Appendix C -
Downtown Parking Study
Town of Chapel Hill, North Carolina

History and Background

The Chapel Hill downtown is a major mixed-use center of cultural, retail, businesses, and restaurant activities, often referred to as the heart of Chapel Hill. The downtown is the place residents take visiting family and friends. Maintaining and expanding the downtown's vitality is critical to the vitality of the Town.

Because of the importance of the downtown to the Town, there have been a number of recent reports and planning efforts prepared for the Chapel Hill downtown, which include:

- Downtown Small Area Plan (2000)
- Downtown Design Guidelines
- Downtown Design Workshop (2002)
- Land Use Management Ordinance
- Downtown Economic Development Initiative

The amount, type, and use of parking are integral pieces of these plans to achieve economic, business and cultural vitality for the downtown. The following goals, objectives and strategies are excerpted from these documents from which to set a framework for parking assessment and planning.

1989 Comprehensive Plan

- Limit long-term parking in areas where transit services are sufficient in order to encourage alternatives to the use of the automobile. These policies support the concept of gradually reducing the amount of long-term private parking, and reversing the requirement for on-site parking as par of new downtown development. They also support the concept of private development projects providing payments to the Town equal to the cost of providing its required amount of parking in the downtown area. Funds received would be earmarked for future construction of public decks on Town-owned property.

Downtown Small Area Plan

- Provide adequate (but not excessive), and convenient off street short-term parking in either public or private facilities to serve the needs of businesses, residents, and visitors.
- Encourage a cooperative parking system driven by downtown tenants.

Downtown Design Workshop

This workshop was designed to help determine the future of two key Town-owned parcels – Parking Lots 2 and 5:

- The design concept for Parking Lot 2 and 5 call for retail, office and residential development with underground parking.

Downtown Economic Development Initiative

The Town Council has adopted a number of basic principals for the use of Parking Lots 2 and 5. Pertinent principals that affect parking supply and demand include:

- Consider both properties simultaneously.
- Should be the catalyst for a vibrant downtown into the future.
- Should enhance the bike, pedestrian and public transit orientation of the community.
- Parking needs to provide at least as much public parking as currently in place.

Purpose and Objectives of Downtown Parking Study

This report is in part a response to the goals and objectives of past downtown planning efforts to collect and provide information that will reflect current parking supply, location, type and use which will permit the examination of parking supply and use on a block by block basis. As such, understanding the parking dynamics became an important element of the Town of Chapel Hill's Downtown Parking Study.

The Downtown Parking Study is intended to cover three areas:

1. Parking Survey: Parking Supply, Occupancy and Utilization
2. Parking Assessment of Current Conditions
3. Parking Recommendation and Strategies

1. Downtown Parking Survey

As part of the Town of Chapel Hill's Parking Study, a focused survey of current conditions was made. This effort included a parking inventory, parking occupancy survey, and parking utilization calculation.

The filed inventory identified all parking spaces within the downtown. This inventory identified the total number of public parking spaces: on-street, off-street, and the total number of private spaces.

The parking occupancy survey identified how many of the available parking spaces were occupied. The parking occupancy was conducted for both a weekday afternoon and Friday evening in October 2003 in order to identify differences in parking demand between typical weekday activities and evening activities.

The utilization calculation simply divided the total parking occupancy by the parking supply to determine what percentage of the total parking spaces were utilized.

The survey and analysis effort was further stratified by districts within the downtown, in order to determine if there are parking supply and utilization similarities or difference between districts. These districts include:

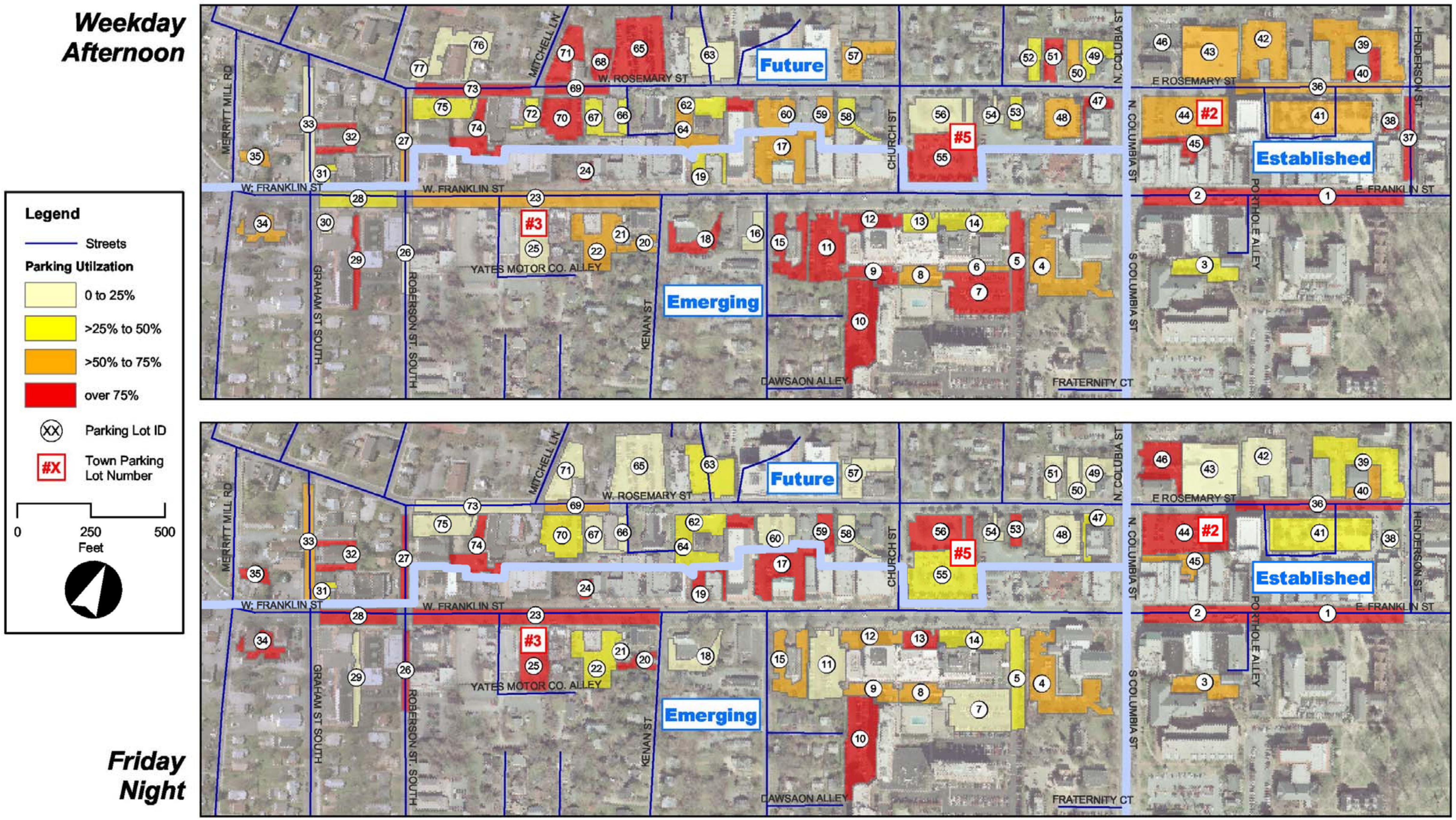
- Established Mixed-Use Downtown Center (The East Franklin and Rosemary Area);
- Emerging Mixed-Use Downtown Area (The West Franklin Street area); and
- Future Mixed-Use Downtown Area (The West Rosemary Street area).

A map of the downtown is presented in the following exhibit. This exhibit identifies the three (3) downtown districts. In addition, this exhibit provides an identifier code for all private and public on-street and off-street parking areas within the downtown that can be used as a reference to identify detailed parking information as contained in the database table in the Appendix of this report.

In addition, this map provides color coding of all the parking areas identifying the parking utilization of the parking area. Four (4) utilization categories were identified: 0-25 percent, 25-50 percent, 50-75 percent, and 75-100 percent.

A summary of the parking survey is presented in the following table:

Chapel Hill Downtown Parking Utilization



Chapel Hill Downtown Parking Inventory and Utilization

	Total Number of Parking Spaces	Weekday Afternoon		Friday Night		Peak	
		Occupied Spaces	Percent Full	Occupied Spaces	Percent Full	Occupied Spaces	Percent Full
Established							
On-Street Parking	60	54	90.0%	41	97.6%	56	93.3%
Public Parking	728	476	65.4%	288	39.6%	506	69.5%
Private/Business Parking	244	148	60.7%	82	35.0%	148	60.7%
Total	1,032	678	65.7%	411	39.8%	710	68.8%
Emerging							
On-Street Parking	78	36	46.2%	76	97.4%	76	97.4%
Public Parking	71	3	4.2%	71	100.0%	71	100.0%
Private/Business Parking	693	518	74.7%	326	43.1%	576	83.1%
Total	842	557	66.2%	473	56.2%	723	85.9%
Future							
On-Street Parking	31	17	54.8%	20	64.5%	27	87.1%
Public Parking	173	94	54.3%	107	61.8%	159	91.9%
Private/Business Parking	888	546	61.5%	236	30.6%	578	65.1%
Total	1,092	657	60.2%	363	33.2%	764	70.0%
Total Downtown							
On-Street Parking	169	107	63.3%	137	81.1%	159	94.1%
Public Parking	972	573	59.0%	466	47.9%	736	75.7%
Private/Business Parking	1,825	1,212	66.4%	644	35.3%	1,302	71.3%
Total	2,966	1,892	63.8%	1,247	42.0%	2,197	74.1%

In review of the Chapel Hill Downtown Parking Inventory and Utilization table, information is provided for both the weekday afternoon and the Friday night condition. The table also includes a peak column, where the peak between the two time periods for each individual parking area was recorded.

2. Parking Assessment of Current Conditions

In review of the downtown parking survey data, a number of general observations can be made regarding the dynamics of parking within the downtown. These include:

- Afternoon/Evening: From a Total Downtown perspective, the weekday afternoon experiences a higher parking utilization with 63.8 percent of the parking spaces occupied as compared to the Friday evening 42.0 percent utilization. The peak utilization (maximum between afternoon and evening summed by lot) of all parking within the downtown is 74.1 percent.

- Parking Demand by District: The Established district experiences the highest parking demand (number of parked vehicles) during the weekday afternoon followed by the Future district and the Emerging district. The Emerging district, however, experiences the highest evening demand followed by the Established district and the Future district. These variations follow the type of uses within each district, where a higher number of businesses and retail are within the Established district, and conversely a higher number of restaurants in the Emerging and Future districts.

- Parking Utilization by District: The Emerging district experiences the highest utilization, followed by the Established district and Future district. This higher utilization in part results from a lower number of overall parking spaces of 842 as compared to the Established district with 1,032 spaces and the Future district with 1,092 spaces.

- Parking Utilization by Type: In review of the Total Downtown, private/business parking accounts for 61 percent of the entire parking supply, followed by 33 percent for public off-street parking and 6 percent for on-street public parking. Peak utilization of these spaces is opposite the supply, where on-street parking is 94 percent, off-street public parking is 76 percent and private parking at 71 percent.

Based on a review of the data and understanding the dynamics of parking, some observational findings can be made regarding parking in the downtown. These are:

- Adequate Parking Supply: A generally accepted practice is to plan for a parking system that is 85 percent utilized for customer and visitor parking areas and 90 to 95 percent for long-term employee parking. The 15 percent buffer for customer and visitor parking allows for both an adequate parking supply and competitiveness with other centers. Because the employee trip is not discretionary, the need for a buffer greater than 5 to 10 percent is not necessary. Based on these percentages, there currently exists an adequate supply in parking for all districts within the downtown. It should be noted, however, that because of private restrictions, some of these parking spaces are not available to the general public, which results in available public parking short falls.

- Desirable On-Street Parking: Parking demand and utilization is always high for on-street parking. It is convenient, fast and reflects the downtown character. With time restrictions, they provide the highest turn-over of spaces within the downtown.

- Private Parking: Private business parking is under utilized during the evening when businesses are closed. It was noted that many of the private parking lots had signs restricting non-business use, day or night.

- Public Parking Emerging District: Virtually all available public parking is used in the evening within the Emerging district, even though there is private parking under utilized. Some patrons with destinations to the Emerging district must park outside the district and walk to the district.

- Emerging District Demands: Between the afternoon peak demands for private parking and the evening demands for public parking, the Emerging district experiences the greatest parking impacts.

3. Parking Recommendation and Strategies

With on-going plans for improving the downtown, a parking strategy needs to be incorporated in these planning efforts. The Town Council has an element of control to encourage residents, employees, and visitors to the downtown to consider modes of transport other than the private car such as transit, bicycle and pedestrian facilities, parking fines, duration of stay restrictions to control both the number, and use of cars.

