

January 8, 2018 | Draft Report

Newport Parking Management Plan

Prepared for:

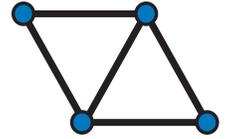
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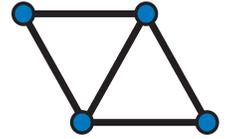


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Executive Summary



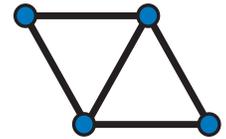
To help the City of Newport manage ongoing parking demand, the City engaged Lancaster StreetLab to develop a parking management plan. Work was conducted over the course of 2016 and 2017 and included community outreach, and detailed data collection and analyses of parking patterns in each of the City's three parking districts—City Center, Nye Beach, and Bayfront—during peak and off-peak seasons.

Based upon the analyses of parking demand and occupancy patterns and the feedback of the community members of each district, the following are the key recommendations that arise from this plan:

- Improve branding of City-owned parking lots and facilities, and wayfinding between parking facilities and destinations, both for those on foot and for those still driving.
- Utilize better signage, advertising, and other available tools to increase parking at currently under-utilized facilities such as the Hubert Street lot and the Performing Arts Center lot, and encourage RV parking in the Hubert Street Lot and on Elizabeth Street.
- Improve street lighting to create a better walking environment, and to help activate currently under-utilized parking in poorly lit areas, particularly within Nye Beach and Bayfront districts.
- Modify City of Newport code provisions to identify pervious pavement and other comparable alternatives to paved surfaces for areas suitable for temporary parking and implement temporary parking on currently undeveloped lots, as needed, to manage parking during extreme demand periods.
- Explore racking of fishing equipment on Port of Newport property, to simplify and expedite fishing operations and create extra parking spaces for the fishing community.
- Implement metered zones, permit zones, and hybrid permit/meter zones in the most highly-demanded parking spaces within the Nye Beach and Bayfront districts. These would be supported by permit programs where annual parking permits would be available to residents, businesses, and the fishing community.
- Restripe other parking, including on-street parking off on side streets (i.e., off of Bay Boulevard) in the Bayfront and in the Canyon Way parking lot, to improve the efficiency of these resources.
- Eliminate off-street parking minimums for new development and redevelopment in metered and permit zones.
- Meter revenues in excess of administration costs should be prioritized for demand management initiatives, such as the new Bayfront to Nye Beach transit option being developed as part of the Lincoln County Transit Development Plan.
- Evaluate the efficacy of measures on an ongoing basis, with attention to economic changes, changing land use patterns, and other factors that affect parking demand.

Part 1:
Parking Assets & Supply Analysis

Parking Assets



As a first step in analyzing parking management and utilization, a detailed inventory of the parking assets and supply within the three parking districts was conducted. While this inventory and management plan are focused primarily on public resources, private parking assets are considered to the extent that they impact public resources and management. On the Bayfront in particular, privately owned parking at museums and restaurants as well as parking on Port property are key considerations with regard to supply.

The three study areas are shown in the Figures 1–3 on the following pages. The key parking lots and their respective capacities are shown below.

Table 1: Parking lots and stall numbers within the study area

Lot name / location	# Stalls	Notes
City Center		
Hurbert & 9th	45 standard 2 ADA	
US 101 & Hurburt	18 standard 2 ADA	
City Hall	52 standard	
Angle Street Lot	~68	Completed 2017
Nye Beach		
Nye Beach Turnaround	42 standard 3 ADA	
Performing Arts Center	129 standard 8 ADA	
Visual Arts Center	8 standard (upper) 4 standard (lower)	
Don Davis Park	26 standard 1 ADA	
Bayfront		
Canyon Way	33 standard	Striped for 33 vehicles but often accommodates more
Abbey Street	46 standard (12 hr) 2 ADA (12 hr) 5 standard (4 hr)	
Fall Street	23 standard	
Private Lots	~250	Various private lots throughout the Bayfront study area

Figure 1: City Center Study Area

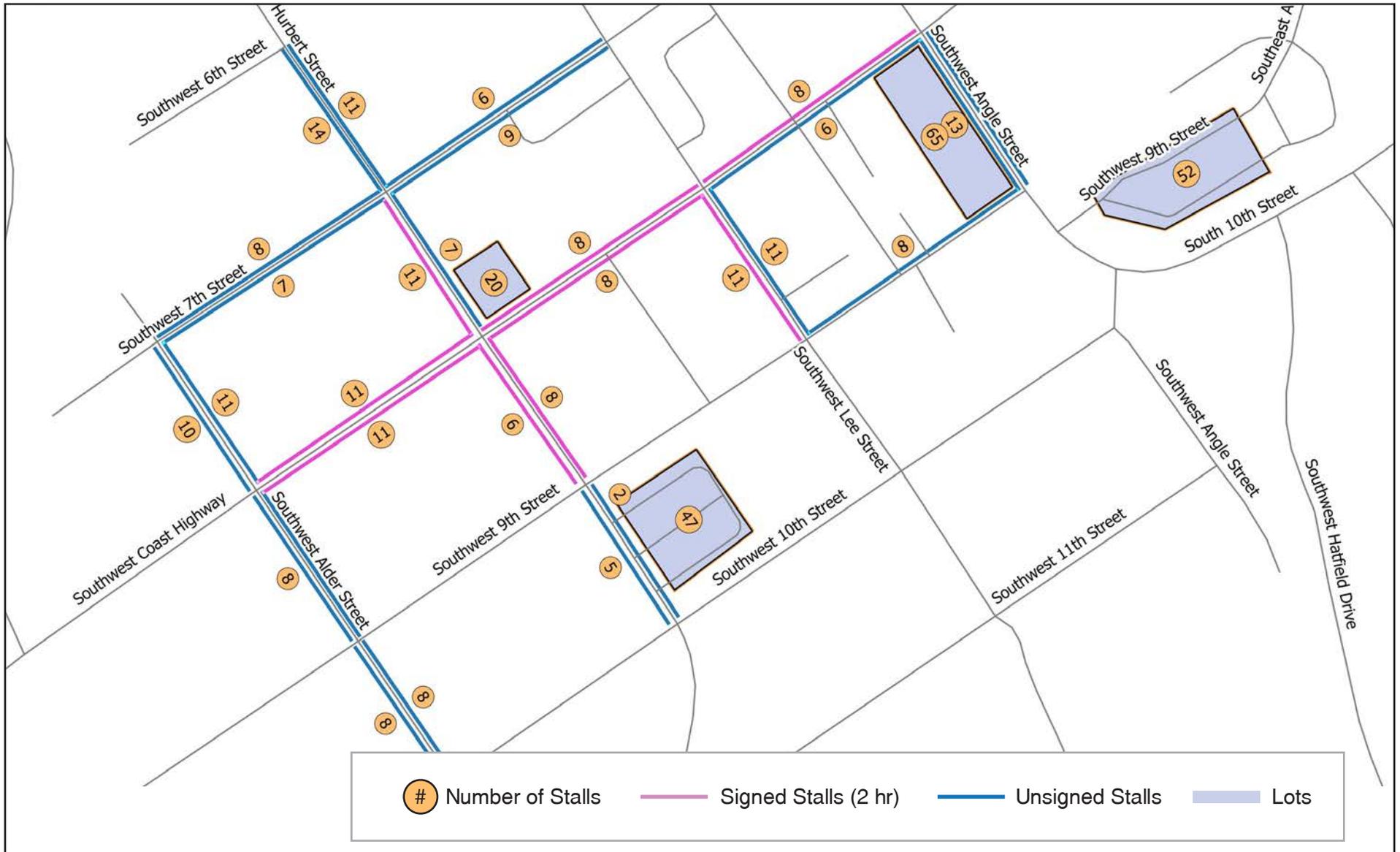
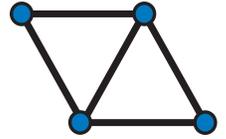
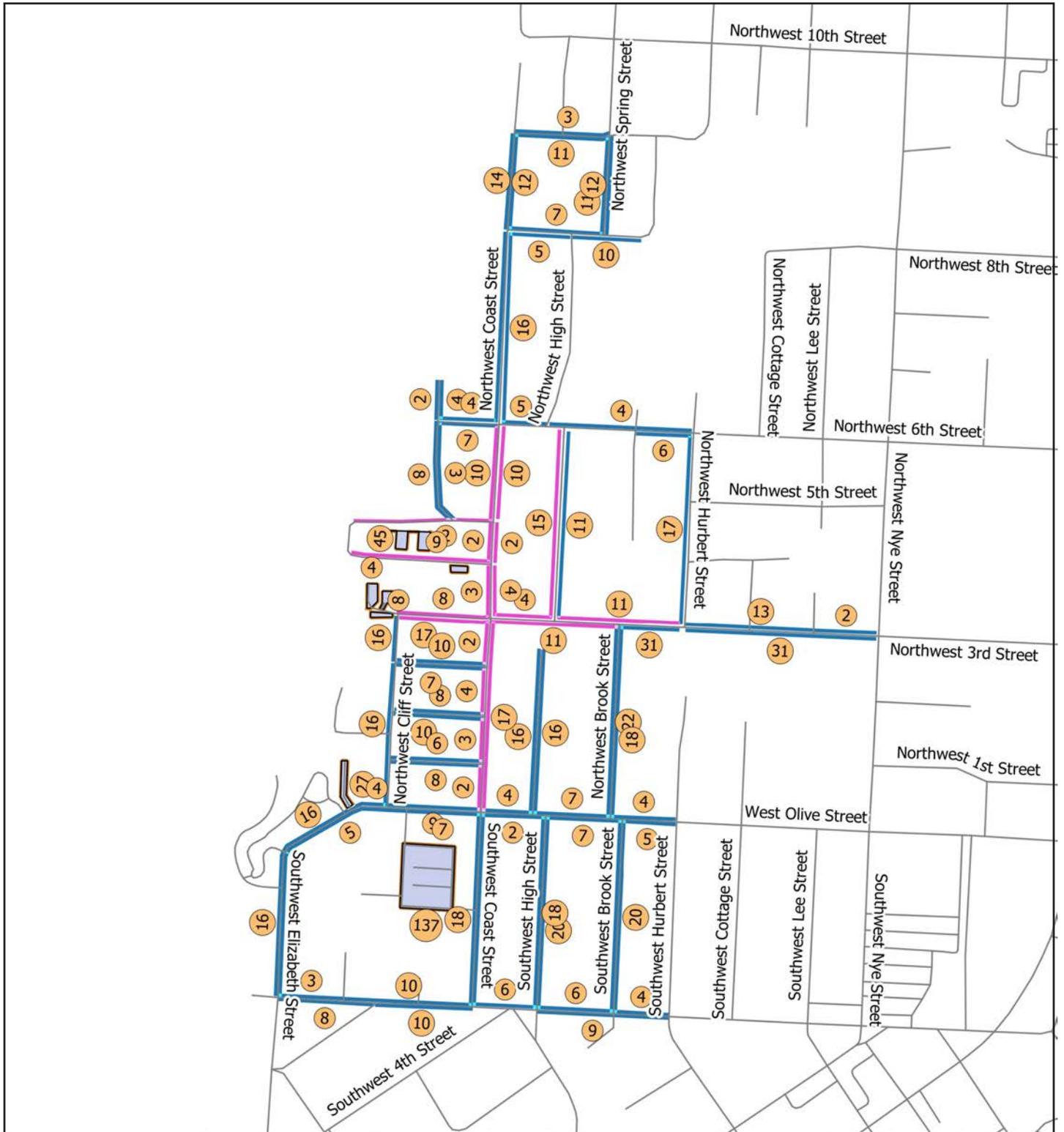
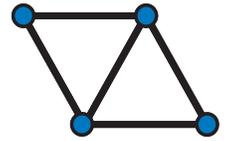
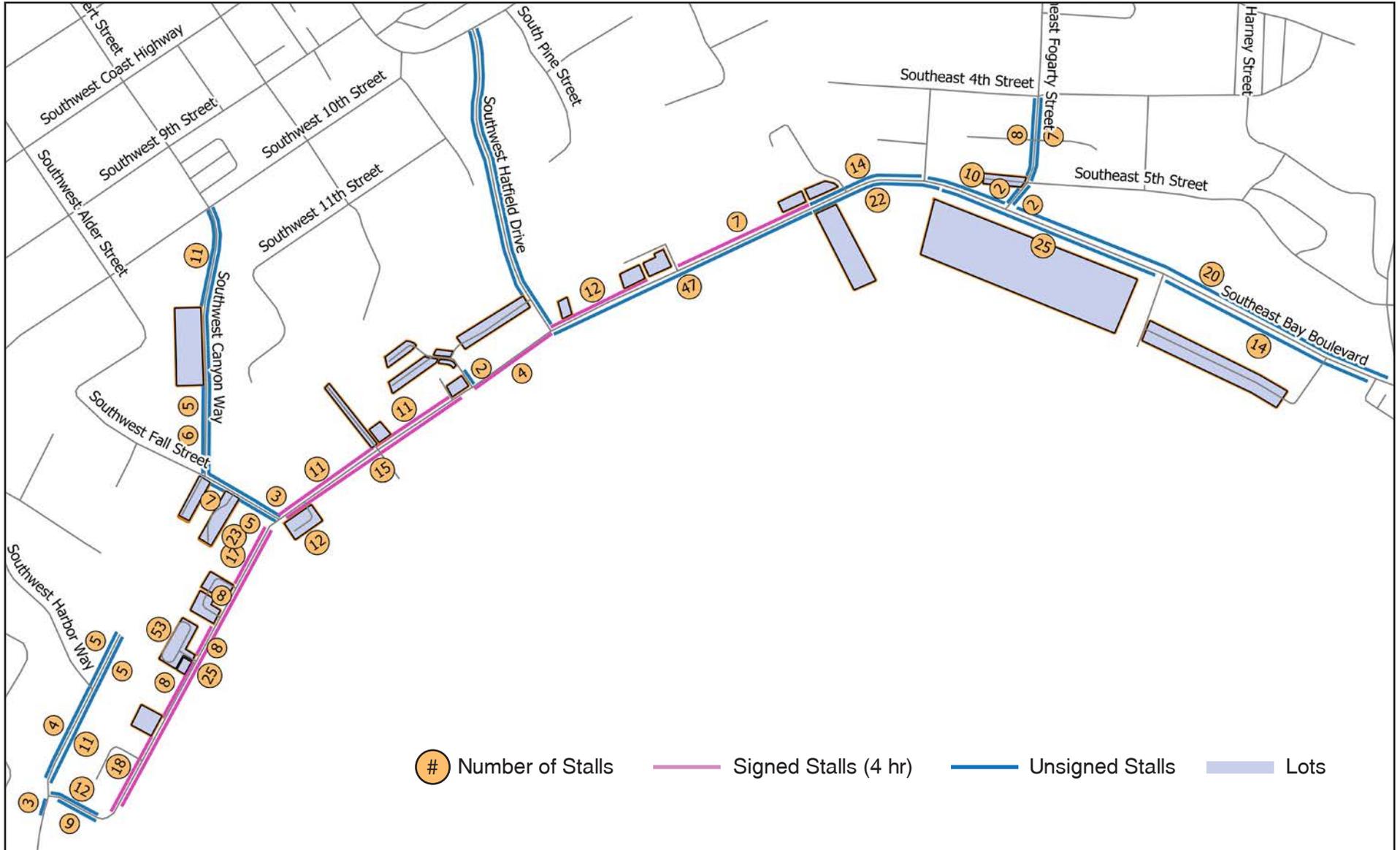
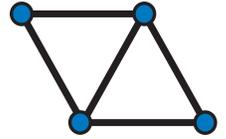


Figure 2: Nye Beach Study Area



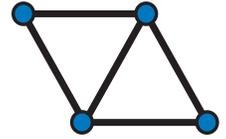
Number of Stalls
 Signed Stalls (3 hr)
 Unsigned Stalls
 Lots

Figure 3: Bayfront Study Area



Part 2:
Public Involvement

Public Involvement: “Opportunities & Constraints”



Buy-in from business owners, residents, and other affected parties is essential to the success of a parking management plan. To this end, a series of public meetings were held at the outset of work on the Newport Parking Management Plan, with the goal of obtaining public input on opportunities and constraints with regard to parking management.

The meetings were held from 6:00 to 8:00 pm during the second week of April, 2016. One meeting was held for each of the three existing parking management districts. The City Center district meeting was held on Tuesday April 12th; the Nye Beach district meeting was held on Wednesday April 13th, and the Bayfront District Meeting was held on Thursday April 14th. All meetings were open to the public and advertised publicly in advance of the meeting.

Before each meeting, a walking tour of the study area took place that included the consulting team and a small handful of local stakeholders and business owners. These were advertised to local business owners and other stakeholders who have been active within management of the existing parking districts. In tandem with the formal meetings in the evening, this process represented a robust public input process during which many issues and potential solutions were discussed. A summary of the key points follows.

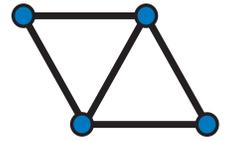
City Center

The overarching tone of the meeting for the City Center parking district was that there's not a serious problem with parking congestion; by-and-large, there is enough parking supply available in the district to accommodate demand, even during the busiest periods of the year. Most issues that arose related to the supply of available parking in the parking district related to the new aquatic center and the parking impacts it was expected to have in tandem with City offices and the Newport Farmers' Market. Additional issues discussed included the difficulty of utilizing parking along US 101, and a general lack of public awareness regarding the location of public lots. Difficulty Parking Along US 101

Difficulty Parking Along US 101

While there is typically on-street parking available along US 101, the width, traffic volumes, and speeds along this road introduce challenges and potential safety issues that prevent this parking from being fully utilized. Community members consistently reported that cars that park along US 101 are damaged—particularly, they often lose their street-facing side mirror—at high rates. The volumes also make it difficult to find a suitable gap to maneuver into and out of parking spaces, and complicate the utilization of on-street parking on side streets due to difficulty turning onto and off of US 101.

It can be difficult to cross the street as well, as infrequent crosswalks and long signal cycles are common along the US 101 corridor. This makes it difficult for people to park and then visit multiple destinations in the district traveling on foot.



Underutilization of Public Lots & Wayfinding

Stakeholders reported that two public lots in the district were consistently under-utilized: a small lot on the north side of US 101 just east of Hurbert Street, and another lot along Hurbert Street south of US 101, between 9th and 10th Streets. The former lot is quite easy to mistake for a private lot; it is not clearly labeled as public, and several businesses front this lot giving the greater area the appearance of a small shopping center. The latter lot is more clearly labeled as public; however signage along US 101 directing people to this lot is minimal, and stakeholders indicated that tourists consistently have difficulty making their way to this lot. This is especially problematic for RVs, which often wind up parking along US 101 and accordingly creating parking congestion and visibility issues along US 101.

A potential solution that was discussed at this and other meetings is the introduction of a consistent signage and wayfinding system for public lots throughout Newport. This could occur in the form of branded parking signage to be utilized throughout the city to ensure a consistent experience for tourists visiting any one or more of the three parking districts. The need for more consistent labeling of public parking lots and wayfinding for drivers and pedestrians who often don't know where the public lots are located arose repeatedly. City efforts to enhance signage should be informed by current and past efforts at improving wayfinding.

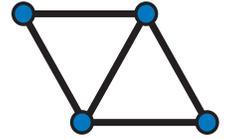
Along these lines, concerns with under-utilization of the City Bus Loop were cited, and greater use of this service would improve both parking and overall traffic conditions citywide, particularly during peak season. Paucities of signage, advertising, and general public awareness about the route and frequency of this bus line were mentioned as possible factors suppressing ridership. As part-and-parcel of improved wayfinding and branding of public lots, consideration should be given to increasing the visibility and ridership of transit throughout the City.

Farmers Market & Aquatic Center

The concerns regarding supply issues occurring within the City Center district were primarily related to the then-forthcoming aquatic center and the Newport Farmers' Market. At the time of the meetings, the City was exploring the potential for a new lot across Angle Street from City Hall. The City has since moved forward with this option, and a new lot with 68 spaces came on-line in mid-2017.

Nye Beach

Stakeholders reported a large amount of seasonal variation in parking demand within the Nye Beach district; during off-peak seasons there is often sufficient parking to accommodate demand; however during peak periods parking congestion is a significant issue within the district. Further, stakeholders are anticipating future growth development in the area and emphasized the need for the parking management plan to account for this, with several lots along or near Coast Street likely to develop in the next few years.



Issues with RVs and Tourist Parking Impacts on Residential Areas

Because the ocean and the primary tourist areas are within close proximity to residential areas within the Nye Beach district, stakeholders reported an uncomfortable level of tension between local residents and businesses related to parking issues. During peak seasons, it is often the case that parking in residential areas is closer to destinations or otherwise more attractive than the parking which is intended to be used by visitors. RVs in particular were cited as a problem by local residents, and most in attendance agreed that dedicated spaces for RVs are a potential solution to help alleviate the problem (areas along SW Elizabeth Street and/or space in the Performing Arts Center (PAC) lot were discussed as possibilities). Additionally, residents and business owners alike cited the need for increased parking enforcement during all but the slowest months of the year.

Lighting & Wayfinding

As with City Center, Nye Beach Stakeholders cited a lack of wayfinding and inconsistent signage and branding of parking areas as a concern. This appears to be suppressing utilization of the PAC lot to some extent, and there is sparse information available to RV drivers regarding where best to park.

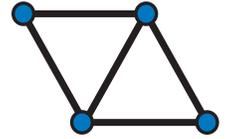
Additionally, the lack of adequate street lighting and obstructed/discontinuous sidewalks were mentioned as a potential concern that suppresses the use of some on-street parking. In particular, parking along the eastern parts of 3rd Street is often under-utilized, particularly at nighttime, due to these issues. Several women and service industry workers cited concerns about walking up this relatively dark hill at night to access the eastern extent of the parking supply. Improved street lighting—including traditional elements and non-traditional elements such as lighted bollards—and related strategies including clearing the sidewalks of obstructions and filling sidewalk gaps and improved pedestrian wayfinding were discussed as potential solutions.

Potential New Parking Supply

Several potential areas where new parking supply could be added were discussed at the meetings, though there was some disagreement among stakeholders regarding the necessity for new parking supply or the best potential location for added supply. Areas mentioned as potential candidates for new parking included the area adjacent to Don Davis Park, a vacant area near NW 3rd and Hurbert Streets, and vacant lots along Olive Street at Cliff and/or Coast Streets. Additionally, the City could explore the possibility for a public/private partnership to create new structured parking at the site of a former dry-cleaning business across Coast Street from Nye Beach Turnaround. This site could potentially warrant official designation as a Brownfield, which would free up further available funding.

Bayfront

Of the three parking districts, the Bayfront has by far the most significant issues with parking demand and parking congestion based upon the input received at the meetings.



Tourism and Fishing Industry Considerations

The Bayfront includes a blend of activities geared to tourists along with activities related to the fishing industry in relatively equal proportions. Finding a solution that serves the myriad of local, commercial, and tourist needs throughout the entire year is the key consideration for this district. The Bayfront presents one of the most intricate mix of needs with the high seasonality of not only tourists, but also different types of fishing operations. Comments discussed at the stakeholder meeting noted that it is important to interview each of the fish plants to determine their needs and also discuss how they may contribute as they move forward with planned and potential expansions. Additionally, long-term parking availability will need to be maintained for fishing charters and currently there is no accommodation for customer loading while purchasing fish.

To address these needs, one option that appeared to have broad support is to implement metered parking along Bay Boulevard with a complementary permit program that exempts fisheries and employees. A similar management plan was recently implemented in the Northwest Portland Parking District in Portland, Oregon, and Lancaster is currently evaluating the impacts of this.

Stay Lengths and Paid Parking Opportunities

Several people at the stakeholder meeting and walking tour indicated that they operate businesses that require longer stays; examples include the fishing industry (e.g., charter fishing trips) and restaurants operating early in the morning to late in the evening. There is an existing long-term parking lot that stakeholders overwhelmingly favored maintaining, and attendees agreed that any implementation of metering must be data-driven with careful consideration given to the fishing industry and other needs.

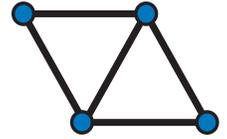
Pedestrian Environment of South Bayfront

An additional concern that was brought up several times pertains to the comfort of the environment along Bay Boulevard for pedestrians. The narrow sidewalks, large volumes of foot traffic, limited crossing opportunities, and heavy if often slow traffic were all cited as reducing comfort or safety.

A number of potential solutions and mitigations were discussed, including smaller interventions like raised or signalized crosswalks, and larger ones like full-scale pedestrianization of Bay Boulevard. Broad consensus emerged on the value of these improvements, and stakeholders felt the option to use meter revenue to pay for such improvements was an attractive idea that should move forward.

Transit Opportunities

The discussion of developing a new transit line, or expanding the current line, was brought up at the original stakeholder meeting with the idea to provide a potential transit loop between the Bayfront, Nye Beach, and City Center commercial areas. This idea was again discussed at the Bayfront outreach meeting, and people in attendance expressed an interest in transit as a potential way to mitigate parking issues, particularly if a transit line could be developed such that it would work for tourists and employees alike.

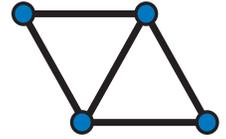


Potential for New Supply

Like with Nye Beach, the need for new parking supply was not unanimously agreed upon by stakeholders; however given existing parking congestion and the possibility of removal of some stalls in service of creating a more vibrant space along Bay Boulevard, the general sentiment was that additional supply is likely to be necessary in this area. The discussions included the possibility of on-dock parking; creation of a new parking structure parking at the Abbey Street parking lot, and working with the port to find a more efficient solution to the storage of fishing gear. Currently the dock and port property consist of operations, parking, equipment storage, and open underutilized space. There appear to be opportunities to manage this space more efficiently, which would open up land for potential surface parking. A benefit to surface parking as opposed to structures is that there is flexibility in use and when needed, the open parking lot could be used by things other than car storage.

Part 3:
Utilization & Demand Analysis

Analysis Overview & Methodology



Overview

In order to gain an understanding of parking demand within each of the respective parking management areas, a detailed study of parking demand and utilization was conducted. The primary study days were Saturday August 27, 2016 and Saturday December 10, 2016. These days were selected because they were expected to represent typical weekend days (i.e., no special events or other unusual factors) during the peak tourism season and the slowest period of the year for tourism, respectively. Additional observations were conducted on Thursday August 25, 2016 in order to study differences between weekday and weekend demand patterns. The results of this analysis heavily inform the management recommendations that follow, and were used in order to project potential revenues and maintenance needs.

Methodology

The methodology employed for this analysis consisted of two steps: an inventory of parking supply, including the number and types of stalls, followed by peak and off-peak occupancy and demand observations.

To complete the first step, an inventory of the supply of parking stalls was conducted, tracking the number and location of parking spaces along each block face as well as designated users, maximum time stays, and other pertinent information as applicable. Locations and capacities of parking lots were recorded, and for on-street spaces, whether or not a space was marked was recorded. The inventory was conducted utilizing a tablet PC. The data collected in this step were utilized to set up data collection tools in the form of spreadsheets, to be used during the following step.

Following the inventory step, parking demand data were collected. The study area consisted of routes, with each route consisting of approximately 30 to 35 block faces of on-street parking as well as any lots along the route. Four routes were within the Nye Beach parking district, three were within the Bayfront district, and one was within the City Center district. Route sizes and configurations were designed such that data collectors were able to walk and collect data over the entire route once per hour without needing to work excessively quickly. Each parking space within the study area was thus visited once per hour from 10:00 AM to 7:00 PM.

The data were collected on tablet PCs utilizing the route-optimized spreadsheets created during the inventory phase. During each hourly orbit of a given route, the first four digits of the license plate of each vehicle parked in a stall along the route were recorded, to allow for analysis of both occupancy and duration of stay.

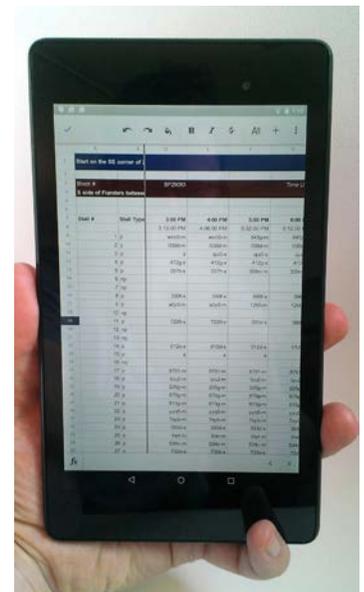
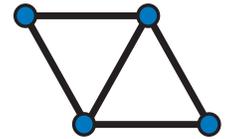


Figure 4: Data were collected on tablet PCs using the Google Sheet apps

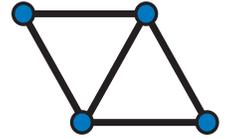


Metrics

- The key metrics employed in this analysis are described below.
- Stalls indicate number of parking spaces available on a block face, on a lot, or within a subarea. Most of the parking stalls within the study areas were marked; however where stalls were unmarked an average stall length of 22 feet is assumed.
- Occupancy is a measure of how much of the on-street supply is utilized, expressed as a percentage of the total parking supply. When occupancy levels exceed 85%, parking is functionally full; this is often indicative of a need for a change in management. The term ‘peak hour’ is used in this report to indicate the hour of the day when occupancy is observed to be highest. The timing of the peak hour and the occupancy level during the peak hour relative to other times of day reveal important information about drivers of demand.
- Duration of stay (or stay length) is the length of time that a particular vehicle is observed to occupy a particular parking space. Stay lengths of more than three to four hours likely indicate residential or commuter demand, while shorter stay lengths are likely to indicate demand for retail, restaurant, entertainment, or commercial uses. Since each parking space was observed once every hour, this measure has some level of uncertainty for shorter stay lengths.
- Unique vehicles served refers to the number of different vehicles (based upon the recorded license plate numbers) observed on a per-stall basis. This metric complements duration of stay in providing an understanding of the turnover of parking stalls. Along commercial corridors, it is desirable for parking to serve as many unique vehicles as practical, as this indicates a robust turnover of customers. A parking stall serving fewer than three unique vehicles over the study day is likely serving residential demand or a lower-demand area, while three or more unique vehicles served is more likely indicative of a parking space serving commercial uses or a mix of uses. Since data were collected once per hour, the number of unique vehicles served reported herein is likely lower than the actual number of unique vehicles that utilize stalls with short time limits.

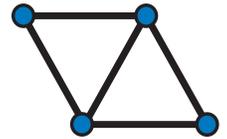
	A	B	C	D	E	F	G	H
233	Block #	13 Block Face		BF28303	Block Side	West	Time Limit	180
234	West side of 8th between Davis & Everett							
235								
236	Start: NW Davis							
237	Stall #	Use Code	Hour	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM
238			Actual Time	7:33:00 AM	8:13:00 AM	9:24:00 AM	10:25:00 AM	11:25:00 AM
239	1 m			x	x	060e	060e	060e
240	2 m			x	x	090d	090d	418f
241	3 m			x	x	1421	1421	476b
242	4 m			x	x	759g	759g	x
243	5 m	Plates:		x	x	3284	x	r40y
244	6 m			x	x	4023	4023	4023
245	7 m			x	x	743h	743h	743h
246	8 m			x	x	277g	277g	277g
247	9 m			x	x	3399	3399	3399
248	End: NW Everett			7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM
249								
250								
251	Block #	14 Block Face		BF28304	Block Side	West	Time Limit	180
252	West side of 8th between Everett & Flanders							
253								
254	Start: NW Everett							
255	Stall #	Use Code	Hour	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM
256			Actual Time	7:34:00 AM	8:14:00 AM	9:26:00 AM	10:27:00 AM	11:27:00 AM
257	1 np							
258	2 m			x	5377	617f	617f	617f

Figure 5: Example of the data collection tool utilized during this study



- Percentage of overstays is reported for stalls that have a signed maximum stay length, and refers to the percentage of vehicles that were observed to exceed that time limit. High percentages of overstays could indicate that time limits are not adequate to serve demand; conversely, they could also represent the need for more robust enforcement. As with other turnover metrics, the percentages of overstays reported herein are affected by the one-hour resolution of data, and thus entail uncertainty for spaces with time limits of one hour or less.

Demand Analysis Overview



To gain a basic understanding of how parking within each district is functioning, it is useful to look at how parking occupancy varies over the course of the day. In addition to providing a general picture of parking demand and the timing of peak hours, the shape and properties of occupancy curves can yield important insights about the land uses driving demand and other factors affecting parking usage.

The occupancy curves in the figures that follow show overall parking occupancy throughout the study area for weekdays. In these figures, the time of day is shown on the horizontal axis and the percent of available parking that was observed to be occupied is shown on the vertical axis. Additionally, a line indicating an occupancy level of 85% is shown—this occupancy level is generally considered to be indicative of ‘functionally full’ parking. At parking occupancies at or near 85%, high instances of illegal parking, cruising for parking, and other undesirable behaviors are often observed.

Several factors describing parking turnover complement occupancy in providing an understanding of how parking is functioning. An examination of the lengths of time for which vehicles are parked can yield insights into what land uses are driving demand and what potential changes or small adjustments to management might result in more efficient use of the on-street parking system. The number of unique vehicles each space is serving typically is inversely related to duration of stay and provides additional information to these ends. In areas with signed maximum stays, the percentage of overstays provides information about whether the time limits are meeting demand, and where enforcement may be warranted.

Turnover properties for timed parking within the study area are summarized in additional figures that follow for each parking study district. These figures show the stay lengths, unique vehicles served per parking space, and the percentage of vehicles observed to exceed the maximum permitted time stay (eight hours for 24 spaces, two hours for all other spaces) during timed hours for each of the study days. Finally the maps that follow geographically show the number of unique vehicles observed per parking space for each block face in the metered area.

It is noted that the one-hour resolution of data introduces some level of uncertainty to the results reported in this section, as it is possible that some parked vehicles that stay less than an hour are not observed. The effects that the data resolution has upon each of these factors, and how they impact the findings herein, are explained in the section of this report entitled *Metrics*.

City Center Occupancy - August

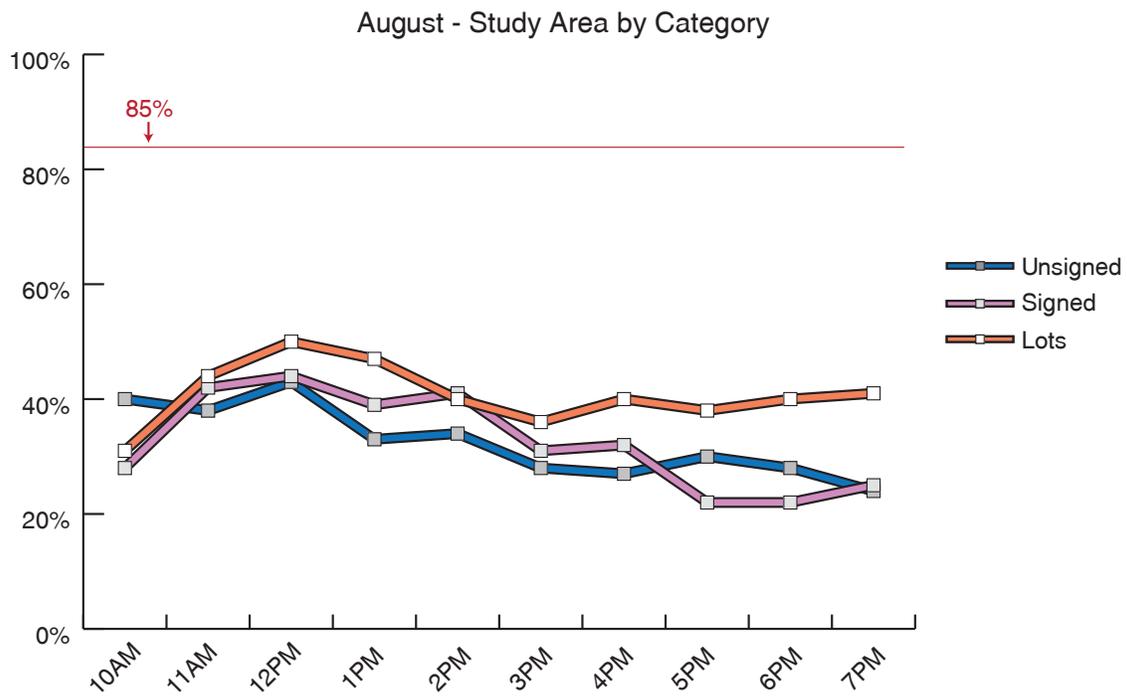
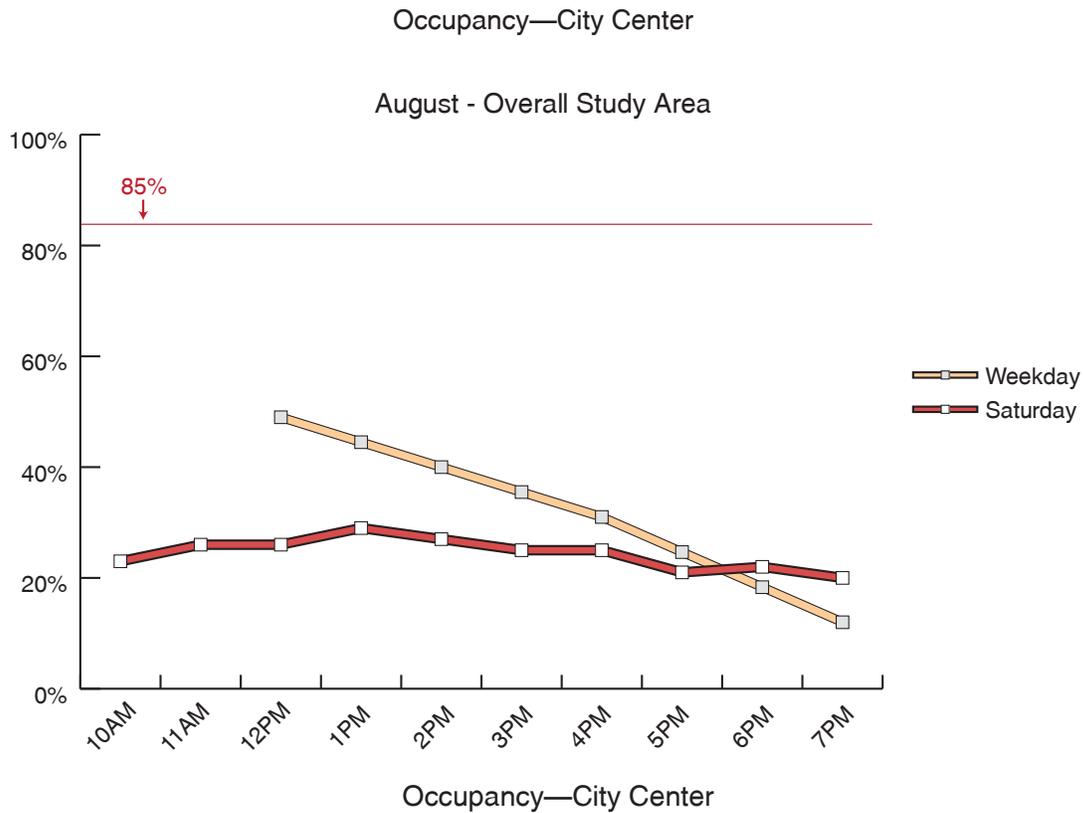
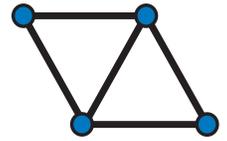
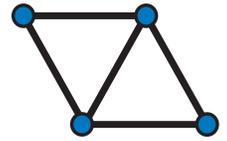
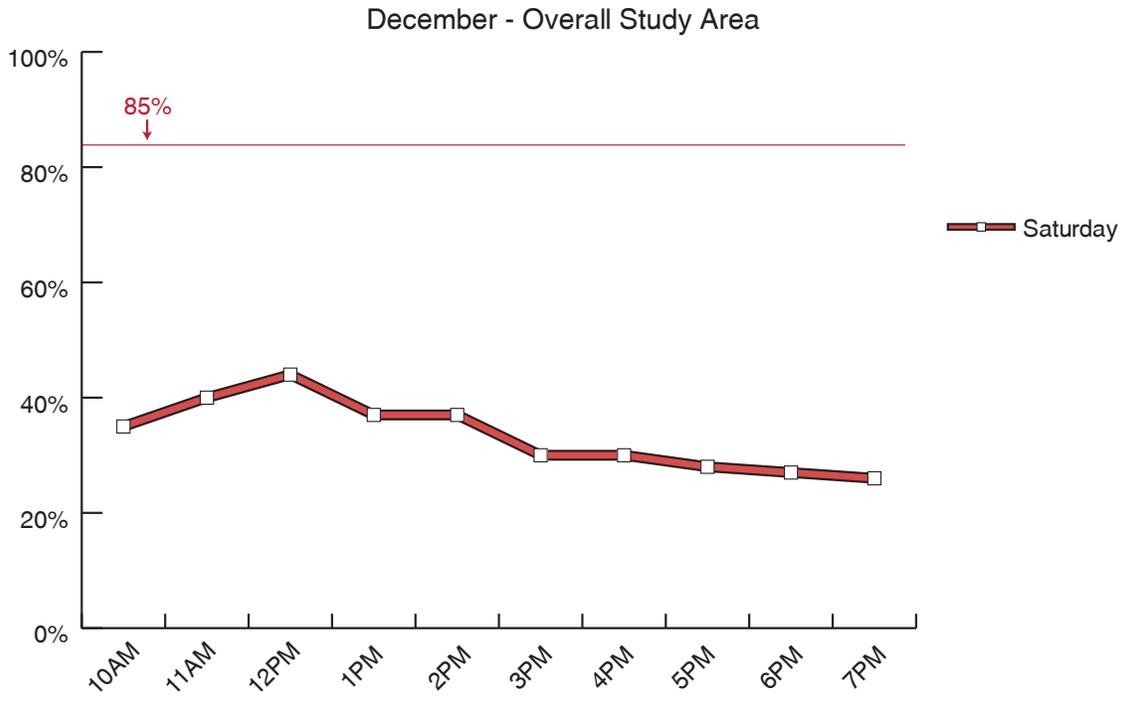


Figure 6: Area-wide Saturday parking occupancy by hour for the City Center study area

City Center Occupancy - December



Occupancy—City Center



Occupancy—City Center

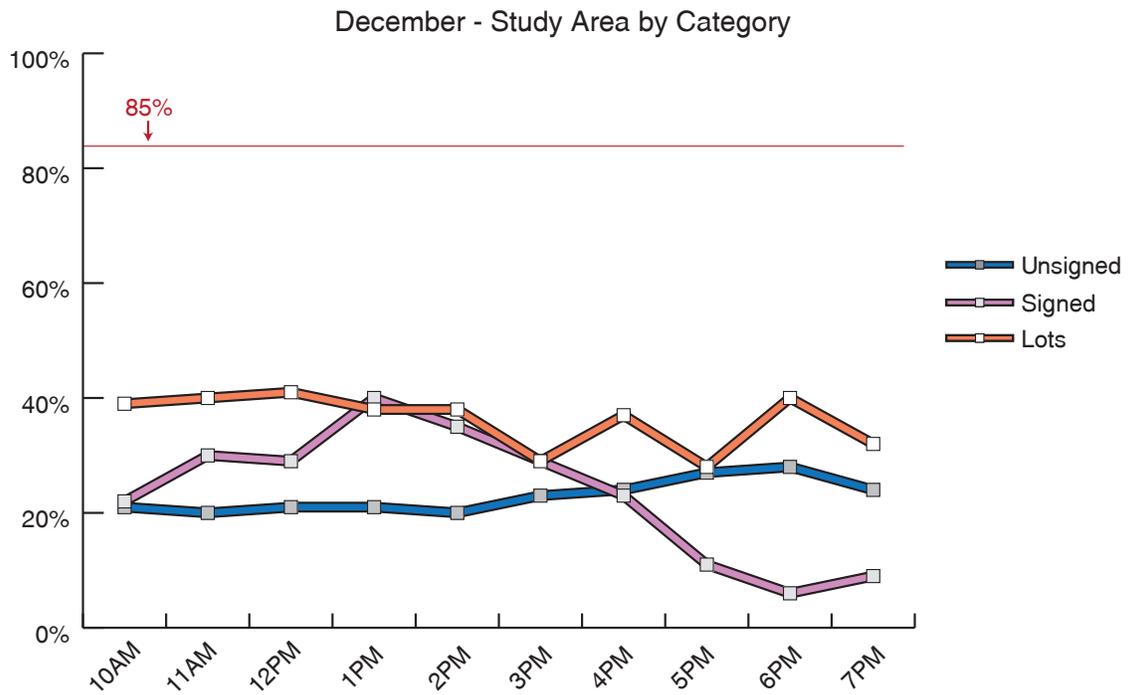
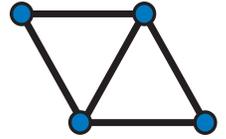


