970 - 5.000



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Street Name	South Avenue	
Jurisdiction	County	
Functional Class	Urban Minor Arterial	
Federal Aid - NHS Sy	STP	
Control Section		
Speed Limit	30	35
Number of Lanes	3	4
Med. Type	None	
Med. Width	0	
Pavement	43	44
Shoulder	0	
Traffic Volume		
Traffic Sta. ID		
Structure No.		
Enlarged Views		

SRI = 2000610

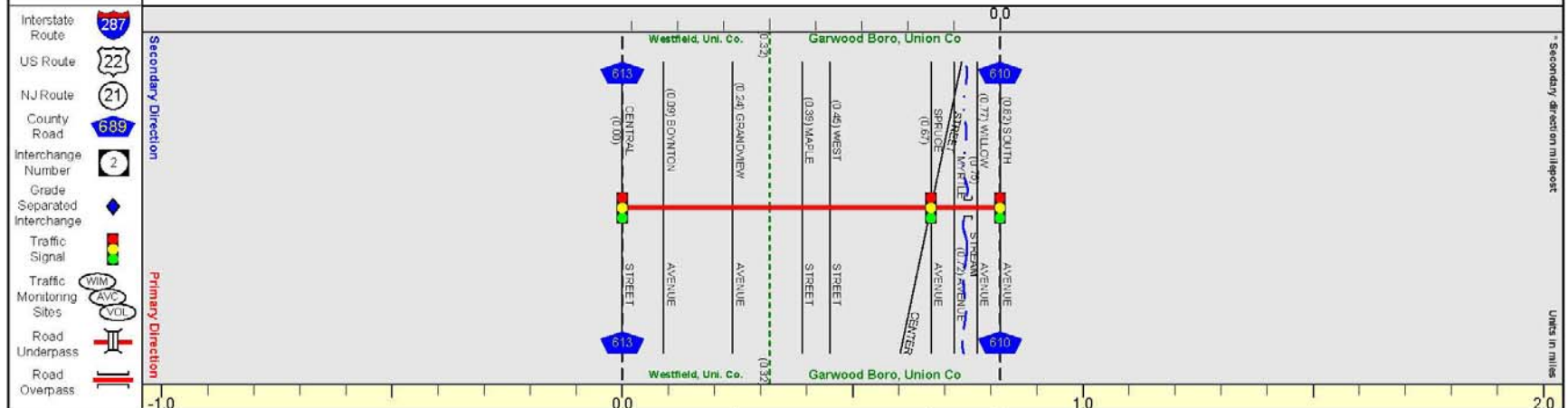
Date last inventoried: May 2000

CENTER ST (West to East)

Mile Posts: 0.000 - 0.820



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Street Name	Grove Street	Spruce Street	Center Street
Jurisdiction		Municipal	
Functional Class		Urban Collector	
Federal Aid Sys		STP	
Control Section	Begin Center St MP=0		End Center St MP=0.82
Speed Limit		25	
Number of Lanes		2	
Med. Type		None	
Med. Width		0	
Pavement		35	49
Shoulder		0	
Traffic Volume			
Traffic Sta. ID			
Structure No.			
Enlarged Views			

SRI = 20201332__

Date last inventoried: May 2000

Roadway Volumes

The busiest roadways in the Borough are in the vicinity of the intersections of South Avenue and Center Street and North Avenue and Walnut Street and Center Street. Both intersections are signalized; with dedicated left turn lanes on Center Street to North and South Avenues.

The New Jersey Department of Transportation has performed traffic counts in Garwood at five separate locations between 2003 and 2006. These traffic counts were performed at the following location and with the following results:

	<u>Monitoring Location</u>	<u>Cross Street</u>	<u>Mile Marker</u>	<u>Date</u>	<u>Average Daily Trips</u>
1.	North Avenue	Center Street		2004	23,220
2.	Lincoln Avenue	North Avenue	21.67	May 2006	19,154
3.	North Avenue	Cedar Street		2006	16,413
4.	Chestnut Street	North Avenue	20.78	April – May 2006	14,216
5.	Lincoln Avenue	Between North & South Aves.	0.10	August 2003	11,452

Numerous traffic studies all have confirmed that the road network in the Borough is at or nearing capacity. This condition is cause for concern when considering future development. Traffic mitigation will have to be addressed satisfactorily in future land use development discussions this unacceptable traffic condition will worsen.

