VILLAGE OF SHELBURNE FALLS PARKING STUDY

Funded by the Massachusetts Department of Housing and Community Development

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Executive Summary

The Franklin Regional Council of Governments (FRCOG) was hired by the Shelburne Falls Village Partnership to conduct a parking study. The Scope of Services for the Shelburne Falls Parking Study was created after a meeting with Andrew Baker on February 12, 1998. The priorities identified at the meeting were to: determine the current use of existing parking; assess the current use and how to increase the use of existing peripheral lots; reconfigure existing spaces within the Keystone Lot to increase capacity; and develop an implementation plan to use existing parking to its fullest capacity.

Based on two parking turnover surveys, it was established that there was not a parking capacity shortage in the Village. There remained 30% (100 spaces) unused capacity at peak occupancy. The perception that there is a shortage of parking in the Village of Shelburne Falls is likely attributed to the image that the core parking areas account for all the available parking. Additional capacity could be obtained in core areas by removing all day parkers from these valuable spaces. The Keystone Lot was identified as an area where high turnover is desired, but 50% of its spaces are being occupied by long term parkers.

Time limit restrictions have been recommended for the Keystone Lot and other key areas to increase turnover and therefore the availability of spaces. Enforcement options have been proposed in the form of a parking enforcement officer along with a hand held computer citation device. Without enforcement the new and existing restrictions would be open for abuse. Meters and pay and display options were investigated but have been discouraged due to high implementation costs and perceived unfriendliness to visitors.

Introduction

The Franklin Regional Council of Governments (FRCOG) was hired by the Shelburne Falls Village Partnership (SFABA) to conduct a parking study. The Scope of Services for the Shelburne Falls Parking Study was created after a meeting with Andrew Baker on February 12, 1998. The priorities identified at the meeting were to: determine the current use of existing parking; assess the current use and how to increase the use of existing peripheral lots; reconfigure existing spaces within the Keystone Lot to increase capacity; and develop an implementation plan to use existing parking to its fullest capacity.

Five tasks were completed to meet the goals of this project. Task 1 included an inventory of existing parking within the defined Study Area. This included identifying both public and private parking, marked and unmarked spaces, and conducting research about the ownership of lots. This work provided base data from which all analysis stemmed. The task resulted in the generation of a Parking Inventory Map that illustrates all parking spaces in the Village.

Task 2 of this project was to conduct a parking turnover survey that monitored use of each parking space in the Village on an hourly basis over a twelve-hour period. The turnover survey was conducted twice; once in April and once in October in recognition that parking constraint in the Village is a seasonal issue. The turnover survey resulted in analysis of data that identified average length of stay, turnover rates, and occupancy rates for parking areas throughout the Village. The analysis and assessment of existing parking and use was the most important aspect of this study. Equipped with detailed information about usage patterns and capacity, the Village Partnership will be able to plan carefully for the future.

An additional part of Task 2 was to survey business owners in the Village. The business survey was used to determine the business community's perceptions about the importance of parking and establish where they, their employees and their customers park. The results of the survey were also used to gain a better understanding of the parking turnover survey results.

The FRCOG Engineering Department worked with the Planning Department on the majority of the work under Task 3. Using AutoCAD, the Keystone Lot was examined to determine if spaces could be reconfigured to gain additional capacity and to relocate disabled spaces to areas that were more convenient and accessible. A secondary task was to identify areas on Bridge and Main Streets where additional capacity could be added.

Task 4 used the information collected in the first 3 tasks to develop an implementation plan to improve the use of existing parking. This includes recommendations for changing the time restriction on some parking spaces in the Village and implementing an incentive system to move Village employees out of core parking areas to peripheral areas. The FRCOG also examined potential enforcement methods for the Towns' consideration. Future recommendations are also offered.

Task 5 involved the presentation of the study findings to the SFABA and both Town's Selectboards and the public.

TASK 1.

Study Area

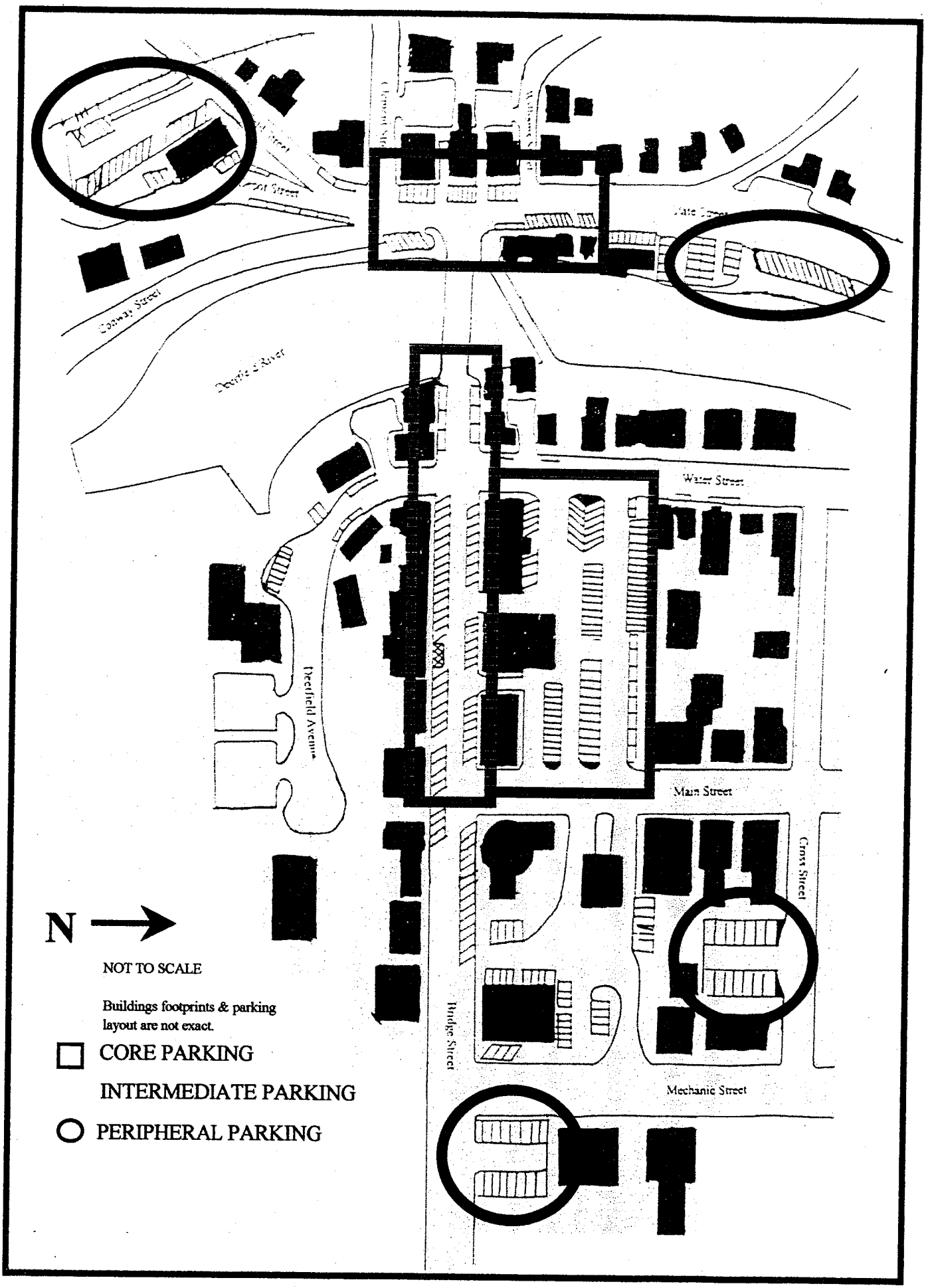
The Study Area was defined to encompass the Downtown area of Shelburne Falls on both the Shelburne and Buckland sides of the Deerfield River. Figure 1 shows the extent of the Study Area. Having defined the study area it was then divided into "core" parking areas, "peripheral" parking areas and "intermediate" parking areas. Core parking areas are characterized by the high retail development adjacent to them and where high vehicle turnover is desired. The peripheral areas tend to be parking lots on the outskirts of the study area. Long term parking for employees and visitors is desired in these areas. Intermediate areas are those which are neither adjacent to businesses nor are on the outskirts of the area. Longer term parking in excess of two hours can be accommodated in these areas, but all day parking should be discouraged.

Parking Space Inventory

An inventory of all the public spaces and those spaces for which ownership was unclear was conducted in April of 1998. This inventory was updated again in October of 1998 following a summer of construction projects throughout the study area. The inventory included marked and unmarked spaces, on-street and parking lot spaces and also restrictions, if posted.

The inventory identified 180 spaces in the core areas, 86 spaces in the intermediate areas and 100 spaces in the peripheral areas. This gives a total of 366 spaces that are available for public parking, 109 spaces on the Buckland side and 257 spaces on the Shelburne side. Appendix 1 shows the locations of the available parking within the Study Area. Two-hour parking restrictions are posted within the core areas of Bridge Street and State Street. Additional two-hour limits are posted on the top portion of Bridge Street on the South side only, four spaces at the top of Deerfield Avenue, the parking lot at the back of the Buckland Town Hall and the six spaces on the east side of Ashfield Street. Presently there are no restrictions for parking within the Keystone Parking Lot. The existing two-hour restrictions differ slightly between the two towns. In Buckland the restrictions are in effect Monday through Saturday, 9am to 5pm with Thursdays 9am to 8pm. The restrictions are not in effect on Sundays and Holidays. In Shelburne the restrictions are in effect Monday through Saturday 9am to 6pm with Thursdays 9am to 9pm.

Figure 1: Downtown Shelburne Falls Study Area



Parking Area Ownership

The Assessors records from both towns were reviewed to ascertain ownership of the various parking lots within the study area. Following confirmation of the ownership, the respective owners were asked if they would entertain public and/or employee (other than their own) parking within their lots.

Buckland

- Salmon Falls Lot: This area located behind the Salmon Falls Marketplace, accessed from Ashfield Street is solely owned by the Town of Buckland. The assessors map indicates the parcel the Town owns is larger than the area currently paved and marked for parking.
- McCuskers Lot: This area is located behind the building housing McCuskers Market and is accessed from Clement Street. This area is owned by the "McCusker Company" and is private, providing parking for residents and employees of the adjoining building.
- Town Hall Lot: This lot located behind the Buckland Town Hall and accessed from Williams Street is solely owned by the Town of Buckland. A two-hour restriction is posted in this lot.
- Laundromat Parking Area: This area is located on west side of State Street opposite the Eagles Club. This area is provided for customers of the Laundromat and a candy store only.
- Eagles Club Lots: There are two defined parking areas off State Street next to the Eagles Club. The Eagles Club own both parcels. A lease agreement exists between the Town and the Club in which 0.15 of the 0.26 acres is leased to the Town. This accounts for the area furthest north on State Street, with angled parking spaces and 15 spaces in the lot nearest the Club building. The spaces directly adjacent to the north and west sides of the Club building are for members only.
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Shelburne

- Keystone Parking Lot: The Town of Shelburne owns parcels on the East, West and North of the area used for public parking behind Bridge Street from Main Street to Water Street. The owner of the Keystone Market owns the portion of the area in the middle of the lot behind the Market. Both parties agree that there was a lease agreement that allowed public parking on this area, but a search of the Town records could not locate it. Part of that agreement reserves eight spaces for use by residents of the apartments above the Keystone Market. Presently there is no marking or signage to identify the eight reserved spaces. Because a current copy of the lease cannot be located by Town Personnel, there is a question if the lease has expired. The owner is happy to continue with the existing agreement, if parking turnover patterns improve.
- Cross Street Lot: This lot is solely owned by the Town of Shelburne. Currently, there are no signs indicating that this area is available for public parking.
- United Bank Lot: This lot located behind the United Bank and accessed from Mechanic Street is solely owned by the United Bank. It is unclear from the assessors map if some of the spaces on the west side of the lot are within a parcel owned by the Town. There are no signs in the lot clarifying customer only parking. Some of the spaces are signed as reserved for Senior Center vehicles.
- Bridge Street, United Bank Lot: The lot is located at the intersection of Bridge Street and Mechanic Street opposite the United Bank. This area is solely owned by the United Bank. The United Bank offered use of the lot to Downtown employees and employers of other businesses for long term parking. Although this lot is private, the United Bank will not penalize members of the public for parking in the lot, so these spaces have been considered as public parking for this study.

- Deerfield Avenue, area behind North River Glass: This lot is located off Deerfield Avenue on the west side next to the Glass Blowers. This lot is private and provides parking for Bridge Street and Deerfield Avenue businesses.
- Mole Hollow Candle Customer Parking: The six spaces located in front of the Mole Hollow Store are owned by them and are for customer parking only.
- Deerfield Avenue Turnaround: This area at the bottom of Deerfield Avenue was recently formally paved and ten spaces were marked. This area is owned by Mayhew Steel Products, Inc. The Town has an easement for the paved area of the turnaround up to the parking spaces. Mayhew could have given an easement for the rest of the area, but chose not to and paid for the paving work for the area on which the parking spaces were marked. Therefore these spaces are unable to be used for public use and signs are posted informing that the parking is for "employees only". Mole Hollow have had an agreement with Mayhew to allow its employees to use the spaces.

TASK 2

Parking Turnover Survey

A parking turnover survey allows for the monitoring of parking patterns over a defined period. Parking space occupancy and turnover is obtained as well as the length of stay. For the purposes of this study two turnover surveys were conducted. The first was conducted on Thursday April 30, 1998. This survey provided parking patterns during an off-peak period. Due to the reconstruction of Bridge Street throughout the summer months it was not possible to conduct a survey during this period. A second survey was originally scheduled to be conducted on Thursday October 8, 1998 (Thursday before Columbus Day Weekend), but due to rain it was postponed until Friday October 16, 1998. This second survey was scheduled to provide information on the parking patterns during a period where reasonable volumes of tourist traffic were present.

Three routes were defined, one covering all the spaces on the Buckland side and two covering all the spaces on the Shelburne side. These routes were walked every hour starting at 7:30 am with the last beat starting at 6:30 pm providing 12 hours of data. Each space was allocated a number along the route and partial license plate numbers were logged. It was assumed that a logged vehicle occupied the space for at least one hour. The logging of partial license plate numbers allowed vehicles staying in the same space for more than one hour to be identified. Vehicles that were observed to have stayed in the same space for six hours or more had the model, make, color and full license plate number noted for possible identification by the SFABA. This data was later used to identify long term parking vehicles in both April and October.

The collected data was entered into a spreadsheet where a variety of analyses were conducted to obtain parking patterns throughout the Study Area.

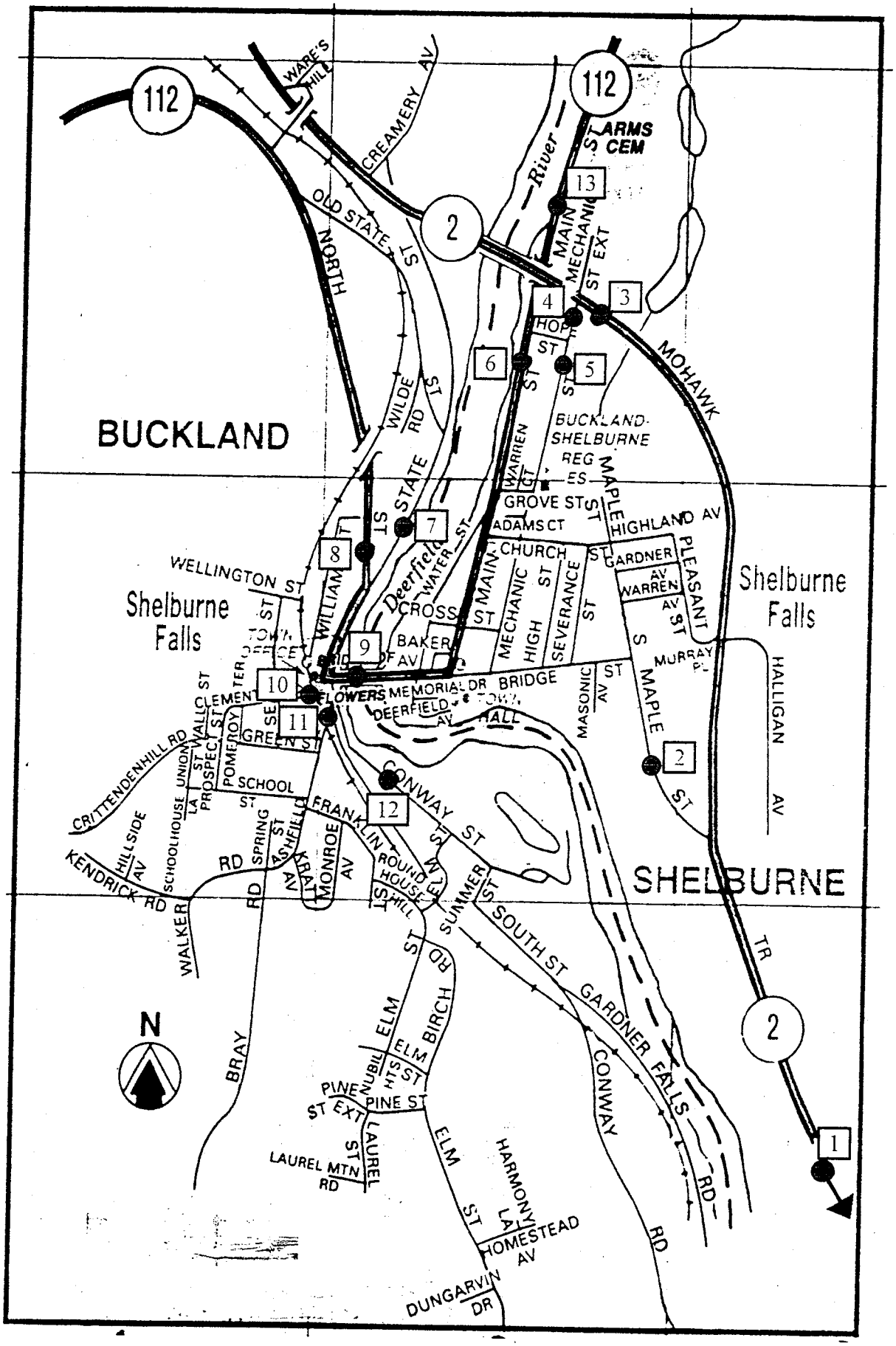
Traffic Counts

During both turnover surveys traffic counting equipment was installed to monitor traffic patterns entering the Village of Shelburne Falls. Traffic counters were located on all the roads that access Downtown Shelburne Falls. Figure 2 shows the traffic count locations and Table 1 shows the traffic volumes during the data collection period and Average Daily Traffic (ADT) volumes.

The collected traffic volumes do not indicate dramatic traffic volume increases between April and October. This could be partially due to the 1998 Fall foliage season being less vibrant than normal and poorer weather conditions.

Over the previous 3 years the FRCOG and MHD have conducted counts in and around the Village of Shelburne Falls. Table 2 contains traffic volume data collected since 1996, when the FRCOG first collected data in the Village.

Figure 2: Traffic Count Locations



Parking Survey Analysis Results

Analysis

The collected data was input into a spreadsheet from which occupancy, duration and turnover of parking spaces and areas were calculated. Occupancy defines the percentage of the spaces occupied either at a specific time, or averaged over a period of time. For the purpose of presenting the results of the turnover studies, the maximum occupancy and the average occupancy during the business day (9:30am to 5:30pm) have been calculated. Duration defines the length of stay of a vehicle in a space. It was assumed that a vehicle logged in a space occupied it for at least one hour, therefore for the purposes of the study the minimum duration is one hour and the maximum duration is twelve hours. Average length of stay has been calculated for defined groups of parking spaces and areas Finally, turnover defines the number of different vehicles using the spaces. Since it has been assumed that each logged vehicle occupied the space for one hour the maximum turnover per space is twelve vehicles. The average turnover (i.e. total number of vehicles/total number of spaces) has again been calculated by the defined parking areas.

Results

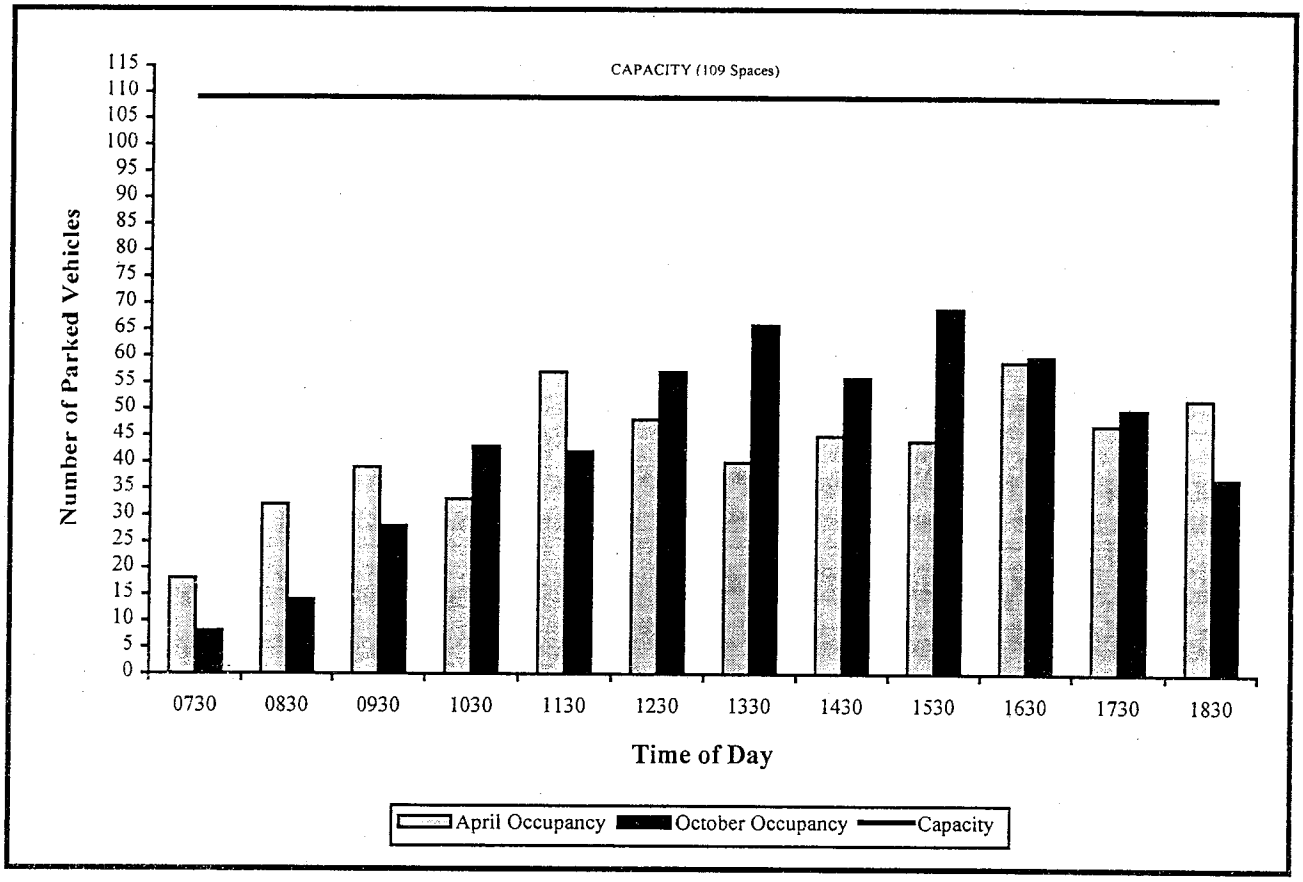
The results of the parking study have been primarily presented in chart format, with both the results of the April and October surveys shown on the same chart. Additionally, the statistics defined above have been listed below each chart.

All Public Parking

There is a perception that there is a shortage of parking spaces in the downtown area. A part of this study was to ascertain whether there was a parking shortage within the downtown area. Looking at all of the available public parking spaces shows there is not a shortage of public parking spaces. Approximately 30% (100 spaces) of the available public parking spaces remain unoccupied at the time of peak occupancy during both surveys.

Buckland

Figure 3: Buckland, All Public Parking

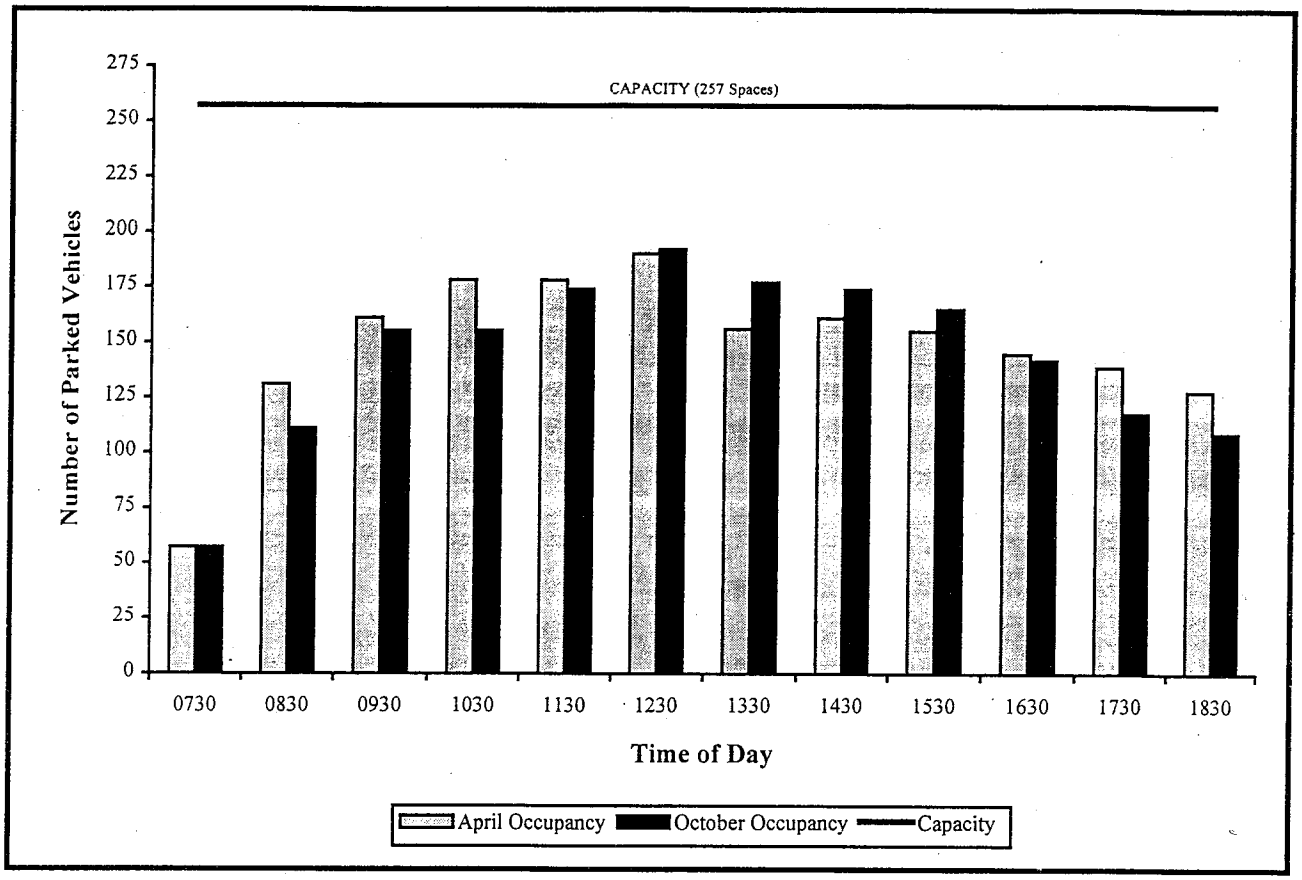


Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	54% at 4:30pm	42%	1.85 Hours	2.96 Vehicles per Space
October	63% at 3:30pm	48%	1.68 Hours	3.36 Vehicles per Space

Figure 3 shows the space occupancy throughout the day in both April and October in public parking spaces on the Buckland side of the Study Area. The inventory identified a total of 109 spaces available for public parking in this area. The peak space occupancy was 67% (63 spaces) which occurred in October at 1:30 pm. The average occupancy throughout the business day in April and October was approximately 50% (55 spaces). The average length of stay was less than two-hours in both April and October.

