

THIRD DRAFT
Downtown Parking Study
Nantucket, Massachusetts

Submitted to:

Nantucket Planning and Economic Development
Commission

January 25, 2010

Table of Contents

1.0	Introduction.....	1
2.0	Study Area	1
3.0	Existing Parking Supply	2
3.1	Public Parking Areas	2
3.2	Private Parking Areas	4
3.3	Parking Supply Summary	4
4.0	Parking Demand	5
4.1	Parking Demand Calculated from Peak Summer Utilization	5
4.2	Parking Demand Calculated from National Parking Rates.....	6
4.3	Parking Demand Calculated from Nantucket Zoning Regulations.....	10
5.0	Conclusions and Recommendations	11

List of Tables

Table 1	Parking Supply Summary	3
Table 2	Residential Parking Supply.....	4
Table 3	Parking Utilization Summary	5
Table 4	Study Area Major Land Uses.....	6
Table 5	Unadjusted Weekday Parking Demand per ITE.....	8
Table 6	Adjusted Weekday Parking Demand per ITE.....	9

List of Figures

Figure 1	Study Area
Figure 2	Parking Supply (in pocket)

List of Appendices

Appendix A	Parking Supply
Appendix B	On-Street Parking Utilization Data
Appendix C	Shared Parking Calculations

1.0 Introduction

The Nantucket Planning and Economic Development Commission (NP&EDC) has retained Tetra Tech Rizzo to determine the existing parking supply and parking demand in Nantucket's downtown area. The objective of this evaluation is to determine if additional parking is needed in the downtown area and if so, how many additional spaces should be provided. This study presents the results of this effort. The parking supply in the study area was determined through a street by street visual survey.

Parking demand was estimated through several techniques including:

- Parking utilization studies conducted during the 2009 summer,
- National parking rates applied to existing building areas, and
- Nantucket zoning regulations and existing parcel use data (core business area, only).

The utilization studies, requiring significant personnel and hours of walking through the study area, were performed by NP&EDC staff.

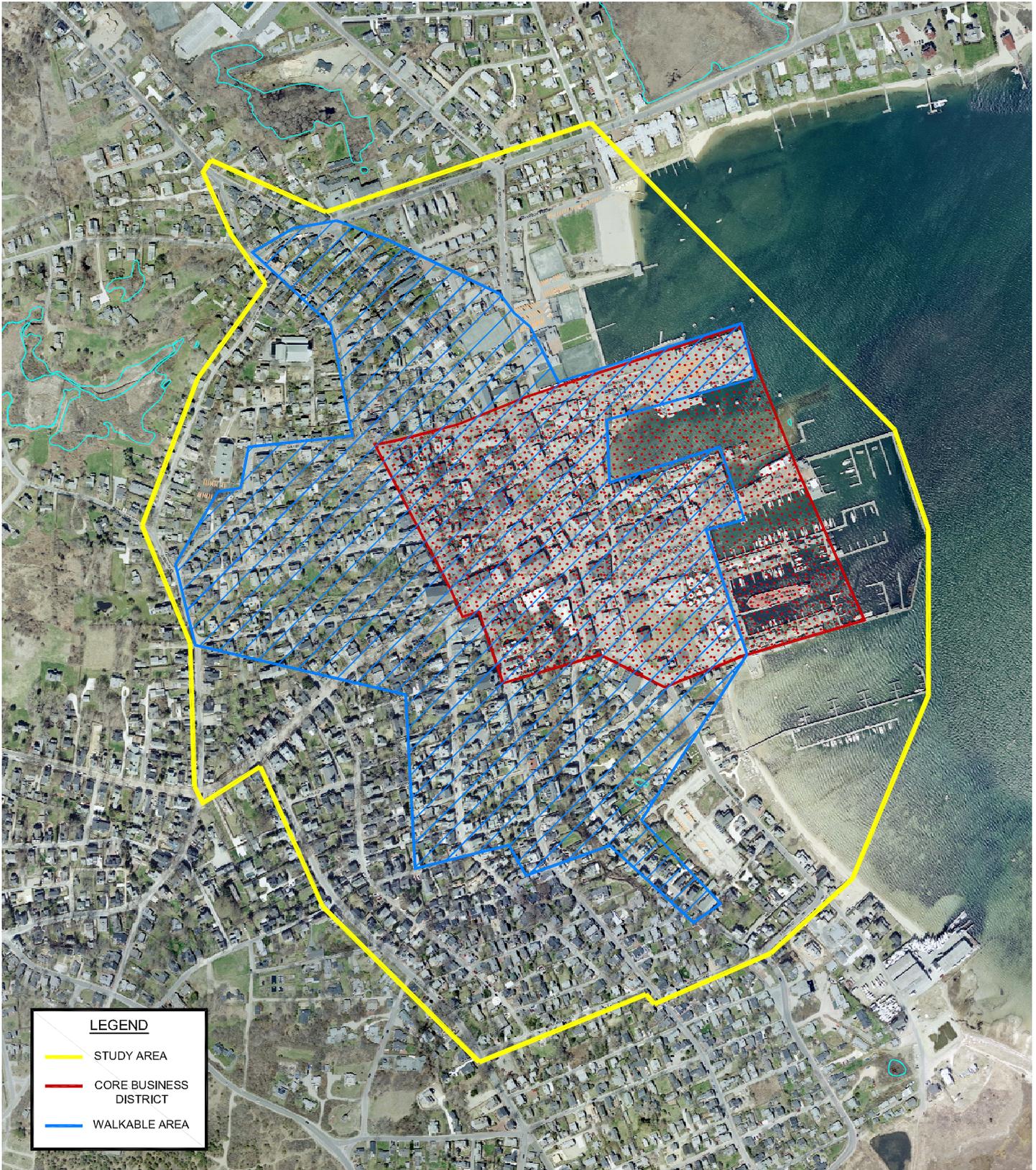
The study concludes with several recommendations including further study of parking management, additional downtown parking, downtown employee parking management and satellite parking for ferry passengers.

2.0 Study Area

At initial meetings with the NP&EDC a study area of approximately 1/3 mile, radiating from the Main Street/Easy Street intersection was determined. This study area, shown on Figure 1, encompasses both the Core Parking District and almost the entire Residential Parking District. It includes both on-street and off-street parking facilities which provide parking to the downtown.

The calculations used to tally the parking supply and utilization of this study area were submitted to the NP&EDC on December 15, 2010. Based on the NP&EDC's review of the calculations, it was requested that an additional analysis area be considered which includes the area considered by the NP&EDC as walkable to the core area of downtown.

Therefore, the study area was divided into three areas: Core Downtown Area, Walkable Area and Total Study Area. The Core Downtown Area encompasses the area south of Broad Street, east of Center Street, north of Main Street and excludes the Wilkes Square parking lot and Steamboat Wharf parking lot. The Walkable Area, as defined by the NP&EDC, is an area of approximately a 1/4 mile radiating from the Post Office located at the intersection of Federal Street and India Street. Each of these analysis areas are shown on Figure 1.



Nantucket Parking Study
Nantucket, MA

3.0 Existing Parking Supply

The evaluation of existing parking began with a review of the *The Downtown Circulation & Ferry Access Study*, (Milone & MacBroom, Inc. March 2008). This study included a map (Map 4) depicting on-street parking as of August 2007 encompassing an area approximately 60 percent of the Tetra Tech Rizzo study area. This map also did not include an inventory of private parking spaces. All though envisioned to be used as a basis for the TTR study, the data on Map 4 of that study was incomplete and two years old. Therefore, a complete survey was conducted of the study area, as defined by the NP&EDC, was required. As part of that effort, Tetra Tech staff conducted a detailed inventory of public parking spaces within the entire study area on July 14, 2009. TTR also estimated private parking spaces contained on residential property and in private parking lots using data provided by the NP&EDC and aerial photography.

3.1 Public Parking Areas

As the town of Nantucket does not delineate on-street parking, the number of on-street spaces were estimated by either counting existing legally parked vehicles along the curb or by measuring the length of legal parking along a block and dividing by 20 feet. Although Nantucket zoning requires 23 feet per space, it was observed that 20 feet reflected a more typical use of on-street parking areas. The parking supply data is provided in Appendix A. Figure 2, included in the map pocket, provides a detailed summary of the July 14, 2009 parking inventory.

