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CITY OF KEY WEST

PARKING AND PARK 'N' RIDE PROGRAM RECOMMENDATIONS

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INTRODUCTION

The location and availability of parking within the City of Key West, both on-street and off-street, has long been an issue of concern to residents, visitors, business owners, the Chamber of Commerce, City management, and the City Commission. This work effort reviews a series of issues and concerns, provides a forum for public input on the issues and concerns, and develops a set of parking recommendations and an implementation plan of action. The issues and concerns reviewed as part of this work effort include:

- On-street meter locations, rates, and turnover of spaces;
- On-street meter enforcement, including meter violation fines and processing;
- Hourly and monthly off-street parking locations, rates, and turnover of spaces;
- Park 'n' ride shuttle services from/to the new parking garage to the Old Town area;
- Residential on-street parking permit program; and
- Parking program financing options, including increase of existing rates, and the applicability of fee in-lieu and/or an assessment district to fund long-term parking needs.

While many of the above issues and concerns have been addressed through various past study efforts, this is the first comprehensive review undertaken of all the above issues and concerns simultaneously. The resulting recommendations and implementation plan of action will address all of the above areas to form an integrated parking program for the City of Key West. The implementation plan of action will provide guidance as to the order in which actions are to be undertaken and the areas of the city code which may require modification in order to implement the recommendations.

Figure 1, Development of Parking Program Recommendations, provides a graphical representation of the steps followed in order to develop the final parking program recommendations and implementation plan of action. The steps are described in the several paragraphs that follow.

A parking inventory and demand study was completed in December of 1995. This work effort identified the base inventory of on and off-street parking spaces, and the estimated utilization of the spaces.

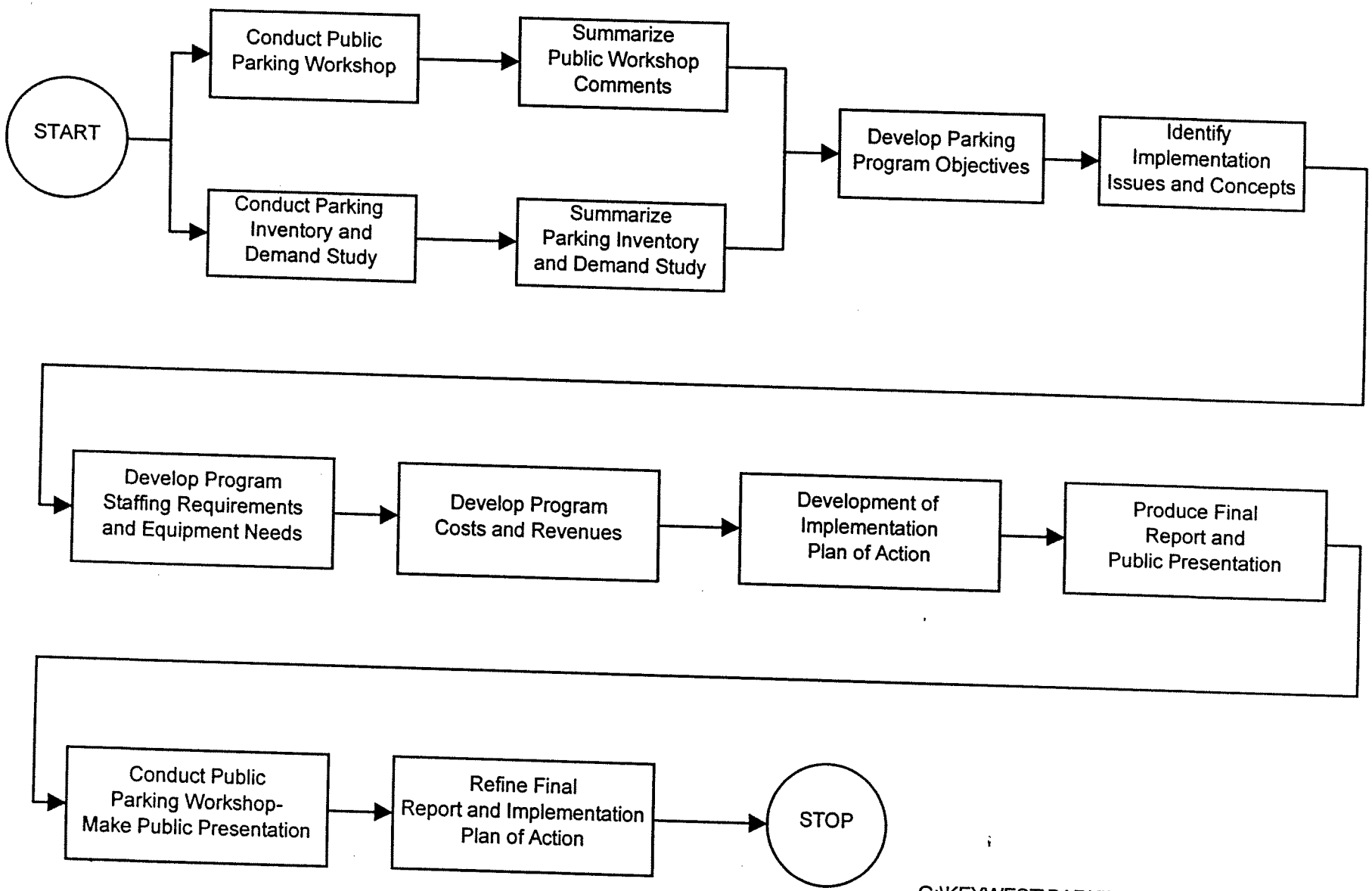
A public workshop was conducted on December 6, 1995 to solicit comments about parking conditions and issues in the City of Key West. Comments received from the public workshop and information about the parking inventory were used to develop the parking program objectives. The parking program objectives were grouped according to the following program areas:

- Residential parking permit program;
- Residential handicapped parking space program;
- On-street parking program;
- Off-street parking program;
- Public transportation service to and from the Grinnell Street garage;
- Parking program financing and organization structure.

A series of implementation issues and concepts was then developed for each program area. The implementation issues and concepts were reviewed with City management to obtain general guidance in developing the parking program recommendations and implementation plan of action.

General staffing requirements and equipment needs were developed along with estimated costs and additional program revenues. This was done to get an order of magnitude as to the need for additional revenues to finance the parking program recommendations.

CITY OF KEY WEST
Figure 1, Development of Parking Program Recommendations



G:\KEYWEST\PARKING\TECHMEMO\FIG1.AF3

An implementation plan of action was developed to identify the sequence of actions necessary in order to implement the parking program recommendations. The implementation plan of action also identified areas where the City Code may need to be changed and internal operating procedures and systems developed to effectively and efficiently implement the parking program recommendations.

The culmination of this work effort is a draft report and public workshop presentation. The public workshop presentation is designed to inform the public about the proposed changes to the Key West parking program being considered by the City of Key West. Based on public comments, the final report and implementation plan of action will be produced.

For ease of review, this report is organized into the following sections:

- Parking Inventory and Demand Study;
- Public Parking Workshop;
- Program Objectives;
- Issues and Concepts;
- Staffing Requirements and Equipment Needs;
- Costs and Revenues; and
- Implementation Plan of Action.

PARKING INVENTORY AND DEMAND STUDY

The location and availability of parking has a significant influence on travel patterns of visitors and residents. In order to determine the existing number of spaces, a parking inventory was conducted which geographically covered all accessible locations on the island of Key West. The parking inventory included both on-street and off-street parking locations. In addition to the parking inventory, a demand study was also completed. The demand study counted the number of occupied spaces during the period from 1:00 p.m. to 4:00 p.m., and on the weekend, during the period from 4:00 p.m. to 7:00 p.m..

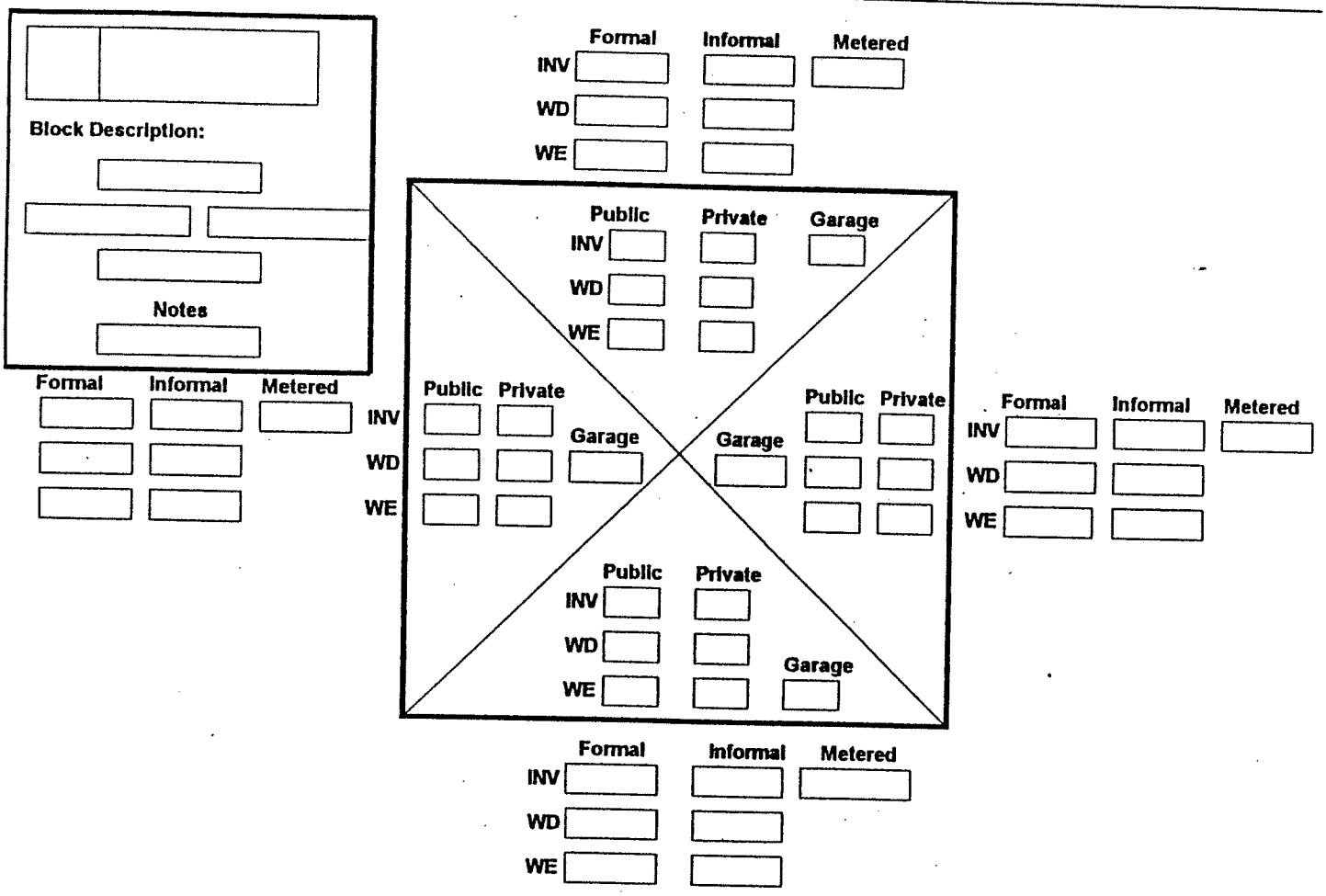
Methodology, Definitions and Data Collection

Parking inventory and demand information was collected in the field by trained local residents. The weekday peak parking demand data was collected during a weekday, daylight hours between 1:00 p.m. and 4:00 p.m.. Likewise, the weekend peak parking demand data was collected between the hours of 4:00 p.m. and 7:00 p.m. on a Saturday. Both the weekday and weekend parking demand inventories provide a "snapshot" view of parking conditions on the island. Every effort was made to assign the same individual who collected the parking inventory to also collect demand information for the same area. Each parking inventory data collector was given at least one of 14 compact geographic areas to collect parking data. Each area was delineated on either a city map or aerial photograph prepared by Tindale-Oliver and Associates, Inc.