Figure 7: Area-wide Saturday parking occupancy by hour for the City Center study area

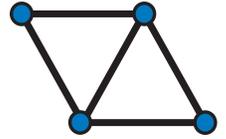
City Center: Peak Hour Weekend (1pm) Occupancy

Saturday
August 27, 2016



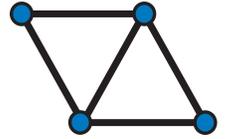
City Center: Peak Hour Weekday (12pm) Occupancy

Thursday
August 25, 2016

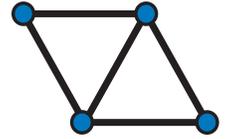


City Center: Peak Hour (12pm) Occupancy

Saturday
December 10, 2016



City Center Turnover – August



Duration of Stay & Turnover—City Center August Overall Study Area

Average Stay Length

1.7 Unique Vehicles per Stall



Signed Stalls

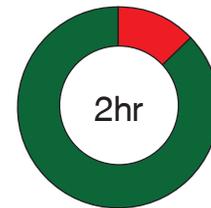
Average Stay Length

2.2 Unique Vehicles per Stall



% Overstays

13%



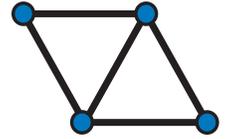
Unsigned Stalls

Average Stay Length

1.5 Unique Vehicles per Stall



City Center Turnover – December



Duration of Stay & Turnover—City Center December

Overall Study Area

Average Stay Length



1 Unique Vehicles per Stall



Signed Stalls

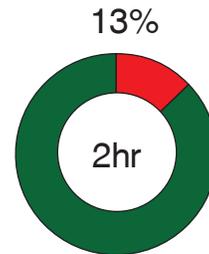
Average Stay Length



1.4 Unique Vehicles per Stall



% Overstays



Unsigned Stalls

Average Stay Length

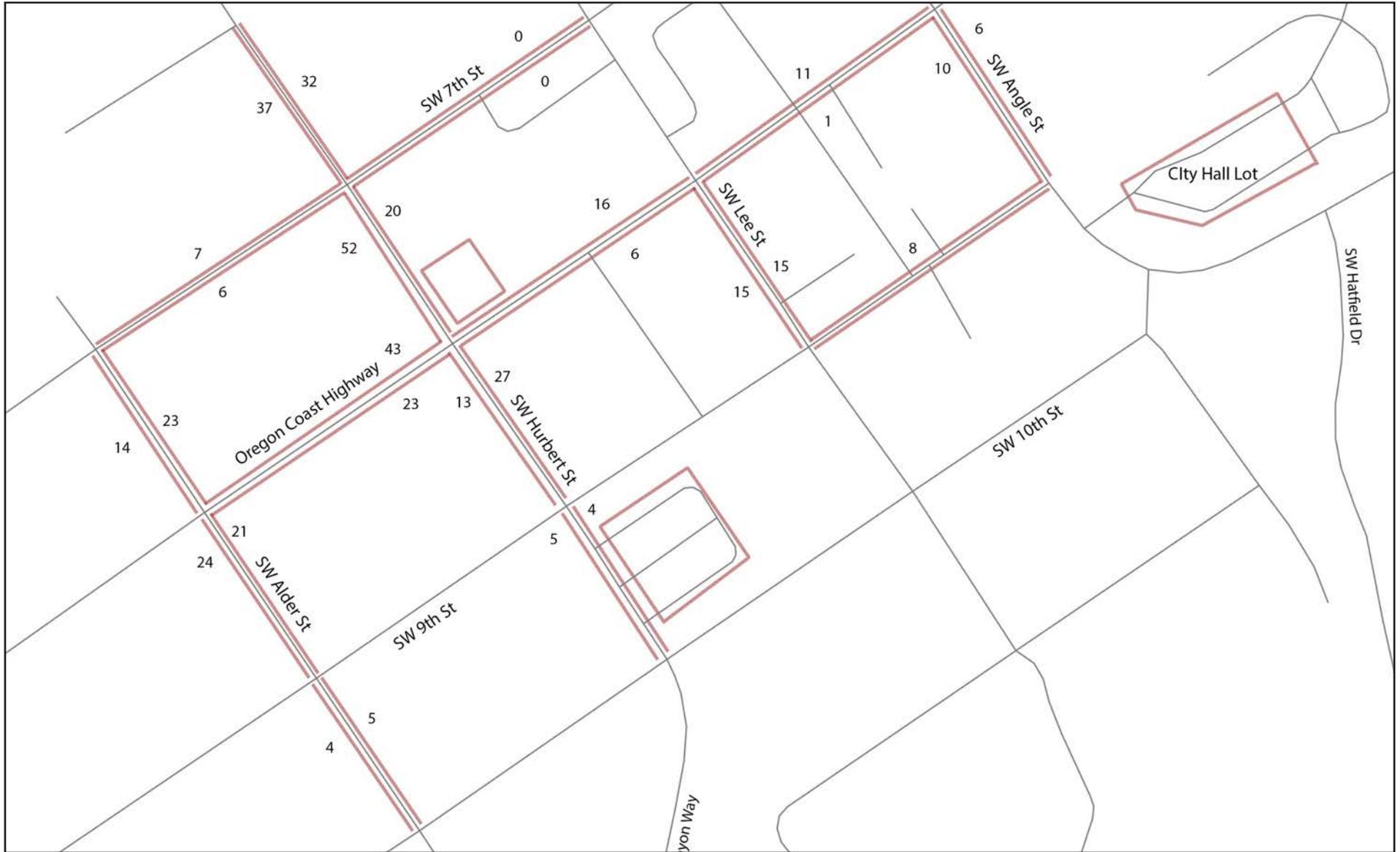
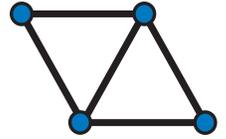


0.7 Unique Vehicles per Stall



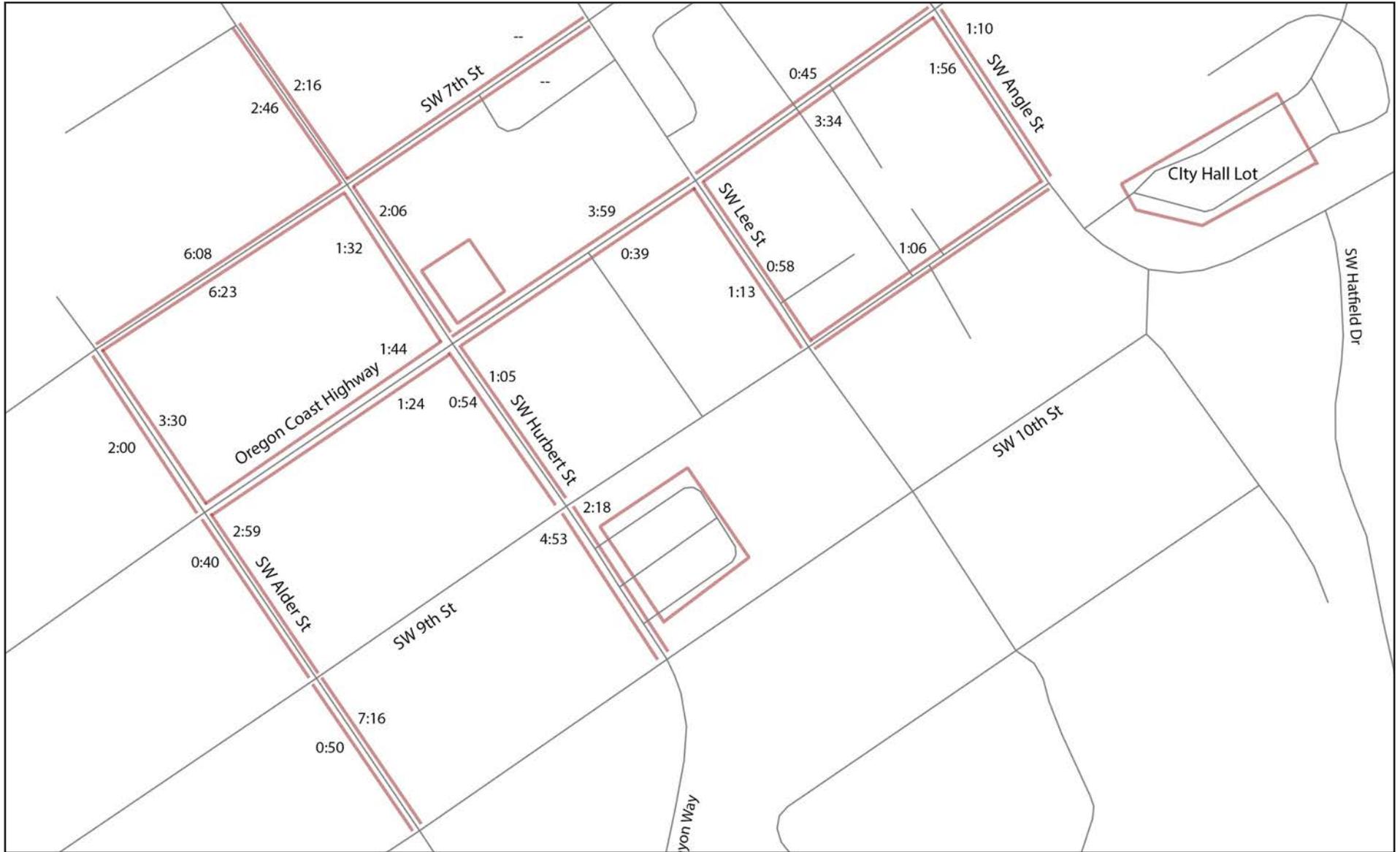
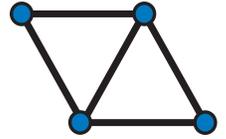
City Center: Unique Vehicles Served throughout the day

Saturday
August 27, 2016

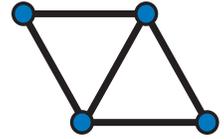


City Center: Average Time Stays

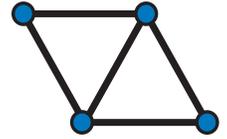
Saturday
August 27, 2016



City Center – Key Observations

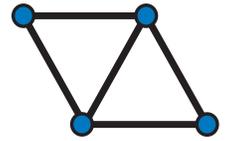


- In aggregate, the City Center study area was observed to have a sufficient supply of parking to accommodate regular demand. Localized congestion can occur on or along US 101, particularly along block faces that host high-demand land uses, and in the vicinity of City Hall on weekdays. However ample parking was typically available within a short walking distance of most destinations.
- The City Center study area was observed to have generally higher demand on weekdays than on weekends; this is notable, as the reverse was true for both other parking districts. In particular, parking near City Hall and in more office-oriented areas was observed to be in much greater demand on weekdays than on weekends. Demand for parking in more commercial parts of the district, e.g., along US 101, was more consistent between weekdays and weekends.
- By and large, parking in City Center was observed to vary significantly less seasonally than the other study areas. In tandem with the above findings, this suggests that parking demand in City Center is driven primarily by local commerce and employment. Tourism appears to be a much smaller factor in driving parking demand within City Center than within other districts.
- The public parking lots within the district were generally found to be in higher demand than the on-street parking, particularly the lot at City Hall and the small lot at the intersection of US 101 and Hurbert Street. The public lot at Hurbert and 9th Street was observed to have significant availability for both cars and recreational vehicles. Activating this lot could potentially help relieve demand in other parts of the city.
- Durations of stay within parking signed with a two hour maximum averaged just over an hour and a half during both August and December observation periods. Additionally, a relatively low percentage of parked vehicles were observed to exceed the maximum time stay. This indicates that the existing time stay limits are adequately meeting the needs of visitors.
- Durations of stay were somewhat longer for unsigned stalls within City Center, with observed durations of stay in December approximately an hour longer than during August. This is likely due to a greater share of off-peak demand being attributed to local users, and suggests that visitors who wish to stay longer than two hours are successfully finding stalls to do so.
- The most desirable parking in the study area, indicated by the number of unique vehicles served, is located on the north side of US 101 between Hurbert and Alder Street, and along the east side of Alder Street north of US 101. A number of high-demand land-uses are located adjacent to this parking, including a marijuana dispensary and several drinking establishments. Very little parking congestion was observed elsewhere in the district; this presents several management opportunities moving forward since additional supply is located within short walking distance to these high-demand spaces.
- Perhaps surprisingly, only a small spike in demand was observed related to the Newport Farmer's Market during the August observation. This likely owes to the local draw of the market, with many patrons walking to the market from their homes or workplaces. During the study period, the Farmer's Market was located west of US 101. For the summer of 2017 the Market moved to the east side of US 101 in the new 68 stall parking lot that the City constructed. It is expected that the Market will continue at this location. The new City lot was constructed after the field work for this study was completed; therefore, its impact on parking demand was not evaluated.

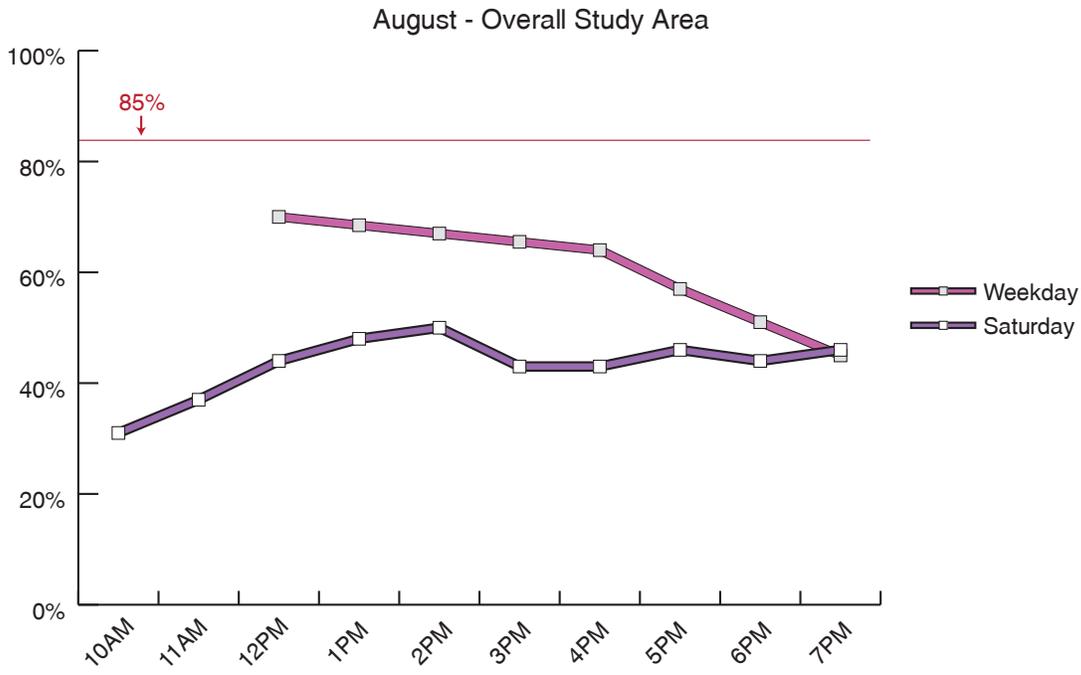


- By and large, the existing supply and management in the City Center district are adequately accommodating demand on a year-round basis. Ample on- and off-street parking is available to serve the needs of the district as a commercial and employment hub. Though the new aquatic center is expected to generate significant new demand, the new lot on Abbey Street is expected to mitigate these effects and provides additional supply for tourists and, on Saturdays, patrons of the Farmer’s Market.

Nye Beach Occupancy – August



Occupancy—Nye Beach



Occupancy—Nye Beach

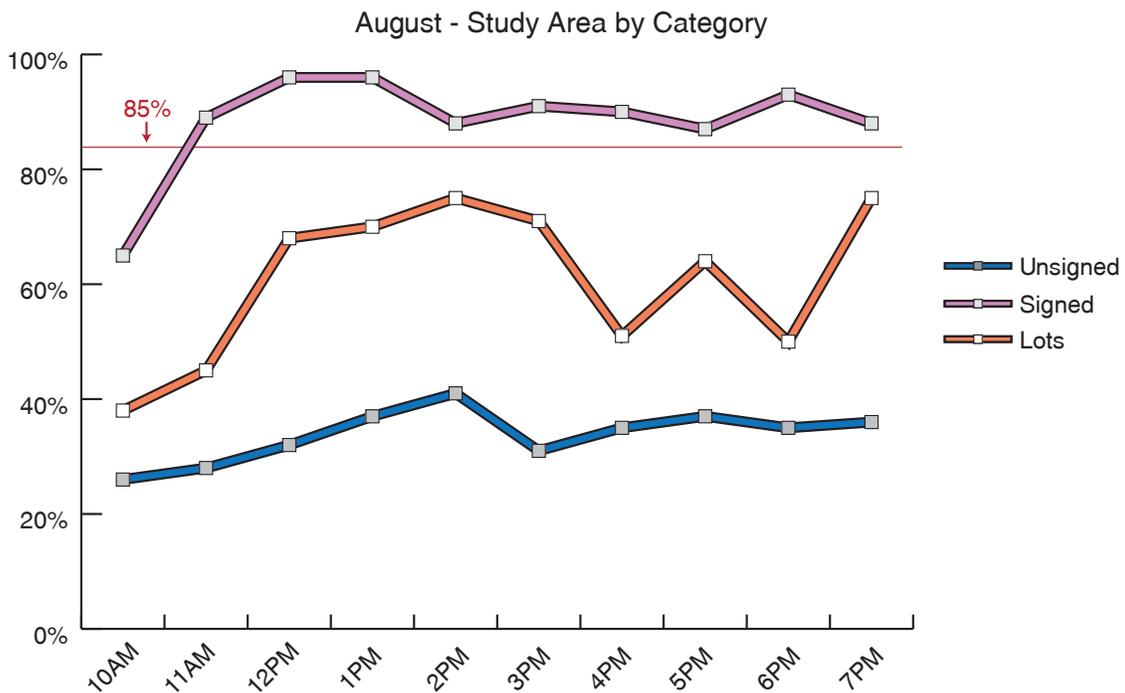
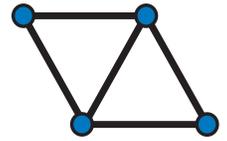
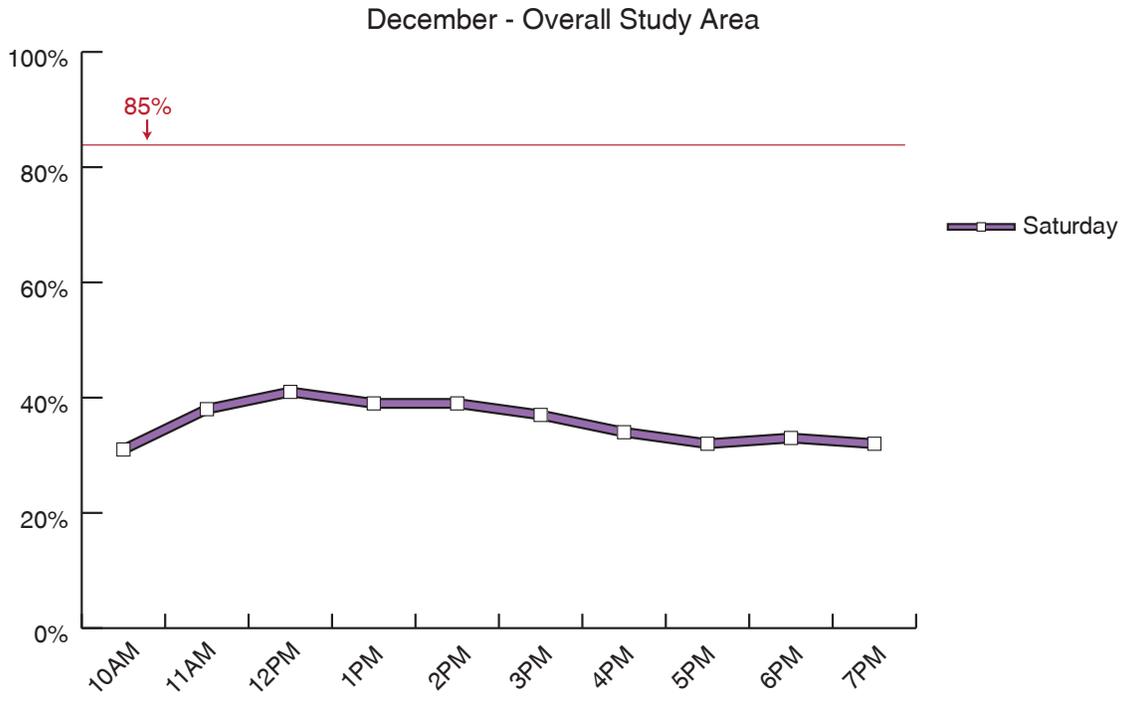


Figure 1: Area-wide Saturday parking occupancy by hour for the Nye Beach study area

Nye Beach Occupancy – December



Occupancy—Nye Beach



Occupancy—Nye Beach

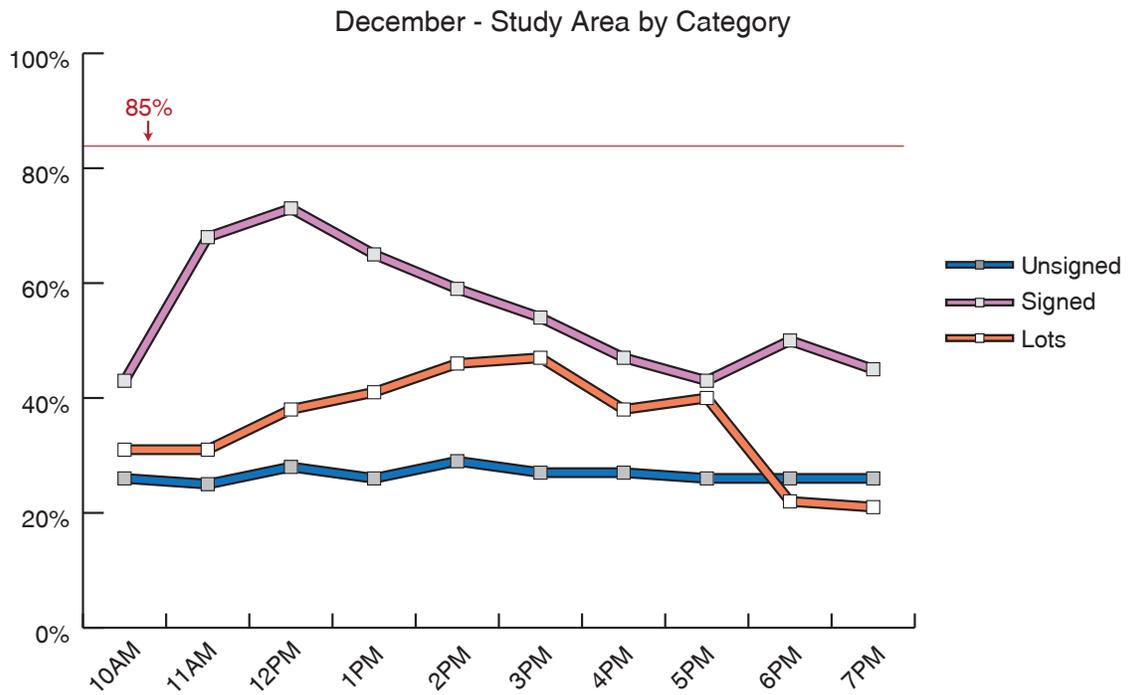
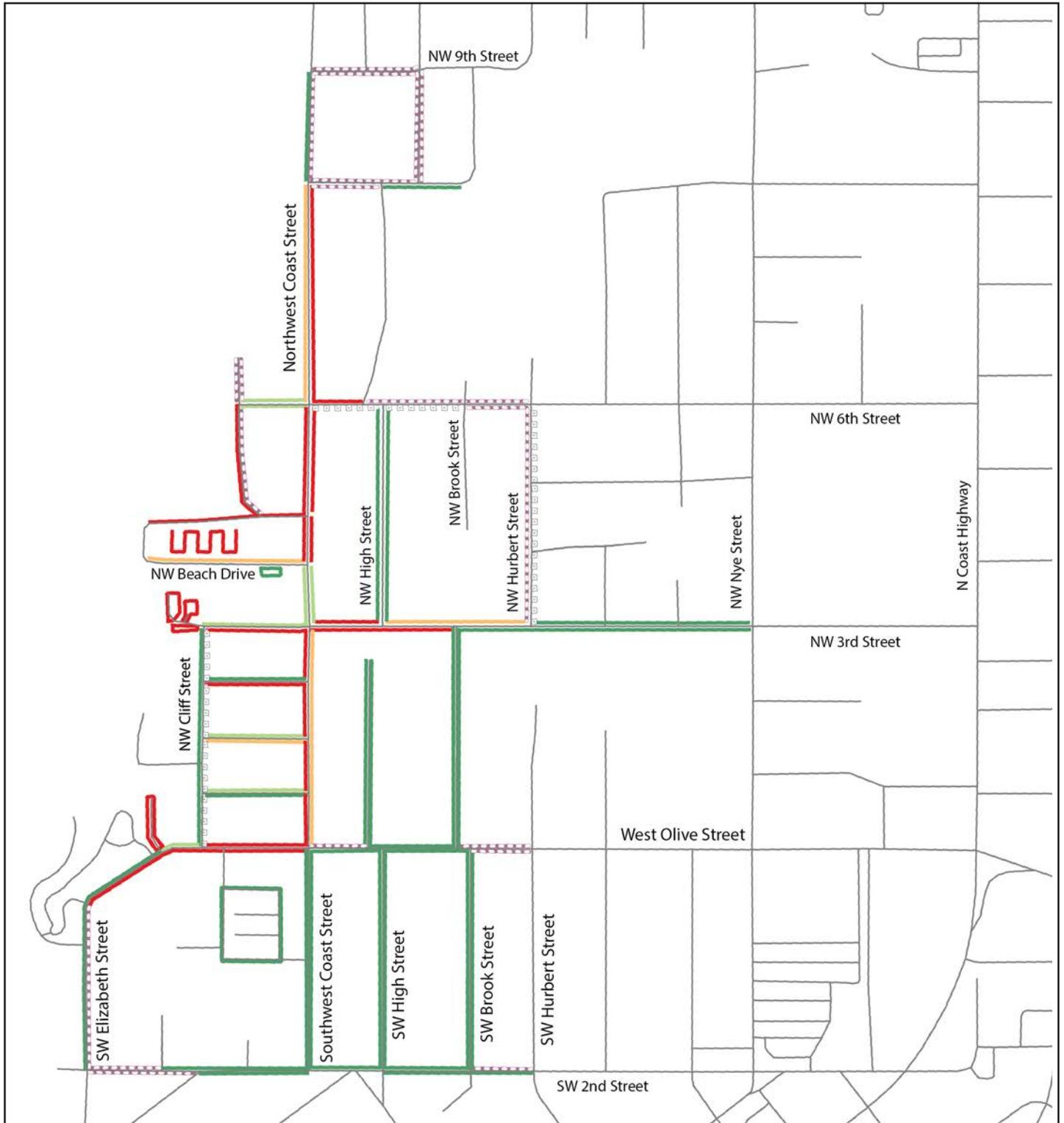
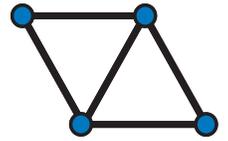


Figure 1: Area-wide Saturday parking occupancy by hour for the City Center study area

Nye Beach: Saturday Peak Hour (2pm) Occupancy

Saturday
August 27, 2016

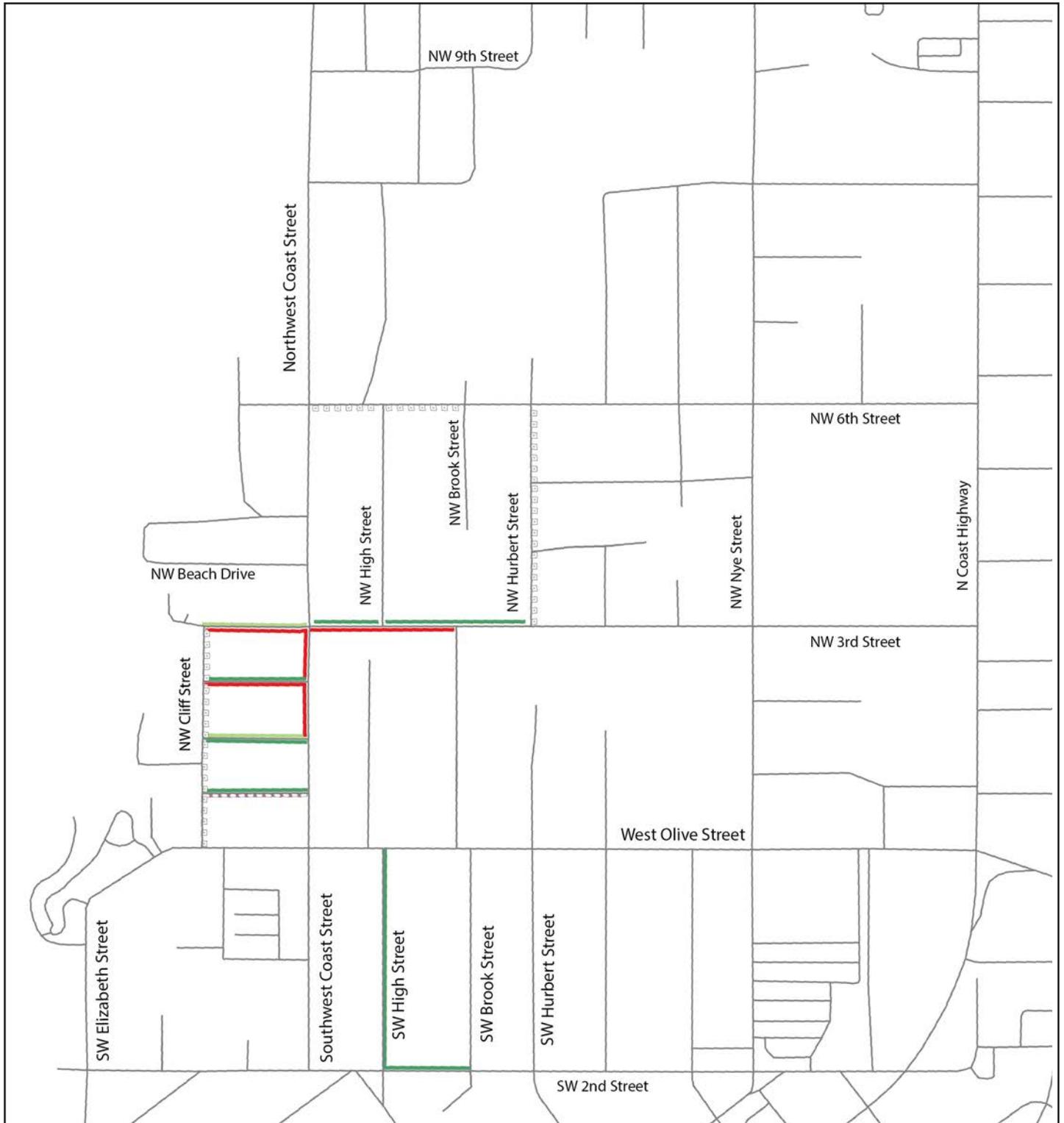
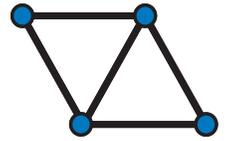


% of Stalls Occupied

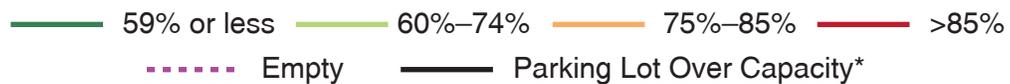
- 59% or less
- 60%–74%
- 75%–85%
- >85%
- Empty
- Parking Lot Over Capacity*

Nye Beach: Weekday Peak Hour
(12pm) Occupancy

Thursday
August 25, 2016

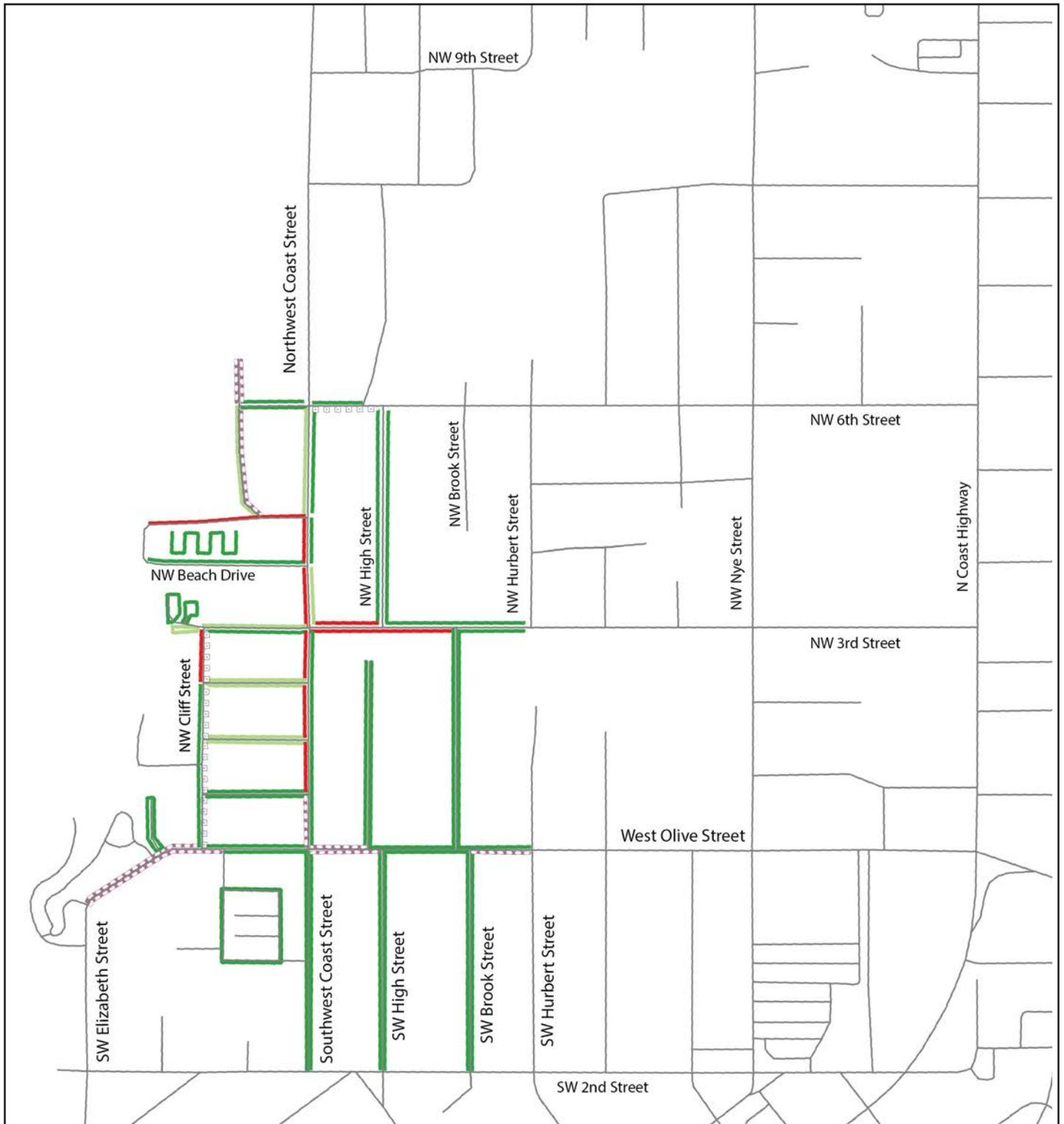
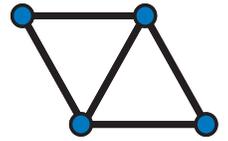


% of Stalls Occupied



Nye Beach: Peak Hour
(12pm) Occupancy

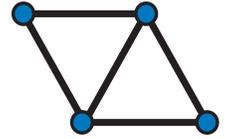
Saturday
December 10, 2016



% of Stalls Occupied

- - - - - Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

Nye Beach Turnover – August



Duration of Stay & Turnover—Nye Beach August Overall Study Area

Average Stay Length



2 Unique Vehicles per Stall



Signed Stalls

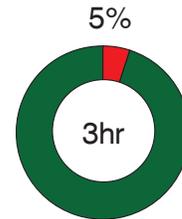
Average Stay Length



5 Unique Vehicles per Stall



% Overstays



Unsigned Stalls

Average Stay Length



1.1 Unique Vehicles per Stall



Parking Lot - Nye Beach Turnaround

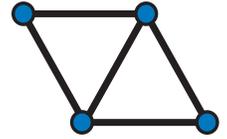
Average Stay Length



7.6 Unique Vehicles per Stall



Nye Beach Turnover – December



Duration of Stay & Turnover—Nye Beach December

Overall Study Area

Average Stay Length



1.5 Unique Vehicles per Stall



Signed Stalls

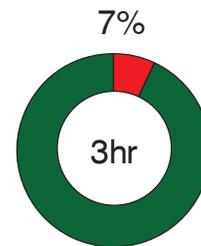
Average Stay Length



2.9 Unique Vehicles per Stall



% Overstays



Unsigned Stalls

Average Stay Length

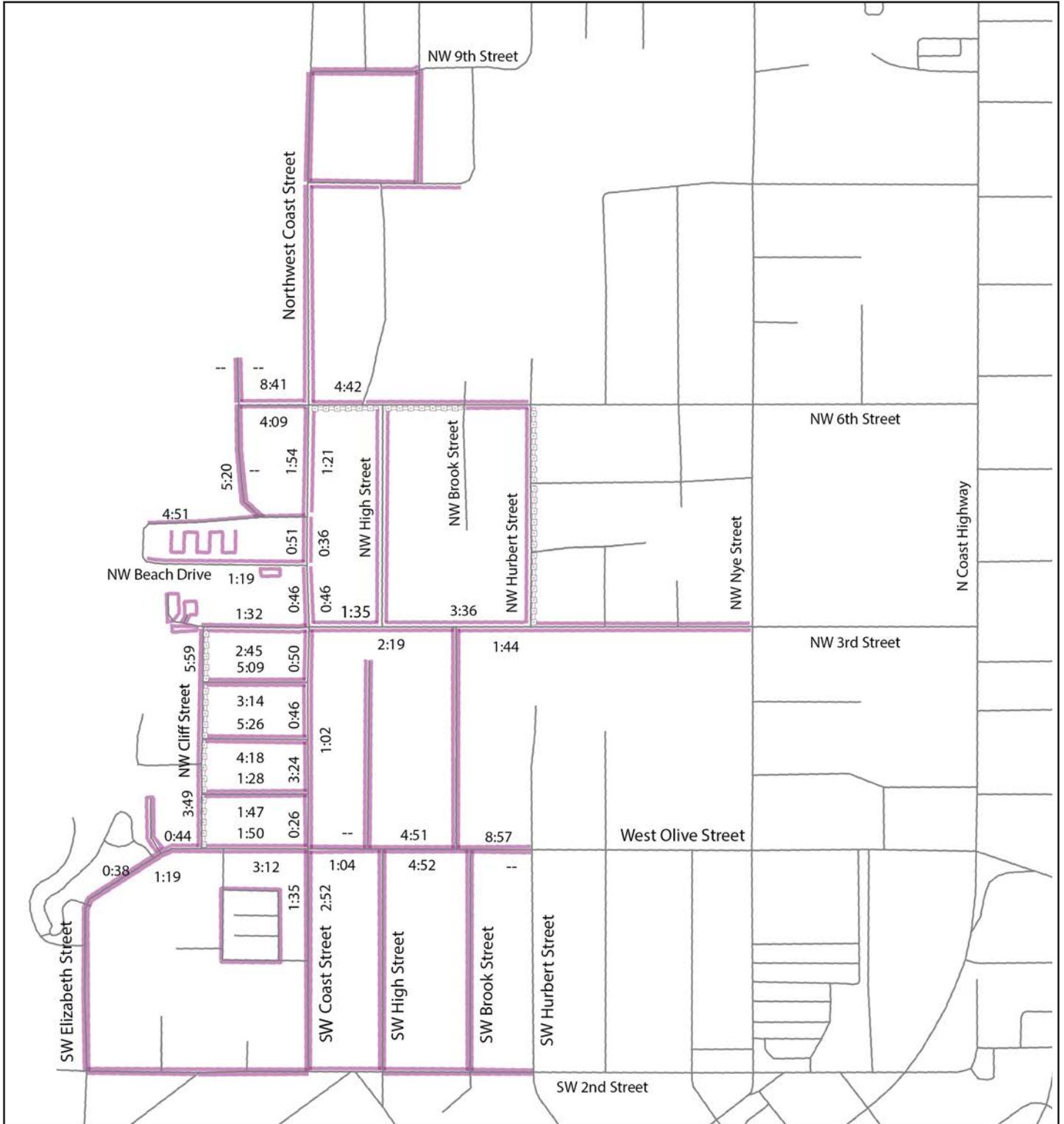
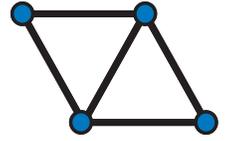


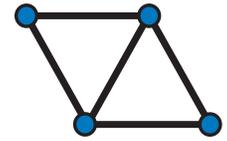
.6 Unique Vehicles per Stall



Nye Beach: Average Time Stays

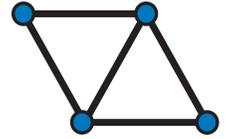
Saturday
December 10, 2016





Nye Beach – Key Observations

- Based upon feedback from stakeholders and general observations, parking conditions in the Nye Beach area are extremely sensitive to weather conditions in the Willamette Valley. Weather in the Valley during both peak season and off-peak season observations was fairly typical for the respective seasons, and so observations reported herein represent approximately median conditions for those seasons.
- Parking demand within the Nye Beach area is highest along the central parts of Coast Street near the Nye Beach turnaround, and demand is lower as the distance to this central area increases. This was generally observed to be true during both the August and December observation periods; however, seasonal variation in Nye Beach was significant and high levels of demand existed much farther away from the central area during the August period than the December period. In both cases, however, abundant available on-street parking was observed at the outskirts of the study area.
- The parking lot along Nye Beach Turnaround and the nearby parking lot at the Visual Arts Center (VAC) were both heavily utilized during the summer observation period; significantly less occupancy was observed in the Performing Arts Center (PAC) lot. While this is partly due to the more central location of the Turnaround and VAC lots, the PAC lot was more lightly utilized than the nearby on-street parking. Demand was fairly low in all three public lots during the off-peak observation.
- Generally, demand on Nye Beach was observed to be higher on weekends than on weekdays; however similar levels of demand were observed in on-street parking spaces along the central parts of Coast and Third Streets.
- Durations of stay within parking signed with a three hour maximum averaged 1 hour, 41 minutes and 1 hour 47 minutes during the August and December observation periods, respectively. Relatively low percentages of parked vehicles (5% in August and 7% in December) were observed to exceed the maximum time stay. Similar turnover properties are often observed within on-street parking in other central locations, including central areas of the City Center and Bayfront districts, and likely indicates that retail and restaurant uses play a large role in driving demand.
- The signed stalls that populate the more central portions of the Nye Beach area served an average of 5 unique vehicles per stall during the August observation season, and the parking lot at Nye Beach Turnaround served 7.6 vehicles per stall. Based upon this metric, the parking in the central Nye Beach area is therefore some of the most valuable parking in the city. The unique vehicles served by each parking stall were observed to be much smaller in number further away from the central area, and were significantly smaller throughout the study area during the December parking observations.
- By and large, the residential areas east of Coast Street do not see high levels of parking demand until the more centrally located parking along Coast and 3rd Streets is well occupied. However, residential areas west of Coast Street, particularly along 2nd Street, 2nd Court, and Alpine Street, saw high levels of demand during the August observation period. Occupancy was significantly lighter along these streets in December, indicating that the bulk of this demand is non-local.



