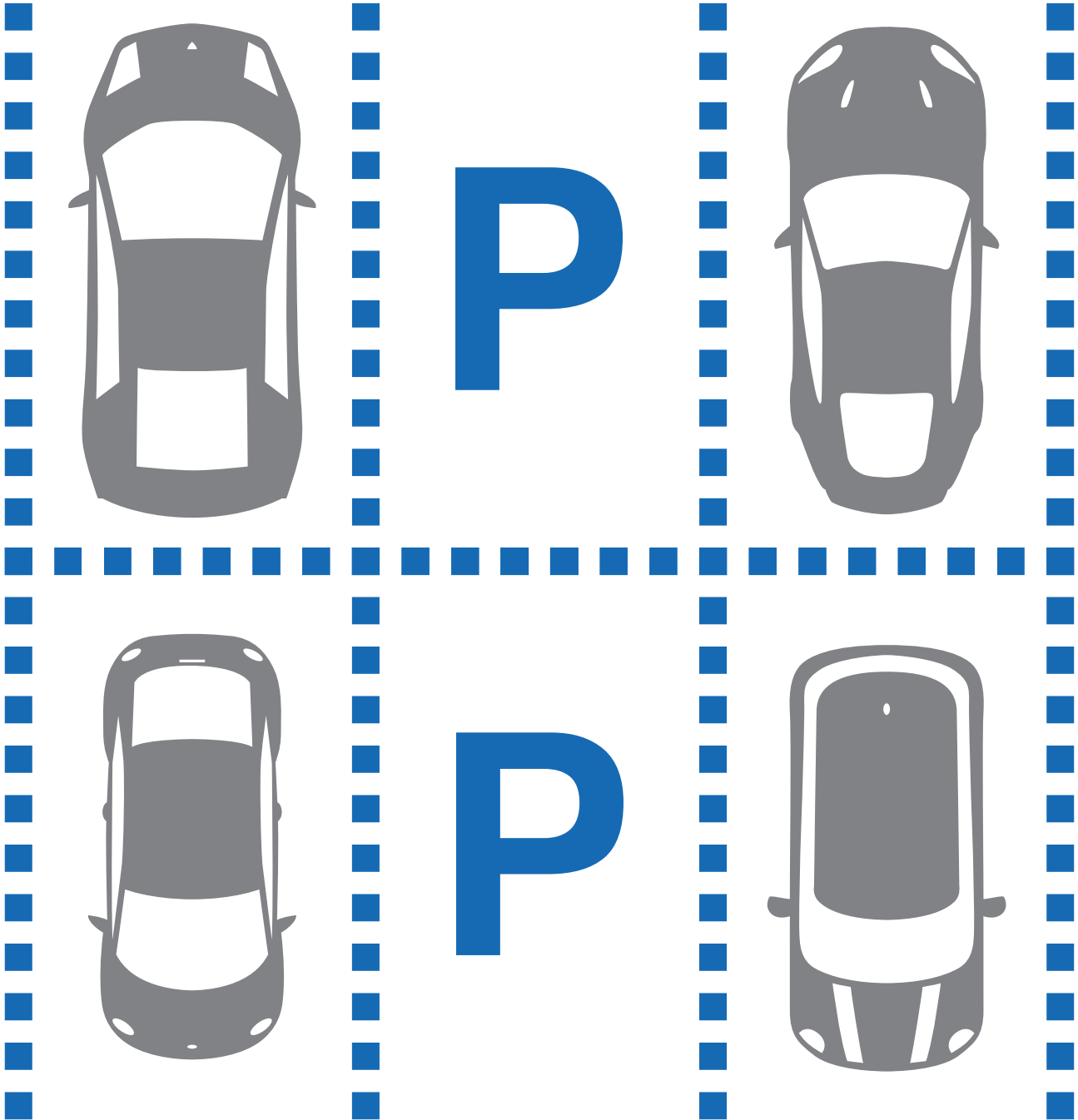




Town Center Parking Study



Prepared by  BERK



TOWN CENTER PARKING STUDY

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INTRODUCTION

Parking is vital to the success of the Mercer Island Town Center economy as well as to the experience of business patrons, residents, and visitors. The Town Center is experiencing higher-density and mixed-use development and it's important to get parking right for these developments and for the Town Center as a whole. Increasing density and activity in the Town Center may result in increased competition for parking stalls by residents, employees, customers, and commuters.

The City is currently undertaking a major effort to further consider and plan for the future of the Town Center. This parking study is one piece of an integrated effort to address future growth and development in the Town Center and the quality of life for residents. The City has an interest in ensuring there is sufficient parking to meet demand now and in the future. However, overbuilding parking can also have negative effects, including increasing the cost of development and construction, which increases the costs of goods and services as those costs are ultimately passed on to business owners and consumers. The Mercer Island Town Center Parking Study is initially focused on both on- and off-street non-residential parking for customers, employees, and visitors. This study aims to address the following questions:

1. **How much parking is available for non-residential use in the Town Center?**
2. **What is the current non-residential parking occupancy on a typical day in the Town Center?**
3. **Is the existing parking enough to meet current demand for parking in the Town Center?**



Depending on the answers to Questions #1 and #2 the following issues will be considered:

- **Should the City amend its parking regulations regarding the amount of parking required and parking design standards?**
- **How can the City most efficiently manage the existing and future parking supply? Are there additional opportunities for shared parking?**
- **Should the amount, locations, and restrictions for on-street parking (such as two hour, permit parking, unrestricted, etc.) be revised?**

Note: Additional optional tasks are included in the project scope to conduct residential parking counts and to amend the City's parking regulations in the Town Center.

STUDY AREA

The parking study area is focused around Mercer Island Town Center, and is bordered by Sunset Highway to the north, SE 32nd Street to the South, Island Crest Way to the east, approximately 76th Avenue SE to the West. The area is shown in Exhibit 1 below.

Exhibit 1. Mercer Island Town Center Study Area



Source: Google Earth, 2016; King County, 2016; BERK, 2016.

PERCEIVED PARKING CHALLENGES

City staff identified several perceived challenges with regard to parking in the Town Center that are to be considered in this study. Existing challenges include:

- **Not enough parking**
- **Inconvenient parking locations**
- **Confusion over where parking is located, especially for shared stalls and in garages**
- **Poorly designed parking in garages, which creates hazards for vehicles and constrains the navigability of parking structures**
- **Confusion over parking permits**
- **Lack of parking for employees working in the Town Center**
- **Low parking turnover rates**
- **Bus commuters using Town Center parking**
- **Lack of enforcement of parking restrictions**
- **A lack of walkability in some areas**

INVENTORY OF TOWN CENTER NON-RESIDENTIAL PARKING

Mercer Island's Town Center has approximately 3,308 off-street non-residential stalls and 258 on-street public stalls. The on-street stalls are regulated in varying ways, including the use of time limited parking, permit restrictions, and shared private stalls. Exhibit 2 shows the number of parking stalls by type that were identified in the inventory.

