

Scope of Study

The BETA Team, consisting of BETA Group, Inc. and Gates, Leighton & Associates, Inc. was hired by the Summit Neighborhood Association (SNA) to prepare this report. The report was prepared in cooperation with the SNA and the City of Providence in order to develop a traffic calming master plan for the Summit neighborhood of Providence. The project area is bounded by North Main Street to the west and Lorimer Street to the east. Rochambeau forms the southern boundary and the Pawtucket City line is the northern limit. Refer to Figure 1 for the project study area limits. The neighborhood is unique in that it contains a major traffic generator in the Miriam Hospital, located in the middle of a stable residential neighborhood. The institution presents issues with traffic volumes and speeds, parking, and pedestrian concerns. Hope Street includes six blocks of established retail and service businesses relying primarily on available on-street parking.

The study area includes several roadways of various classifications and individual problems associated with them. As such, the report cannot include every design detail. But where appropriate, dimensions and conceptual designs will be given at locations with specific recommended improvements. Overall, the plan is to make the arguments, demonstrate what is possible or appropriate, and give a range of recommendations of how things may be done in the neighborhood.

These proposals and recommendations are a master plan for the Summit neighborhood, which may be implemented in stages as money becomes available.



Recent improvements made at Wayland Square

It should be acknowledged that implementation of a comprehensive traffic calming plan often takes a long time for two reasons: First, it is expensive on a neighborhood scale, even when resources for such work are high on a City's agenda. Secondly, it must be constantly reviewed as to its effects and impacts. Traffic calming is not about predict and provide. It must be taken one step at a time and reviewed. This is because it is so difficult to predict the response of drivers to change, particularly in a neighborhood with a myriad of through routes. There is never just one solution to a particular place. Choices have to be made, each with its own implications.

Based upon the scope of the project and coordination with the SNA, BETA has identified selected streets and locations for data collection. The information obtained assesses traffic numbers, types of vehicles, speeds, movement through the area and turning movements at strategic locations. But in addition, and of equal significance, the intensive observation carried out by the community left little doubt that several streets endure traffic traveling at unacceptable rates of speed for residential streets.

At the local level, traffic calming responds to public concerns about speeding and cut-through traffic, particularly on neighborhood streets. The primary purpose of traffic calming is to reduce



Figure No. 1

Summit Neighborhood Project Limits

the speed and volumes to acceptable levels for the street's functional classification and the nature of the bordering activity. Overall, traffic calming attempts to achieve the following goals:

- Reduce through traffic
- Reduce truck traffic on residential streets
- Reduce excessive speeds
- Reduce noise, vibration, air pollution
- Provide a safer environment for pedestrians, bicyclists, and children.

Project Area

The scope of work identifies three areas of study, which while distinct, impact one another. They are Hope Street, the Miriam Hospital, and the local neighborhood streets. Each is discussed in detail.

Hope Street

Hope Street is classified as an arterial roadway running north-south from Wickenden Street in Providence to the Pawtucket city line. By definition, an arterial provides a high degree of mobility, connecting urban areas to each other. While they provide direct access to some homes and businesses, their primary purpose is to provide mobility to the motorist. The section of Hope Street in this study is from Braman Street to Hillside Avenue, a distance of approximately 1 mile. Refer to Figure 2. There is a six-block section of roadway, from Brahman Street to Fifth Street, which contains retail, restaurants and service businesses.

The section of roadway north of Fifth Street is primarily residential with small pockets of commercial businesses near Lippitt Park. The road has a fairly steep grade down to the north.

The businesses on Hope Street rely primarily on on-street parking for their clientele, although a few establishments, such as CVS, Citizen's Bank, and a bakery have off-street parking. The



Businesses and restaurants rely on on-street parking for their clientele.

existing businesses contain a good mix of small retail shops and restaurants, with hours of operation that overlap each other, ensuring parking spaces are occupied from early morning to evening. On street parking exists on both sides of the street, with no time limitations. At several times during the day and evening, vehicles were observed parked along the (residential) side streets due to a lack of available on-street parking on Hope Street.

There is one traffic signal, at Rochambeau Avenue, and while the signal operates at a good level of service, vehicles do back up during peak hours. There are no other traffic control devices (i.e. Stop signs, signals, etc.) on Hope Street within the study area, except at the northern limit of the project, where Hillside Avenue intersects Hope Street at the Pawtucket City line at a traffic signal.



Pedestrians crossing Rochambeau Avenue at the signalized intersection.