Table 1 provides a detailed summary of the public parking spaces counted during the inventory. Within the Total Study Area are approximately 1,390 existing parking spaces, of which 1,054 are located on-street and 336 are located off-street. Of the 1,054 on-street spaces, 988 are available for general use and 66 are restricted for handicap use, taxies, loading, town use and other uses.

Of the 1,054 on-street spaces in the overall study area, 330 are located within the Core Downtown Area. The Core Downtown Area primarily consists of parking limited to either 30 minutes or 1 hour, while outside the core parking is generally limited to 2 hours.

A total of 748 spaces are located on-street within the Walkable Area (this includes the 330 within the Core Downtown Area). Of these 748 on-street spaces, 683 are available for general use and 65 are restricted for handicap use, taxies, loading, town use and for other reasons. The Steamboat Wharf parking lot, located within the Walkable Area, is on public property although some of the spaces within this lot are restricted. The Winthrop/NIR lot, also located within the Walkable Area, is used by the public, but is located on private property. The 131 spaces located in the Winthrop/NIR lot could be removed from the Walkable Area parking supply in the future by the property's owner.

Table 1 Parking Supply Summary

Type of Parking Space	Core Downtown		Total Study Area
	Area	Walkable Area	
On-Street			
<u>General Use</u>			
2 hour	24	369	667
1 hour	180	240	240
30 minutes	63	65	72
20 minutes	7	7	7
15 minutes	<u>2</u>	<u>2</u>	<u>2</u>
Subtotal	276	683	988
<u>Restricted</u>			
Handicap	10	19	20
Taxi	11	11	11
Loading	12	14	14
Police	12	12	12
Town	0	0	0
Restricted	9	9	9
Other	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal	54	65	66
Total	330	748	1,054
Off-Street			
Winthrop/NIR Lot			
2 hour	116	116	116
Handicap	2	2	2
Taxi	2	2	2
Town	0	0	0
Restricted	11	11	11
Other	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal	131	131	131
Steamboat Wharf Lot			
2 hour	0	0	0
Handicap	1	1	1
Taxi	5	5	5
Town	0	0	0
Restricted	0	0	0
Other	<u>46</u>	<u>46</u>	<u>46</u>
Subtotal	52	52	52
Washington St. Lot			
2 hour	0	0	0
Handicap	0	0	4
Taxi	0	0	0
Town	0	0	5
Restricted	0	0	31
Other	<u>0</u>	<u>0</u>	<u>113</u>
Subtotal	0	0	153
Total	0	183	336
GRAND TOTAL	513	931	1,390

3.2 Private Parking Areas

An estimate of the number of private parking spaces in the study area was made using aerial photography, land use data and through field observation. The estimate included spaces in private parking lots and on residential properties. There are approximately 16 existing private parking lots in the study area providing approximately 240 parking spaces.

Land use data provided by the NP&EDC indicates a total of 869 residential units in the study area. Table 2 summarizes how the residential component of the private parking supply located off-street was determined. Based on aerial photos and observations made in the study area, it is estimated that approximately 60 percent of single family, two family, three family and four family dwellings provide at least one off street parking space per residential unit. As noted in Table 2, it is estimated that 559 spaces are located in the study area on residential private property.

Table 2 Residential Parking Supply

Residential Land Use	Buildings	Total Residential Units	Percentage with One Off-Street Park Space	Residential Off-Street Parking Spaces
Condo	64	64	100%	64
Single Family	678	678	60%	407
Two Family	38	76	60%	46
Three Family	4	12	60%	7
Four Family	2	8	60%	5
Apartments	31	31	100%	31
Total	817	869		559

In total, approximately 800 parking spaces are located on private property in the study area, including 240 in existing parking lots and 560 on residential properties.

3.3 Parking Supply Summary

In summary, approximately 1,390 parking spaces were counted as on-street, within publicly owned parking lots and within privately owned parking lots currently used by the public and 800 spaces were estimated as being located on private property for a total study area parking supply of approximately 2,190 spaces. However, approximately 286 of these are restricted for various uses (i.e. handicap, police/town vehicles, taxis, loading, recreation, etc.) and the 116 2-hour spaces in the Winthrop/NIR parking lot could be removed from public use the property owner.

4.0 Parking Demand

The demand for parking spaces in the study area for the present land uses is determined using three different methodologies. These include conducting a utilization study during peak summer months, using national parking rates for the various land use types within the study area, and by using parking requirements of the current Nantucket Zoning Regulations applied to each land parcel within the study area.

4.1 Parking Demand Calculated from Peak Summer Utilization

A parking utilization study was performed during the peak summer period for the 1,054 existing on-street parking spaces in the study area. Utilization was also determined for the 330 on-street spaces within the Core Downtown Area and the 748 on-street spaces within the Walkable Area. The study included counting the number of parked cars in the study area at four time periods on Friday, July 31, 2009 and Saturday, August 1, 2009. Counts were performed by NP&EDC staff on both days at 10:00 a.m., 12:00 p.m., 5:00 p.m. and 7:00 p.m. Vehicles were counted in all spaces including those restricted for taxis, town use, loading and handicap use. However, as requested by the NP&EDC, the utilization percentages shown in Table 3 reflect only utilization of spaces available to the general public and exclude restricted spaces. The detailed count data is provided in Appendix B.

Table 3 Parking Utilization Summary

	Friday, July 31, 2009				Saturday, August 1, 2009			
	10:00 a.m.	12:00 p.m.	5:00 p.m.	7:00 p.m.	10:00 a.m.	12:00 p.m.	5:00 p.m.	7:00 p.m.
Core Downtown Area (276 spaces)	86%	82%	86%	105%	90%	78%	82%	108%
Walkable Area (683 spaces)	85%	83%	85%	97%	91%	84%	84%	98%
Total Study Area (988 spaces)	79%	80%	78%	91%	89%	83%	80%	94%

Parking is considered to be at effective capacity when 85 percent of spaces are utilized. When utilization exceeds 85 percent, drivers hunt for spaces, creating congestion and may be tempted to park illegally. This situation occurs frequently in the study area. In fact, approximately 25 vehicles were parked illegally on Friday and Saturday evenings when the utilization exceeded 91 percent. The effective parking capacity of the total study area was exceeded on Friday evening (7:00 p.m.), Saturday morning (10:00 a.m.) and Saturday evening (7:00 p.m.). The Core Downtown Area exceeds capacity on Friday and Saturday mornings (10:00 a.m.), Friday evenings (5:00 p.m. and 7:00 p.m.) and Saturday evening (7:00 p.m.). Within the Walkable Area the effective parking capacity was exceeded on Friday and Saturday morning (10:00 a.m.), Friday evening (5:00 p.m. and 7:00 p.m.) and Saturday evening (7:00 p.m.).

Based on the parking utilization studies conducted on Friday, July 31st and Saturday, August 1st, 2009, the peak demand for on-street public parking occurs on Saturday evenings with

approximately 94 percent (926 spaces) of all available parking spaces (988 spaces) within the study area being occupied. All of the 276 on-street parking spaces in the Core Downtown Area are filled during this time and 21 illegally parked vehicles were noted. Within the Walkable Area 98 percent (668 spaces) of all available parking spaces were filled (683 spaces).

In order to provide an effective parking supply which can accommodate the existing demand, and handle unexpected situations such as minor on-street construction or special events, it is suggested that the parking supply in the Total Study Area be equal to the maximum demand increased by 15 percent. Therefore, the desired parking supply based on the utilization study is equal to approximately 926 spaces increased by 15 percent or 1,065 spaces. This represents an increase of approximately 77 spaces above the existing unrestricted on-street parking supply of 988 spaces.

4.2 Parking Demand Calculated from National Parking Rates

For this methodology parking demand was estimated through national parking rates for the various major land uses in the study area. The NP&EDC provided land uses for 1,127 parcels located within the study area. These parcels were sorted by land use type as summarized in Table 4. Table 4 also provides an appropriate unit for each land use which will be used to estimate parking demand.