Exhibit 2. Inventory of Non-Residential Parking Stalls in Mercer Island's Town Center

	Parking Stalls	Percent of Total Stalls
Number of off-street (non-residential) stalls	3,308	93%
Number of on-street stalls (public)	258	7%
Number of time-restricted stalls (2-hour)	82	2%
Number of permitted stalls (M-F, 7-9 AM)	73	2%
Number of on-street unrestricted	103	3%
Total Parking Stalls	3,566	100%

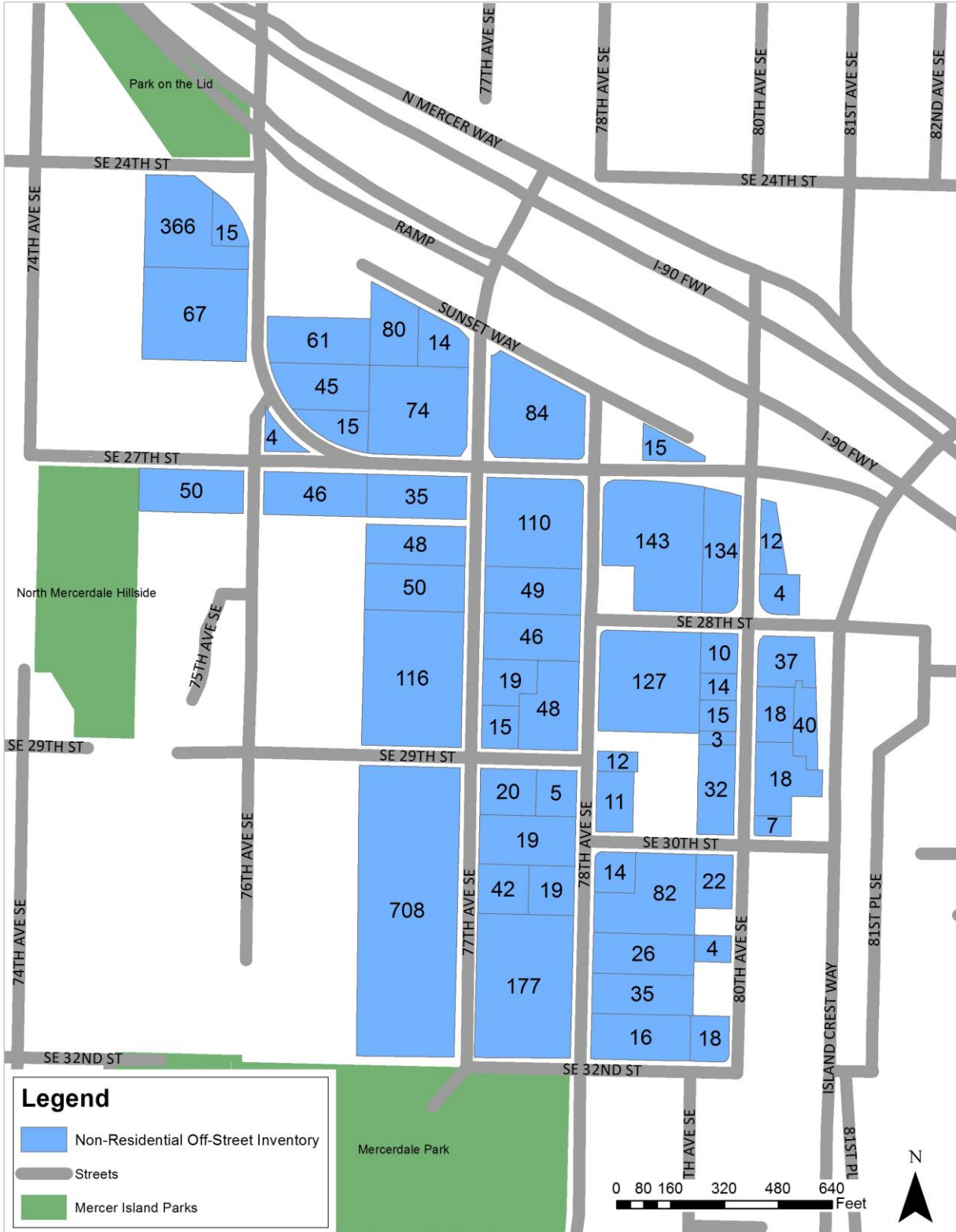
Note: New parking in ongoing development is expected to become available. Parking inventories for projects currently under development are not available at this time. Some on-street parking may have been restricted due to being in the vicinity of a construction site and were not included in the inventory or parking counts.

Source: BERK, 2016.

Exhibit 3 provides a map of off-street parking inventories by parcel. Some developments include more than one parcel. Therefore, the parking inventory and occupancy data may be assigned to only a select number of parcels in the development.

Exhibit 4 provides a map of on-street parking inventories by block.

Exhibit 3. Non-Residential Off-Street Parking Inventory in Mercer Island Town Center



Source: BERK, 2016; King County Assessor, 2015.

Exhibit 4. On-Street Parking Inventory



Source: BERK, 2016; Kimley-Horn, 2016; King County Assessor, 2015

Note: On-Street Parking lines show the general location of parking along block faces. Figures indicate the number of on-street parking spaces along each block face.

Another metric used to assess the amount of parking is the ratio of parking stalls to 1,000 square feet (sq ft) of non-residential floor area, which is often used for parking regulations to determine minimum and maximum parking requirements. The amount of non-residential gross floor area in the Town Center is approximately 846,000 sq ft and the off-street parking supply is approximately 3,308 parking stalls. Therefore, the built parking ratio is approximately 3.9 stalls per 1,000 gross sq ft (see Exhibit 5).

Exhibit 5. Built Parking Ratio

Off-Street Supply	Non-Residential Square Feet	Built Parking Ratio
3,308	846,000	3.9 Stalls/1,000 sq ft

Source: King County Assessor, 2016; BERK, 2016.