The parking demand and inventory was collected using a database form developed by Tindale Oliver and Associates, Inc. specifically for the Key West Parking Survey. Figure 2, City of Key West, Parking Inventory Worksheet, illustrates the parking inventory form used to collect the inventory and demand data. Each Parking Inventory Worksheet was prelabeled with the data collection area and Parking Block number. This prelabeling was used to facilitate the data input process and as a quality control assurance measure. Additional information was provided which included the name of the street on each side of a block; thus aiding the parking inventory data collectors in the field.

The parking inventory was divided into two major categories: On-Street and Off-Street. On-Street Parking is parking which occurs in marked designated parking spaces, metered designated parking spaces, or informally within the public right-of-way. Marked parking spaces, metered parking spaces, and other spaces where parking is obviously allowed are classified as Formal Parking Spaces. Parking which occurs at locations where an adequate paved area is not available, such as the immediate side of the road are classified as Informal Parking Spaces. On the Parking Inventory Worksheet, space is provided to indicate the number of metered spaces. It is important to note that metered spaces are also considered Formal Parking Spaces and hence a metered space would be inventoried in both fields.

Figure 2
Parking Inventory Worksheet



Interviewer

Inventroy:

Weekday:

Weekend:

Comments:

Quality Control Check Offs

Inventory _____ Weekday _____ Weekend _____

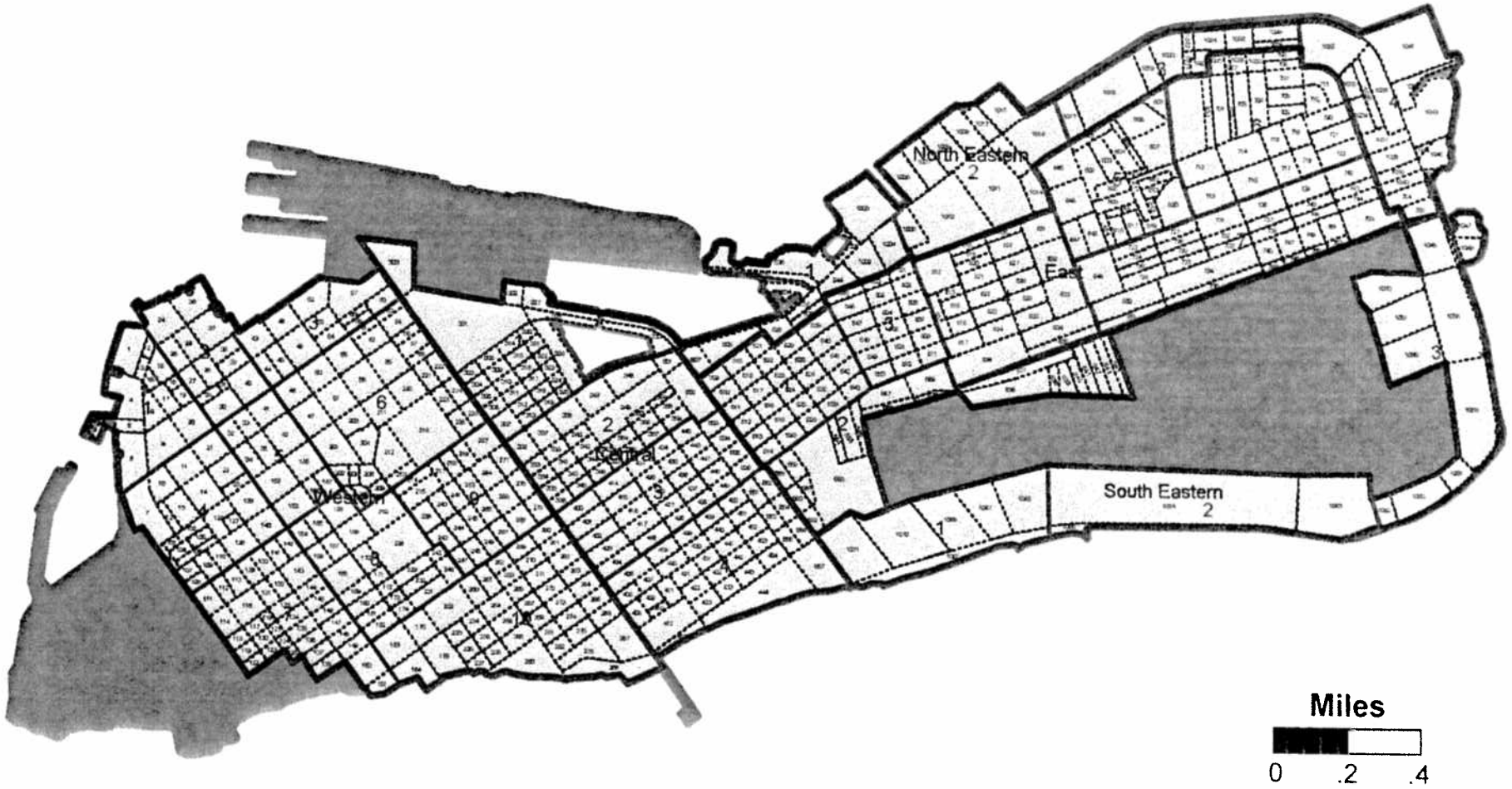
Off-Street Parking is parking which does not take place within the public right-of-way of a street. Off-Street Parking is further divided into two major categories. Off-Street Parking can be either Public or Private. For the purposes of this parking survey, Public Parking is defined as parking which is owned by the public (ie. City parking lots or garages, public building parking, etc.) or parking which is not identifiable to one specific development or business. Private Parking is defined as parking which is for the exclusive use of a properties' owners, visitors, or customers. Often in the field one can readily determine private parking from public parking, since many private spaces have posted parking restrictions. The Parking Inventory Worksheet also included a field for Off-Street Garage Parking. As with Metered Spaces mentioned above, Garage Parking is recorded in multiple fields and could therefore be classified as Public or Private, in addition to Garage.

For the purposes of analysis, the parking inventory is aggregated at three different levels of geography: Parking Blocks, Parking Areas, and Parking Regions. Figure 3, Parking Blocks, Areas and Regions illustrates the parking geography. The paragraphs below summarize the differences between the three levels of geography:

Parking Blocks are the lowest level at which the data was collected. Parking blocks are individual city blocks or other recognizable and/or geographically definable small areas. There are a total of 616 Parking Blocks. The delineation of parking blocks is illustrated in Figure 3 and are represented by areas enclosed with black dashed lines.

Parking Areas represent geographic regions of areas within the city. Typically, Parking Areas are composed of ten to over thirty Parking Blocks. There is a total of 28 Parking Areas in Key West. The parking areas are illustrated also in Figure 3 and are defined with blue lines.

Parking Regions represent the largest aggregation of data. Parking Regions often combine four to ten Parking Areas together. A total of five Parking Regions were developed for this analysis. As that parking regions are aggregations of parking blocks and parking areas, their borders, defined in red in Figure 3, share common borders with these smaller geographic units.



Restricted or Remote Areas
Parking Blocks
Parking Areas
Parking Regions

Figure 3

City of Key West

Parking Inventory Geographic Areas

Tindale - Oliver and Associates, Inc.
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Geographic ROAD
Project FIG3
Database DATA0613

Analysis

The parking conditions inventory was tabulated to enable parking data to be used as a planning tool and to provide information pertaining to parking conditions in specific blocks within the City. Appendix A, City of Key West Parking Survey, 1995, tabulates the nature of the parking conditions in the City of Key West. Appendix A includes the parking conditions for each individual block and for the aggregation of blocks, namely areas and regions. This appendix includes the inventory and the parking demand for both the weekday and weekend survey periods. Both the overall utilization of specific types of parking and the geographical utilization of parking facilities are analyzed within this section. For the purpose of analysis, the parking conditions inventory was divided into two categories: on-street and off-street parking.

It is important to note that every reasonable effort was made to collect the most accurate data possible; however, it is reasonable to expect some degree of error due to the magnitude of the data collection effort. As an example, using the data collection methodology described earlier, a total of 758 metered parking spaces were identified. The City of Key West staff reports that a total of 750 metered parking spaces exist in the City and thus a discrepancy of 8 spaces exists. Hence there is less than a 2% error for metered parking spaces and such a low error rate should not adversely effect users of the parking conditions survey data.

On - Street Parking

As mentioned earlier, on-street parking includes all parking which occurs in the public right-of-way either formal or in-formal. Table 1, On-Street Parking Inventory and Demand, summarizes the parking conditions of on-street parking facilities and includes utilization rates for each classification of on-street parking. The resulting data analysis for On-Street parking as illustrated in Table 1 is summarized by the following:

A total of 9,430 formal On-Street parking spaces exist on the island and of the total formal spaces, 758 spaces are metered. During the weekday period analyzed, total of 3,884 spaces were occupied