However, it is reasonable for drivers to assume that they will be able to park their vehicles within a reasonable distance of their final destination, accepting that sometimes, in congested areas, this might involve some time searching for a space. However, what each individual driver constitutes an acceptable place to park will vary considerably in terms of location, and whether or not parking fees are charged. This judgment will be influenced by the journey purpose and relative urgency of the trip, as well as the driver's personal affluence. Finally, the driver's own attitudes and behavioral patterns come into play, especially relating to the security of their cars and possibly themselves when choosing where to park.

The availability of parking is known to strongly influence a driver's choice of destination. As an example, the success of shopping centers is often attributed to the provision of large areas of free car facilities. The potential for competition for retail business between the downtown and the shopping center is all too apparent, and so adequate parking must plan an important factor in securing the future economic vitality of Chapel Hill's downtown. However, there must be a balance between the availability of parking and the potential for attracting more traffic into the downtown than the road network can satisfactorily accommodate. Increasing traffic congestion in and around downtown is not being encouraged.

Before considering current policy guidance, an overview of the general principles of parking provision should be considered, In general, the growth of vehicular traffic, with its associated problems of congestion, accidents, noise and pollution, has led to a significant reappraisal of transportation planning whereby it is no longer considered either feasible or desirable to cater for this continuous increase. The management of the amount and type of parking provided is seen as an important means of influencing overall levels of traffic demand. It can also be a way of giving preference to certain types of trips over one another, such as visitor/customer trips over work trips. It is important to note that parking measures that influence travel demand are not a new phenomenon, as they have been in use for many years.

General Principles of a Downtown Parking Strategy

- The development of a parking strategy for Chapel Hill's downtown should be determined as an integral part of the Town's overall transportation policy.
- The parking strategy should aim to be effective in helping to achieve overall traffic restraint while at the same time provide adequate parking space for customers and visitors.
- It is important to consider the total amount and balance of parking between public on-street and off-street and private.
- In areas of the downtown where the parking demand exceed the supply, the strategy should strive to promote policy decisions on the allocation of the available space amongst short stay customers and visitors which can result in high turn-over and use of limited facilities. Providing for long-stay commuter parking in the downtown is less essential.
- Short-term parking should be provided in the center of the downtown and long-term parking in peripheral locations.

Recommended Downtown Parking Strategies

- Developments in the Chapel Hill Town Center are required to provide on-site parking based on minimum parking rates per the Chapel Hill Land Use Management Ordinance. Given the small lot configurations and the fact that structured parking can cost well over $10,000 per space, the Town of Chapel Hill permits the developer to provide the parking on site, near the site, or pay the Town an in-lieu parking fee of $3,600 per space. The Town utilizes these fees to identify, construct and operate parking which is shared by all users of the Town Center. Spaces used by the Town Center's daytime activities can be shared with evening and weekday users. We recommend that the payment-in-lieu provision be retained.
- The Town should also pursue partnering with existing private businesses that have residual parking which could serve other uses or with a developer that proposes to provide parking in excess of the maximum permitted per the Land Use Management Ordinance. This partnering might have the Town leasing spaces from the private property owner or developer for general public use. This effort might also require the Town to take on the responsibility of liability and maintenance of the parking area. It is further recommended that a minimum number of parking spaces be required for Town operation to be considered. A minimum number of 20 spaces might be suggested although the actual number might depend on the specifics of the block or area.
- The provision for off-site parking should give customers and visitors priority over commuters. Customer and visitor parking should be within 500 feet of their ultimate destination, whereas employee parking can be beyond the 500 feet area along the periphery of the Town Center.