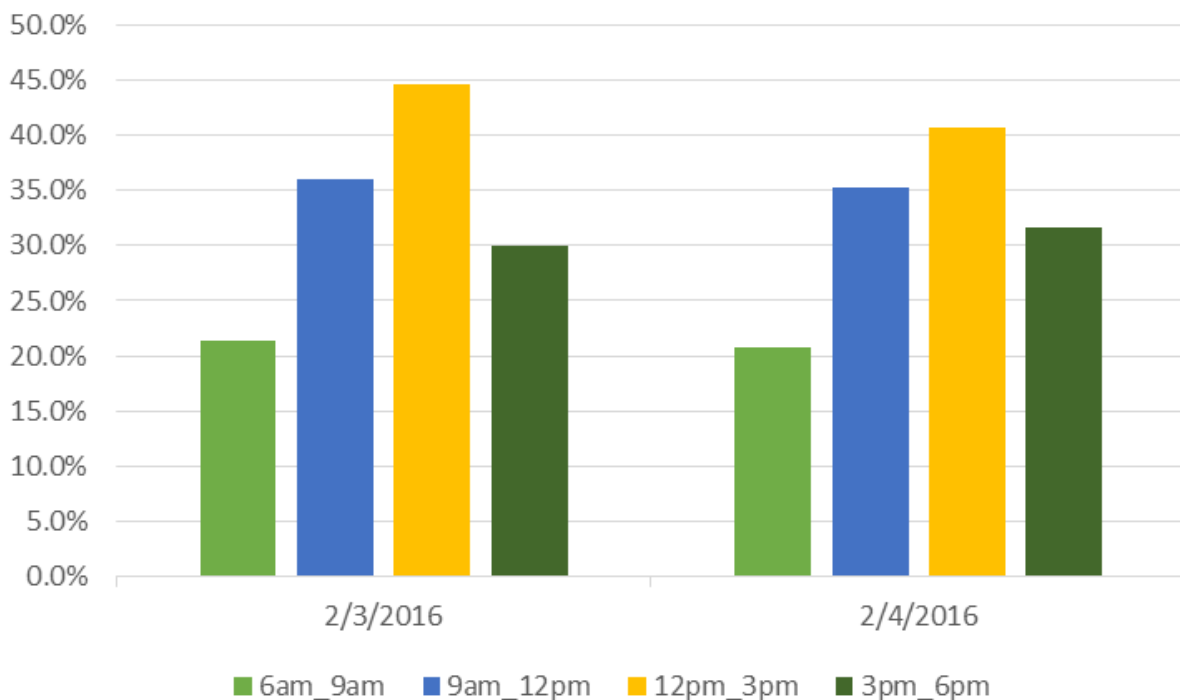
PARKING DATA COLLECTION

Field data collection was conducted on February 2nd and 3rd 2016 for both on- and off-street non-residential parking areas. Four counts in three hour increments were conducted on each day for the off-street parking areas. An hourly count was conducted on each day for the on-street parking areas. Occupancy and vehicle duration were collected for each count. Occupancy refers to the percent of parking stalls occupied and duration refers to the amount of time a vehicle stays in the same parking space.

Off-Street Parking

The highest observed off-street parking occupancy occurred between 12 pm and 3 pm on February 3, 2016 at 44.6%. The number of available off-street parking stalls at peak occupancy was approximately 1,834 stalls.

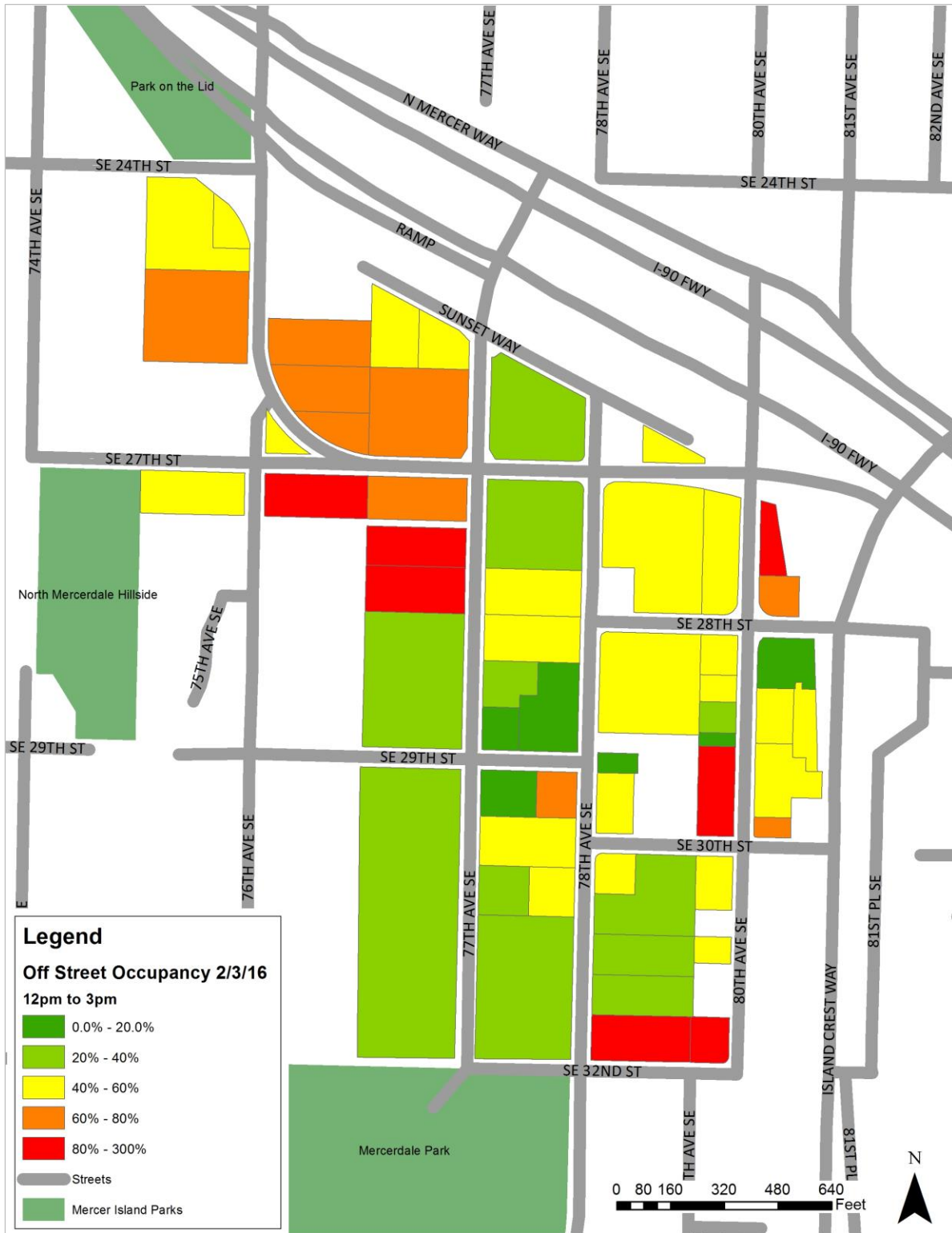
Exhibit 6. Off-Street Parking Occupancy



Source: BERK, 2016; Kimley-Horn, 2016.

Exhibit 7 shows the occupancy by parcel on February 3, 2016 between 12 pm and 3 pm, which was the highest observed occupancy for the off-street counts. A few parcels had an occupancy above 80%, but overall the utilization was much lower at 44.6%. All other off-street counts had lower occupancy.