Shelburne

Figure 4: Shelburne All Public Parking



Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	74% at 12:30pm	64%	2.19 Hours	3.16 Vehicles per Space
October	75% at 12:30pm	65%	2.00 Hours	3.37 Vehicles per Space

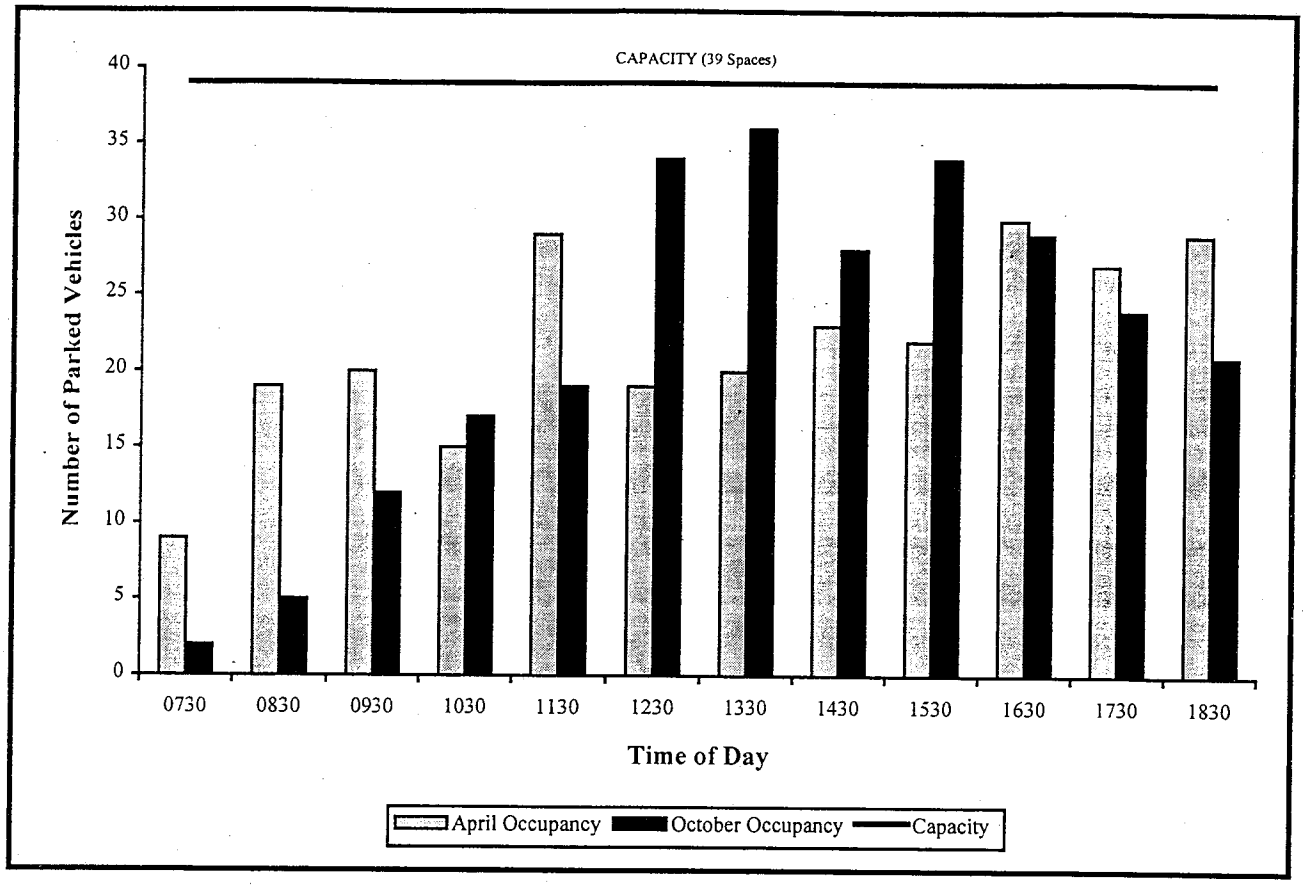
Figure 4 shows the space occupancy throughout the day on the Shelburne side of the Study Area. The inventory identified a total of 257 spaces available for public parking in this area. A very similar pattern is seen in both April and October with a peak occupancy of 74% (190 spaces) and 75% (192 spaces) respectively, occurring at 12:30pm. The average occupancy throughout the business day was, again, similar in both months at approximately 65% (167 spaces). The average length of stay in April was just over 2 hours 10 minutes and exactly 2 hours in October.

Core Parking Areas

The above two figures clearly show that there is presently sufficient existing parking capacity within the Village. The perception that there is a shortage of parking in the Village of Shelburne Falls is likely attributed to the image that the core parking areas account for all the available parking. A closer look at the parking patterns in these areas, shows why this perception exists.

State Street, Buckland

Figure 5: State Street Public Parking Use



Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	77% at 4:30pm	57%	1.32 Hours	5.08 Vehicles per Space
October	92% at 1:30pm	67%	1.27 Hours	5.28 Vehicles per Space

Figure 5 shows the space occupancy for the core parking area on State Street in Buckland. This area incorporates the 39 on-street marked spaces from Ashfield Street to the Sunoco Gas Station. This area saw differing use between April and October with maximum occupancies of 77% (30 spaces) at 4:30pm and 92% (36 spaces) at 1:30pm respectively. During peak occupancy in October there were only three spaces which were unoccupied Even with a sustained peak in activity between 12:30pm and 4:30pm the average occupancy through the business day was only 67% (26 spaces). This was mostly due to the low occupancy rates during the first three hours of the business day. A two-hour limit is presently in place in this area. The average length of stay of all the vehicles parked in this area in April and October was approximately 1 hour 15 minutes. As expected with a core area, the turnover rate is relatively high at approximately 5 vehicles per space. The 16 spaces in front of McCuskers Market, Aubuchon Hardware and the Town Hall see a higher turnover rate of nearly 7 vehicles per space with a slightly shorter average length of stay.

Figure 6: State Street Public Parking, Length of Stay

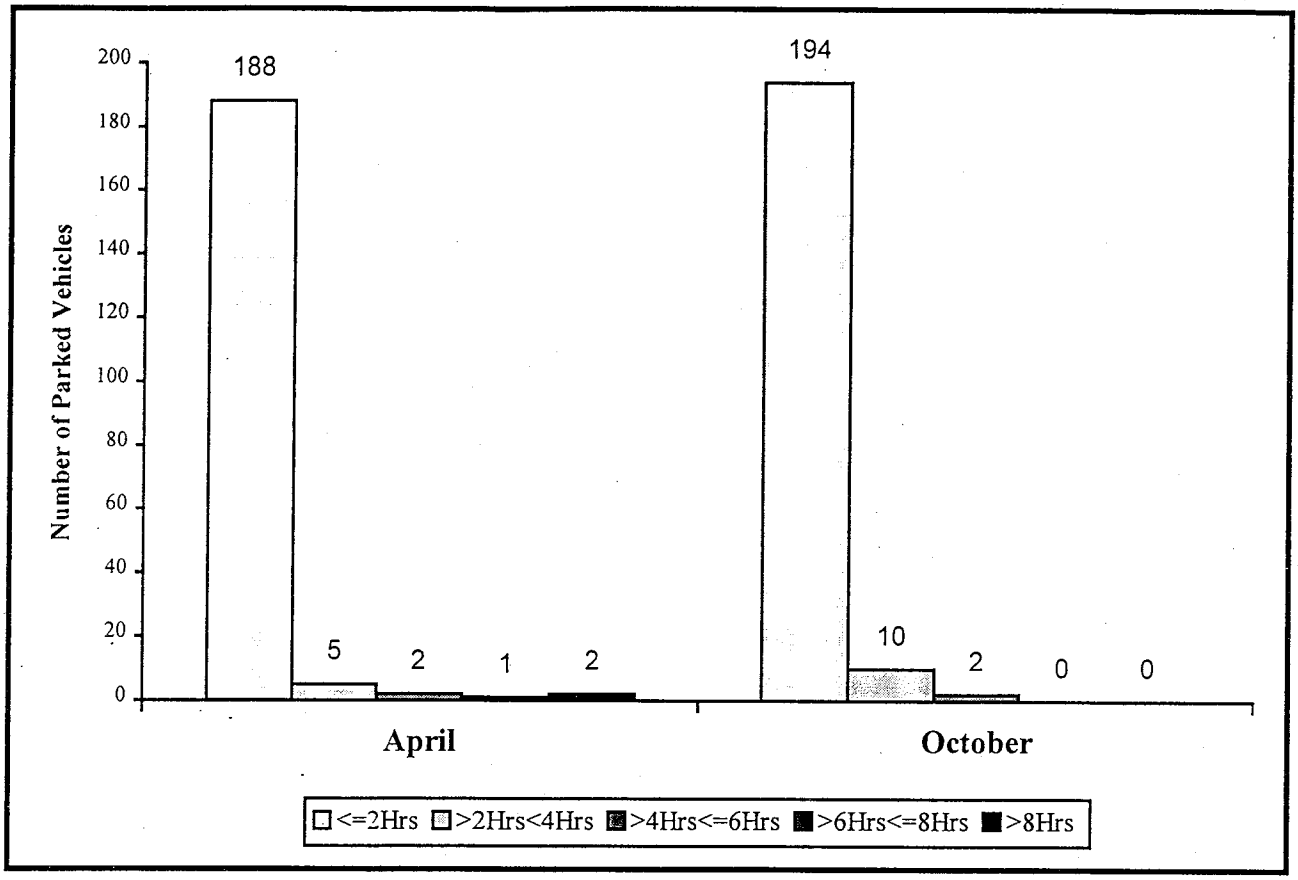
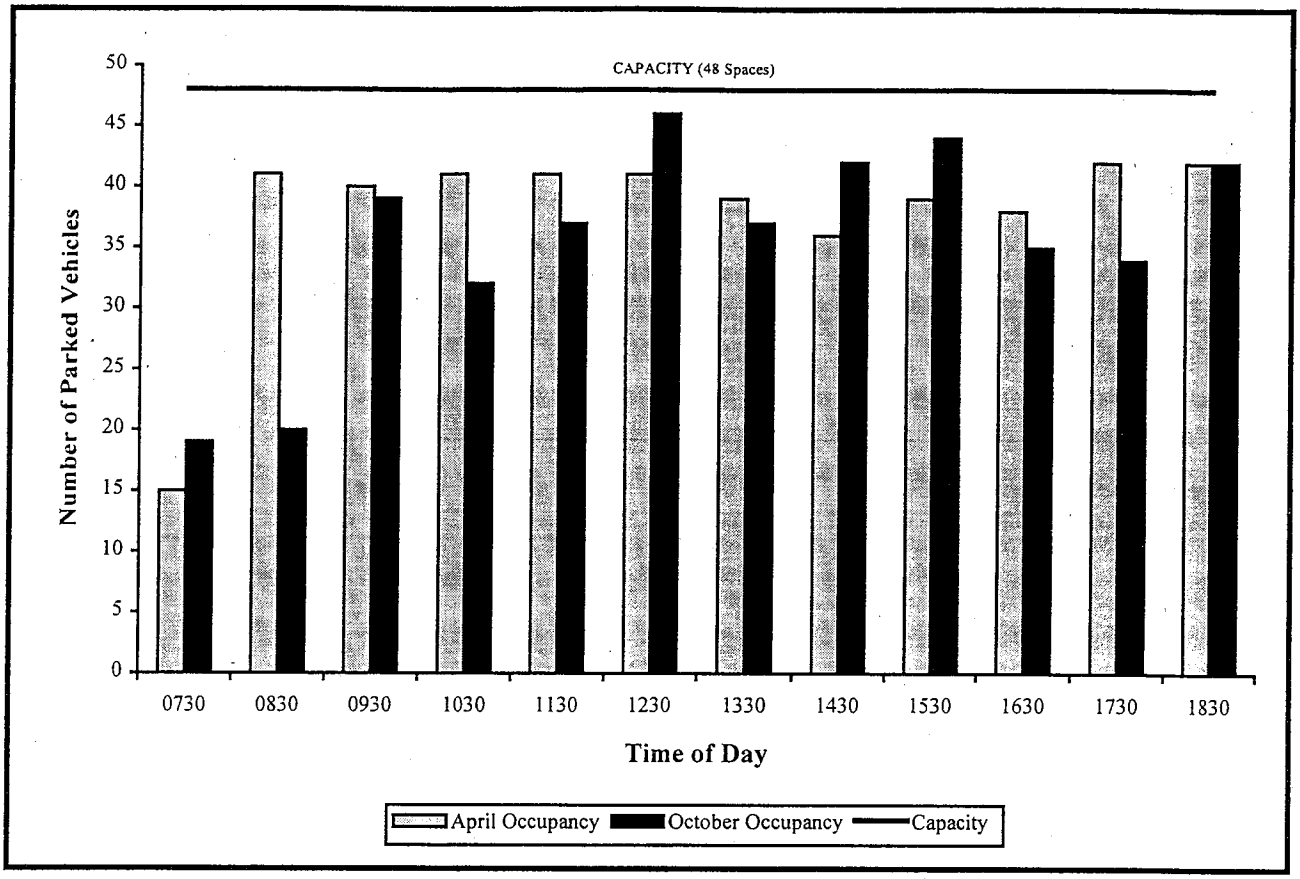


Figure 6 categorizes the parked vehicles by length of stay in the State Street core area. In both April and October as the short average length of stay signifies, the vast majority of vehicles stayed less than the two-hour limit. In October, 12 vehicles stayed longer than two hours, 10 stayed up to four hours and the other two stayed up six hours. This is a small percentage of the total number of different vehicles, but when it is compared to the number of available spaces it amounts to approximately 30% of the available spaces.

Figure 7: Bridge Street Public Parking Use



Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	88% at 5:30pm & 6:30pm	82%	1.27 Hours	7.48 Vehicles per Space
October	96% at 12:30pm	81%	1.22 Hours	7.27 Vehicles per Space

Figure 7 shows the parking space occupancy for the core area of Bridge Street, from the Iron Bridge to the Main Street pedestrian crossing. This area of Bridge Street has 48 spaces available for public parking. A maximum occupancy of 96% (46 spaces) occurred in October at 12:30pm, leaving only two unoccupied spaces at this time. At this level of occupancy, it becomes very difficult to find a vacant space, requiring several passes before a space becomes available. The average occupancy throughout the business day is just over 80% (39spaces) in both April and October. This area presently has a two-hour restriction posted. The average length of stay of all the vehicles parked in April and October was approximately 1 hour 15 minutes. It should be reiterated at this point that the minimum length of stay was assumed to be 1 hour due to the time interval chosen between walking the routes during the turnover survey.

Figure 8: Bridge Street Public Parking Length of Stay

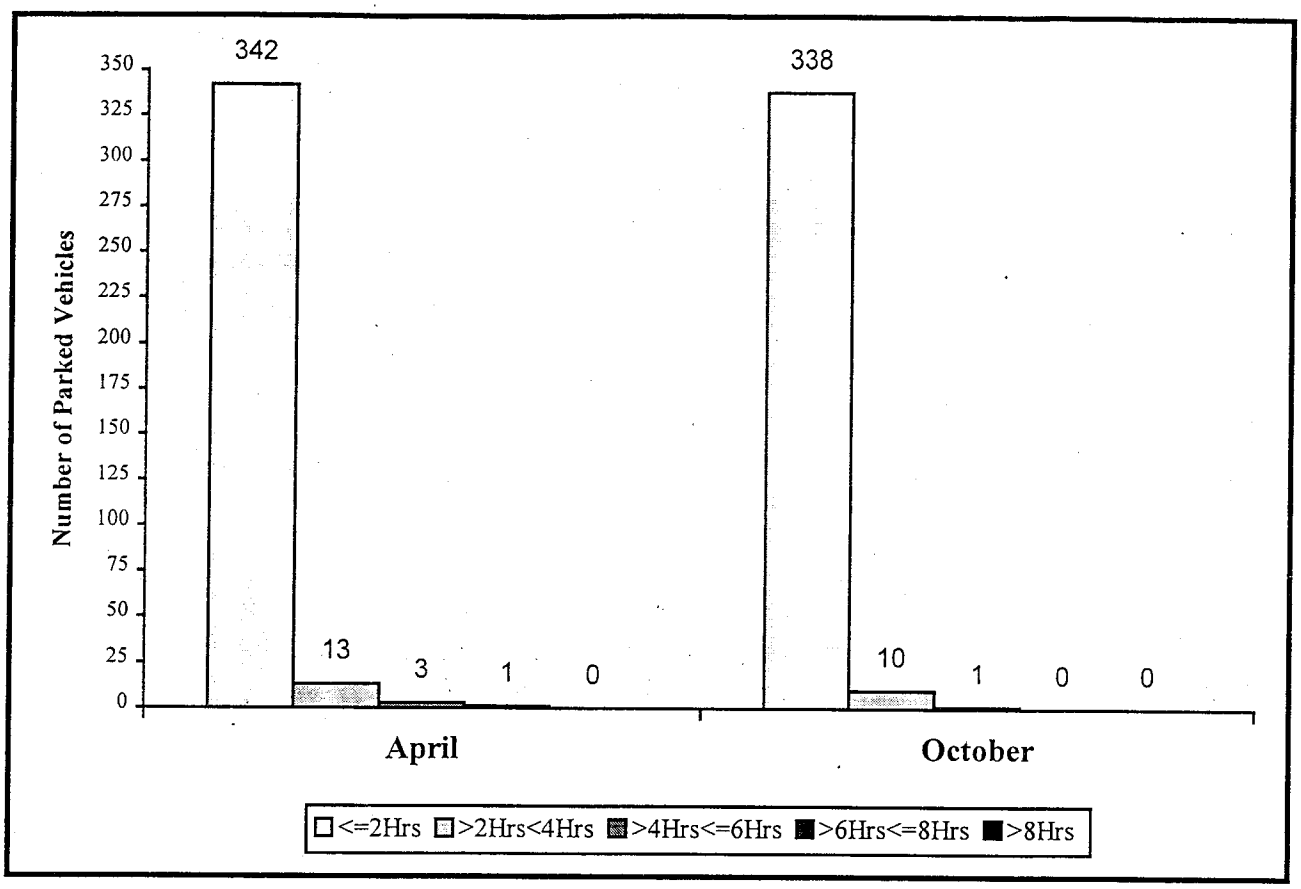
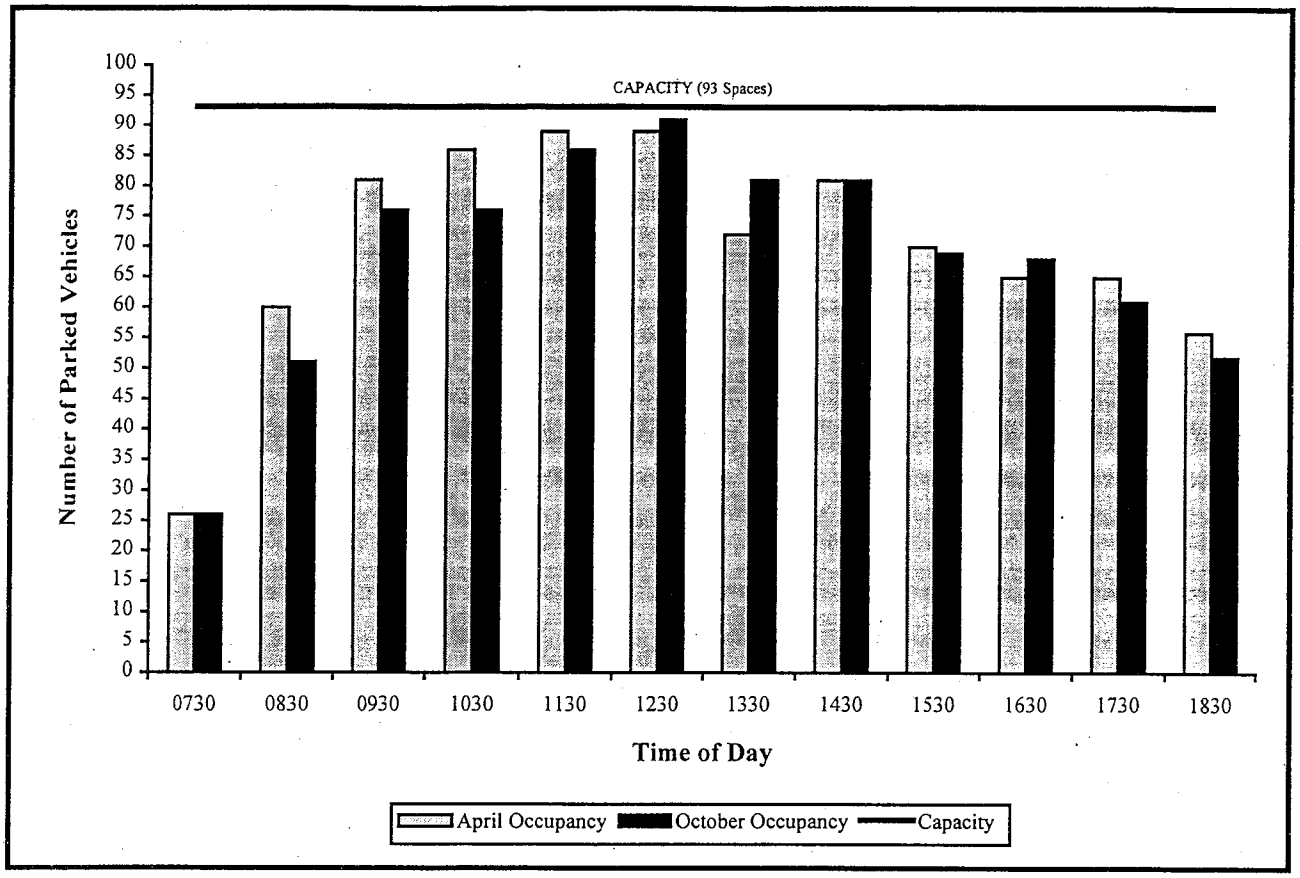


Figure 8 categorizes parked vehicles by length of stay. The overall majority of parked vehicles stayed less than or equal to the two-hour time limit in this area. Based on the average length of stay it can be assumed that the majority of these vehicles left within 1 hour. In October, 11 vehicles occupied spaces longer than the restriction allow. All but one of these vehicles occupied the same space between 2 and 4 hours. A similar pattern occurred in April. This area sees a high turnover of vehicles throughout the day, with an average of 7.48 and 7.27 different vehicles per space in April and October respectively.

Keystone Parking Lot, Shelburne

Figure 9: Keystone Lot Public Parking Use



Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	96% at 11:30pm & 12:30pm	85%	3.41 Hours	2.65 Vehicles per Space
October	98% at 12:30pm	84%	2.93 Hours	3.00 Vehicles per Space

Figure 9 shows the space occupancy pattern for the Keystone Lot which has a capacity of 93 marked spaces and is defined as a core parking area. As part of the lease agreement, eight of the spaces must be reserved for resident parking, but presently there is limited or no signage signifying this. Therefore it has been assumed that all 93 spaces are available for public parking. A maximum occupancy of 98% (91 spaces) occurred at 12:30pm, leaving only two unoccupied spaces at this time. At this level of occupancy, it becomes very difficult to find a vacant space, requiring a number of circulations of the lot before a space becomes available. This lot is heavily used throughout the business day with an average occupancy of 85% (79 spaces) in both April and October. Currently, there is no time limit restriction in the lot and this results in an average length of stay of 3 hrs 24 minutes and 2 hours 55 minutes in April and October respectively. This higher length of stay results in a lower turnover rate of 2.65 and 3 respectively, less than half that of Bridge Street.