Table 1: On-Street Parking Inventory and Demand

Parking Location	Inventory				Weekday Demand						Weekend Demand					
	On Street				Formal		Informal		Total		Formal		Informal		Total	
	Formal	Informal	Total	Metered	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization
Western Area 1 Total	190	0	190	79	150	79%	0		150	79%	160	84%	0		160	84%
Western Area 2 Total	231	0	231	131	170	74%	0		170	74%	179	77%	0		179	77%
Western Area 3 Total	321	23	344	40	184	57%	12	52%	196	57%	164	51%	15	65%	179	52%
Western Area 4 Total	287	97	384	74	194	68%	28	29%	222	58%	246	86%	52	54%	298	78%
Western Area 5 Total	401	10	411	117	282	70%	8	80%	290	71%	303	76%	10	100%	313	76%
Western Area 6 Total	884	16	900	0	453	51%	21	131%	474	53%	491	56%	24	150%	515	57%
Western Area 7 Total	522	243	765	56	240	46%	102	42%	342	45%	334	64%	147	60%	481	63%
Western Area 8 Total	227	390	617	41	124	55%	176	45%	300	49%	136	60%	200	51%	336	54%
Western Area 9 Total	273	386	659	0	165	60%	190	49%	355	54%	149	55%	128	33%	277	42%
Western Area 10 Total	363	590	953	41	85	23%	225	38%	310	33%	102	28%	143	24%	245	26%
Western Region Total	3699	1755	5454	758	2047	55%	762	43%	2809	52%	2264	61%	719	41%	2983	55%
Central Area 1 Total	710	32	742	0	345	49%	14	44%	359	48%	404	57%	21	66%	425	57%
Central Area 2 Total	855	586	1441	0	413	48%	180	31%	593	41%	421	49%	220	38%	641	44%
Central Area 3 Total	182	1070	1252	0	41	23%	162	15%	203	16%	31	17%	193	18%	224	18%
Central Area 4 Total	372	1081	1453	184	63	17%	204	19%	267	18%	64	17%	263	24%	327	23%
Central Region Total	2119	2769	4888	184	862	41%	560	20%	1422	29%	920	43%	697	25%	1617	33%
Eastern Area 1 Total	187	686	873	0	48	26%	260	38%	308	35%	46	25%	295	43%	341	39%
Eastern Area 2 Total	550	679	1229	0	150	27%	157	23%	307	25%	31	6%	129	19%	160	13%
Eastern Area 3 Total	116	421	537	0	55	47%	101	24%	156	29%	58	50%	131	31%	189	35%
Eastern Area 4 Total	447	484	931	0	120	27%	58	12%	178	19%	144	32%	97	20%	241	26%
Eastern Area 5 Total	634	82	716	0	212	33%	27	33%	239	33%	432	68%	29	35%	461	64%
Eastern Area 6 Total	419	148	567	0	81	19%	35	24%	116	20%	124	30%	60	41%	184	32%
Eastern Area 7 Total	325	452	777	0	43	13%	134	30%	177	23%	80	25%	186	41%	266	34%
Eastern Region Total	2678	2952	5630	0	709	26%	772	26%	1481	26%	915	34%	927	31%	1842	33%
North Eastern Area 1 Total	72	46	118	0	53	74%	5	11%	58	49%	35	49%	27	59%	62	53%
North Eastern Area 3 Total	25	91	116	0	9	36%	34	37%	43	37%	3	12%	32	35%	35	30%
North Eastern Area 4 Total	294	226	520	0	0	0%	56	25%	56	11%	70	24%	69	31%	139	27%
North Eastern Area 5 Total	175	0	175	0	94	54%	0		94	54%	57	33%	0		57	33%
North Eastern Area 6 Total	0	87	87	0	0		34	39%	34	39%	0		37	43%	37	43%
North Eastern Region Total	566	450	1016	0	156	28%	129	29%	285	28%	165	29%	165	37%	330	32%
South Eastern Area 1 Total	59	0	59	0	42	71%	0		42	71%	59	100%	0		59	100%
South Eastern Area 2 Total	272	0	272	0	51	19%	0		51	19%	45	17%	0		45	17%
South Eastern Area 3 Total	37	59	96	0	17	46%	31	53%	48	50%	23	62%	0		23	24%
South Eastern Region Total	368	59	427	0	110	30%	31	53%	141	33%	127	35%	0	0%	127	30%
Island Total	9430	7985	17415	942	3884	41%	2254	28%	6138	35%	4391	47%	2508	31%	6899	40%

for a total occupancy rate of 41%. Utilization was higher on the weekend with 4,391 occupied spaces with an associated occupancy rate of 47%.

Similar to the formal on-street parking spaces, informal spaces were inventoried. A total of 17,415 informal on-street parking spaces exist on the island. For the weekday time period, a total of 2,254 spaces or 28% were occupied. Weekend utilization of on-street informal spaces were slightly higher with 2,508 occupied spaces with an associated occupancy rate of 31%.

For the purposes of analyzing the utilization rate of on street parking several maps which indicate total on -street parking utilization (Formal and Informal) at the parking block level were produced. Figures 4 and 5 illustrate the percentage of on-street parking spaces utilized during the weekday peak period, with Figure 4 providing an overall view of these conditions on the entire island. Upon review of Figure 4 one is able to identify specific areas of high on street parking utilization. First on-street parking utilization is high within the large parking block on the east side of the island across from "houseboat row." Second, on-street parking is un-characteristically high in the vacintatiy of the high school on the island. Third, on-street parking is absent along much of the North and South Roosevelt Blvd. due to the nature of development within these areas. Finally, and perhaps most important is the high utilization of spaces in the old town area.

Figure 5 provides a inset view of the "Old Town" area of the island roughly west of White Street. As with Figure 4, Figure 5 identifies on-street parking utilization during the weekday peak period. As mentioned above, the high utilization of spaces in the "Old Town" area is distinctly different from the trend on most of the rest of the island. Parking demand is especially heavy on both sides of the Duval Street corridor north of Southard Street with utilization rates greater than eighty percent. Other parking blocks adjacent to the aforementioned corridor have utilization rates greater than sixty percent. Parking utilization during the weekday peak along the Duval Street corridor between Southard Street and Turman Avenue is also above sixty percent as is the areas to the south of the Key West Bight. In summary it can be concluded that on-street parking utilization in the north-western portion of "Old Town" is distinctly higher than other areas of the island.

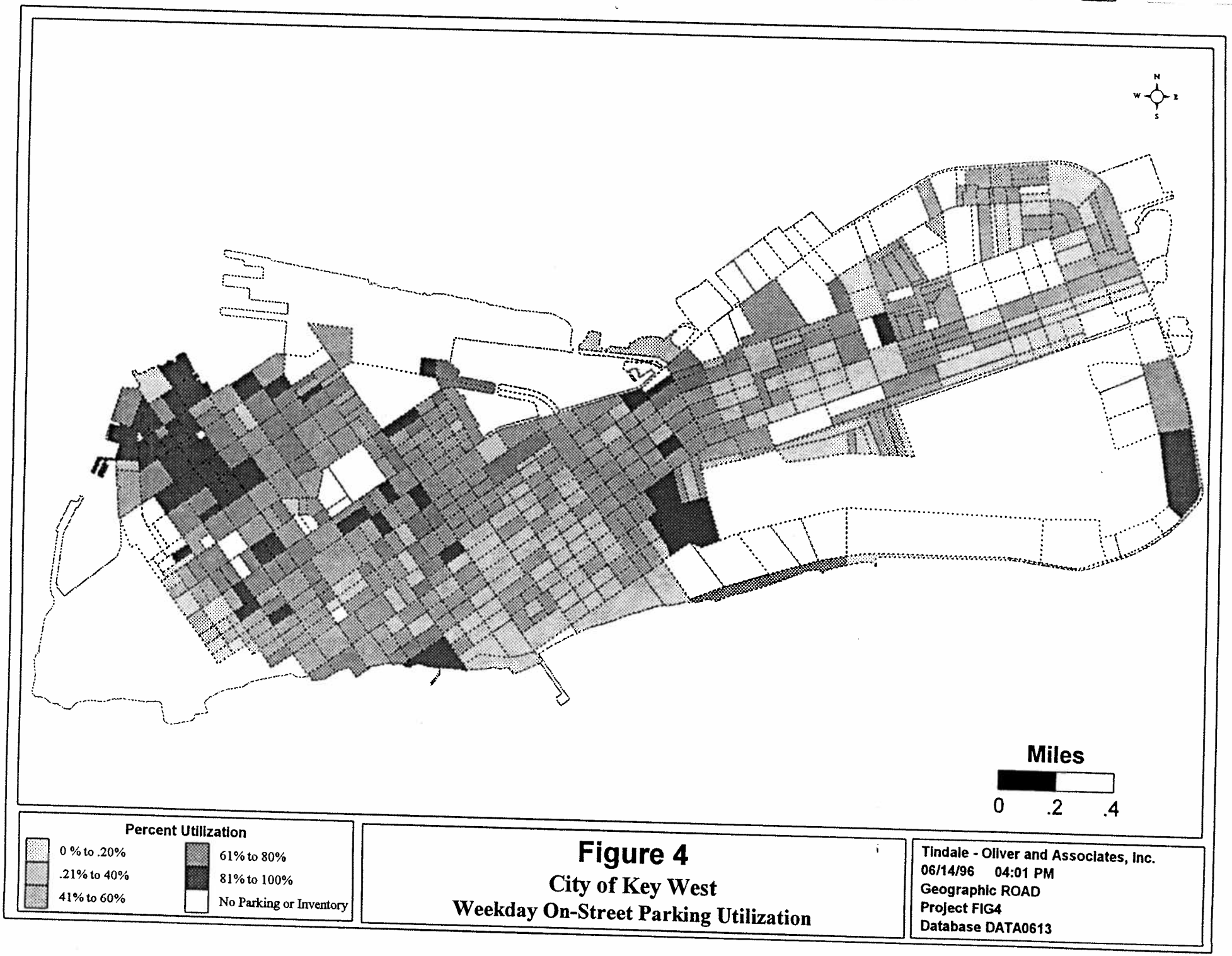

Figure 4

City of Key West

Weekday On-Street Parking Utilization

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06/14/96 04:01 PM
Geographic ROAD
Project FIG4
Database DATA0613

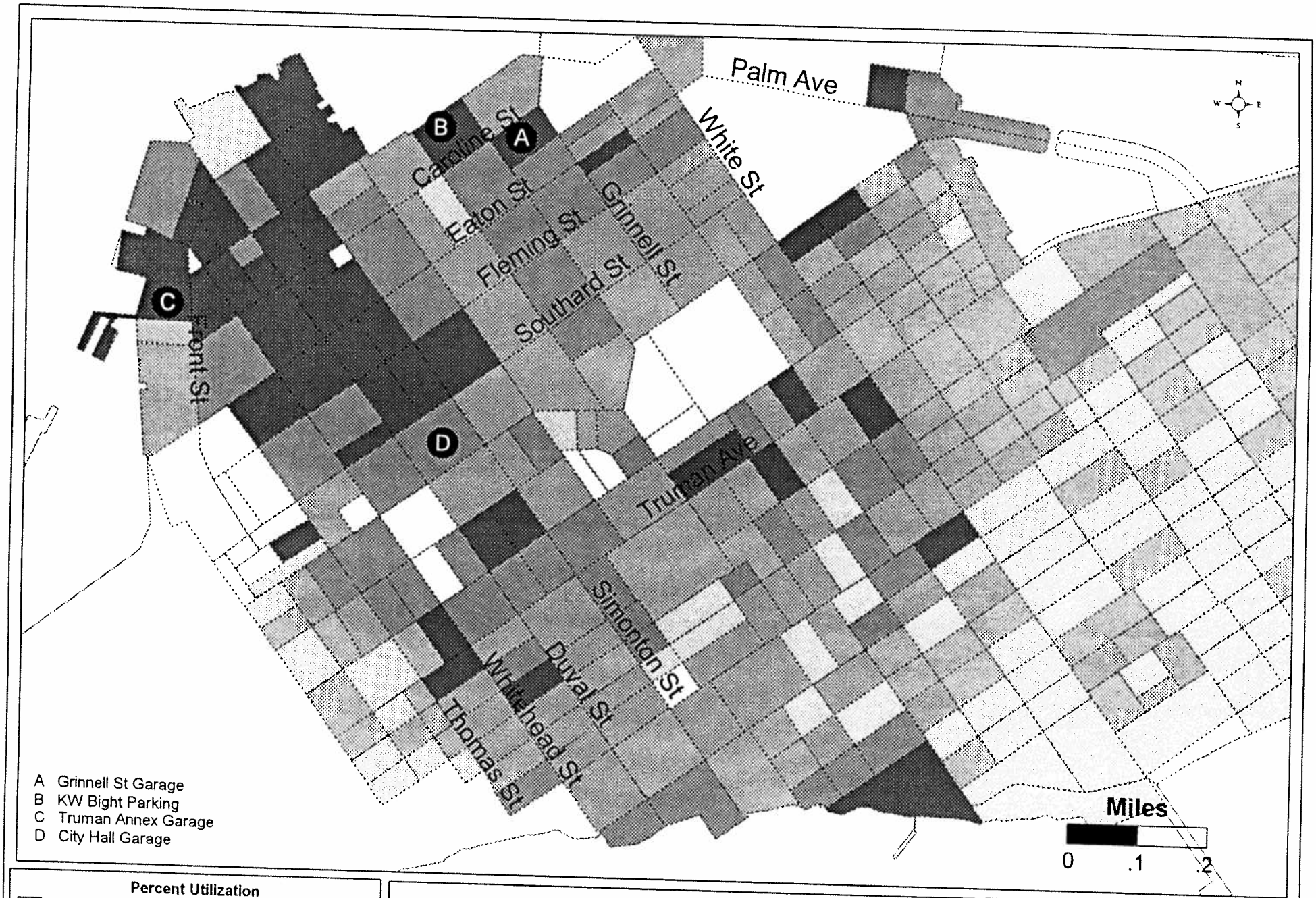

Figure 5

Old Town

Weekday On-Street Parking Utilization

Tindale - Oliver and Associates, Inc.
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Geographic ROAD
Project FIG5
Database DATA0613