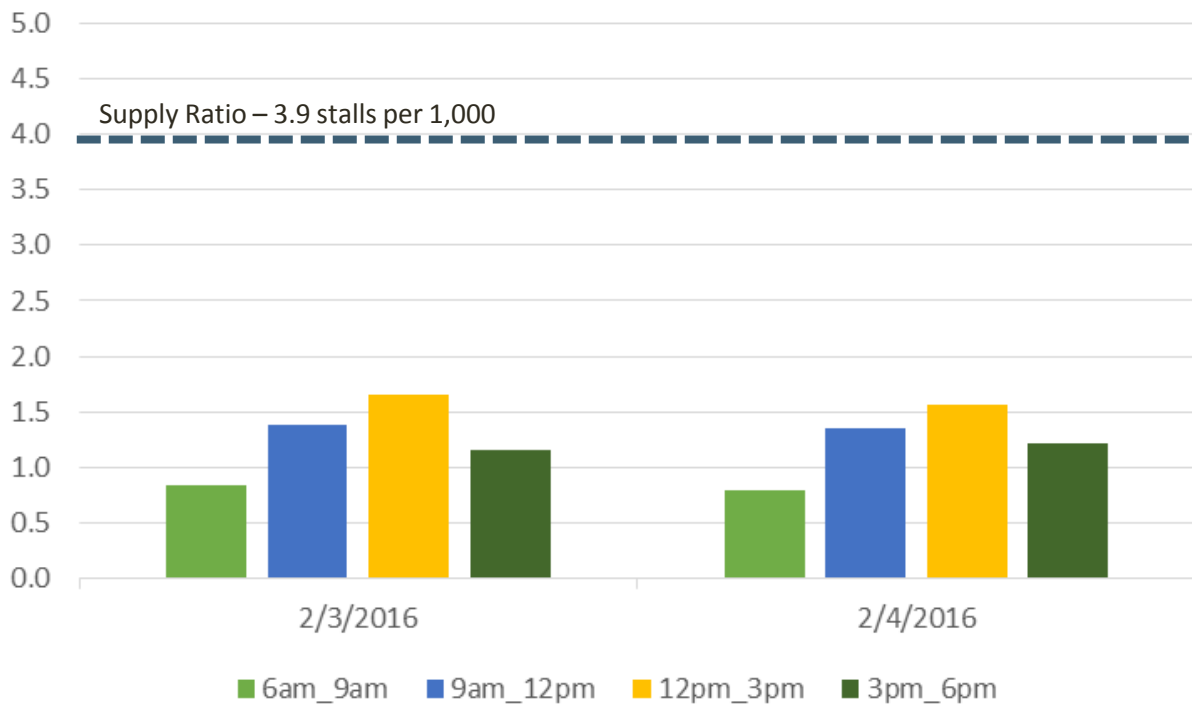
Exhibit 7. Peak Off-Street Occupancy – 12 pm to 3 pm on 2/3/16



Source: BERK, 2016; Kimley-Horn, 2016.

Exhibit 8 provides the off-street parking occupancy ratio of occupied stalls to 1,000 sq ft of non-residential floor area. The chart shows the difference between the observed parking occupancy ratio for the field counts on February 3rd and 4th as well as the built ratio of parking stalls to non-residential floor area in the study area.

Exhibit 8. Off-Street Parking Occupancy Ratio (# of occupied stalls per 1,000 sq ft)



Source: BERK, 2016; Kimley Horn, 2016; King County Assessor, 2016.

Mercer Island parking regulations require a certain number of parking stalls per 1,000 sq ft of building floor area based on the land use. For example, between 3 and 5 stalls per 1,000 square feet are required for retail uses in the Town Center. As shown in Exhibit 9 the built parking ratio is 3.9 stalls per 1,000 sq ft while the highest observed utilization was 1.7 stalls per 1,000 square feet between 12 pm and 3 pm on both February 3, 2016. The gap between the supply ratio and the highest observed ratio is therefore 2.2 stalls per 1,000 sq ft (see Exhibit 9).

Exhibit 9. Built Supply Ratio vs. Utilization Ratio

Built Parking Supply Ratio	Highest Observed Utilization Ratio (1 pm to 3 pm)	Utilization Gap
3.9 Stalls/1,000 sq ft	1.7 Stalls/1,000 sq ft	2.2 Stalls/1,000 sq ft

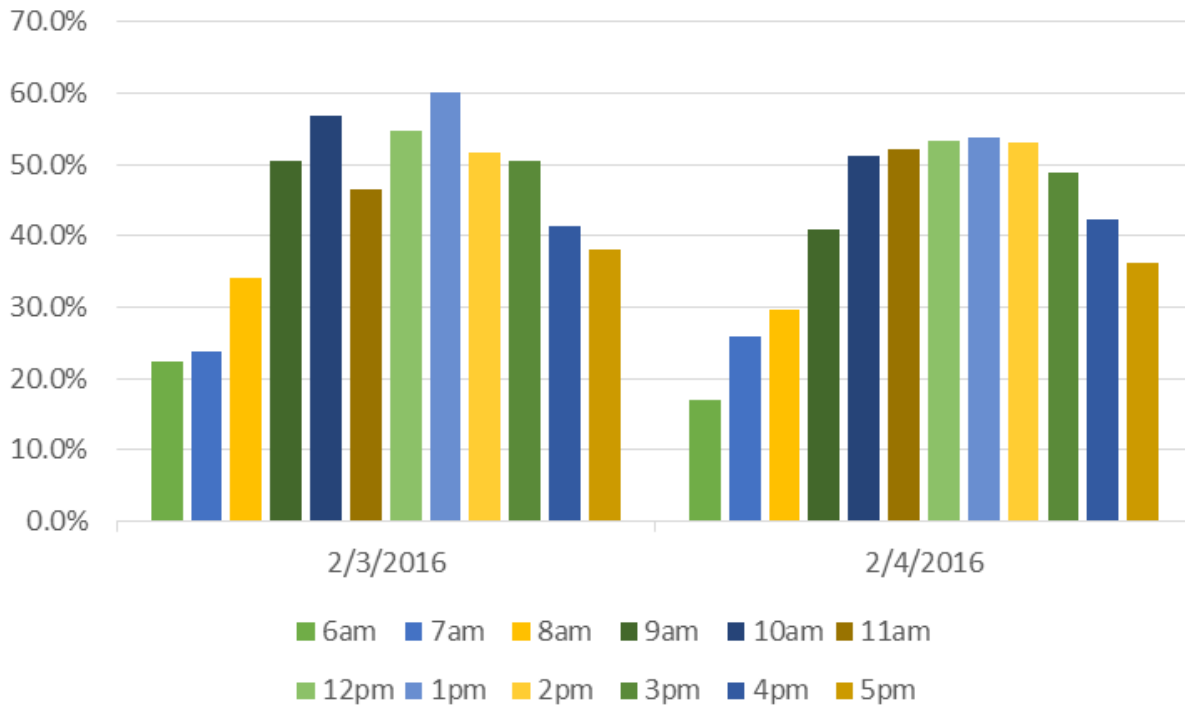
Source: BERK, 2016.

On-Street Parking

The Town Center has a limited number of on-street parking stalls as many of the streets in Town Center do not provide on-street parking. The highest observed occupancy (percent of occupied stalls) of the on-street stalls was 60.0% at 1 pm on February 3, 2016. At peak occupancy 157 of the 258 stalls were occupied leaving 101 stalls available. Occupancy below 85% is generally considered acceptable. If occupancy