Figure 10: Keystone Lot Public Parking Length of Stay

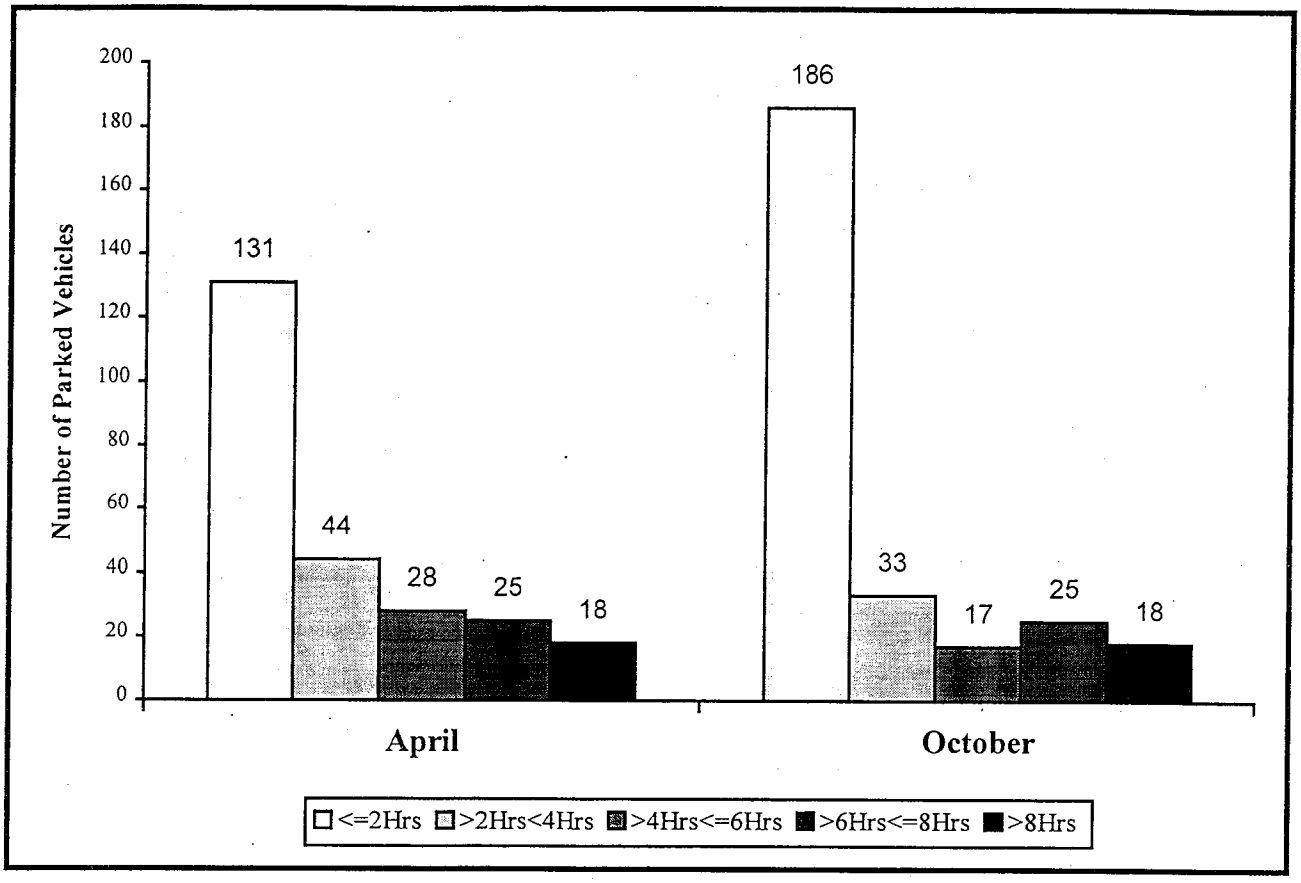


Figure 10 categorizes the parked vehicles by length of stay. This chart shows a different parking pattern than that on Bridge Street and State Street. As a core parking area, high turnover is desirable in this lot. It can be seen that a large number of the spaces in this lot are being occupied by vehicles staying longer than 2 hours which is the desirable limit for a core parking area in the Village. Of most concern is the number of vehicles remaining in the same space for greater than six hours. In both April and October there were 43 vehicles that remained in the same space for longer than six hours, the majority of which occupied these spaces throughout the whole business day. This amounts to 46% of the spaces being occupied during a time when additional capacity is needed in the core areas. Figures 11 and 12 show the spaces occupied by the long term parked vehicles in April and October. It can been seen in these figures that the majority of the spaces next to Water Street are being filled by long term parked vehicles. Due to their proximity and access to Bridge Street these spaces should see a similar turnover rate as the spaces on that street. As part of the turnover survey vehicle make, color and full license plate numbers were noted for all vehicle parked over six hours. Comparing the collected information showed that only 9 of these 43 vehicles were parked in the lot for 6 hours or more in both April and October. Based on the nine vehicles parking pattern, i.e. when they arrived and departed, it can be assumed that the majority of them are either employers or employees of a downtown business. Anecdotal evidence points to non customer orientated business people occupying these prime spaces throughout the day. This information has been passed to the SFABA who is planning a possible postcard campaign to encourage these long term parkers to use the peripheral areas to park.

Figure 11: Keystone Lot, Occupied Spaces for 6 hours or more in April

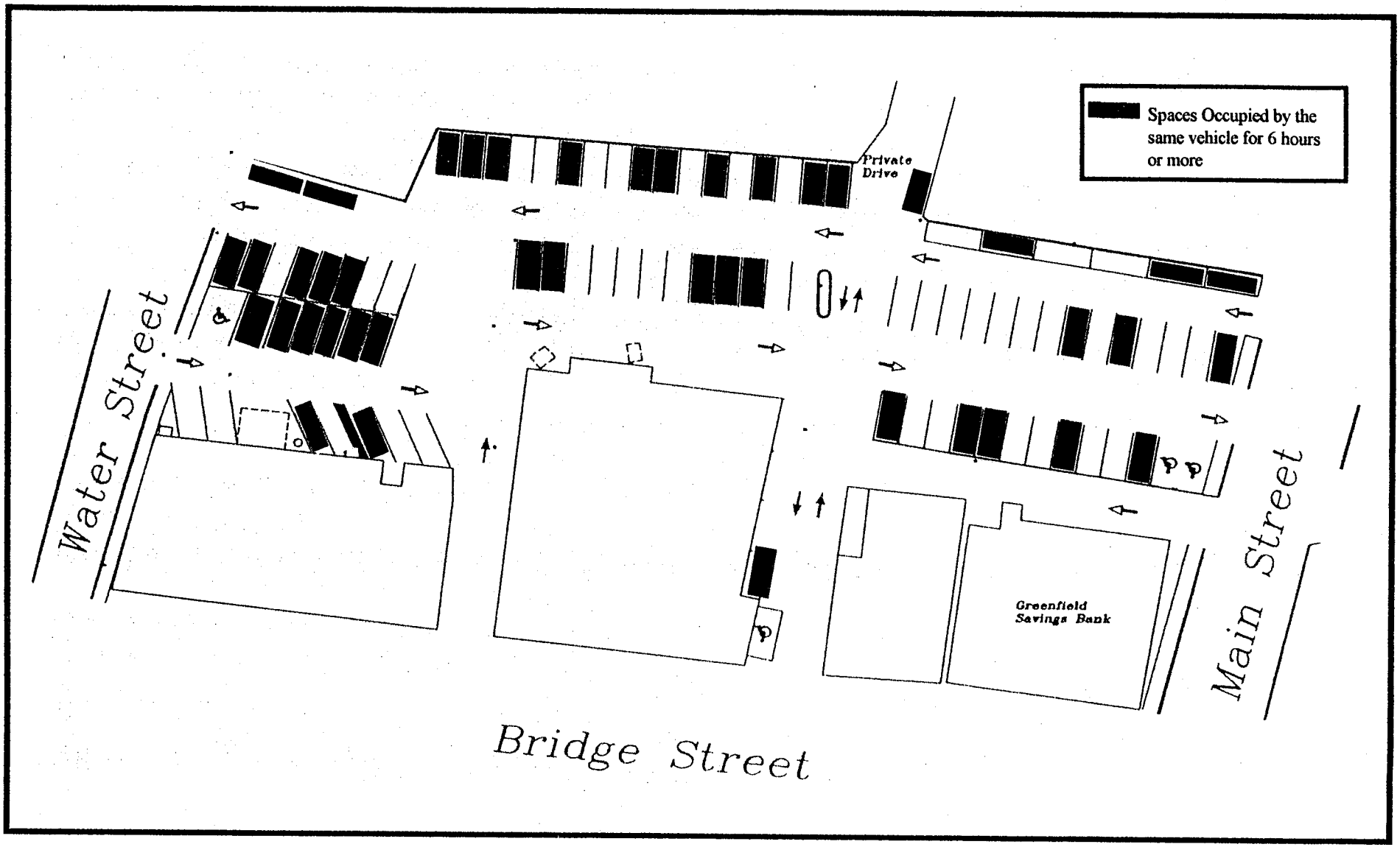
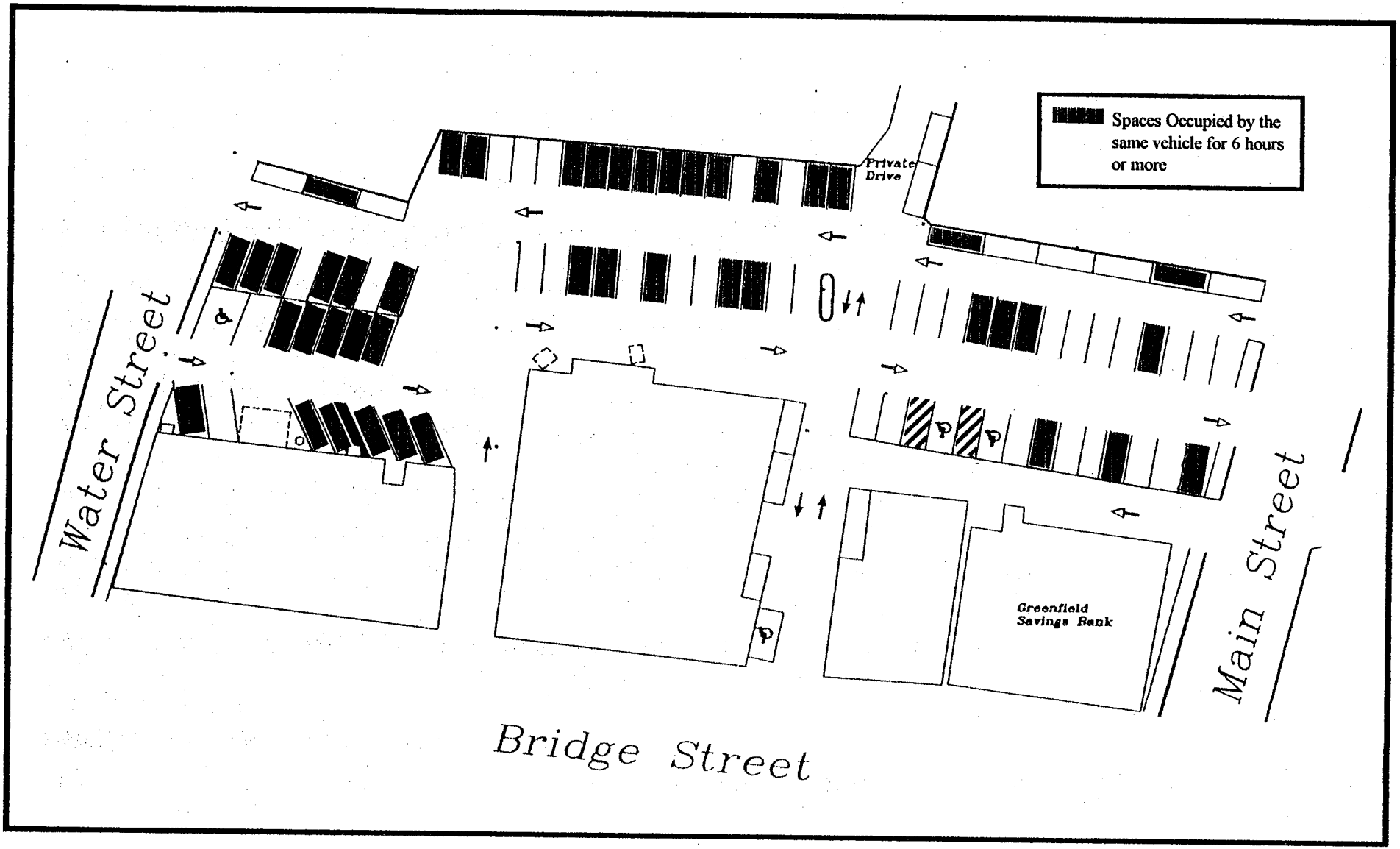


Figure 12: Keystone Lot, Occupied Spaces for 6 hours or more in October



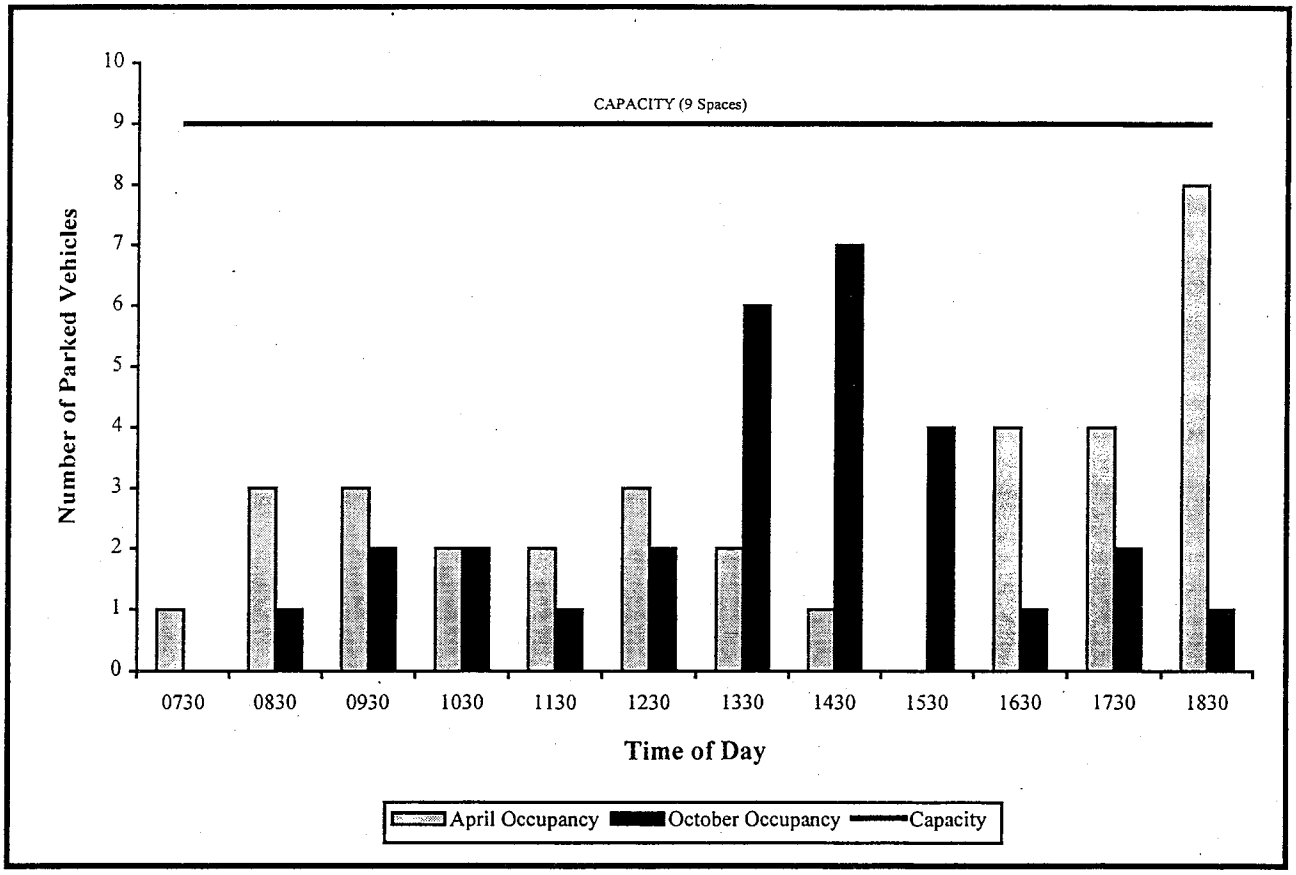
Based on the analysis of the parking patterns in the core areas, it understandable that there is a perception of a shortage of parking in the downtown area. Additional capacity can be added to the core area by removing the long term parked vehicles. These vehicles would need somewhere else to park and the analysis indicates that there is plenty of capacity in the intermediate and peripheral areas to accommodate them.

Intermediate Parking Areas

Figures categorizing the parked vehicles by length of stay for the intermediate parking areas are contained in Appendix 2.

Ashfield Street/Depot Street, Buckland

Figure 13: Ashfield Street/Depot Street Public Parking Use



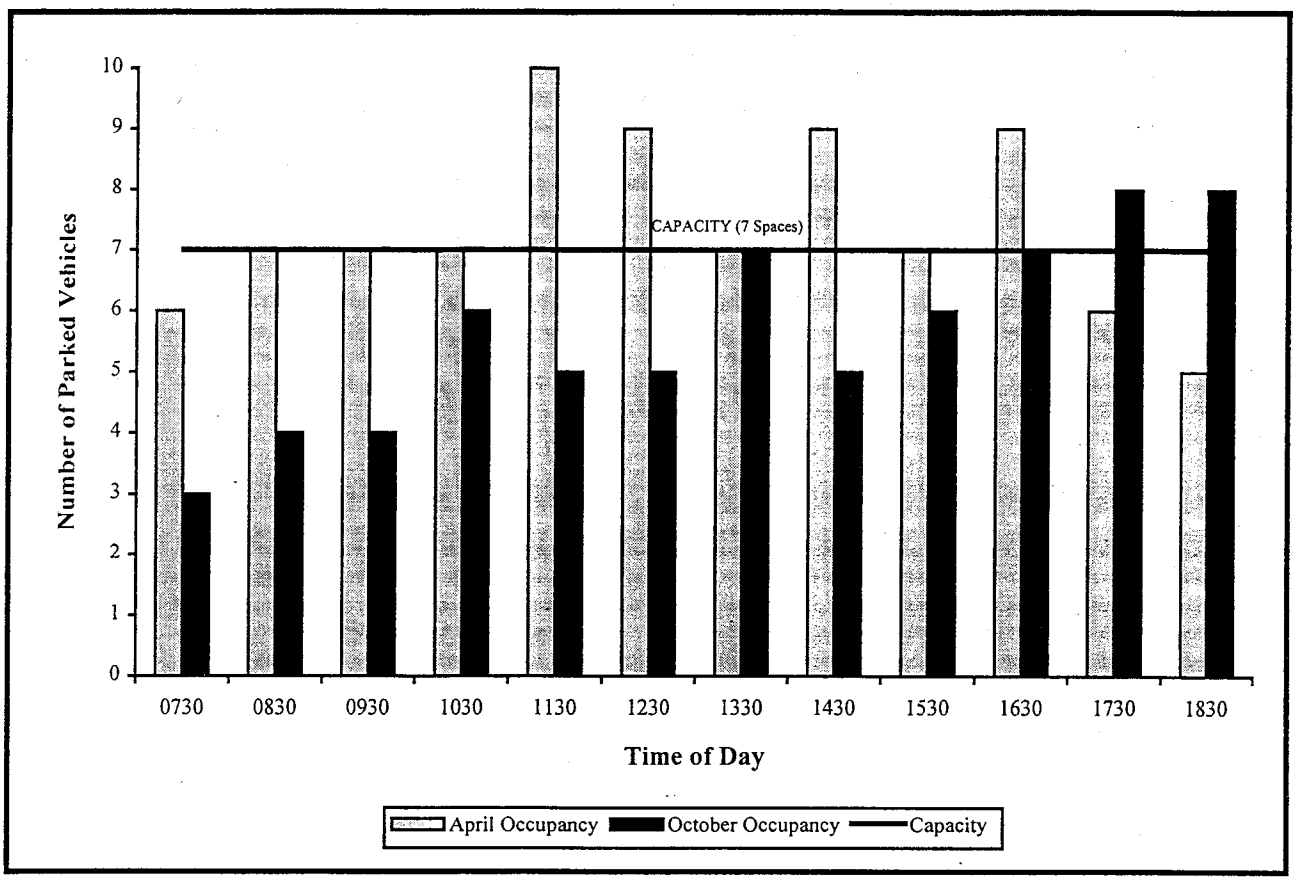
Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	89% at 6:30pm	24%	1.73 Hours	2.11 Vehicles per Space
October	78% at 2:30pm	35%	1.38 Hours	2.33 Vehicles per Space

Figure 13 shows the space occupancy pattern for the 9 marked on-street spaces on Ashfield Street and Depot Street. It is unclear if all of the six spaces on the west side of Ashfield Street and Depot Street are restricted to two-hours. A single sign is positioned at the first space at the intersection of Conway Street. The three spaces on the east side of the street have no restrictions. The peak occupancies, 89% (8 spaces) in April and 78% (7 spaces) in October coincide with the peak occupancies for the adjacent State Street spaces from Williams Street to Conway Street. This

indicates that these spaces see use generally when few core spaces are available. Apart from these peaks, occupancy is low with an average occupancy throughout the business day of 24% (2 spaces) in April and 35% (3 spaces) in October. The average length of stay indicates that the majority of the vehicles are staying no longer than two hours.

Buckland Town Hall Parking Lot, Buckland

Figure 14: Buckland Town Hall Lot Public Parking Use



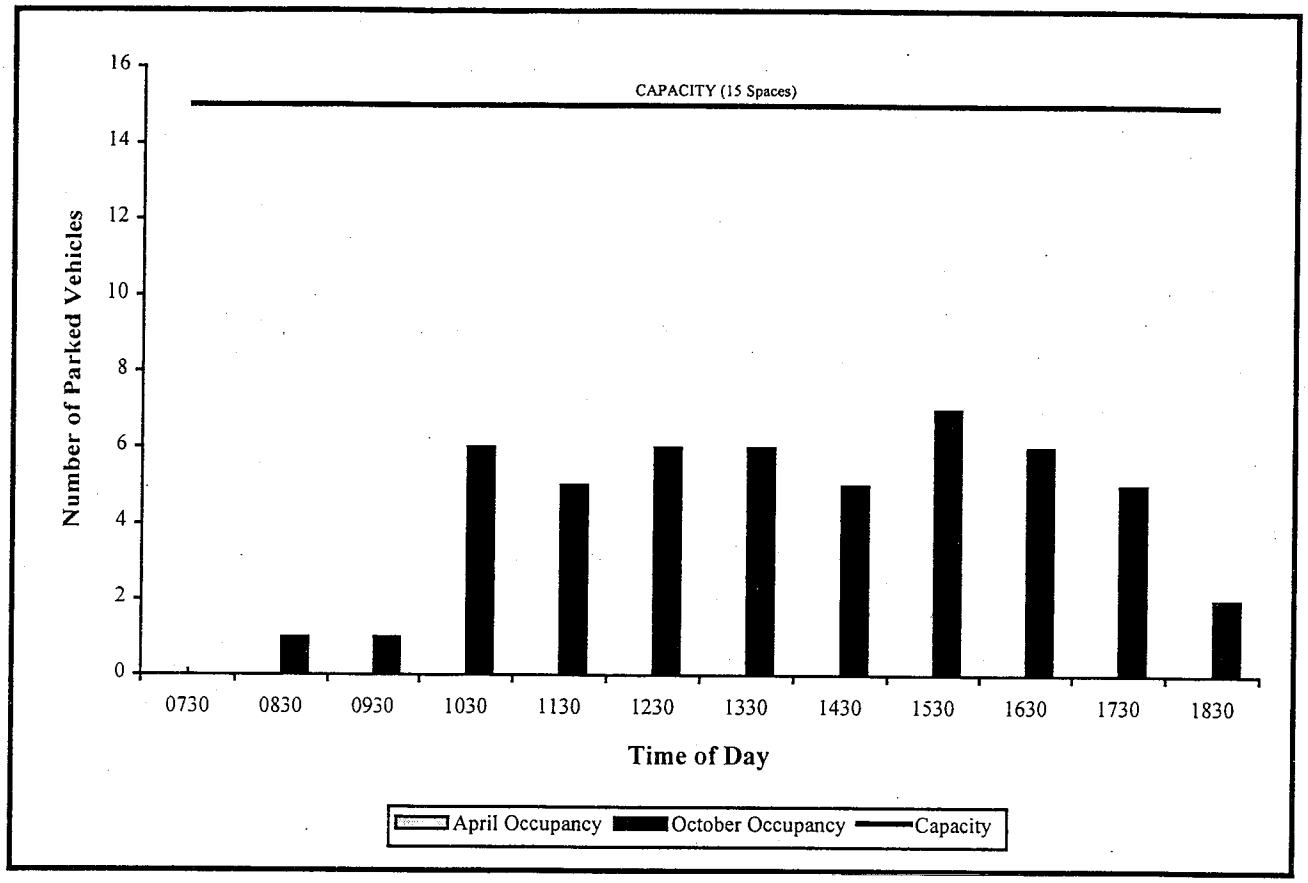
Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	143% at 11:30am	116%	4.24 Hours	3.00 Vehicles per Space
October	114% at 5:30pm & 6:30pm	80%	2.96 Hours	3.29 Vehicles per Space

This lot is located off Williams Street, behind the Buckland Town Hall. Aubuchon Hardware has a side entrance off the lot. During the April survey this lot was unpaved and unmarked and had no parking restrictions. Over the summer the lot was paved, seven spaces were marked and a two-hour time limit was posted. Figure 14 shows the space occupancy pattern for the lot. In April when the lot was unmarked the peak occupancy was 143% (10 vehicles) and the was lot basically full throughout the whole day. Following the paving and striping work the peak occupancy was lower at 116% (8 vehicles) and the average occupancy throughout the business day was 80%. Prior to the introduction of the two-hour limit the average length of stay was over 4 hours, this average dropped to just below 3 hours after its introduction. This length of stay indicates that vehicles are staying longer than two hours. In October almost half (10 vehicles) of the total (23 vehicles) vehicles who parked in the lot stayed for more than two hours. Two vehicles stayed for 8 hours or more compared to 5 vehicles in April. Two of the vehicles who stayed long term in April were noted as

staying long term in October on Williams Street. Neither of the two vehicles noted in October were present in the lot in April, but one had parked long term on State Street.