Similar to the geographic analysis of the weekday peak on-street parking demand, weekend peak on-street parking utilization was analyzed. Figure 6 illustrates the on-street parking utilization during the measured weekend peak period. Analysis of Figure 6 indicates that similar to the weekday peak period, on-street parking in the "Old Town" area of the island is significantly higher than other areas of the island. Figure 7 illustrates the weekend peak period on-street parking in greater detail for the "Old Town" area. On-street parking utilization is extremely high north of Southard Street along the Duval Street corridor with nearly all parking blocks in this area having utilization rates greater than eighty percent. South of Southard Street along the Duval Street corridor parking utilization remains high yet is not uniformly high as to the north. It is evident from Figure 7 that parking demand in the extreme north-western portion of "Old Town" has a spill over effect into surrounding residential communities during the weekend peak which was not as prevalent in the weekday analysis. This spill over effect is demonstrated by the utilization rates greater than sixty percent in the area enclosed by Grinnell, Caroline, Southard, and Simonton Streets. On-street parking demand during the weekend peak is characterized by high utilization in the "Old Town" area which exceeds the boundaries of most commercial activities.

Off - Street Parking

Off-Street parking is all parking which does not take place on the street and was classified into two categories: Public and Private. Table 2, Off-Street Parking Inventory and Demand, tabulates the parking conditions for Off-Street parking facilities. Again, as with the case of Table 1, Table 2 includes utilization rates for each classification of parking.

Off-street parking facilities had a higher utilization rate than on-street parking facilities. A total of 5,515 public off-street parking spaces exist. During the weekday, a total of 2,344 off-street public spaces were occupied with an occupancy rate of 43 percent. Weekday occupancy was even higher with 2,550 public off-street spaces occupied and an associated occupancy rate of 46 percent.

Significantly more off-street parking spaces are in private ownership. A total of 19,585 private off-street parking spaces exist on the island. For the weekday period a total of 7,395 spaces were

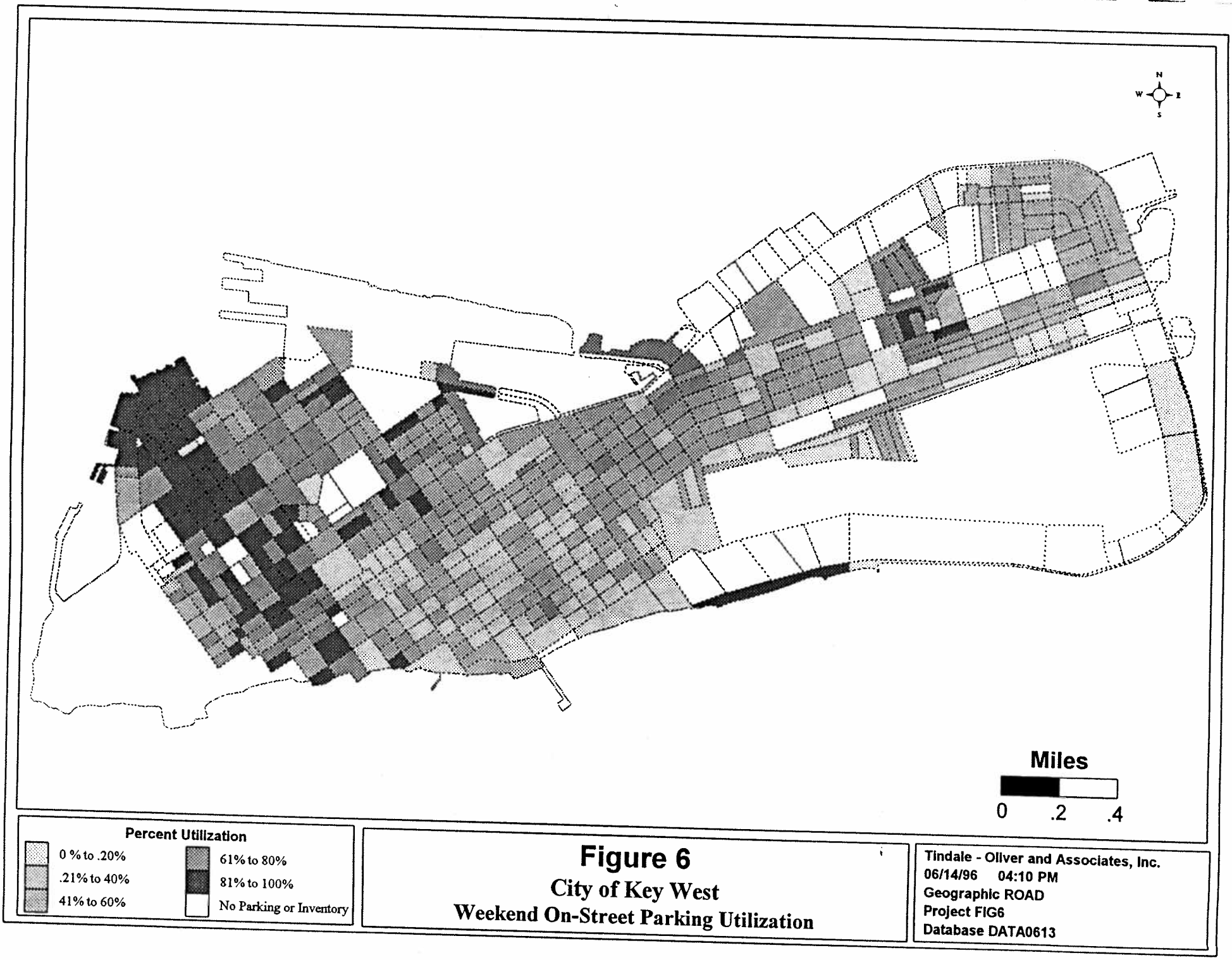

Figure 6

City of Key West

Weekend On-Street Parking Utilization

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Geographic ROAD
Project FIG6
Database DATA0613

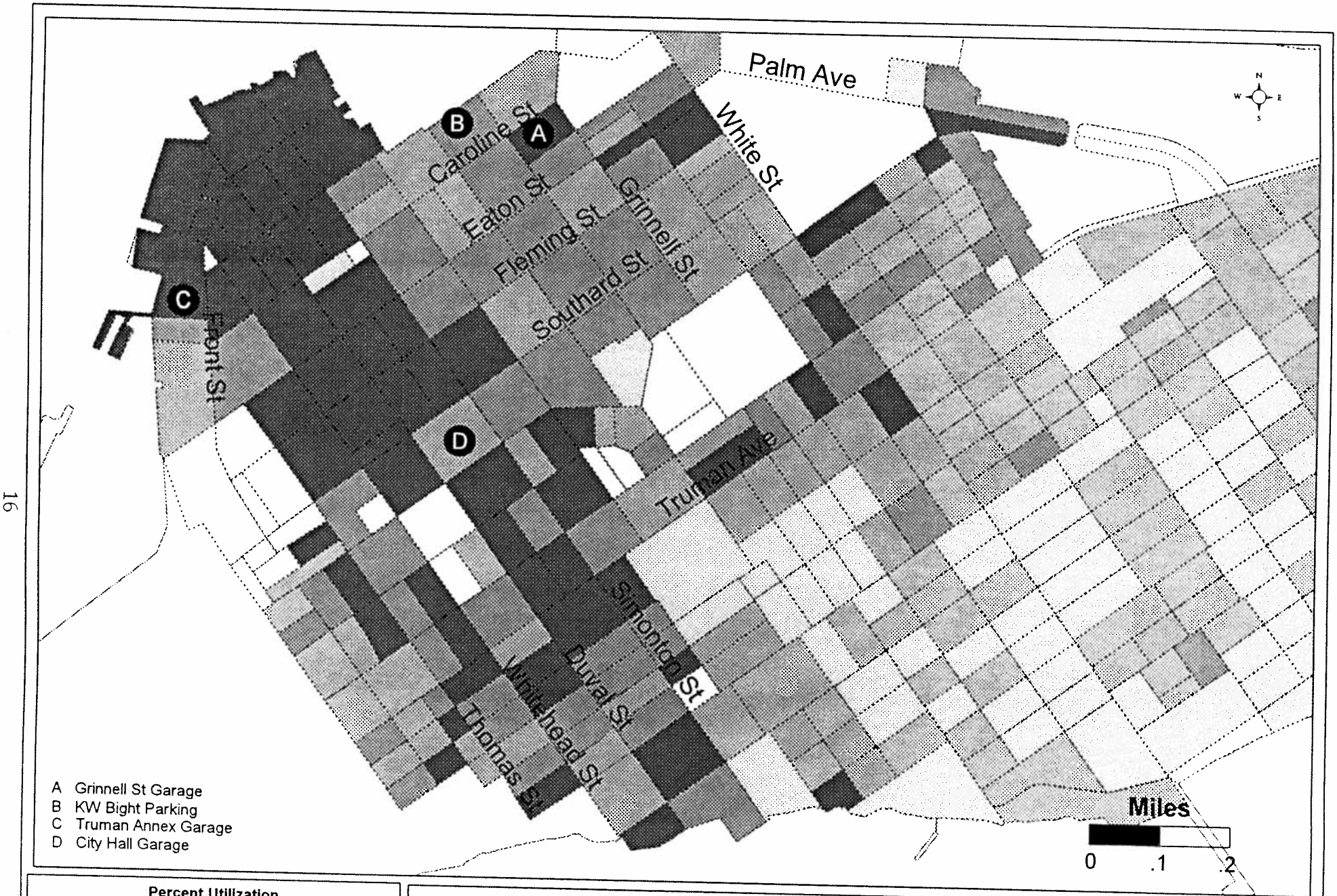

Figure 7

Old Town

Weekend On-Street Parking Utilization

Tindale - Oliver and Associates, Inc.
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Geographic ROAD
Project FIG7
Database DATA0613