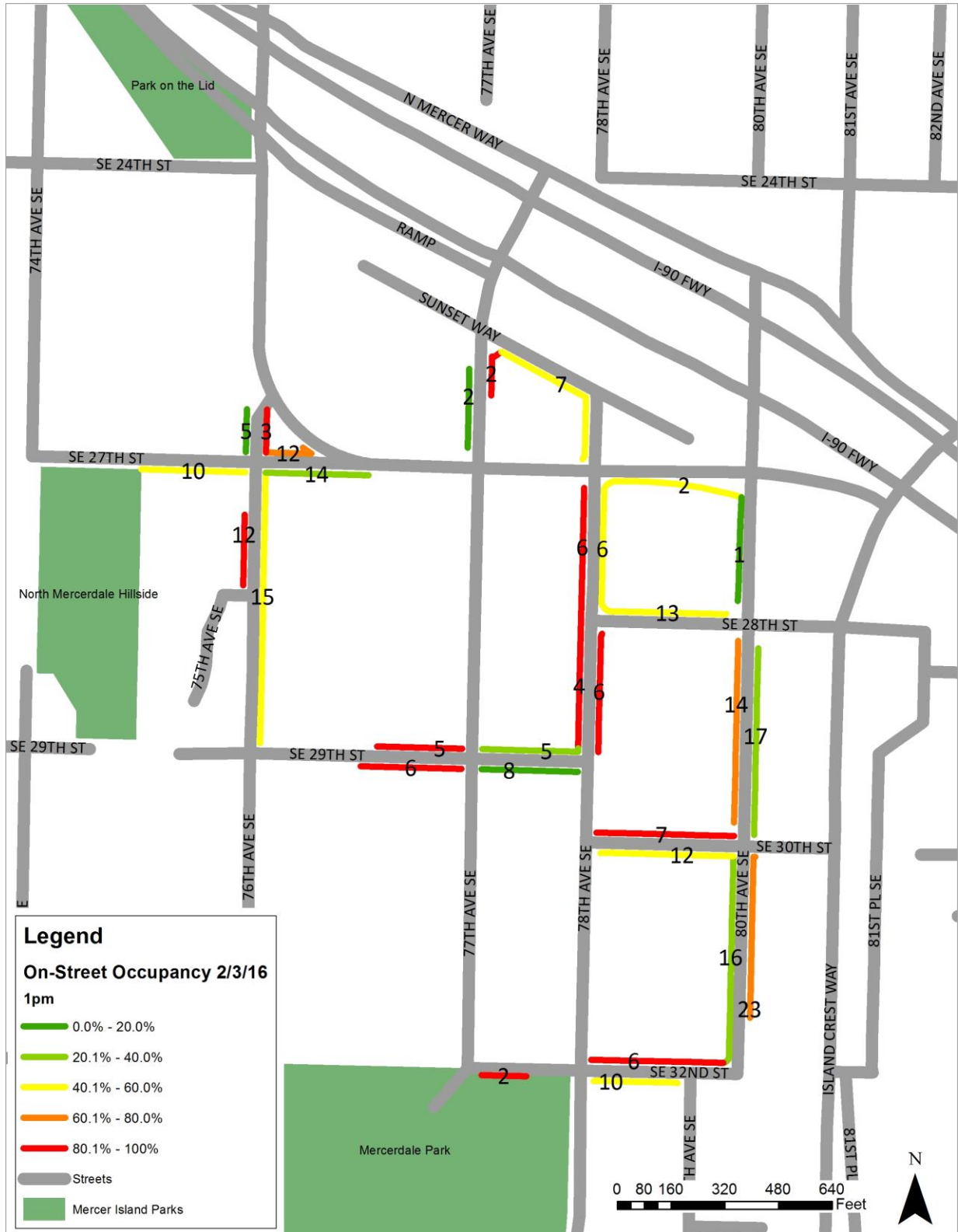
exceeds 85% further demand management strategies such as additional time limits or pricing should be considered to ensure adequate vehicle turnover and parking availability. Exhibit 10 shows the hourly parking occupancy of on-street spaces in the study area for February 3rd and 4th and Exhibit 11 shows the on-street occupancy for peak parking at 1 pm on February 3, 2016.

Exhibit 10. On-Street Occupancy



Source: BERK, 2016; Kimley-Horn, 2016.

Exhibit 11. On-Street Peak Occupancy – 1 pm on 2/3/16



Source: BERK, 2016; Kimley-Horn, 2016.

Note: On-Street Parking lines show the general location of parking along block faces. Figures indicate the number of on-street parking spaces along each block face.

Another metric used to assess parking is the duration of stay. This represents the average amount of time that a vehicle is present in the same parking space. Exhibit 12 shows the average duration of stay for the two on-street field count days. The duration of stay is generally consistent with current on-street parking management with time limited two-hour parking. However, these figures also include some unregulated parking without any time restrictions. Therefore, the current duration of stay is acceptable and doesn't indicate there are significant violations of the current time limits.

Exhibit 12. On-Street Parking Duration

Date	Duration
2/3/2016	2.2 hours
2/4/2015	2.4 hours

Source: BERK, 2016; Kimley-Horn, 2016.

LAND USE

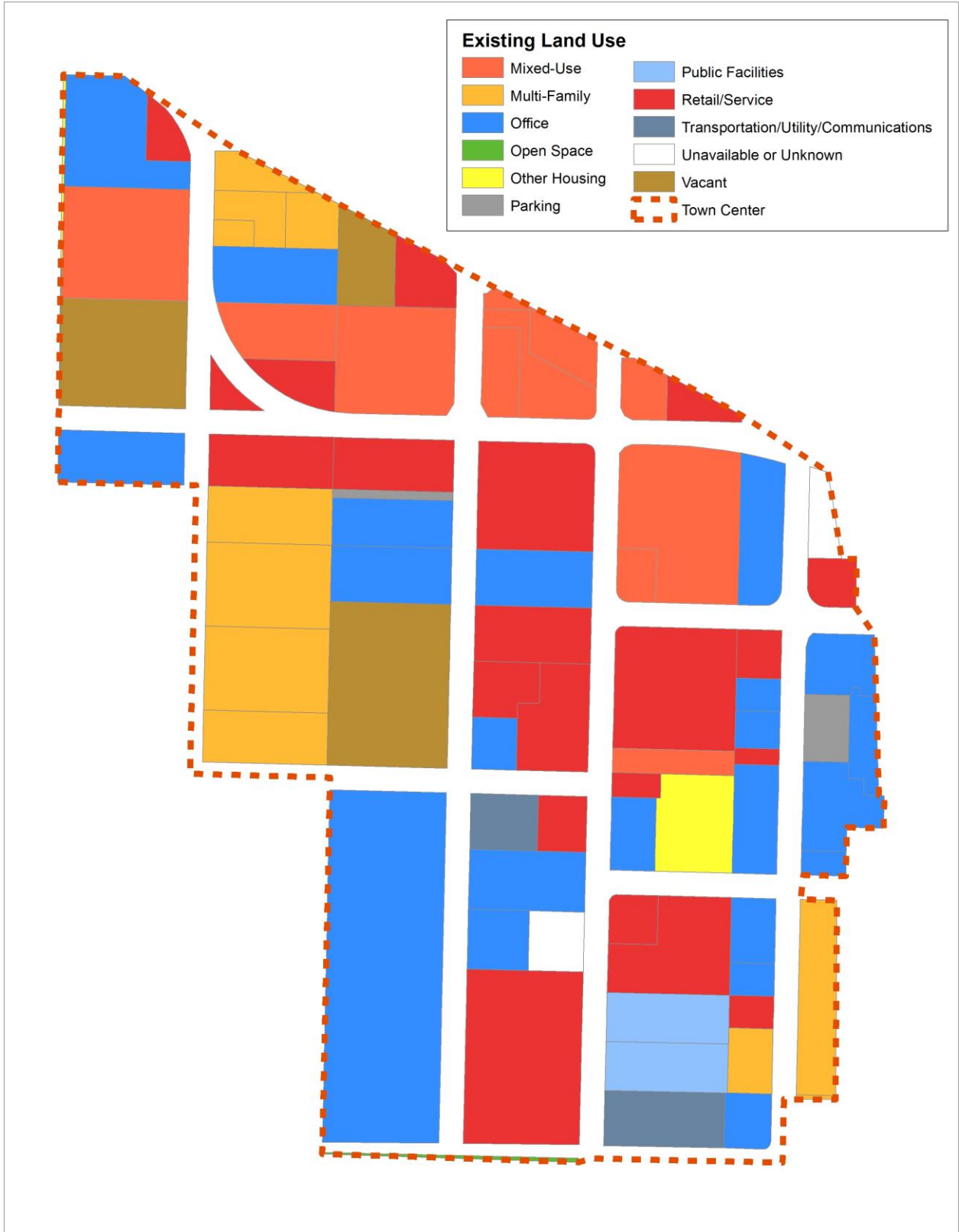
Land use has implications for parking supply and demand as the use of land is closely tied to the way people use on and off-street parking. As such, parking requirements, permitting, and other restrictions are often tied to land use and zoning.