Deerfield Avenue, Shelburne

Figure 15: Deerfield Avenue Public Parking Use

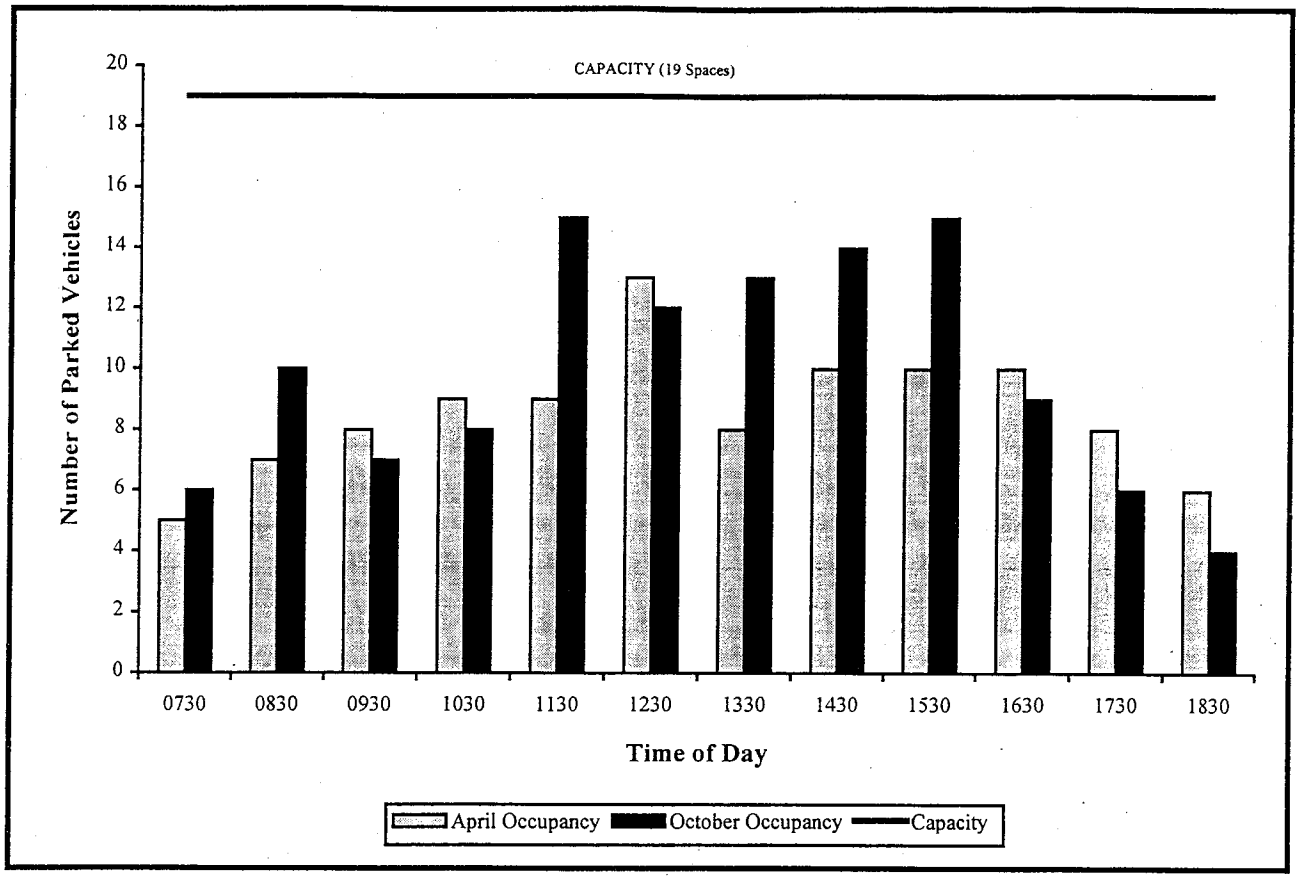


Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	Under Construction	-	-	-
October	47% at 3:30pm	35%	1.79 Hours	1.87 Vehicles per Space

Deerfield Avenue was being reconstructed at the time of the April Survey. Following reconstruction four spaces were added on the west side of the street below North River Glass. These spaces are posted as having a two-hour limit. The spaces in front of the Mole Hollow Candle Store are owned by the store and are for their customers only. Eleven spaces were painted around the corner from Mole Hollow on the north side of the street and are also considered as intermediate parking. These spaces do not have any restrictions posted. Overall this area does not see a great deal of activity, with a peak occupancy of 47% (7 spaces) and an average occupancy of 35% (5 spaces) through the business day. The four spaces on the upper portion of the street saw the bulk of the activity, as 20 of the 28 vehicles who parked in this area, parked in these four spaces. Only one of these 20 vehicles stayed longer than 2 hours, whereas 6 of the 8 parked vehicles on the lower portion of the street stayed longer than 2 hours. The upper 4 spaces saw an average turnover of 5 vehicles per space, the lower spaces saw an average turnover of less than 1 vehicle per space.

Water Street, Shelburne

Figure 16: Water Street Public Parking Use

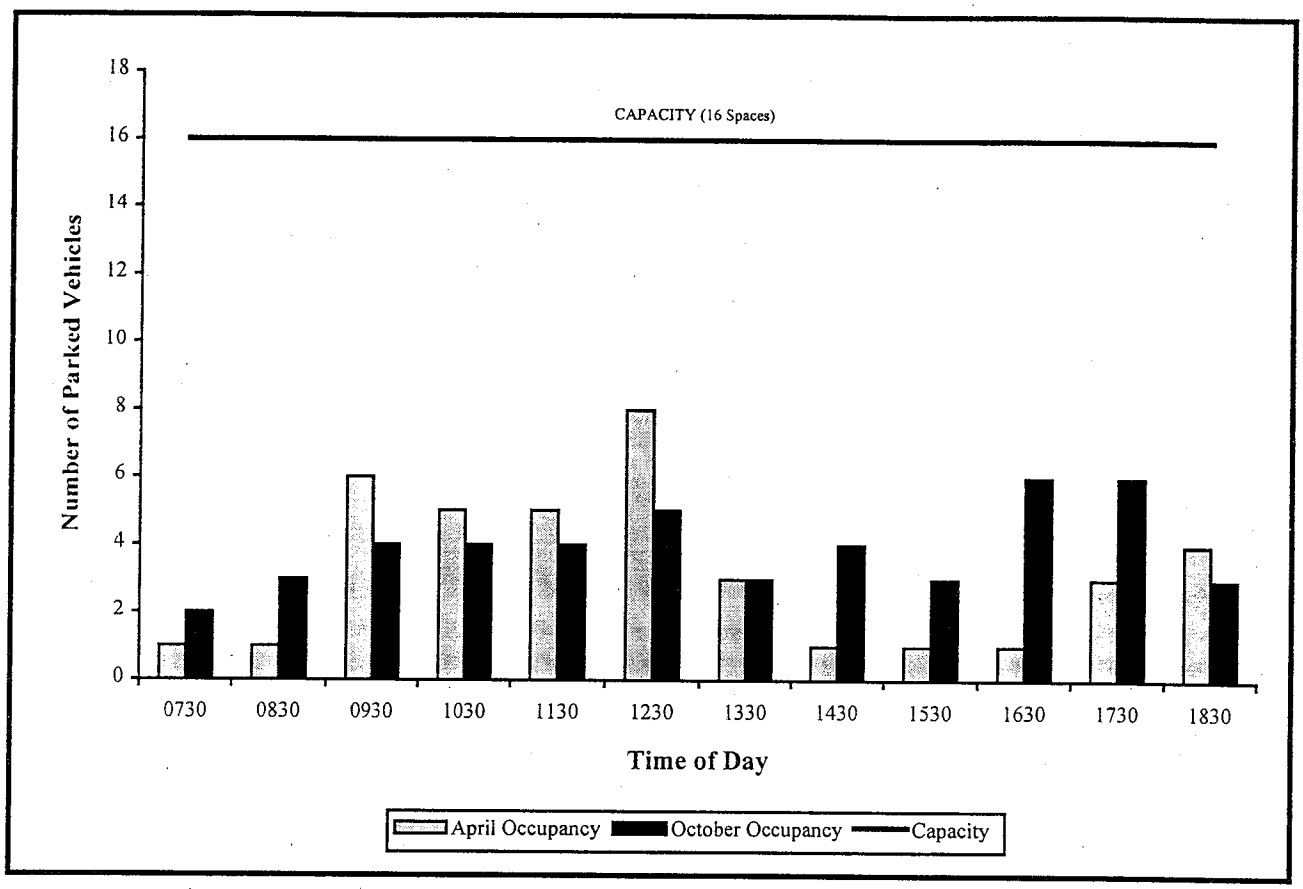


Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	68% at 12:30pm	51%	2.02 Hours	2.68 Vehicles per Space
October	79% at 11:30am & 3:30pm	61%	1.80 Hours	3.47 Vehicles per Space

Water Street between Bridge Street and Cross Street has no marked spaces. An area on the west side of the street outside the liquor store provides enough room for 3 vehicles. This area is posted as a loading only zone, for customers and deliveries to the store. No restrictions are in place on the rest of the street. There is sufficient space for approximately another 6 spaces on the west side past the VFW. On the east side there is sufficient space for 10 vehicles between Cross Street and the entrance to the Keystone Lot. Water Street is lined on both sides from the Keystone Lot to Cross Street with residences. The survey results indicate that the bulk of the vehicles parked for two hours or less and in October there was a reasonably high turnover rate of almost 3.5 vehicles per space, which is greater than the rate in the Keystone Lot.

Main Street, Shelburne

Figure 17: Main Street Public Parking Use

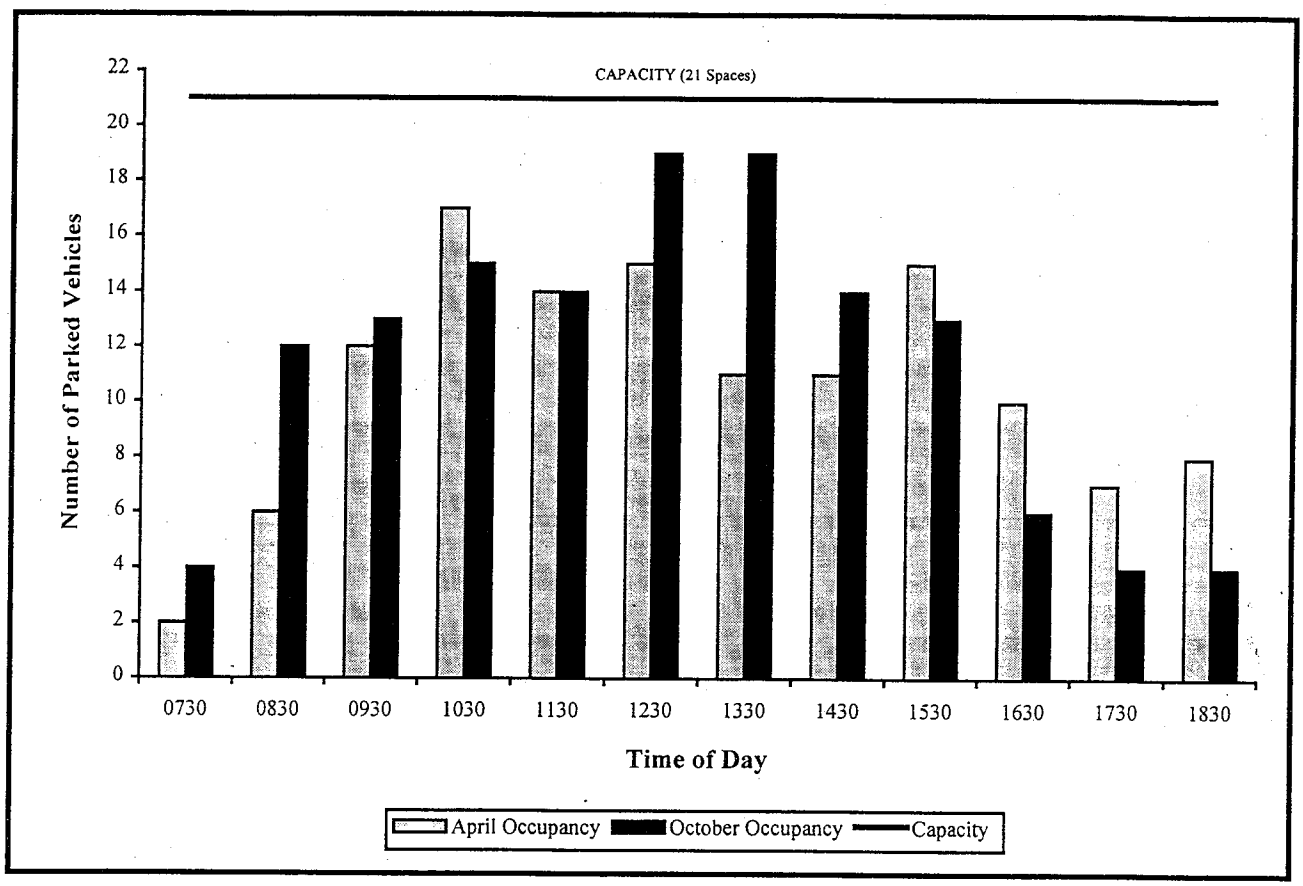


Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	50% at 12:30pm	23%	1.63 Hours	1.50 Vehicles per Space
October	38% at 4:30pm & 5:30pm	26%	1.88 Hours	1.56 Vehicles per Space

No parking is allowed between Bridge Street and the entrance to the Keystone Lot on both sides of Main Street. Between the entrance to the Keystone Lot and Cross Street no spaces are marked, but there is sufficient space for approximately 11 spaces on the west side and 5 spaces on the east side of the street. This street is lined by residences from the Keystone Lot to Cross Street. Figure 17 shows the space occupancy for Main Street and indicates that this area is underutilized. It is within reasonable proximity to Bridge Street, and sees the majority of the vehicles staying for two hours or less. For much of the day the street is largly vacant of parked vehicles and even at peak only 50% (8 spaces) were occupied.

Upper Bridge Street, Shelburne (Marked Spaces)

Figure 18: Upper Bridge Street (Marked Spaces) Public Parking Use

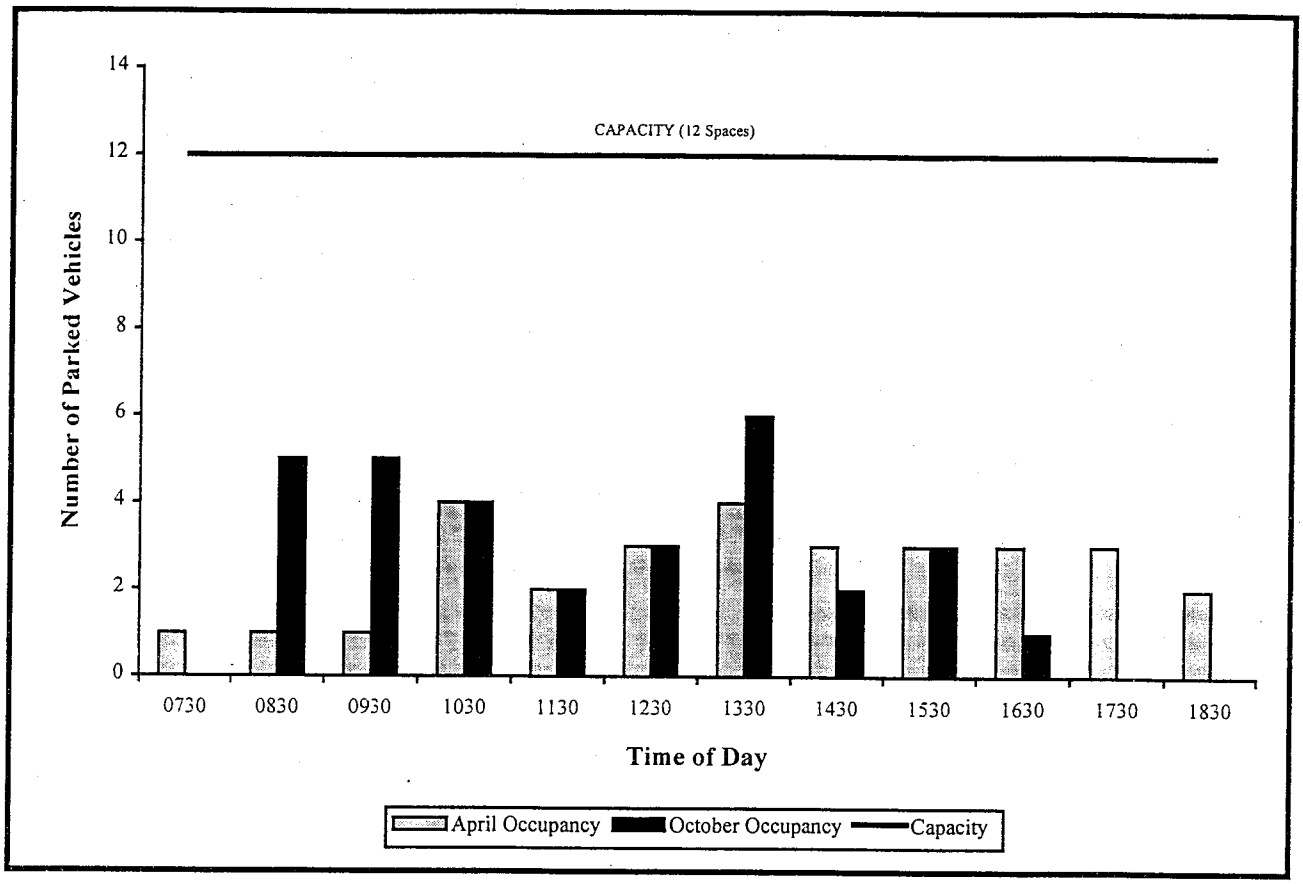


Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	81% at 10:30pm	63%	2.51 Hours	2.43 Vehicles per Space
October	91% at 12:30pm & 1:30pm	67%	1.93 Hours	3.38 Vehicles per Space

The upper portion of Bridge Street from the cross walk at the Main Street Intersection to the intersection with Mechanic Street, has 21 marked angled parking spaces. The 12 spaces on the north side of the street have no time limit restrictions, whereas the 9 spaces on the south side have a two-hour time restriction. Figure 18 shows the space occupancy for these marked spaces on Bridge Street. The peak occupancy of 91% (19 spaces) in October occurred at the same time the lower portion of Bridge Street was at peak occupancy. The average length of stay in April was 2.5 hours with the majority of long term parking taking place on the north side of the street. This average occupancy dropped to less than 2 hours in October. Again, most of the long term parked vehicles were on the north side of the street.

Upper Bridge Street, Shelburne (Unmarked Spaces)

Figure 19: Upper Bridge Street (Unmarked Space) Public Parking Use



Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	33% at 10:30am & 1:30pm	24%	1.07 Hours	2.43 Vehicles per Space
October	50% at 1:30pm	27%	1.35 Hours	1.92 Vehicles per Space

Currently the marked spaces on the north side of Bridge Street start on the west side of the United Bank and continue down to Main Street. Currently vehicles using the United Bank park in the area between the marked spaces and Mechanic Street. This area allows for parking for approximately 5 vehicles parking at an angle. On the south side, the marked spaces stop outside the Visitor's Center. From the Visitor's Center up to Mechanic Street there is space between garage and driveway accesses for approximately 7 perpendicularly parked vehicles. No signage is present allowing or disallowing parking in these areas.

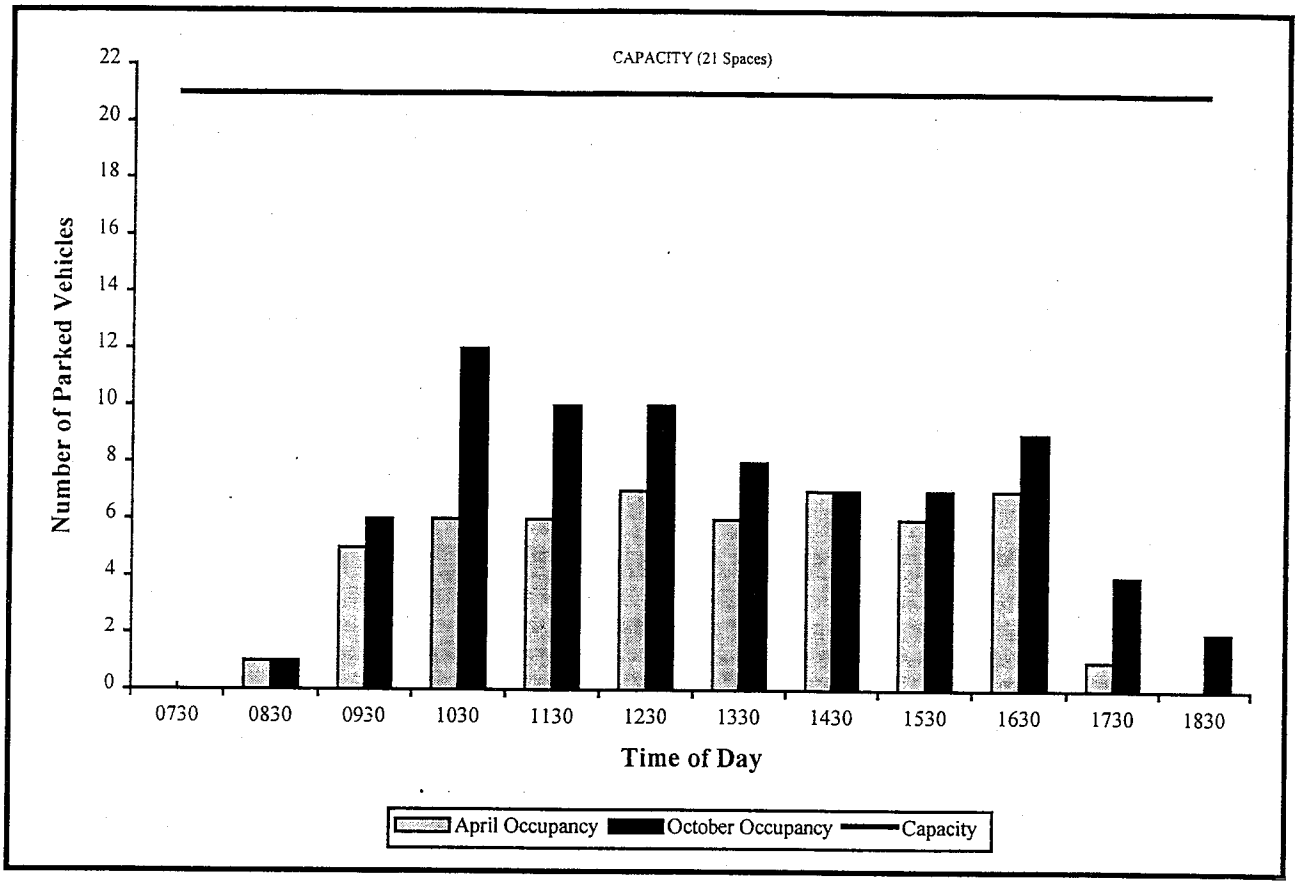
Figure 19 shows the space occupancy for the approximately 12 unmarked spaces. These spaces are generally used for very brief periods likely for conducting banking business. In April, all but a few of the parked vehicles stayed for more than an one hour period.

Peripheral Parking Areas

Figures categorizing the parked vehicles by length of stay for the intermediate parking areas are contained in Appendix 3.

Salmon Falls Municipal Lot

Figure 20: Salmon Falls Municipal Lot, Public Parking Use

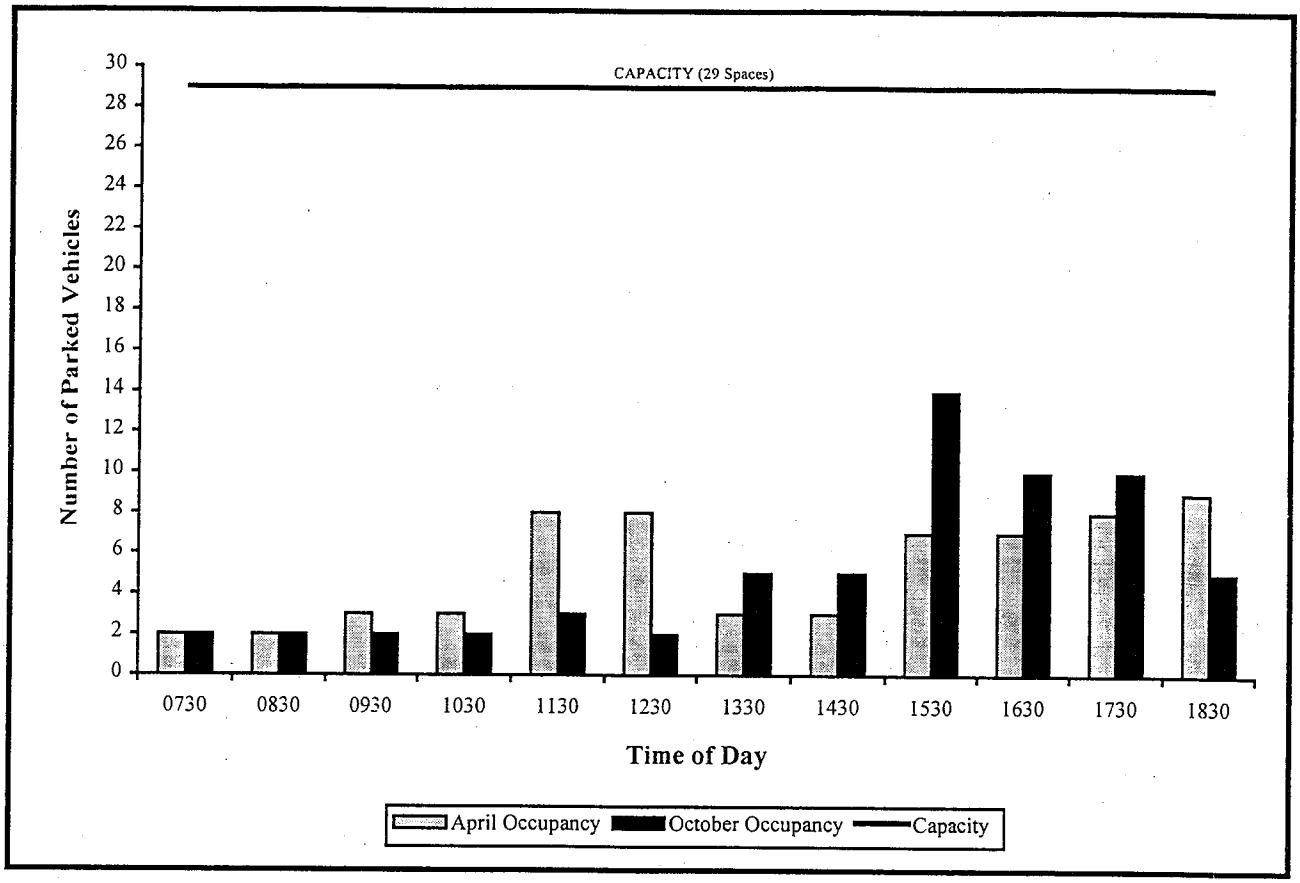


Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	33% at 10:30am, 2:30pm & 4:30pm	20%	5.20 Hours	0.48 Vehicles per Space
October	57% at 10:30pm	41%	2.92 Hours	1.24 Vehicles per Space

The Salmon Falls lot is located off Ashfield Street, behind the Salmon Falls Marketplace. The lot is paved and has 21 marked spaces. Figure 20 shows the space occupancy of the lot throughout the surveyed days. The parking patterns indicate that the lot is mainly used by employees/employers of the adjacent store and offices housed in the Salmon Falls Marketplace building. A total of 10 different vehicles parked in this lot in April, 6 remained for six hours or more and this is characterized by the average length of stay of 5.20 hours. In October, there were more short term parked vehicles. Sixteen of the 26 different vehicles stayed for 2 hours or less, with only 4 staying for 6 hours or longer, resulting in a shorter average length of stay of 2.92 hours. The shorter average length of stay indicates that the majority of the users of the lot in October were patronizing the Salmon Falls Marketplace or visiting the offices in the same building.