Parking Inventory and Utilization Table

Lot ID	Street	Lot Type	Lot Use	Neighborhood	Total Spaces	Weekday Afternoon		Friday Night		Peak	
						Occupied Spaces	% Full	Occupied Spaces	% Full	Occupied Spaces	% Full
1	Franklin	On-Street Parking	On-Street Parking	Established	28	26	92.9%	27	96.4%	27	96.4%
2	Franklin	On-Street Parking	On-Street Parking	Established	11	11	100.0%	11	100.0%	11	100.0%
3	Franklin	Surface Parking Lot	Public Parking	Established	34	14	41.2%	20	58.8%	20	58.8%
4	Franklin	Surface Parking Lot	Private Parking	Emerging	100	67	67.0%	67	67.0%	67	67.0%
5	Franklin	Surface Parking Lot	Private Parking	Emerging	27	28	103.7%	8	29.6%	28	103.7%
6	Franklin	Surface Parking Lot	Private Parking	Emerging	7	5	71.4%	-		5	71.4%
7	Franklin	Surface Parking Lot	Private Parking	Emerging	74	74	100.0%	9	12.2%	74	100.0%
8	Franklin	Surface Parking Lot	Private Parking	Emerging	31	16	51.6%	19	61.3%	19	61.3%
9	Franklin	Surface Parking Lot	Private Parking	Emerging	16	13	81.3%	10	62.5%	13	81.3%
10	Franklin	Surface Parking Lot	Private Parking	Emerging	95	95	100.0%	77	81.1%	95	100.0%
11	Franklin	Surface Parking Lot	Private Parking	Emerging	89	78	87.6%	10	11.2%	78	87.6%
12	Franklin	Surface Parking Lot	Private Parking	Emerging	21	16	76.2%	15	71.4%	16	76.2%
13	Franklin	Surface Parking Lot	Private Parking	Emerging	43	12	27.9%	33	76.7%	33	76.7%
14	Franklin	Surface Parking Lot	Private Parking	Emerging	42	19	45.2%	13	31.0%	19	45.2%
15	Franklin	Surface Parking Lot	Private Parking	Emerging	36	29	80.6%	-		29	80.6%
16	Franklin	Surface Parking Lot	Private Parking	Emerging	15	2	13.3%	-		2	13.3%
17	Franklin	Surface Parking Lot	Private Parking	Emerging	64	39	60.9%	61	95.3%	61	95.3%
18	Franklin	Surface Parking Lot	Private Parking	Emerging	28	28	100.0%	6	21.4%	28	100.0%
19	Franklin	Surface Parking Lot	Private Parking	Emerging	14	7	50.0%	14	100.0%	14	100.0%
20	Franklin	Surface Parking Lot	Private Parking	Emerging	11	7	63.6%	9	81.8%	9	81.8%
21	Franklin	Surface Parking Lot	Private Parking	Emerging	13	9	69.2%	10	76.9%	10	76.9%
22	Franklin	Surface Parking Lot	Private Parking	Emerging	31	16	51.6%	15	48.4%	16	51.6%
23	Franklin	On-Street Parking	On-Street Parking	Emerging	54	29	53.7%	54	100.0%	54	100.0%
24	Franklin	Surface Parking Lot	Private Parking	Emerging	10	10	100.0%	8	80.0%	10	100.0%
25	Franklin	Surface Parking Lot	Public Parking	Emerging	71	3	4.2%	71	100.0%	71	100.0%
26	Franklin	On-Street Parking	On-Street Parking	Emerging	10	1	10.0%	10	100.0%	10	100.0%
27	Franklin	On-Street Parking	On-Street Parking	Future	11	6	54.5%	11	100.0%	11	100.0%
28	Franklin	On-Street Parking	On-Street Parking	Emerging	14	6	42.9%	12	85.7%	12	85.7%
29	Franklin	Surface Parking Lot	Private Parking	Emerging	32	32	100.0%	5	15.6%	32	100.0%
30	Franklin	Surface Parking Lot	Private Parking	Emerging	6	1	16.7%	-		1	16.7%
31	Franklin	Surface Parking Lot	Private Parking	Future	6	2	33.3%	3	50.0%	3	50.0%
32	Franklin	Surface Parking Lot	Private Parking	Future	5	4	80.0%	5	100.0%	5	100.0%
33	Franklin	On-Street Parking	On-Street Parking	Future	8	1	12.5%	6	75.0%	6	75.0%
34	Franklin	Surface Parking Lot	Private Parking	Emerging	15	10	66.7%	12	80.0%	12	80.0%
35	Franklin	Surface Parking Lot	Private Parking	Future	12	9	75.0%	12	100.0%	12	100.0%
36	Rosemary	On-Street Parking	On-Street Parking	Established	3	2	66.7%	3	100.0%	3	100.0%
37	Rosemary	On-Street Parking	On-Street Parking	Established	18	15	83.3%	-		15	83.3%