The majority of Mercer Island's Town Center is devoted to commercial uses, with some newer mixed use developments on the north end of the study area. Most of the commercial uses are locally-serving uses, such as bank branches, grocery stores, and restaurants. There is one notable larger employer, Farmers Insurance, also located in the Town Center that has 708 off-street parking spaces or 21% of the total non-residential off-street parking supply. Condos and apartments are also present, and are predominantly located in mixed use structures and on the east and west edges of the Town Center.

Exhibit 13 shows the existing land use within the Town Center study area, which is mainly dominated by retail and office, as well as the mixed-use structures to the north. These uses all generate demand for parking, with varying expected peak hours and turnover rates. Land use categories indicate the predominant land use for the parcel.

As density increases and more mixed-use development occurs there may be further opportunities to reduce parking requirements and increase shared parking to manage the overall parking supply more efficiently. For example, sharing parking between residential and commercial use can significantly reduce the overall amount of parking that is needed to accommodate the collective parking demand. Residential demand is lowest during the day when many commercial uses experience peak demand. As the Town Center continues to develop the City should continue to support shared parking opportunities and consider reducing the current off-street parking requirements in response to changing development patterns.

Exhibit 13. Mercer Island Town Center Land Use



Source: BERK, 2015; King County Assessor, 2015.

As the Town Center transitions to more mixed-use development, opportunities for shared parking may increase. Shared parking works best between land uses that have peak parking demand at different times. For example, as residents leave for work, the same parking is available for employee or customer parking during the day at office and retail uses.

Mixed-use walkable environments like the Town Center often have greater supplies of shared parking than in typical suburban environments. Shared public parking can be very efficient and flexible because it allows parking for a variety of uses at different times. The Town Center currently has limited public parking available, but has incentives in place to encourage private property owners to provide public parking (See Exhibit 14 for more detail).

PARKING REGULATIONS AUDIT

Parking regulations guide the quantity and quality of parking for new development through setting parking minimums, design standards, environmental regulations, and more. As part of the existing conditions analysis in the parking inventory, an audit of the existing code and a comparison to other cities in the region was done. The audit is useful for considering potential regulatory changes. See Exhibit 14 for the detailed code audit.

Code Audit Key Findings

The following are the key findings from the code audit:

- The City's off-street parking requirements in the Town Center appear to be significantly higher than observed demand.
- The Town Center parking regulations provide limited reductions for shared parking (up to 20%). Higher-density mixed-use development provides opportunities for shared parking reductions greater than 20%.
- The residential parking requirement of between 1 and 3 stalls per unit provides a wide range of off-street parking requirements that may lead to parking being overbuilt for residential use, particularly if shared parking is not incorporated into the project.
- The City's policy that all off-street parking should be shared as public parking supports efficient parking management.
 - Other incentives in addition to the reduced retail frontage requirements may be more effective at increasing the supply of shared public parking such as reduced parking requirements.
- Maintaining parking as a permitted or conditional use allows for greater opportunities for shared off-street parking.
- Current on-street parking management strategies are working effectively to manage demand and provide adequate vehicle turnover.

Exhibit 14. Parking Regulations Audit and Comparison

Regulation type	Mercer Island Town Center	Kirkland Downtown	Bothell Downtown
Parking as a Principal Use	<ul style="list-style-type: none"> • Parking is a Conditional Use in all Town Center District Focus Area subareas except Mid-Rise Office and Auto-Oriented, where it is a permitted use (19.11.020) 	NA	<ul style="list-style-type: none"> • For the downtown core, surface lots are only permitted in the rear of a building; parking structures that are wrapped are permitted; and, underground or partially submerged parking structures are permitted (12.64.101)
Off-Street Parking Requirements	<ul style="list-style-type: none"> • Retail – General – 3 to 5 stalls per 1,000 sq ft • Retail – Food – 1 to 11 stalls per 1,000 sq ft • Retail – Hotel – 1 per hotel room plus 2/3 employee on shift and 5 per 1,000 sq ft of retail/office • Office – Financial – 3 to 5 per 1,000 sq ft • Office – Health and beauty – 4 to 5 per 1,000 sq ft • Office – Other – 3 to 5 per 1,000 sq ft • Residential – 1 to 3 per unit • Residential – Senior - .3 to 1 per unit • Public Buildings – 3 to 5 per 1,000 sq ft • Assembly or Meeting Spaces – 1 space per 3 to 5 seats, plus 2 space for every 3 employees • Unspecified Uses – determined by the code official 	<ul style="list-style-type: none"> • Retail – food – 1 space per 125 sq ft (8 stalls per 1,000 sq ft) • Residential – varies from 1 to 1.8 stalls per unit • All other uses – 1 space per 350 sq ft (3 stalls per 1,000 sq ft) 	<ul style="list-style-type: none"> • No minimum parking requirements for ground floor retail uses fronting Main Street (12.64.101) • Retail – pedestrian oriented – 1 per 400 sq ft (2.5 stalls per 1,000 sq ft) • Civic & Cultural – 1 per 500 sq ft (2 stalls per 1,000 sq ft) • Office – 1 per 500 sq ft (2 stalls per 1,000 sq ft) • Lodging – .75 per bedroom • Residential - .75 stalls per bedroom minimum; 1 vehicle space per bedroom maximum
Permits	<ul style="list-style-type: none"> • Valid Mercer Island parking permits are required for any vehicle parked on any city street or in off-street parking that has posted restrictions requiring a permit • Parking is not guaranteed to those holding parking permits 	NA	<ul style="list-style-type: none"> • Permit parking only applies to residential streets (10.45)