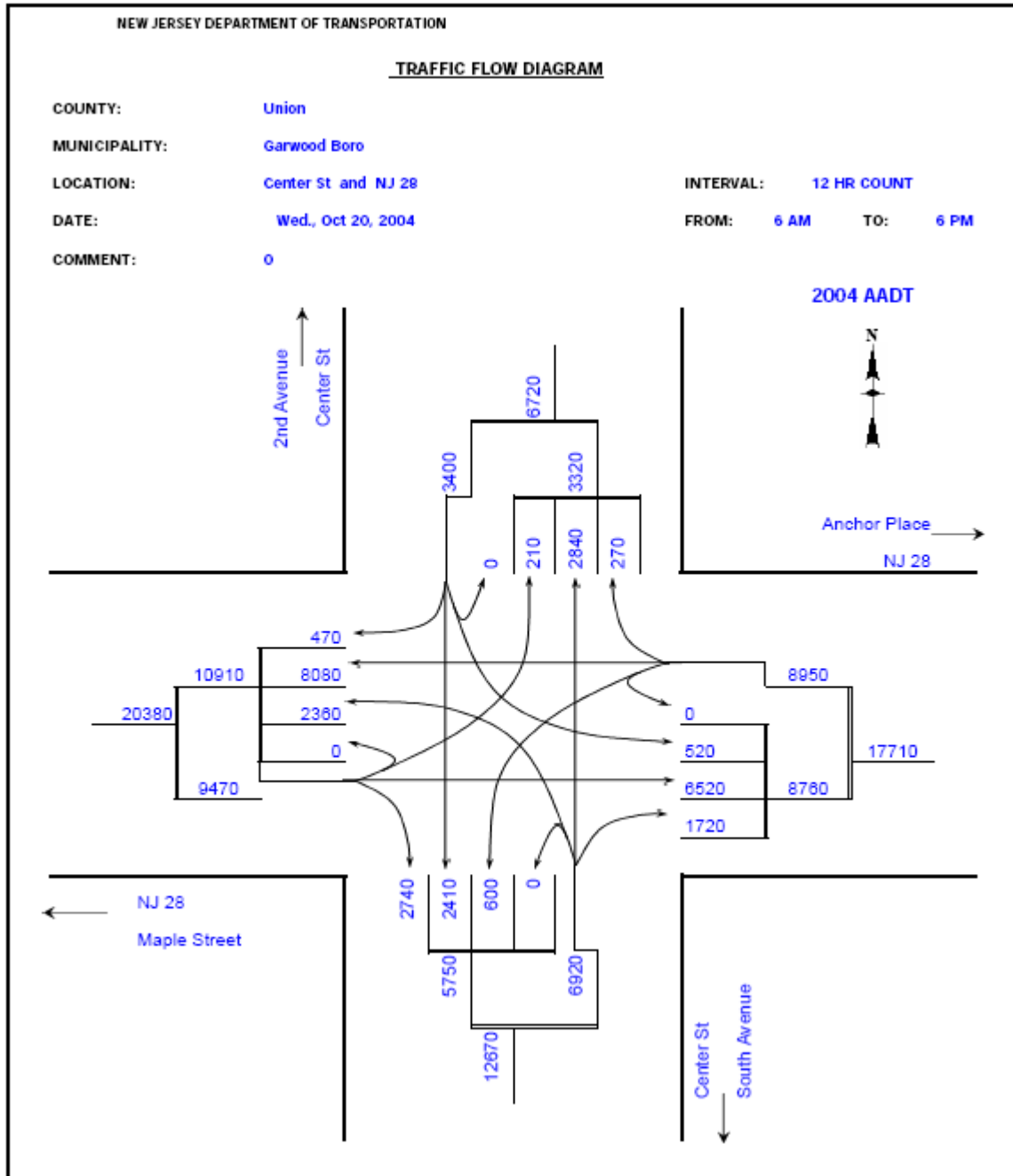
Truck Traffic

North and South Avenues have been designated by the municipality for heavy truck traffic. All other roadways exclude trucks over four tons. Much of the truck traffic in the Borough is local in nature, making deliveries or pickups in Garwood and surrounding towns. However, there is a significant amount of through truck traffic. The 1997 North South Avenue Corridor Study found that the intersection of North Avenue and Center Street in Garwood experienced high truck traffic volumes.