Table 2: Off-Street Parking Inventory and Demand

Parking Location	Inventory				Weekday Demand						Weekend Demand					
	Off - Street				Public		Private		Total		Public		Private		Total	
	Public	Private	Total	Garage	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization
Western Area 1 Total	255	800	1055	400	137	54%	165	21%	302	29%	151	59%	168	21%	319	30%
Western Area 2 Total	38	999	1037	0	28	74%	609	61%	637	61%	5	13%	505	51%	510	49%
Western Area 3 Total	41	565	606	1	14	34%	257	45%	271	45%	5	12%	254	45%	259	43%
Western Area 4 Total	23	1289	1312	0	12	52%	520	40%	532	41%	10	43%	541	42%	551	42%
Western Area 5 Total	133	679	812	134	79	59%	213	31%	292	36%	72	54%	245	36%	317	39%
Western Area 6 Total	28	562	590	10	58	207%	192	34%	250	42%	31	111%	190	34%	221	37%
Western Area 7 Total	17	896	913	0	2	12%	278	31%	280	31%	8	47%	344	38%	352	39%
Western Area 8 Total	0	1454	1454	0	0		470	32%	470	32%	11		448	31%	459	32%
Western Area 9 Total	6	628	634	1	3	50%	249	40%	252	40%	4	67%	217	35%	221	35%
Western Area 10 Total	695	1327	2022	26	90	13%	522	39%	612	30%	58	8%	485	37%	543	27%
Western Region Total	1236	9199	10435	572	423	34%	3475	38%	3898	37%	355	29%	3397	37%	3752	36%
Central Area 1 Total	213	359	572	12	207	97%	143	40%	350	61%	212	100%	188	52%	400	70%
Central Area 2 Total	101	629	730	10	43	43%	194	31%	237	32%	28	28%	161	26%	189	26%
Central Area 3 Total	260	621	881	13	114	44%	183	29%	297	34%	151	58%	181	29%	332	38%
Central Area 4 Total	100	745	845	190	10	10%	274	37%	284	34%	12	12%	268	36%	280	33%
Central Region Total	674	2354	3028	225	374	55%	794	34%	1168	39%	403	60%	798	34%	1201	40%
Eastern Area 1 Total	24	350	374	22	2	8%	106	30%	108	29%	1	4%	177	51%	178	48%
Eastern Area 2 Total	0	664	664	0	0		338	51%	338	51%	0		207	31%	207	31%
Eastern Area 3 Total	0	359	359	5	0		124	35%	124	35%	0		176	49%	176	49%
Eastern Area 4 Total	5	1230	1235	0	2	40%	541	44%	543	44%	1	20%	467	38%	468	38%
Eastern Area 5 Total	180	1441	1621	6	46	26%	615	43%	661	41%	37	21%	824	57%	861	53%
Eastern Area 6 Total	0	292	292	10	0		100	34%	100	34%	0		154	53%	154	53%
Eastern Area 7 Total	0	700	700	26	0		266	38%	266	38%	0		373	53%	373	53%
Eastern Region Total	209	5036	5245	69	50	24%	2090	42%	2140	41%	39	19%	2378	47%	2417	46%
North Eastern Area 1 Total	412	193	605	60	117	28%	91	47%	208	34%	189	46%	42	22%	231	38%
North Eastern Area 3 Total	826	378	1204	23	356	43%	75	20%	431	36%	420	51%	124	33%	544	45%
North Eastern Area 4 Total	140	571	711	0	42	30%	120	21%	162	23%	47	34%	175	31%	222	31%
North Eastern Area 5 Total	1466	518	1984	68	722	49%	203	39%	925	47%	807	55%	159	31%	966	49%
North Eastern Area 6 Total	0	32	32	0	0		8	25%	8	25%	0		16	50%	16	50%
North Eastern Region Total	2844	1692	4536	151	1237	43%	497	29%	1734	38%	1463	51%	516	30%	1979	44%
South Eastern Area 1 Total	0	279	279	0	0		136	49%	136	49%	0		165	59%	165	59%
South Eastern Area 2 Total	552	0	552	0	260	47%	0		260	47%	290	53%	0		290	53%
South Eastern Area 3 Total	0	1025	1025	0	0		403	39%	403	39%	0		488	48%	488	48%
South Eastern Region Total	552	1304	1856	0	260	47%	539	41%	799	43%	290	53%	653	50%	943	51%
Island Total	5515	19585	25100	1017	2344	43%	7395	38%	9739	39%	2550	46%	7742	40%	10292	41%

utilized for an associated occupancy rate of 38%. Weekend occupancy was only slightly higher with 7,742 occupied private off-street parking spaces and an occupancy rate of 40%.

As with the maps produced for the on-street parking utilization, maps were produced which illustrate the parking demand for off-street parking facilities. Figures 8 - 11 provide utilization information at the parking block level. Unlike the on-street parking which demonstrated a pattern of high parking utilization is a specific area, namely "Old Town", off-street parking does not indicate any distinct regions are concentration of parking blocks with unique parking characteristics. The aforementioned figures do provide insight however as to the utilization of off-street parking facilities at the parking block analysis which could be used to address specific concerns.

Conclusion

Pursuant to the analysis of parking conditions the following can be summarized: First on-street parking demand is consistently high for both the weekday and weekend peak periods in the "Old Town" area of the island especially in the northern portions. Second on-street parking demand is slightly higher in the "Old Town" area during the weekend peak period and spill over into the residential areas to the immediate east. From the parking inventory and demand collection stand point it is impossible to determine whether the additional parking demand is the result of residential or tourist use, although a combination of both could be expected. Third, off-street parking demand is less consistent than the on-street parking and no specific patterns are evident from the geographic analysis. Finally, Table 1 and 2 report the parking conditions on the Area and Regional levels and Figures 4-11 illustrate the parking conditions of individual parking blocks. These tables and figures can be utilized to determine the nature of parking conditions in specific areas in order to facilitate specific needs.

PUBLIC PARKING WORKSHOP

On December 6, 1995 at 10:00 a.m., a public parking workshop was conducted to obtain comments from the general public, Chamber of Commerce, business leaders, City management, and members

Figure 8
City of Key West
Weekday Off-Street Parking Utilization

Tindale - Oliver and Associates, Inc.
06/14/96 09:52 AM
Geographic ROAD
Project FIG8
Database DATA0613

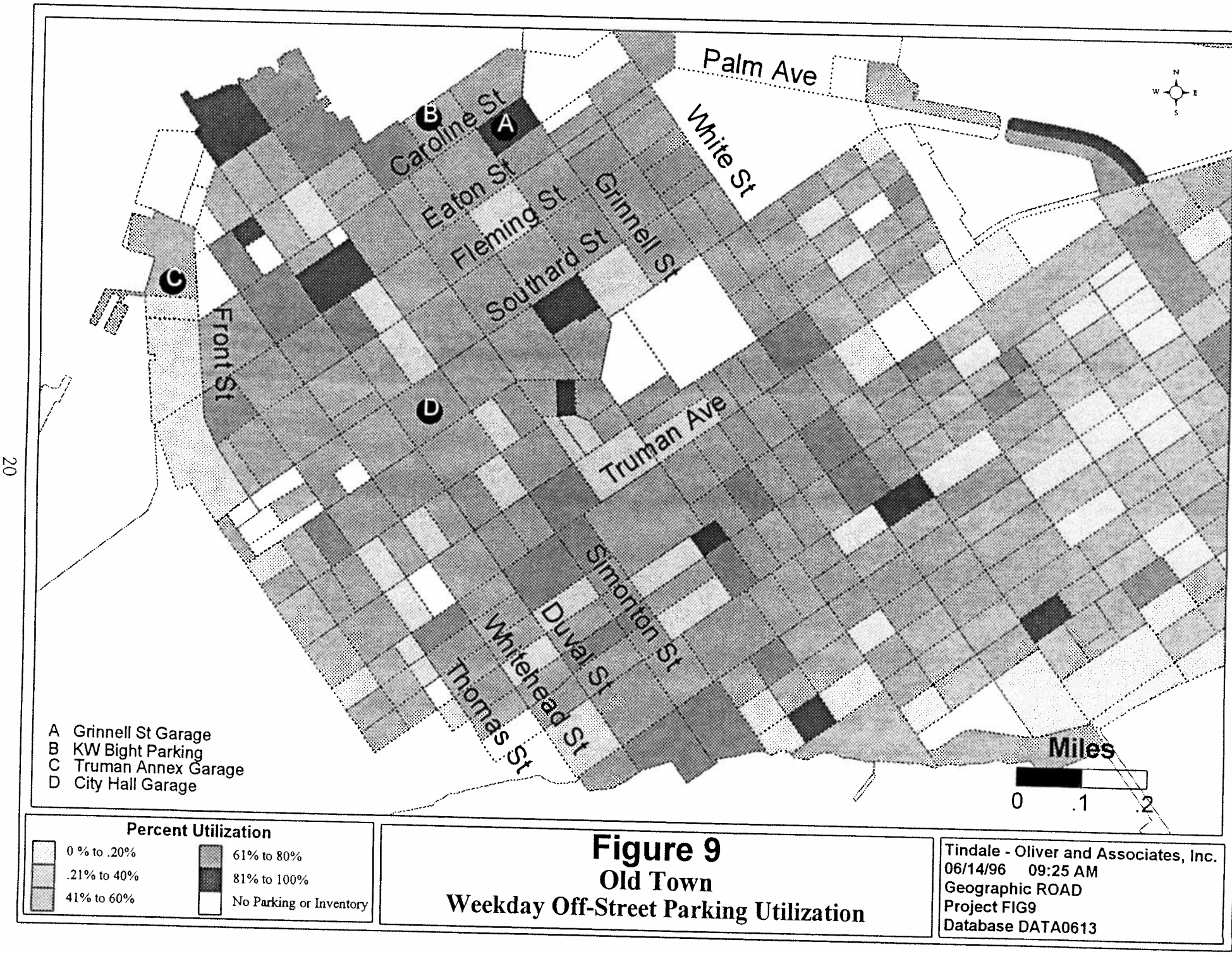


Figure 9
Old Town
Weekday Off-Street Parking Utilization

Tindale - Oliver and Associates, Inc.
06/14/96 09:25 AM
Geographic ROAD
Project FIG9
Database DATA0613

Figure 10
City of Key West
Weekend Off-Street Parking Utilization

Tindale - Oliver and Associates, Inc.
06/14/96 09:59 AM
Geographic ROAD
Project FIG10
Database DATA0613