Regulation type	Mercer Island Town Center	Kirkland Downtown	Bothell Downtown
	<ul style="list-style-type: none"> • Parking with permits is not authorized for more than 72 consecutive hours in one location • Permits do not exempt a permit holder from observing other parking regulations • The Town Center Parking Permit can be obtained by a noncommercial Mercer Island resident whose vehicle is registered to a Mercer Island address • Fees for permits are set by the director of finance or their designee and are collected on a biennial system of permit renewal and fee collection • The City Council sets monetary penalties for parking violations in permit-restricted areas and any unauthorized transfer of a permit to any unauthorized vehicle or to any vehicle which is not eligible for a Town Center Restricted Parking District permit (MICC 10.74) 		
<p>On-street Restrictions</p>	<ul style="list-style-type: none"> • The Town Center has time-restricted parking with: <ul style="list-style-type: none"> ○ two hour limits ○ no time limits – unrestricted ○ permit-only time windows • Parking is restricted to vehicles with valid Mercer Island Town Center Restricted Parking District permit between 7 am and 9 am on Monday through Friday on the following four streets: <ul style="list-style-type: none"> ○ SE 29th Street – Both sides between 77th and 78th Avenue SE ○ SE 30th Street – Both sides between 78th and 80th Avenue SE ○ 78th Avenue SE – Both sides between SE 28th and SE 29th Street 	<ul style="list-style-type: none"> • No parking areas (with various restrictions by day and time) • No overnight parking (with various restrictions by day) • Loading Zone (with various restrictions by day and time) (12.45.230) • Time-restricted parking with: <ul style="list-style-type: none"> ○ 30-minute parking ○ Two hour parking ○ Three hour parking from (AM to 5 PM) ○ Four hour parking 	<ul style="list-style-type: none"> • Time restricted parking: <ul style="list-style-type: none"> ○ Two hour limits

Regulation type	Mercer Island Town Center	Kirkland Downtown	Bothell Downtown
	<ul style="list-style-type: none"> ○ 80th Avenue SE – Both sides between SE 28th and SE 30th Street 		
Shared Parking	<ul style="list-style-type: none"> • Mixed use projects may be permitted to use shared parking on the same or adjoining sites through reducing required parking stalls by up to 20 percent as long as no substantial impact can be demonstrated • Adjoining properties are encouraged to use shared parking stalls • Public Parking is encouraged through relaxed retail frontage requirements (19.11.020.C) 	NA	<ul style="list-style-type: none"> • Shared parking allows for a 10% reduction for non-eating establishment pedestrian oriented retail, civic and cultural uses, offices, and residential (12.64.101) • All new surface parking lots shall be publically shared (12.64.401) • On-site (or off-site within 800 feet for some uses) is required for downtown core parking, or cash-in-lieu. In-lieu fees are based on current real cost of constructing a parking space in an exposed above-ground structure or in off-site locations (12.64.101 & 402)
Paid Parking	NA	<ul style="list-style-type: none"> • Paid parking on nights and weekends • \$1.00 per hour • Park & Main Lot • Mon – Fri, 6 pm – 9 pm • Sat, 9 am – 9 pm 	NA

Source: BERK, 2016; Mercer Island City Code; Kirkland Municipal Code; Bothell Municipal Code

PARKING LOT DESIGN STANDARDS

The City of Mercer Island has standards for parking lot designs that address requirements for stall sizes and aisle widths based on different configurations of parking (parallel, angled, perpendicular). These standards are contained in Appendix A of Unified Land Development Code in Title 19 of the Mercer Island City Code. The standard stall size of 8.5' x 18.5' is within the range of a typical stall size, but on the lower end of the spectrum, particularly for short-term parking. The Washington Department of Transportation (WSDOT) recommends larger stalls of 9' to 10' for short-term parking with turnover of five or more cars per day.

The aisle widths required between stalls varies depending on the type of parking configuration and the angle of the parking spaces. The City's current minimum aisle width for two-traffic with perpendicular, angled or parallel parking is 20.' This is below the 24' minimum aisle width recommended by the Washington Department of Transportation (WSDOT) that is based on industry standards (WSDOT, 2003). WSDOT recommends an aisle width of 18' for one-way traffic with 60 degree angled parking while Mercer Island requires only 15'.

Dimension	WDOT Manual	City of Redmond	Mercer Island
Aisle Width – 90 Degree Two-Way Traffic	24'	25.5'	20'
Aisle Width – 60 Degree One-Way Traffic	18'	20'	15'
Stall Width	8.5' for longer-term use 9' to 10' for short-term use	8.5' to 10'	8.5' Standard 8' Compact

Source: Mercer Island, 2016; WSDOT, 2003; City of Redmond, 2016

Findings

The following are the key findings regarding the City of Mercer Island's parking lot design standards:

- Stall widths appear to be below those recommended by WSDOT and in comparison to other cities.
- Aisle widths appear below those recommended by WSDOT and in comparison to other cities.
- The City's stall dimension requirements do not differentiate between standards for short and long-term parking.
- The City's aisle width standards are relatively uniform and don't account for different parking lot configurations. For example, a 20' aisle width is required for two-way traffic regardless of the parking stall angle.

RESIDENTIAL PARKING

The current off-street parking requirement for residential units is between 1 and 3 stalls per unit with the Code Official making the final decision. A range of 1 to 3 stalls is a substantial range, especially when the requirements are not based on the size of the units or number of bedrooms. As an example, for a 100 unit apartment building the parking requirement ranges from between 100 to 300 stalls. For below-grade structured parking at an estimated cost of \$30,000 to \$50,000 per stall the cost of providing 200 additional

stalls above the base requirement of 100 stalls would be approximately \$6 to \$10 million dollars. Therefore, the costs of providing additional parking can be substantial and adds to the overall cost of housing.

King County Metro completed the Right Size Parking Project in 2015, which assesses parking demand in multi-family developments throughout King County. The project includes an interactive website that estimates actual multi-family parking demand based on field data counts and other variables that were used to develop a statistical model to predict demand. The parking calculator estimates that actual demand for a multi-family development in the Town Center is 1.15 stalls per unit, which is on the lower end of the range of Mercer Island's residential parking requirement.

Residential Data Collection

Residential parking counts were conducted at three multi-family sites in the Town Center. The Mercer Apartments was included in King County Metro's Right Size Parking Project and counts were conducted in 2012 and summarized below. The observed utilization ratio (vehicles per occupied residential unit) ranged from between 0.8 vehicles per unit to 1.3 vehicles per unit. The total utilization ratio based on combined data for all four sites is 1.1 vehicles per unit. As described above, the Right Size Parking Calculator estimates parking demand in the Town Center to be approximately 1.15 stalls per unit for a typical development.

Exhibit 15. Residential Field Counts

Site	Vehicles Observed	Occupied Units	Utilization
Island Square	225	226	1.0
Islandian Condos	17	21	0.8
Aviara*	209	159	1.3
The Mercer (2012)	156	147	1.1
Total	607	553	1.1

Source: BERK, 2016; King County Metro, 2012

*Note: Vehicles observed based on residential parking permit data from the property manager

FUTURE NON-RESIDENTIAL PARKING DEMAND

Based on the field parking counts the peak non-residential demand observed was 1.7 stalls per 1,000 sq ft of gross floor area for the Town Center as a whole. However, parking demand varied by location and land use.