State Street (Eagles Club) Municipal Lots

Figure 21: State Street (Eagles Club) Municipal Lots, Public Parking Use

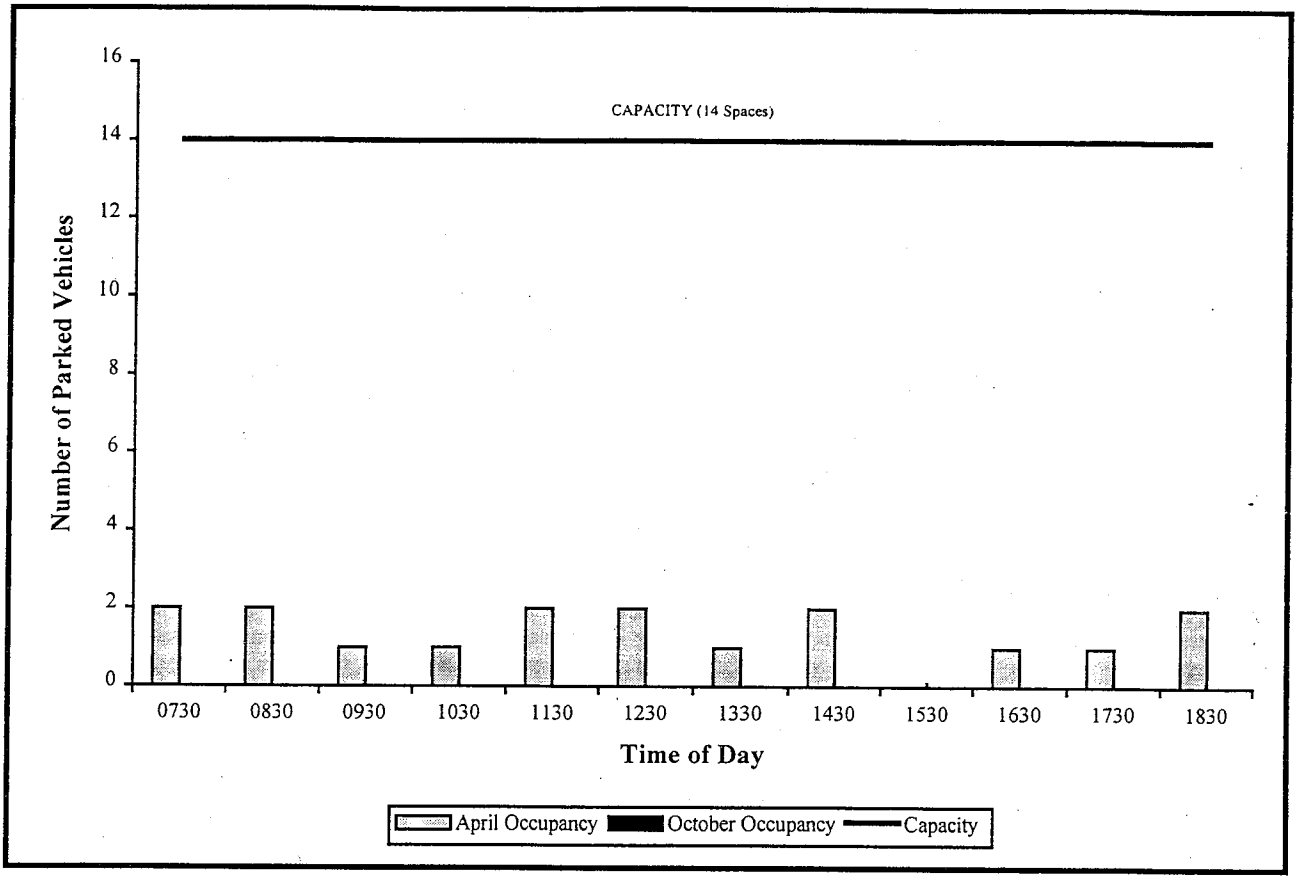


Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	31% at 6:30pm,	18%	2.42 Hours	0.90 Vehicles per Space
October	48% at 3:30pm	19%	1.72 Hours	1.24 Vehicles per Spaces

Figure 21 shows that both lots saw very little use during both surveys, with an average occupancy of less than 20% throughout the business day. The majority of the parked vehicles stayed for 2 hours or less, with only a small number using the lot for long term parking.

Cross Street Municipal Lot

Figure 22: Cross Street Municipal Lot Public Parking Use

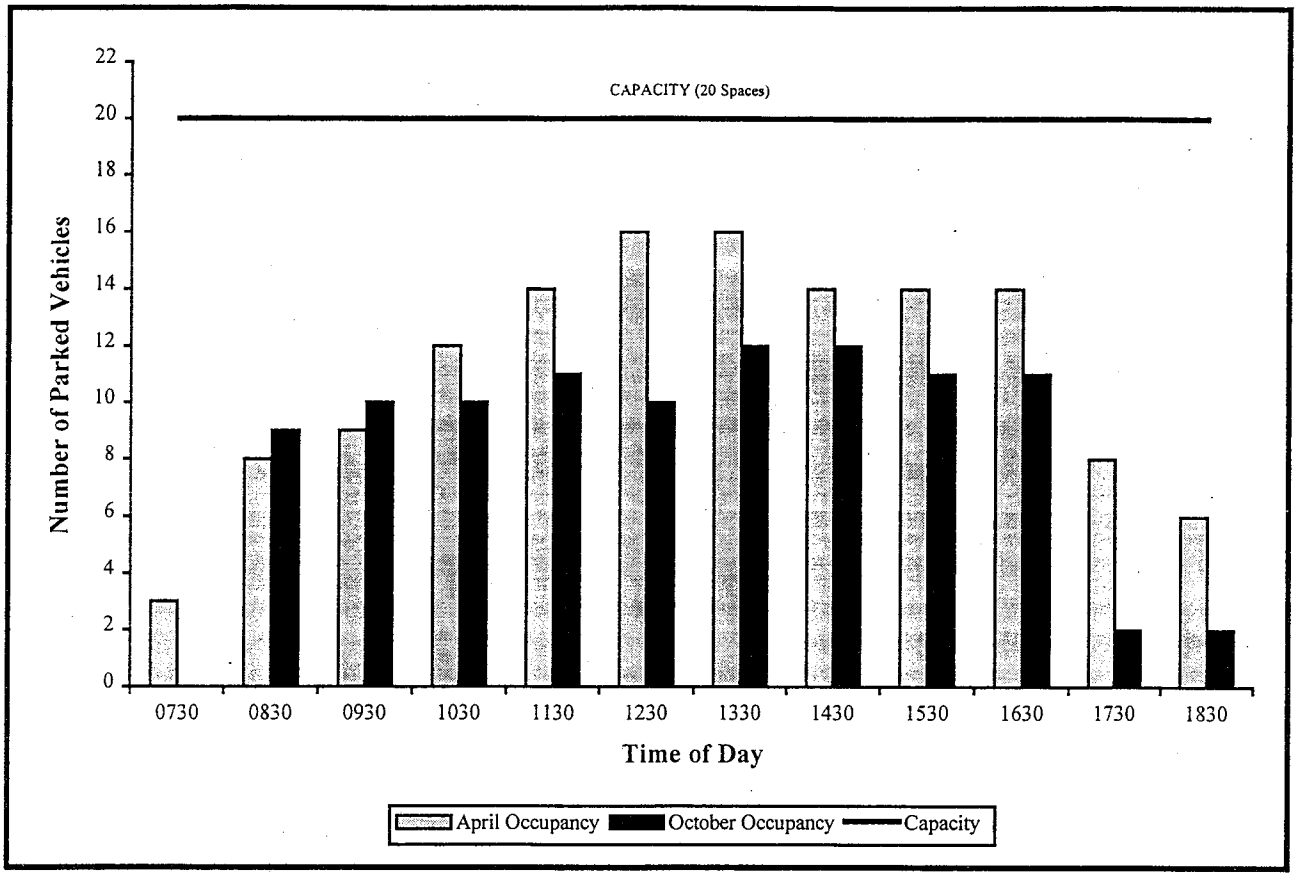


Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	14% at various times	9%	2.83 Hours	0.43 Vehicles per Space
October	Closed due to Construction	-	-	-

This is a little known lot off Cross Street between Main and Mechanic Streets. This lot was being used for construction equipment storage at the time of the October survey. Figure 22 shows the space occupancy in April only. It can be seen that the lot is used very lightly, with only 6 different vehicles being observed during the whole survey.

Bridge Street, United Bank Lot

Figure 23: Bridge Street, United Bank Lot, Parking Use



Survey Month	Peak Occupancy	Average Occupancy (between 9:30am & 5:30pm)	Ave. Length of Stay	Ave. Turnover
April	80% at 12:30pm & 1:30pm	68%	6.09 Hours	1.10 Vehicles per Space
October	60% at 1:30pm, & 2:30pm	54%	6.25 Hours	0.80 Vehicles per Space

The Bridge Street, United Bank Lot is accessed off Bridge Street just above Mechanic Street. This lot is owned by the United Bank and was offered to the SFABA as an area for Village employers and employees to park long term. The lot is unmarked, but can accommodate approximately 20 vehicles. Figure 22 shows the space occupancy of the lot. The April survey was conducted shortly after the SFABA "Park and Walk" campaign and showed reasonable use at that time with an average occupancy of nearly 70% (14 spaces) throughout the business day. This average fell to 54% (11 spaces) in October. The lot is being used for its intended purpose with the average length of stay greater than 6 hours during both surveys.

Business Survey Results

In May of 1998 a survey was sent to business owners in the Village of Shelburne Falls. The purpose of the survey was to ask business owners about their perceptions of parking issues in the Village and to determine where they, their employees and their customers park.

The Shelburne Falls Area Business Association identified the businesses to receive the survey and 126 surveys were sent out. Sixty-seven businesses responded which equals a 57% response rate.

The four questions that resulted in the most valuable information were: where employees park; customers park; the time customers spend in establishments; and if customers ever have difficulty finding parking near business establishments. It should be noted that business owners answered the surveys so the information about customer parking issues is based on their perceptions. Responses have been collated by the areas used to analyze parking rates and turnover.

Where Business Owners and Employees Park Based on Business Location

The importance of this question was to establish how many business owners and employees use parking spaces in front of or close to their businesses. Ideally, these spaces would be reserved for customers and employees would use perimeter parking areas in and around the Village.

Buckland

- Salmon Falls Marketplace, Conway Street and Ashfield Street, Buckland
  Despite the fact that there are service businesses and retail establishments in this area, the majority of the available public parking is categorized as peripheral parking for the rest of the Village. ***Four of the 5 employers who responded to the survey reported that they and their employees park in this area.***

- State Street from the corner of Conway and Ashfield Streets to the Sunoco Station, Buckland
  Parking in this area is categorized as core parking and somewhat limited and should be reserved primarily for customers of the businesses in this area. Unfortunately, of the 17 business owners from this area who responded to the survey, ***13 reported that they and their employees park within this area.*** Interestingly, the other 4 respondents reported that they and/or their employees park on the Shelburne side of the river, the majority of whom park on Bridge Street.

- State Street from the Sunoco Station to the end of on-street parking, Buckland
  Despite the fact that there are service businesses and retail establishments in this area, all of the available public parking is categorized as peripheral parking for the rest of the Village. Only 1 business from this area responded to the survey and reported that ***100% of employers and employees park in this area.***

Shelburne

- Deerfield Avenue, Shelburne
  A number of the businesses in this area have their own private parking and this is reflected in the survey results. Of the 7 business owners from this area who responded to the survey, ***4 reported that they and their employees park within this area. Three reported that they and their employees park in and around the Keystone Lot.***

- Bridge Street from the Iron Bridge to the intersection of Main Street, Shelburne
  Employers and employees of this area park throughout the Shelburne side of the Village. However, ***14 of the 27 respondents report that they and their employees park either on Bridge Street in this area or in the Keystone Lot. Only 1 survey respondent reported that they or their employees are using peripheral lots.***

- The Keystone Lot, Shelburne
  Three of four respondents from this area report that they or their employees park in this lot.

- Bridge Street from Main Street to Mechanic Street including the municipal lots behind United Bank, Shelburne
  Two of the four respondents from this area report that they or their employees park in the lot across the street from the United Bank. The other two respondents indicated they parked on Bridge Street or in the Keystone Lot.

- Businesses located behind United Bank and the Cross Street lot, Shelburne
  The one business from this area that responded to the survey reported that they parked on Bridge Street or in the Keystone Lot.

Where Customers Park Based on Business Location

The importance of this question is to establish if customers can find and use parking spaces in front of or close to the businesses they use. Ideally, these spaces would be reserved for customers and would be available.

Buckland

The majority of customers on the Buckland side of the Village use and are able to find parking close to the businesses they are using. According to business owners, it appears that some people using Buckland businesses directly across from the Iron Bridge have some difficulty finding parking in front of the businesses and are required to park elsewhere in the Village.

- Salmon Falls Marketplace, Conway Street and Ashfield Street, Buckland
  The five survey respondents report that 100% of customers park in this area.

- State Street from the corner of Conway and Ashfield Streets to the Sunoco Station, Buckland
  Of the 17 business owners who responded, 13 believe that their customers park within this area. The remaining respondents believe that their customers park in the lots to the north on State Street or park on the Shelburne side and walk across.

- State Street from the Sunoco Station to the end of on-street parking, Buckland
  Only 1 business owner from this area responded to the survey and reported that 100% of their customers park in this area.

Shelburne

- Deerfield Avenue, Shelburne
  The seven business owners who responded to the survey reported that their customers park throughout the core parking areas on the Shelburne side, which includes Bridge Street and the Keystone Lot.

- Bridge Street from the Iron Bridge to the intersection of Main Street, Shelburne
  The majority of customers of business in this area park either on Bridge Street or in the Keystone Lot according to survey respondents.

- The Keystone Market Lot, Shelburne
  Three of the four survey respondents from this area reported that their customers park in this lot.

- Bridge Street from Main Street to Mechanic Street including the municipal lots behind United Bank, Shelburne
  Business owners from this area did not know where their customers park.

- Businesses located behind United Bank and the Cross Street lot, Shelburne
  The one survey respondent from this area believes that their customers park either in the Keystone Lot or the lot behind the United Bank.

Time Spent by Customers at Businesses by Type

Most business owners report that customers spend either less than an hour or between 1 and 2 hours at establishments in the Village.

Customers Having Difficulty Finding Parking by Area

Thirty-four of the 67 business owners who responded to the survey believe that their customers have difficulty finding spaces near their businesses. However, at the end of the survey many business owners acknowledged that a lack of adequate parking is generally limited to seasonal and special events.

The business survey helped to confirm the findings and resultant assumptions made from the turnover surveys. It is hoped that it also served to remind business owners of the importance of reserving core parking areas for customers and patrons to the Village.

TASK 3

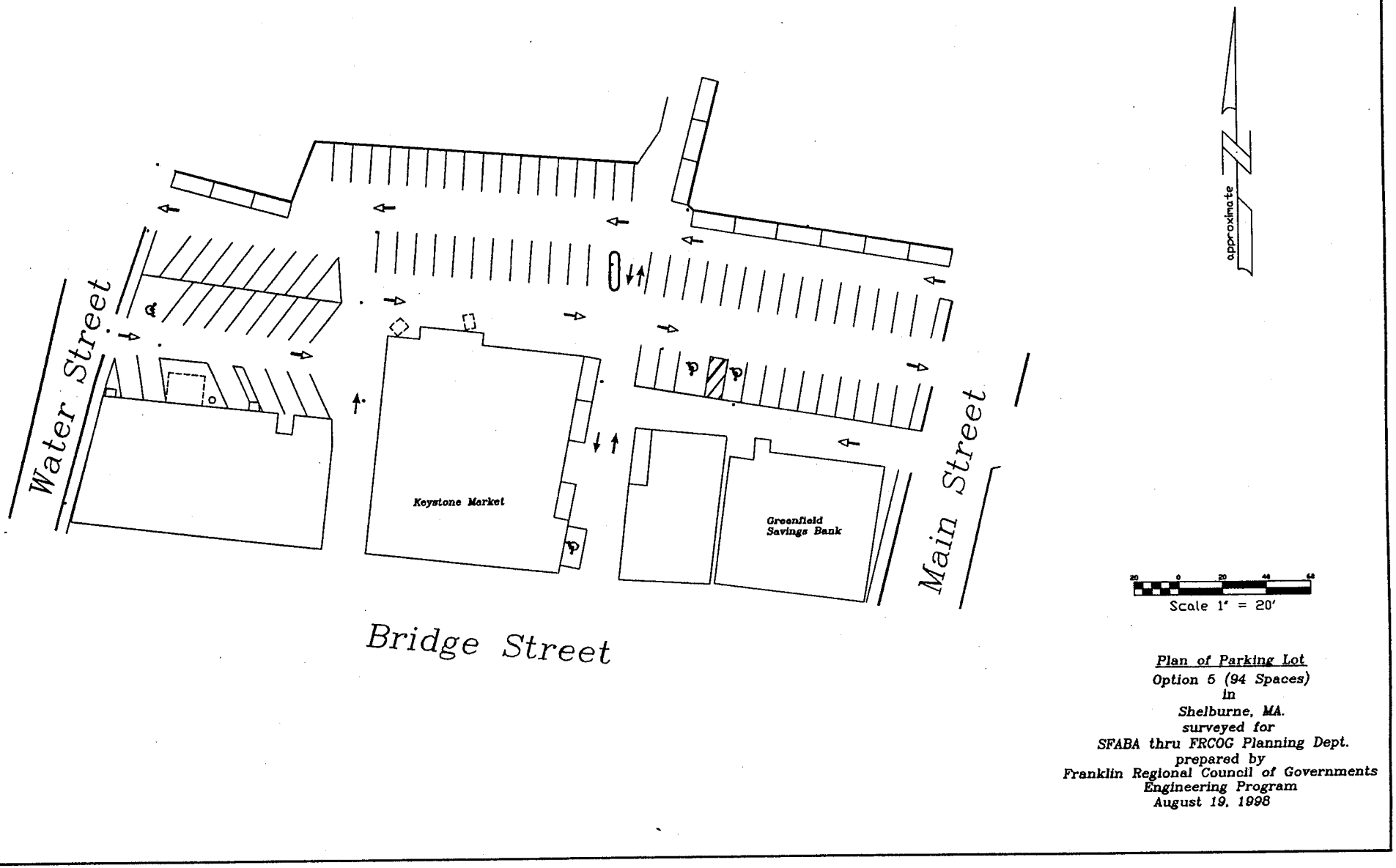
Keystone Lot Reconfiguration

The Keystone Lot is a core parking area and therefore of key importance to the Village. This task was developed to determine if additional capacity could be added to the parking lot by simply reorganizing the layout. The inventory of spaces conducted in April noted 85 marked spaces in the Keystone Lot. The FRCOG Engineering Department conducted a survey of the parking lot to map the exact boundaries. The AutoCad software was then utilized to experiment with parking space layouts insuring that spaces and travel ways complied with the appropriate standards. The Americans with Disabilities Act (ADA) standards were also consulted and it was determined that a lot of this size was required to have a total of four disabled spaces, one of which had to be van accessible. The existing layout did have four designated disabled spaces, none of which were van accessible and two of which were positioned on a greater slope than was desired.

Initially, three options were created all increasing the number of marked spaces to between 91 and 92. Due to the irregular shape of the area, options were limited to how spaces could be laid out to still allow for comfortable access to spaces and through the lot. Additionally, wide access had to be maintained from Main Street to the back of the Keystone Market to allow tractor trailer units to make deliveries to the Market. The first three options were designed to the minimum limits of accessibility. Such layouts were thought unwise because they made maneuvering into and out of spaces potentially difficult especially for Sport Utility Vehicles and large pickup trucks. A fourth options was developed following a meeting with Stan Goddard of the Keystone Market. This option incorporated portions of the first three options with the addition of three spaces along the east edge of the Keystone Market and three spaces along the east edge of Baker Avenue on the north of the lot. The first four options have been placed in Appendix 4. Following a meeting with the Selectboard and Highway Superintendent a fifth options was created incorporating the comments from that meeting. The following changes were made. The disabled spaces located adjacent to Main Street were moved down the row to a level area. The spaces were not put at the end of the row due to the level of traffic activity in this area. The number of spaces in the middle isle adjacent to Water Street was reduced to ease vehicle maneuverability in that area. Figure 24 shows option 5, which increased the number of spaces from the previous 85 up to 94.

The final layout conformed closely to the existing layout, with slightly different angles on the spaces. Therefore, much of the existing layout was simply re-striped. The three additional spaces along the east edge of the Keystone Market were added and two of the three spaces on the east side of Baker Street were also added. There turned out not to be sufficient room for the third space at this location. Finally the disabled spaces in the row adjacent to the Greenfield Bank drive-through were moved. This now gives a total of 93 marked spaces in the Keystone Lot.

Figure 25: Keystone Lot Reconfiguration, Option 5



Assessment of Additional On-street parking on Bridge and Main Streets, Shelburne

The FRCOG was asked to identify additional locations where parking could be located to mitigate the loss of parking during the reconstruction of Bridge Street in the summer of 1998. At that time the areas where no formalized parking was indicated were Main Street, from the Keystone Lot to Cross Street on both sides, and the upper portion of Bridge Street, in front of the United Bank on the north side and from the Visitor's Center up to the Mechanic Street intersection on the south side. Two options were drawn up using the Manual of Unified Traffic Control Devices (MUTCD) regulations for parking space layout and positioning. Both options have been included in Appendix 5. Option 1 identified sufficient area for three additional angle spaces in front of the United Bank on the north side of Bridge Street, two additional angled spaces in front of the Visitor's Center on the south side, seven parallel spaces between the driveways and garages from the Visitor's Center to Mechanic Street. Two parallel spaces could fit on the upper section of Mechanic Street, but due to the retaining wall on the east side of the street, vehicles would park further into the street reducing the travel lane width to an unacceptable level. Option 2 contained the same options as mentioned for option 1 except marked parallel spaces are shown on both sides of Main Street. Both options were presented to the Shelburne Selectboard with the recommendation that Main Street remain unmarked because a higher number of vehicles could likely park in this area than marked spaces would allow.

State Street, Buckland, Angled Parking Question

The question was raised about replacing the existing perpendicular parking spaces on State Street in front of McCusker's Market, Aubuchon Hardware and Town Hall with angled spaces. Due to the congested nature of this area, there are concerns about the safety of maneuvering in and out of these spaces and the conflicts with other traffic movement associated with State Street and the intersections with Bridge Street and Conway Street, Ashfield Street and Clement Street. Angled parking is not recommended as they do not have a favorable safety record themselves. In fact the Massachusetts Highway Department (MHD) will not allow angled parking on state maintained roadways for this reason. Additionally, the introduction of angled spaces would decrease the number of available spaces by 50% or more. Finally, presumably these spaces could only be accessed from a southbound direction. Therefore, vehicles leaving these spaces would have to continue in a southbound direction. Most likely they would then make u-turns at the convergence of Conway Street, Ashfield Street, Clement Street and State Street to reverse their direction, causing additional safety problems in the area.

TASK 4

Recommendations

The analysis results indicate that there is sufficient parking capacity in the Village of Shelburne Falls. At peak occupancy during the October survey approximately 30% (100 spaces) of the available public parking spaces remained unoccupied. The observed parking patterns indicate that the core areas are at or close to capacity during peak times and that some of these areas are being used for long term parking. Almost half of the Keystone Lot was occupied by long term parked vehicles through the business day. The majority of the available spaces are located in peripheral areas, such as the Salmon Falls Lot and Eagles Lots in Buckland and the Cross Street Lot in Shelburne.

Visitors and customers to the Village want close and convenient parking. The core parking areas provide this. When these spaces are full or nearly full, the Village is perceived as having a parking problem and shortage. There is no practical way to increase the capacity in the core areas without compromising the character of the Village. The analysis has indicated that additional capacity can be added to the core areas by removing the long term parkers from these valuable spaces and placing them in the peripheral areas. Additionally, there is a lack of signage informing visitors and locals of the alternative parking areas around the Village.

The FRCOG is aware that the two surveys conducted did not monitor parking patterns during a weekend or special event, but anecdotal evidence indicates that during these periods the peripheral areas still remain largely unused. The following recommendations have been made to increase the efficiency of the existing parking in Downtown Shelburne Falls. The parking problems are generally a seasonal issue, i.e. May through October and therefore many of the recommendations would be most applicable to this time only.

Time Limit Restrictions

Currently the time limit restriction in Buckland and Shelburne differ slightly in the times they are in effect. In Buckland the 2-hour limits are in effect from 9am to 5pm whereas in Shelburne the 2-hour limit is in effect 9am to 6pm. Additionally on Thursdays the time limit is in effect 9am to 8pm on the Buckland side and 9am to 9pm on the Shelburne side. Since the Village is seen as one entity, it would be advantageous to have a consistent restriction for the whole Village.

When looking at the implementation of time restrictions on parking the needs of all users must be considered: visitors to the Village, residents of the Village and business owners in the Village. While employers and employees of the Village should have convenient parking, core parking areas should be reserved for customers and visitors. The identified core areas require high turnover.

State Street in Buckland

The 39 public core spaces on State Street are currently posted as two-hour parking. This should remain in effect. The Town and the business owners of Boswell Books, McCusker's Market, Aubuchon Hardware, Buckland Pizza and the other businesses in these two buildings may want to consider one-hour parking in the eleven spaces located directly in front of their buildings. While all 39 spaces in this entire area are considered core parking, given the nature and location of the adjacent businesses these 11 spaces are most desirable and experience the highest turnover rates Additionally, the average length of stay of just over one hour indicates that the majority of the users of these spaces are presently staying one hour or less. Posting these spaces with a one-hour time

limit will not have a negative impact on most current patrons and would encourage longer term parkers to park a bit further away, such as on Ashfield Street.

Ashfield Street in Buckland

It is unclear if the marked spaces on Ashfield Street presently are restricted to two-hour parking. Due to the proximity of these spaces to the businesses on State Street it is recommended that these spaces be posted as two-hour.

Bridge Street in Shelburne

Fifty-seven of sixty-nine parking spaces on Bridge Street are currently posted as two-hour parking. The remaining twelve spaces, spaces on the north side of Bridge Street between Main and Mechanic Streets, have no posting. Because of this, following the SFABA "Park and Walk" Campaign a number of the Village employees who previously parked long term in the Keystone Lot now use many of these spaces as all-day parking. While this may be a better use of these spaces than the Keystone Lot, moving employees to the United Bank or Cross Street lots would be more desirable. Thus, it is recommended that all marked spaces on Bridge Street currently without restrictions, be posted as two-hour parking.

Consideration should be given to reducing the time limit on some of the spaces on Bridge Street to one-hour. The analysis indicates that the central areas of Bridge Street between Baker Avenue and Water Street currently experience high turnover and short length of stay. Spaces directly outside the Keystone Market would be prime candidates for the reduced time restriction.

There are currently no marked spaces in front of the United Bank on Bridge Street although four to five marked spaces could be provided. Bank customers presently park in this area when conducting their bank business. The town may want to consider marking these spaces and posting these spaces with a 15-minute limit. The 15-minute limit may be hard to enforce, but the sign will discourage the majority of parkers from spending an extended period of time in these spaces.

Keystone Lot in Shelburne

Use of the Keystone Lot as all-day parking is the largest contributor to the perceived parking problem in Shelburne Falls. The lot's proximity to Bridge Street makes it important that use is primarily for short term parking for Village patrons. Thus, it is recommended that all spaces in the Keystone Lot be posted as two hours. Eight spaces in the lot are currently reserved for residents of apartments above the businesses on Bridge Street. It is recommended that the Town produce stickers or cards to hang off of rearview mirrors that allow unlimited parking in the lot for these residents.

Without a time limit restriction in the lot, long term parking will continue. There is sufficient peripheral parking space around the village to accommodate these long term parkers currently using the lot. Current work to establish a Park and Ride lot on Route 2 should also shift 5 to 8 vehicles that use the lot for carpooling commuting purposes out of the Village. (This project is described in more detail below.)