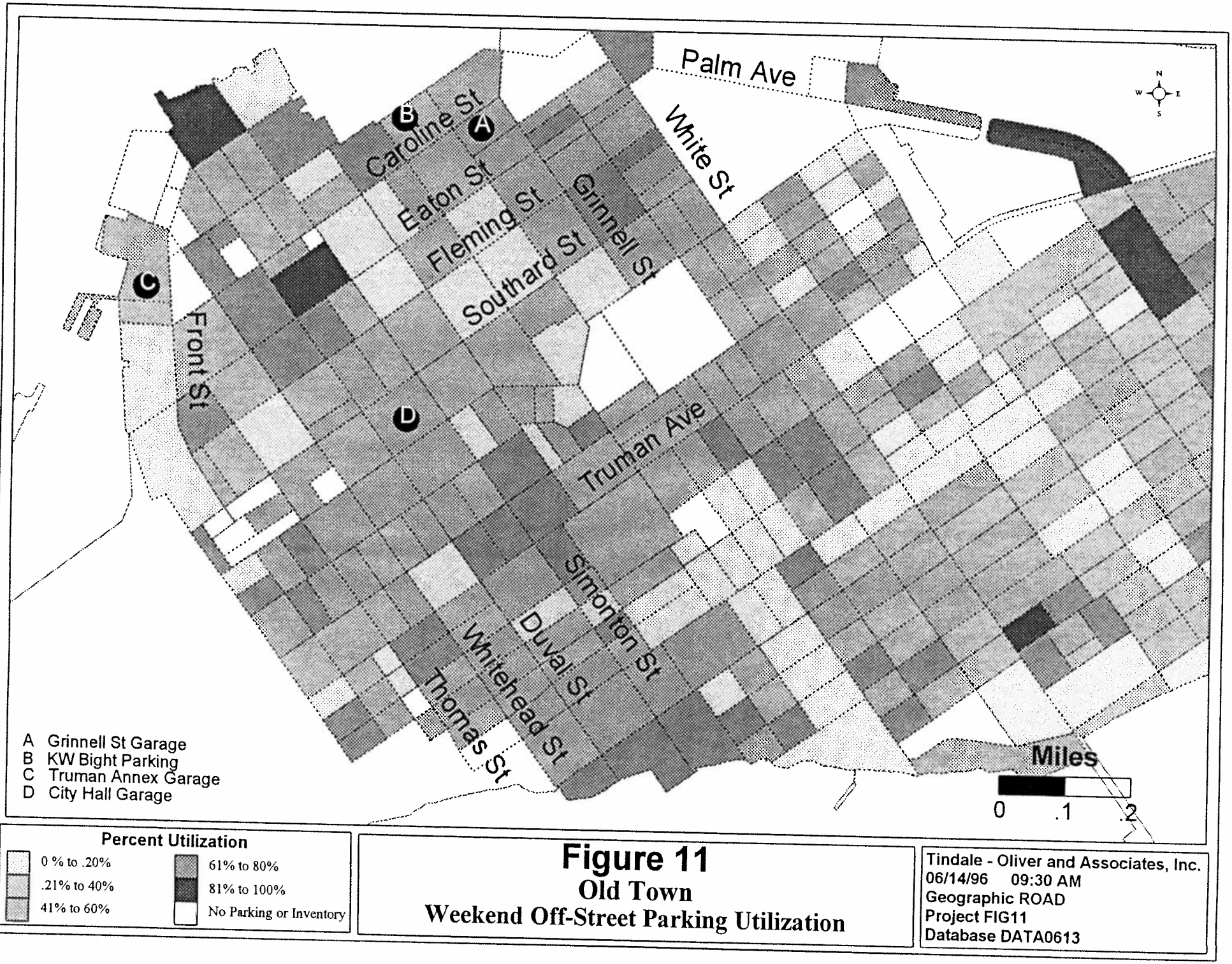


Figure 11
Old Town
Weekend Off-Street Parking Utilization

Tindale - Oliver and Associates, Inc.
06/14/96 09:30 AM
Geographic ROAD
Project FIG11
Database DATA0613

of the City commission on parking conditions in Key West. The parking workshop was advertised in the Key West Citizen. Further public notification was provided in the form of a letter sent to key governmental organizations, the Chamber of Commerce, civic leaders, and other major organizations. The letter requested attendance and input at the public workshop on parking conditions in Key West.

Twenty-four people attended the parking workshop. A copy of the agenda and parking workshop issues provided to all participants is included in Appendix B, Public Workshop Agenda and Issues.

Meeting minutes were taken and are included in Appendix C, Parking Conditions Workshop Meeting Minutes. Highlights from the meeting minutes are identified below:

- There is a residential parking problem for the residents in the Old Town area. Generally, it was indicated that the residential parking spaces are being used by visitors and employees of the Old Town area. This is especially true where the business and residential districts overlap;
- Enforcement is critical to the success of any residential parking permit program;
- Bicycle usage should be encouraged as a way to reduce vehicular travel and parking needs in the Old Town area;
- The City should explore ways to use Tourist Development Council funds to pay for part of the parking program. One example given was to add .25 cents to the citizen-voted $2.00 per room, per night bed tax.
- Spaces allocated to bed and breakfast homes need to be limited. Currently, the bed and breakfast homes are utilizing not only their on-site spaces, but also additional on-street spaces.
- Parking meter rates may need to be increased;
- Night-time and weekend parking enforcement needs to be considered;

- A parking trust fund and/or a taxing district needs to be considered as a possible alternative to financing the parking program. These concepts need to be presented to the Chamber of Commerce and business groups in the Old Town area.
- Shuttle service to and from the hotel areas needs to be convenient so as to encourage guests to use the shuttle service as opposed to driving their car to the Old Town area.

In addition to the above comments received during the public workshop, a number of written requests were received. These written requests are included in Appendix D, Public Conditions Workshop Written Comments, and are summarized below:

- A letter to Ted Strader was received providing comments on the Consultant Parking Study scope of services, comments on financing additional parking, if needed, and suggesting the creation of a parking Citizens Advisory Committee;
- Additional parking demand data for use in determining the parking impact by land use and in developing the parking assessment methodology needs to be collected;
- Businesses should be required to take responsibility for their employee parking, part of which would include bicycle incentives;
- Research should be conducted on how other resort areas fund bus and ski shuttle activities;
- The development and use of park 'n' peddle facilities should be encouraged;
- The cheapest solution to the parking problems and vehicular traffic is to promote and encourage the use of bicycling and walking; and
- The City Code should be amended to link variances in code required parking with provisions of providing bicycle storage and/or shuttle services.

The comments received at the public workshop, both verbally and written, along with the results of the parking inventory and demand study, were used to help guide the development of the parking program recommendations and implementation plan of action.

PARKING PROGRAM OBJECTIVES

Based on requirements contained in the scope of services, comments received, both orally and in writing, at the public parking workshop, and discussions with City staff, six program areas were developed. These program areas are:

- Residential Parking Permit Program;
- Residential Handicapped Parking Space Program;
- On-street Meter Program;
- Off-Street Meter Program;
- Public Transportation Service to and from the Grinnell Street garage;
- Parking Program Financing and Organization Structure.

For each of the above program areas, a series of objectives was developed. Table 3, Program Areas and Objectives, presents the various objectives relating to each program area.

Table 3
Program Areas and Objectives

Program Area	Objectives
1.0: Residential Parking Permit Program	1.1: Control of residential on-street parking so that residential property owners are assured on-street parking in the vicinity of their home. 1.2: Reduce/eliminate tourist and employee parking in front of residential homes.
2.0: Residential Handicapped Parking Space Program	2.1: Provide accessible residential parking for owners of valid disabled handicapped parking placards at locations in close proximity to the owners home.

Table 3 Program Areas and Objectives	
Program Area	**Objectives**
3.0: On-Street Meter Program	3.1: Ensure the location of on-street metered parking is supportive of the business community; including the addition and/or subtraction of spaces. 3.2: Encourage turnover of convenient on-street metered parking spaces in support of the business community. 3.3: To eliminate the use of on-street spaces for all day employee and visitor parking.
4.0: Off-Street Parking Program	4.1: Promote and encourage the use of visitor parking in the Grinnell Street Garage. 4.2: Promote and encourage the use of long term monthly parking in the Grinnell Street Garage. 4.3: Promote and encourage the use of the City Hall Garage, Mallory Square and the Key West Bight Parking facilities as short term high turnover facilities.
5.0: Public Transportation Service to/from Grinnell Street Garage	5.1: Provide safe, convenient and timely service between the Grinnell Street Garage and major destination points in the Old Town area.
6.0: Parking Program Financing and Organization Structure	6.1: Establish Parking Enterprise Fund. 6.2: Establish financing options that include both public and private participation so as to create a financially sound City function. 6.3: Establish Parking Organization Structure that consolidates all existing organizational entities into one centralized department/division.

The program areas and objectives identified in Table 1 will be refined through discussions with City staff, and the public presentation to the City commission.

IMPLEMENTATION ISSUES AND CONCEPTS

Information about existing and planned Key West parking programs was obtained from City staff. This information included:

- On-street meter rates and general meter locations;
- Off-street garage rates, hours of operation and staffing;
- Parking enforcement practices, including fines, hours of enforcement, and collection;
- Existing on-street parking permit program;
- Proposed residential parking permit program;
- Proposed operation of the Grinnell Street Garage and public transportation shuttle, including hours of operation, staffing, and routes; and
- Historical parking revenues.

Based on the current parking program practices, and the parking program objectives discussed above, a series of implementation issues and concepts was developed for each parking program area. Table 4, Parking Implementation Issues and Concepts, presents the implementation issues and concepts by program area that need to be considered in order to develop a successful Key West parking program. These implementation issues and concepts will be used to guide the development of the final parking program recommendations and implementation plan of action.

Park-n-Ride Project Review

Objective 5.1 in the parking implementation issues and concepts identifies the desire "to provide safe, convenient, and timely service between the Grinnell Street Garage and major destination points in the Old Town area." A separately funded analysis was performed to update the operational plan for park-n-ride service designed to meet this objective. This review and analysis was performed by the Center for Urban Transportation Research and Tindale-Oliver and Associates.

Table 4
Parking Implementation Issues and Concepts

Program Area	Objectives	Implementation Issues and Concerns
1.0: Residential Parking Permit Program	1.1: Control of residential on-site street parking so that residential property owners are assured on-street parking in the vicinity of their home.	1.1.1: Select test area(s) where residential and business owners blend together. 1.1.2: Set implementation date to start during off-peak season by August/September of 1996. 1.1.3: Establish budget and program revenues; secure commission funding of program to include personnel, equipment, and any necessary outside services. 1.1.4: Develop media campaign through TV, radio, newspaper, neighborhood meetings, etc. to let the public know when and how the program is being implemented; include simple 1 page public information brochure explaining where to apply, what's needed to apply (property tax or utility bill, drivers license, etc.), initial application fee (around $50.00), renewal process (every six months from applicant's birthday - renewal fee around $20.00), how to obtain visitors pass and associated duration of pass, limit as to number of passes that can be issued to one residential homeowner per year and cost of each pass (around $5.00 per pass). 1.1.5: Utilize signage and/or pavement striping to designate residential parking permit spaces and to direct people to the garage parking. 1.1.6 Establish enforcement policies; time and frequency of patrol, amount and number of tickets issued daily per vehicle, handling of repeat offenders through booting and/or towing of vehicles. 1.1.7: Establish initial grace period before enforcement starts, then begin with warning notices for a month period, then begin issuing citations.

Table 4
Parking Implementation Issues and Concepts

Program Area	Objectives	Implementation Issues and Concerns
		1.1.8: Establish permit process and written procedures that include the following: - application requirements - renewal process (explore renewal process by mail with renewal notices tied to utility bills? - establish PC database of applicant information and manual filing system - define enforcement practices 1.1.9: Conduct annual public workshop to solicit comments and evaluation of program.
	1.2: Reduce/eliminate tourist parking in front of residential homes.	
2.0: Residential Handicapped Parking Space Program	2.1: Provide accessible residential parking for legitimate owners of disabled handicapped parking placards at locations in close proximity to the owners home.	2.1.1: Identify on map and in database format, the current inventory of handicapped spaces. This would best be accomplished through the use of a Geographic Information System (GIS) and address matching software. The database would include information concerning the handicapped space such as type of space (residential or commercial), when the space was designated, and how the space was designated (by sign, stripping, or both).