- While the Nye Beach district includes enough parking supply to accommodate demand during all times of year except for a few of the busiest weekends, the on-street parking supply near the beach and commercial district on Coast Street has significantly higher demand than on-street parking further east within the district. This suggests that either new supply is necessary in the high-demand part of the district, or management interventions such as pricing parking are needed to encourage greater usage of lower demand parking.

Bayfront Occupancy – August

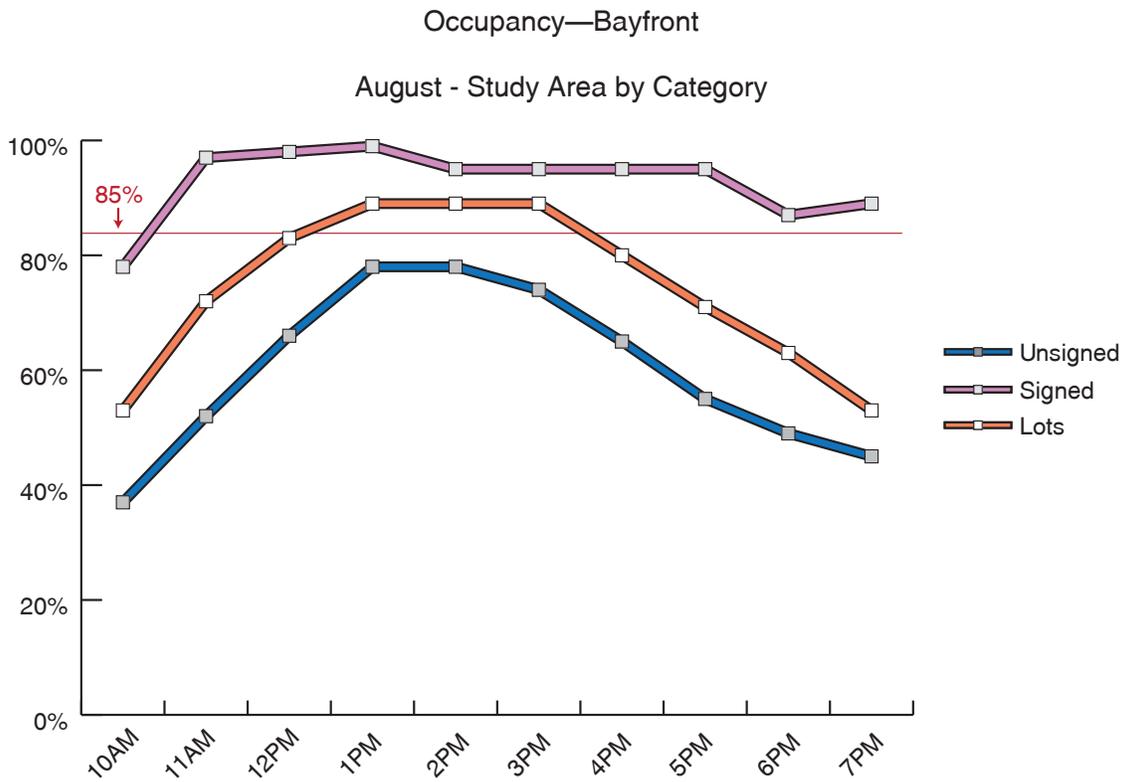
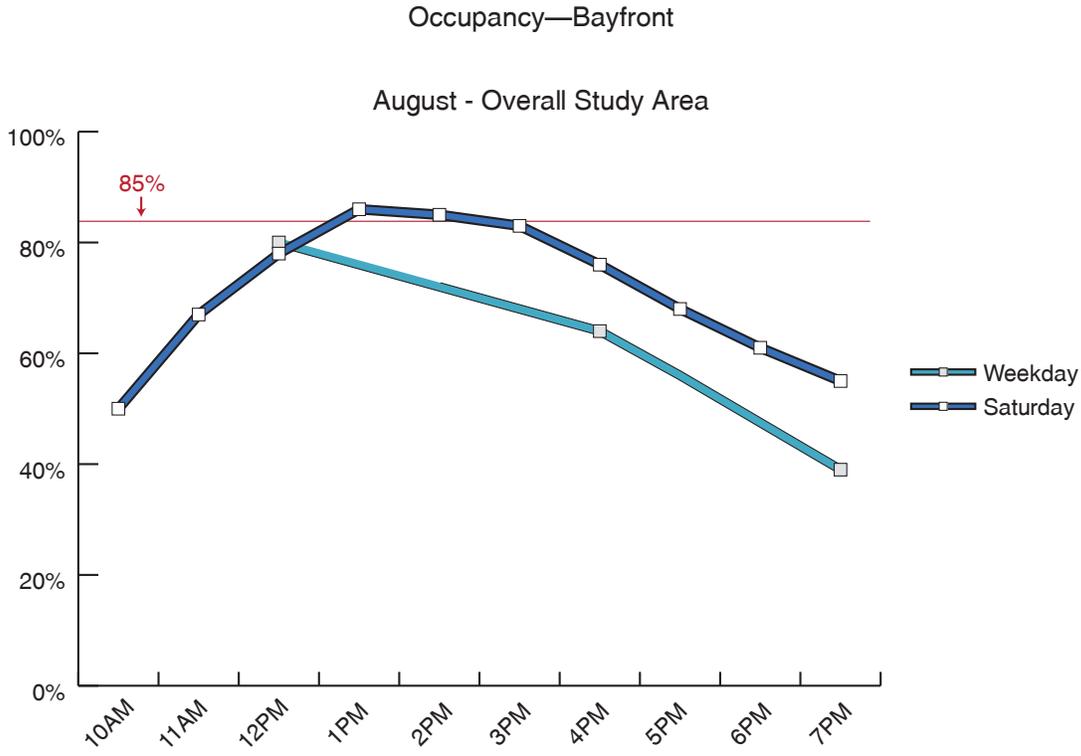
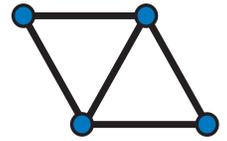
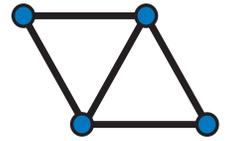
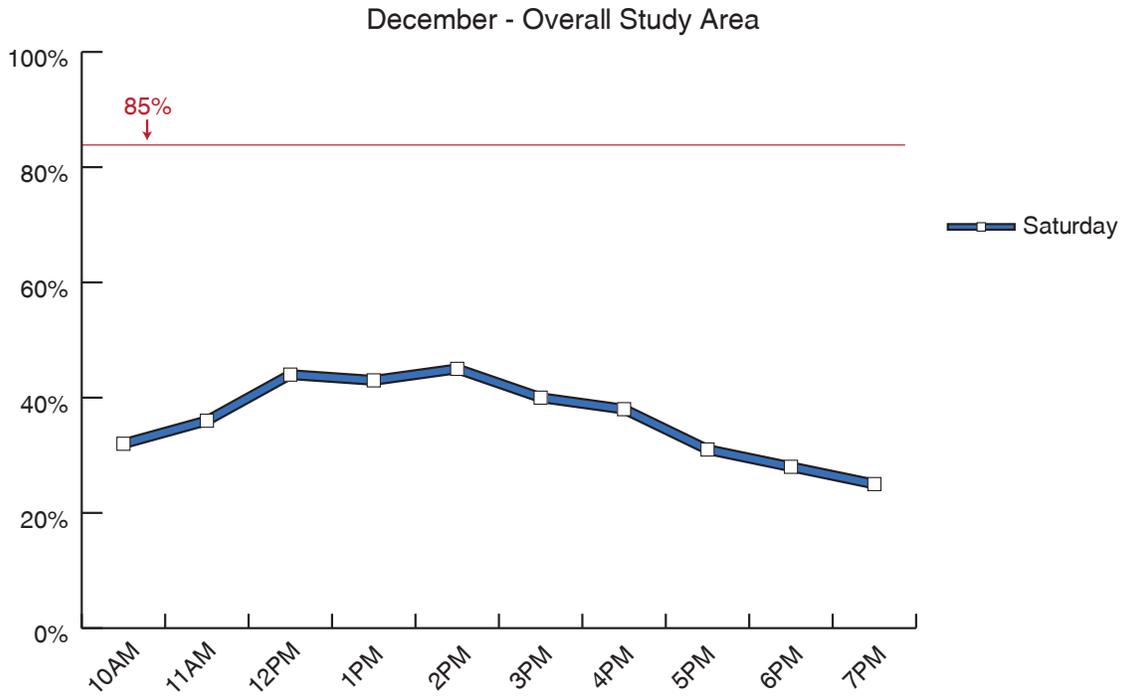


Figure 1: Area-wide Saturday parking occupancy by hour for the Bayfront study area

Bayfront Occupancy – December



Occupancy—Bayfront



Occupancy—Bayfront

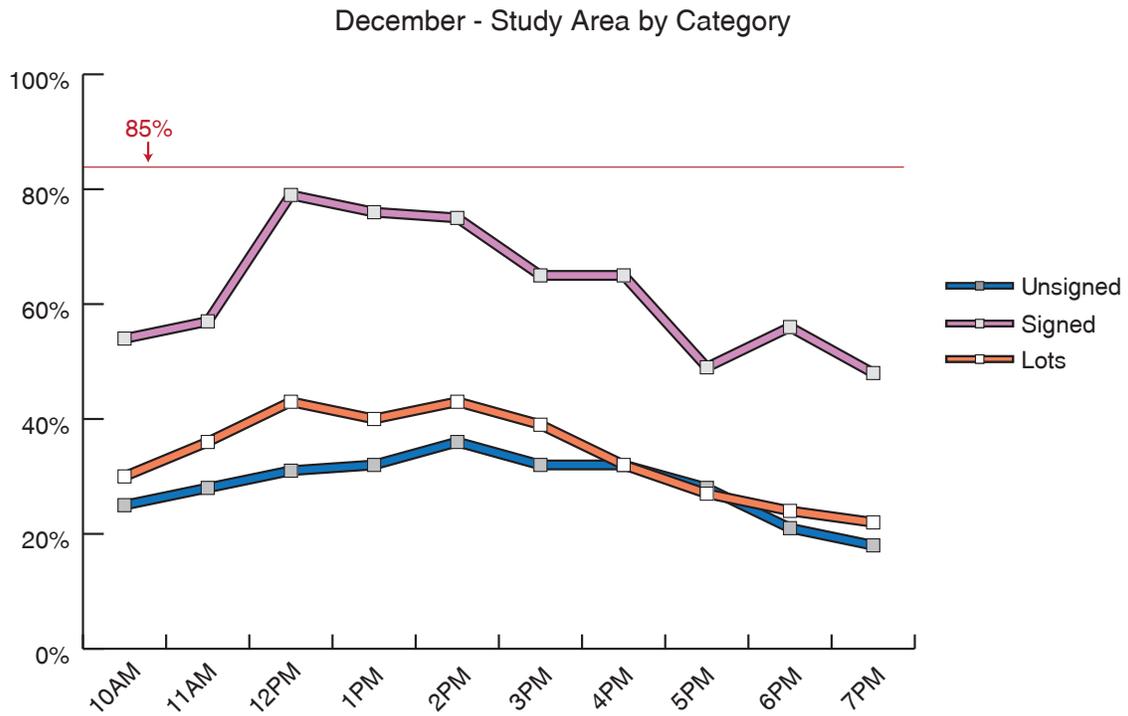
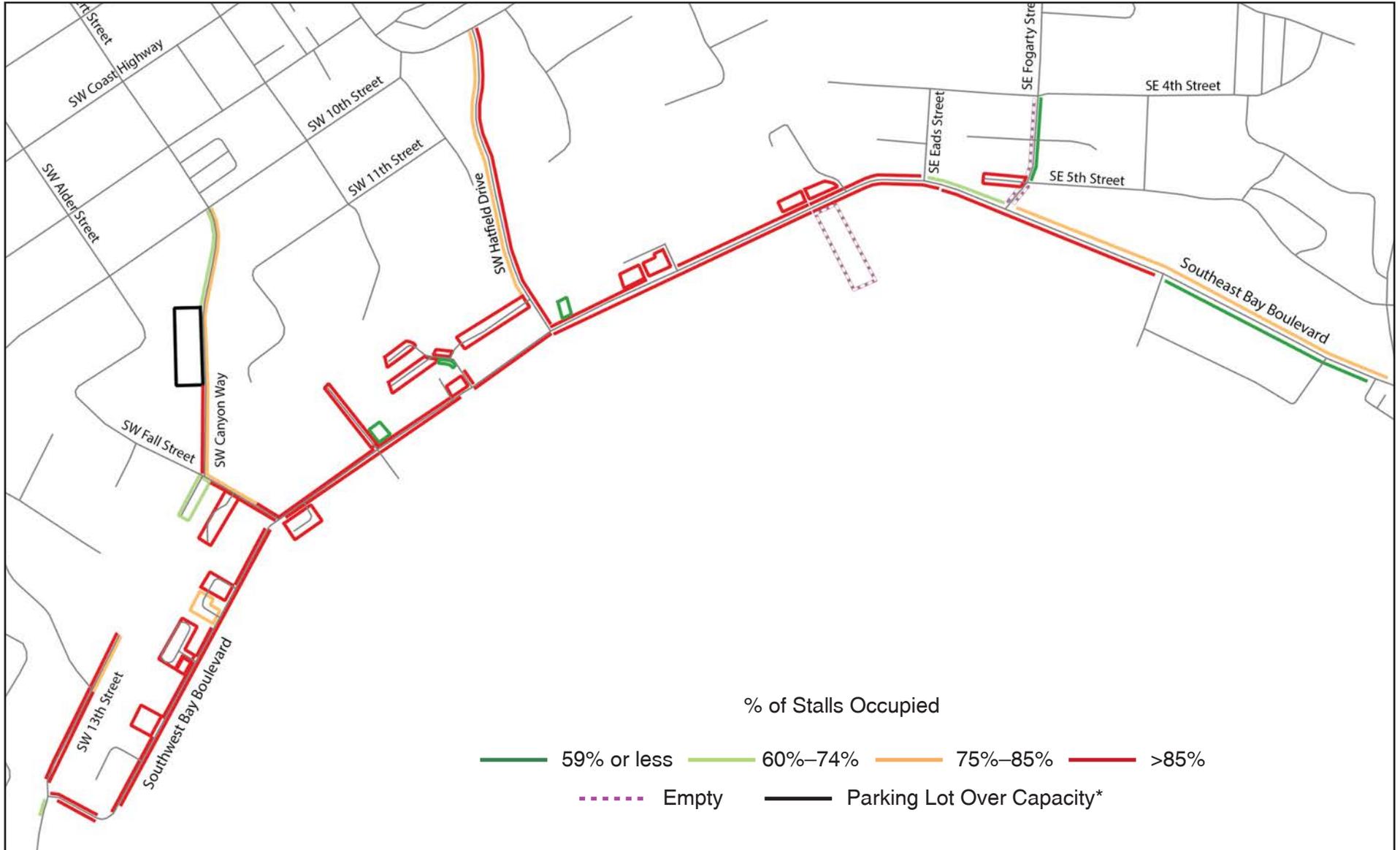
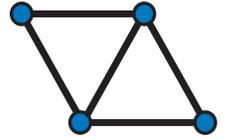


Figure 1: Area-wide Saturday parking occupancy by hour for the City Center study area

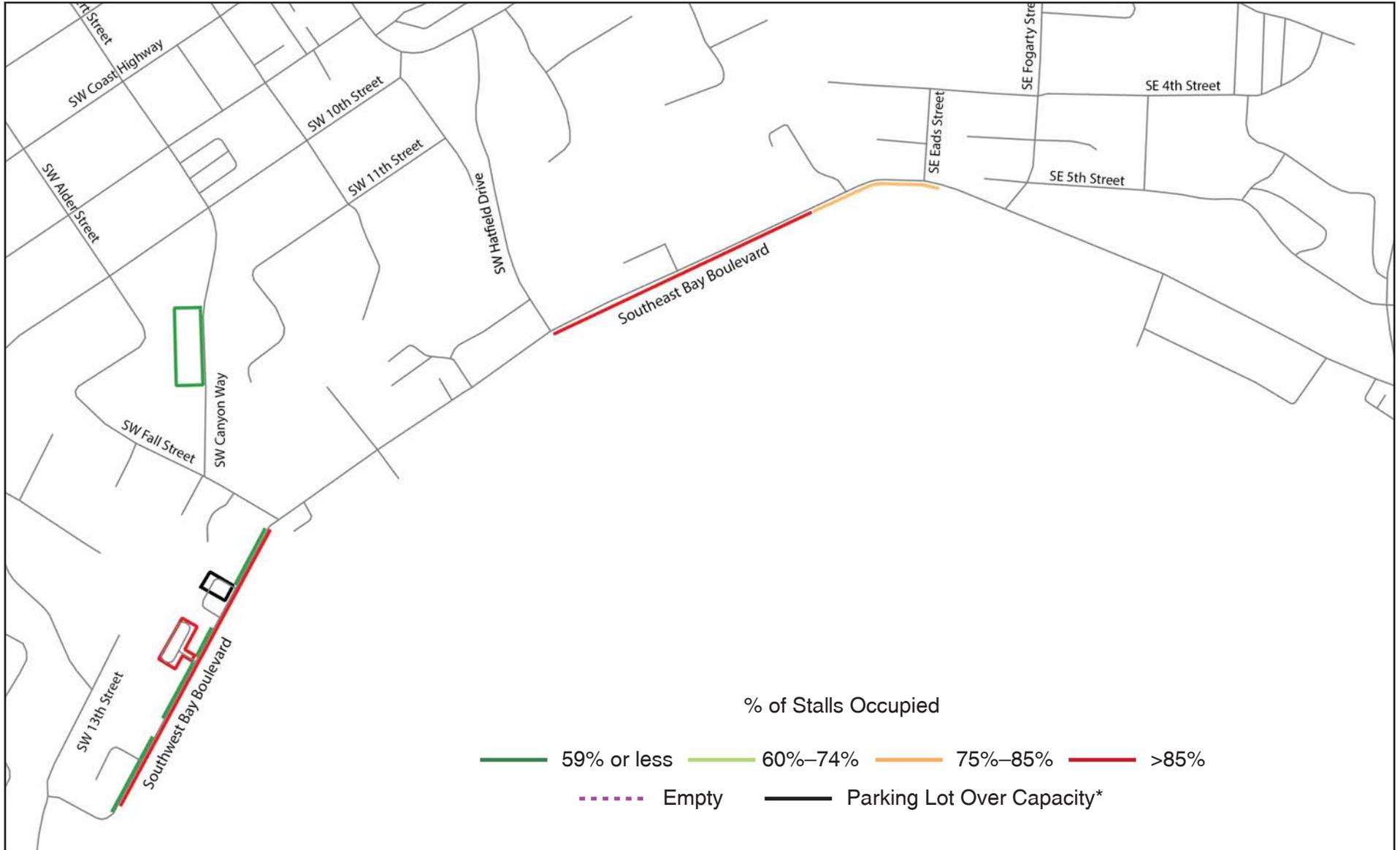
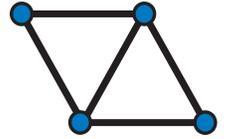
Bayfront: Saturday Peak Hour (1pm) Occupancy

Saturday
August 27, 2016



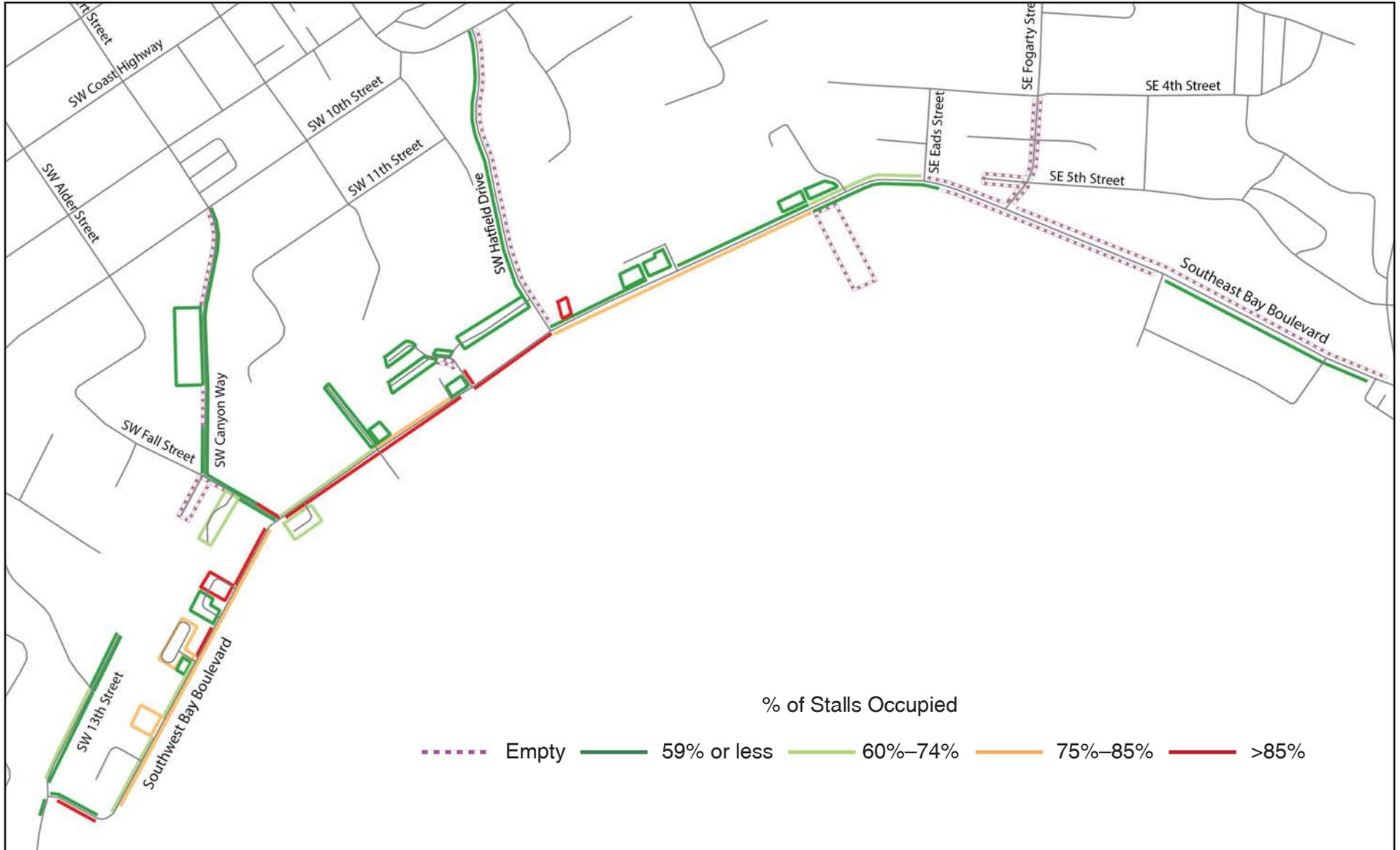
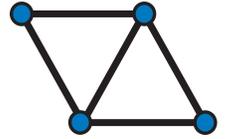
Bayfront: Weekday Peak Hour (12pm) Occupancy

Thursday
August 25, 2016

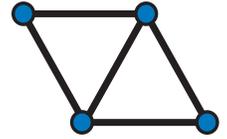


Bayfront: Saturday Peak Hour (12pm) Occupancy

Saturday
December 10, 2016



Bayfront Turnover – August



Duration of Stay & Turnover—Bayfront August

Overall Study Area

Average Stay Length



3.7 Unique Vehicles per Stall



Signed Stalls

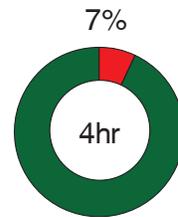
Average Stay Length



4.8 Unique Vehicles per Stall



% Overstays



Unsigned Stalls

Average Stay Length



3.3 Unique Vehicles per Stall



Parking Lots

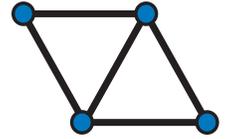
Average Stay Length



3.2 Unique Vehicles per Stall



Bayfront Turnover – December



Duration of Stay & Turnover—Bayfront

December

Overall Study Area

Average Stay Length

2 Unique Vehicles per Stall

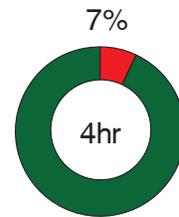


Signed Stalls

Average Stay Length

3.4 Unique Vehicles per Stall

% Overstays



Unsigned Stalls

Average Stay Length

1.3 Unique Vehicles per Stall



Parking Lots

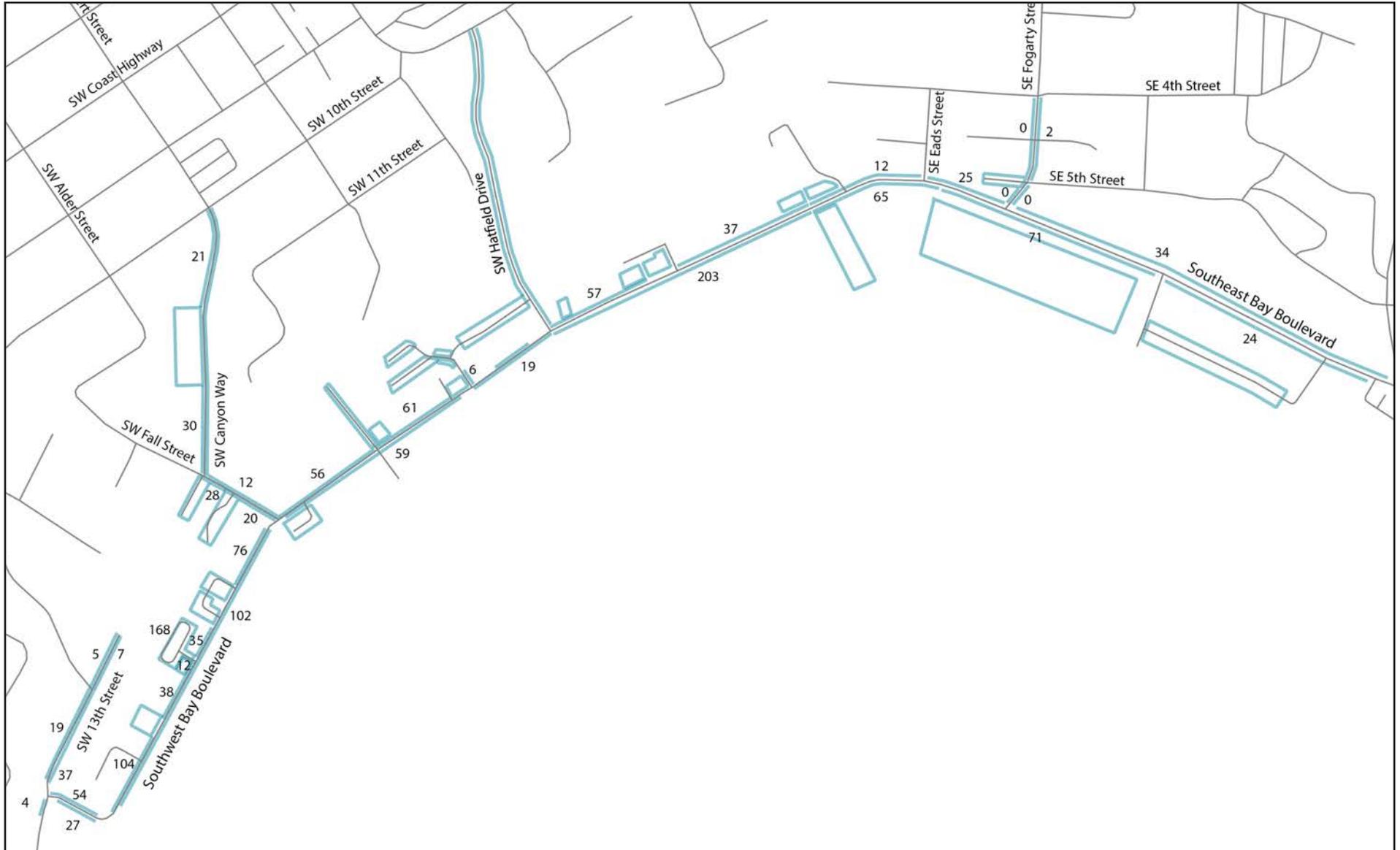
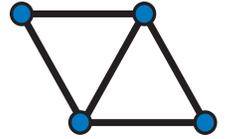
Average Stay Length

1.9 Unique Vehicles per Stall



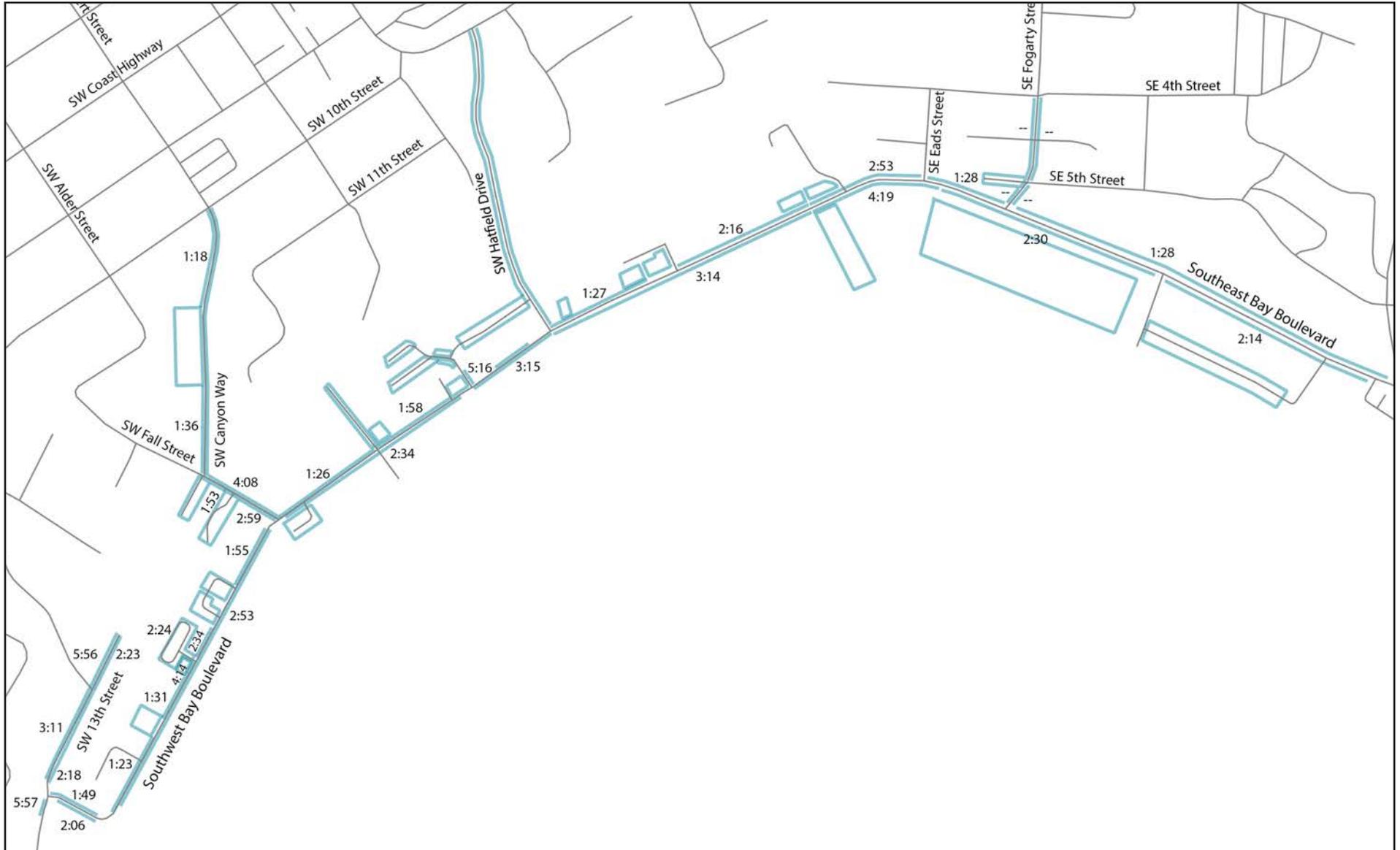
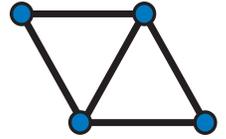
Bayfront: Unique Vehicles Served Throughout the Day

Saturday
August 27, 2016



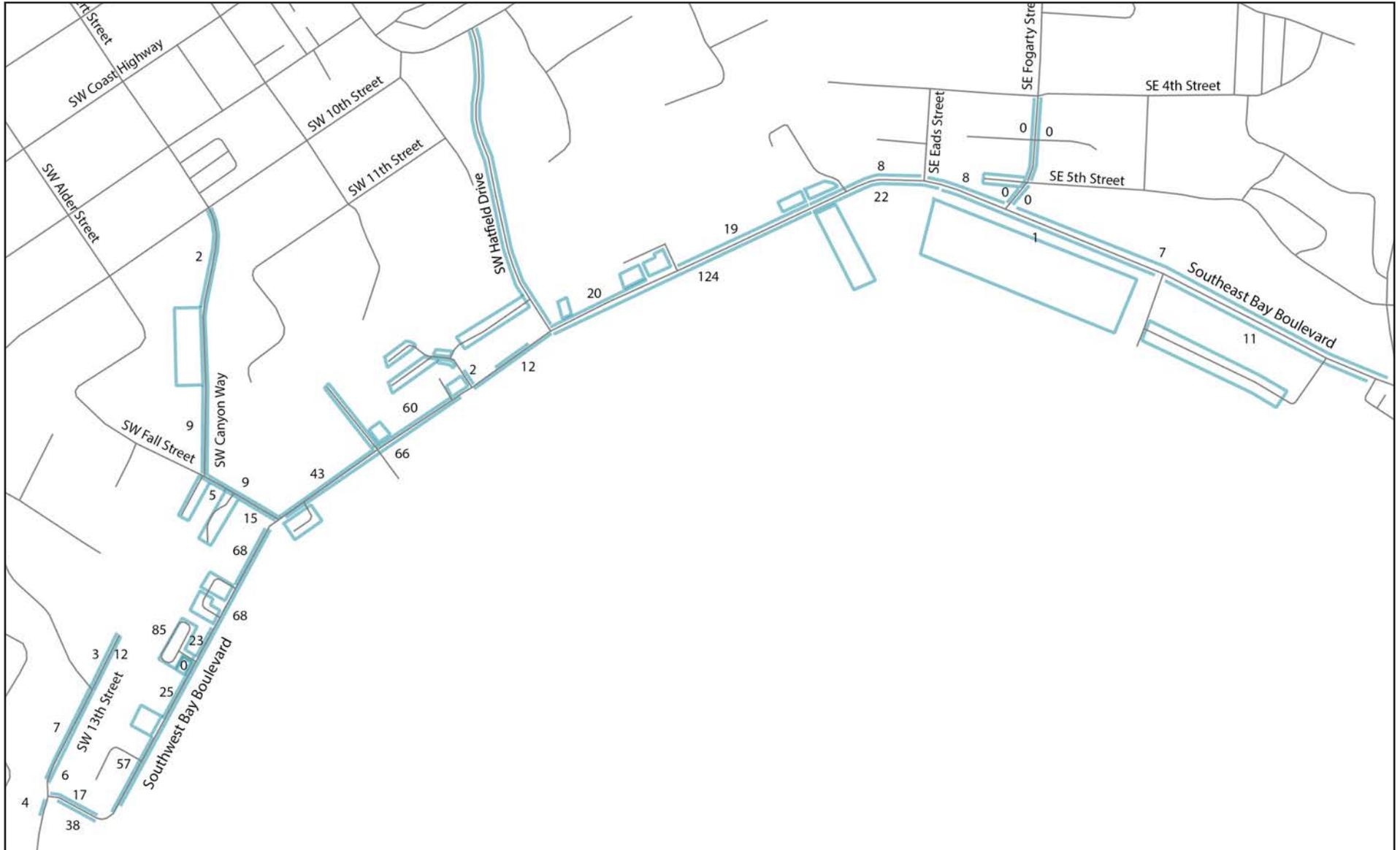
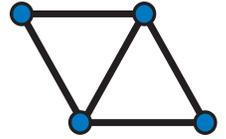
Bayfront: Average Time Stays

Saturday
August 27, 2016



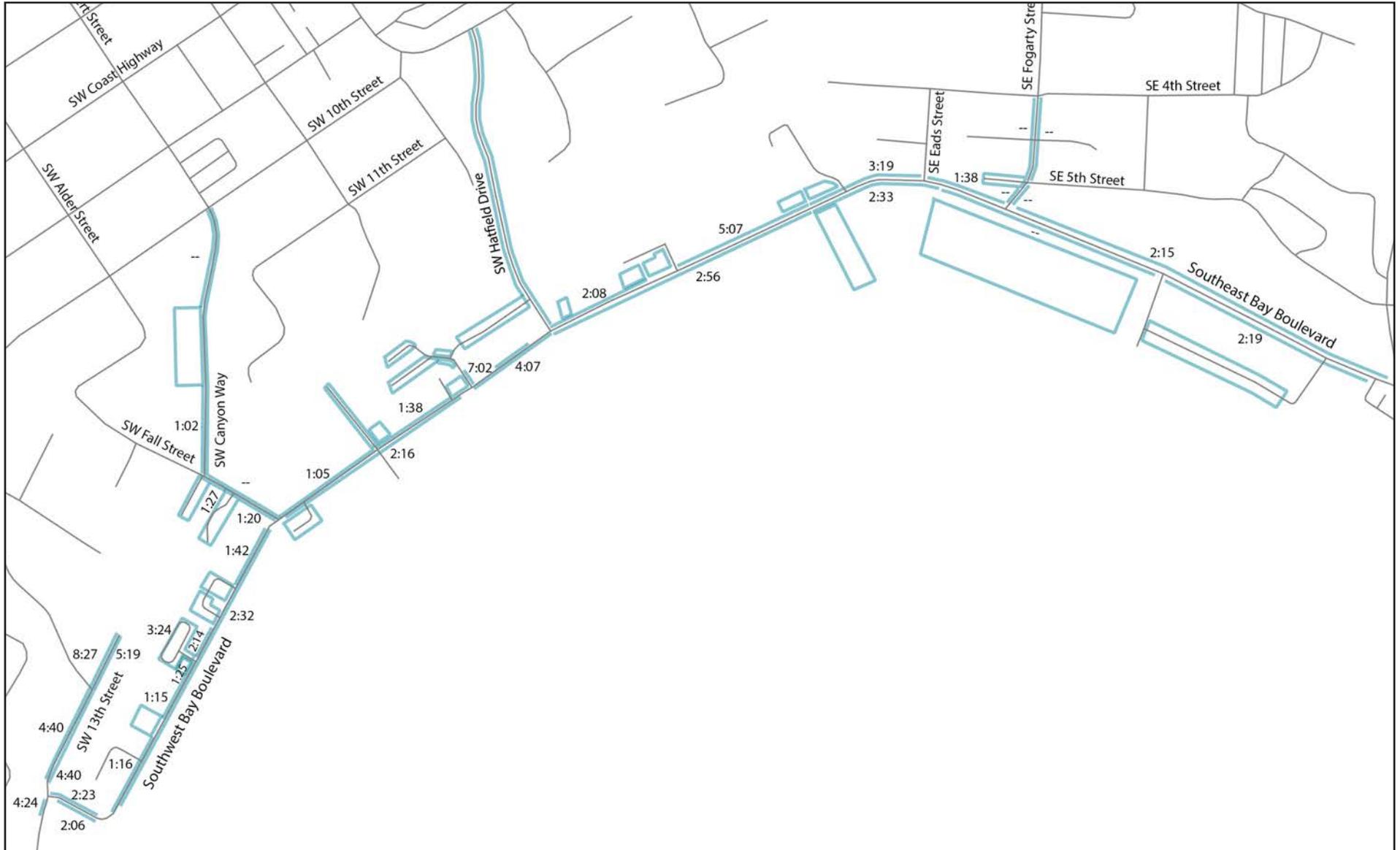
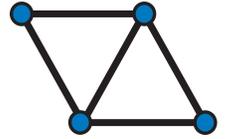
Bayfront: Unique Vehicles Served Throughout the Day

Saturday
December 10, 2016

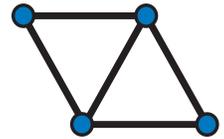


Bayfront: Average Time Stays

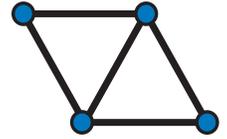
Saturday
December 10, 2016



Bayfront – Key Observations

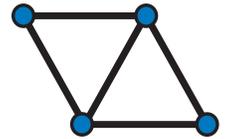


- The Bayfront parking district generally saw the highest demand rates of any area in aggregate, with the public lots and signed parking in the district at more or less full occupancy throughout the study day in August. While public parking was somewhat less in demand during the December observation period, parking along the south and west parts of Bay Boulevard and in the nearby lots was again heavily occupied. Parking assets further away from Bay Boulevard, including parking along 13th Street, Canyon Way, and Hatfield Drive, was found to be relatively heavily utilized in August but lightly utilized in December.
- Parking in the Bayfront district was somewhat less congested during the weekday observations than during weekend observations, however occupancy along and near the southwestern parts of Bay Boulevard was nearly as high on weekdays as on weekends. Parking uphill from Bay Boulevard and within the northern and eastern parts of the district was significantly less occupied. Thus in a manner similar to Nye Beach, parking demand within the Bayfront has an identifiable epicenter. Demand is routinely high within this area along the western half of Bay Boulevard, and during high-demand times the demand extends north from Bay Boulevard and northeast along the Boulevard.
- Both public and private lots throughout the Bayfront district were at capacity most of the day during the August observation period. During the December period, the public lots on the west side of Bay Boulevard saw high levels of demand, but other lots north and east of the heart of the Bayfront district, were far less in demand. Geographically, this mimics the demand pattern observed among on-street spaces.
- Durations of stay within parking signed with a four hour maximum averaged 2 hour, 6 minutes and 2 hour 15minutes during the August and December observation periods, respectively. During both observation periods, 7% of vehicles were observed to exceed the maximum time stay. Similar turnover properties are often observed within on-street parking in other central locations, including central areas of the City Center and Nye Beach districts, and likely indicates that retail and restaurant uses play a large role in driving demand within signed parking areas.
- Durations of stay within unsigned stalls averages 2 hours 44 minutes and 2 hours 54 minutes during August and December respectively, and durations of stay within lots averaged 3 hours 19 minutes and 3 hours 22 minutes during August and December respectively. This likely indicates that during both seasons, longer term activity including museum visits, multiple-destination tours, and potentially some employment uses, drive parking demand in these stalls.
- Signed stalls on and near Bay Boulevard served an average of 4.9 unique vehicles per stall during the August observation period, and 3.4 unique vehicles per stall during the December observation period. This indicates that the signed stalls deliver significant economic value on a year round basis. Unsigned stalls, by contrast, served 3.3 unique vehicles per stall during August and 1.3 during December. While not as dramatic as the differences between signed and unsigned parking observed within Nye Beach, the relatively large differences suggest that there is an opportunity to increase the utility of unsigned stalls through relieving congestion among signed stalls and lots.