Exhibit 16. Parking Demand vs. Supply at Key Locations

Site	Land Use	Parking Supply Ratio	Observed Peak Demand Ratio	Difference
QFC Grocery Store	Retail	4.4	2.5	2.1
McDonalds	Restaurant	9.9	5.2	4.7
Walgreens	Retail	2.9	1.0	1.9
Tabit Village Square	Mixed-Use Retail/Restaurant	2.2	1.7	0.5
Windermere	Office	3.25	3.0	0.25
Farmers Insurance	Office	4.6	1.6	3.0
Islandia Shopping Center	Mixed-Use Retail/Restaurant	3.5	1.3	2.2
Starbucks	Restaurant	8.0	7.0	1.0

Source: BERK, 2016; Kimley-Horn, 2016; King County Assessor, 2015

Note: Ratios based on parking stalls or observed vehicles per 1,000 sq ft of gross floor area

Based on current conditions it is estimated that the future parking demand for retail parking, office, and mixed-use sites to be between 2 and 3 stalls per 1,000 sq ft of gross floor area, which is significantly less than the current requirements of between 3 and 5 stalls per 1,000 sq ft.

Town Center has few standalone restaurants as most of the restaurants on mixed-use sites. Therefore, it's difficult to estimate actual demand for restaurants. However, the observed peak demand at McDonalds was significantly less than the parking supply. The current range of requirements for restaurants is between 1 and 11 stalls per 1,000 sq ft. For a standalone restaurant the estimated future demand is between 2 and 10 stalls per 1,000 sq ft.

Several factors could result in reduced parking demand in the future some of which the City has control over and others that are more difficult to predict. The City should consider the following in planning for future parking demand in the Town Center:

- **Additional On-Street Parking:** The Town Center currently has a small supply of on-street parking relative to the overall street network. On-street parking is an efficient way to provide short term parking for customers that can reduce the overall amount of off-street parking needed to accommodate demand. On-street parking also supports pedestrian comfort and mobility by providing a buffer between traffic and pedestrians.
- **Shared Parking:** The City currently has a cap on a shared parking reduction of 20%. If the 20% cap is removed the amount of new parking needed to accommodate new development could be reduced if existing underutilized parking becomes shared parking.
- **Transit Improvements:** Improved transit access to the Town Center may decrease the overall amount of parking needed to accommodate demand.

- **Increased Density and Mixed-use Development:** Increased density and mixed-use development expands opportunities for shared parking that increases the efficiency of the parking system and reduces the overall amount of parking needed to accommodate demand.
- **Carshare:** Carsharing services such as ZipCar and Car2Go can decrease parking demand by lowering vehicle ownership and increasing shared transportation options.
- **Rideshare:** Ridesharing services such as Uber and Lyft provide on demand transportation services that have the potential to significantly reduce parking demand and vehicle ownership.
- **Autonomous Vehicles:** The future of autonomous vehicles is unclear, but widespread use of on demand transportation service may significantly reduce the amount of parking that is needed in the Town Center. Ridesharing services such as Uber have plans to use autonomous vehicles in the future.

PROJECT FINDINGS

Based on the research, data collection, and analysis the following are the key project findings that are the basis for the project recommendations.

- **The Town Center has sufficient on and off-street parking to meet current non-residential parking demand. The highest observed off-street occupancy was 44.6% between 12 pm and 3 pm on February 3, 2016. At peak occupancy approximately 1,834 non-residential off-street parking stalls were available.**
- **The current off-street non-residential parking ratio is approximately 3.9 stalls per 1,000 sq ft of floor area. The highest observed occupancy ratio was 1.7 stalls per 1,000 sq ft of floor area leaving a gap of 2.2 stalls per 1,000 sq ft of floor area.**
- **Public on-street parking is limited in the Town Center, with a supply of approximately 258 on-street stalls. Most streets in the Town Center do not have on-street parking. Despite the limited supply, the peak occupancy observed was 60.0% at 1 pm on February 3, 2016, leaving approximately 101 stalls available at peak occupancy. The average duration of stay for vehicles in on-street spaces was approximately 2.3 hours based on data collection on February 3rd and 4th 2016.**
- **The City's non-residential off-street parking requirements in the Town Center appear to be significantly higher than observed demand.**
- **The Town Center parking regulations provide limited reductions for shared parking (up to 20%) for both residential and non-residential uses.**
- **The residential parking requirement of between 1 and 3 stalls per unit provides a wide range of off-street parking requirements that may lead to parking being overbuilt for residential use, particularly if shared parking is not incorporated into the project.**
- **The City's parking lot design standards for residential and non-residential parking areas require parking stall sizes and aisle widths are not consistent with WSDOT recommendations or compared to another jurisdiction.**

RECOMMENDATIONS

Based on the project findings the following recommendations are intended to improve parking regulations, management, and monitoring in the Town Center:

1. **Reduce Off-Street Parking Requirements**
 - a. **Retail/Office/Mixed-Use (including restaurants):** Between 2 and 3 stalls per 1,000 sq ft
 - b. **Standalone Restaurant:** Between 5 and 10 stalls per 1,000 sq ft
 - c. **Residential:** Between 1 and 1.4 stalls per unit. Allow site specific deviations for parking less than 1 stall per unit based on a detailed parking analysis and with approval of the Code Official.
 - d. **Eliminate parking requirement for small scale pedestrian oriented retail:** For retail uses 5,000 sq ft or less eliminate the off-street parking requirement. 5,000 sq ft and below is generally considered a pedestrian oriented retail space size.
2. **Modify the 20% limit on Shared Parking:** Allow up to 100% of the parking requirement to be accommodated through shared parking. A 100% reduction is only feasible through off-site shared parking agreements.
3. **Maintain Existing On-Street Parking Management:** The on-street system appears to be functioning well at this time and resulting in sufficient vehicle turnover and parking availability. No changes are recommended at this time. As demand increases in the future, the City may consider adding timed restrictions to more streets within the Town Center.
4. **Revised Parking Lot Design Standards**
 - a. Increase aisle widths to 24' for two-way traffic for parking angled at 45 degrees or above.
 - b. Increase aisle widths to 18' for one-way traffic for parking angled at 60 degrees or above.
 - c. Require larger parking stalls for short-term use (9' to 10' wide) with turnover of 5 or more vehicles per day.
 - d. Increase the standard parking stall size to 9' x 18'. Allow stalls at 8.5' width for compact and long-term use (turnover of 1 to 2 vehicles per day).
5. **Increase On-Street Parking Supply:** Many streets in the Town Center could accommodate additional on-street parking to support short term use and a greater supply of shared public parking. On-street parking also improves the pedestrian experience by providing a buffer between pedestrians and traffic.
6. **Increase Shared Off-Street Public Parking**
 - a. The City should consider agreements with private property owners to manage underutilized parking for shared public parking. Agreements should be short-term to not prohibit future redevelopment opportunities.
 - b. Based on the data contained in this report the City should consider facilitating the use of underutilized parking as shared parking between individual developments. Shared parking may support increased amenities and other goals in the Town Center that are desired by residents by reducing the costs of providing parking.
 - c. The City should also consider establishing permanent off-street public parking lots that could accommodate existing and future parking demand through shared public parking.
7. **Continue to Monitor Parking in the Town Center:** The City should continue to monitor parking in the Town Center through updated field data collection at a minimum of every three years.