Table 4 Study Area Major Land Uses

<u>Land Use</u>	<u>Metric/Size</u>	
<u>Residential</u>		
Single Family Units	774	units
Condominiums	64	units
Apartments	31	units
<u>Hotel/Inns/B&B</u>		
Hotel	390	rooms
<u>Commercial</u>		
Retail	532,986	s.f.
Restaurant	163,905	s.f.
Theater	13,502	s.f.
<u>Office/Industrial</u>		
Office	110,273	s.f.
Light Industrial	14,988	s.f.
<u>Institutional</u>		
Church	74,476	s.f.
Schools	17,871	s.f.
Museum	10,625	s.f.
<u>Government</u>		
Town Hall/Court	27,733	s.f.
Library	15,108	s.f.
Police Department	6,822	s.f.
Post Office	8,656	s.f.
<u>Waterfront</u>		
Ferries	400	passengers/hour

The number of single family housing units was determined from single family residences, plus two family residences times two, plus triple family residences times three, etc. Single family residences also include approximately 56 residences attached to restaurants, churches, schools and stores. Hotels include hotels, inns, bed and breakfasts and rental cottages.

Only one parcel was identified as use for ferry service and it included a 7,400 s.f. building. Building size will not be useful in predicting the demand for parking related to the ferries, thus an alternative metric was selected to predict parking demand for ferry passengers. The metric which is probably most useful in estimating parking demand for the ferry services is the number of passengers which arrive and depart per hour. Passenger data for both the Steamship Authority and Hy-Line cruises was provided by the Steamship Authority and was reviewed to determine the number of passengers arriving/departing per hour on an average summer day. The data indicates that between 9:00 a.m. and 9:00 p.m. approximately 400 passengers arrive/depart per hour (200 arrive and 200 depart).

The unadjusted parking demand for these land uses was calculated using parking rates provided in *Parking Generation* (Institute of Transportation Engineers, 3rd edition, 2004). For estimating purposes only, retail, restaurant and theater land uses were combined and the parking rate for a shopping center was used to estimate the parking demand for this combined land use. The Nantucket downtown functions as a large shopping center, with patrons making stops at retail establishments, restaurants and local theaters in the same way a patron would travel between these uses at a shopping center in a suburb. In total, the “shopping center” of Nantucket is estimated at 710,000 s.f.

As ITE does not provide a parking rate for a ferry service, an alternate methodology was used to calculate the parking demand for the ferry services. The parking demand for ferry passengers was based on survey data provided by ReMain which indicates that approximately 23 percent of ferry passengers drive and park and an additional 15 percent are dropped off or picked up. Thus, approximately 38 percent of the 400 passengers arriving/departing per hour (152 passengers) travel by vehicle. It is estimated that vehicle occupancy for ferry passengers is 1.5 passengers per vehicle. Thus, the number of vehicles arriving at the docks and requiring parking is estimated at 101 parking spaces.

The calculated parking demand shown in Table 5 does not account for shared uses between the various land uses or visitors in downtown who ride the bus, ride a bike or walk into the study area. In total, the study area **unadjusted** parking demand, based on ITE parking rates, is approximately 5,358 spaces.

Table 5 Unadjusted Weekday Parking Demand per ITE

<u>Land Use</u>	<u>Size</u>		<u>ITE Land Use</u>		<u>Parking Space per Unit</u>			<u>Unadjusted Parking Spaces</u>
<u>Residential</u>								
Single Family	774	units	210	Single-Family Detached Housing	1.83	per	unit	1,416
Condominium	64	units	230	Residential Condo./Townhouse	1.46	per	unit	93
Apartment	31	units	221	Low/Mid-Rise Apartment	1.20	per	unit	37
<u>Hotel/Inns/B&B</u>								
Hotel	390	rooms	310	Hotel	0.91	per	room	355
<u>Commercial</u>								
Retail	532,986	s.f.						
Restaurant	163,905	s.f.						
Theater	13,502	s.f.						
Total	710,393	s.f.	820	Shopping Center	3.02	per	s.f.	2,145
<u>Office/Industrial</u>								
Office	110,273	s.f.	701	Office Building	2.84	per	s.f.	313
Light Industrial	14,988	s.f.	110	Light Industrial	0.75	per	s.f.	11
<u>Institutional</u>								
Church	74,476	s.f.	560	Church	7.81	per	s.f.	582
School	17,871	s.f.	580	Museum	3.00	per	s.f.	54
Museum	10,625	s.f.	580	Museum	3.00	per	s.f.	32
<u>Government</u>								
Town Hall/Court	27,733	s.f.	730	Government Office Building	4.15	per	s.f.	115
Library	15,108	s.f.	590	Library	2.61	per	s.f.	39
Police Department	6,822	s.f.	735	Judicial Complex	4.10	per	s.f.	28
Post Office	8,656	s.f.	730	Government Office Building	4.15	per	s.f.	36
<u>Waterfront</u>								
Ferry	152	Pass./hr.*						101
Total								5,358

*Ferry passengers in vehicles with an occupancy of 1.5 ferry passengers per vehicle.

In order to provide a realistic estimate of parking demand for parking in the study area using ITE parking rates, adjustments to account for shared parking and alternative travel modes were required.

The first adjustment is complicated and accounts for shared parking between land uses on a typical weekday. Thus, the 582 spaces required for the churches were not included in these calculations as they are needed on a Sunday and not during the week. The adjustments, shown in Table 6, were determined through use of a matrix which accounted for the interaction between every major land use in the study area. The matrix is contained in Appendix C. The highest percentage of shared parking is estimated to occur between residential and shopping center (retail, restaurant, theater) land uses. It was assumed that 60 percent of people with cars parked in residential parking areas would walk to retail/restaurant/theater destinations. Another 15

percent of people with cars parked in residential areas would walk to other land uses within the study area including hotels (2%), museums (1%), offices (5%), library (1%), post office (1%), schools (1%), town hall/court (2%) and police (1%).

Table 6 Adjusted Weekday Parking Demand per ITE

Land Use	Required Spaces	Adjustment to Account for Shared Uses	Parking Demand without Modal Adjustment	Adjustment to Account for Alternative Transportation Modes (20 percent)	Adjusted Parking Demand
<u>Residential</u>					
Single Family Units	1,416				
Condominiums	93				
Apartments	37				
Total	1,547	0	1,547		1,547
<u>Hotel/Inns/B&B</u>					
Hotel	355	-31	324	-65	259
<u>Commercial</u>					
Retail					
Restaurant					
<u>Theater</u>					
Shopping Center	2,145	-1,351	795	-159	636
<u>Office/Industrial</u>					
Office	313	-113	200	-40	160
Light Industrial	11	0	11	-2	9
<u>Institutional</u>					
Church					
Schools	54	-15	38	-8	31
Museum	32	-28	4	-1	3
<u>Government</u>					
Town Hall/Court	115	-4	111	-22	89
Library	39	-23	16	-3	13
Police Department	28	-8	20	-4	16
Post Office	36	-27	9	-2	7
<u>Waterfront</u>					
Ferry	101	0	101		101
Total	4,777*	-1,600	3,177	-306	2,871

*Does not include church parking.

The demand for shopping center parking was reduced by 63 percent or 1,351 spaces. This reduction was calculated by estimating that approximately 1,351 cars would park in spaces calculated as required for other land uses (928: residential, 266: hotel, 10: museum, 63: office spaces, 2: light industrial, 51: ferry spaces, 8: library, 2: post office spaces, 11: school, 12: town hall/court) and their occupants would walk to shopping destinations and not require a shopping parking space.

The second adjustment accounts for alternative travel modes to the study area. The ITE parking rates are generally calculated from studies conducted of isolated land uses in suburban areas with little or no public transit. For the study area where there is a public transit system, bicycle accommodations and pedestrians travel ways, a reduction of 20 percent in parking demand seems reasonable. No reduction was taken for residential parking or ferry passenger parking.