- Based on the analysis, the Bayfront generally has the highest demand in Newport, with occupancy rates regularly exceeding 85% along Bay Boulevard and elsewhere in the district during much of the year. At these occupancy levels, undesirable effects including cruising for parking or illegal parking occur commonly, and the lack of available parking often has negative economic impacts. These results suggest that additional parking near or along Bay Boulevard may be necessary to alleviate congestion, and more aggressive parking management such as priced parking is needed to help encourage availability and turnover among the current parking supply.

Part 4:
Management Recommendations



Based upon the results of the analyses described in the preceding section, feedback obtained via the public involvement process, and the input of the stakeholder advisory committee, several measures are recommended to manage parking and ensure a well-functioning system. These measures are described on the following pages, following a discussion of the efficacy of the existing parking management.

Existing Parking Management & District Overviews

City Center

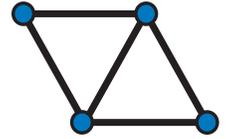
By and large, parking within City Center appears to be adequate to meet most of the demand that regularly occurs within the district. The signed two hour time limits in the central parts of the district are adequately meeting demand, and aside from an anticipated spike in demand from the new aquatic center (this is discussed further below), the parking assets within the district are sufficient to accommodate year-round demand.

Most parking issues that arise in City Center owe to the fact that the district is centered around Highway 101, and there are a number of inherent difficulties with managing on-street parking along a major highway. Though the City is somewhat limited in its influence over Highway 101, the recommendations offered herein attempt to alleviate the problems with parking along the highway to the extent possible. Further, City Center is a key employment district and includes many destinations of import to locals, particularly with the arrival of the new aquatic center. Measures in this plan are offered to manage this local demand and to assuage the heavy seasonal impacts from tourism.

Nye Beach

Nye Beach sees a significant variation in seasonal demand, with far higher occupancy rates during peak periods than in the off-season. Further, demand in Nye Beach can often vary unpredictably as it often depends heavily upon the weather in the Willamette Valley. The core of Nye Beach, centered around the intersection of 3rd and Coast Streets and the Nye Beach Turnaround, sees a fairly steady level of demand year-round. Parking demand falls off in rough proportion with distance from this epicenter, and generally there is adequate parking within the district as a whole to accommodate demand. Occasionally, however, brief spikes in demand may occur that exceed the available supply within the district. During the warmer months, the impact upon local residents from visitor parking is severe.

Thus, successfully managing parking in the Nye Beach district will entail shifting some of the demand from the over-utilized parking in the heart of the district to the more lightly utilized parking outside of the heart. During all but the busiest weekends, there is ample parking availability within only a few blocks of the heart of the district, so the implementation of a wayfinding system and other walkability improvements described within this plan will help in this regard. Other interventions to address the localized variations of demand and help improve the system during the busiest days are identified below. Additionally, there is a significant amount of development that's planned or possible within Nye Beach in the near future; accordingly, the plan includes recommendations for monitoring and managing demand increases owing to new development.

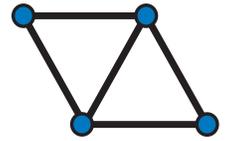


Bayfront

The parking assets along Bay Boulevard sees a significant level of demand on a year-round basis, and the unpredictable and often convergent demand patterns of the fishing and tourism industries. For much of the year, parking along or near Bay Boulevard is routinely functionally full during peak hours. However, like Nye Beach, parking is more readily available as one moves farther from the center of activity. Thus, even during peak seasons, there can be under-utilized parking uphill from Bay Boulevard, particularly uphill from northerly parts.

This plan addresses the year-round parking congestion in the Bayfront district through both improved management of existing assets as well as identifying opportunities to strategically increase supply at a low cost and in a way that preserves the Bayfront's unique character. Additionally, the recommendations offered herein are intended to manage demand conflicts between the fishing and tourism industry to ensure that both can thrive within the relatively limited space of the district.

Management Recommendations



Branding & Wayfinding (Citywide)

Throughout the project and analyses, a number of opportunities were identified to improve the ease with which visitors to Newport can locate parking and, once parked, find their way on foot from place to place within the city.

It is thus recommended that the city seek to improve its wayfinding system with the goal of (1) directing people arriving in cars to convenient parking, and (2) providing ample wayfinding for people walking within each district and between districts. The stakeholder committee for this project can work with the existing Wayfinding Committee to establish a budget and overall strategies for the project.

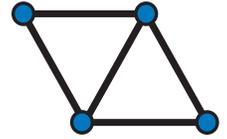
- Key elements that are recommended for consideration are:
- Consistent branding for public lots throughout the city, and consistent signage directing visitors to each lot.
- Wayfinding signage for pedestrians within each district, showing pedestrians the direction and walking time to key destinations within each district.
- Walking directions between districts, including pavement markings or something similar along the key walking routes between districts to serve as both wayfinding and encouragement.
- Wayfinding specific to recreational vehicles, which can cause congestion while cruising for parking and occasionally by driving along streets not ideally suited for this traffic, such as Bay Boulevard.



Temporary Parking Areas (Nye Beach, Bayfront)

Parking demand in Newport varies considerably based on the season, but there is also a more unpredictable element of variation where demand can spike considerably on select weekends, particularly when weather in the Willamette Valley is hot. Overwhelmingly, Stakeholders report that when temperatures in the Portland area and elsewhere into the valley climb into the 90's and above, significant spikes in traffic and parking demand are observed. The Nye Beach parking district is most sensitive to these demand spikes, followed respectively by the Bayfront and City Center districts.

An existing code provision limits flexibility within the City to establish temporary parking lots, as it requires that any space used for parking be paved and therefore impervious. This is a well-intended provision, as there are significant environmental concerns that can arise from parking on pervious surface associated with erosion and seepage of automotive liquids into groundwater. Maintenance costs are an additional factor, as pervious pavement technologies, gravel surfacing, or parking on turf require more frequent attention from City crews



than a paved lot. Notwithstanding these issues, unpaved lots could help alleviate congestion if employed on a temporary basis as merited by demand.

The data and analysis paint a fairly clear picture that additional parking assets within the Nye Beach are not yet needed on a year-round basis. A provision that allows for temporary lots thus offers a mechanism to accommodate demand spikes on a cost effective basis, and will preserve the land on which they operate for future development or another higher and better use. Alternatively, properties could be designated for use as temporary lots during the demand spikes, but if they remain unpaved, they could more easily be used for other purposes at other times throughout the year.

Though it is common practice elsewhere to use unpaved properties for surface parking, particularly on a temporary basis, the City should put in place pervious pavement standards before implementing temporary parking measures to address environmental and maintenance concerns that led to the establishment of the existing code provision.

Parking Issues Along US 101 (City Center)

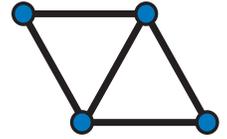
Several of the major issues with parking in the City Center district are related to US 101. Highway 101 generally has a five lane configuration (four travel lanes and a standard turn lane. Within City Center, two parking lanes are also featured despite a cross section of only 60 feet in most places. This leads to a number of issues, including property damage (many vehicles are reported to lose their side mirrors while parked along 101), congestion as people back into spaces, and safety issues that arise as people cross the highway. Issues are exacerbated when larger vehicles such as RVs park along the Highway, which occurs regularly during summer months.

Because Highway 101 is under the jurisdiction of the State, the City is limited in its ability to offer solutions to these problems. The City can implement some workarounds on its own, such as designating additional parking and improving wayfinding for RVs, and including an advisory to drivers to stow their mirrors when parking along 101. Though ODOT can sometimes be inflexible regarding signage, the City should attempt to improve existing signage restricting RV parking and wayfinding for public parking lots in close proximity to the highway.

In the long term, the impacts of parking management and in particularly the issues of safety and property damage relating to parking along the highway, should be carefully negotiated with the State as the upcoming Transportation System Plan Update moves forward. From a parking management and pedestrian safety standpoint, ideally the cross section of the existing roadway would be reduced by one lane to better accommodate both parking and travel. The City should ensure that these perspectives are considered during the corridor planning process.

Activation of Hurbert Street Lot (City Center, Bayfront)

The parking lot at 9th and Hurbert was observed to be fairly lightly utilized, even during the peak observation period. Improving utilization of this lot can alleviate some of the issues currently observed within the City Center and Bayfront districts, particularly in conjunction with a wayfinding system that encourages walking



between the two. As a centrally located lot that offers restrooms and is situated between City Center and the currently over-utilized parking lot along Canyon Way, the lot could serve as an entry point to the City for visitors, particularly those arriving in RVs.

Though this lot includes parking striped for RVs, a fairly low number of RVs utilize this parking. Indeed, standard cars were often observed to utilize these spaces, and RV parking along Highway 101 was relatively common despite the restrictions and issues. In addition to improving signage along 101 as described above, the RV spaces in this lot should be more clearly marked and restricted to only RVs. Further parking exclusive to RVs can be made available along the frontage next to this lot as necessitated by demand.

The lot should be clearly identified and branded visitor information guides and similar outreach materials. While the signage the City is able to provide along the Highway depends upon the State's flexibility, the City can consider creative solutions such as advertising the lot on a building by the intersection, similar to an existing sign for the Ripley's Museum.

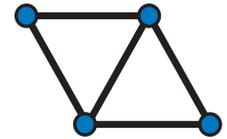
Activation of Performing Arts Center Lot (Nye Beach)

While the lot at the Nye Beach Turnaround and the smaller public lot at the Visual Arts Center (VAC) were both observed to have high levels of demand when the district as a whole was busy, the parking lot at the Performing Arts Center (PAC) was not observed to have significant demand during either observation period. While stakeholders report that the lot can see high levels of demand during the busiest weekends or performances at the PAC, during typical peak period weekends there is some capacity here to relieve congestion elsewhere in the district.

As with the 9th and Hurbert Street lot in City Center, this lot should be more clearly signed and marked as a public lot, both physically and in online and printed materials catering to visitors to Newport. It is noted that if nearby parking is metered as recommended by this plan, the PAC lot may be a more attractive parking option than under existing conditions as it would remain free and untimed, and it is only a few blocks south of the most congested areas of Nye Beach. The City should thus monitor occupancy in the PAC lot moving forward, and consider restrictions on general parking in anticipation of PAC events.

RV Parking Along Elizabeth Street (Nye Beach, City Center)

Frontage along Elizabeth Street is ideal for RV parking based upon its location and other aspects, and represents a further opportunity to ease issues from RVs parking along 101 or cruising for parking elsewhere in the City. As with the Hurbert Street lot above, RVs should be encouraged to utilize this parking via outreach materials and wayfinding. Striping can be creatively implemented to allow for a mix of RVs or standard vehicle users to utilize this parking.



Metering (Bayfront, Nye Beach)

Based upon the heavy year-round demand observed in the hearts of the Nye Beach and Bayfront districts, and observing that in many cases there are underutilized assets nearby that can absorb some of this demand, it is recommended that paid parking be introduced to the congested central parts of these areas.

Though sometimes politically contentious, charging for parking is one of the most effective tools that can be employed to alleviate congestion and manage demand. Research has consistently shown that charging the right price for curbside parking is more effective than other measures (e.g., time restrictions, addition of supply) in maintaining parking demand within desired ranges. Additionally, revenue generated is critical to enhanced transit service, maintenance, and parking system improvements needed to meet future demand in these areas.

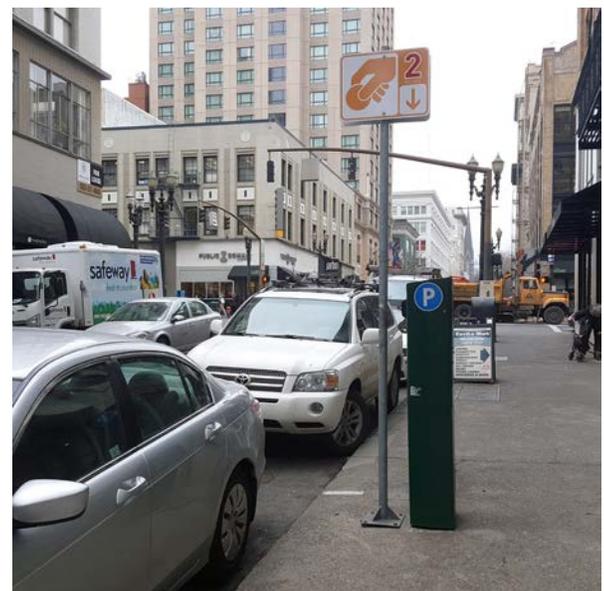
Recommendations for the metered areas are described below, and summarized on the maps on pages 72–73.

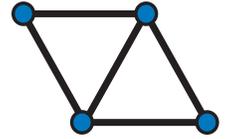
Pricing and Time Limits

Ultimately, the efficacy of a paid parking program depends upon charging an appropriate price regarding location and time. Correctly pricing parking to have the desired effect on demand is difficult to do with exactness. Generally, it requires a city to monitor demand and adjust prices accordingly over a long timeline and, ideally, on a block face by block face basis. Typically, the ideal price is one where one to two parking spaces per block face are available at any given time. Thus, underpriced parking will not divert a sufficient percentage of demand to improve parking availability, and overpriced parking will result in too much diversion and underutilized spaces.

As metering is introduced to Newport, it is recommended that prices initially be set to \$1 per hour. This is less expensive than current rates in Portland (\$1.60—\$2.00), and on par with rates in Hood River which, like Newport, sees significant seasonal variation in parking demand. This hourly rate translates into 25 cents per 15 minutes—an important consideration since parking is typically purchased in 15-minute increments, and is low enough that it will inspire a minimal amount of the ill will that sometimes accompanies paid parking.

With the introduction of paid parking, maximal time stays become less important since people do not want to pay in excess of what they use. However, based upon turnover data, it appears that three hour time limits in metered areas will be sufficient to accommodate the time stays in demand while still encouraging robust turnover.





Management Types in Metered Areas

The maps on pages 72–73 show the initial recommendations for management on a block face-by-block face basis. For the Bayfront and Nye Beach districts, the recommended locations of the following four management types are indicated:

Metered Only areas: During enforcement hours, this parking is available only on a pay-per-hour basis.

Metered/Permitted areas: Holders of annual permits may park in these areas without additional charge and without a time limit. Others must pay per-hour during enforcement hours, and are subject to the maximum time limit.

Permitted areas: Holders of annual permits may again park in these areas without additional charge and without a time limit. Others may park without charge, but are subject to a maximum time stay during enforcement hours, typically 3–4 hours. As with metered parking, it is recommended that this time limit be set to three hours upon program implementation, which adequately serves observed demand while encouraging regular turnover.

Unregulated areas: These are areas that currently have no parking management in place, and no new management is recommended in these areas at this time. Even during peak times, unregulated areas generally have adequate parking supply to meet demand without need for restriction.

At this time, no changes are recommended to other management types within the metered districts, such as loading zone spaces, ADA-compliant spaces, etc.

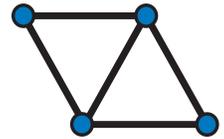
Note that for the City Center district, the existing timed parking is limited to two hours. Since this appears to be adequately serving demand, a change is not recommended at this time. However, following implementation of the metering recommendations described herein, the time limits for all other parking in Newport will be three hours. This should be monitored during program evaluation, with consideration given to increasing the time limit to three hours in the City Center district if the inconsistency is deemed problematic.

The recommended roll-out and capitalization of the metered districts, and discussion and projections regarding potential revenues, are discussed in detail in the following section.

Enforcement

Presently, Newport's parking enforcement is relatively modest, with most peak season enforcement under the charge of a single officer. In some respects, existing enforcement has been effective, as only modest numbers of overstays, illegally parked vehicles, and other violations were observed during the analysis. However stakeholders and other business owners have cited a number of issues arising from sporadic enforcement.

Existing enforcement begins at 10:00 am and runs through 6:00 pm. However, though parking demand within the city as a whole begins to decline at approximately 6:00 pm, the areas recommended for metering were typically found to exceed 85% occupancy up to and including the 7:00 hour. Therefore, at the outset of the program, it is recommended that enforcement hours be set from 10:00 am to 8:00 pm



To adequately enforce the recommended metered areas, it is likely that at least one additional officer will be necessary during the extents of metered hours. This will allow one officer to focus primarily on the Bayfront and one to focus primarily on Nye Beach. While the metering program will require that the bulk of enforcement time be spent in these districts, the enforcement plan should take care to ensure that City Center is served adequately.

Residential, Business, and & Fishing Permits/Districts (Nye Beach, Bayfront)

Residents within Nye Beach indicate that it can often be difficult to park near their homes due to tourist demand. Observations confirm this with some areas, but it is noted that the introduction of metering could exacerbate this issues by driving demand in the recommended metered area toward residential areas that do not see excess demand presently.

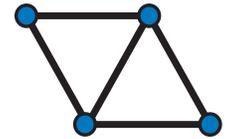
To address this, and to help win public support for metering, the City should implement a program allowing targeted groups, particularly residents, business owners, and members of the commercial fishing community, to purchase annual permits. Permits available to residents and potentially business owners should allow residents to park within certain parts of the metered area, e.g., along 1st Street, 2nd Street, and 2nd Court in Nye Beach, without paying the meter or being held to the time limits.



- **A residential permitting program** can be established that outgrows from the City’s existing residential permitting program that exempts residents within areas that currently have timed parking from those time restrictions. Similar permits would support the proposed metered/permit districts and should be implemented in such a way to minimize end user costs, as the permit program not intended to reduce residential parking demand.
- Similarly, a **permit system for members of the commercial fishing community** should be established along the Bayfront, expanding upon the current system, to ensure there is adequate parking available to meet the industry’s needs. As with the residential program, this system will largely be unchanged from the existing permit system, which is administered as an inter-governmental agreement between the City and Port of Newport. The program should be administered to track as closely to the current cost structure as possible, with specific attention to ensuring that no additional costs are passed to individual members of the fishing community.

The updated fishing permit system should aim to eliminate the 72-hour stay limit that currently applies to holders of fishing permits parked in public rights-of-way.

- Finally, The City should establish a **permitting program for businesses** and their employees who may need to park in metered districts. It is noted that, business license surcharges related to the current parking districts are set to expire in June 2018. Improved management of employee parking also presents several opportunities to improve overall parking in the busiest parts of Newport. Costs associated with these permits should therefore be set accordingly; Portland charges \$60/year for these permits, which Newport can use as a starting point for price and adjust as needed.



It is recommended that these permit districts be rolled out concurrent with the first phase of the roll-out of metering, in order to support the metered districts and prepare for their potential future expansion; this is discussed in detail in the following section. The permit area will likely change on a year over year basis and be based upon citizen/stakeholder feedback and the City’s ongoing evaluation described below.

Street Lighting (Nye Beach, Bayfront)

Some areas of Newport currently have poor street lighting, and on-street parking in these areas is often under-utilized. This is particularly true within parts of the Nye Beach district east of Coast Street, and within parts of Bayfront uphill from Bay Boulevard. There is an opportunity to improve the utility of this parking through improved street lighting.



In particular, parking along Third and Sixth Streets in Nye Beach was lightly utilized even during peak conditions, especially parking that is more than a block or two east of Coast Street. These segments correspond to some of the more poorly lit areas in the parking district. People may be reluctant to park in these areas due to safety concerns or merely to the foreboding appearance. Several stakeholders that own businesses in the heart of Nye Beach have indicated that their preference is to ask employees to park off of Coast Street in order to keep this premium parking free for potential customers; however employees—especially women and/or people who work for tips and thus leave work with cash—are often reluctant to use the parking along Third and Sixth due to safety concerns.

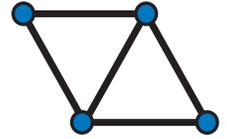
Similarly, improving street lighting along the segment of Canyon Way stretching between City Center and the Bayfront could improve utilization of this on-street parking, making it an attractive option to Bayfront employees and relieving congestion in the more central parts of the district.

In addition to improving parking utilization in these areas, the improved street lighting will generally enhance the pedestrian environment within Nye Beach, encouraging more local walking trips between central Nye Beach and the commercial destinations along Highway 101, and between the Bayfront and City Center areas. This could have an ancillary positive effect upon the parking system in these areas by distributing existing demand to currently underutilized assets at the fringes of the districts.

It is noted that in addition to standard street lights, lower cost measures such as small lighted bollards can be implemented to improve street lighting. The capital projections in the following section include estimates for both lighted bollards and standard street lights.

Removal of Off-Street Parking Minimums

Because this plan manages ongoing parking demand issues with transit, parking permits, and metering solutions, it is not necessary to require construction of a minimum number of off-street parking spaces concurrent with new development or re-development. With metering in place to ensure, via pricing, that the



number of parking spaces is adequate, parking minimums are redundant and would inevitably lead to an oversupply of parking. This policy can potentially help spur development and growth of the local economy by giving business owners wider latitude to construct or acquire parking in accordance with their own needs.

Canyon Way Lot Restriping (Bayfront, City Center)

During the peak observation period, the parking lot along Canyon Way between the City Center and Bayfront Districts was regularly observed to operate above the striped capacity. An opportunity thus exists to increase the capacity of this lot by restriping it during the next scheduled maintenance of the pavement and striping. Without striping as guidance, people typically will not park optimally; this can be ameliorated by better striping the lot. This will create more inviting and efficient parking.

Other Additional Striping (Bayfront, primarily)

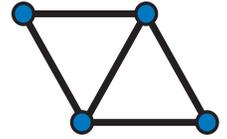
Similarly, any areas where on-street parking is fairly heavily utilized that are not striped represent opportunities to increase the efficiency of parking via striping. This is particularly true for angled parking and perpendicular parking on-street. The results of the analyses in the preceding section identify several segments where parking is relatively heavily utilized but parking is unstriped. As finances allow, these areas can be striped to better utilize existing space.

New Access to Port Dock 5 and other Equipment Strategies (Bayfront)

There are several potential opportunities to reduce parking demand from the fishing community along Bay Boulevard by implementing potential improvements near Port Dock #5.

A large area owned by the Port of Newport just east of Port Dock 5 that is currently used for equipment staging serves some existing parking demand from the fishing community. Though it is not striped for parking, there is a large paved area that typically has the space to serve a number of additional parked vehicles, and further streamlining of equipment storage could create even more space. However, parking in this location would leave members of the fishing community with a long walk to their boats. This is particularly problematic given that many fishers need to carry gear or personal belongings for the trip. This problem can be alleviated by constructing a gangway between this area and the eastern extents of the port dock, which would vastly reduce this walking distance and make parking in this location much more attractive. This will be particularly important following removal of the 72-hour restriction for on-street parking for fishers, as the existence of this restriction may account for some of the demand located at this site despite the long walk to Port Dock 5.

As the Bayfront evolves and grows, additional parking may be necessary to support the overlap of the fishing and tourism industries in the area. New parking supply is discussed in more detail below. It is noted that in the future, this location could satisfy even more parking demand if some equipment loading operations were moved to a less central area on the Bayfront, such as port-owned industrial land shortly upriver from the site.



Potential Future Parking Supply

In addition to the recommendations above, several potential opportunities to increase parking supply within Newport were considered over the course of this project. These are not ultimately recommended for implementation at this time; however if evaluation shows the need for future supply these ideas can be revisited. They are described below:

New Surface Parking at Port Dock 7

An opportunity exists for additional surface parking on undeveloped land at the east end of Port Dock 7. This could be accomplished at reasonable cost, as the area is relatively flat and easy to access. The location at the far east end of the dock may be less desirable to members of the fishing community, who would be the primary users. The Port of Newport should carefully weigh whether or not the highest and best use of the site is for parking, as it is large enough to be potentially suitable for other, income generating, uses.

New Structured Parking on Bayfront

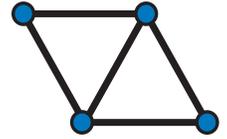
Citing heavy demand during much or all of the year, many Bayfront stakeholders expressed an interest in creating additional parking supply within the district. The analysis largely concurs, finding significant parking congestion even during off-peak times.

To add additional parking, several potential opportunities were explored. An idea that was explored in detail was the addition of new structured parking to the Bayfront, and the feasibility of adding such a structure was considered at two locations: the existing Abbey Street Lot, and empty areas along the waterfront in the vicinity of Port Dock 5. In both cases, logistical difficulties were present that would have increased the already-significant costs of developing parking. Because of these costs, the opportunity to vertically store fishing equipment or construct surface parking at Port Dock 7 is ultimately recommended to address the supply shortages at the Bayfront. Coupled with other recommendations in this plan, this new supply addresses existing shortages and positions the Bayfront to accommodate future growth at a much lower cost per space than other strategies evaluated.

New Structured Parking in Nye Beach

Similarly, based upon significant seasonal congestion in the central areas of Nye Beach, the possibility of adding additional parking in this area was explored in detail through the course of this project. A key project that was examined was construction of a new parking structure at a location formerly occupied by a laundromat along Coast Street. This site was selected because of its central location and the high parking demand nearby, and because additional funding streams may be available if the property is designated as a “brownfield” site.

Based on feedback from stakeholders, this idea was not recommended and the parking plan for the Nye Beach district ultimately focuses on increasing the efficiency of utilization of the existing parking supply, which was found to be adequate even during most peak-season conditions. Further, as with structured parking on the Bayfront, the seasonal nature of demand in Nye Beach would serve to make it difficult to recoup the investment.



New Parking Supply near Don Davis Park

Don Davis Park is a significant attraction within the Nye Beach district, but has a relatively small dedicated parking lot. Visitors to the park therefore have a significant impact upon other parking within the Nye Beach district, reducing available parking for nearby businesses. Stakeholders in the Nye Beach district proposed development of a new parking lot on adjacent city-owned property.

While it was noted that demand is generally heavy in the vicinity of the park during peak conditions, the existing parking is more than adequate during non-peak conditions. Given the potential economic development value of the adjacent city-owned property, construction of a year-round parking lot at this location may not be a wise investment. Instead, the plan for Nye Beach calls for new city code language permitting temporary parking in unpaved areas during the handful of times when nearby supply is inadequate, and includes a number of measures to ensure existing supply is fully utilized.

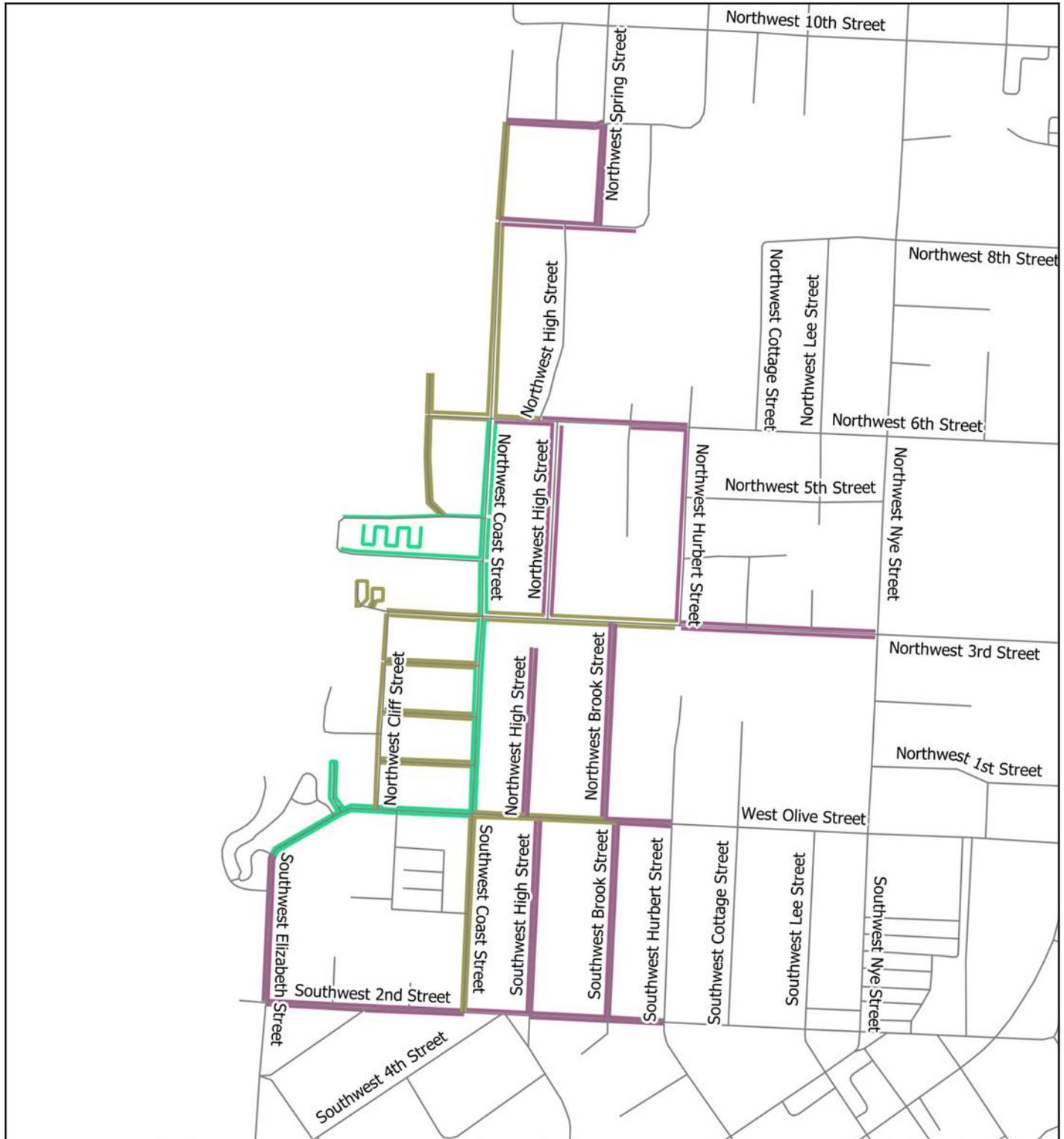
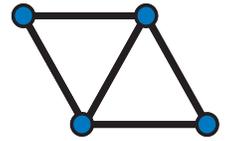
Evaluation

Over a timeline of several years, parking demand can often vary heavily depending upon factors such as land use patterns, the economy, or the price of gas. Likely, this is particularly true in Newport, given that the tourism and fishing industries can both vary significantly from year to year, which will accordingly impact parking demand. With this in mind, this parking plan is intended to be flexible so as to be easily adaptable to changing conditions.

To whatever extent possible, the City should attempt to continue to collect and analyze data on parking to evaluate the efficacy of the recommendations presented herein. Further analyses can be based upon the comprehensive analysis described in the preceding section, and should be conducted to determine if the following goals of this plan are being met:

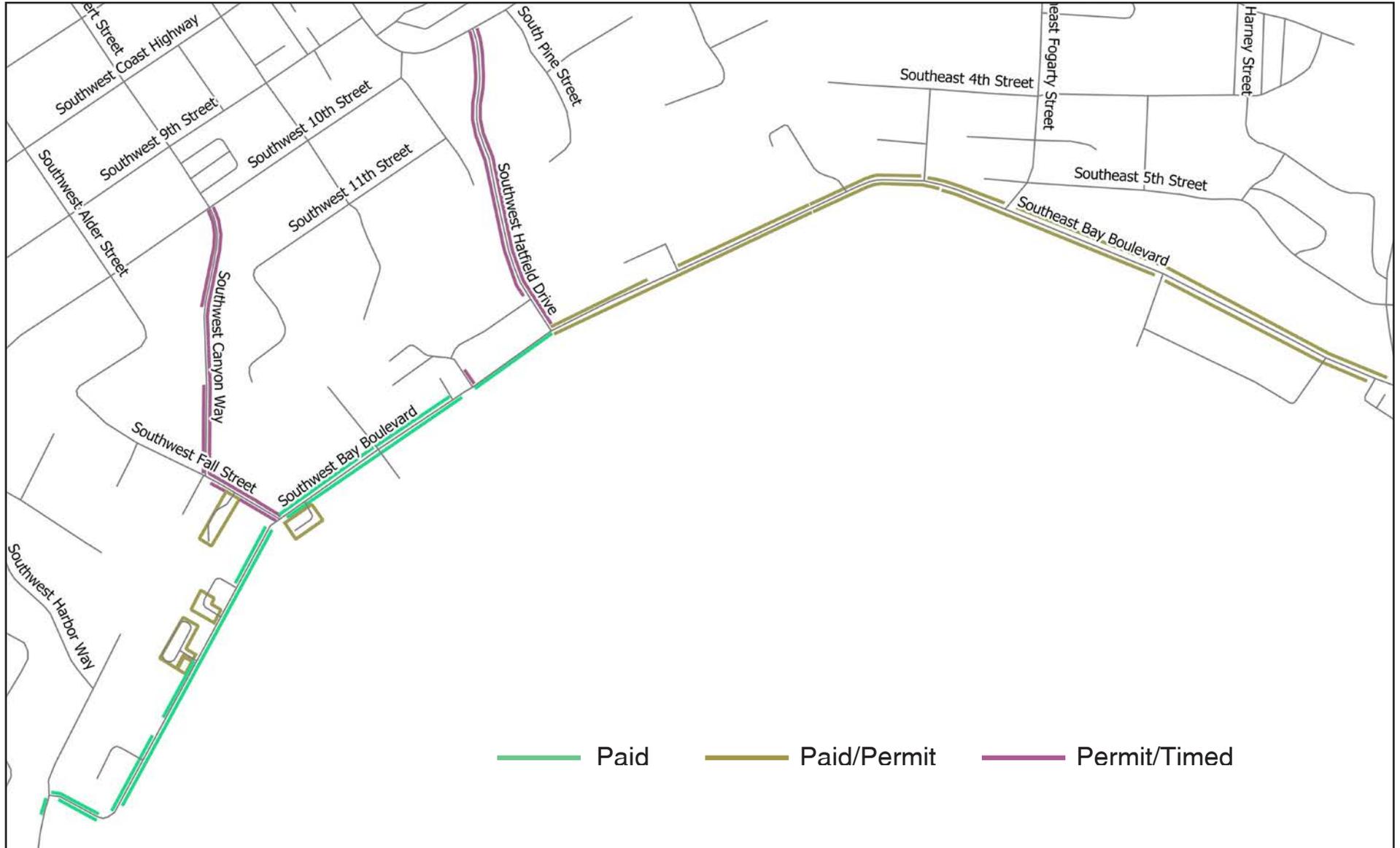
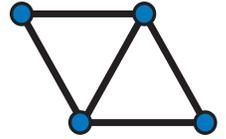
- Are the new and existing parking assets in City Center accommodating the demand from the myriad of uses such as City Hall, the aquatic center, the farmer's market, and the retail businesses?
- Are the parking meter rates calibrated in such a way that approximately 10% to 20% of metered spaces are available at any given time?
- Are the three hour time limits in the metered and permitted areas adequately serving demand? Are the two hour time limits within City Center continuing to work well?
- Are enforcement hours aligned with times of heavy demand?
- Is parking management within Nye Beach adequate to accommodate demand in light of new development as it occurs?
- Are the residential, business, and fishing permits being used as intended? Are they meeting the demand of those communities?

Nye Beach: Proposed Metered Area

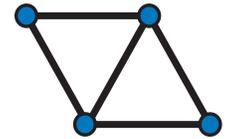


— Paid
 — Paid/Permit
 — Permit/Timed

Bayfront: Proposed Metered Area



Part 5:
Capital Projects, Costs, & Revenue Projections



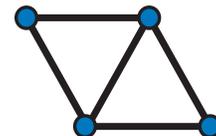
Capital Projects Considered & Recommended

The table that follows shows the various projects and recommendations that were evaluated over the course of this project, including order-of-magnitude cost estimates. These are organized into tiers, with Tier 1 consisting of highest priority projects that are recommended for implementation immediately; Tier 2 consisting of projects of secondary importance; and Tier 3 consisting of projects that should be completed in the future as funds are available. Note that Tier 3 projects are general ideas for future consideration with excess revenues and so do not include specific cost estimates at this time. Ideas evaluated but not ultimately recommended are also included.

Description	Upfront Cost	Annual Cost
Tier 1		
Maintenance of existing parking assets	--	\$110,000
Striping of existing parking assets	--	\$5,000
Expanding striping to areas currently un-striped	\$10,000	\$5,000
Implementation of metered area (Phase 1)	\$456,250	\$30,200
Permit system management, administration	--	\$20,000
Newport City Transit Loop ²	--	~\$200,000+
Tier 2		
Enhancing citywide wayfinding system	\$25,000-125,000	\$5,000
Improved streetlighting on 3rd & 6th St	\$235,000	\$45,000
Temporary parking adjacent to Don Davis Park	\$5,000-\$10,000	
Implementation of meter/permit area (Phase 2)	\$800,750	\$53,000
Construct gangway from port parking area to east end of Port Dock 5; stripe new parking on port improvements	\$100,000	\$5,000
Tier 3		
Pedestrian improvements	--	--
Transit improvements	--	--
Not Recommended/Completed		
Don Davis Park lot (permanent)	\$1,520,000	\$4,500
Nye Beach structured parking	\$2,400,000	\$15,000
Bayfront structured parking	\$4,000,000	\$25,000

¹Annual costs are shown in 2017 dollars, and assume that the upfront cost and annual maintenance costs are spread evenly over the 20-year planning horizon.

²Cost projections and operational logistics of the Newport City Loop are taken from an ongoing study of transit in the area currently being conducted by Kittelson and Associates



Cost and Revenue Projection Methodology

The tables and information that follows include planning level cost estimates and revenues for the management recommendations described in the preceding section.

Projections are provided on an annual basis, in 2017 dollars. A discount factor (i.e., inflation rate) of 2% is assumed. For projects such as restriping or repaving which do not occur annually, and for projects that entail an upfront cost in addition to an ongoing annual cost, annualized costs are projected based upon a 20 year planning horizon. These projections are preliminary and will be refined further as this plan moves toward adoption.

Revenues from metering in the Nye Beach and Bayfront parking districts were projected using the results of the August and December parking observations. The December observation date was chosen such that there would be a minimal level of tourism and other activities driven by visitors rather than locals. Thus, the December demand is assumed to be the minimal demand that typically is seen in Newport. Similarly, the August demand period is assumed to represent typical peak conditions. While it is acknowledged that extreme weather or other events might well cause less demand than observed in December, or more demand than was observed in August, these two observations represent baseline conditions for the peak and off-peak seasons.

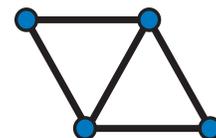
In order to project how demand and thus revenues will vary over the course of the year, room tax revenues obtained by the City were used as a proxy to estimate the level of demand relative to the peak (August) and off-peak (December) levels.

Revenues were projected assuming the initially recommended parking price of \$1 per hour, and revenues from payment-in-lieu programs obtained from the City. Cost estimates were derived from a number of sources, including data provided by the City and cost estimates obtained from vendors, contacts within other jurisdictions, etc.

Meter Capitalization and Phasing

Based upon feedback from stakeholders and the results of the demand studies, the block faces recommended for metering are prioritized for implementation in two phases, with metered-only areas implemented first, after which metered/permitted areas can be implemented as demand and funding necessitate.

- **Phase 1** corresponds to the metered-only area, and includes the highest demand parking spaces, recommended for immediate implementation. These spaces typically see high demand during all but the slowest times of year. In addition to the metered-only area, the metered/permitted parking lots in the Bayfront district are recommended for implementation during Phase 1.
- **Phase 2** corresponds to the metered/permitted area, and includes parking spaces that currently see high demand during the busiest times of year, and moderate demand off-peak. They may see varying levels of demand during “shoulder” seasons. These spaces are recommended for metering following implementation of Phase 1, based upon funding availability, observed demand, and public input.



As the Phase 1 metered district is rolled out, the permit program to support the metered/permit district can be rolled out concurrently in anticipation of metering those block faces. Details of the permit program are described in the following section. As Phase 1 is implemented, parking demand patterns are likely to shift in the Nye Beach and Bayfront parking districts. A key goal of the metered/permit district is to protect existing residents and business owners from undue impacts of these management changes, and the second phase of the roll-out should be designed accordingly.

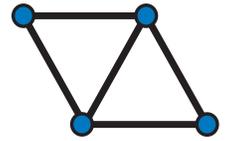
The table below summarizes the upfront costs for the equipment procurement and related considerations corresponding to converting the recommended areas to paid parking as proposed in this plan in the Nye Beach and Bayfront districts.

Nye Beach					
Phase	# Spaces	# Paystations¹	Paystation cost²	Signage cost³	Total cost to implement
Phase 1	183	26	\$208,000	\$55,000	\$263,000
Phase 2	319	45	\$360,000	\$98,750	\$458,750
Bayfront					
Phase	# Spaces	# Paystations¹	Paystation cost²	Signage cost³	Total cost to implement
Phase 1	229	31	\$248,000	\$65,000	\$313,000
Phase 2	171	22	\$176,000	\$46,250	\$222,250

¹Approximately one paystation for every 8 metered spaces is assumed. Blockfaces with fewer than four spaces may not be recommended

²Assumed paystation cost is \$8,000. As a point of comparison, the City of Portland paid between approximately \$5,000 and \$8,000 each for Cale paystations.

³Assumed signage and miscellaneous costs associated with the change in management are assumed to be \$1,250 (or approximately the cost of one sign post) per five spaces. Existing sign posts are in place through some of the district, so this represents a conservative estimate.

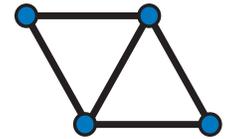


Ongoing Costs

There are some on-going costs associated with metering, primarily related to the maintenance of the paystations, signage and striping, and other equipment ancillary to maintaining a metered district. These costs are shown in the table below.

Nye Beach				
Phase	# Spaces	# Paystations¹	# Signposts	Annual maintenance costs¹
Phase 1	183	26	44	\$17,400
Phase 2	319	45	79	\$30,400
Bayfront				
Phase	# Spaces	# Paystations¹	# Signposts	Annual maintenance costs¹
Phase 1	229	31	52	\$20,700
Phase 2	171	22	37	\$14,700

¹Assumes an annual maintenance cost of \$500/paystation and \$100/signpost. Costs for installing new striping and maintaining existing striping are considered separately. Costs for existing or expanded enforcement are also not considered here; enforcement costs typically are approximately equal to revenue obtained through parking tickets, so enforcement ideally is revenue-neutral.



Revenue

High-level revenue projections for the phases described in the previous section are shown in the table below. These revenue projects are based on an introductory parking fee of \$1/hour., and are shown for two potential scenarios for the times of year that paid parking is in effect:

- **Year-round metering:** Parking within metered areas is pay-to-park seven days per week, 365 days per year, during metered hours of 11:00 am to 7:00 pm.
- **Peak demand metering:** Parking within metered areas is pay-to-park seven days per week from June through September; parking is pay-to-park only on weekends during other months. Metered hours are again assumed to be 11:00 am to 5:00 pm.

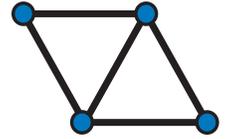
Detailed cost and revenue projections are provided within the tables that follow.