Planter on Hope Street

The existing pavement width is 40 feet, with sidewalks in excess of 10 feet on both sides. The roadway grade is nearly level. There are many mature street trees along the entire length, although there are several blocks with no trees at all. Many of the businesses have attractive planters on the sidewalks in front of their storefronts. This lends itself to make the Hope Street business area a “walkable community”, with wide sidewalks, attractive storefronts, and trees. However, crossing the street is difficult, even at marked crosswalks at intersections due to both traffic volume and speed.

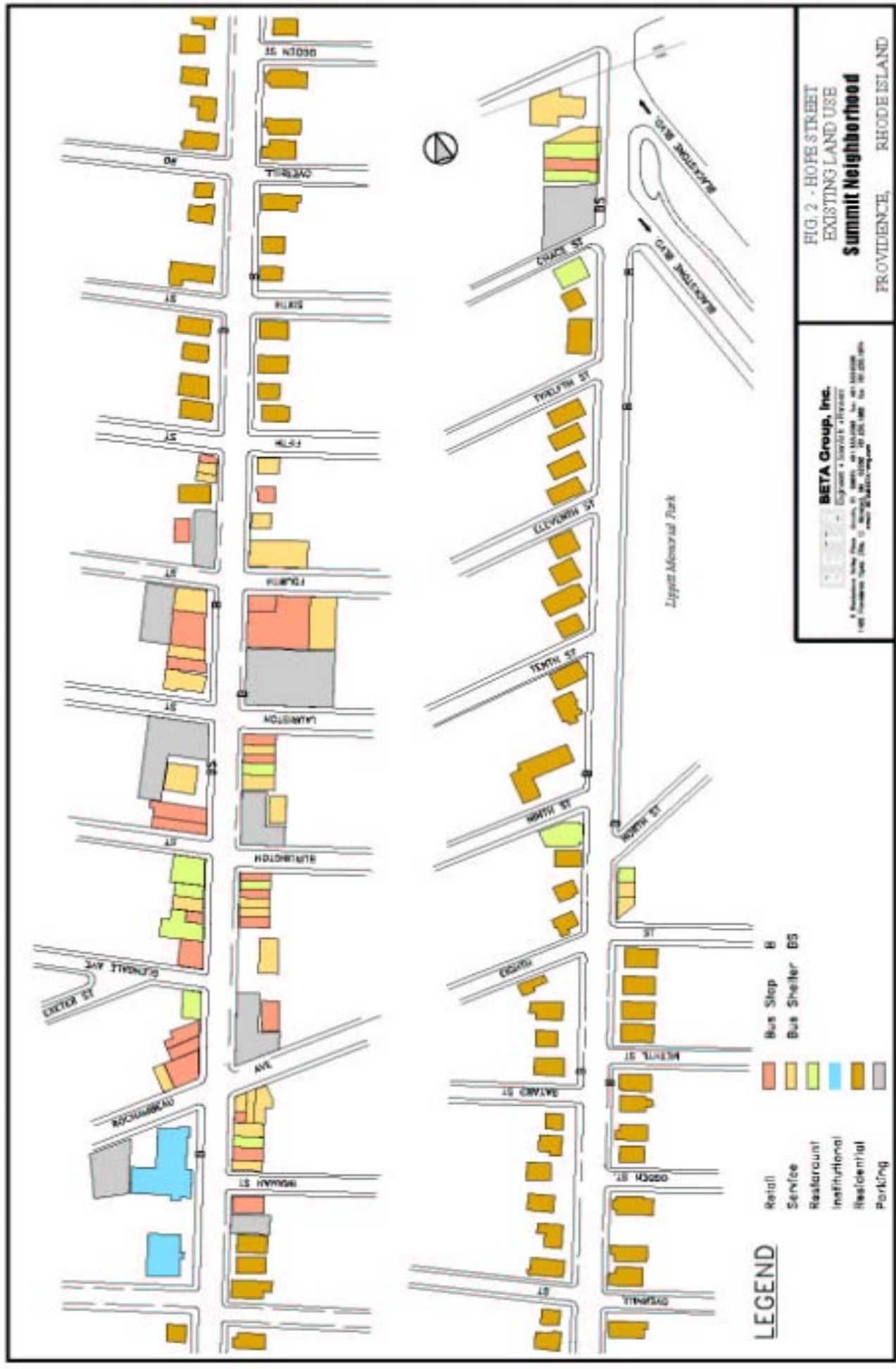
Figure 2 illustrates the existing land use and available parking on Hope Street within the business area.