Water Street in Shelburne

Implementing a time restriction in the Keystone Lot will likely move the long term parking problem to the next closest area. Water Street, which is primarily a residential street, would likely see an increase in long term parking. To stop this from happening, it is recommended that a two-hour time

limit be posted on Water Street from the Keystone Lot to Cross Street. So that residents of the street are not penalized, a permit system similar to that recommended for the Keystone Lot should be instituted.

Main Street in Shelburne

Main Street will also likely see the shift of long term parkers from the Keystone Lot. This Street currently sees little use as many of the residences on the street have private driveways. Therefore, it is not as critical that long term parking be discouraged. This area should be monitored following the introduction of the above time limits and if problems arise, then time limits should be considered for this area also.

Deerfield Avenue in Shelburne

One of the major problems highlighted by business owners, is long term parking in core areas during the summer months by people spending the day at the Glacial Potholes off Deerfield Avenue. The four spaces at the top of the Deerfield Avenue are presently posted as two-hour parking, this should remain in effect. The 11 spaces down the north side of Deerfield Avenue past Mole Hollow Candle, presently have no restrictions posted. Use of these spaces should remain unrestricted and perhaps signed as all day parking to encourage use by visitors to the potholes. The spaces in the turnaround area at the bottom of Deerfield Avenue are privately owned by Mayhew Steel. Businesses who are misplaced by the proposed restriction in the Keystone Lot, may wish to consider approaching Mayhew to allow use of these spaces for their and their employees parking. Due to the narrowness of this street all illegal and double parking should be strictly enforced, especially in the vicinity of the intersection with Bridge Street.

Route 2 Park and Ride Lot

As a separate project, the FRCOG is working with MassHighway District 1 to develop a Park and Ride Lot on Route 2 near the Route 112 North interchange. MassHighway owns several parcels in this area that could be suitable for the siting of the lot although the proximity of the Deerfield River is placing some constraints on the project because of the requirements of the Rivers Protection Act. It is possible that creating the site as a gravel rather than a paved lot and reducing the number of spaces at the site would eliminate some of the constraints. However, MassHighway has indicated that the towns of Buckland, Shelburne and Charlemont would need to work cooperatively to maintain the lot in the winter, for MassHighway is not equipped to do this. The FRCOG will continue working with MassHighway and with the towns on this project. The creation of this lot would presumably move some all-day parking out of the Village to this lot.

Signage

The Cavendish Group as part of its Wayfinding Study is currently addressing signage of parking. Because of this, the FRCOG did not explore signage issues in great detail. However, a few points should be made. First, one reason that there is a perception that State Street, Bridge Street and the Keystone Lot are the extent of parking in the Village is because there is limited signage identifying other parking areas in the Village. Signage should be provided directing patrons to all parking options. Signage should indicate whether parking areas are for short-term use or are available for all-day parking. Pedestrian-oriented maps should be provided for visitors to the Village who use the peripheral lots. The maps should be placed on plaques and point out the location of the lot and the location of the Potholes, the Bridge of Flowers, and other destination points.

Lighting and Safety

To encourage increased use of the peripheral lots around the Village, the lots must be perceived as being safe. This may require providing lights at some of the lots. Specifically, lighting should be provided at the Cross Street lot and the Salmon Falls Marketplace lot.

Additionally, good pedestrian access from the peripheral lots is necessary. Two crosswalks should be considered on Ashfield Street. The first should be located at the entrance to the Salmon Falls Marketplace Lot, linking the lot to the sidewalk on the west side of the street. A second crosswalk should be considered across Ashfield Street where Depot Street intersects. Many visitors possibly park in the Salmon falls Lot, visit the store and leave via the front entrance onto Depot Street to make their way into the center of the Village. A crosswalk at this location would direct pedestrians to the sidewalk on the west side of the street.

With the expected increase in use of the Eagles Club lots due to these lots being designated as "Bridge of Flowers Parking", some sidewalk improvements are recommended to connect the lots with the existing sidewalks. Currently there are no defined sidewalks on the east side of the street in front of the Eagles Club or the gas station. Because vehicle access is required over these areas it is not appropriate to install curbing and a sidewalk. To give pedestrians a sense of comfort and separation from vehicles, it recommended that some form of demarcation be introduced connecting the lots to the sidewalk on the south of the gas station. This demarcation could be painted lines or a different surface type. As an interim measure, a crosswalk directing pedestrians to the sidewalk on the west of the street should be considered.

Sidewalk improvements from the Cross Street lot to Main Street should also be considered. There has been some discussion of acquiring a parcel that is located between the Cross Street lot and the back of the United Bank Lot adjacent to the Keystone Lot so a pedestrian alley can be constructed. While this would improve access to Bridge Street businesses, it could result in vehicular-pedestrian conflict that should be assessed before proceeding.

Encouraging Patrons to Abide by the Parking Space Time Limits

The introduction of revised time limits for parking spaces on State Street in Buckland, Bridge Street and Water Street and in the Keystone Lot in Shelburne, will have a limited impact without measures to encourage patrons to abide by the new limits. Two methods of encouragement are voluntary incentives to move employees to peripheral lots around the Village and enforcement.

As has been discussed, the parking turnover survey indicates that there is ample parking throughout the Village of Shelburne Falls. Unfortunately, the peripheral lots around the Village are severely underutilized and the core parking areas, especially the Keystone Lot, are being used for long-term parking. Employees and commuters should use peripheral lots so customers and other patrons have easy and ample access to central parking.

Last April the Shelburne Falls Area Business Association instituted a Park and Walk campaign to encourage employees to change their parking habits and use the peripheral lots. The campaign included flyers to remind employees of the importance of peripheral parking. Based on the parking turnover survey conducted in April, this campaign was successful. Keystone employees moved from the Keystone Lot to all-day on-street spaces on Bridge Street and continue to use these spaces rather than the lot. The United Bank lot on Bridge Street had an average occupancy of 58% compared to a 42% occupancy in October.

A similar and expanded campaign should be renewed this May. The towns of Buckland and Shelburne and the Shelburne Falls Area Business Association should again encourage employees to use peripheral parking spaces through flyers and newspaper articles in the West County News. Additionally, an incentive system should be established. Examples of incentives that could be implemented are described below.

1. The Gentle Reminder – Postcards should be placed on the windshield of a vehicle parked longer than 4 hours in one core parking space. The postcard should remind the vehicle owner that long-term parking is available in other parts of the Village through a map pointing out peripheral lots.

2. Peripheral Parking Prize – One day a month a peripheral space should be picked at random by the SFABA. The owner of the parked car in that space wins a prize donated by one of the village merchants. This campaign should be advertised in the West County News with the winner of the prize noted in the paper each month.

3. Carpool Incentive – The SFABA could establish a carpool-matching program for Village employees. The FRCOG has created a matching system that was implemented at the University of Massachusetts. The system includes completion of a survey by interested employees that includes location of employment, typical hours worked, and home location. Surveys are then analyzed to match potential carpoolers based on matching work schedules and proximity of origin. Such a matching system could be successful in the Village since employment locations are centralized and employment hours are likely to be similar. However, convincing people to carpool can take some work. People often have the perception that carpooling is inconvenient and more effort than it is worth. An educational campaign highlighting the economic and environmental benefits of carpooling combined with an incentive program may be necessary. Incentives could include designated core parking spaces for carpoolers or coupons for discounted gasoline, oil changes or other related vehicle maintenance donated by the SFABA. If establishing a carpooling program is of interest, the FRCOG is available to assist the SFABA in its implementation.

4. Work Out to Work – Encourage employees to ride bikes to work by placing bike racks around the Village. Bike racks may also encourage visitors to the Village to ride instead of drive. There are tourists who would enjoy the challenge of riding to the hill village of Shelburne Falls to be rewarded by a day at the potholes. Like the incentive system established by Shelburne a few years ago to encourage children to wear helmets, coupons for ice cream cones could be distributed to employees who ride bikes to work.

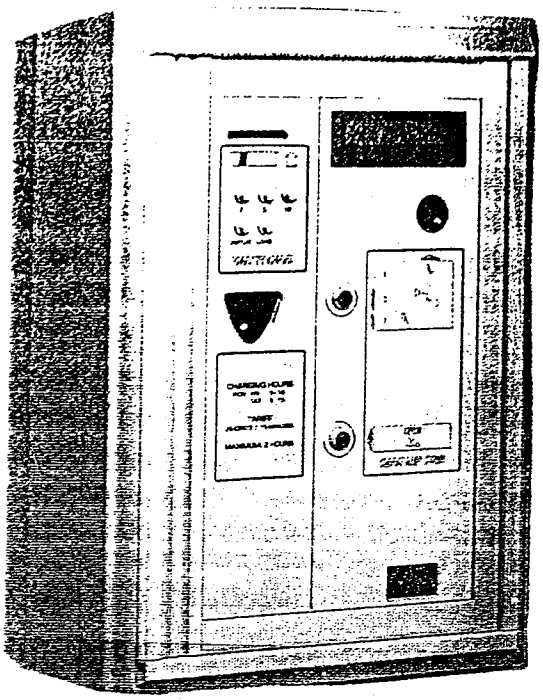
There are likely several other incentive measures that could be established by the towns or the SFABA to encourage Village employees to park in peripheral areas.

Enforcement of the Parking Space Time Limits

To ensure that core parking is used for two hours or less, enforcing the time limits will probably be necessary. For the purposes of this study, three enforcement options were investigated: meters, pay-and-display boxes, and hand-held citation devices. Meters and pay-and-display boxes are based on the collection of fees. Hand-held citation devices can be used to issue citations for offenders of these fee-based systems or can be used to enforce fee-free parking. The pros, cons and costs of each method have been assessed and are followed by a comparison table.

Pay-and-Display Units

Figure 26: Typical Pay and Display Unit



Pay-and-Display Units are another fee collection system. This system issues tickets that patrons place on their dashboard for view through the windshield. The tickets display the time that the ticket was purchased and the amount of parking time purchased. Units are most often used in parking lots and not for on-street parking. Units are located in a central location. Technically, a box should be provided for every 50 spaces. If Pay-and-Display Units were used in the Keystone Lot, 2 units would be required. Units cost approximately $10,000. Signage directing patrons to the units, canopies covering the units, and lighting would also be required making the total cost of this option more than $20,000.

Pay-and-Display Units are a good form of parking fee collection. The boxes can be programmed to allow free parking on particular days, can display when tickets are unnecessary, are relatively maintenance-free, and eliminate all possibility of coin-collection fraud. On the other hand the units are fairly urban-looking and are not customer friendly. They require more time and effort on the part of customers.

If the towns are interested in additional information about Pay-and-Display Units, the FRCOG has spoken with the City of Northampton who operates the 10 units and with a distributor about the units.

Hand Held Citation Devices

Figure 27: Typical Hand Held Citation Device

A Hand Held Citation Device is a powerful hand-held parking maintenance device. The devices can be used to issue warnings or citations, they can monitor use of parking spaces, they can store vehicle plate numbers to track repeat offenders, and, if needed, can run plate numbers for a stolen vehicle report or license numbers for notice of outstanding warrants. The system has enough memory for all parking spaces to be monitored for length of use by patrons. This would allow enforcement of the two-hour time limits without a fee collection system. The system can also store plate numbers in its memory. This would allow warnings to be issued to patrons exceeding the two-hour time limit until a defined number of warnings have been issued at which time the system will issue a citation. The cost of one hand held unit with software, installation and training is $10,000. Each additional unit costs $2,800. The systems reportedly require little maintenance.

The hand held device is our enforcement method recommendation. The system is the least expensive of the three options explored. The ability of the system to enforce parking regulations without imposing a fee system, such as meters or pay and display, is also a benefit. Fees would be collected primarily from Village employees and daily customers. This would dramatically change the quaint, hometown feel of the Village. Using the hand held device results in little change to the aesthetics and charm of the Village because adding a fee collection system would not be necessary. However, because a warning and citation system would be in effect, the Village will be sending a clear message that abidance of the parking rules is expected and enforced.

There are a number of different manufacturers of these devices and the FRCOG have found the web site of the "Parking Today" Journal an excellent resource for finding information on the products and the associated vendors. The web site address is **www.parkingtoday.com**

Table 3: Enforcement Option Comparison

	Meters	Pay-and-Display Units	Hand Held Citation Devices
Cost	$500/meter Keystone Lot: $46,500 Bridge Street: $34,500 State Street: $24,000	$10,000/unit Units are recommended for every 50 spaces; 2 units would be needed in the Keystone Lot.	$10,000 Cost includes software, training, installation, and one hand-held unit. Additional units cost $2,800.
Maintenance	High Vandalism; Coin jams; Coin collection.	Low Battery operated. Relatively maintenance free.	Medium On-site training required, once learned, low maintenance.
Aesthetics	Meters throughout the village may look cluttered.	Very urban-looking. Requires a canopy over units, directional signs and lighting.	No change to downtown.
Comments	Fee collection system.	Effective form of fee collection; not customer friendly.	Method of enforcing parking time limits without collecting a fee.

Parking Enforcement Officer

None of these enforcement options can be pursued without a Parking Enforcement Officer. A Parking Enforcement Officer does not need to be a police officer. A civilian can be given authority to issue citations by the Police Chiefs of Buckland and Shelburne. This would reduce the salary cost of the Parking Enforcement Officer since police training is not necessary.

To determine the impact of a Parking Enforcement Officer to the Town and/or Police budgets and to calculate the point at which the position would be self-sustaining, a very simplistic calculation was conducted. First, it was assumed that parking enforcement would be conducted seasonally. The SFABA and the town Selectboards have indicated that parking is not a year-round problem but one that primarily occurs between April and October. Thus, it was assumed that a 7-month full-time position would be needed. It was also assumed that a full-time salary of $20,000 per year would be sufficient. This calculates to $11,666 for the seven-month position. Next, it was assumed that the Parking Enforcement Officer would work 5 days per week and that parking violations will result in a $5 fine. Given all of these assumptions, the Parking Enforcement Officer would need to issue 16 tickets per day to make the position self-sustaining.

This calculation does not account for time related to the position's hiring, payroll, and other related administrative costs. It also does not take into account the cost of sending repeat notices for fine collection and other costs related to a fine collection system. On the other hand, late fees for fine collection are not added, nor are higher fines for parking in no parking zones or disabled spaces, etc. This calculation is meant to act as a starting point for consideration by the Towns.

Future Recommendations

Special Event Parking and Shuttle

While there is generally ample parking in the Village of Shelburne Falls, the Village sponsors several special events and is a seasonal destination that may constrain parking on certain days of the year. The Village may want to consider special measures to provide additional parking in anticipation of these events. First and foremost, employees should be encouraged to ride their bikes or carpool on special event days so that as many parking spaces as possible are available for visitors and tourists. Beyond that, there has been much discussion of expanding the Salmon Falls Marketplace lot. Along with the proposed expansion is the plan to provide shuttle service from this lot to the Village via a trolley bus or even the newly restored Number 10 trolley car. This plan should be considered. It would provide overflow parking in an available area and the provision of an historic shuttle ride would add to the tourism experience.

Summary

The importance of the core areas to Village has been recognized. Measures need to be implemented to insure that these valuable spaces see continual turnover. The park and walk campaign by the SFABA had some success in moving long term parkers from the core areas, but additional capacity can be obtained by removing the remainder of the long term parkers to the underutilized peripheral parking areas. The most efficient way to do this would be to introduce time restrictions in those areas where they presently do not exist. Enforcement of the restrictions is also required. One enforcement officer could manage the parking enforcement for the whole village using a hand held computer citation device. Finally, visitors to the Village need to be informed of all alternative parking options, through a clear and efficient sign network.

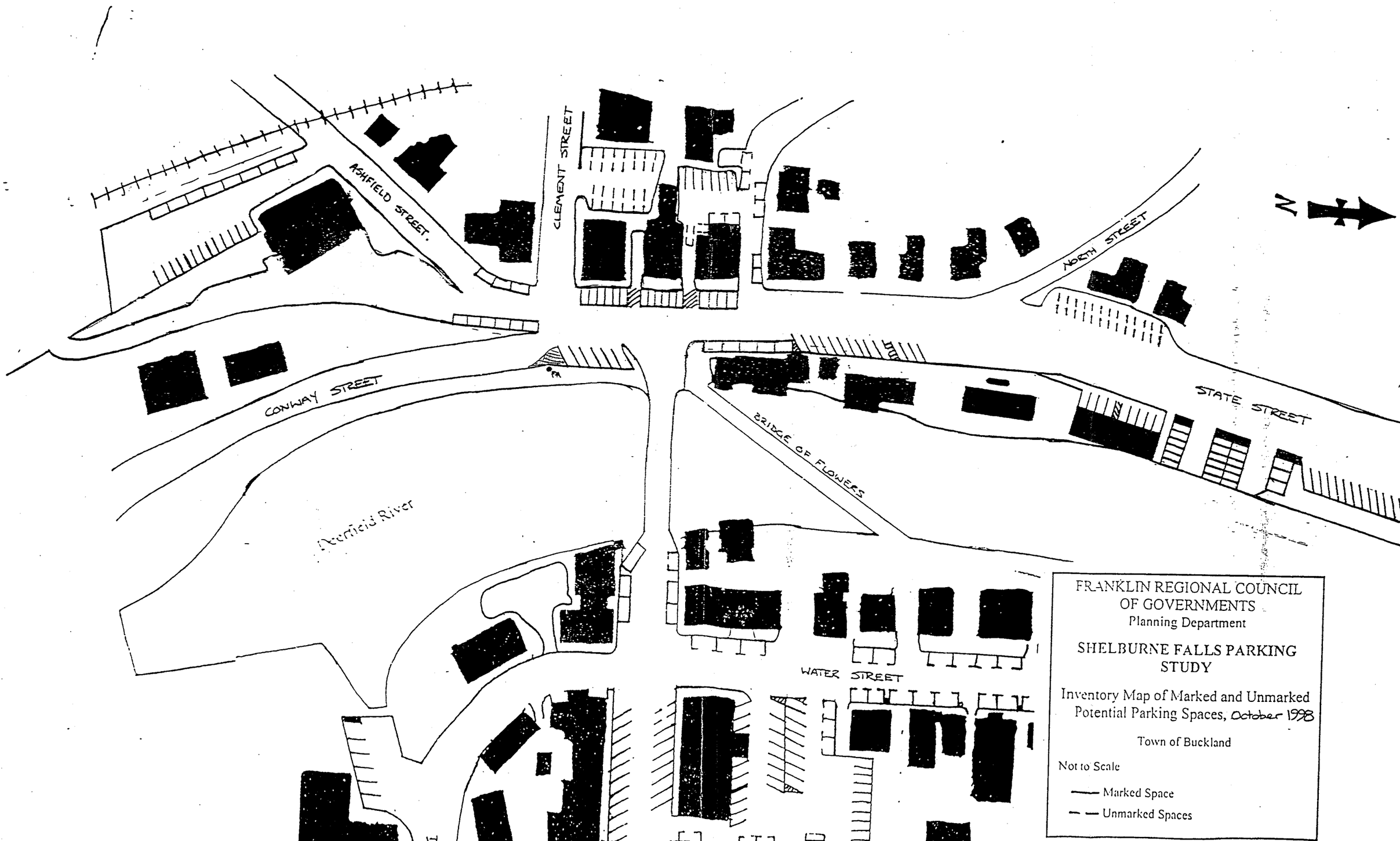
Task 5

Presentation of the Results

Presentations of the results of the parking were made to the Shelburne Falls Area Business Association and also to a joint meeting of the Buckland and Shelburne Selectboards.

APPENDIX 1

Parking Space Inventory



FRANKLIN REGIONAL COUNCIL OF GOVERNMENTS
Planning Department

SHELBURNE FALLS PARKING STUDY

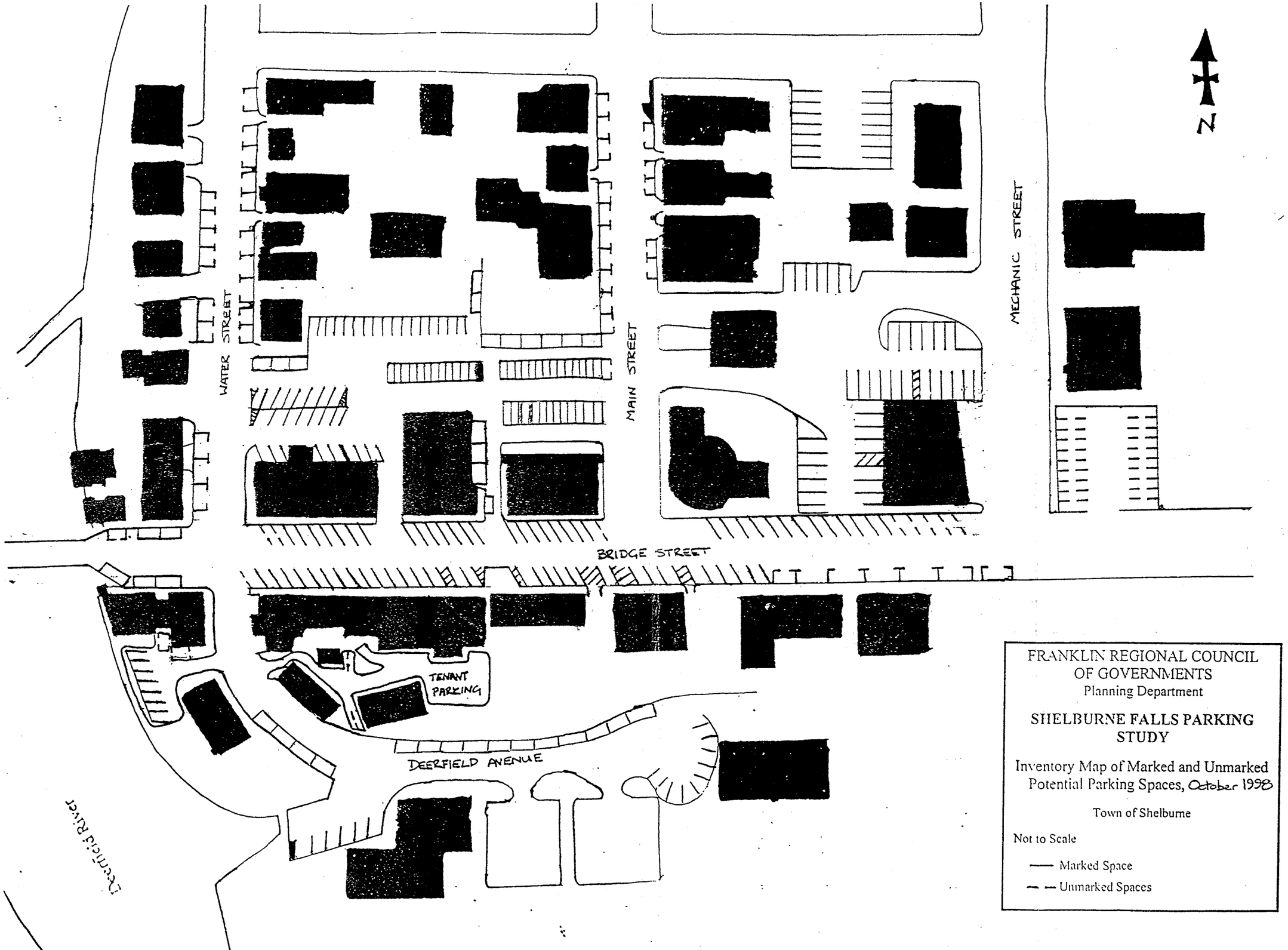
Inventory Map of Marked and Unmarked Potential Parking Spaces, October 1998