In total, with the adjustments applied the demand for parking within the study area is estimated at 2,871 spaces. As the study area provides approximately 2,200 parking spaces, this methodology suggests a parking deficit in the study area of approximately 671 parking spaces.

4.3 Parking Demand Calculated from Nantucket Zoning Regulations

Parking demand for the core area was estimated based on zoning requirements for the various land uses in the core area. The zoning regulations require for hotels, inns, restaurants, bars and retail establishments one parking space for every three employees during peak shifts. ReMain provided the NP&EDC with the total number of employees for most of the parcels in the core area. From the ReMain data an estimate of the number of employees working during the peak shift was made by applying a factor of 0.60. Employee data for parcels outside the core area was not provided, thus this method could not be used to estimate parking demand for the entire study area.

In total, Nantucket Zoning Regulations would require approximately 2,613 parking spaces be provided in the core area (including 383 spaces for employees) to accommodate the existing land uses. The core area currently provides approximately 276 on-street unrestricted spaces. This reflects a potential demand for 2,337 additional spaces. As this value is unrealistic and waivers are often granted, using zoning requirements to estimate parking demand appears not to be a realistic methodology.

5.0 Conclusions and Recommendations

The study area selected by the NP&EDC included an area with a radius of 1/3 mile radiating from the Main Street/Easy Street intersection. This area provides approximately 2,190 public parking spaces of which approximately 1,390 are located on public property (or in private parking lots available for public parking), 560 are located on residential properties and 240 are located in restricted private parking lots. In the Core Downtown Area, which includes the area generally bounded by Broad Street, Center Street and Main Street, approximately 330 parking spaces are provided on-street. The Walkable Area includes 748 on-street spaces, 52 parking spaces located on Steamboat Wharf and 131 parking spaces located within the private Winthrop/NIR parking lot.

Two methods were used to estimate the parking demand in the study area. The first method involved performing a utilization study during the summer of the 988 on-street parking spaces the study area. Utilization was not performed for restricted spaces (i.e. handicap, loading, restricted) or spaces located in parking lots. It was found that utilization was highest on a Saturday evening with over 100 percent utilization in the Core Downtown Area, 98 percent utilization in the Walkable Area and 94 percent utilization in the Total Study Area. Drivers were desirous of spaces within the core area and preferred to search for a closer space rather than park outside the core area and walk. The parking spaces within the core were close to or over 100 percent occupied during many of the time periods in which utilization studies were performed.

In order to provide an effective on-street parking supply, it is suggested that the parking supply be equal to the maximum demand, which occurs on a Saturday evening (926 occupied spaces), increased by 15 percent for a total supply of 1,065 spaces or an increase of approximately 77 spaces over the existing supply (988 spaces).

The second method used to estimate parking demand in the study area involved applying national parking rates for various land uses within the study area. Assuming some shared parking between uses a demand of 2,871 parking spaces was calculated. As the study area provides approximately 2,200 spaces, a requirement of 671 additional spaces was determined using this method.

As the two methods resulted in a range for additional spaces of approximately 77 to 671, two recommendations regarding parking supply are possible.

1. Encourage the use of existing parking spaces located outside of the core area by charging a fee for parking in downtown and/or change 2 hour and 1 hour parking spaces within the core area to 30 minute parking spaces. However, as a significant portion of land use in the outer core is residential, an increase in on-street parking in this area may not be acceptable to the residents.
2. Construct new parking spaces within the core area. An average of the two methods results in a requirement of approximately 374 new spaces.

It is recognized that the park and ride operation under consideration by the NP&EDC may reduce the demand for parking in the Core Downtown Area by approximately 139 spaces. Riders

of this system are anticipated to be primarily ferry passengers, although the system will be available to downtown visitors and employees. It is unknown at this time when that service will become operational.

Although beyond the scope and budget of this study, it is recommended that a comprehensive parking management plan be developed. This plan should evaluate ways to encourage visitors to park outside of the core, use existing public transit and walk to destinations by making parking downtown less desirable. Employees who work in downtown could perhaps be provided with greater incentives to use the public transit system or park remotely.

Lastly, it was observed that marked parking spaces would increase the efficiency of on-street parking. Perhaps a management plan could study various methods for marking cobbles and pavement which would not be disruptive to the historic character of the downtown or result in excessive maintenance costs to the town.

P:\30247\127-30247-09001\Docs\Reports\2010.01.25 Draft Nantucket Parking Report.Doc

Appendix A
Parking Supply

Parking Supply

Roadway	Parking Spaces by Type												
	Spaces Total	other	2 hour	1 hour	30 min	20 min	15 min	Handicap	Taxi	Loading	Police	Private	Town Vehicles
Inside Core													
East Chestnut St	0												
1 hour	3			3									
police	12										12		
Broad St WB	0												
2 hour	14		14										
Broad St EB	0												
1 hour	2			2									
loading	2									2			
30 minute	7				7								
20 minute	7					7							
illegal	0												
Easy St	0												
1 hour	3			3									
1 hour	4			4									
1 hour	3			3									
illegal	0												
Center St S of Broad St NB	0												
1 hour	9			9									
handicap	3							3					
1 hour	9			9									
1 hour	4			4									
handicap	1							1					
South Water St NB	0												
1 hour	5			5									
1 hour	8			8									
1 hour	8			8									
handicap	1							1					
Federal St NB	0												
30 minute	2				2								
30 minute	3				3								
1 hour	2			2									
handicap	1							1					
1 hour	3			3									
30 minute	5				5								
handicap	2							2					
Federal St SB	0												
1 hour	3			3									
1 hour	10			10									
30 minute	5				5								
30 minute	3				3								
Chestnut St	0												
2 hour	10		10										
Oak St WB	0												
1 hour	10			10									
1 hour	8			8									
India St WB	0												
30 minute	9				9								
handicap	1							1					
India St EB, east of Center	6			6									
1 hour	3									3			
loading	8				8								
30 minute	0												
Cambridge St EB	0												
30 minute	4				4								
handicap	1							1					
30 minute	3				3								
30 minute	4				4								
Cambridge St WB	3									3			
loading	6				6								
30 minute	0												
Dock St	0												
1 hour	5			5									
Straight Wharf WB	0												
1 hour	6			6									
taxi	3								3				
Illegal	0												
Main St WB - Core	0												
taxi	4								4				
15 minute	2						2						
1 hour	8			8									
1 hour	1			1									
1 hour	15			15									
Main St EB	0												
30 minute	1				1								
1 hour	23			23									
loading	2									2			
taxi	1								1				

Parking Supply

Parking Spaces by Type

Roadway	Spaces Total	other	2 hour	1 hour	30 min	20 min	15 min	Handicap	Taxi	Loading	Police	Private	Town Vehicles
Still Dock													
private	9											9	
New Whale St SB	0												
loading	1									1			
1 hour	13			13									
2 hour	0												
illegal	0												
Candle St NB	0												
1 hour	9			9									
taxi	3								3				
loading	1									1			
30 minute	3				3								
Total Inside of Core	330	0	24	180	63	7	2	10	11	12	12	9	0
Outside Core Streets													
Main St. WB - Out side of Core													
2 hour	4		4										
1 hour	3			3									
loading	1									1			
2 hour	6		6										
2 hour	11		11										
Salem Street													
30 minute	2				2								
Washington St SB	0												
1 hour	4			4									
1 hour	16			16									
handicap	1							1					
2 hour	4		4										
2 hour	10		10										
Washington St NB	0												
handicap	1							1					
1 hour	4			4									
India St EB, west of Center	0												
2 hour	24		24										
handicap	1							1					
Lilly St SB N of India St	0												
2 hour	18		18										
2 hour	8		8										
Easton St EB													
2 hour	7		7										
2 hour	8		8										
2 hour	14		14										
Easton St WB	0												
2 hour	8		8										
2 hour	21		21										
Cliff Rd NB	0												
2 hour	17		17										
Center St NB	0												
2 hour	12		12										
Chester St EB	0												
2 hour	7		7										
Center St N of Broad St NB	0												
2 hour	7		7										
2 hour	3		3										
2 hour	4		4										
2 hour	16		16										
2 hour	2		2										
Harbor View Way SB	0												
30 minute	7				7								
Harbor View Way EB	0												
handicap	1							1					
2 hour	16		16										