The intersection of Rochambeau Ave.



Hope Street near Lippitt Park is 40 feet



The Miriam Hospital

The Miriam Hospital (TMH) is part of the Lifespan network of hospitals in Rhode Island. TMH moved from the West End to the Summit neighborhood in 1952. It has since undergone 4 expansions. The hospital contains an emergency room; full surgical and in-patient care facilities. The Fain Health Center, located across Fifth Street from the main hospital, has housed an outpatient clinic in the recent past; however, it is currently transitioning to provide a cancer research center and women's health center. Figure 3 depicts the Miriam Hospital campus.



TMH has several surface parking lots adjacent to the hospital, and two large lots for employees located in close proximity. Visitor parking is provided in the two lots on Summit Avenue, and provide parking for 144 vehicles, as shown in the photograph below. The parking inventory indicates that these lots have a high occupancy rate, filling up early in the morning, and remaining full throughout the day. The lots are convenient to both the hospital and the Fain Center.

A large lot for employee parking is located between Seventh and Eighth Streets, and between Highland Avenue and Summit Avenue. This lot provides parking for 327 vehicles. Shuttle buses provide transportation for employees who use the satellite parking locations at the Arena lot, located on Third Street at North Main Street, and the parking lot behind the former Sears building, also on North Main Street. These lots contain parking for 215 and 463 vehicles, respectively.

Several years ago, the City of Providence implemented two-hour parking restrictions on several of the local roads in close proximity to the hospital campus. At the time, residents noted a significant reduction in on-street parking. A few years later, TMH issued a policy forbidding employees from parking their cars on local streets during the day. The policy included harsh repercussions for those who ignored the rules, including termination. It is unknown what affect the hospital memorandum had on the parking problems. However, residents have noticed a steady increase in parking in front of their houses over the years.



The parking restrictions include 2-hour parking on several streets in close proximity to the hospital. These are illustrated in Figure 4 of this report.

The visitor lot on Summit Avenue experiences high



Fig. 3 - Miriam Hospital and satellite parking facilities.



Figure 4

Parking restrictions on roadways in the vicinity of the Miriam Hospital.

Rochambeau Avenue and the Local Street Network



Rochambeau Avenue, Dana Street and Camp Street form a large, unconventional five-way

Rochambeau Avenue runs from North Main Street to Blackstone Boulevard, crossing Hope Street at a signalized intersection. Rochambeau Avenue carries approximately 6,500 vehicles per day in the vicinity of Camp Street, and has been classified as a Collector roadway by the Rhode Island Department of Statewide Planning. Collector roadways provide both land access service and traffic circulation within residential neighborhoods and commercial areas. They differ from the arterial system in that they provide direct access to the residential neighborhoods, distributing trips from the arterials through the area to their ultimate destination. Conversely, the

collector street also collects traffic from local streets within the residential neighborhood, and channels it into the arterial system. In the case of Rochambeau Avenue, that would be North Main Street and Hope Street. Refer to Figure 1 for the local network of streets.

Rochambeau Avenue experiences free-flow conditions from North Main Street to Hope Street. It is signalized at both intersections. The roadway is wide, with a measured pavement width of 32 feet. A five-way intersection is located where Camp Street and Dana Street intersect in the vicinity of the Beth Sholom Temple. Dana Street and Camp Street are controlled by Stop signs.

The local streets within the study area range in width from 24 feet to 30 feet. All allow parking on at least one side of the street, and have granite curbing and concrete sidewalks in various conditions. Most streets have some Stop control at intersections, although there are a few Yield signs, particularly north and east of the Miriam Hospital.

Fifth Street and Seventh Street have signs at North Main Street identifying the hospital route. Hospital signs are located at Overhill and Fifth Street for vehicles traveling on Hope Street.



Hope Street at Burlington Street.

Physical Causes

Physical causes of the traffic problem relate to the way local neighborhoods have been designed. The pattern of the street system, street geometrics, location of major traffic generators, traffic congestion on major streets and nuances of traffic control can all contribute to a neighborhood's traffic problems.

Gridiron street systems allow traffic to diffuse in all directions on every street. Although there are defined hierarchies of arterials, collector and local streets, often the streets designed to carry high volumes of through traffic are congested. In older neighborhoods, there is often little physical difference from a motorist's standpoint between the designated arterial, collector and local residential street. If the arterial or collector is congested, the adjacent residential street in the grid, usually parallel to and of equal distance, is an inviting shortcut.