Town of Buckland

Not to Scale

—— Marked Space

– – Unmarked Spaces



FRANKLIN REGIONAL COUNCIL OF GOVERNMENTS
Planning Department

SHELBURNE FALLS PARKING STUDY

Inventory Map of Marked and Unmarked Potential Parking Spaces, October 1998

Town of Shelburne

Not to Scale

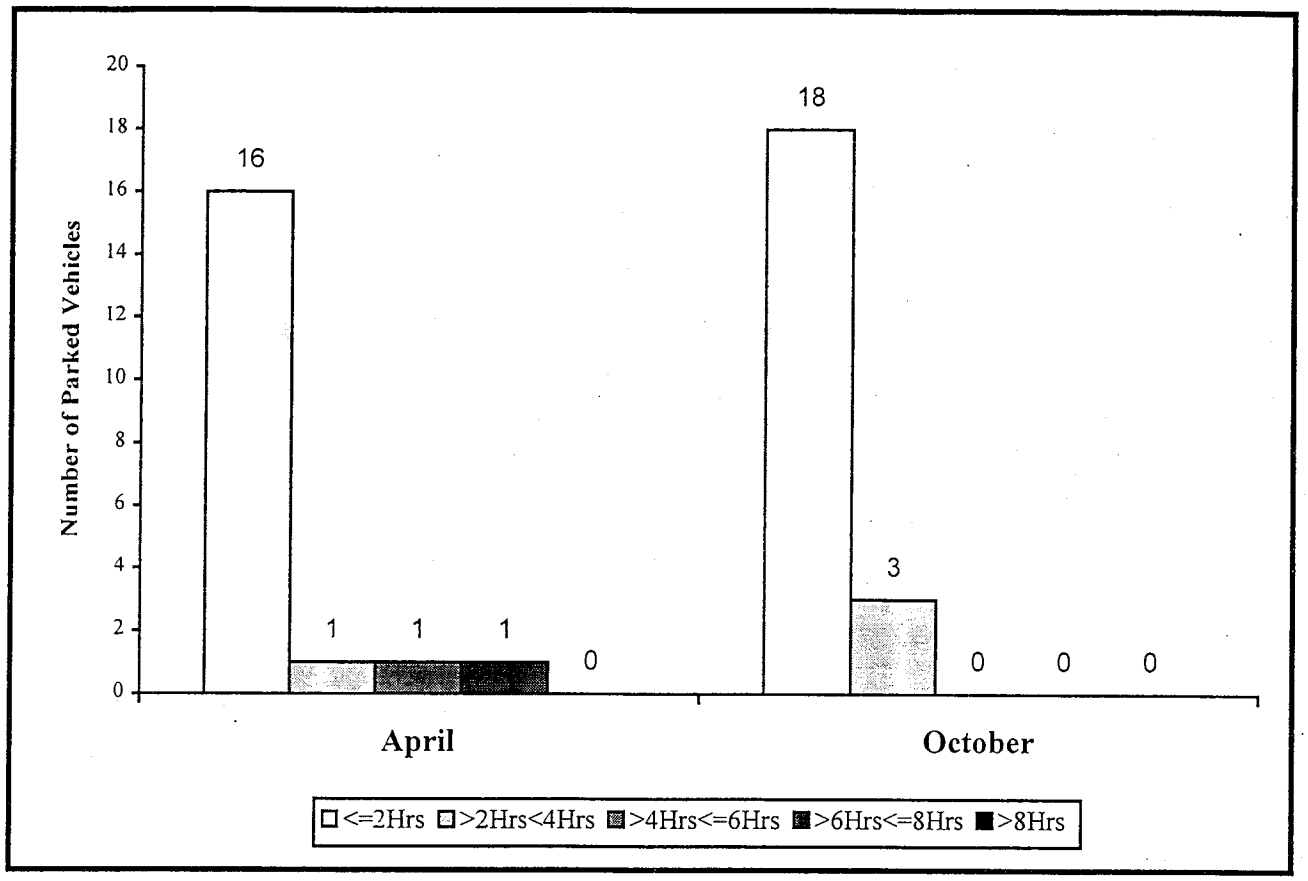
— Marked Space

– – Unmarked Spaces

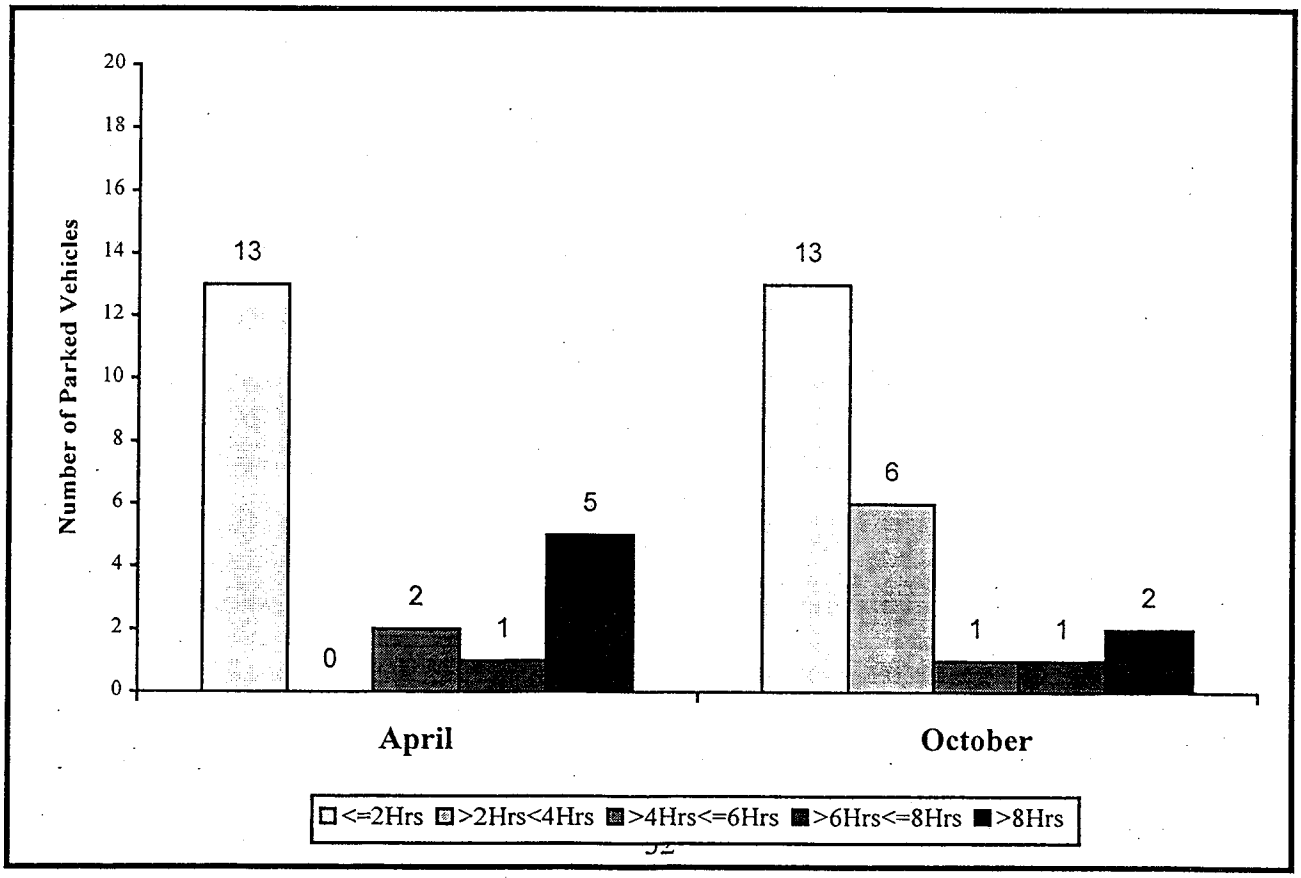
APPENDIX 2

Intermediate Parking Area, Length of Stay Charts

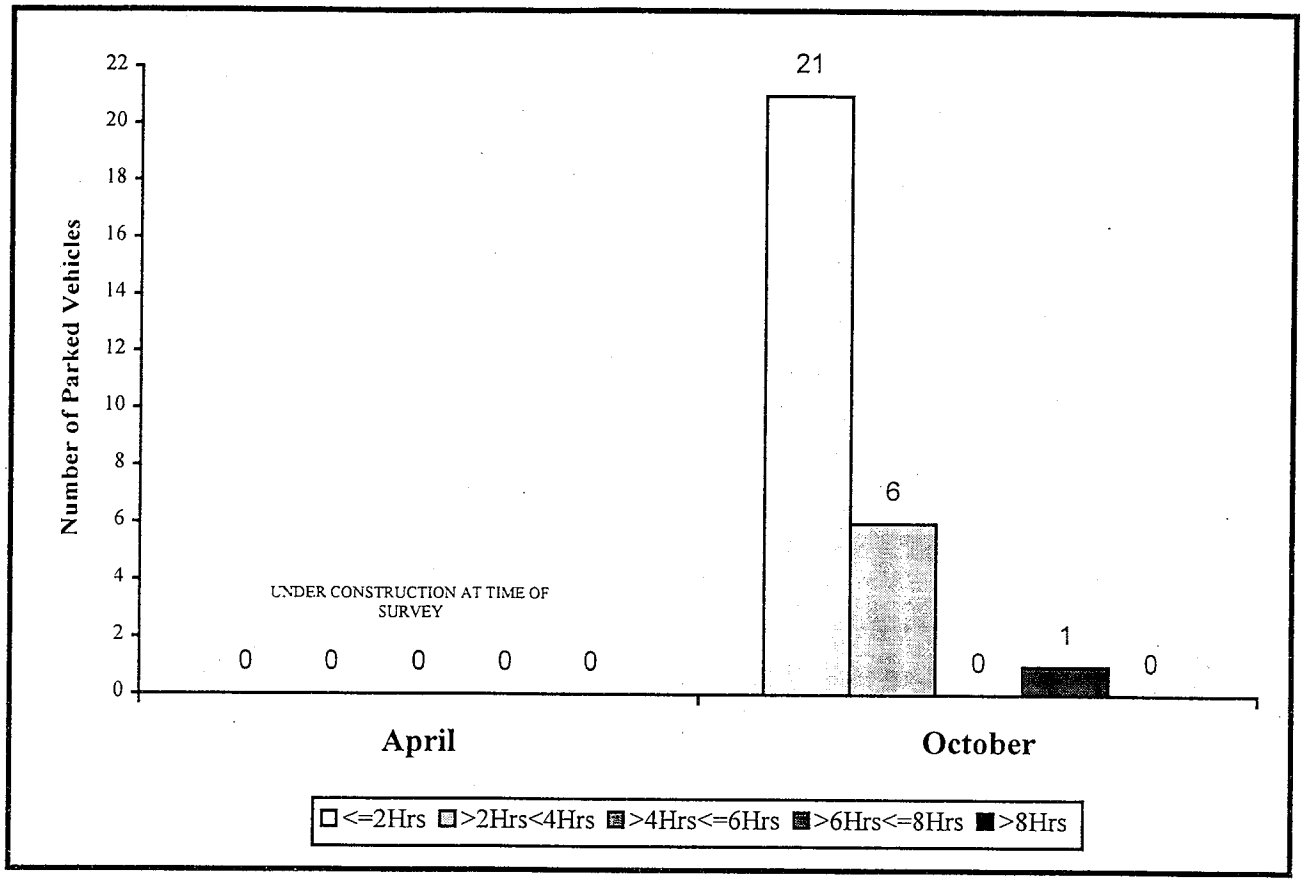
Ashfield Street/Depot Street, Length of Stay



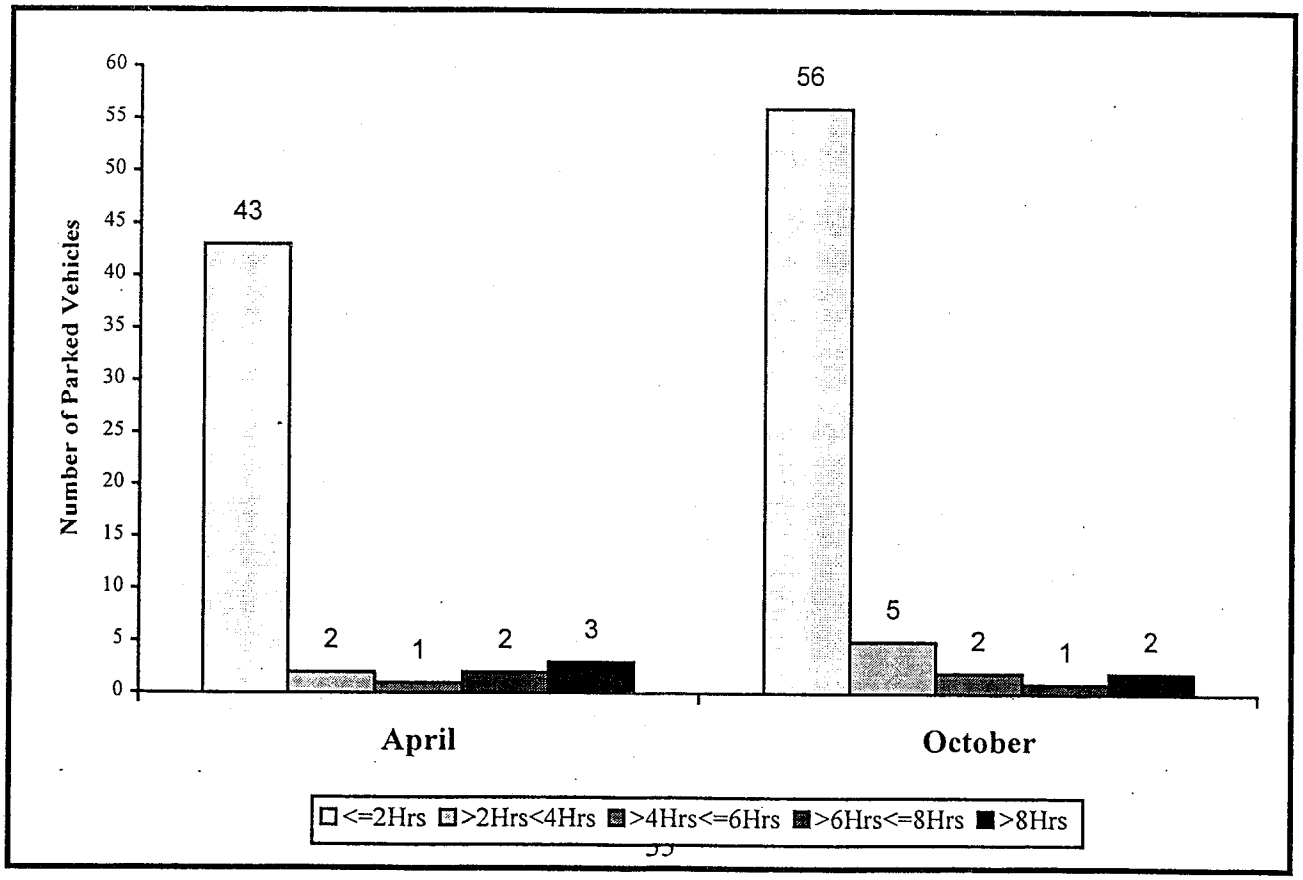
Buckland Town Hall Parking Lot



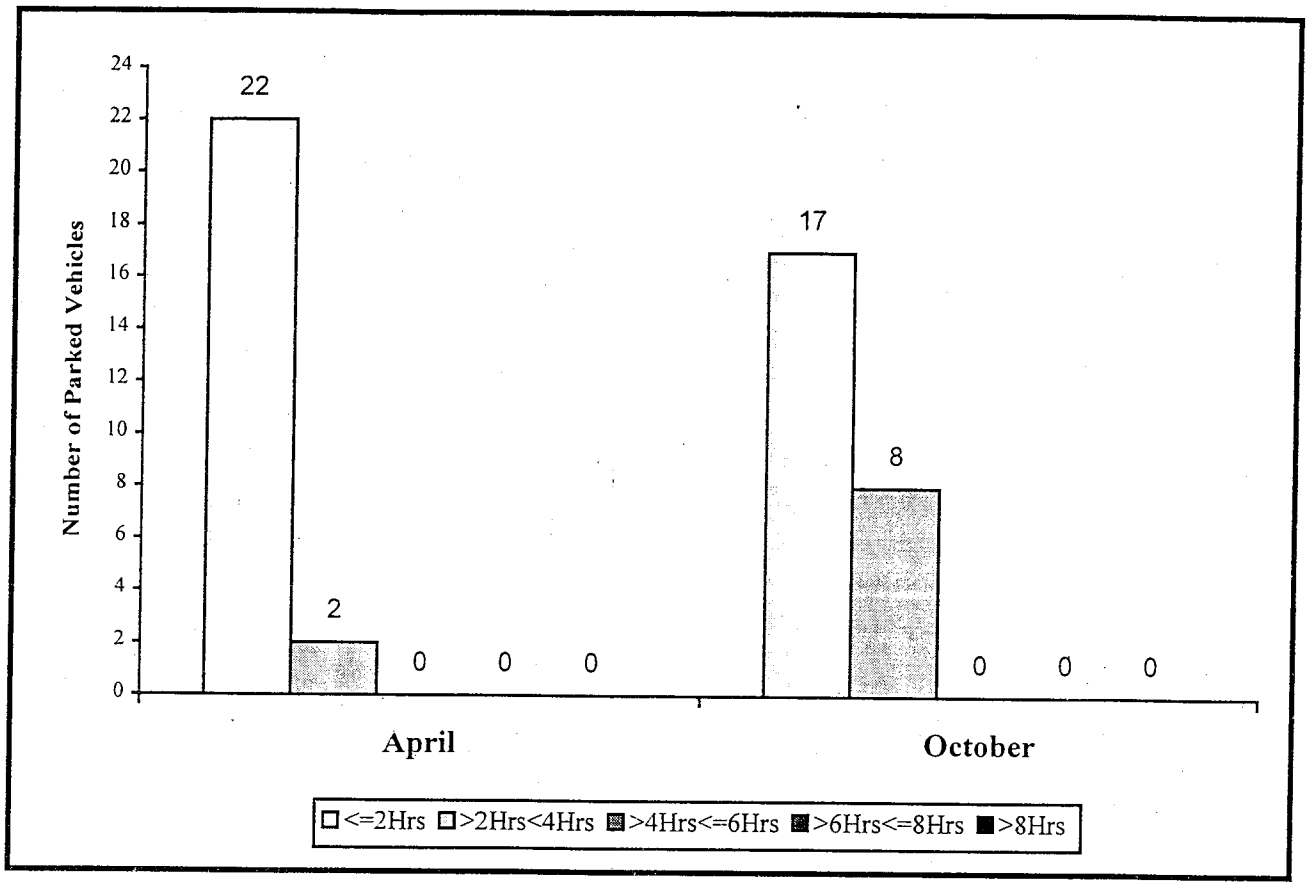
Deerfield Avenue, Length of Stay



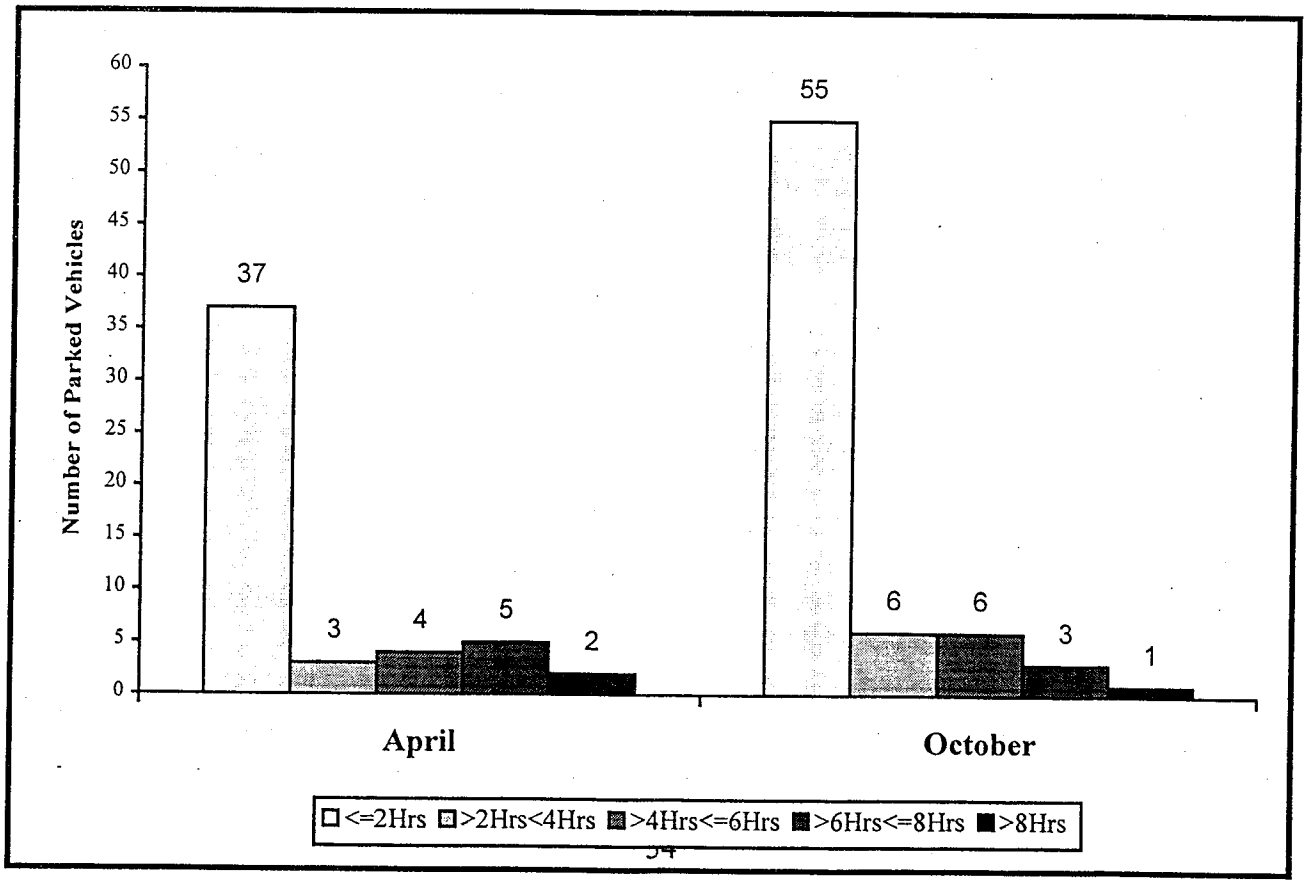
Water Street, Length of Stay



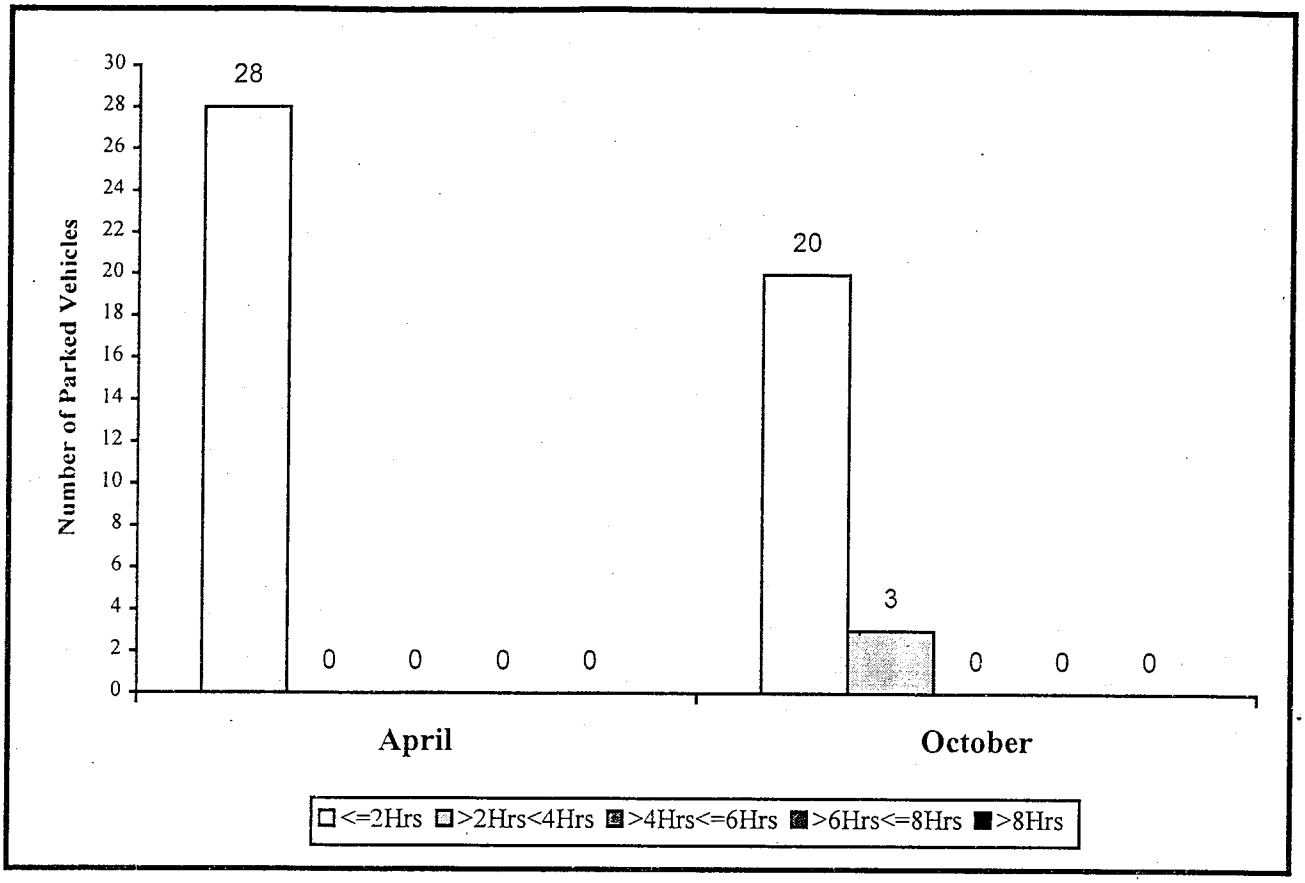
Main Street, Length of Stay



Upper Bridge Street, Shelburne (Marked Spaces), Length of Stay



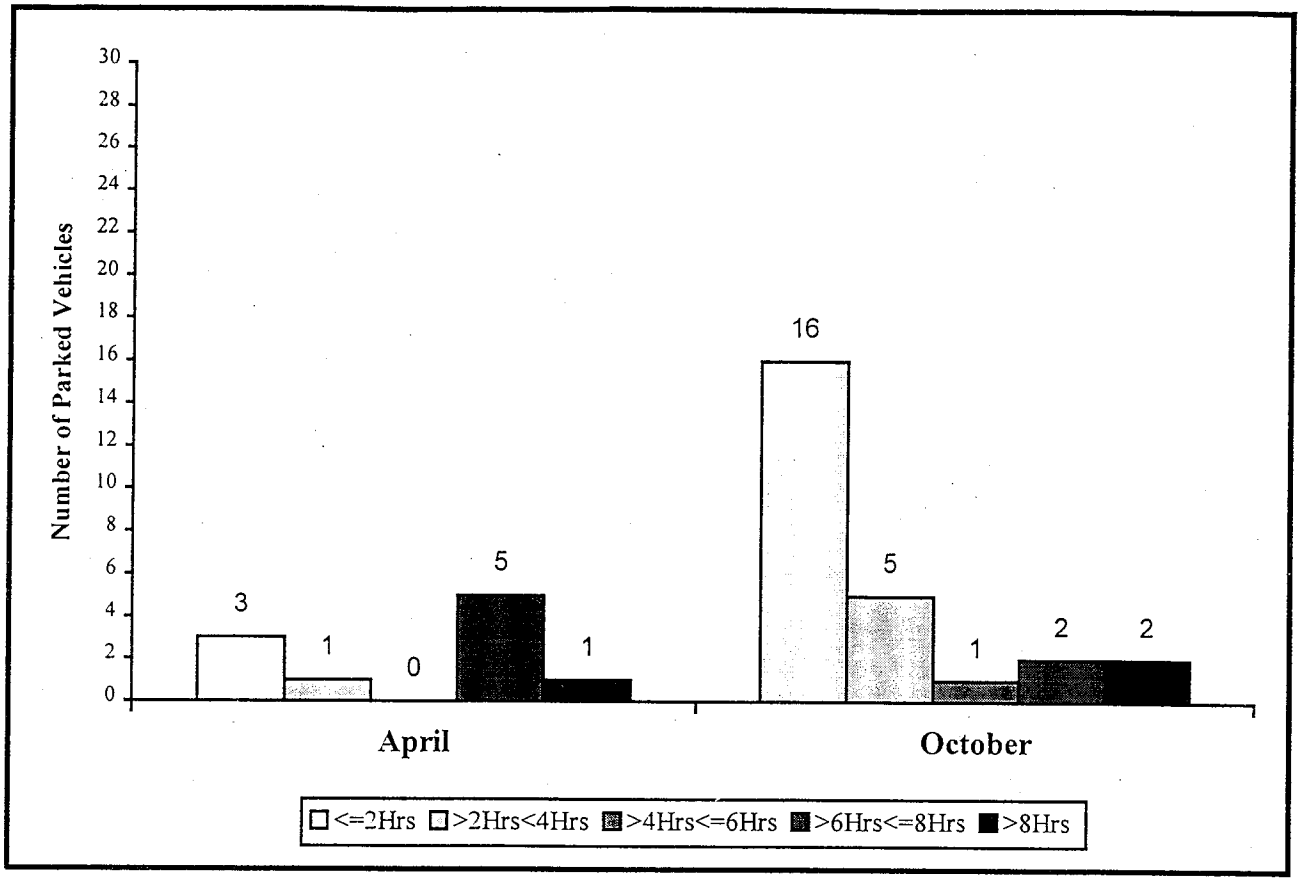
Upper Bridge Street, Shelburne (Unmarked Spaces) Length of Stay