Nye Beach			
Phase	# Spaces	Projected annual revenue (year-round metering) ¹	Projected annual revenue (peak demand metering) ¹
Phase 1	183	\$256,700	\$154,200
Phase 2	319	\$186,700	\$102,700
Bayfront			
Phase	# Spaces	Projected annual revenue (year-round metering) ¹	Projected annual revenue (peak demand metering) ¹
Phase 1	229	\$433,600	\$254,300
Phase 2	171	\$106,900	\$66,400

¹Revenues calculated assuming that parking demand scales linearly with room receipts within the City between peak and off-peak periods. It is assumed that existing demand will be reduced by 10% on metered blockfaces following implementation of metering. It is assumed that permitholders will represent 50% of all demand in aggregate paid/permitted areas.

A benefit of paid parking is that a well-managed system will produce a positive net cash flow, giving jurisdictions a new revenue stream that is typically well in excess of the system's capital and maintenance costs. This can help fund local improvements to the pedestrian infrastructure, offset the cost of free public parking facilities elsewhere in the City, or be applied to other measures

Most often, specific allocation of meter revenues is wrapped into the city's overall budgeting process. As a general framework, it is recommended that revenues first be allocated toward servicing and repaying any bonds associated with the paid parking system. Next, revenues should cover ongoing operating and capital



costs of the system. At the outset, these costs may absorb much or all of the revenue of the metering system. Later, revenues may be available which could then be used for more aspirational projects to increase parking supply or manage demand.

Over the course of this project, stakeholders consistently expressed a strong interest in using potential meter revenue to fund expanded transit service to the Nye Beach, City Center and Bayfront areas. Frequently, opportunities will arise to apply for federal or state grants for transportation improvements where a local match is required. The meter revenue collected can potentially provide some or all of the local match for such an opportunity.

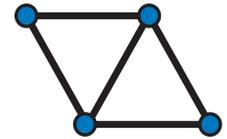
Lastly, a certain percentage of excess meter revenue (i.e., revenue above and beyond that necessary to operate and maintain the system) should be specified as a minimum that must be spent within the districts in which the revenue was generated. Spending the money locally helps build and maintain local support for metering, as the neighborhood will have new moneys to put toward often long-awaited improvements such as crosswalks and sidewalk upgrades. As an example, the City of Portland specifies that at least 51% of excess meter revenues are spent in the neighborhoods in which they are collected. In consult with stakeholders, Newport should consider adoption of similar policy guidance.

Equipment Procurement

The City should launch an RFP process to purchase the equipment, installation, and upkeep of the meters, ensuring that the chosen provider's equipment is capable of easily being adjusted to meet the City's future needs, and is capable of withstanding the sometimes extreme coastal weather without the need for excessive maintenance.

Especially given the weather conditions in Newport, the City should place a premium on the recommendations regarding pay station properties including number, location, and maintenance costs; upkeep of the pay stations will constitute the lion's share of capital needs in support of the metering. For typical-sized city blocks, one pay station per block face is standard, however the long blocks along the Bayfront and the parking lots recommended for metering should include approximately one pay station per ten spaces, ideally situated to minimize out-of-direction walking. When issuing the RFP, the City should consider the availability of pay-by-phone options, as these are becoming increasingly popular and useful.

It is noted that the recommended metered area for Bayfront includes a public lot that offers 8-hour parking. Several stakeholders indicated that this long term parking is important to their business or employment. While the lots should typically be priced at levels at or slightly below the price of on-street parking, the City should consider implementing a reduced rate for all-day parking in this lot in the form of a \$10 daily maximum.



Overall Expense and Revenue Picture

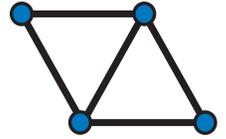
The implementation of the metering and permit system described herein will result in significant changes to the revenue and expense streams related to parking for the City. The table below summarizes the projected revenues and expenses based on capital project tier, metering phase, and include calculations for both year-round metering or part-time metering, as described in the previous section.

Expenses		
Description	Upfront cost	Annual cost
Phase 1 Metering	\$576,000	\$38,100
Phase 2 Metering	\$681,000	\$45,100
Total	\$1,257,000	\$83,200
Revenues		
Description	Annual revenue (year-round metering)	Annual revenue (part-time metering)
Phase 1 Metering	\$690,300	\$408,500
Phase 2 Metering	\$293,600	\$169,100
Total	\$983,900	\$577,600
Net Income		
Description	Annual revenue (year-round metering)	Annual revenue (part-time metering)
Phase 1 Metering, Year 1	\$114,100	\$(167,500)
Phase 1 Metering, Subsequent Years	\$652,200	\$370,400
Phase 2 Metering, Year 1	\$(387,400)	\$(511,500)
Phase 2 Metering, Subsequent Years	\$248,500	\$124,000

Appendix A:
City Center Hourly Occupancy Maps

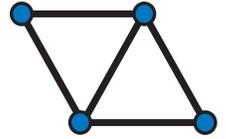
City Center: 10am Occupancy

Saturday
August 27, 2016



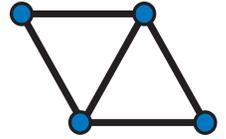
City Center: 11am Occupancy

Saturday
August 27, 2016



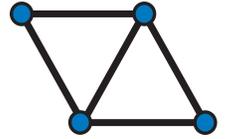
City Center: 12pm Occupancy

Saturday
August 27, 2016



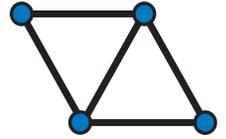
City Center: 1pm Occupancy

Saturday
August 27, 2016



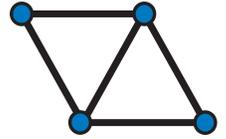
City Center: 2pm Occupancy

Saturday
August 27, 2016



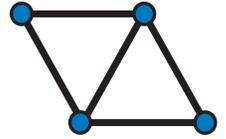
City Center: 3pm Occupancy

Saturday
August 27, 2016



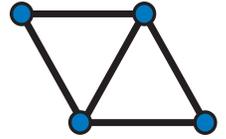
City Center: 4pm Occupancy

Saturday
August 27, 2016



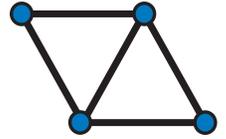
City Center: 5pm Occupancy

Saturday
August 27, 2016



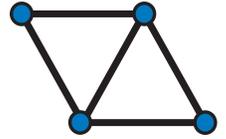
City Center: 6pm Occupancy

Saturday
August 27, 2016



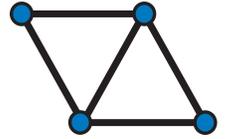
City Center: 7pm Occupancy

Saturday
August 27, 2016



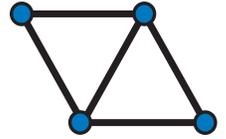
City Center: Weekday 12pm Occupancy

Thursday
August 25, 2016



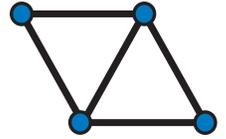
City Center: Weekday 6pm Occupancy

Thursday
August 25, 2016



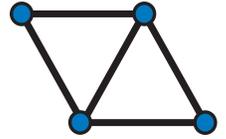
City Center: Weekday 9pm Occupancy

Thursday
August 25, 2016



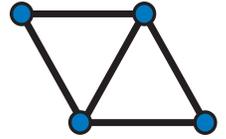
City Center: 10am Occupancy

Saturday
December 10, 2016



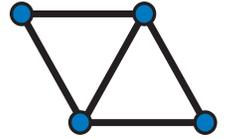
City Center: 11am Occupancy

Saturday
December 10, 2016



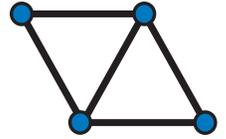
City Center: 12pm Occupancy

Saturday
December 10, 2016



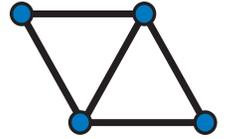
City Center: 1pm Occupancy

Saturday
December 10, 2016



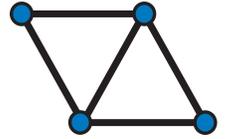
City Center: 2pm Occupancy

Saturday
December 10, 2016



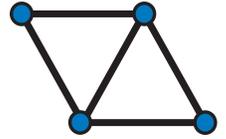
City Center: 3pm Occupancy

Saturday
December 10, 2016



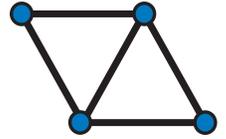
City Center: 4pm Occupancy

Saturday
December 10, 2016



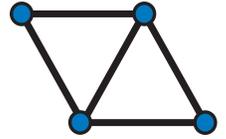
City Center: 5pm Occupancy

Saturday
December 10, 2016



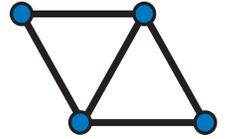
City Center: 6pm Occupancy

Saturday
December 10, 2016

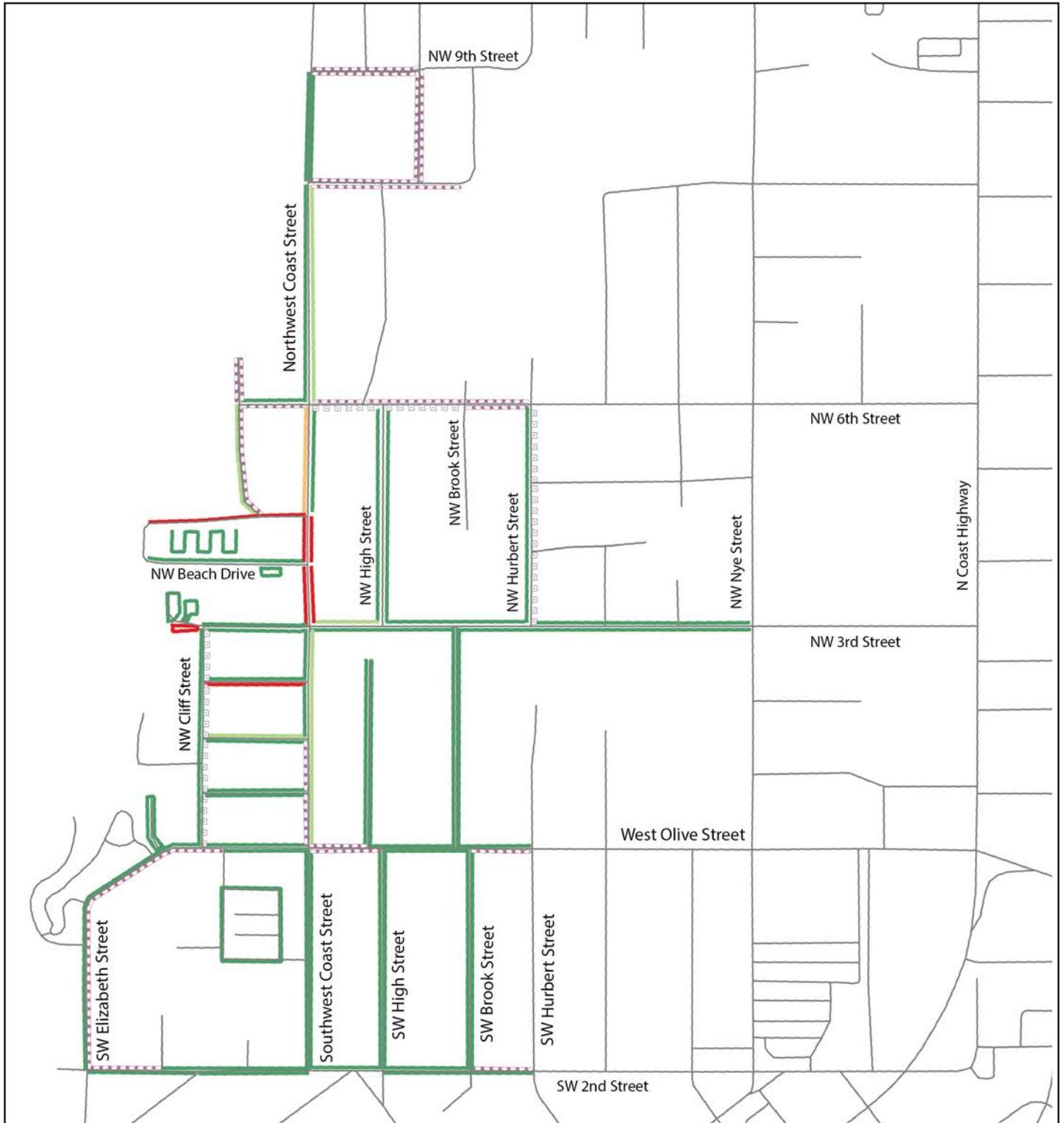
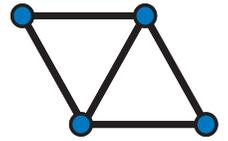


City Center: 7pm Occupancy

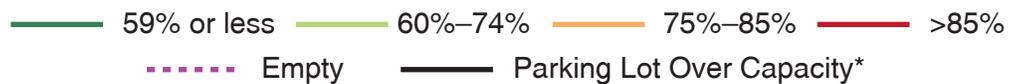
Saturday
December 10, 2016

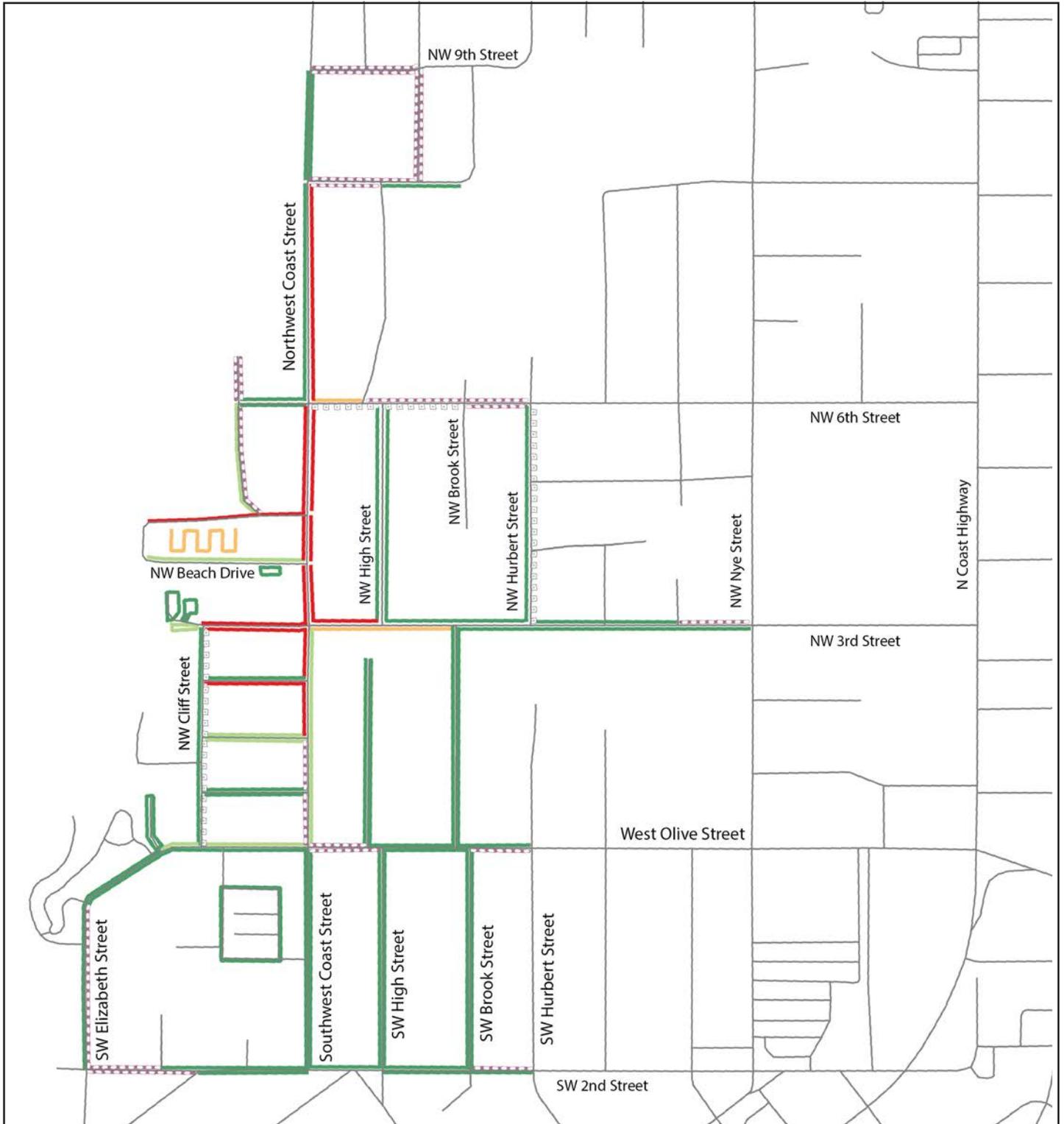
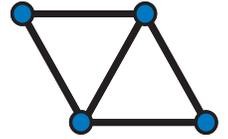


Appendix B:
Nye Beach Hourly Occupancy Maps

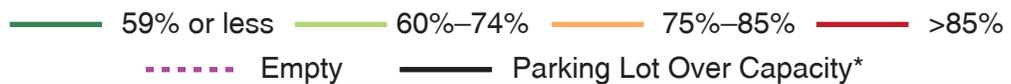


% of Stalls Occupied



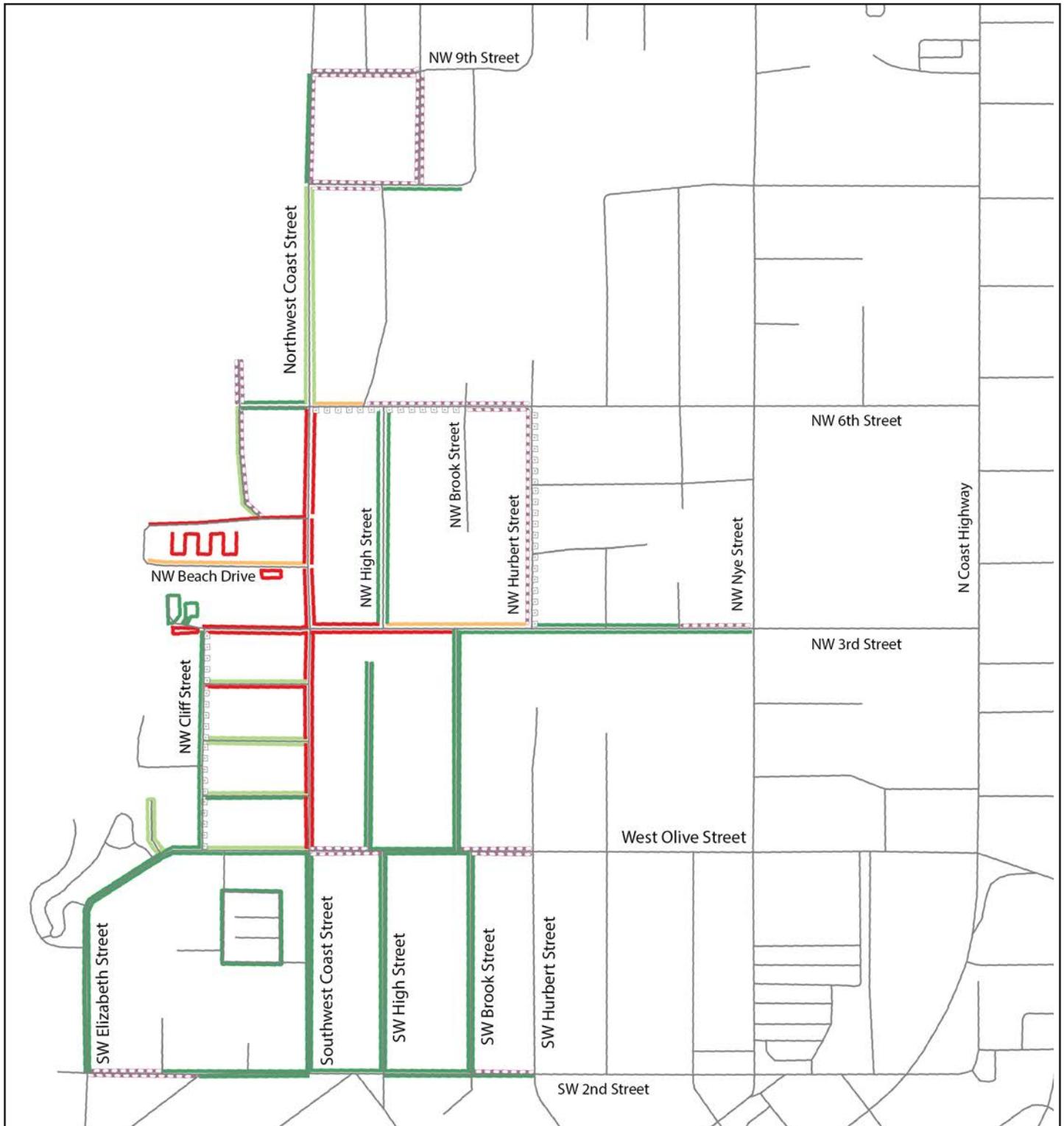
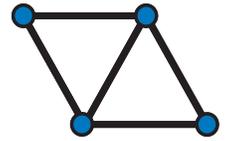


% of Stalls Occupied

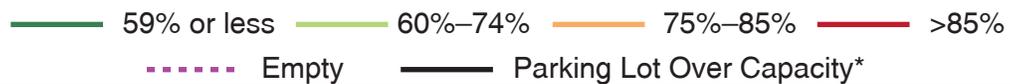


Nye Beach: 12pm Occupancy

Saturday
August 27, 2016

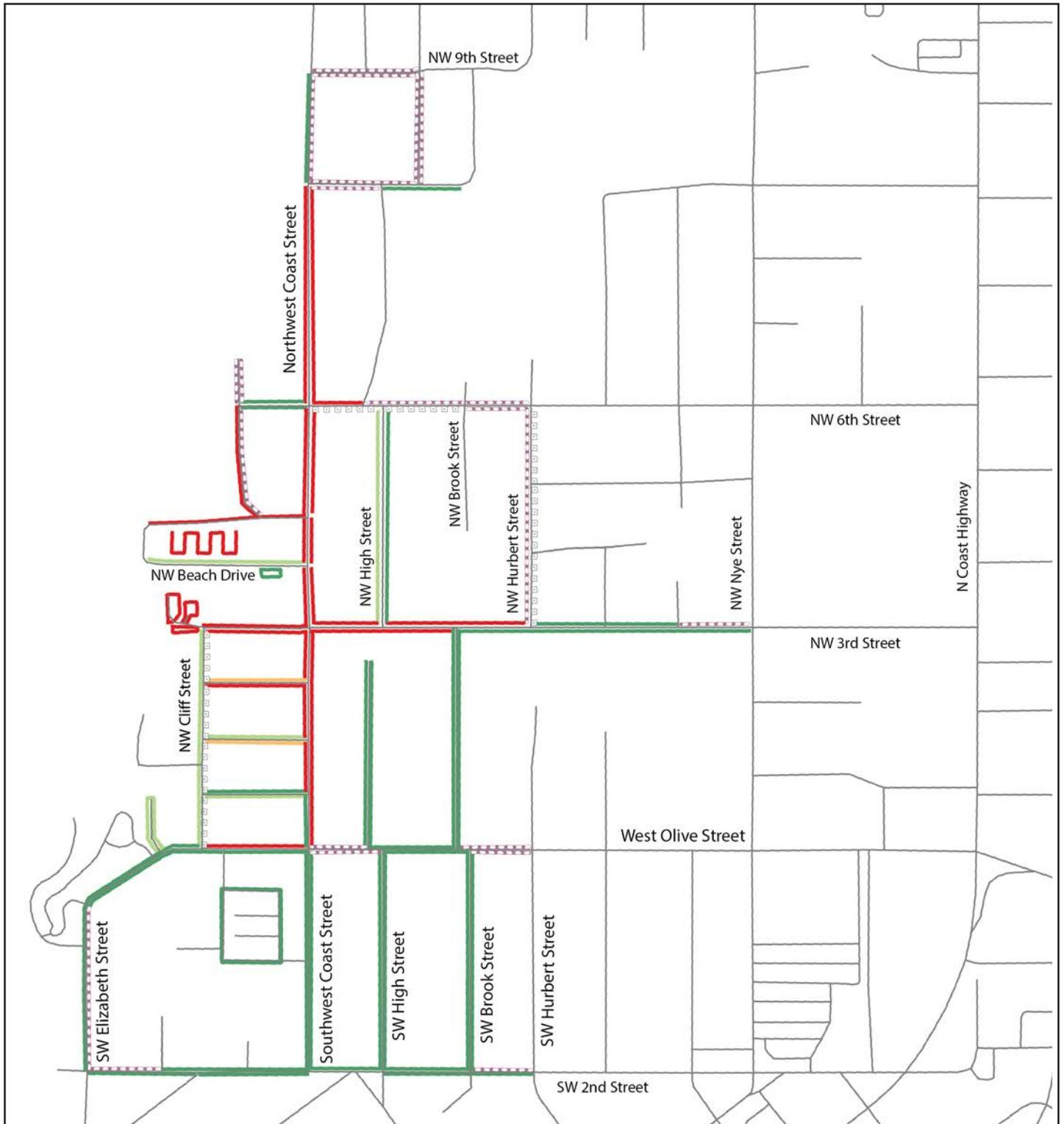
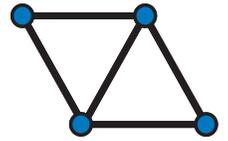


% of Stalls Occupied

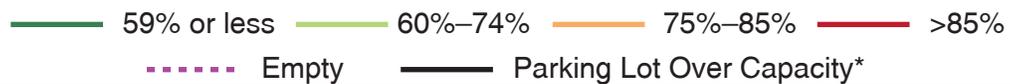


Nye Beach: 1pm Occupancy

Saturday
August 27, 2016

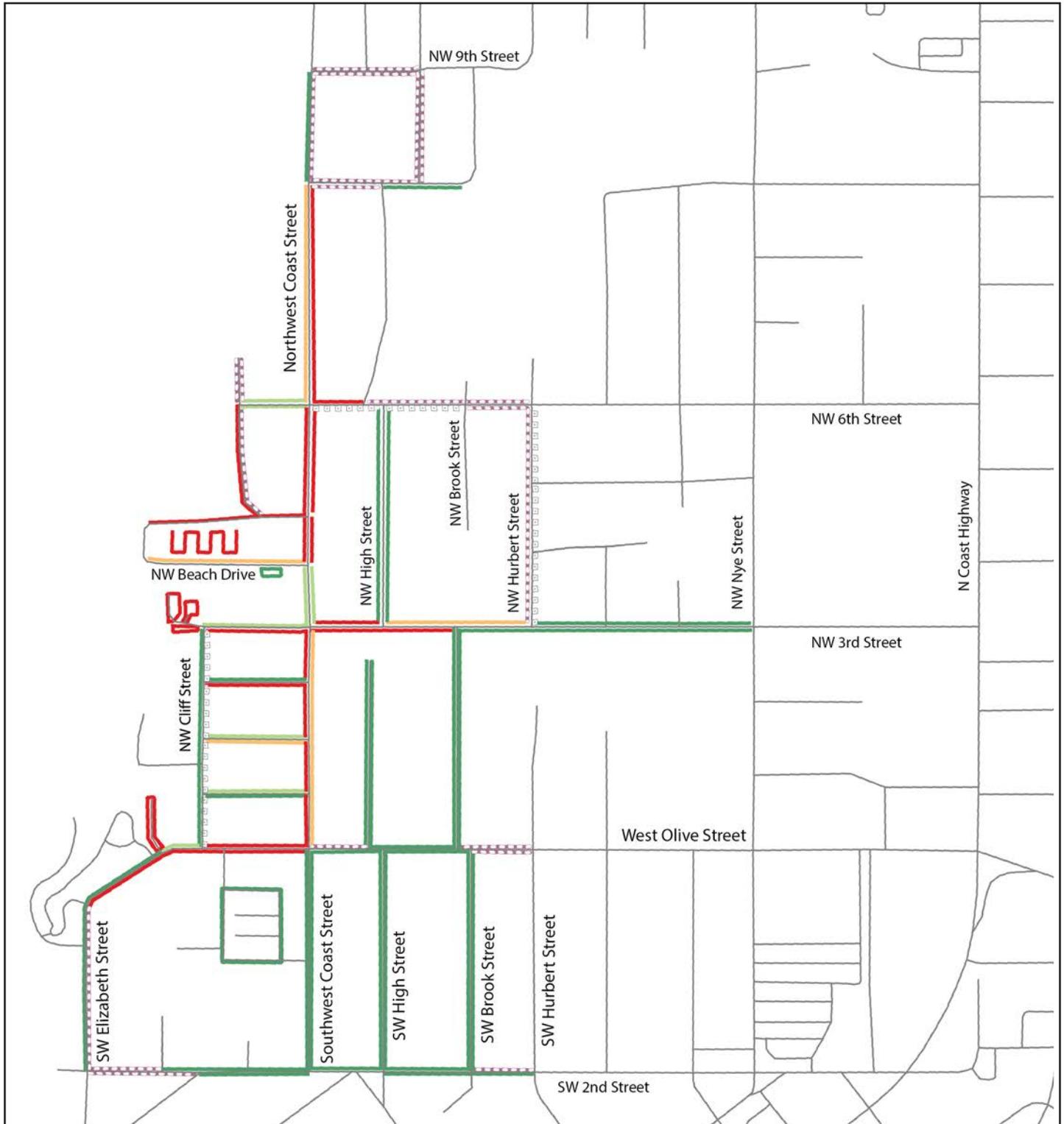
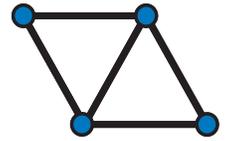


% of Stalls Occupied



Nye Beach: 2pm Occupancy

Saturday
August 27, 2016

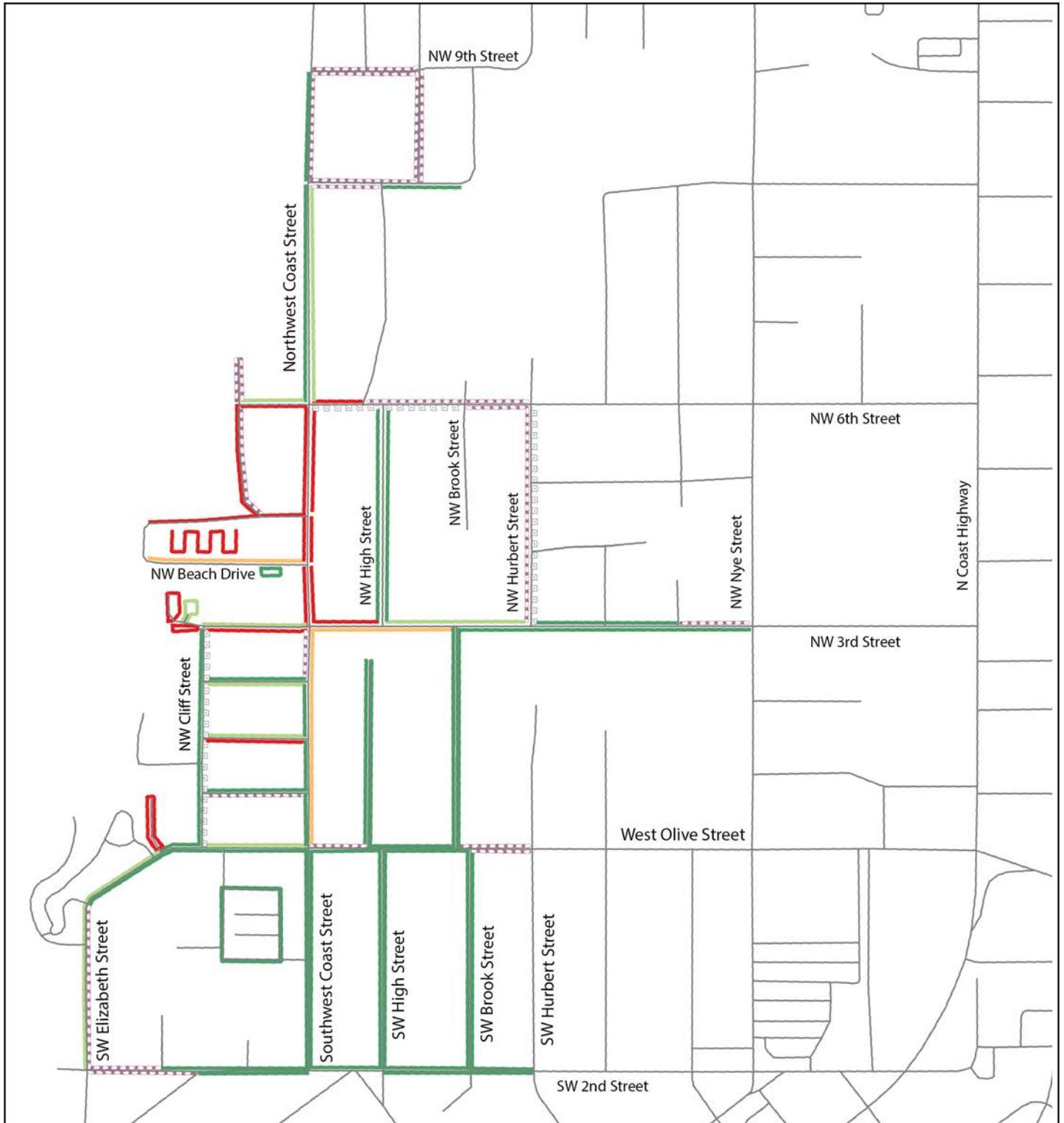
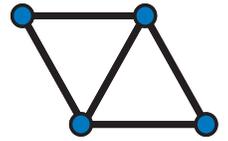


% of Stalls Occupied

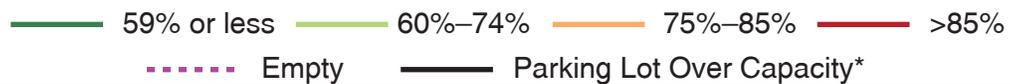
- 59% or less
 - 60%–74%
 - 75%–85%
 - >85%
- Empty
 - Parking Lot Over Capacity*

Nye Beach: 3pm Occupancy

Saturday
August 27, 2016

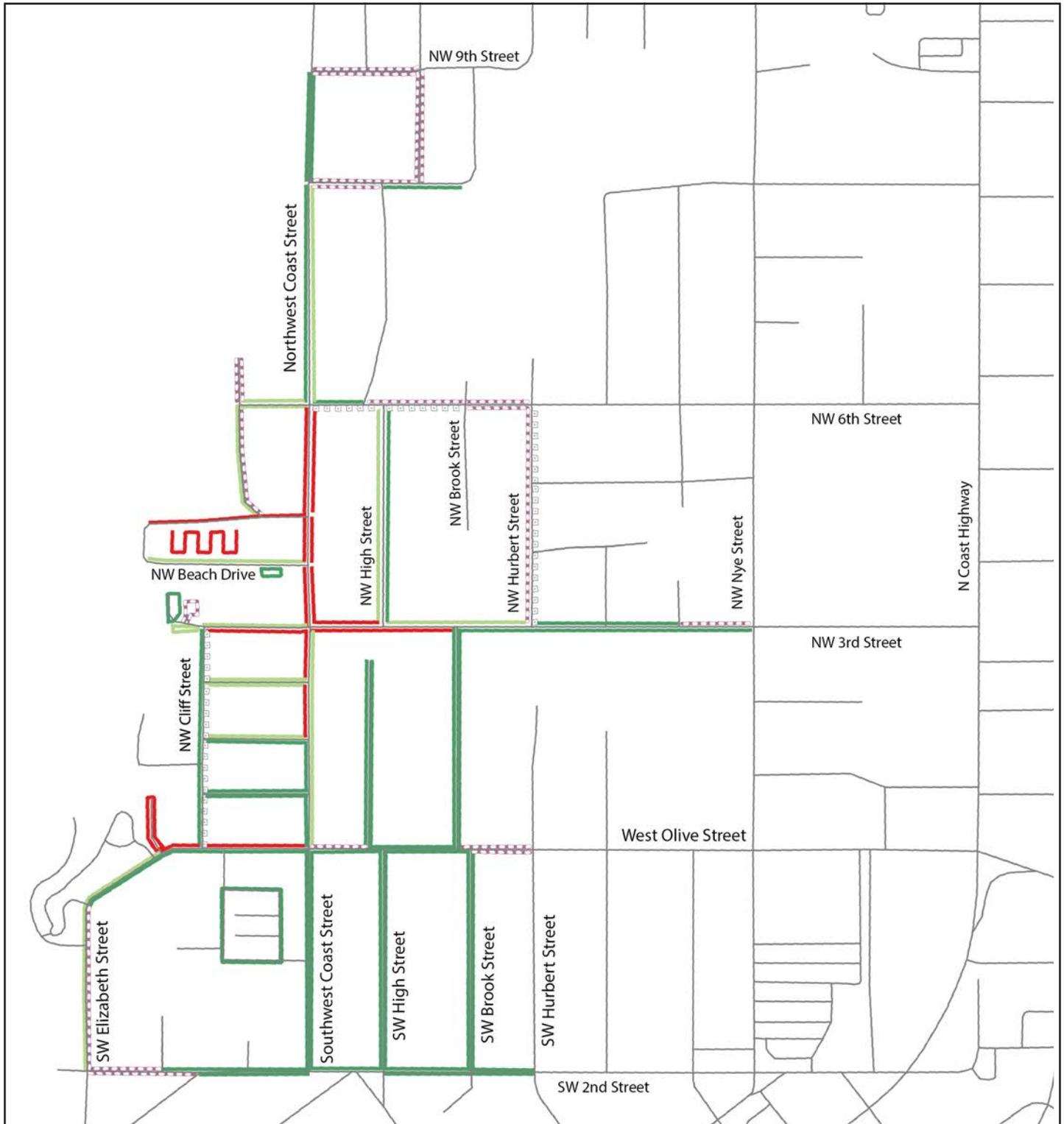
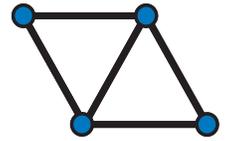


% of Stalls Occupied



Nye Beach: 4pm Occupancy

Saturday
August 27, 2016

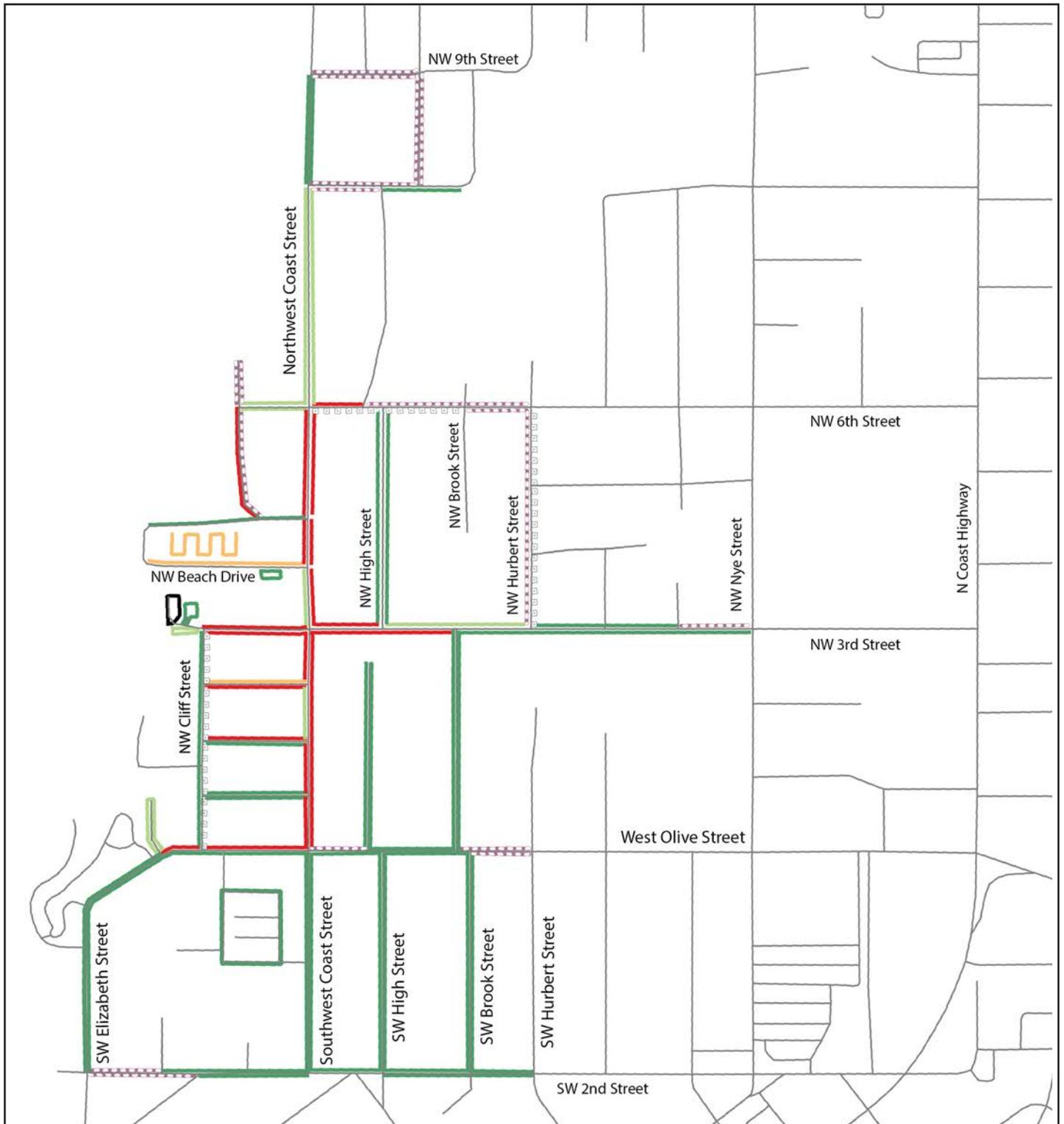
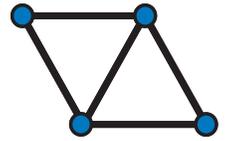


% of Stalls Occupied

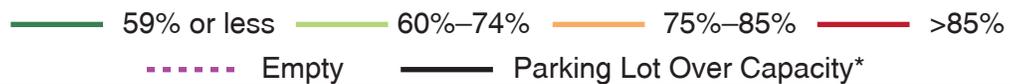
- 59% or less
- 60%–74%
- 75%–85%
- >85%
- Empty
- Parking Lot Over Capacity*