Parking Supply

Roadway	Parking Spaces by Type												
	Spaces Total	other	2 hour	1 hour	30 min	20 min	15 min	Handicap	Taxi	Loading	Police	Private	Town Vehicles
Harbor View Way WB	0												
2 hour	16		16										
South Beach St NB	0												
2 hour	11		11										
2 hour	3		3										
2 hour	3		3										
South Beach St SB	0												
2 hour	9		9										
2 hour	9		9										
Whalers Lane	0												
2 hour	10		10										
North Water St SB	0												
2 hour	18		18										
2 hour	7		7										
2 hour	3		3										
2 hour	9		9										
Ash Street	0												
2 hour	14		14										
Gay St	0												
2 hour	13		13										
handicap	1							1					
Westminster St N of Quince St NB	0												
2 hour	6		6										
Westminster St N of Quince St SB	0												
2 hour	6		6										
handicap	2							2					
Quince St	0												
2 hour	11		11										
Hussey St WB	0												
2 hour	9		9										
2 hour	2		2										
South Beach Street Ext	0												
1 hour	5			5									
loading	1									1			
illegal	0												
Liberty St WB	0												
2 hour	21		21										
2 hour	8		8										
Commercial St	0												
2 hour	19		19										
illegal	0												
Coffin St	0												
2 hour	8		8										
illegal	0												
Union St NB	0												
2 hour	4		4										
2 hour	25		25										
1 hour	11			11									
1 hour	6			6									
Orange St SB	0												
1 hour	11			11									
handicap	1							1					
2 hour	12		12										
2 hour	7		7										
2 hour	6		6										
2 hour	5		5										
2 hour	8		8										
Winter St	0												
2 hour	11		11										
handicap	1							1					
Fair St NB	0												
2 hour	4		4										
2 hour	3		3										
2 hour	2		2										
2 hour	1		1										
2 hour	6		6										
2 hour	4		4										
2 hour	4		4										
handicap	1							1					
2 hour	3		3										
2 hour	4		4										
2 hour	2		2										
2 hour	4		4										
2 hour	6		6										
Fayette St	0												
2 hour	4		4										
Pine St SB	0												
2 hour	3		3										
2 hour	6		6										
2 hour	4		4										
2 hour	4		4										
2 hour	1		1										

Parking Supply

Roadway	Parking Spaces by Type												
	Spaces Total	other	2 hour	1 hour	30 min	20 min	15 min	Handicap	Taxi	Loading	Police	Private	Town Vehicles
Pine St NB	0												
2 hour	1		1										
2 hour	5		5										
2 hour	3		3										
2 hour	5		5										
2 hour	1		1										
High Street EB	0												
2 hour	3		3										
High Street WB	0												
2 hour	1		1										
Traders Ln	0												
2 hour	4		4										
Summer St WB	0												
2 hour	2		2										
2 hour	7		7										
Summer St EB	0												
2 hour	8		8										
Pleasant St SB	0												
2 hour	4		4										
2 hour	7		7										
Pleasant St NB	0												
2 hour	5		5										
2 hour	2		2										
Outside of Core	724	0	643	60	9	0	0	10	0	2	0	0	0
Total On-Street	1054	0	667	240	72	7	2	20	11	14	12	9	0
Steamboat Wharf	0												
other (24 for ferry only, 12 short term, 10 handicap)	46	46											
taxi	5							1	5				
Total Steamboat Wharf	52	46	0	0	0	0	0	1	5	0	0	0	0
Washington Street Lot - Permit Required	0												
2 hour	0												
restricted	31											31	
other	113	113											
handicap	4							4					
town vehicle	5												5
Total Washington Street Lot	153	113	0	0	0	0	0	4	0	0	0	31	5
Winthrop/NIR	0												
private	4											4	
2 hour	17		17										
taxi	2								2				
2 hour	24		24										
2 hour	21		21										
handicap	1							1					
private	2											2	
2 hour	22		22										
private	2											2	
2 hour	25		25										
handicap	1							1					
private	3											3	
2 hour	7		7										
Total Winthrop/NIR Lot	131	0	116	0	0	0	0	2	2	0	0	11	0
Total Off-Street Parking	336	159	116	0	0	0	0	7	7	0	0	42	5
Total Study Area	1390	159	783	240	72	7	2	27	18	14	12	51	5

Appendix B
On-Street Parking Utilization Data

Core Area Parking Utilization

Roadway	Spaces Total	Occupied Spaces							
		Friday, July 31, 2009				Saturday, August 1, 2009			
		10:00 AM	12:00 PM	5:00 PM	7:00 PM	10:00 AM	12:00 PM	5:00 PM	7:00 PM
Inside Core									
East Chestnut St	0								
1 hour	3	3	2	2	5	0	0	3	3
police									
Broad St WB	0								
2 hour	14	10	12	10	14	11	8	10	15
Broad St EB	0								
1 hour	2	2	2	2	2	2	2	2	2
loading									
30 minute	7	7	5	7	5	6	4	4	6
20 minute	7	6	6	6	7	6	6	4	7
illegal			4		9	5	4	5	10
Easy St	0								
1 hour	3	2	3	3	3	3	2	2	3
1 hour	4	3	3	4	4	5	3	3	4
1 hour	3	3	3	3	3	3	3	3	3
illegal									1
Center St S of Broad St NB	0								
1 hour	9	8	7	9	8	9	8	9	9
handicap									
1 hour	9	9	6	9	8	9	9	9	9
1 hour	4	4	4	4	4	4	4	4	4
South Water St NB	0								
1 hour	5	4	5	5	5	5	4	4	5
1 hour	8	6	5	6	8	7	6	7	7
1 hour	8	7	7	8	8	8	7	7	8
Federal St NB	0								
30 minute	2	2	2	3	3	2	1	2	3
30 minute	3	2	2	2	2	2	2	2	3
1 hour	2	2	3	3	3	4	3	3	3
handicap									
1 hour	3	1	1	1	1	2	1	2	4
30 minute	5	2	4	1	5	3	1	3	2
Federal St SB	0								
1 hour	3	2	2	0	5	3	0	2	4
1 hour	10	7	7	6	9	9	3	8	11
30 minute	5	5	3	3	5	5	4	3	4
30 minute	3	3	1	1	3	2	1	3	3
Chestnut St									
2 hour	10	10	7	7	10	9	7	8	9
Oak St WB	0								
1 hour	10	8	10	9	10	9	6	10	10
1 hour	8	8	8	8	7	6	4	7	7
India St WB	0								
30 minute	9	8	8	6	8	9	6	6	9
handicap									
India St EB, east of Center									
1 hour	6	6	4	6	6	6	6	4	6
loading									
30 minute	8	3	3	5	7	7	5	2	8
Cambridge St EB	0								
30 minute	4	4	3	3	4	0	1	3	4
30 minute	3	2	2	3	3	0	0	1	3
30 minute	4	4	4	3	6	3	2	1	6
Cambridge St WB									
loading									
30 minute	6	5	5	4	6	5	3	4	5
Dock St	0								
1 hour	5	3	4	4	5	4	2	5	5

Roadway	Spaces Total	Occupied Spaces								
		Friday, July 31, 2009				Saturday, August 1, 2009				
		10:00 AM	12:00 PM	5:00 PM	7:00 PM	10:00 AM	12:00 PM	5:00 PM	7:00 PM	
Straight Wharf WB	0									
1 hour	6	6	3	4	6	4	3	3	6	
Illegal	0			8	8		15		10	
Main St WB - Core	0									
15 minute	2	1	2	1	1	1	2	2	2	
1 hour	8	7	7	6	8	8	7	6	8	
1 hour	1	1	1	1	1	1	1	0	1	
1 hour	15	14	14	16	16	15	14	16	15	
Main St EB	0									
30 minute	1	1	1	1	0	1	1	1	1	
1 hour	23	22	20	19	23	21	22	23	24	
Still Dock										
New Whale St SB	0									
loading										
1 hour	13	13	13	13	13	13	13	12	13	
2 hour	0									
illegal	0		2	3	4	3		1	1	
Candle St NB	0									
1 hour	9	9	5	6	8	7	6	7	8	
taxi										
loading										
30 minute	3	2	2	2	2	2	2	1	3	
Inside Core	276	237	227	236	291	249	214	227	297	
Total	276	86%	82%	86%	105%	90%	78%	82%	108%	
2 hour utilization	24	83%	79%	71%	100%	83%	63%	75%	100%	
1 hour utilization	180	87%	84%	77%	98%	94%	78%	77%	88%	
30 minute utilization	63	79%	71%	70%	94%	75%	52%	57%	95%	