Table 4
Parking Implementation Issues and Concepts

Program Area	Objectives	Implementation Issues and Concerns
		2.1.2: Identify on map and in database format, current owners and addresses of all handicapped parking placards. This includes current City list plus list of all Monroe County permits issued by the Department of Motor Vehicles with Key West addresses. This would best be accomplished through the use of a Geographic Information System (GIS) and address matching software. The database would include such information as applicant name, address, date of application, state permit number and expiration date, Florida drivers license number, city space number, and type of permit (temporary or four year). This would best be accomplished through the use of a Geographic Information System (GIS) and address matching software. 2.1.3: The database and GIS would become the management tools used to track, monitor and control the residential handicapped space program. 2.1.4: Establish internal procedures for the control and monitoring of designated residential handicapped spaces. 2.1.5: Require applicant to submit documentation of disability, (greater than 1 year). Documentation would include completion of City form and a copy of the State of Florida form for the "Four Year and Temporary Disabled Person Parking Permit Placard," and verification of residential address (property tax, utility bill and/or drivers license) 2.1.6: Establish initial fee of $25.00 for the processing of the applicant's request for residential handicapped parking space. 2.1.7: Require the applicant to submit, on an annual basis, an affidavit attesting to the fact that the applicant is still disabled according to the requirements of the Florida statues and proof that the applicant still resides at the same residential address.

Table 4
Parking Implementation Issues and Concepts

Program Area	Objectives	Implementation Issues and Concerns
		2.1.8: The City would mail out the affidavit 30 days prior to the end of the annual period. There would be no charge for processing the affidavit as long as it was received back to the City within the annual period. Affidavits received within 30 days after the annual period would be subject to a late fee of $10.00. After the 30 day period expires, the City would cancel the residential handicapped parking space permit and remove any sign and pavement marking that designated the space as handicapped.
		2.1.9: Request for canceled spaces would be subject to full application submittal and processing fees.
		2.1.10: Notify applicant 60 days prior to expiration of four year disabled parking permit placard. Require applicant to submit new application with documentation as described above, including $25.00 application fee. Applications received within 30 days after expiration of the four year period would be subject to a late fee of $10.00. After the 30 day period expires, the City would cancel the residential handicapped parking space permit and remove any sign and pavement marking that designated the space as handicapped.
		2.1.11: The City will routinely update and maintain the residential handicapped parking space database based on new applications and annual affidavits.
3.0: On-Street Parking Program	3.1: To ensure the location of on-street metered parking is supportive of the business community; including the addition and/or subtraction of spaces.	3.1.1: Increase on-street meter rates to at least $1.00 per hour in prime old town locations; evaluate tiered lower rates in areas outside the prime old town area; upgrade parking meters to accommodate the new rates.

Table 4
Parking Implementation Issues and Concepts

Program Area	Objectives	Implementation Issues and Concerns
		3.1.2: Reduce allowable meter time to a maximum of 4 hours in prime old town area; evaluate longer meter duration in areas outside the prime old town area; upgrade parking meters to accommodate the new parking duration periods.
		3.1.3: Evaluate existing and potential meter locations to determine where meters should be installed and/or removed.
		3.1.4: Solicit and inform Chamber and business groups of the on-street meter policy changes; request support of businesses in eliminating all day employee parking at on-street meter locations in the prime old town area; develop media campaign through TV, radio and newspaper to inform the public about the changes in the on-street meter program and purpose of the changes.
		3.1.5: Expand enforcement coverage to night time up until 11:00 pm; ensure daytime enforcement coverage (9:00 am to 5:00 pm) of prime old town area is at least three rounds per day and night time enforcement coverage (6:00 pm to 11:00 pm) is at least two rounds per night.
		3.1.6: Increase parking meter expiration fine to at least $15.00 for first ticket and $10.00 for the second ticket issued in a single day.
		3.1.7: Develop time of day restrictions for deliveries to the Old Town area (all deliveries must be made prior to 11:00 am)
		3.1.8: Increase fines for illegal parking (no parking zones, load/unload zones, freight only zones time of day freight delivery violations) to at least $20.00 for first ticket and $15.00 for the second ticket issued in a single day.
		3.1.9: Eliminate on-street meter permit program.

Table 4
Parking Implementation Issues and Concepts

Program Area	Objectives	Implementation Issues and Concerns
		3.1.10: Establish on-street program budget and program revenues; secure Commission funding of program to include personnel, equipment and any necessary outside services to effect the above changes.
	3.2: Develop on-street meter program for Smathers Beach.	3.2.1: Install meters along Smathers Beach and gate control equipment for Bridle Path along South Roosevelt.
4.0: Off-Street Parking Program	4.1: Promote and encourage the use of visitor parking in the Grinnell Street Garage.	4.1.1: Establish monthly rate differential between Grinnell Street Garage (around $45.00 per month) and other prime Old Town area facilities (around $70.00 per month).
	4.2: Promote and encourage the use of long term monthly parking in the Grinnell Street Garage.	4.1.2: Establish hourly rate differential between Grinnell Street Garage ($0.50 per hour up to a maximum of $4.00 per day) and other prime Old Town are facilities ($1.50 per hour up to a maximum of $12.00 per day).
	4.3: Promote and encourage the use of the City Hall Garage, Mallory Square and the Key West Bight Parking facilities as short term high turnover facilities.	4.1.3: Promote the use of the Grinnell Street Garage to tourists and visitors as a day time park n ride facility by providing a reduced daily parking rate ($2.00 per day) and free unlimited daily bus travel through the issuance of tokens to hotel and bed n breakfast guests who park in the garage; said tokens would be available at and provided by hotel and bed n breakfast facilities; the cost of this program would be subsidized through one of the financing options discussed under the Parking Program Finance Options.
		4.1.4: Establish a flat evening parking rate for anyone parking in the Grinnell Street Garage after 6:30 pm; said rate would be set at $2.00 per evening; set evening flat rate in other garages and lots at $5.00 per evening.
		4.1.5: Eliminate all employee parking at the City Hall Garage by offering employees City paid monthly parking (paid at the $45.00 per month rate) at the Grinnell Street Garage, including free bus service in the am and pm arrival and departure time periods; implement public hourly parking at the City Hall Garage using the rate structure indicated above for hourly parking.

Table 4
Parking Implementation Issues and Concepts

Program Area	Objectives	Implementation Issues and Concerns
		4.1.6: Solicit and inform Chamber and business groups of the off street parking program policy changes; request support of businesses and hotel and bed n breakfast operators of the token program for the Grinnell Street Parking Garage; develop media campaign through TV, radio and newspaper to inform the public about the off street parking options in the Old Town area, especially concerning the use of the Grinnell Street Garage. 4.1.7: Establish merchant voucher system for all garages whereby merchants can validate parking tickets to provide free parking for their customers and be billed on a monthly basis by the City. 4.1.8: Establish off street program budget and program revenues; secure Commission funding of program to include personnel, equipment and any necessary outside services to effect the above changes.
5.0: Public Transportation Service to/from Grinnell Street Garage	5.1: To provide safe, convenient, and timely service between the Grinnell Street Garage and major destination points in the Old Town area.	5.1.1: Study is under way to determine time and frequency of service, staffing and equipment needs, and estimated cost. 5.1.2: Establish public transportation budget and program revenues; secure Commission funding of program to include personnel, equipment and any necessary outside services based on study recommendations. 5.1.3: Encourage and promote use of bicycles as viable means of transportation from the Grinnell Street Garage to the Old Town area by providing bicycle rentals within the garage.
6.0: Parking Program Financing and Organization Structure	6.1: Establish Parking Enterprise Fund. 6.2: Establish financing options that include both public and private participation and create a financially sound City function.	6.1.1: Reorganize all parking functions into a single organization entity. 6.1.2: Create self sustaining parking enterprise fund.

Table 4
Parking Implementation Issues and Concepts

Program Area	Objectives	Implementation Issues and Concerns
	6.3: Establish Parking Organization Structure that consolidates all existing organizational entities into one centralized department/division.	6.1.3: Use revised on and off street rates presented above to develop revenue estimate; estimate total cost of operating parking program; calculate revenue shortfall; consider the following financing options: • Development of additional hotel bed 'n' breakfast tax of ½ cent. • Development of a restaurant / lounge assessment of $50.00 to $100.00 per seat per year; allow this assessment to be credited against City operated off street parking for patron parking at restaurant / lounges. • Development of a business assessment (excluding restaurant / lounge) based on gross square footage of business of $0.25 to $0.50 per square foot per month; allow this assessment to be credited against City operated off street parking for patron parking at businesses. - Implement In-Lieu Parking Fee to help with the capital and operating cost of the parking program; initial fee should be established in the $3,000 to $5,000 range. - Development of a benefit assessment district to finance the parking program based on front foot, square foot, or parking generation units. 6.1.4: Conduct workshop the Chamber and the business community to develop financing options; present parking program at workshop, including financial shortfall in revenues and potential financing options; obtain consensus of opinion and move forward with implementation plan.

The purpose of this analysis was to perform a review of plans for the proposed transit shuttle service from the Grinnell/Caroline parking facility to the Old Town area. This review included refining the operating plan and costs for the proposed shuttle service and recommending coordination of its service and fares with existing Key West Department of Transportation (KWDOT) routes, and between KWDOT routes and private tour shuttles. In addition, operational considerations were reassessed to enhance the attractiveness of the system, and to coordinate the shuttle service with the parking study conducted by Tindale-Oliver and Associates. A copy of the final report is provided in Appendix B, "Transit Operational Plan for the Key West Park-n-Ride Project."

The recommendations provided in this report characterize a park-n-ride shuttle service that is believed to have the greatest probability for success. However, it is extremely important to monitor the service closely in the days, weeks, and months following implementation in order to adjust and adapt to actual public response to the service.

This section begins with an overview of the park-n-ride project, including a summary of the original grant application and description of the efforts undertaken to review and refine the operational and financial plan for the park-n-ride service. This is followed by a discussion of each of the operational issues associated with the implementation of the service. Recommendations are made concerning each of these operational issues. Financial issues also are addressed, including recommendations regarding the fare/parking rate structure and the development of cost and revenue estimates associated with operating the service.

Smathers Beach Parking Improvements

Several options for increasing and controlling parking in the vicinity of Smathers Beach were developed. Each of the three main options are discussed below.

Option 1 involves the metering of the on-street parking on the south side of South Roosevelt Boulevard. Approximately 220 spaces of parallel on-street parking can be accommodated along the

5500 foot section of South Roosevelt Boulevard. This on-street parking begins just east of Bertha Street until it terminates just west of the airport exit. Option 1 will meter the first 3825 feet or 150 spaces of the aforementioned on-street parking. Parking bays will be 25.5 feet long. Estimated annual revenues of $29,000 are based on the following assumptions: per hour fee of $ .25, 25% utilization between 8am and 11am, 50% utilization between 11am and 5pm, and use 260 days of the year. In order to implement option 1, 150 parking meters will need to be installed at a cost of $250 each. Care should be taken to install parking meters in such a manner as to reduce the hazard to users of the recreation trail. Option 1 is dependent on the approval of the Florida Department of Transportation and as such improvements on South Roosevelt should consider the Department's commencing PD&E Study.

Option 2 will collect parking revenues from the off-street parking which occurs on the undeveloped portion of the bridal path on the north side of South Roosevelt Blvd. immediately north of Smathers Beach and east of Bertha Street. This parking facility will consist of an unpaved surface lot with a minimum of eighty spaces. Fee payment will be facilitated with an automatic cashier which will accept tokens, paper currency, and coins. One-way traffic will enter the lot at the eastern end paying the automatic cashier and exit at the western end passing through an automatic gate. Users of this parking facility will be charged a flat rate of $1.00 for each entry. Access to the lot will be restricted by telephone poles or other suitable materials provided by the City of Key West and placed in such a manner as to meet all clear zone requirements. The entrance and exit of the lot will require paving to prevent damage to existing roadway and driveway surfaces. Anticipated annual revenue of approximately $15,000 is based on the following assumptions: 75 parking spaces utilized at 50%, 260 days, turnover of 1.5. Implementation of option 2 will cost $5,000 for the automatic cashier and $2,000 to $4,000 for entrance and exit improvements. As part of the implementation of a paid lot on the north side of South Roosevelt Boulevard, the City should consider provisions for pedestrian traffic crossing the boulevard.