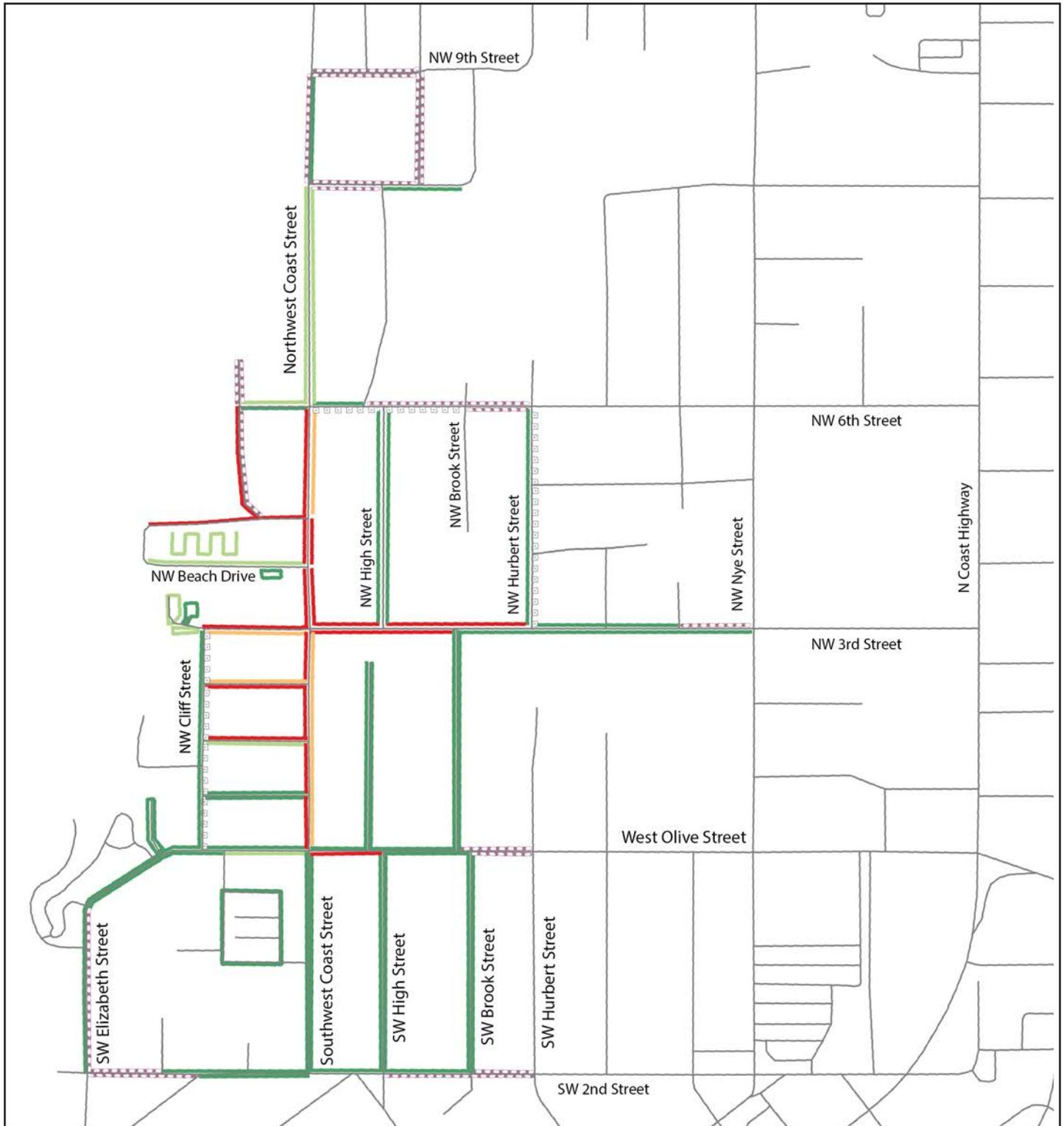
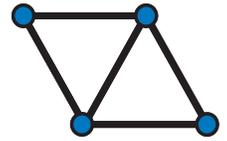
Nye Beach: 5pm Occupancy

Saturday
August 27, 2016

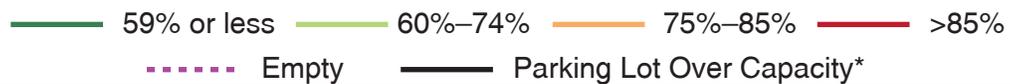


% of Stalls Occupied



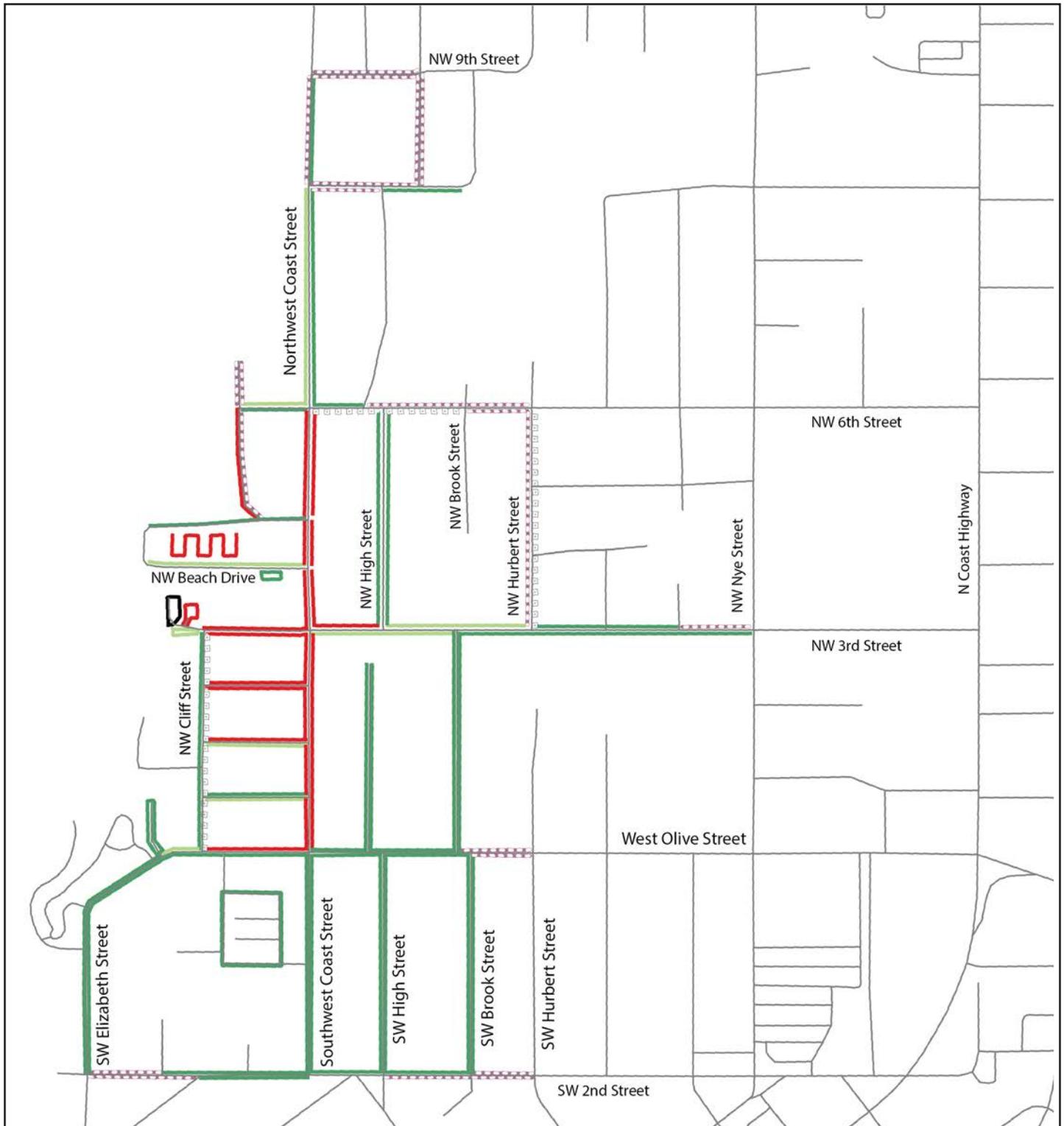
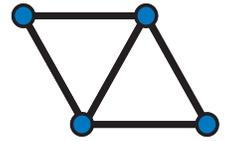


% of Stalls Occupied

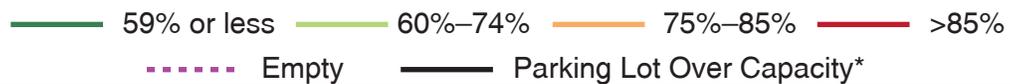


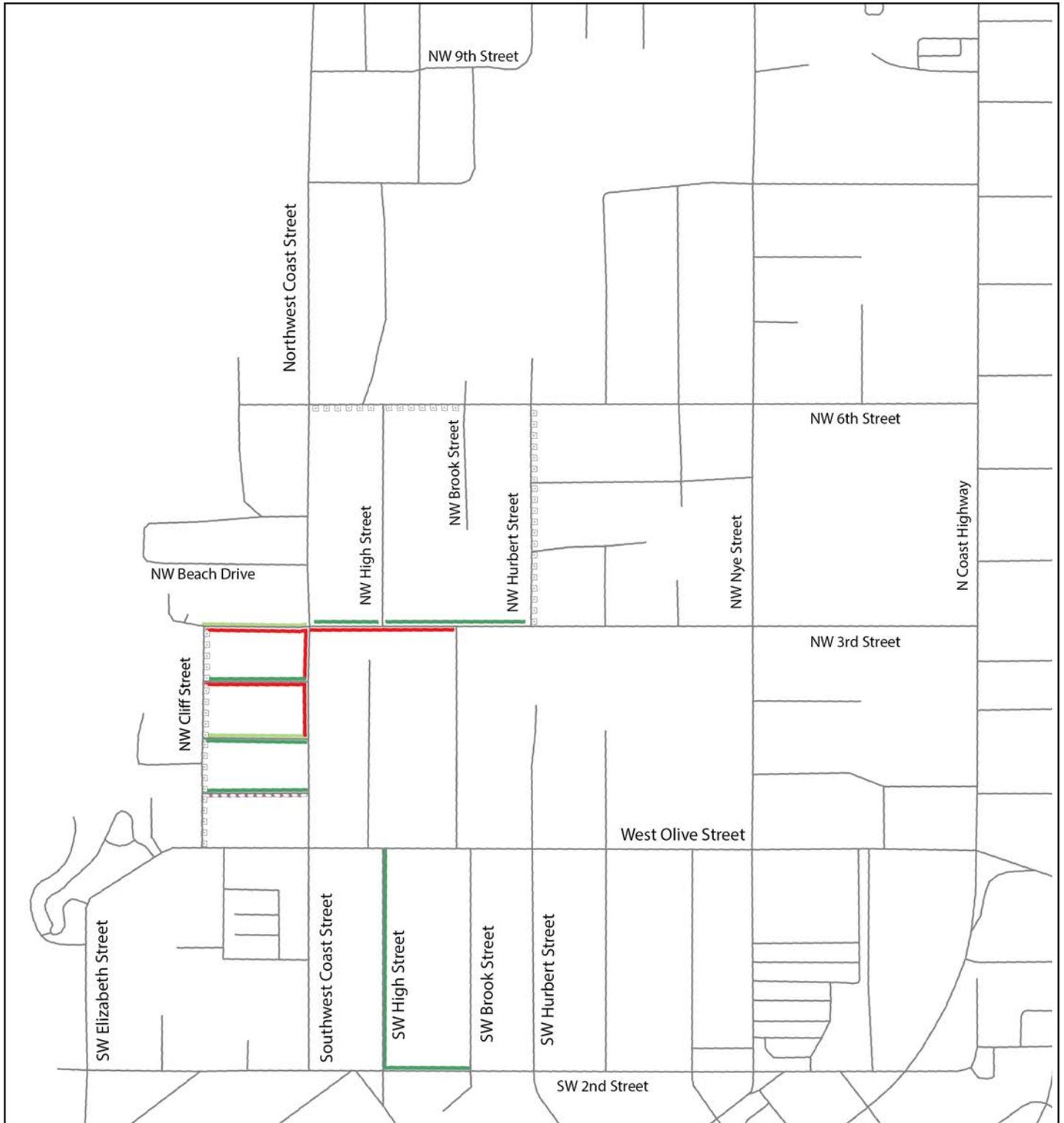
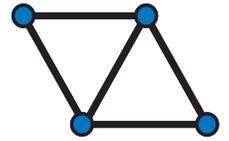
Nye Beach: 7pm Occupancy

Saturday
August 27, 2016

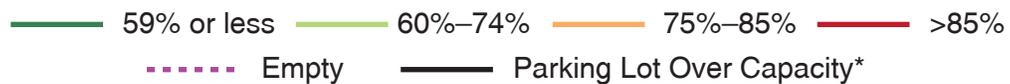


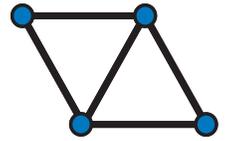
% of Stalls Occupied





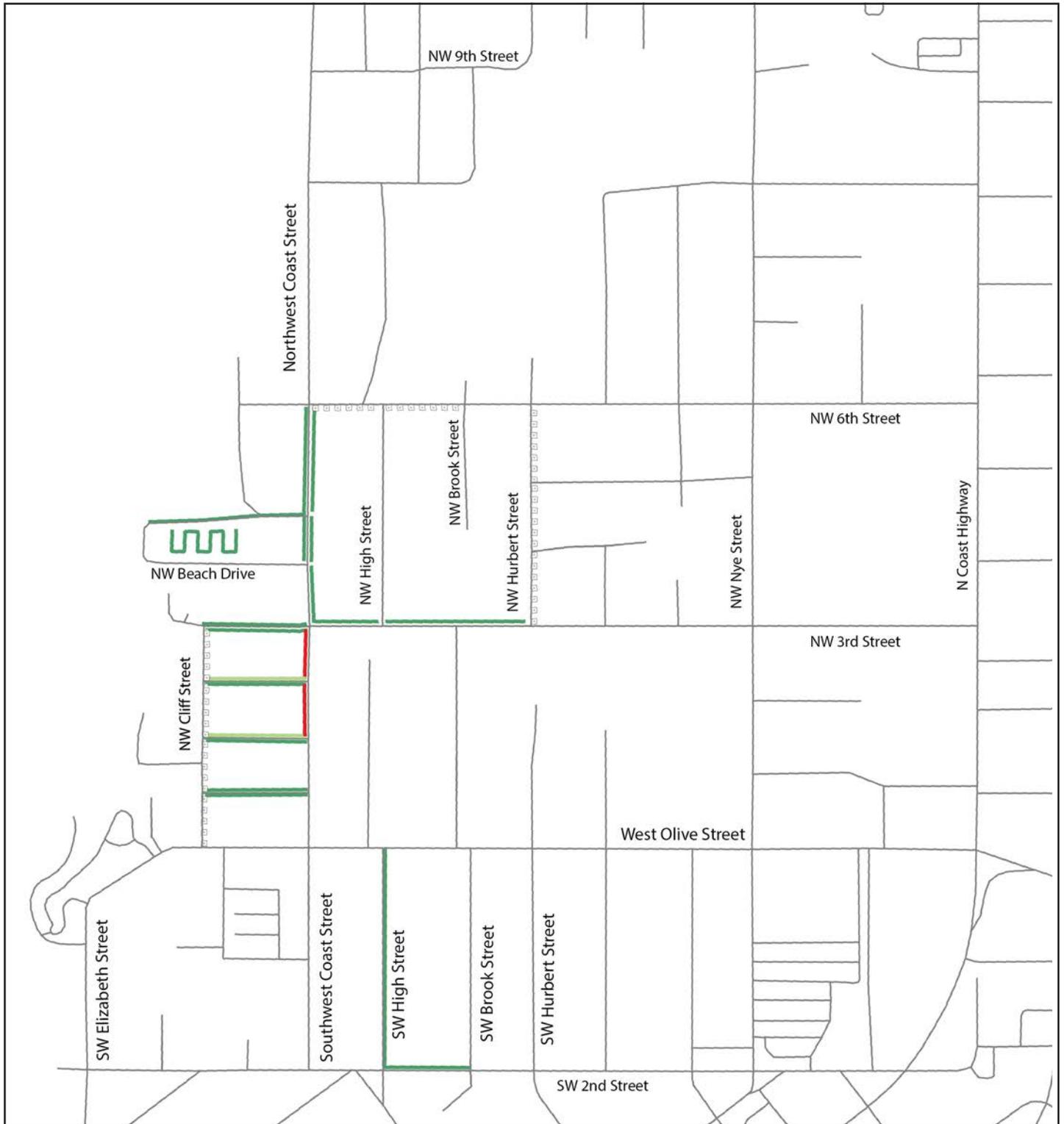
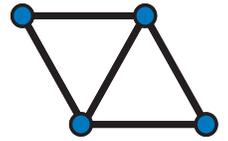
% of Stalls Occupied



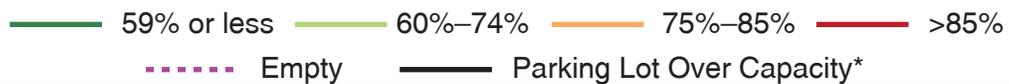


% of Stalls Occupied



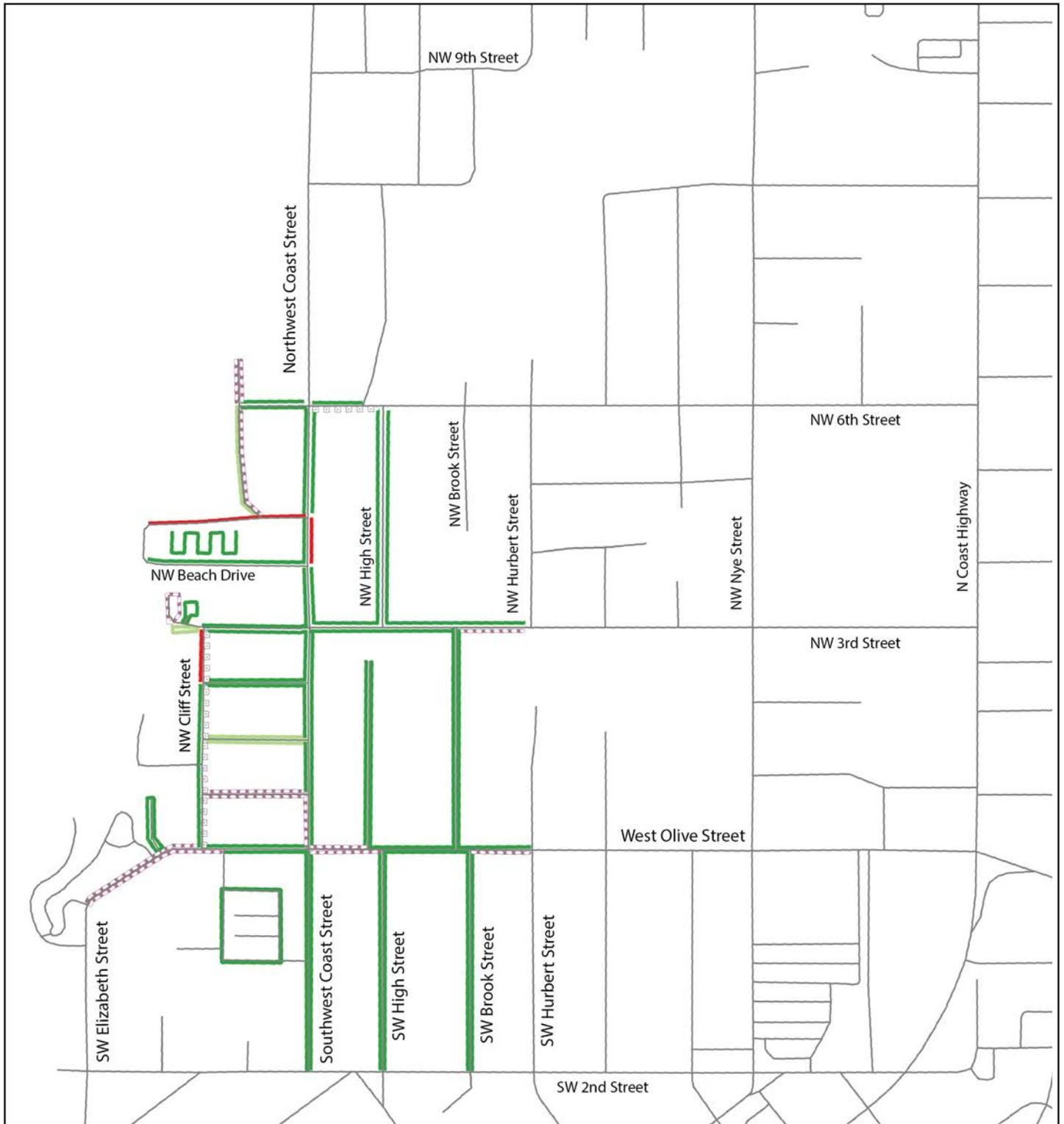
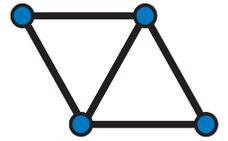


% of Stalls Occupied



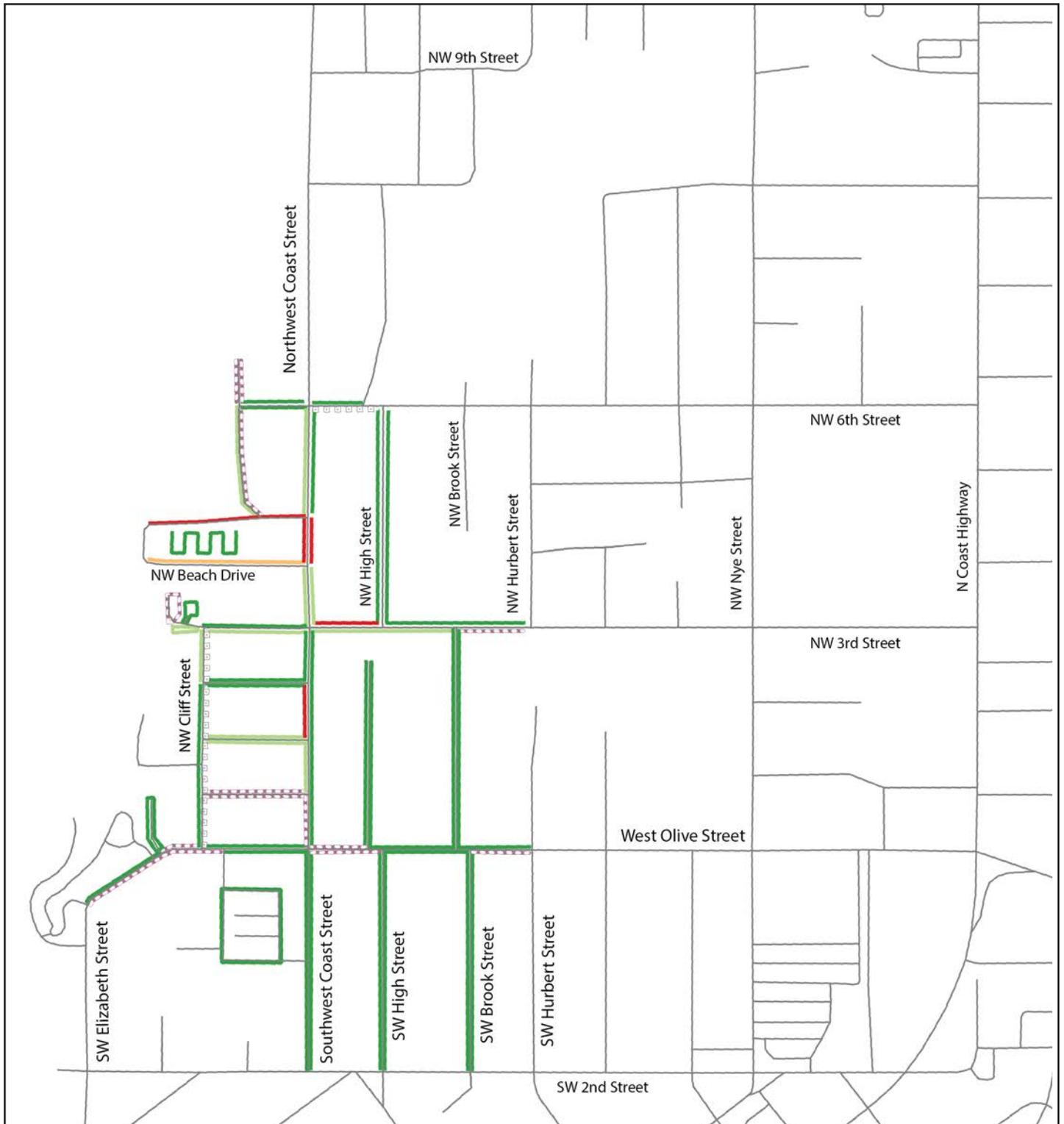
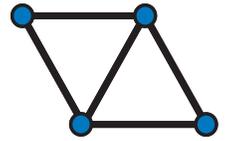
Nye Beach: 10am Occupancy

Saturday
December 10, 2016



% of Stalls Occupied

- Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

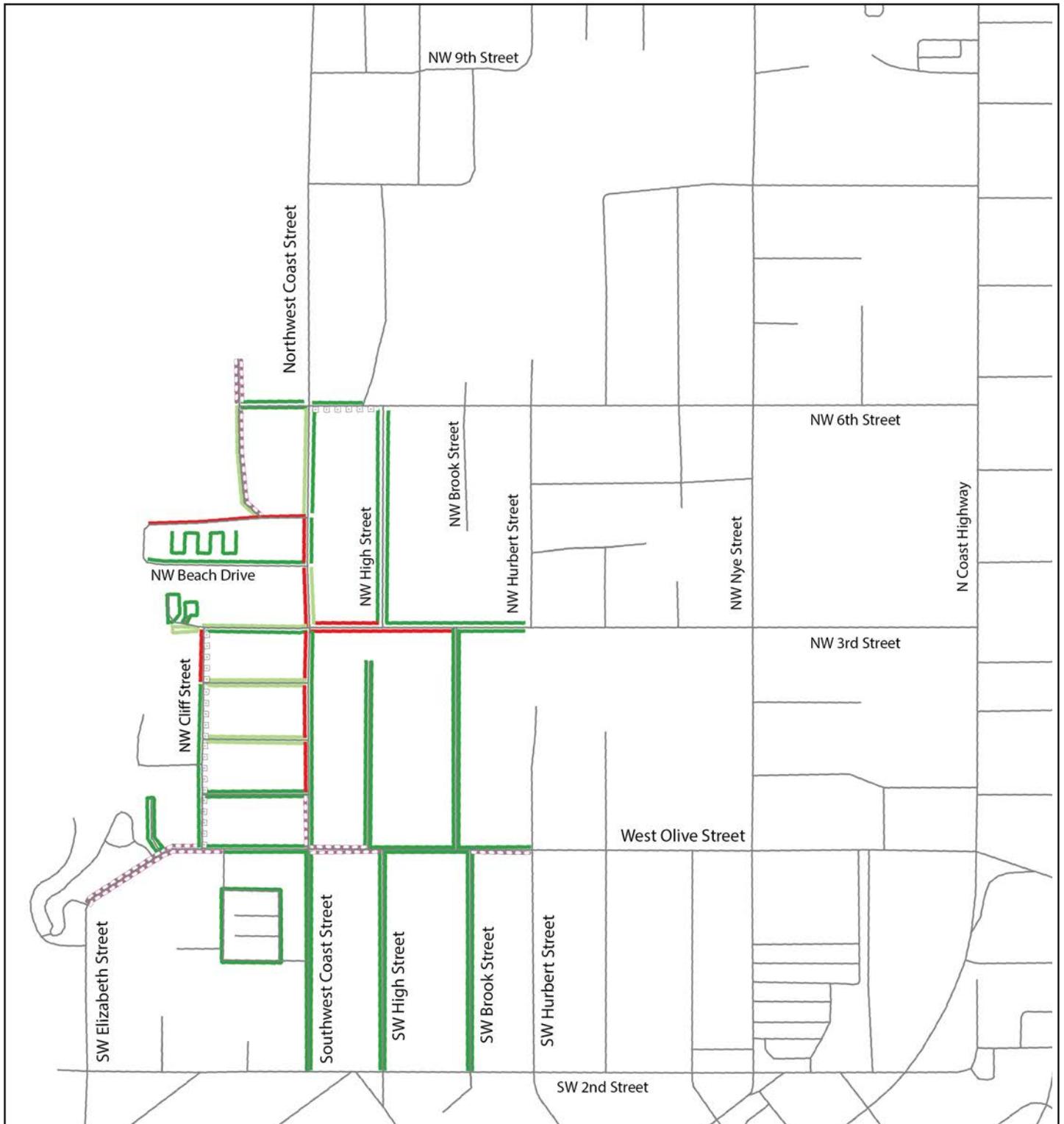
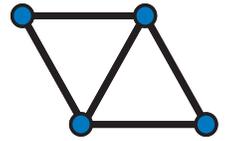


% of Stalls Occupied

- Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

Nye Beach: 12pm Occupancy

Saturday
December 10, 2016

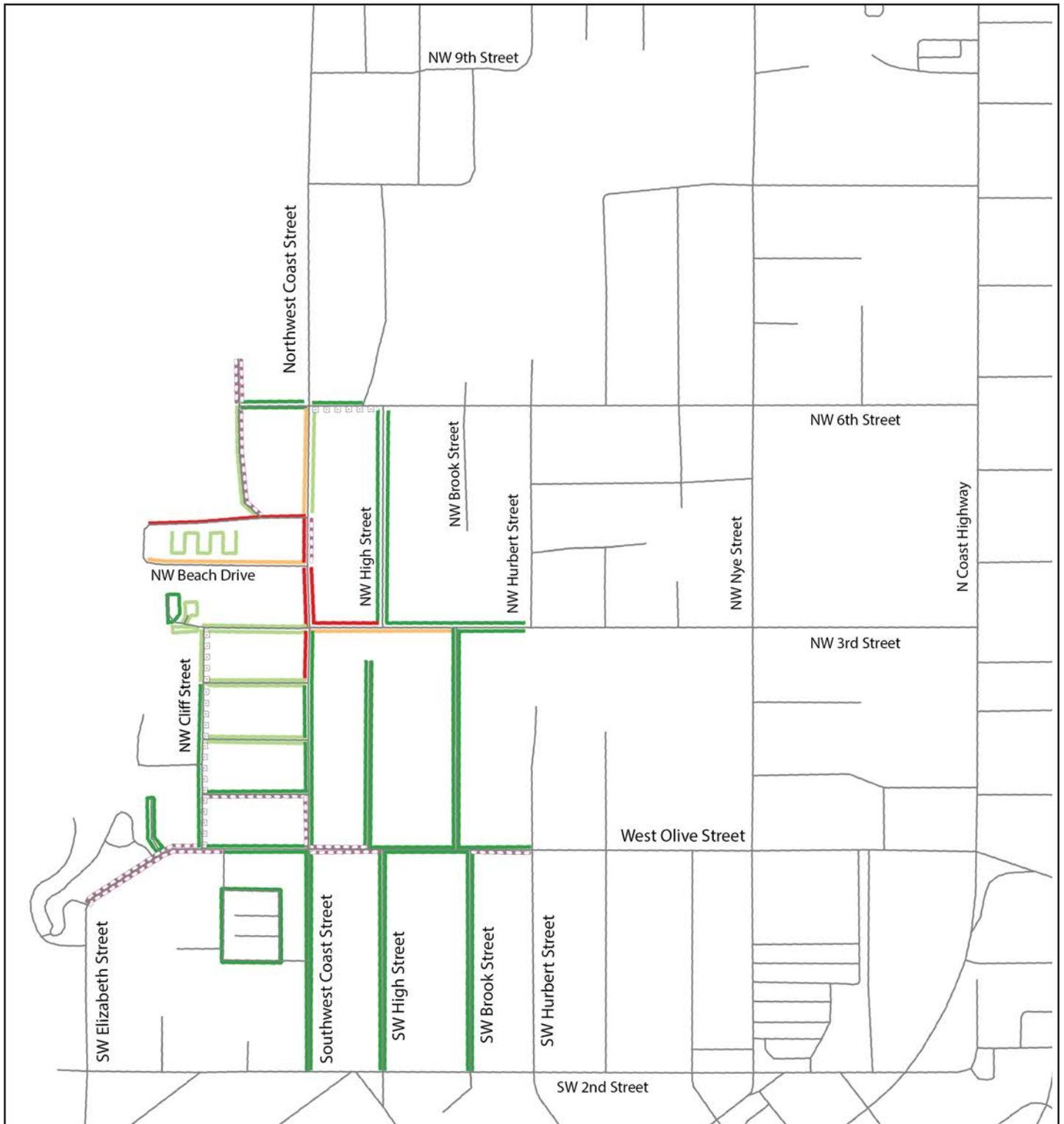
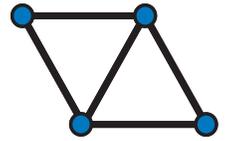


% of Stalls Occupied

- - - - Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

Nye Beach: 1pm Occupancy

Saturday
December 10, 2016

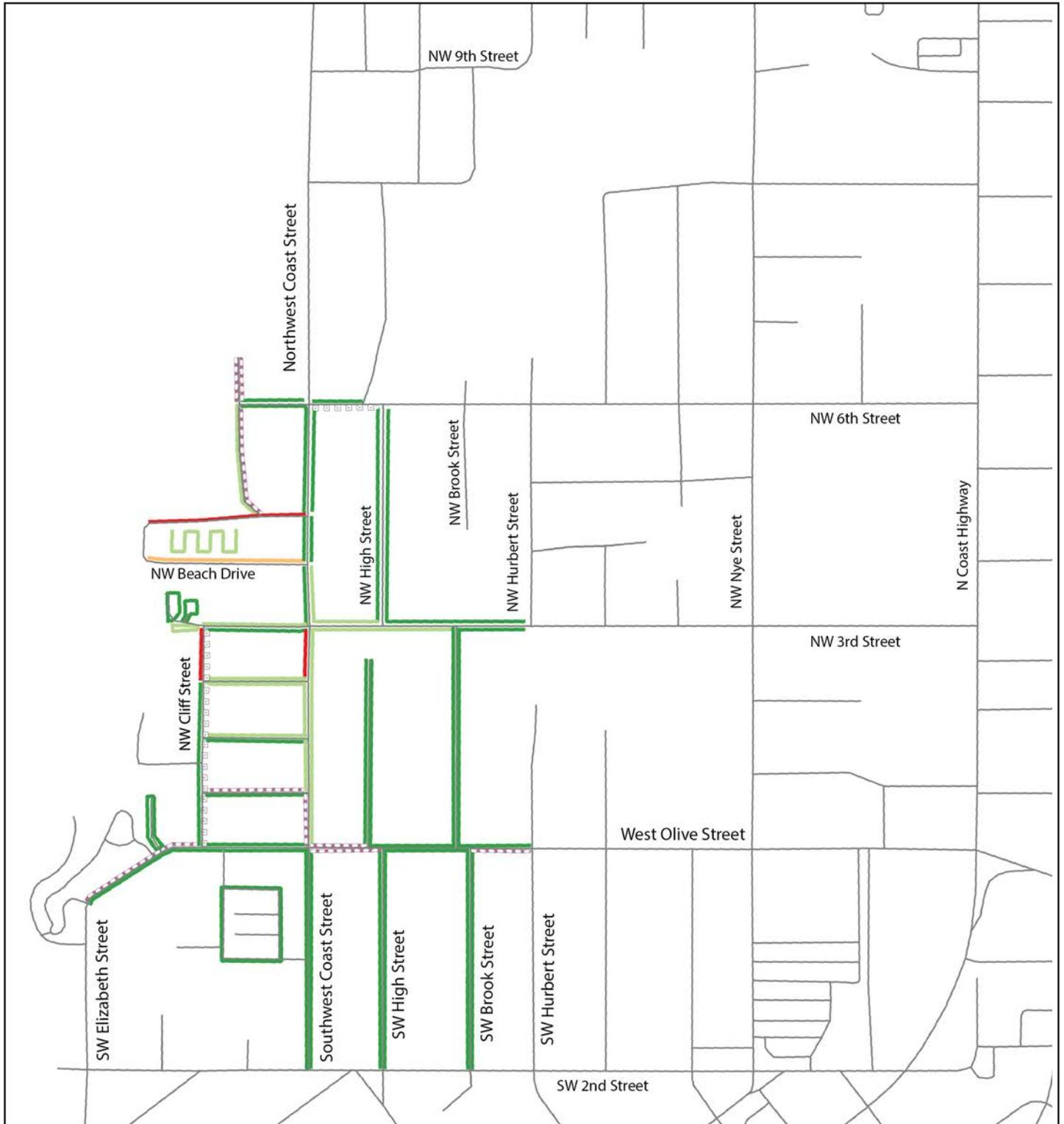
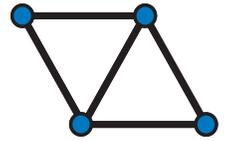


% of Stalls Occupied

- Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

Nye Beach: 2pm Occupancy

Saturday
December 10, 2016

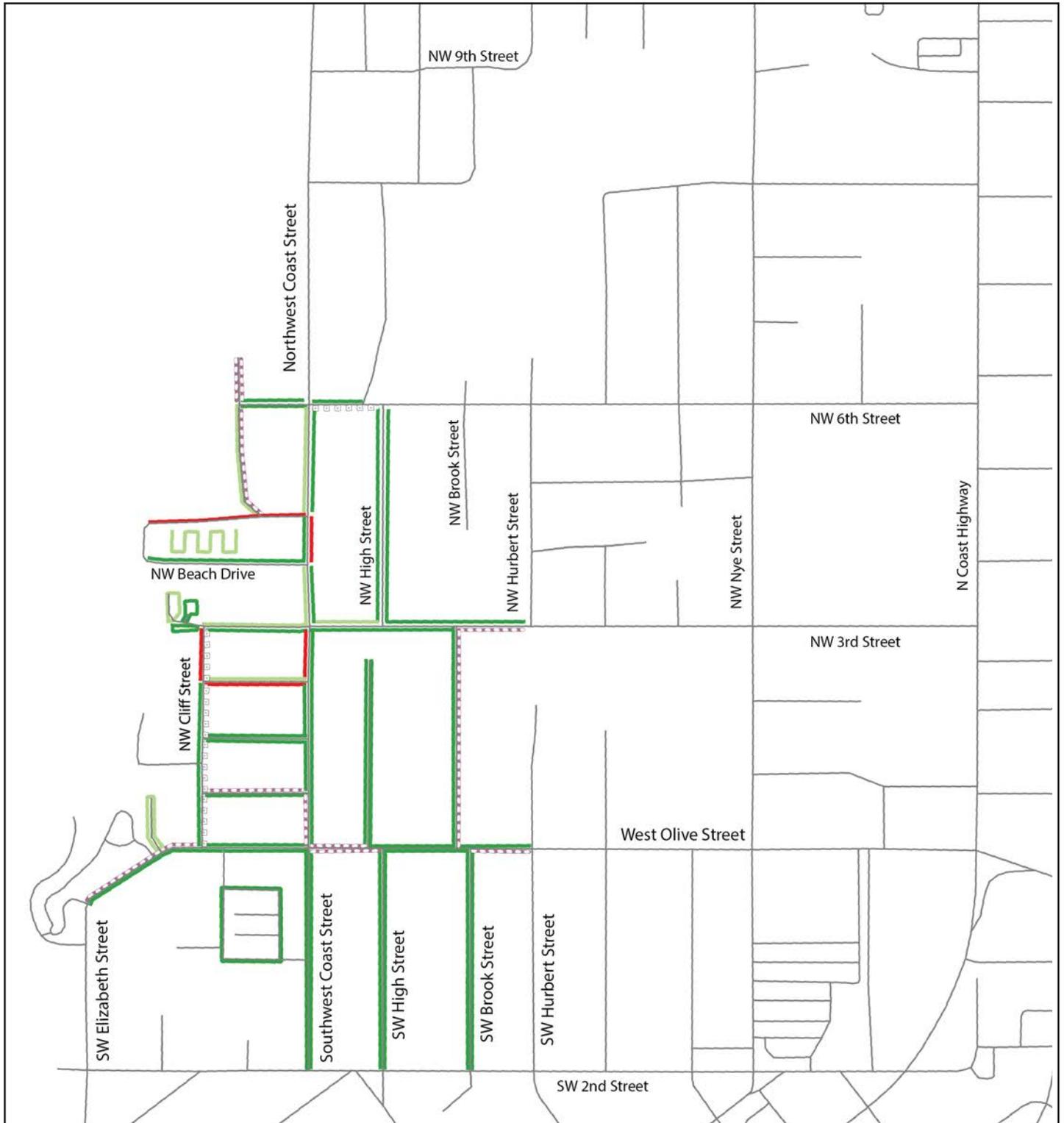
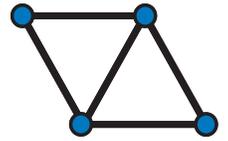


% of Stalls Occupied

- Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

Nye Beach: 3pm Occupancy

Saturday
December 10, 2016

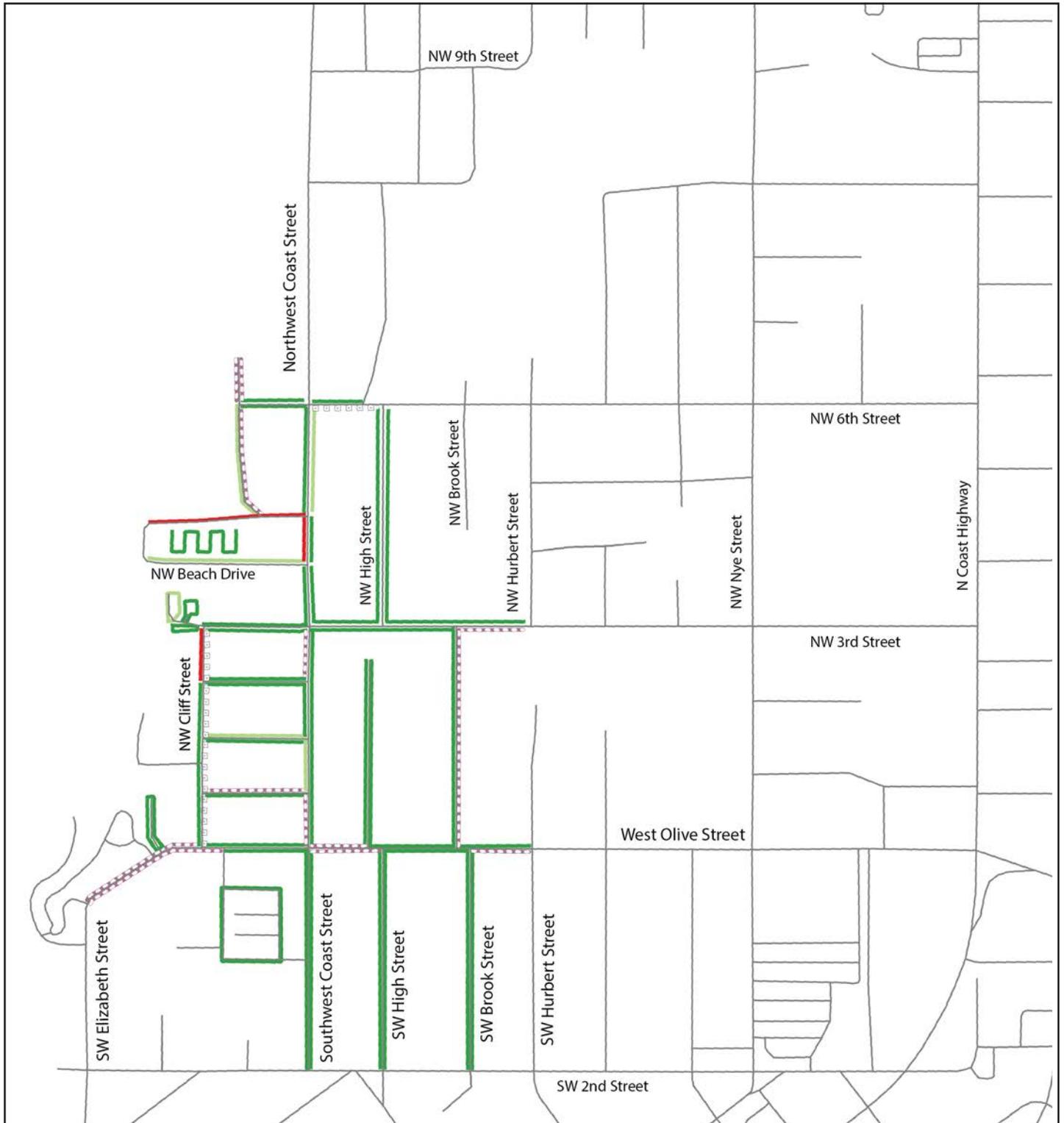
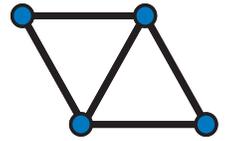