Total Spaces Used	297
Increased by 15 %	342
Total Spaces in Study	276
Additional Spaces	66

Total Walking Area Parking Utilization

Roadway	Spaces Total	Occupied Spaces							
		Friday, July 31, 2009				Saturday, August 1, 2009			
		10:00 AM	12:00 PM	5:00 PM	7:00 PM	10:00 AM	12:00 PM	5:00 PM	7:00 PM
Core Area									
East Chestnut St	0								
1 hour	3	3	2	2	5	0	0	3	3
police									
Broad St WB	0								
2 hour	14	10	12	10	14	11	8	10	15
Broad St EB	0								
1 hour	2	2	2	2	2	2	2	2	2
loading									
30 minute	7	7	5	7	5	6	4	4	6
20 minute	7	6	6	6	7	6	6	4	7
illegal			4		9	5	4	5	10
Easy St	0								
1 hour	3	2	3	3	3	3	2	2	3
1 hour	4	3	3	4	4	5	3	3	4
1 hour	3	3	3	3	3	3	3	3	3
illegal									1
Center St S of Broad St NB	0								
1 hour	9	8	7	9	8	9	8	9	9
handicap									
1 hour	9	9	6	9	8	9	9	9	9
1 hour	4	4	4	4	4	4	4	4	4
South Water St NB	0								
1 hour	5	4	5	5	5	5	4	4	5
1 hour	8	6	5	6	8	7	6	7	7
1 hour	8	7	7	8	8	8	7	7	8
Federal St NB	0								
30 minute	2	2	2	3	3	2	1	2	3
30 minute	3	2	2	2	2	2	2	2	3
1 hour	2	2	3	3	3	4	3	3	3
handicap									
1 hour	3	1	1	1	1	2	1	2	4
30 minute	5	2	4	1	5	3	1	3	2
Federal St SB	0								
1 hour	3	2	2	0	5	3	0	2	4
1 hour	10	7	7	6	9	9	3	8	11
30 minute	5	5	3	3	5	5	4	3	4
30 minute	3	3	1	1	3	2	1	3	3
Chestnut St									
2 hour	10	10	7	7	10	9	7	8	9
Oak St WB	0								
1 hour	10	8	10	9	10	9	6	10	10
1 hour	8	8	8	8	7	6	4	7	7
India St WB	0								
30 minute	9	8	8	6	8	9	6	6	9
handicap									
India St EB, east of Center									
1 hour	6	6	4	6	6	6	6	4	6
loading									
30 minute	8	3	3	5	7	7	5	2	8
Cambridge St EB	0								
30 minute	4	4	3	3	4	0	1	3	4
30 minute									
30 minute	3	2	2	3	3	0	0	1	3
30 minute	4	4	4	3	6	3	2	1	6
Cambridge St WB									
loading									
30 minute	6	5	5	4	6	5	3	4	5
Dock St	0								
1 hour	5	3	4	4	5	4	2	5	5
Straight Wharf WB	0								
1 hour	6	6	3	4	6	4	3	3	6
illegal				8	8		15		10
Main St WB - Core	0								
15 minute	2	1	2	1	1	1	2	2	2
1 hour	8	7	7	6	8	8	7	6	8
1 hour	1	1	1	1	1	1	1	0	1
1 hour	15	14	14	16	16	15	14	16	15
Main St EB	0								
30 minute	1	1	1	1	0	1	1	1	1
1 hour	23	22	20	19	23	21	22	23	24
Still Dock									
New Whale St SB	0								
loading									
1 hour	13	13	13	13	13	13	13	12	13
2 hour	0								
illegal	0		2	3	4	3		1	1

Roadway	Spaces Total	Occupied Spaces							
		Friday, July 31, 2009				Saturday, August 1, 2009			
		10:00 AM	12:00 PM	5:00 PM	7:00 PM	10:00 AM	12:00 PM	5:00 PM	7:00 PM
Candle St NB	0								
1 hour	9	9	5	6	8	7	6	7	8
taxi									
loading									
30 minute	3	2	2	2	2	2	2	1	3
Walking Distance - Outside of Core									
Main St. WB - Out side of Core									
2 hour	4	4	4	3	4	4	4	4	4
1 hour	3	3	3	3	3	3	2	3	3
loading									
2 hour	6	6	4	5	6	6	6	6	6
Salem Street									
30 minute	2	2	2	3	3	2	2	3	2
Washington St SB	0								
1 hour	4	3	3	4	4	2	3	2	3
1 hour	16	7	8	9	16	10	8	5	9
handicap									
2 hour	4	4	4	4	4	4	3	3	3
2 hour	10	7	8	9	8	9	4	10	8
Washington St NB	0								
handicap									
1 hour	4	3	3	2	4	4	3	0	4
India St EB, west of Center	0								
2 hour	24	23	20	20	21	23	24	23	23
handicap									
Center St N of Broad St NB	0								
2 hour	7	7	6	6	6	6	7	7	7
2 hour	3	3	3	3	2	3	3	3	2
2 hour	4	4	4	4	4	3	9	9	3
2 hour	16	13	14	14	14	14	16	16	15
2 hour	2	2	2	1	2	2	2	2	2
Whalers Lane	0								
2 hour	10	9	7	6	9	9	9	8	10
North Water St SB	0								
2 hour	18	9	11	14	16	19	17	12	18
2 hour	7	5	6	4	7	5	5	3	5
2 hour	3	2	2	3	3	2	2	2	2
2 hour	9	7	7	7	7	7	7	7	7
Ash Street	0								
2 hour	14	9	11	12	12	13	11	12	13
Gay St	0								
2 hour	13	13	12	13	12	10	12	13	13
handicap									
Westminster St N of Quince St NB	0								
2 hour	6	5	6	5	5	5	5	5	5
Westminster St N of Quince St SB	0								
2 hour	6	4	4	5	6	6	6	6	6
handicap									
Quince St	0								
2 hour	11	11	10	6	9	9	10	10	10
Hussey St WB	0								
2 hour	9	9	8	9	7	8	9	9	9
2 hour	2	0	0	0	0	0	0	0	0
South Beach Street Ext	0								
1 hour	5	3	4	5	5	4	4	5	5
loading									
illegal									
Liberty St WB	0								
2 hour	21	18	16	20	20	21	20	20	17
2 hour	8	8	6	7	6	7	8	5	8
Commercial St	0								
2 hour	19	17	18	18	19	17	17	16	18
illegal									
Coffin St	0								
2 hour	8	8	8	8	8	8	8	8	8
illegal		2	3	4	3	5	2		2
Union St NB	0								
2 hour	25	24	25	18	23	25	19	15	22
2 hour	11	10	10	9	11	11	9	7	11
1 hour	6	5	5	6	5	5	4	5	5
Orange St SB	0								
1 hour	11	10	10	11	10	11	11	12	11
handicap									
2 hour	12	9	11	11	10	11	12	12	12
2 hour	7	7	5	6	5	5	5	5	5
2 hour	6	4	6	6	6	6	9	6	6
2 hour									
Winter St	0								
2 hour	11	11	9	10	11	10	11	11	11
handicap									