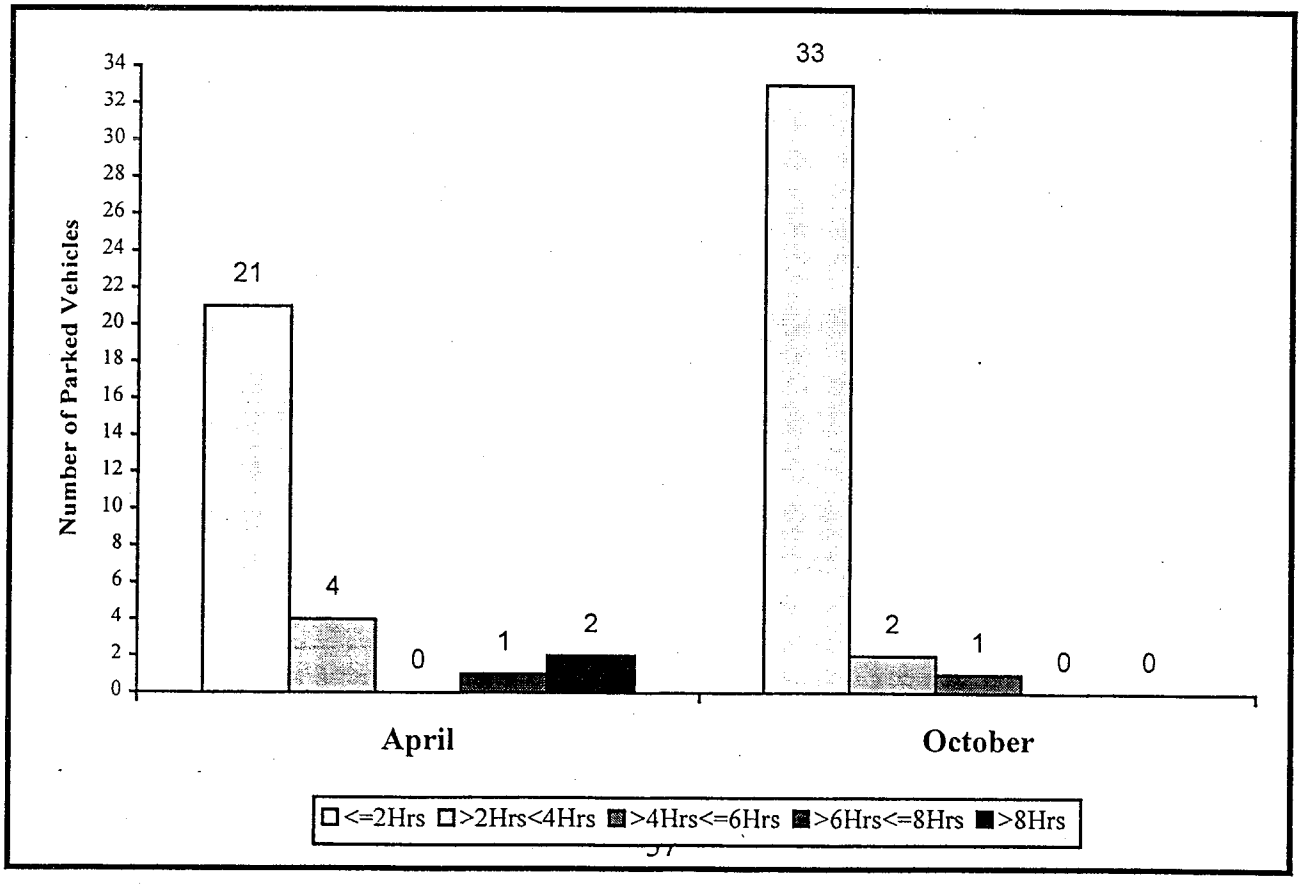
APPENDIX 3

Peripheral Parking Area, Length of Stay Charts

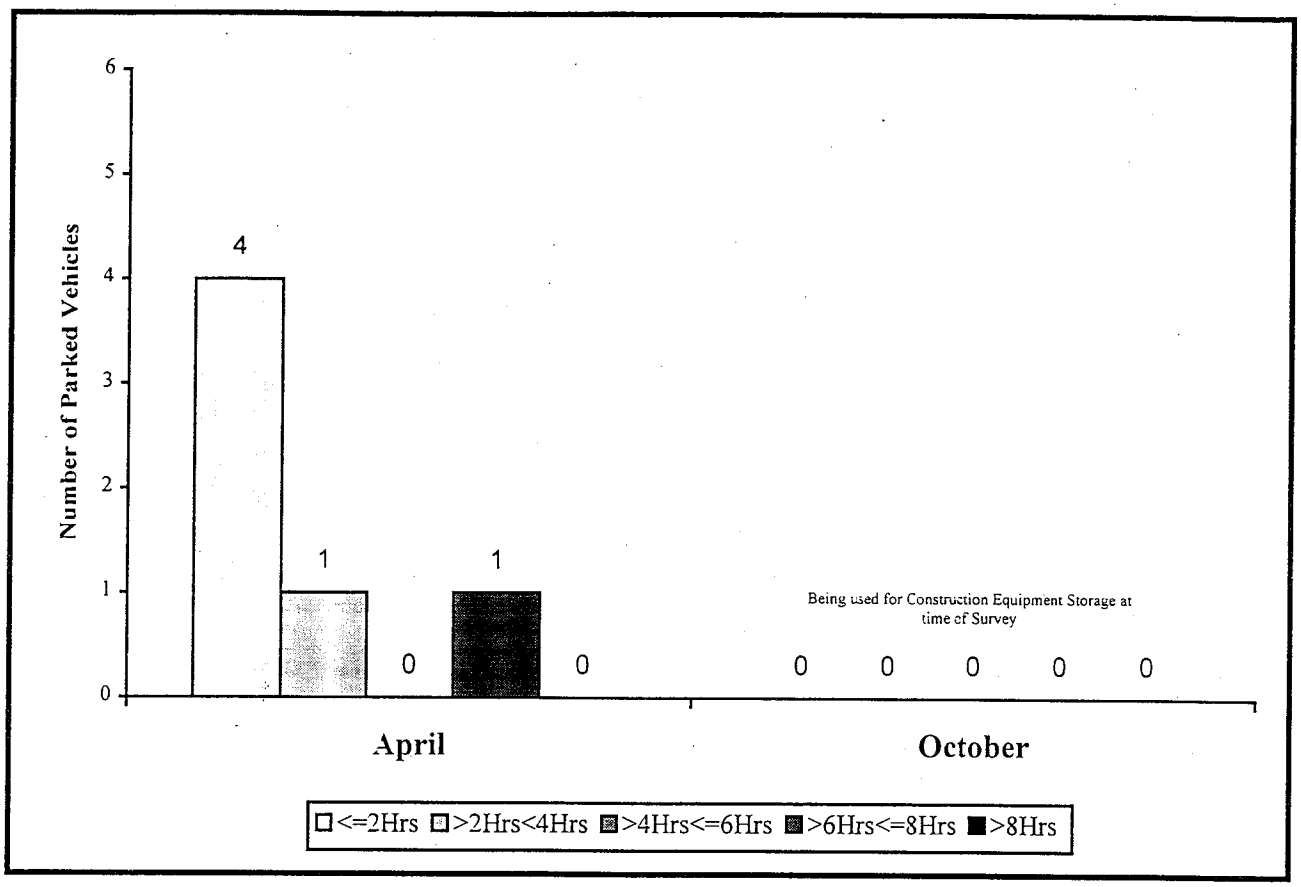
Salmon Falls Municipal Lot, Length of Stay



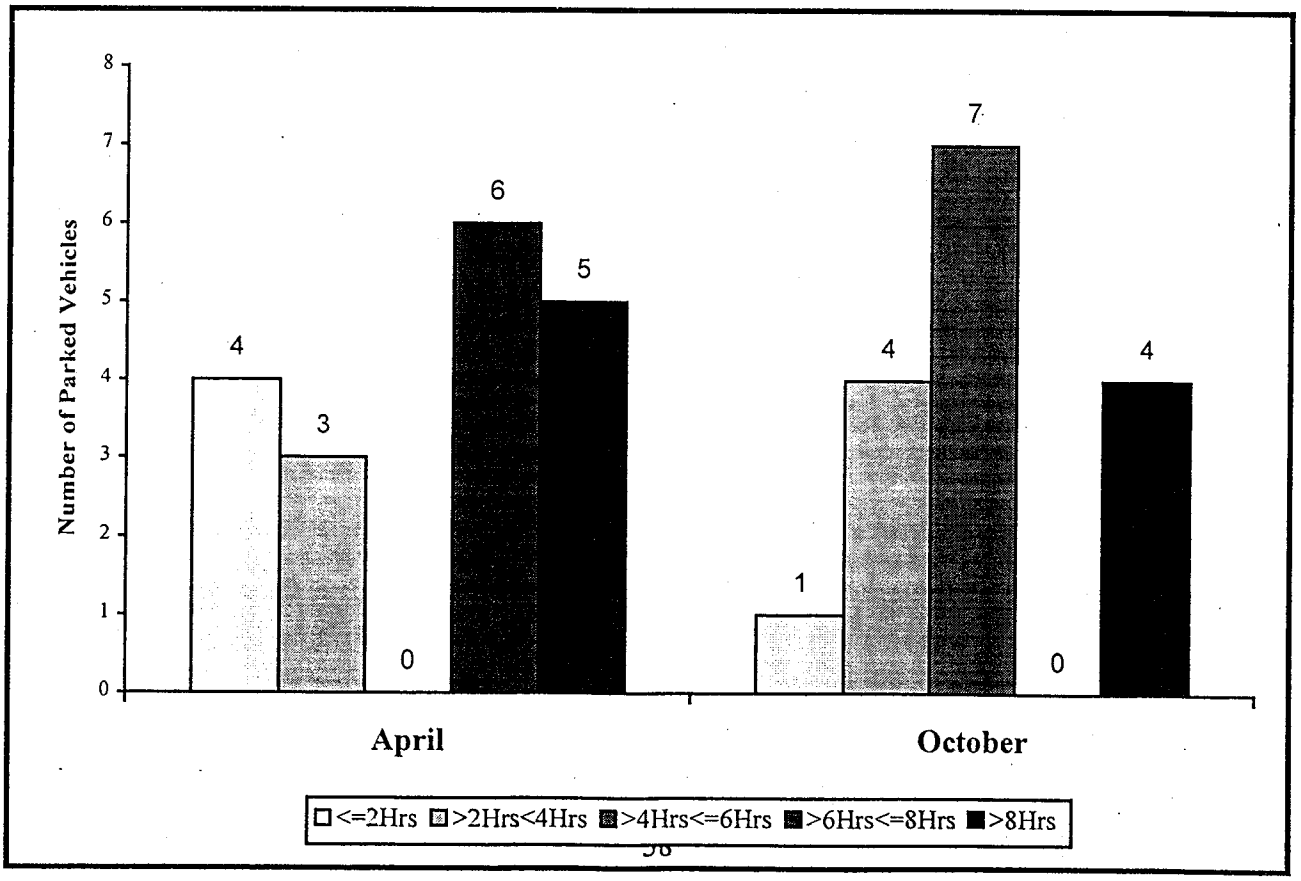
State Street (Eagles Club) Municipal Lot, Length of Stay



Cross Street Municipal Lot, Length of Stay

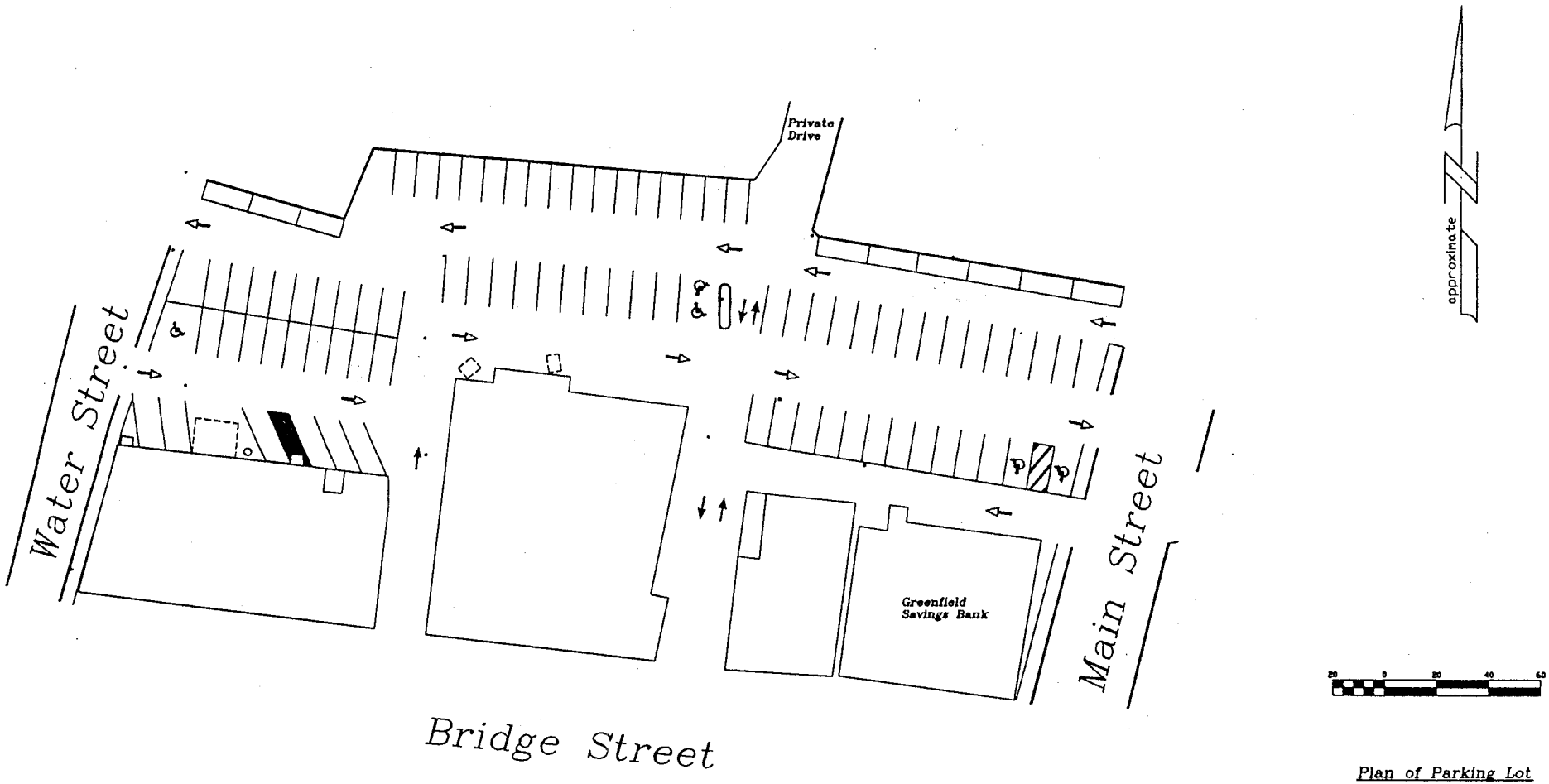


Bridge Street, United Bank Lot, Length of Stay

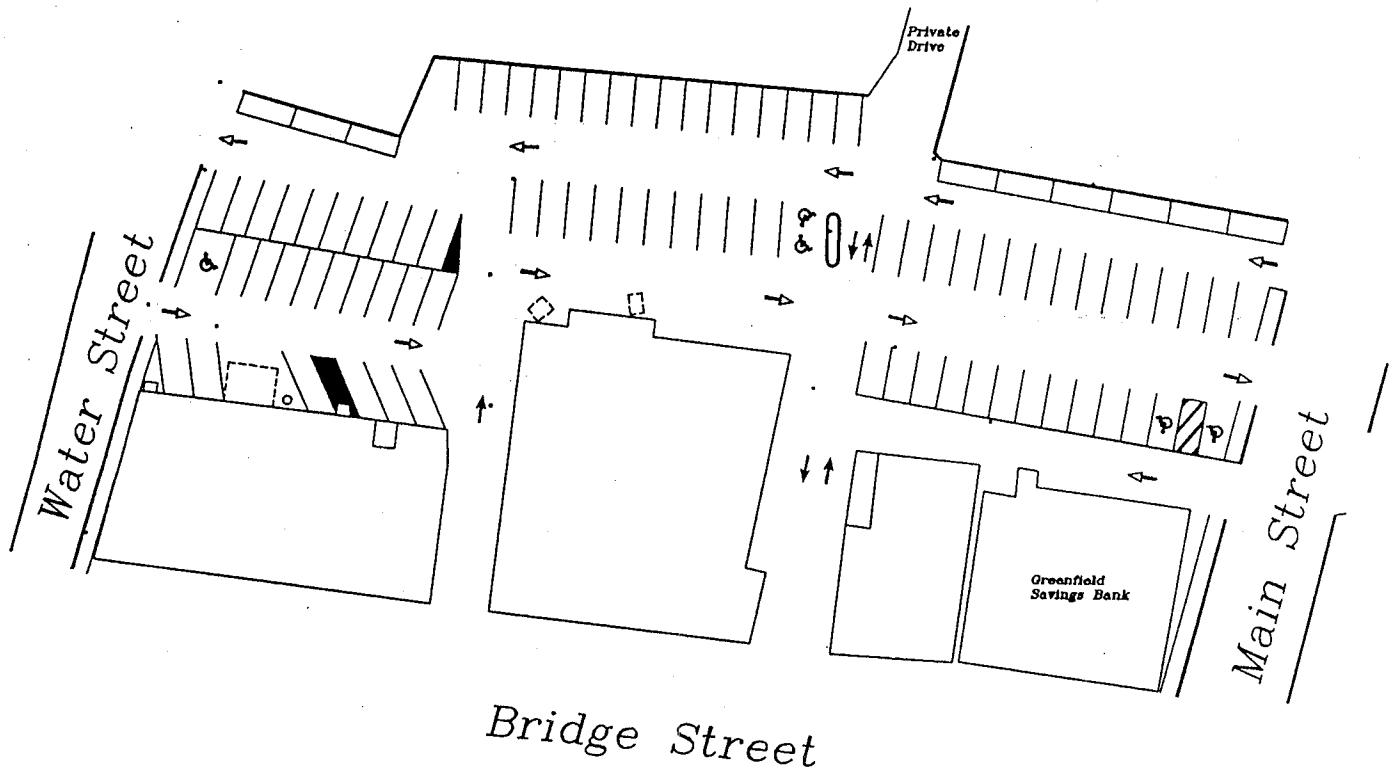


APPENDIX 4

Keystone Lot Reconfiguration, Options 1, 2, 3 & 4



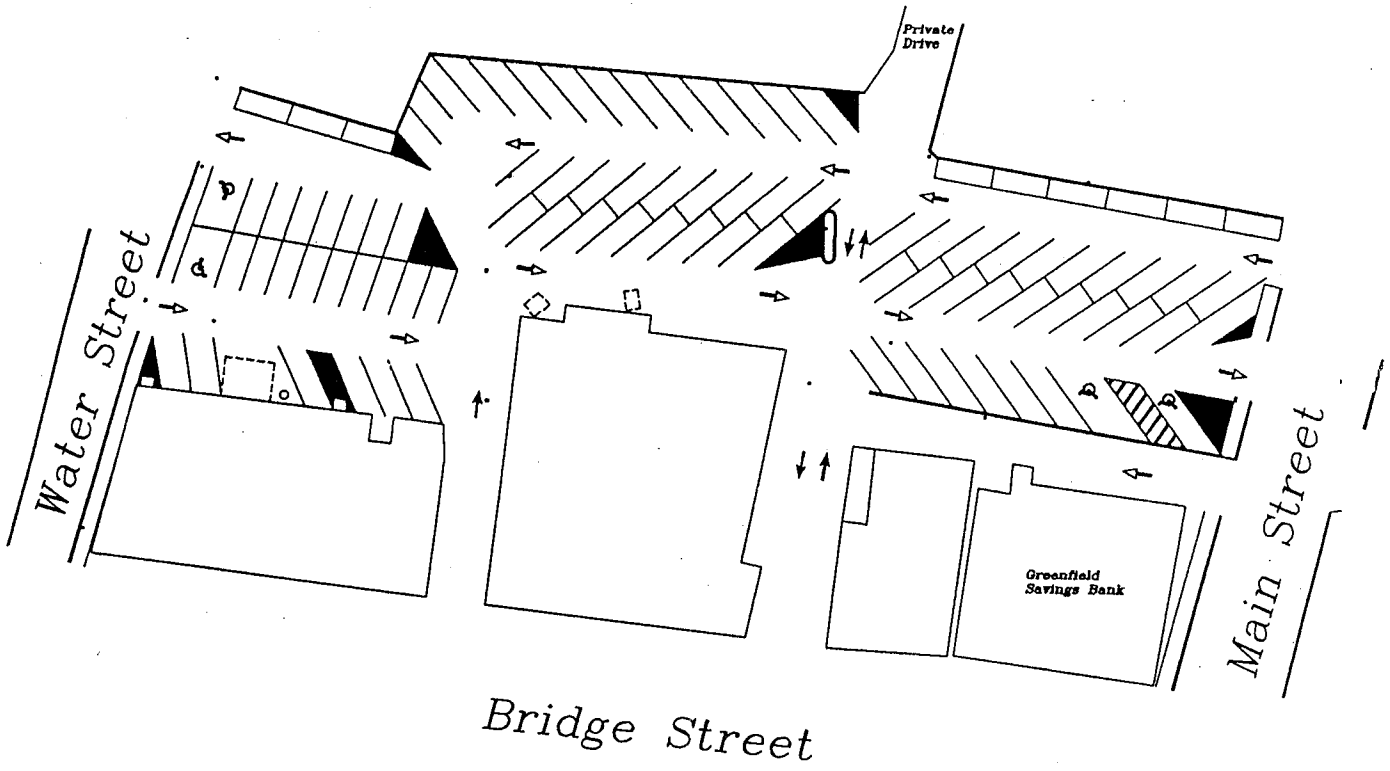
Plan of Parking Lot
Option 1 (91 Spaces)
in
Shelburne, MA.
surveyed for
SFABA thru FRCOG Planning Dept.
prepared by
Franklin Regional Council of Governments
Engineering Program
August 17, 1998



approximate

Scale 1" = 20'

Plan of Parking Lot
Option 2 (91 Spaces)
in
Shelburne, MA.
surveyed for
SFABA thru FRCOG Planning Dept.
prepared by
Franklin Regional Council of Governments
Engineering Program
August 17, 1998



approximate

Scale 1" = 20'

Plan of Parking Lot
Option 3 (92 Spaces)
in
Shelburne, MA.
surveyed for
SFABA thru FRCOG Planning Dept.
prepared by
Franklin Regional Council of Governments
Engineering Program
August 17, 1998

APPENDIX 5

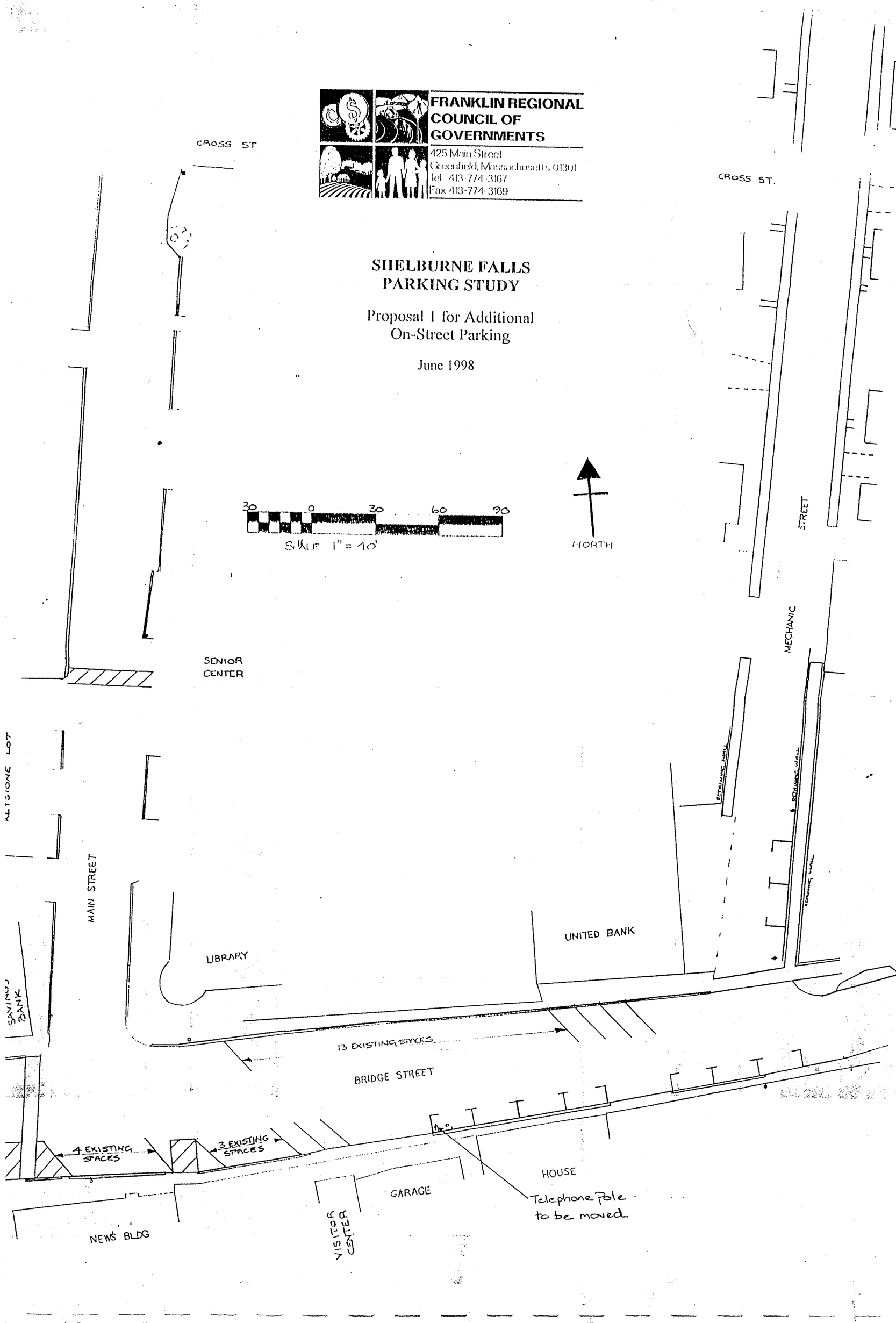
Additional On-Street Parking Options

FRANKLIN REGIONAL
COUNCIL OF
GOVERNMENTS
425 Main Street
Greenfield, Massachusetts 01301
Tel 413-774-3167
Fax 413-774-3169

SHELBURNE FALLS PARKING STUDY

Proposal 1 for Additional On-Street Parking

June 1998



FRANKLIN REGIONAL COUNCIL OF GOVERNMENTS
425 Main Street
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SHELBURNE FALLS PARKING STUDY

Proposal 2 for Additional On-Street Parking

June 1998