% of Stalls Occupied

- Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

Nye Beach: 4pm Occupancy

Saturday
December 10, 2016

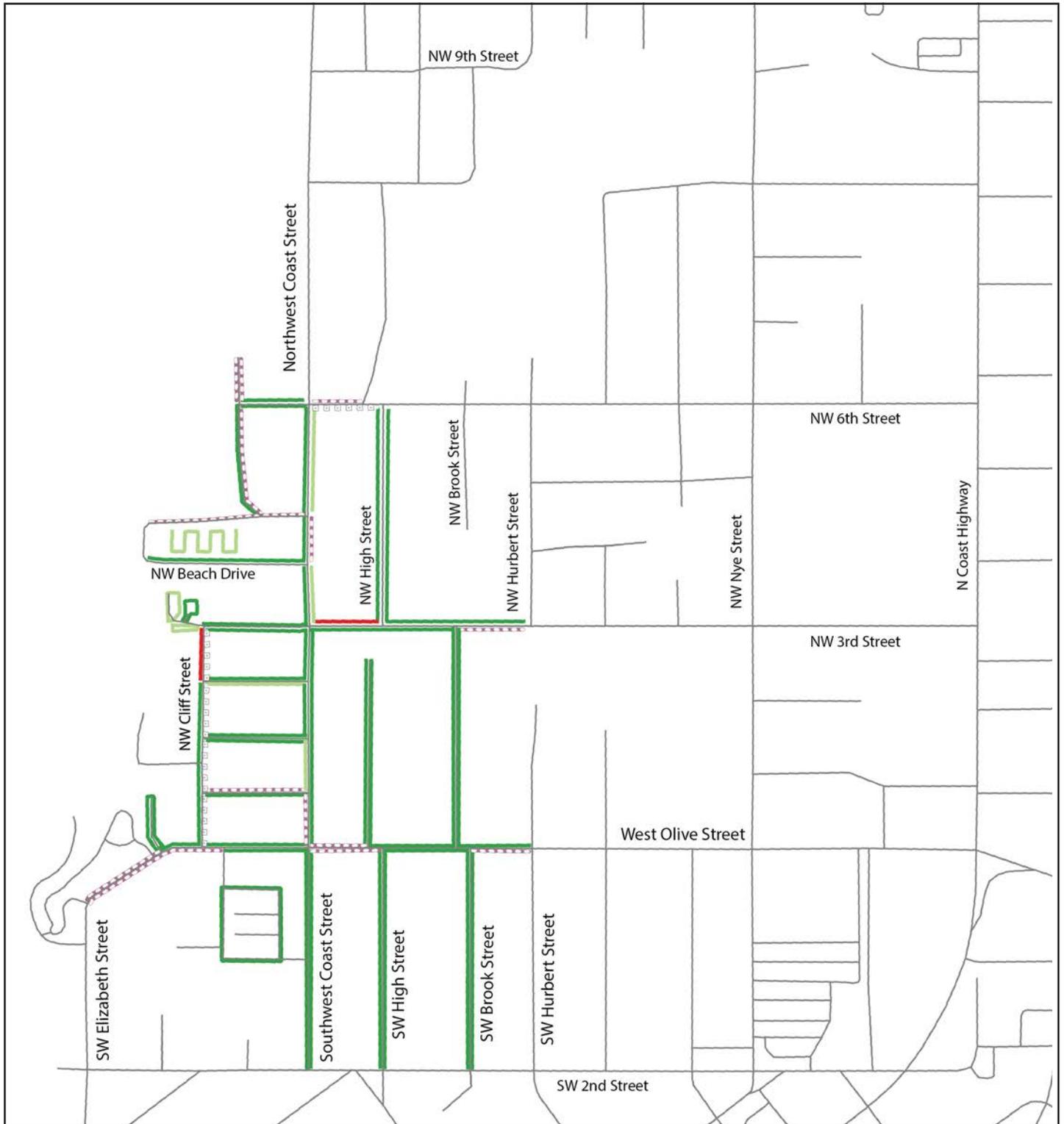
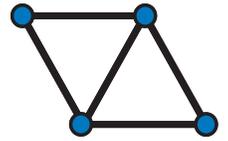


% of Stalls Occupied

- - - - - Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

Nye Beach: 5pm Occupancy

Saturday
December 10, 2016

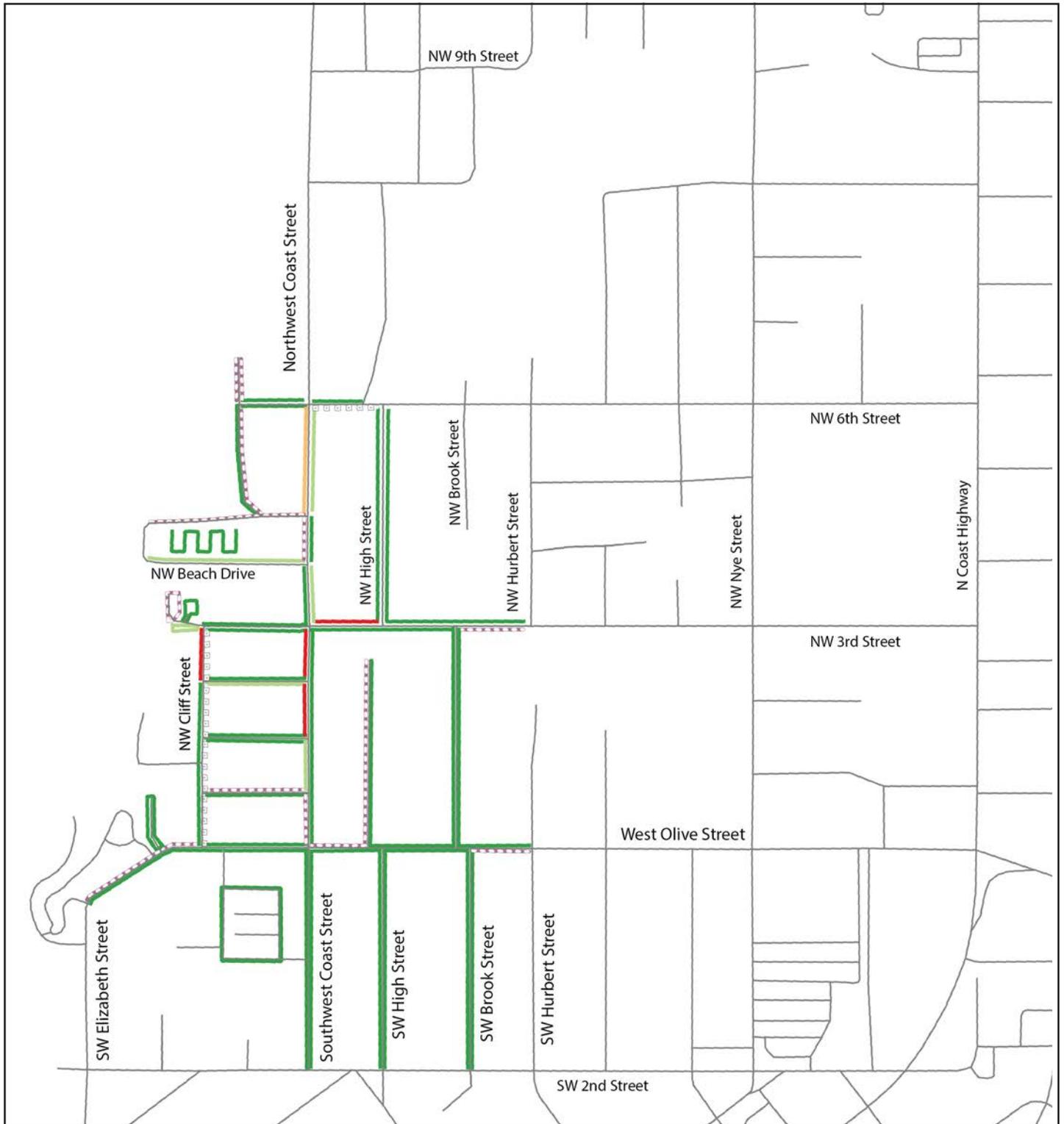
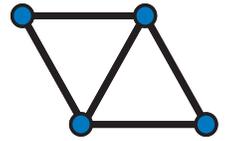


% of Stalls Occupied

- Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

Nye Beach: 6pm Occupancy

Saturday
December 10, 2016

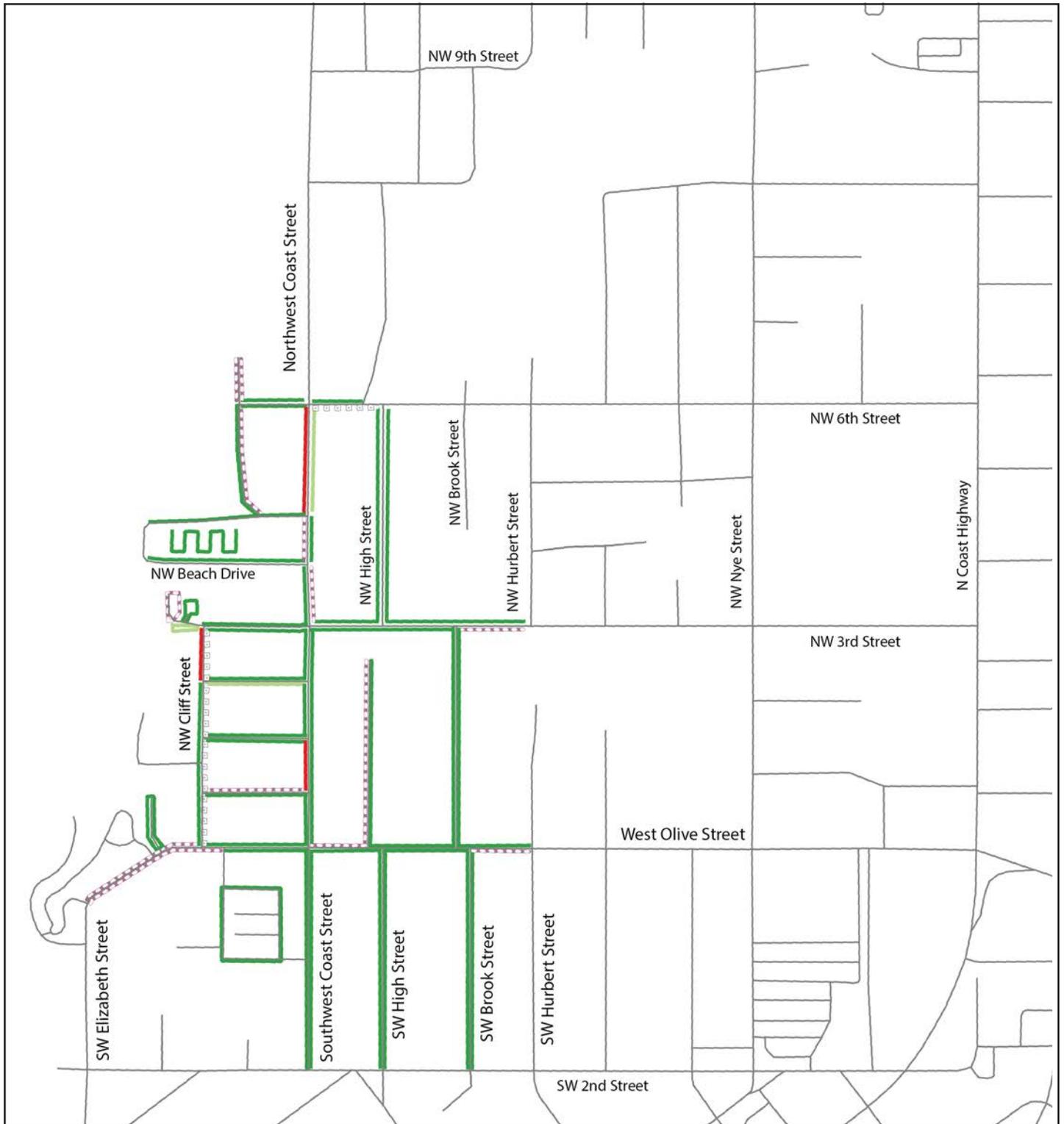
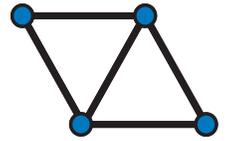


% of Stalls Occupied

----- Empty — 59% or less — 60%–74% — 75%–85% — >85%

Nye Beach: 7pm Occupancy

Saturday
December 10, 2016



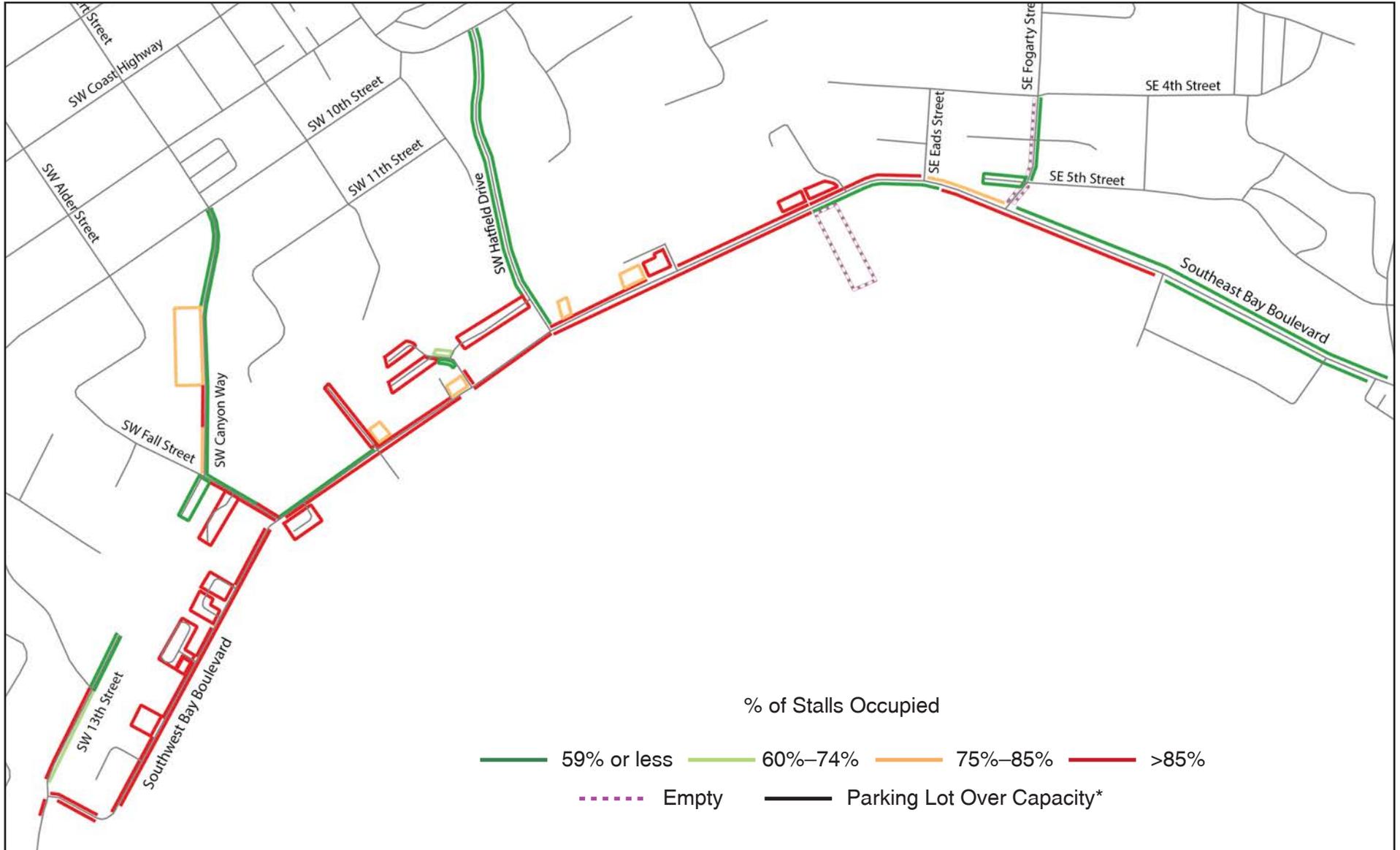
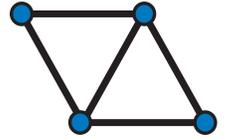
% of Stalls Occupied

- Empty
- 59% or less
- 60%–74%
- 75%–85%
- >85%

Appendix C:
Bayfront Hourly Occupancy Maps

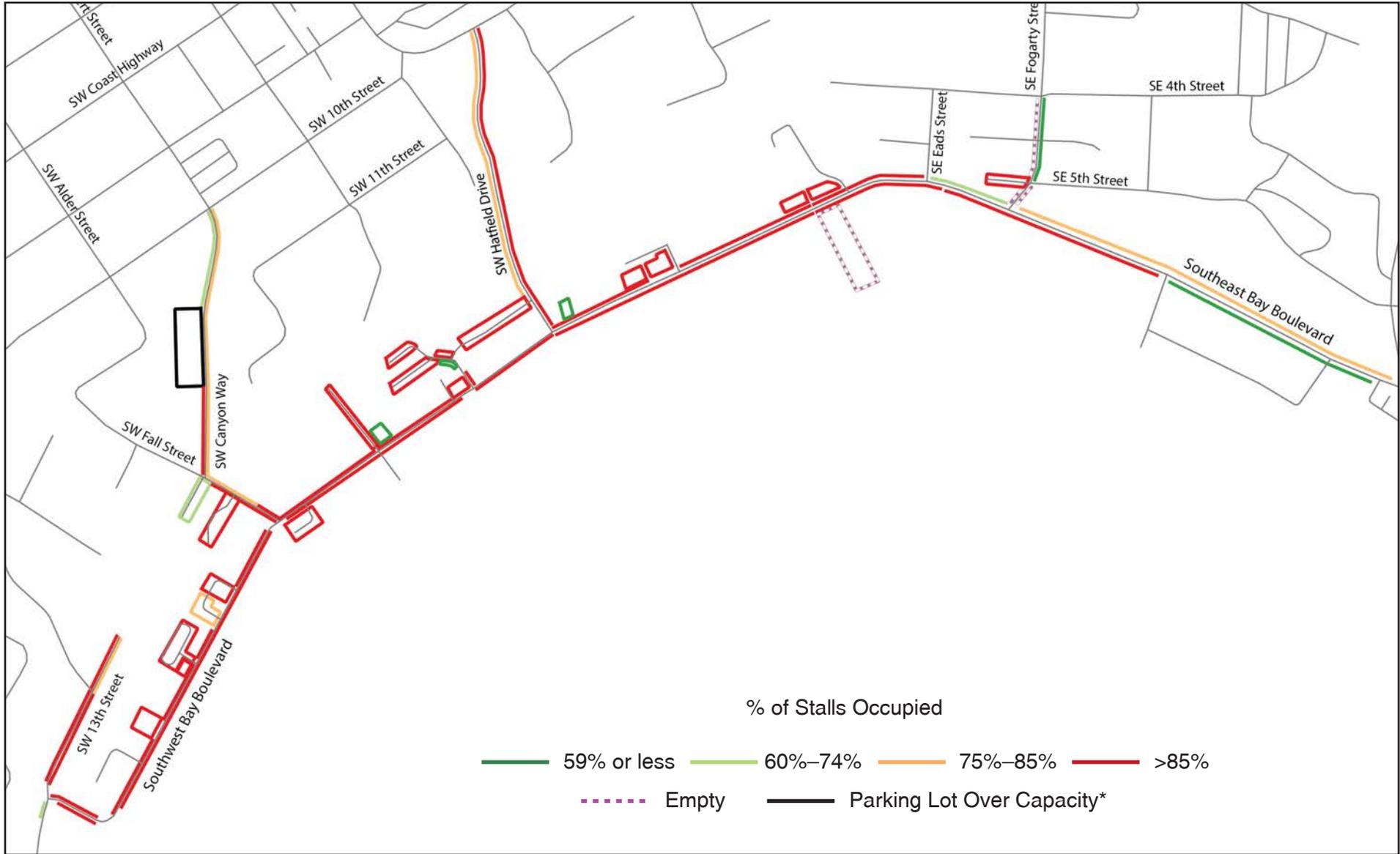
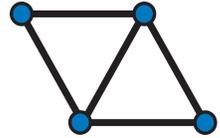
Bayfront: 12pm Occupancy

Saturday
August 27, 2016



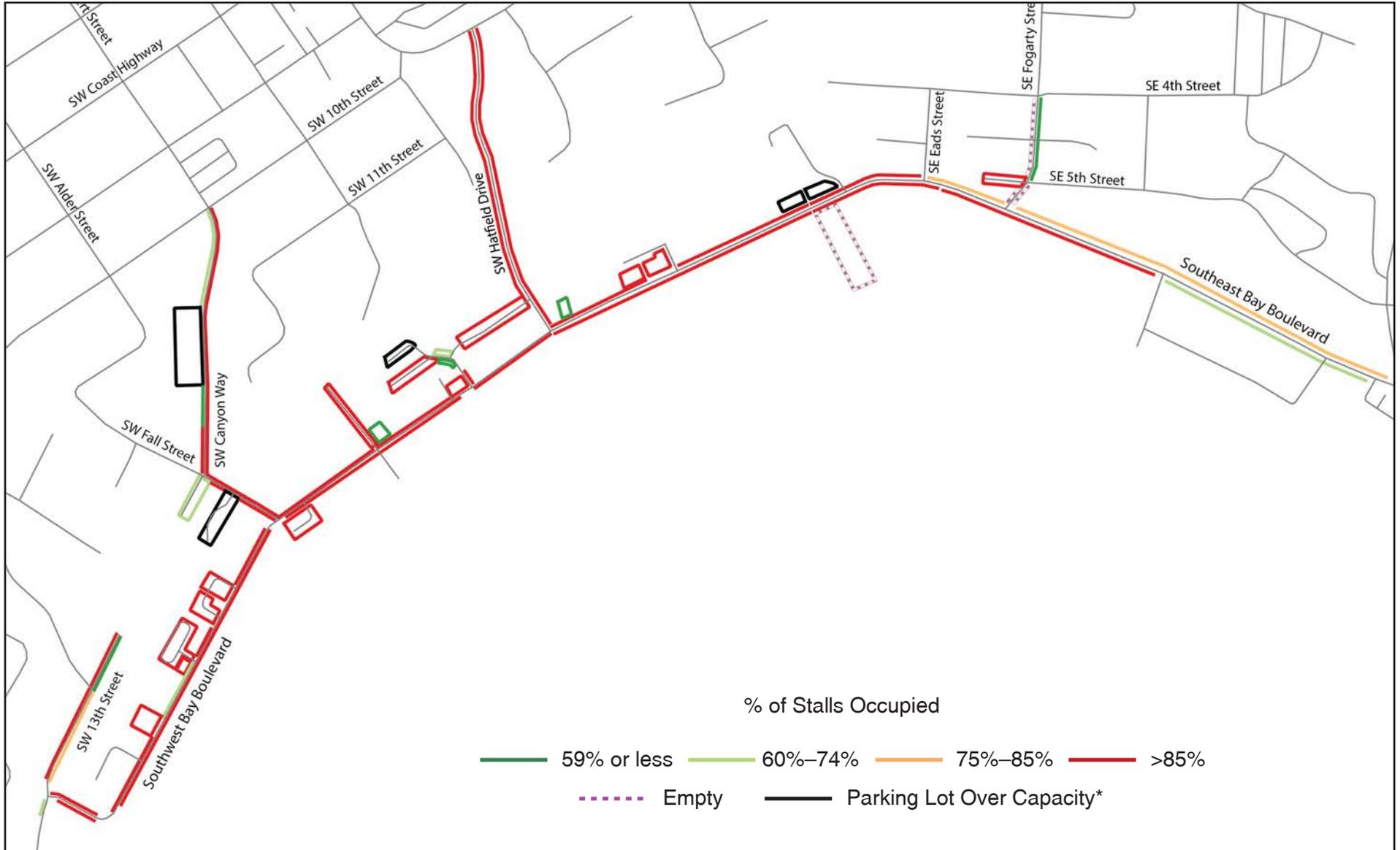
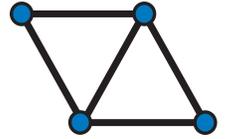
Bayfront: 1pm Occupancy

Saturday
August 27, 2016



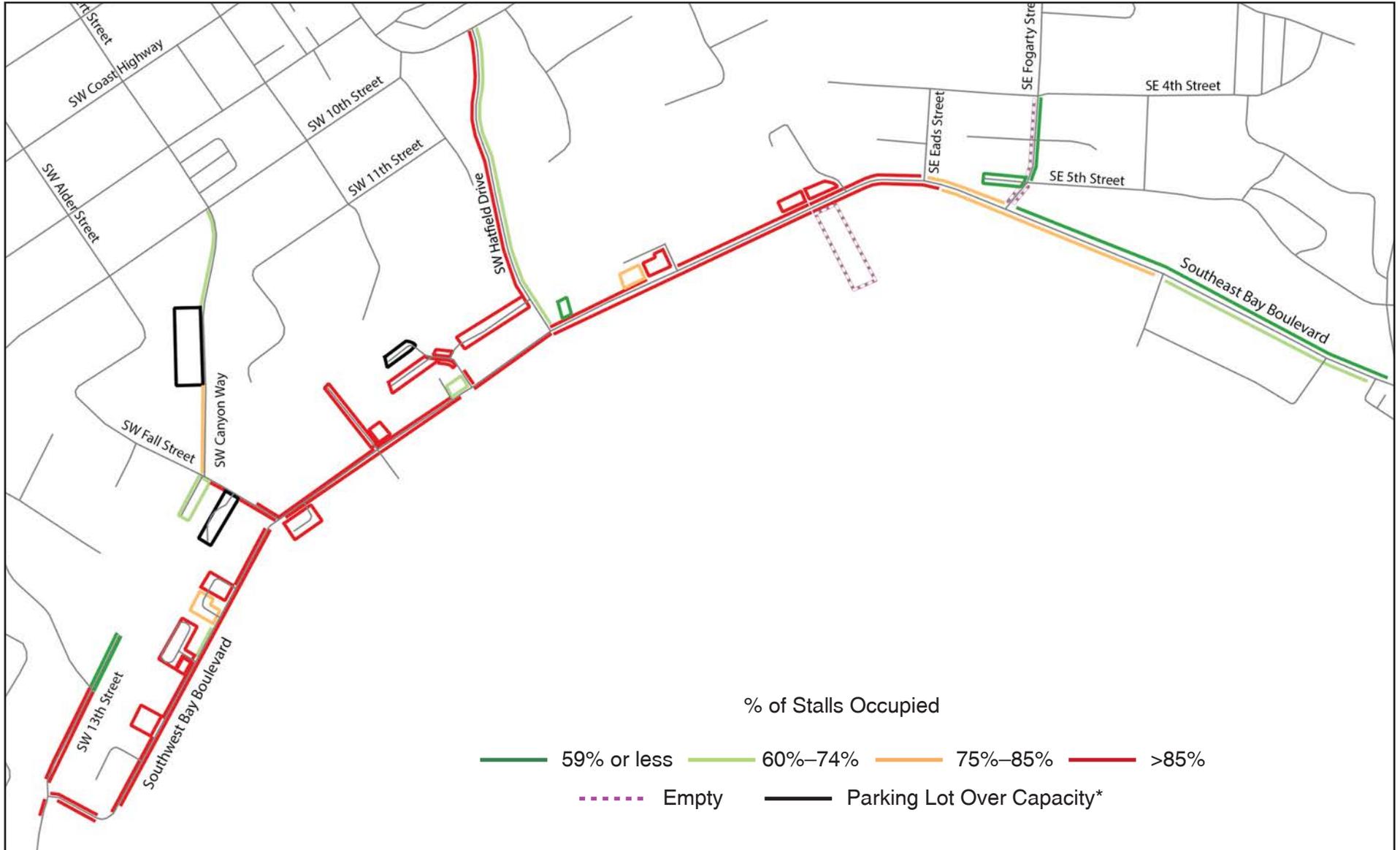
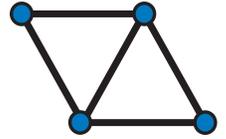
Bayfront: 2pm Occupancy

Saturday
August 27, 2016



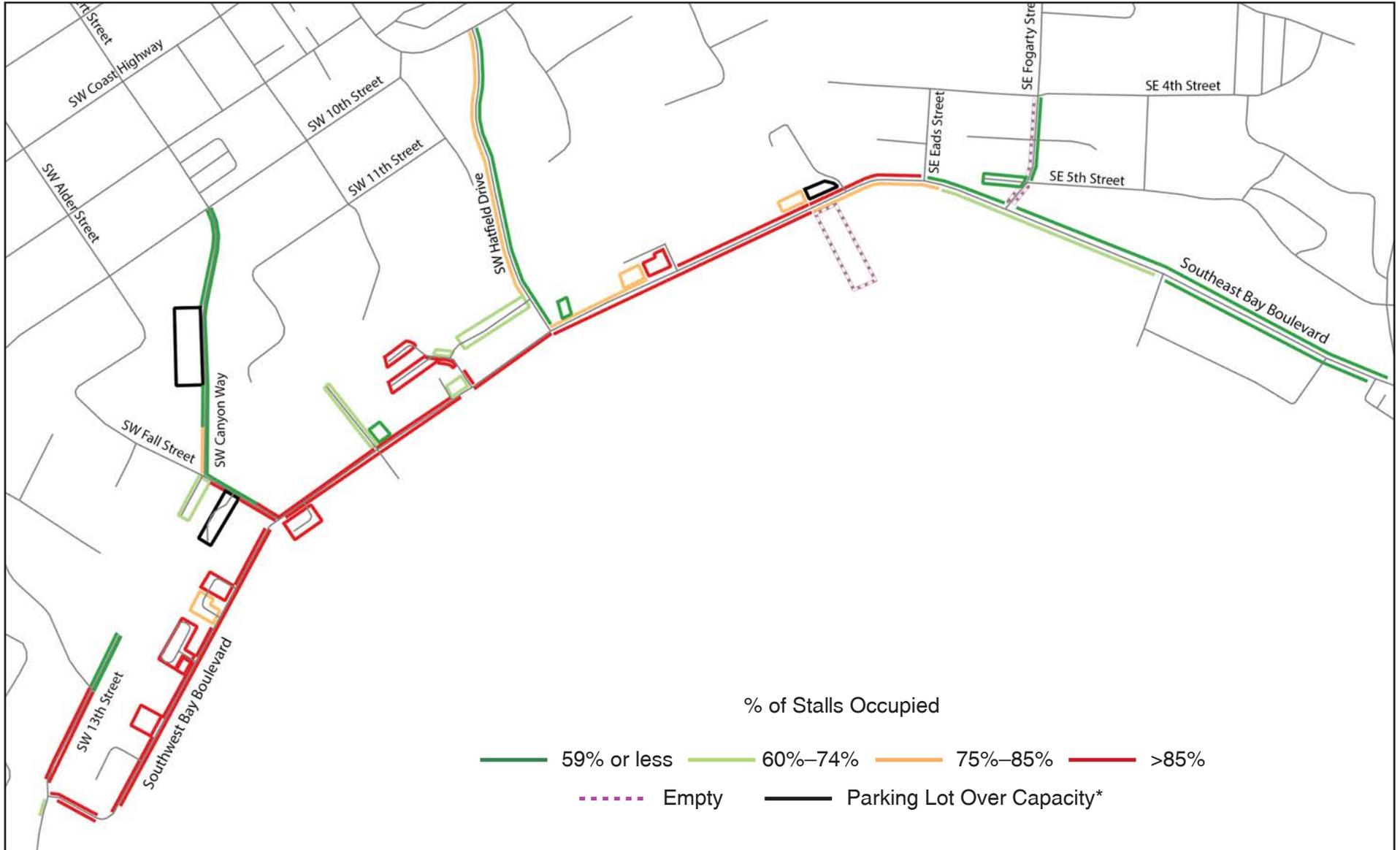
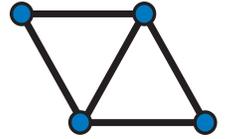
Bayfront: 3pm Occupancy

Saturday
August 27, 2016



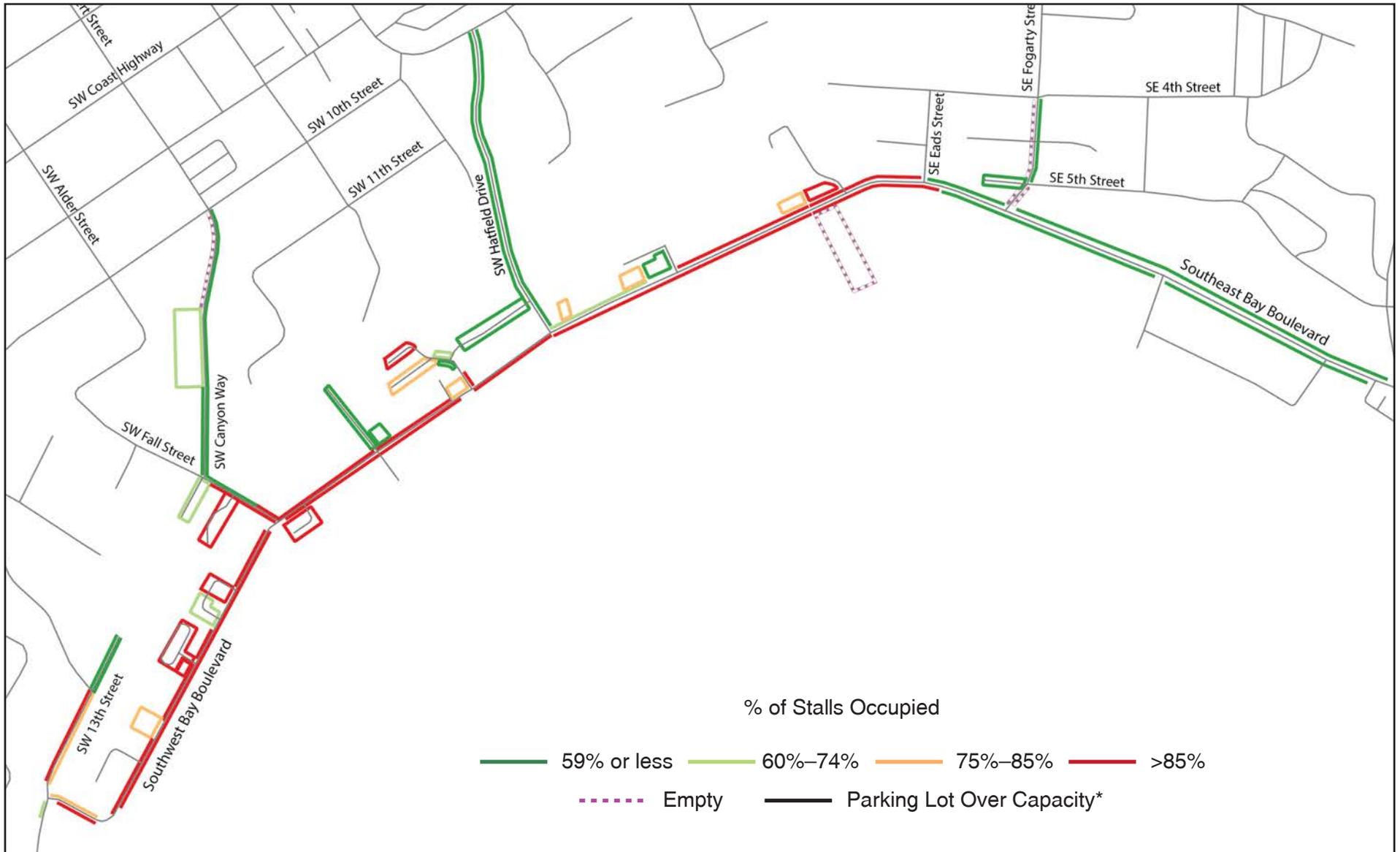
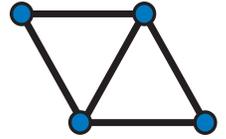
Bayfront: 4pm Occupancy

Saturday
August 27, 2016



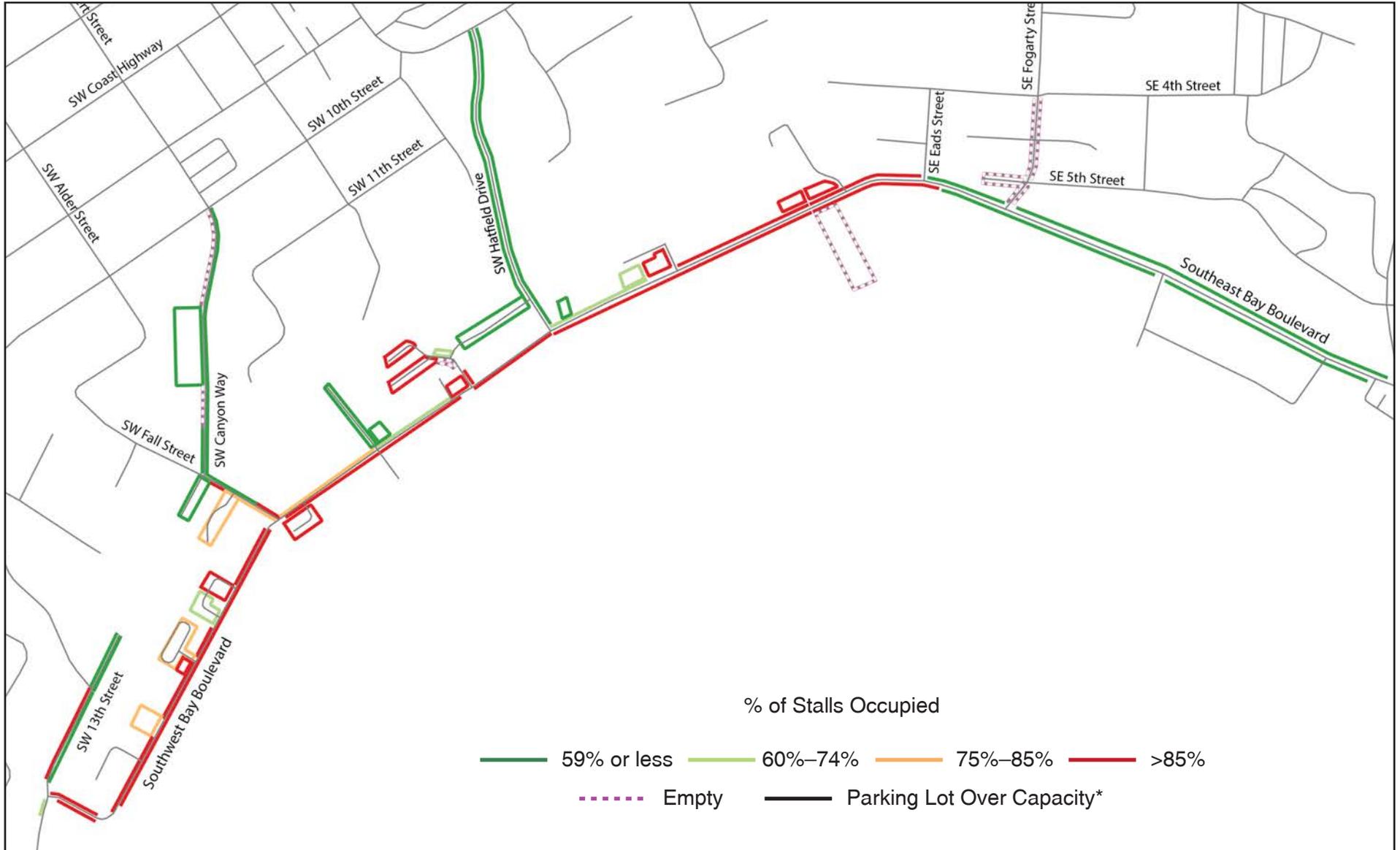
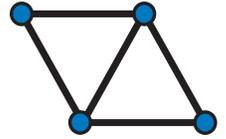
Bayfront: 5pm Occupancy

Saturday
August 27, 2016



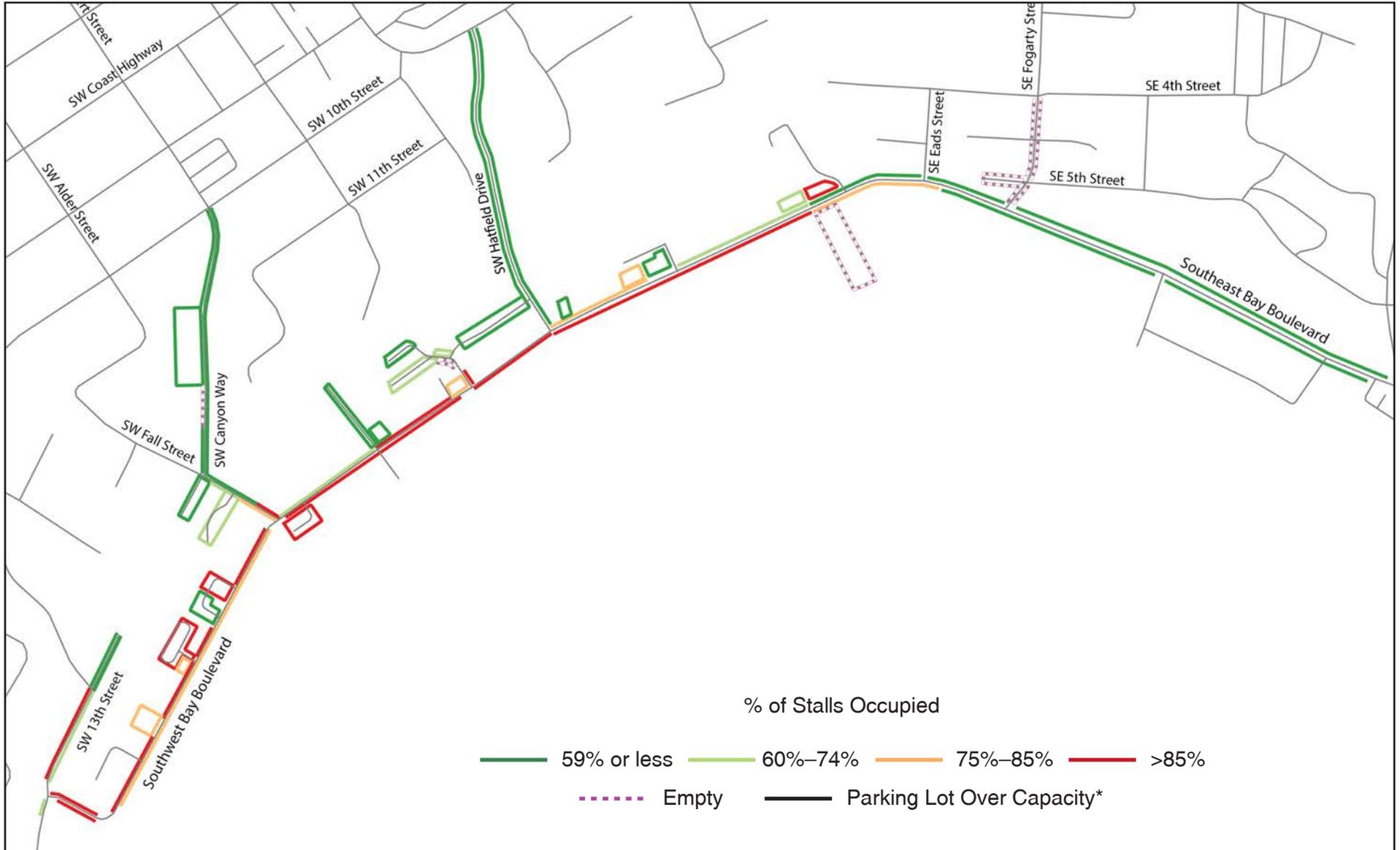
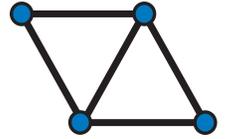
Bayfront: 6pm Occupancy