Roadway	Spaces Total	Occupied Spaces							
		Friday, July 31, 2009				Saturday, August 1, 2009			
		10:00 AM	12:00 PM	5:00 PM	7:00 PM	10:00 AM	12:00 PM	5:00 PM	7:00 PM
Fair St NB	0								
2 hour									
2 hour									
2 hour									
2 hour									
2 hour	4	4	3	3	3	4	4	4	3
2 hour	4	2	4	3	4	4	4	4	4
handicap									
2 hour	3	3	3	3	3	3	3	3	3
2 hour	4	4	3	4	4	4	4	4	4
2 hour	2	2	1	1	1	1	1	1	1
2 hour	4	4	4	3	4	4	4	4	4
2 hour	6	5	6	6	5	6	6	6	7
Fayette St	0								
2 hour	4	4	3	0	1	3	3	2	3
High Street WB	0								
2 hour	1	1	1	1	1	0	1	1	1
Traders Ln	0								
2 hour									
Summer St WB	0								
2 hour									
2 hour									
Summer St EB	0								
2 hour	8	7	5	8	7	7	5	7	8
Walking Area	683	583	568	581	660	619	577	573	668
Total	683	85%	83%	85%	97%	91%	84%	84%	98%
2 hour utilization	369	83%	82%	81%	86%	88%	88%	85%	90%
1 hour utilization	240	84%	79%	84%	97%	89%	75%	81%	95%
30 minute utilization	65	80%	72%	72%	95%	75%	54%	60%	95%

Total Spaces Used	668
Increased by 15 %	768
Total Spaces in Study Area	683
Additional Spaces	85

Total Study Area Parking Utilization

Roadway	Spaces Total	Occupied Spaces							
		Friday, July 31, 2009				Saturday, August 1, 2009			
		10:00 AM	12:00 PM	5:00 PM	7:00 PM	10:00 AM	12:00 PM	5:00 PM	7:00 PM
Inside Core									
East Chestnut St 1 hour police	0 3	3	2	2	5	0	0	3	3
Steamboat Wharf other (24 for ferry only, 12 short term, 10 no restriction) handicap taxi		Not Counted				Not Counted			
Broad St WB 2 hour	0 14	10	12	10	14	11	8	10	15
Broad St EB 1 hour loading 30 minute 20 minute illegal	0 2 7 7 0	2 7 6	2 5 6	2 7 6	2 5 7	2 6 5	2 4 4	2 4 5	2 6 10
Easy St 1 hour 1 hour 1 hour illegal	0 3 4 3 0	2 3 3	3 3 3	3 4 3	3 4 3	3 5 3	2 3 3	2 3 3	3 4 3 1
Center St S of Broad St NB 1 hour handicap 1 hour 1 hour handicap	0 9 9 4	8 9 4	7 6 4	9 9 4	8 8 4	9 9 4	8 9 4	9 9 4	9 9 4
South Water St NB 1 hour 1 hour 1 hour handicap	0 5 8 8	4 6 7	5 5 7	5 6 8	5 8 8	5 7 8	4 6 7	4 7 7	5 7 8
Federal St NB 30 minute 30 minute 1 hour handicap 1 hour 30 minute handicap	0 2 3 2 3 5	2 2 2	2 2 3	3 2 3	3 2 3	2 2 4	1 2 3	2 2 3	3 3 3 4 2
Federal St SB 1 hour 1 hour 30 minute 30 minute	0 3 10 5 3	2 7 5 3	2 7 3 1	0 6 3 1	5 9 5 3	3 9 5 2	0 3 4 1	2 8 3 3	4 11 4 3
Chestnut St 2 hour	0 10	10	7	7	10	9	7	8	9
Oak St WB 1 hour 1 hour	0 10 8	8 8	10 8	9 8	10 7	9 6	6 4	10 7	10 7
India St WB 30 minute handicap	0 9	8	8	6	8	9	6	6	9
India St EB, east of Center 1 hour loading 30 minute	6 8	6 3	4 3	6 5	6 7	6 7	6 5	4 2	6 8
Cambridge St EB 30 minute handicap 30 minute 30 minute	0 4 3 4	4 2 4	3 2 4	3 3 3	4 3 6	0 0 3	1 0 2	3 1 1	4 3 6
Cambridge St WB loading 30 minute	6	5	5	4	6	5	3	4	5
Dock St 1 hour	0 5	3	4	4	5	4	2	5	5
Straight Wharf WB 1 hour taxi illegal	0 6 0	6	3	4	6	4	3	3	6
Main St WB - Core taxi 15 minute 1 hour 1 hour 1 hour	0 2 8 1 15	1 7 1 14	2 7 1 14	1 6 1 16	1 8 1 16	1 8 1 15	2 7 1 14	2 6 0 16	2 8 1 15
Main St EB 30 minute 1 hour loading taxi	0 1 23	1 22	1 20	1 19	0 23	1 21	1 22	1 23	1 24

Roadway	Spaces Total	Occupied Spaces							
		Friday, July 31, 2009				Saturday, August 1, 2009			
		10:00 AM	12:00 PM	5:00 PM	7:00 PM	10:00 AM	12:00 PM	5:00 PM	7:00 PM
New Whale St SB	0								
loading									
1 hour	13	13	13	13	13	13	13	12	13
2 hour	0								
illegal	0		2	3	4	3		1	1
Candle St NB	0								
1 hour	9	9	5	6	8	7	6	7	8
taxi									
loading									
30 minute	3	2	2	2	2	2	2	1	3
Outside Core									
Main St. WB - Out side of Core									
2 hour	4	4	4	3	4	4	4	4	4
1 hour	3	3	3	3	3	3	2	3	3
loading									
2 hour	6	6	4	5	6	6	6	6	6
2 hour	11	10	10	8	10	10	11	11	10
Salem Street									
30 minute	2	2	2	3	3	2	2	3	2
Washington St SB	0								
1 hour	4	3	3	4	4	2	3	2	3
1 hour	16	7	8	9	16	10	8	5	9
handicap									
2 hour	4	4	4	4	4	4	3	3	3
2 hour	10	7	8	9	8	9	4	10	8
Washington St NB	0								
handicap									
1 hour	4	3	3	2	4	4	3	0	4
India St EB, west of Center	0								
2 hour	24	23	20	20	21	23	24	23	23
handicap									
Lilly St SB N of India St	0								
2 hour	18	15	14	14	15	17	17	17	17
2 hour	8	6	5	7	7	6	8	8	8
Easton St EB									
2 hour	7	0	3	3	2	6	6	2	4
2 hour	8	5	8	2	2	6	8	1	4
2 hour	14	5	8	6	9	14	8	2	12
Easton St WB	0								
2 hour	8	3	6	5	4	7	5	7	12
2 hour	21	2	5	2	3	1	6	0	3
Cliff Rd NB	0								
2 hour	17	17	14	17	17	16	16	17	16
Center St NB	0								
2 hour	12	11	10	11	9	12	12	11	11
Chester St EB	0								
2 hour	7	7	6	6	6	6	6	7	6
Center St N of Broad St NB	0								
2 hour	7	7	6	6	6	6	7	7	7
2 hour	3	3	3	3	2	3	3	3	2
2 hour	4	4	4	4	4	3	9	9	3
2 hour	16	13	14	14	14	14	16	16	15
2 hour	2	2	2	1	2	2	2	2	2
Harbor View Way SB	0								
30 minute	7	2	3	2	5	0	1	1	1
Harbor View Way EB	0								
handicap									
2 hour	16	12	16	12	15	16	12	15	15
Harbor View Way WB	0								
2 hour	16	13	16	8	16	16	10	11	12
South Beach St NB	0								
2 hour	11	11	9	5	11	12	7	6	12
2 hour	3	3	2	2	3	3	3	2	3
2 hour	3	3	2	0	4	3	2	0	3
South Beach St SB	0								
2 hour	9	2	3	4	8	7	5	1	5
2 hour	9	3	1	5	6	6	6	4	6
Whalers Lane	0								
2 hour	10	9	7	6	9	9	9	8	10
North Water St SB	0								
2 hour	18	9	11	14	16	19	17	12	18
2 hour	7	5	6	4	7	5	5	3	5
2 hour	3	2	2	3	3	2	2	2	2
2 hour	9	7	7	7	7	7	7	7	7
Ash Street	0								
2 hour	14	9	11	12	12	13	11	12	13
Gay St	0								
2 hour	13	13	12	13	12	10	12	13	13
handicap									
Westminster St N of Quince St NB	0								
2 hour	6	5	6	5	5	5	5	5	5
Westminster St N of Quince St SB	0								
2 hour	6	4	4	5	6	6	6	6	6