38	Rosemary	Surface Parking Lot	Private Parking	Established	8	7	87.5%	2	25.0%	7	87.5%
39	Rosemary	Surface Parking Lot	Private Parking	Established	108	57	52.8%	44	40.7%	57	52.8%
40	Rosemary	Surface Parking Lot	Private Parking	Established	20	18	90.0%	15	75.0%	18	90.0%
41	Rosemary	Parking Structure	Public Parking	Established	301	170	56.5%	108	35.9%	170	56.5%
42	Rosemary	Surface Parking Lot	Private Parking	Established	87	48	55.2%	15	17.2%	48	55.2%
43	Rosemary	Parking Structure	Public Parking	Established	285	213	74.7%	57	20.0%	213	74.7%
44	Rosemary	Surface Parking Lot	Public Parking	Established	108	79	73.1%	103	95.4%	103	95.4%
45	Rosemary	Surface Parking Lot	Private Parking	Established	11	10	90.9%	6	54.5%	10	90.9%
46	Rosemary	Surface Parking Lot	Private Parking	Established	10	8	80.0%	-		8	80.0%
47	Rosemary	Surface Parking Lot	Private Parking	Future	5	5	100.0%	2	40.0%	5	100.0%
48	Rosemary	Surface Parking Lot	Private Parking	Future	49	32	65.3%	4	8.2%	32	65.3%
49	Rosemary	Surface Parking Lot	Private Parking	Future	18	7	38.9%	2	11.1%	7	38.9%
50	Rosemary	Surface Parking Lot	Private Parking	Future	20	11	55.0%	4	20.0%	11	55.0%
51	Rosemary	Surface Parking Lot	Private Parking	Future	22	19	86.4%	5	22.7%	19	86.4%
52	Rosemary	Surface Parking Lot	Private Parking	Future	28	14	50.0%	-		14	50.0%
53	Rosemary	Surface Parking Lot	Private Parking	Future	10	5	50.0%	8	80.0%	8	80.0%
54	Rosemary	Surface Parking Lot	Private Parking	Future	28	5	17.9%	6	21.4%	6	21.4%
55	Rosemary	Surface Parking Lot	Public (Monthly)	Future	104	82	78.8%	30	28.8%	82	78.8%
56	Rosemary	Surface Parking Lot	Public Parking	Future	69	12	17.4%	77	111.6%	77	111.6%
57	Rosemary	Surface Parking Lot	Private Parking	Future	42	26	61.9%	10	23.8%	26	61.9%
58	Rosemary	Surface Parking Lot	Private Parking	Future	22	9	40.9%	3	13.6%	9	40.9%
59	Rosemary	Surface Parking Lot	Private Parking	Future	20	12	60.0%	20	100.0%	20	100.0%
60	Rosemary	Surface Parking Lot	Private Parking	Future	44	31	70.5%	7	15.9%	31	70.5%
61	Rosemary	Surface Parking Lot	Private Parking	Future	4	4	100.0%	6	150.0%	6	150.0%
62	Rosemary	Surface Parking Lot	Private Parking	Future	14	6	42.9%	7	50.0%	7	50.0%
63	Rosemary	Surface Parking Lot	Private Parking	Future	62	15	24.2%	27	43.5%	27	43.5%
64	Rosemary	Surface Parking Lot	Private Parking	Future	61	32	52.5%	27	44.3%	32	52.5%
65	Rosemary	Surface Parking Lot	Private Parking	Future	136	135	99.3%	21	15.4%	135	99.3%
66	Rosemary	Surface Parking Lot	Private Parking	Future	10	5	50.0%	1	10.0%	5	50.0%
67	Rosemary	Surface Parking Lot	Private Parking	Future	26	12	46.2%	2	7.7%	12	46.2%
68	Rosemary	Surface Parking Lot	Private Parking	Future	25	22	88.0%	-		22	88.0%
69	Rosemary	On-Street Parking	On-Street Parking	Future	3	3	100.0%	2	66.7%	3	100.0%
70	Rosemary	Surface Parking Lot	Private Parking	Future	48	42	87.5%	17	35.4%	42	87.5%
71	Rosemary	Surface Parking Lot	Private Parking	Future	42	33	78.6%	10	23.8%	33	78.6%
72	Rosemary	Surface Parking Lot	Private Parking	Future	13	5	38.5%	-		5	38.5%
73	Rosemary	On-Street Parking	On-Street Parking	Future	9	7	77.8%	1	11.1%	7	77.8%
74	Rosemary	Surface Parking Lot	Private Parking	Future	30	25	83.3%	24	80.0%	25	83.3%
75	Rosemary	Surface Parking Lot	Private Parking	Future	35	10	28.6%	3	8.6%	10	28.6%
76	Rosemary	Surface Parking Lot	Private Parking	Future	25	6	24.0%	-		6	24.0%
77	Rosemary	Surface Parking Lot	Private Parking	Future	26	3	11.5%	-		3	11.5%