Saturday
August 27, 2016



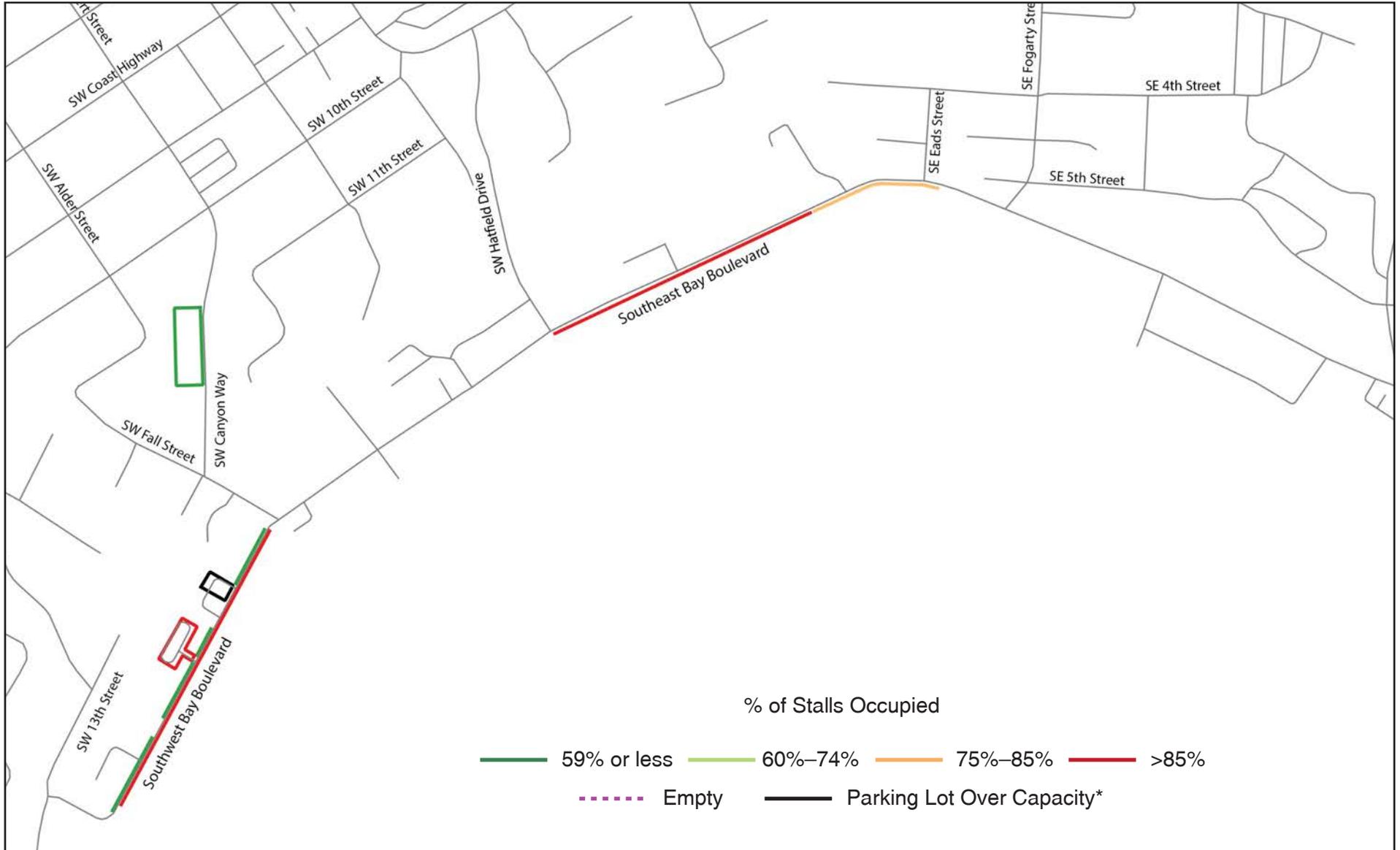
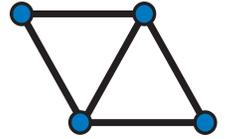
Bayfront: 7pm Occupancy

Saturday
August 27, 2016



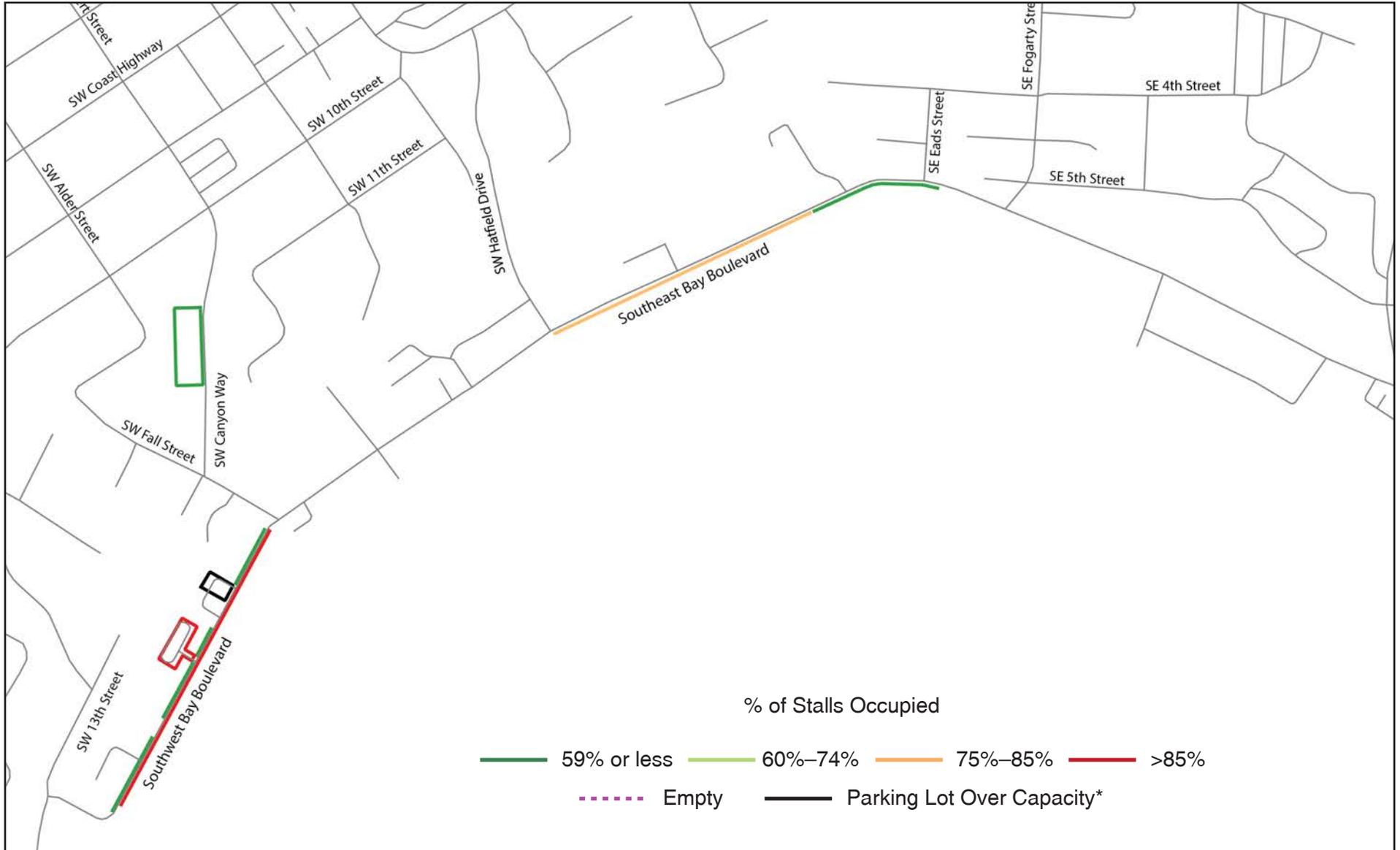
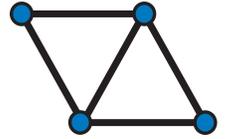
Bayfront: Weekday 12pm Occupancy

Thursday
August 25, 2016



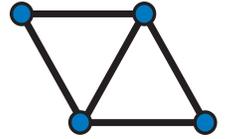
Bayfront: Weekday 6pm Occupancy

Thursday
August 25, 2016



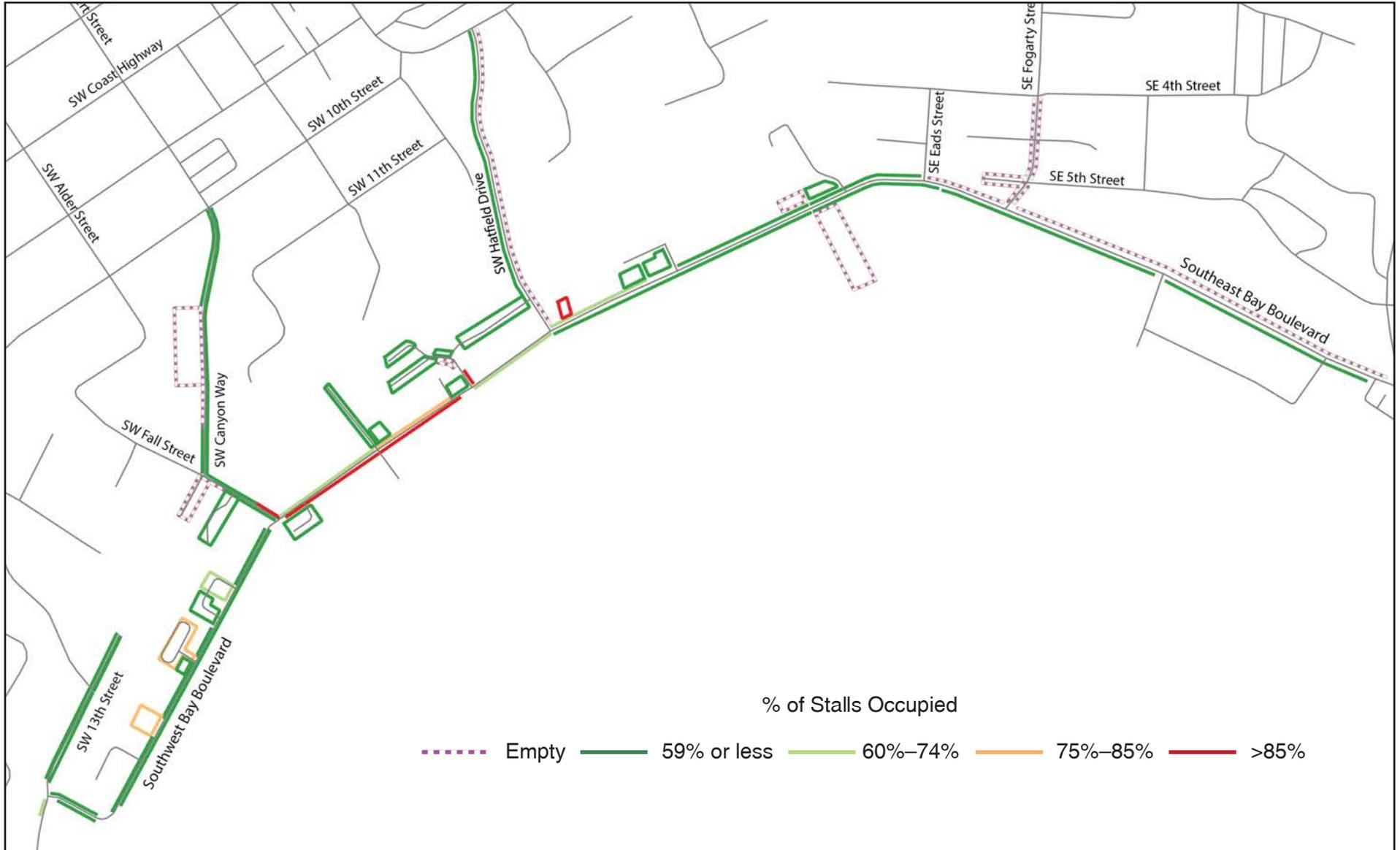
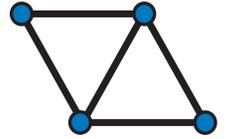
Bayfront: Weekday 9pm Occupancy

Thursday
August 25, 2016



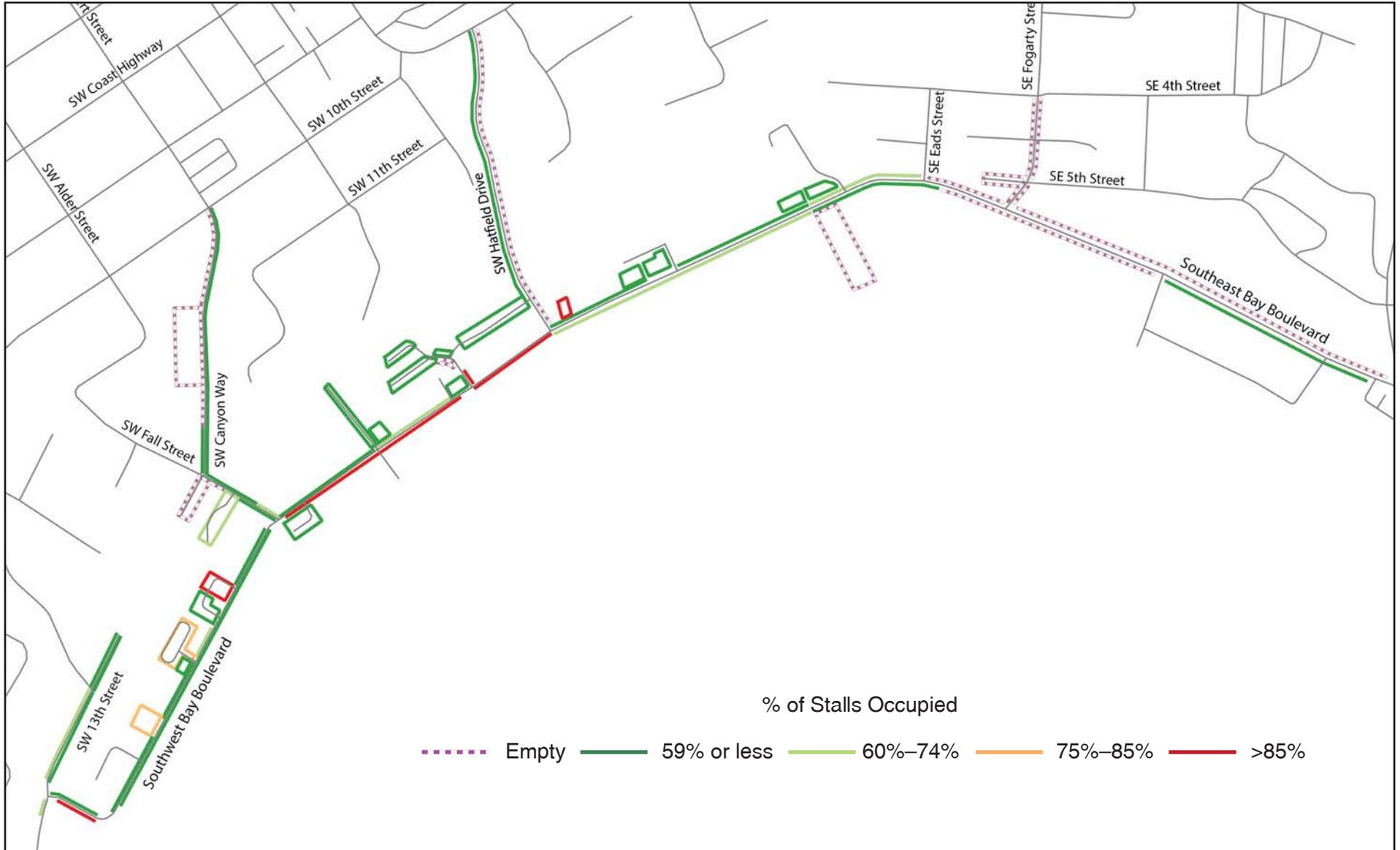
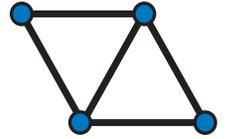
Bayfront: 10am Occupancy

Saturday
December 10, 2016



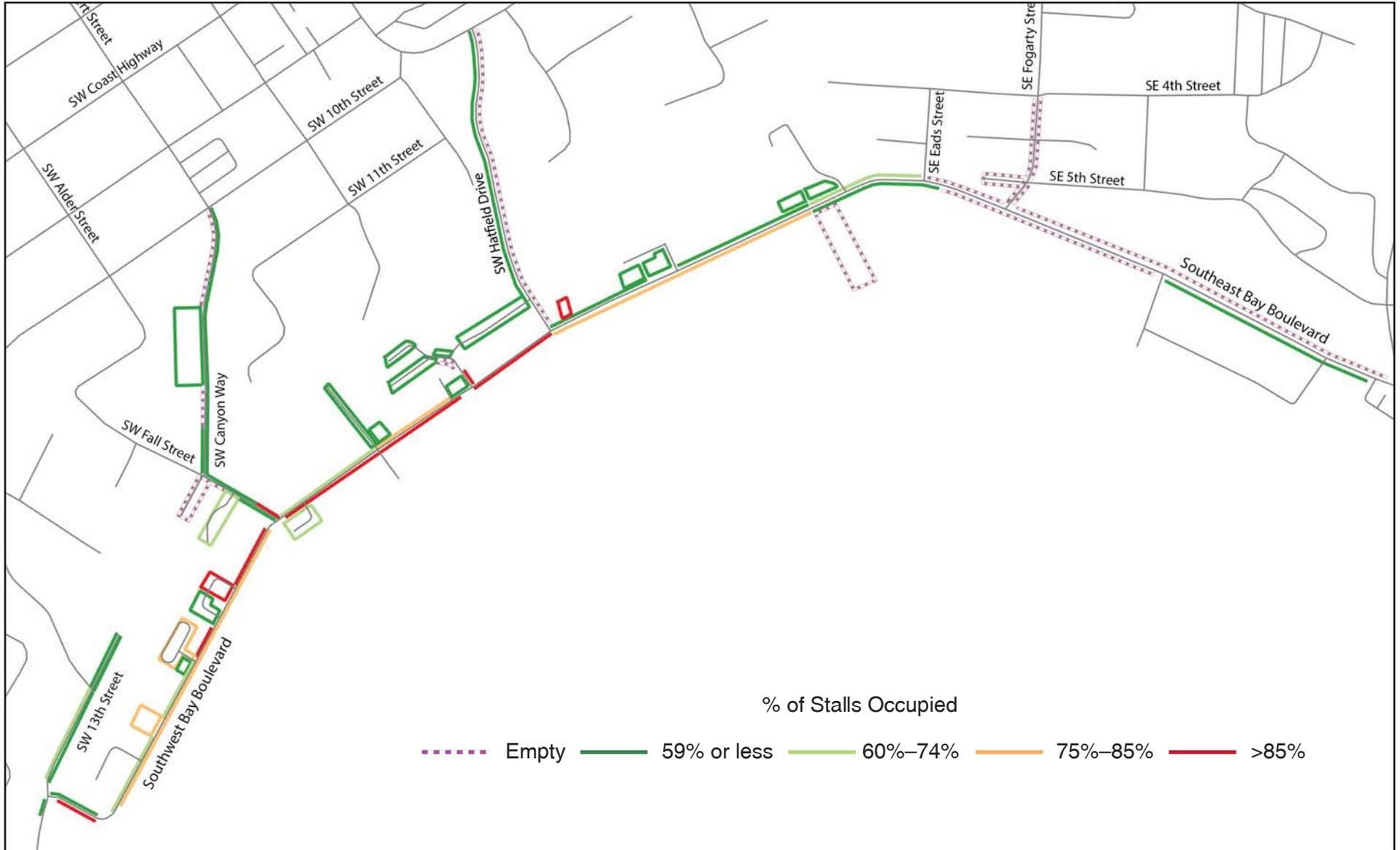
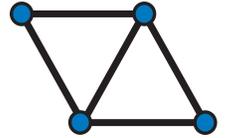
Bayfront: 11am Occupancy

Saturday
December 10, 2016



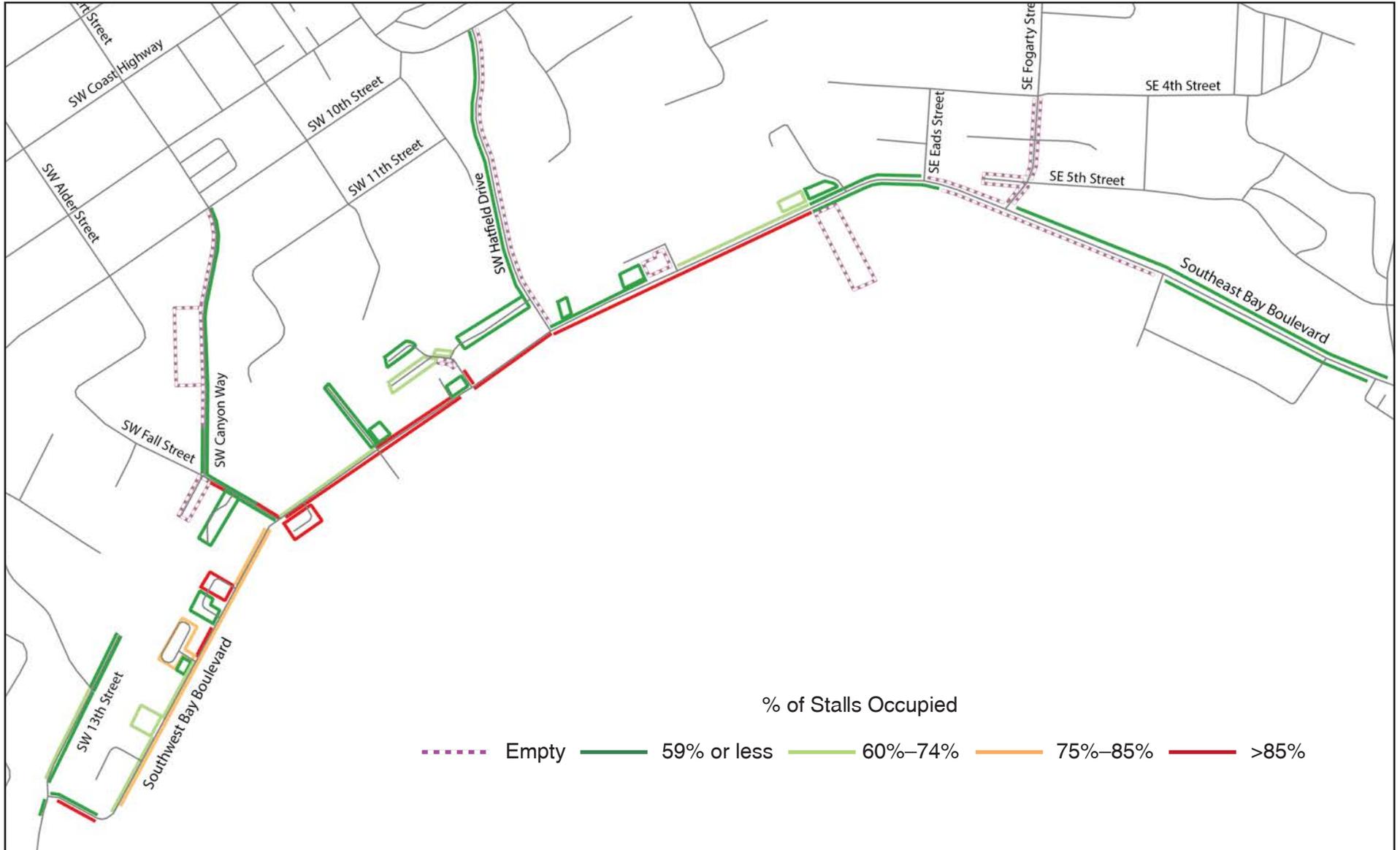
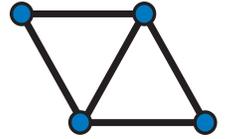
Bayfront: 12pm Occupancy

Saturday
December 10, 2016



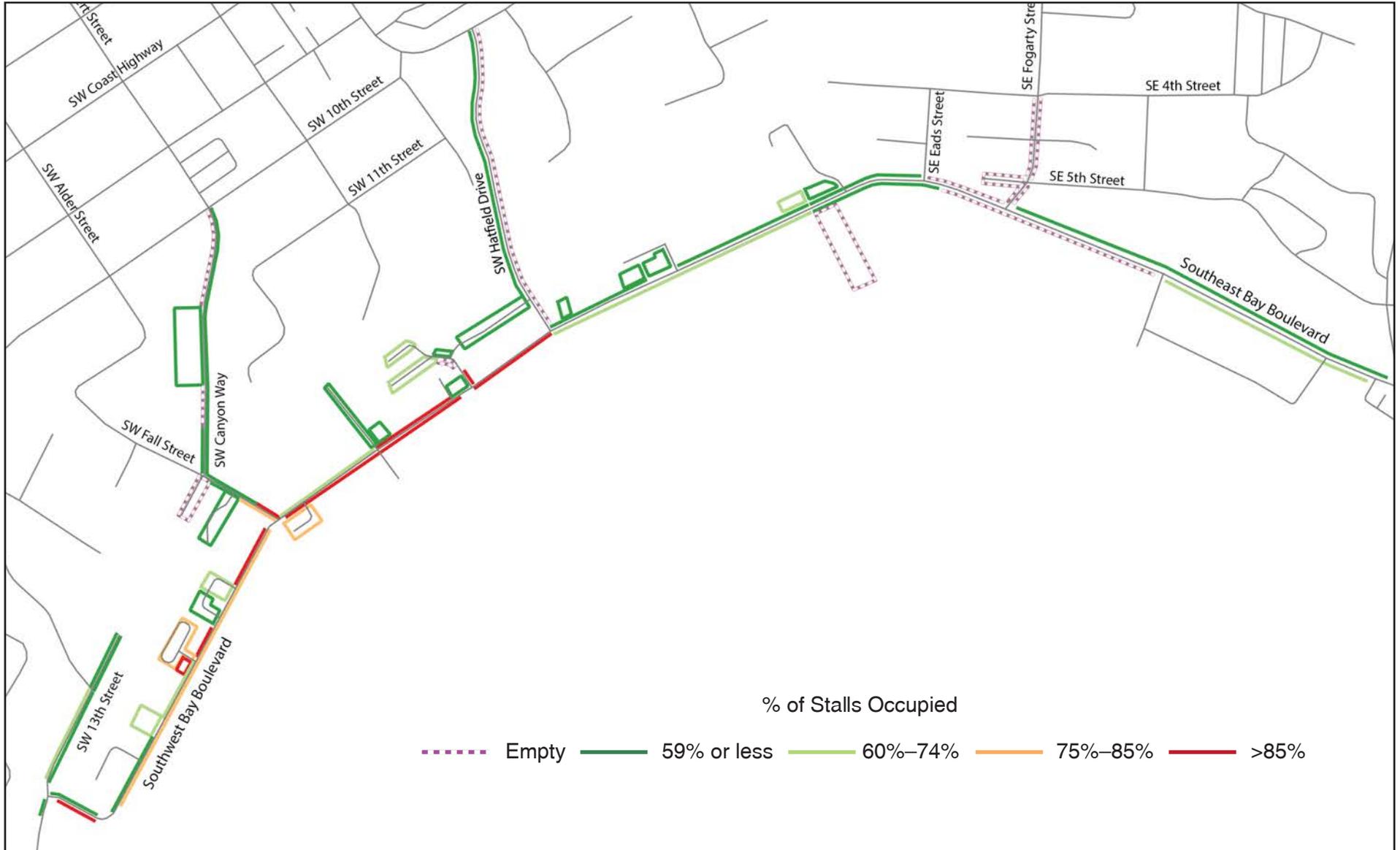
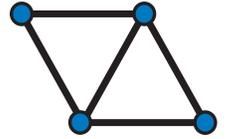
Bayfront: 1pm Occupancy

Saturday
December 10, 2016



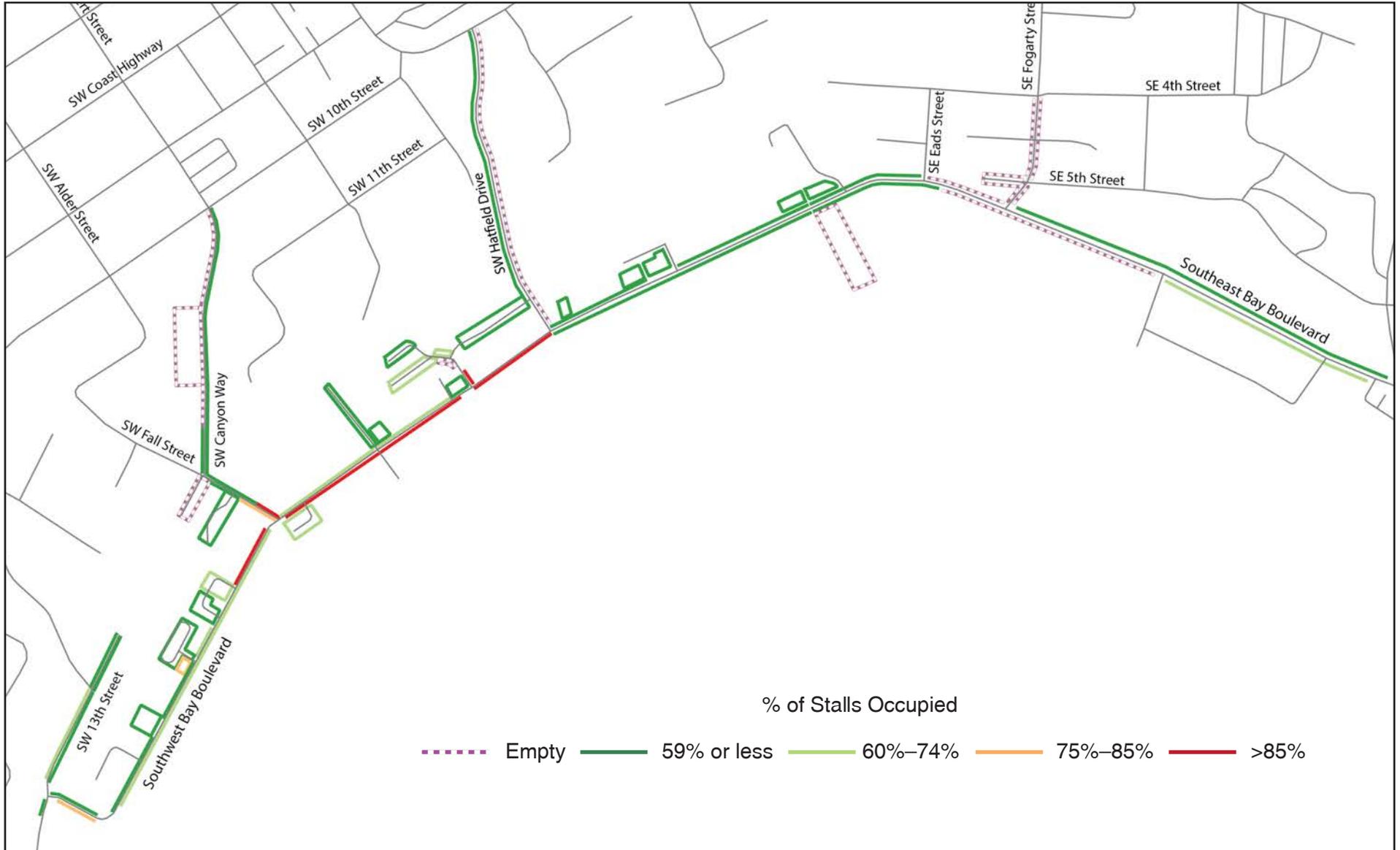
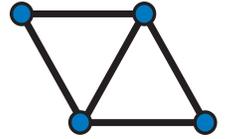
Bayfront: 2pm Occupancy - PEAK HOUR

Saturday
December 10, 2016



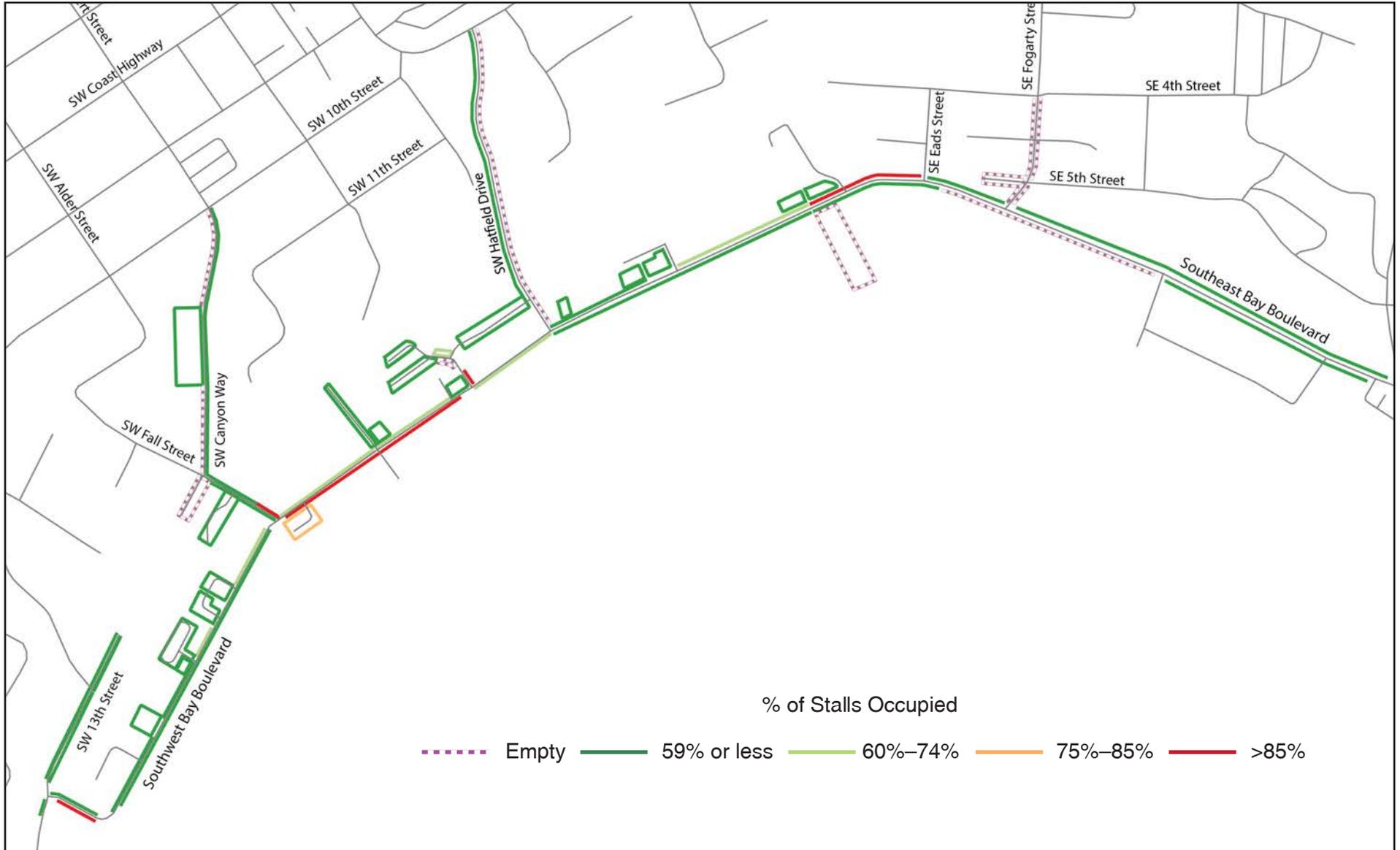
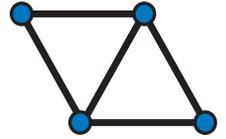
Bayfront: 3pm Occupancy

Saturday
December 10, 2016



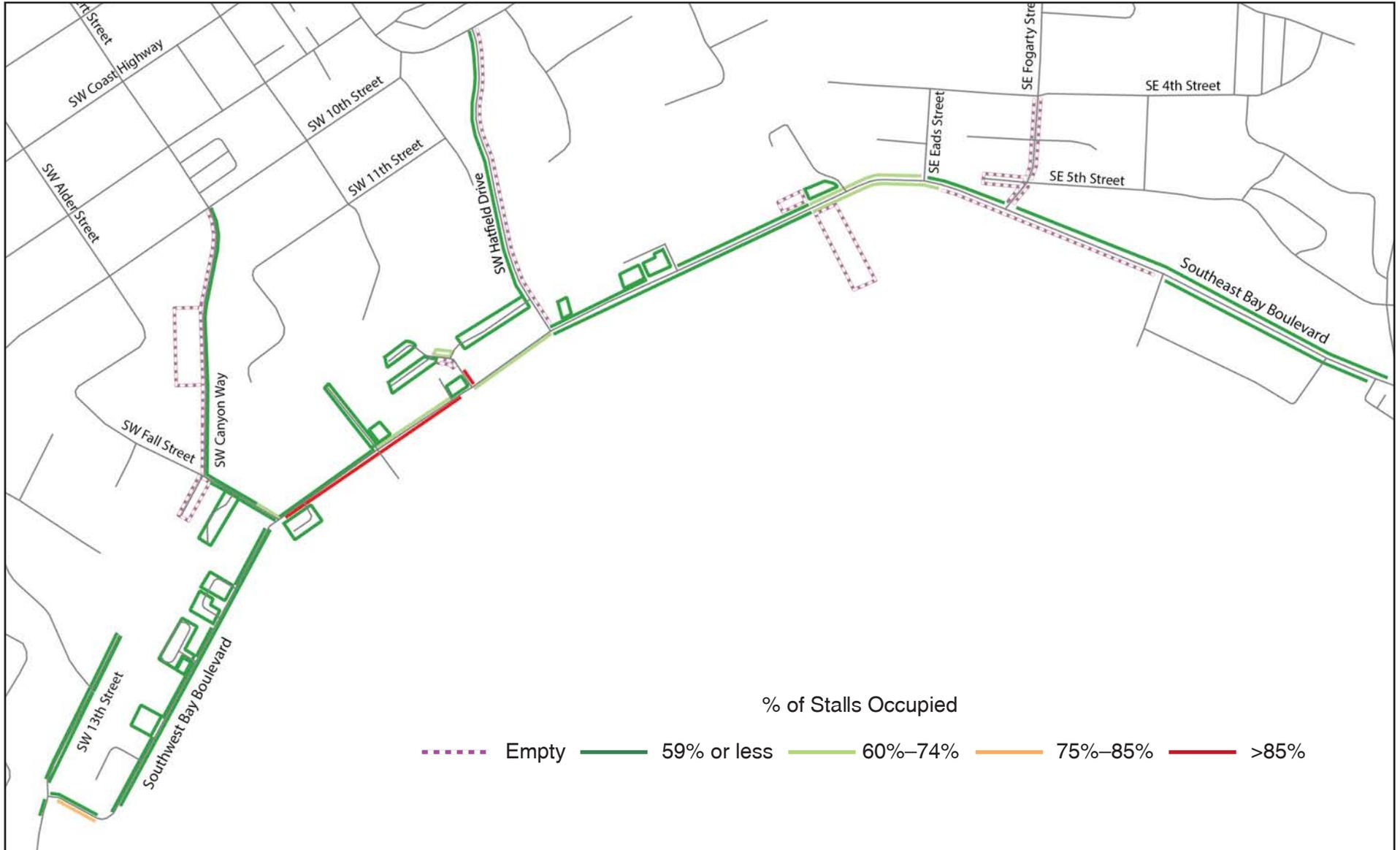
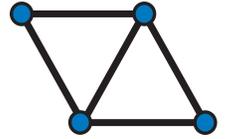
Bayfront: 4pm Occupancy

Saturday
December 10, 2016



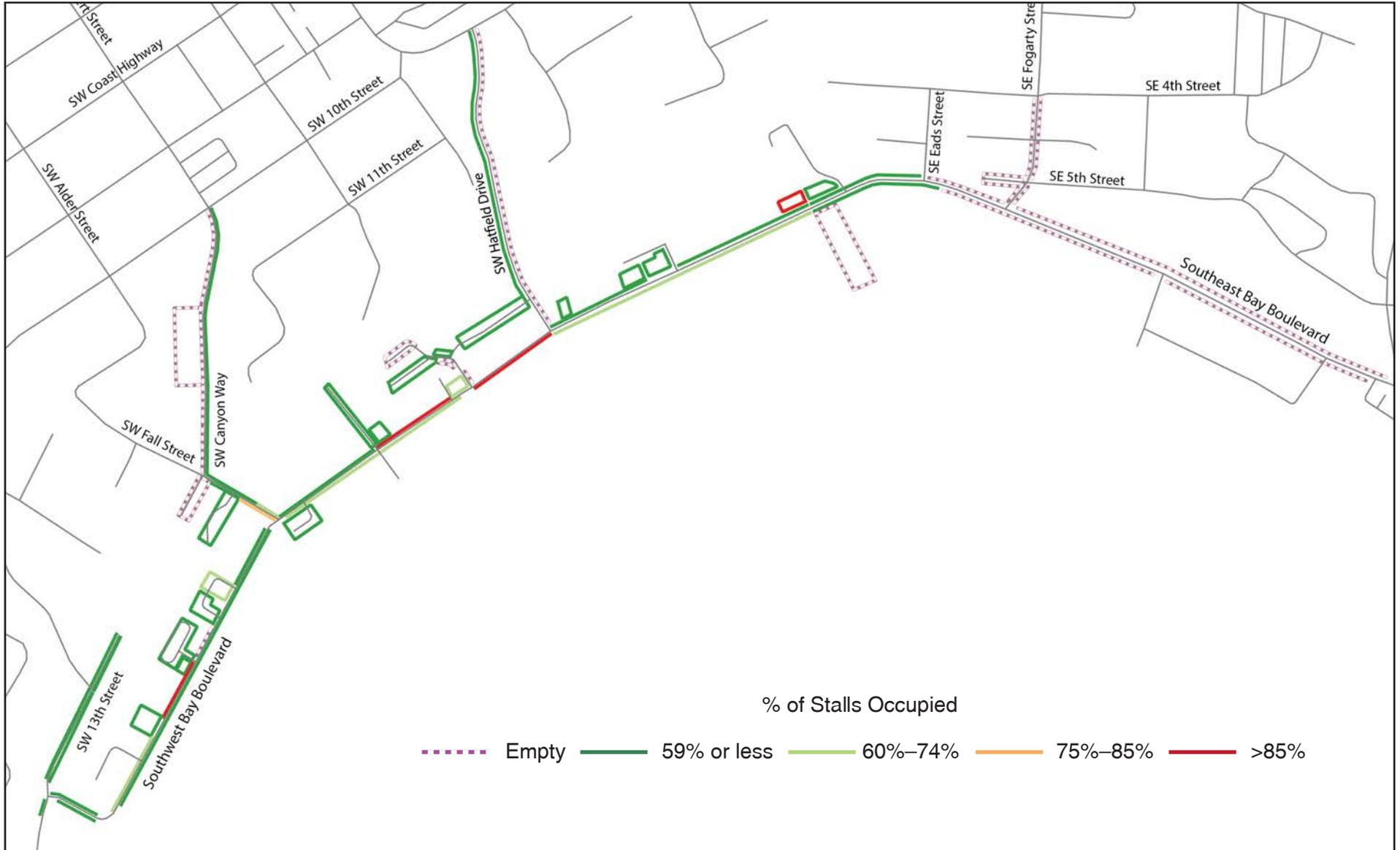
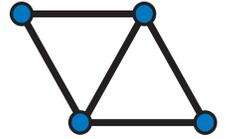
Bayfront: 5pm Occupancy

Saturday
December 10, 2016



Bayfront: 6pm Occupancy

Saturday
December 10, 2016



Bayfront: 7pm Occupancy

Saturday
December 10, 2016