Roadway	Spaces Total	Occupied Spaces							
		Friday, July 31, 2009				Saturday, August 1, 2009			
		10:00 AM	12:00 PM	5:00 PM	7:00 PM	10:00 AM	12:00 PM	5:00 PM	7:00 PM
handicap	0								
Quince St	11	11	10	6	9	9	10	10	10
2 hour	0								
Hussey St WB	9	9	8	9	7	8	9	9	9
2 hour	2	0	0	0	0	0	0	0	0
South Beach Street Ext	0								
1 hour	5	3	4	5	5	4	4	5	5
loading	0								
illegal	0								1
Liberty St WB	0								
2 hour	21	18	16	20	20	21	20	20	17
2 hour	8	8	6	7	6	7	8	5	8
Commercial St	0								
2 hour	19	17	18	18	19	17	17	16	18
illegal	0				3				
Coffin St	0								
2 hour	8	8	8	8	8	8	8	8	8
illegal	0	2	3	4	3	5	2		2
Union St NB	0								
2 hour	4	3	3	3	4	1	4	3	3
2 hour	25	24	25	18	23	25	19	15	22
1 hour	11	10	10	9	11	11	9	7	11
1 hour	6	5	5	6	5	5	4	5	5
Orange St SB	0								
1 hour	11	10	10	11	10	11	11	12	11
handicap	0								
2 hour	12	9	11	11	10	11	12	12	12
2 hour	7	7	5	6	5	5	5	5	5
2 hour	6	4	6	6	6	6	9	6	6
2 hour	5	5	5	3	5	5	5	5	5
2 hour	8	4	5	5	5	7	8	8	8
Winter St	0								
2 hour	11	11	9	10	11	10	11	11	11
handicap	0								
Fair St NB	0								
2 hour	4	2	4	4	4	4	4	4	4
2 hour	3	3	3	3	3	3	3	3	3
2 hour	2	2	2	2	2	2	2	2	2
2 hour	1	1	0	1	1	1	1	1	1
2 hour	6	5	5	5	6	5	6	6	6
2 hour	4	4	3	3	3	4	4	4	3
2 hour	4	2	4	3	4	4	4	4	4
handicap	0								
2 hour	3	3	3	3	3	3	3	3	3
2 hour	4	4	3	4	4	4	4	4	4
2 hour	2	2	1	1	1	1	1	1	1
2 hour	4	4	4	3	4	4	4	4	4
2 hour	6	5	6	6	5	6	6	6	7
Fayette St	0								
2 hour	4	4	3	0	1	3	3	2	3
Pine St SB	0								
2 hour	3	3	3	3	2	3	3	3	3
2 hour	6	5	5	4	6	5	6	6	6
2 hour	4	3	3	4	4	4	4	4	4
2 hour	4	0	0	0	3	4	4	4	4
2 hour	1	0	0	0	0	3	0	0	1
Pine St NB	0								
2 hour	1	0	1	1	1	1	0	0	1
2 hour	5	5	5	4	5	5	5	5	5
2 hour	3	3	3	3	2	3	3	3	3
2 hour	5	5	4	5	4	5	5	4	5
2 hour	1	0	1	1	1	1	1	1	1
High Street EB	0								
2 hour	3	2	3	2	3	2	3	3	3

Roadway	Spaces Total	Occupied Spaces							
		Friday, July 31, 2009				Saturday, August 1, 2009			
		10:00 AM	12:00 PM	5:00 PM	7:00 PM	10:00 AM	12:00 PM	5:00 PM	7:00 PM
High Street WB	0								
2 hour	1	1	1	1	1	0	1	1	1
Traders Ln	0								
2 hour	4	3	4	3	3	4	4	4	4
Summer St WB	0								
2 hour	2	0	2	2	2	2	2	2	2
2 hour	7	4	6	7	6	7	7	6	6
Summer St EB	0								
2 hour	8	7	5	8	7	7	5	7	8
Pleasant St SB	0								
2 hour	4	4	2	3	4	3	3	4	3
2 hour	7	0	4	2	6	6	7	7	7
Pleasant St NB	0								
2 hour	5	4	4	0	4	4	5	5	5
2 hour	2	2	2	3	2	2	2	2	2
Washington Street Lot - Permit Required									
2 hour									
restricted									
other									
handicap									
town vehicle									
Total Study Area	988	781	788	773	903	875	823	791	926
Total Study Area Utilization		79%	80%	78%	91%	89%	83%	80%	94%
2 hour utilization		77%	79%	75%	86%	88%	85%	79%	89%
1 hour utilization		76%	73%	78%	89%	81%	67%	74%	87%
30 minute utilization		75%	69%	68%	93%	68%	50%	56%	88%

Total Spaces Used	926
Increased by 15 %	1065
Total Spaces in Study Area	988
Additional Spaces	77

Appendix C
Shared Parking Calculations

Nantucket Study Area - Calculation for Shared Parking Adjustments

		Park Here											ITE Parking Demand	Adjustment	Adjusted ITE Parking Demand	
		Housing	Hotels	Retail/Restaurants/Theater	Museums	Office	Light Industrial	Ferry	Library	Post Office	Town Hall/Court	School				Police Department
ITE Parking Demand - Friday Noon		1547	355	2145	32	313	11	101	39	36	115	54	28	5358		
Percent of Which will Walk to Here	Housing		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1547	0	1547
	Hotels	2%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	355	-31	324
	Retail/Restaurants/Theater	60%	75%		30%	20%	15%	50%	20%	5%	10%	20%	0%	2145	-1351	795
	Museums	1%	0.50%	0.50%		0%	0%	0%	0%	0%	0%	0%	0%	32	-28	4
	Office	5%	10%	0%	0%		0%	0%	0%	0%	0%	0%	0%	313	-113	200
	Light Industrial	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	11	0	11
	Ferry	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	101	0	101
	Library	1%	0%	0%	2%	0%	0%	0%		5%	0%	10%	0%	39	-23	16
	Post Office	1%	0%	0%	0%	2%	1%	0%	5%		3%	0%	0%	36	-27	9
	Town Hall/Court	0.25%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	115	-4	111
	School	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	54	-15	38
	Police Department	0.50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		28	-8	20
		72%	86%	1%	32%	22%	16%	50%	25%	10%	13%	30%	0%	5358	-1600	3177

		Park Here											ITE Parking Demand	Adjustment	Adjusted ITE Parking Demand	
		Housing	Hotels	Retail/Restaurants/Theater	Museums	Office	Light Industrial	Ferry	Library	Post Office	Town Hall/Court	School				Police Department
ITE Parking Demand - Friday Noon		1547	355	2145	32	313	11	101	39	36	115	54	28			
Percent of Which will Walk to Here	Housing		0	0	0	0	0	0	0	0	0	0	0	1547	0	1547
	Hotels	-31		0	0	0	0	0	0	0	0	0	0	355	-31	324
	Retail/Restaurants/Theater	-928	-266		-10	-63	-2	-51	-8	-2	-12	-11	0	2145	-1351	795
	Museums	-15	-2	-11		0	0	0	0	0	0	0	0	32	-28	4
	Office	-77	-35	0	0		0	0	0	0	0	0	0	313	-113	200
	Light Industrial	0	0	0	0	0		0	0	0	0	0	0	11	0	11
	Ferry	0	0	0	0	0	0		0	0	0	0	0	101	0	101
	Library	-15	0	0	-1	0	0	0		-2	0	-5	0	39	-23	16
	Post Office	-15	0	0	0	-6	0	0	-2		-3	0	0	36	-27	9
	Town Hall/Court	-4	0	0	0	0	0	0	0	0		0	0	115	-4	111
	School	-15	0	0	0	0	0	0	0	0	0		0	54	-15	38
	Police Department	-8	0	0	0	0	0	0	0	0	0	0		28	-8	20
														5358	-1600	3177