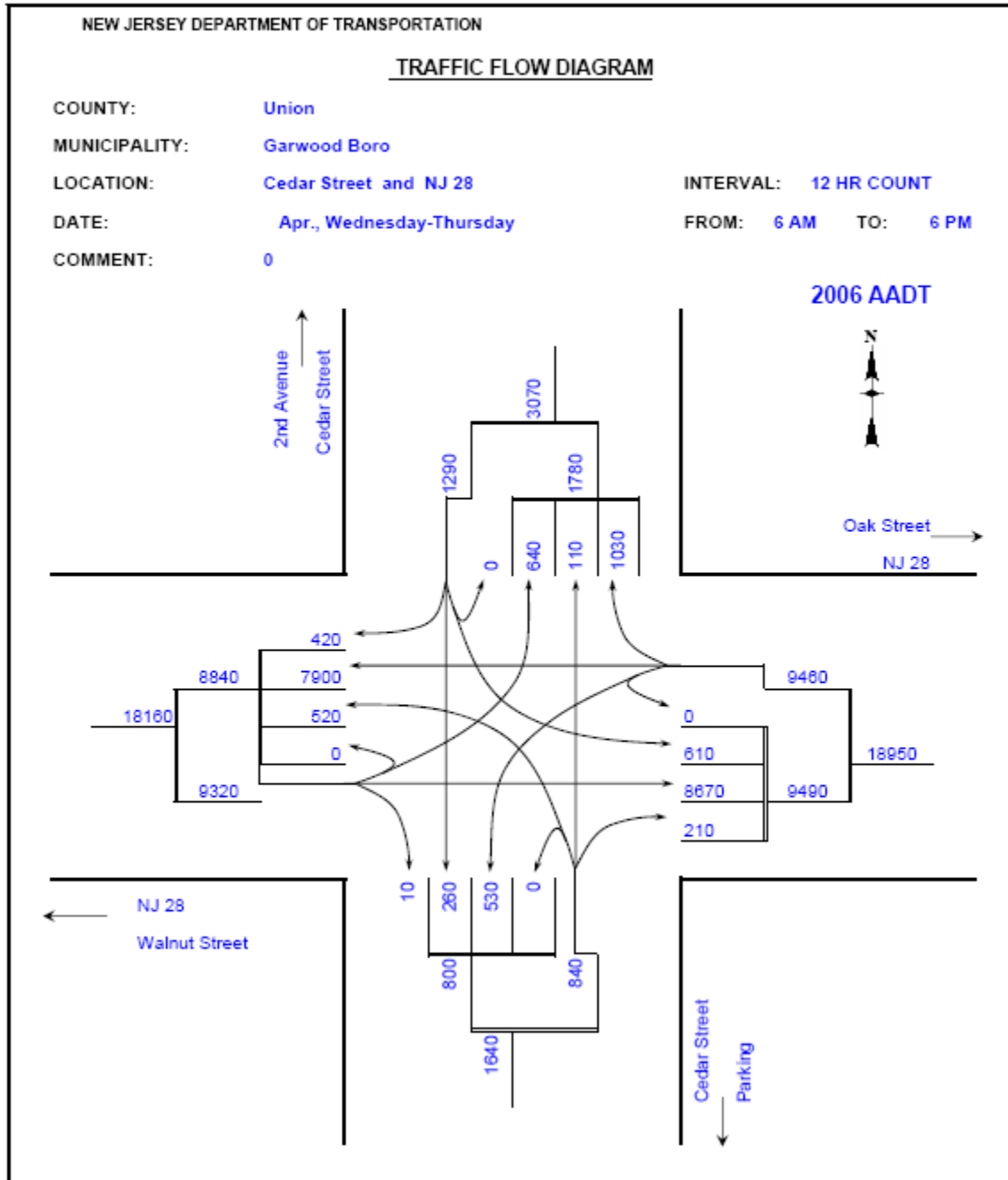
Key Intersection Traffic

The following traffic diagrams illustrate the daily average trip traffic at key intersections in the municipality:

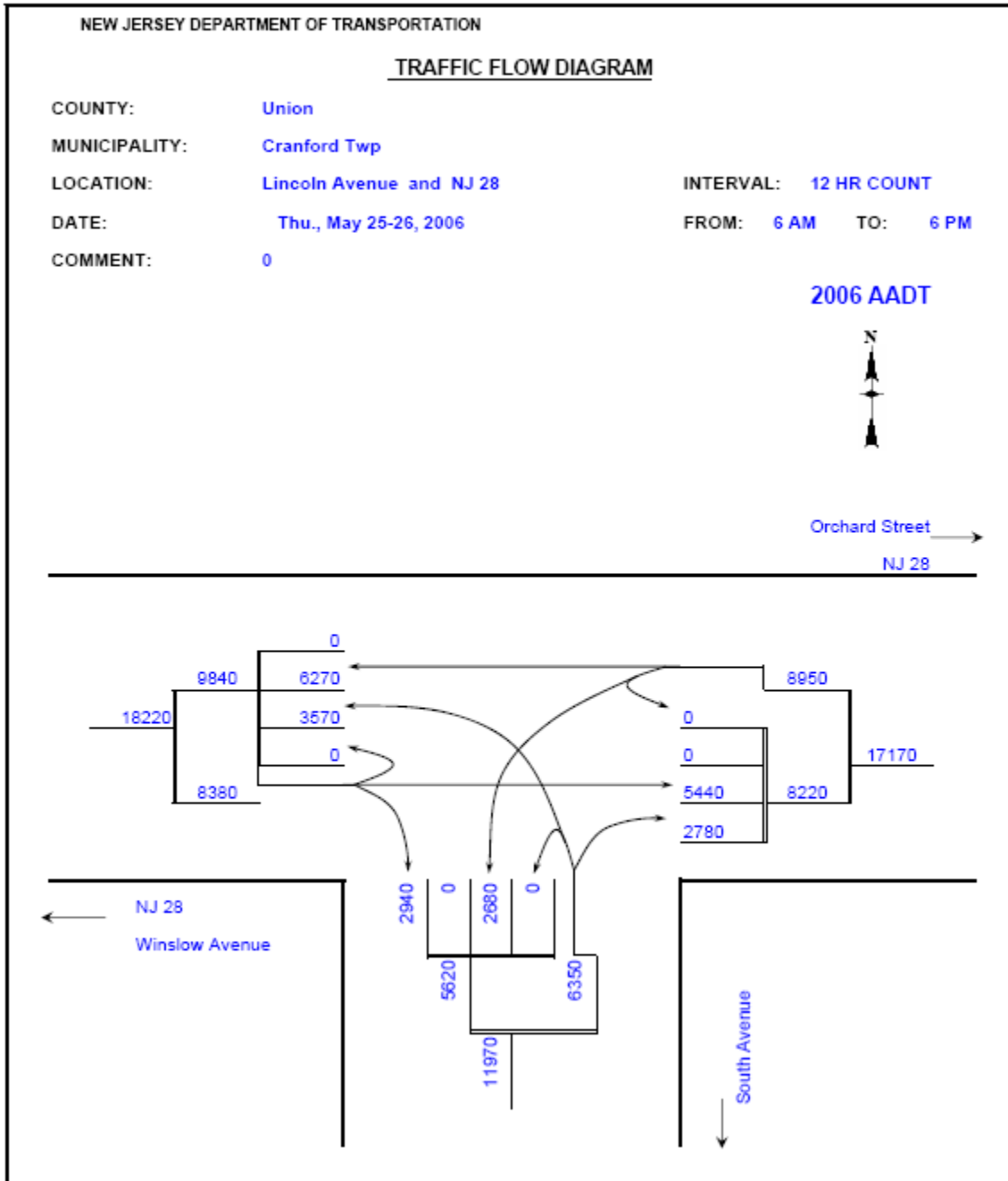
Center Street and NJ 28



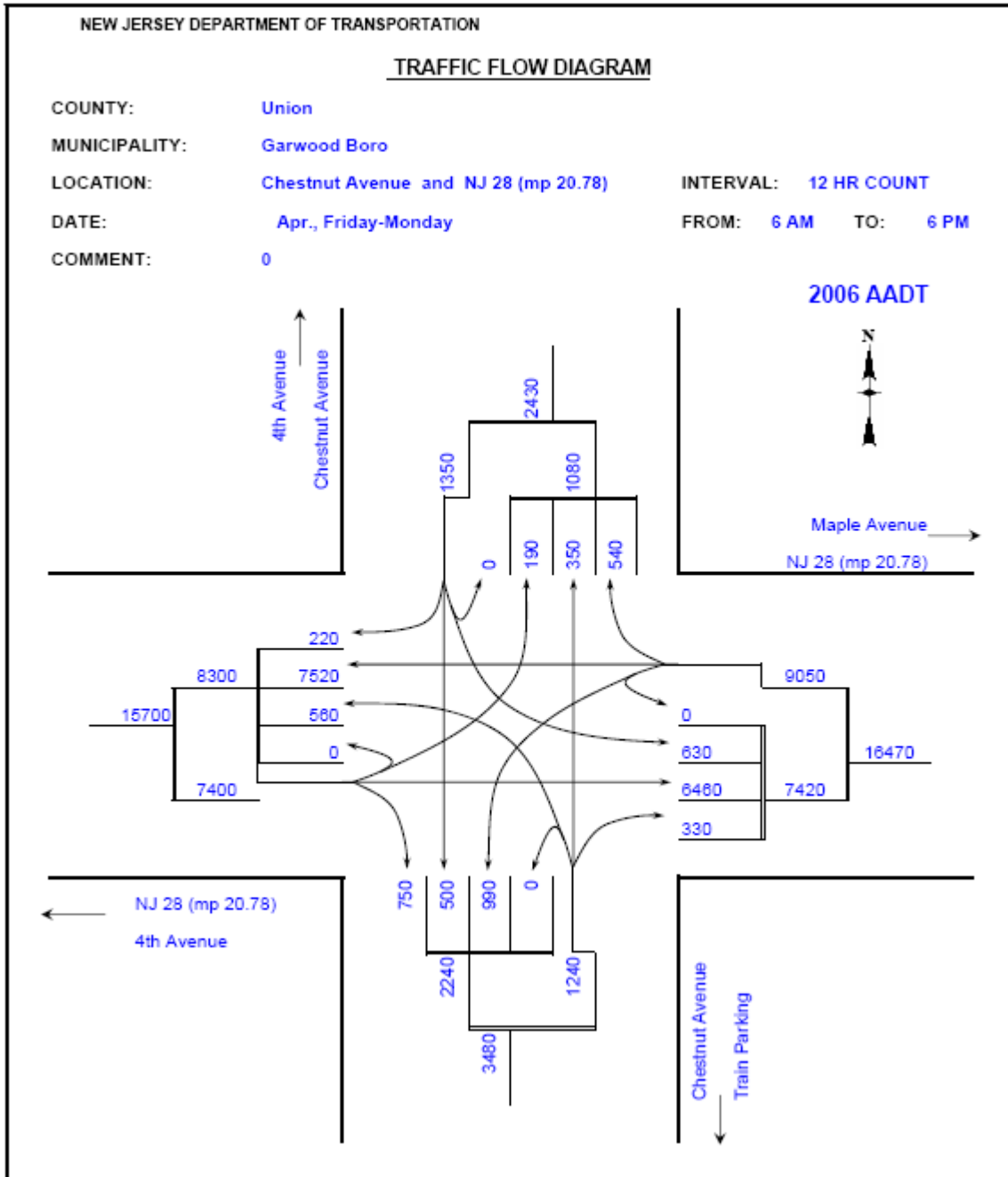
Cedar Street and NJ 28



Lincoln Avenue and NJ 28



Chestnut Avenue and NJ 28



PUBLIC TRANSPORTATION

New Jersey Transit

New Jersey Transit Corporation of Newark (Transit), the statewide mass transit agency, operates several services within the Borough of Garwood. Rail service is provided along the Raritan Valley Line which stops at Garwood Train Station. Bus service is provided on Routed 59 and Route 113.

Rail Service

The Garwood train station is located between the Cranford and Westfield train stations along the Raritan Valley Line. Garwood is the third stop on the westbound, or Somerville bound train, following departure from Newark Penn Station.

There are no designated parking spaces for the train station. Kennedy Plaza, the development adjacent to the westbound platform, has available two (2) hour shopper's parking. Train riders appear to walk or bike to the station, get dropped off or park illegally in the Garwood Mall parking lot.

Weekday service on the Raritan Valley Line eastbound from Garwood to Newark is scheduled for stops roughly every hour in the AM and PM rush hours. Likewise, westbound trains stop in Garwood on an hourly basis through the morning and evening rush hours as well. A total of seven (7) eastbound trains stop in Garwood and twelve (12) westbound trains stop. No service to or from Garwood is provided on weekends and holidays.

Bus Service

New Jersey Transit operates two bus lines in Garwood – Bus Route 59 from Newark to Dunellen, and Bus Route 113 from New York to Dunellen. No park and ride lots are provided within the Borough specifically for either bus line. No municipal parking is provided along the bus routes or in the vicinity of Garwood Station for commuters.

Residential Site Improvement Standards (RSIS)

As of June 3, 1997, the State imposed Residential Site Improvement Standards (RSIS) became operative and automatically effects all residential development in every municipality in New Jersey.

These standards supersede, and automatically replace, all technical requirements previously established by municipal ordinance with regard to streets, parking, water supply, sanitary sewers and storm water management.