Option 3 will collect parking revenues from the off-street parking which occurs on the send undeveloped portion of the bridal path on the north side of South Roosevelt Boulevard immediately

north of Smathers Beach and east of Key West by the Sea Condominiums. Since the option 3 lot is farther away from the major activity centers on Smathers Beach, these recommendations should be carefully reviewed in terms of their feasibility. This parking facility will consist of an unpaved surface lot with a minimum of 150 spaces. As with option 2, fee payment will be facilitated with an automatic cashier which will accept tokens, paper currency, and coins. One-way traffic will enter the lot at the eastern end paying the automatic cashier and exit at the western end passing through an automatic gate. Users of this parking facility will be charged a flat rate of $1.00 for each entry. Access to the lot will be restricted by telephone poles or other suitable materials provided by the City of Key West and placed in such a manner as to meet all clear zone requirements. The entrance and exit of the lot will require paving to prevent damage to existing roadway and driveway surfaces. Anticipated annual revenue of $29,000 is based on the following assumptions: 75 parking spaces utilized at 50%, 260 days, turnover of 1.5. Implementation of option 3 will cost $5,000 for the automatic cashier and $2,000 to $4,000 for entrance and exit improvements. Again as part of the implementation of a paid lot on the north side of South Roosevelt Blvd the City should consider provisions for pedestrian traffic crossing the boulevard.

Revenues for options 2 and 3 are conservative as that more parking spaces could feasibly be used during peak usage. Due to the unimproved nature of the parking facilities it is not possible to accurately discern the actual number of spaces which will exist on any given day. Spaces used in the revenue calculations could be construed as minimal potential spaces.

In-Lieu Parking Program

One of the reasons for the parking shortage in the Old Town area is due to the fact that the City, on an annual basis, grants parking variances to new and redevelopment projects. The effect of these parking variances is to place a greater demand on the existing parking spaces within the Old Town area. Historically, on the average, the City has granted parking space variances totaling approximately 100 spaces per year.

One of the methods used by other communities to resolve the deficiency in parking spaces is to charge an in-lieu fee for each space that development does not provide on-site. The in-lieu fee is designed to provide a revenue source to the City for the construction of new parking spaces. Generally, in-lieu parking fees do not include a component for the reoccurring maintenance and operation of the parking spaces. Rather, the cost of maintaining the parking spaces is covered by the fees charged to users of the spaces.

The in-lieu parking program concept has been previously reviewed and discussed within the City of Key West. In 1994, a study recommended a cost of $4,400 per space. This cost was developed to include both operating and capital costs and also took into consideration the effect of the parking revenues. Further, a draft in-lieu fee parking ordinance has been previously developed by the City.

The level at which the in-lieu parking fee should be established should be based on both the actual costs to construct the parking facility (both land and construction), the availability of other City funds to subsidize both the construction and operating costs, and the economic impact on the developments paying the fees. A review of the construction costs of the Grinnell Street Garage indicates that the cost per space (construction and equipment) is approximately $10,000 per space. Based on this construction cost per space, and the fact that the City is contemplating the implementation of other rate increases for parking as enumerated in this report, it is recommended that the initial in-lieu parking fee be established in the range of $3,000 to $5,000 per space. The level number at which the in-lieu parking fee should be set, should be based on further review and analysis.

Parking Organization Concept

The parking functions occurring in the City of Key West are presently performed by several City departments. These departments include the Department of Transportation (all off-Street parking functions), the Police Department (on-street parking enforcement), Public Works (meter collection and maintenance), and Occupational License (administrative processing of parking tickets and

permits). The fragmentation of the parking functions among these departments makes it difficult to effectively and efficiently control and manage the entire parking function. Additionally, the main mission and responsibility of the Police Department and Occupational License Department is not the parking program. Parking responsibilities in these departments are really considered secondary functions.

The recommendation contained in this report is to consolidate all parking functions into one organizational entity. Figure 12, City of Key West Parking Organization Concept, illustrates the consolidation of the parking program functions under one director or manager. This figure identifies parking operations and administration as the two main organizational components. The parking operations component includes on-street parking, off-street parking, and parking maintenance. The administration component includes staffing for the entire on-street ticket processing function and management of the residential permit and handicapped parking programs.

The organizational placement of parking can be located within the existing Department of Transportation or Public Works Department. Both of these departments have the management structure and administrative functions to direct the parking program.

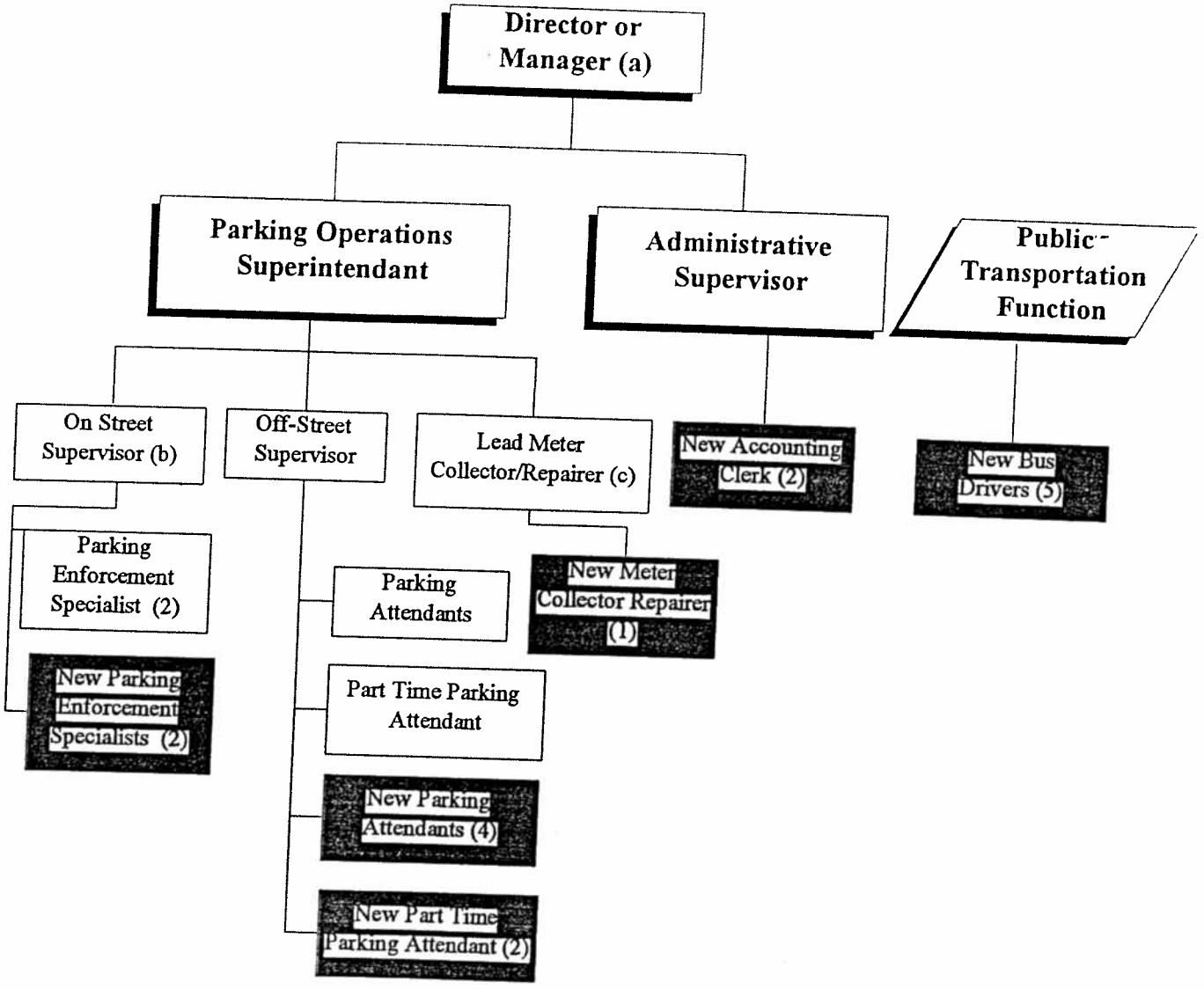
STAFFING REQUIREMENTS AND EQUIPMENT NEEDS

The implementation issues and concerns identified a number of areas where additional staffing and equipment will be necessary in order to implement the program areas identified earlier in this report. The specific areas requiring staffing and equipment are identified below:

- Expanded parking enforcement to include evenings until 11:00 p.m. and on weekends (Saturday and Sunday), in support of the Residential Parking Permit Program, the Handicapped Parking Space Program, Parking Meters, Smathers Beach Parking, and other violations of the City of Key West Code;

Figure 12

City of Key West - Parking Organization Concept



(a) Organization placement either under Director of Transportation or Director of Public Works.

(b) Reclassify existing parking Enforcement Specialist slot to On Street Supervisor.

(c) Reclassify existing Meter Collector Repairer slot to Lead Meter Collector Repairer.

(d) Total new positions equal 16.

(e) Shaded boxes indicate added positions.

- Parking Attendant staffing of the City Hall Garage for hourly parking patrons from 8:00 a.m. to 11:00 p.m. seven days a week; and
- Smathers Beach Parking program to provide on-street metered parking along South Roosevelt and gate controlled parking along the bridle path.
- Administrative clerical support for the Residential Parking Permit Program, the Residential Handicapped Parking Space Program, and the processing and follow-up of parking tickets.
- Additional bus drivers and a mechanic helper for the new park-n-ride service and the proposed South Roosevelt bus route.

Each of the above areas are discussed more fully below.

Expanded Parking Enforcement Coverage

Two additional Parking Enforcement Specialists will be required in order to provide evening coverage seven days a week from 4:00 p.m. until 12:00 p.m.. The hours of these two positions should be staggered; one position should be assigned to work from Friday to Tuesday, with Wednesday and Thursday off, and the other position assigned to work from Wednesday to Saturday with Monday and Tuesday off. This coverage, plus the existing three Parking Enforcement Specialists, should provide adequate enforcement of the Residential Parking Permit Program, the Handicapped Parking Space Program, parking meters and other violations of the City Code concerning parking.

Operation of the City Hall Parking Garage

Conversion of the existing City Hall Parking Garage to an hourly parking garage to serve the patrons and visitors of the Old Town area, and more specifically Duval Street, will require two full time Parking Attendants and one part time Parking Attendant. This will accommodate garage operation from 8:00 a.m. to 11:00 p.m., seven days a week. These hours of the two full time positions should be staggered; one position should be assigned to work the first shift from Tuesday to Saturday, with

Sunday and Monday off, and the other position assigned to work the second shift from Sunday to Thursday with Friday and Saturday off. The part time position would work four days, picking up the two missing days from each full time position.

Smathers Beach Parking Program

Option 1 of the recommended parking improvements in the Smathers Beach area will require the purchase of 150 parking meters at an approximate cost of $250 and installation of parking meters will be performed by City staff. Option 2 will require the purchase of an automatic cashier at approximately $5,000 and paving and access gates costing $2,000 to $4,000. Option 3, of implemented, will also require the purchase of an automatic cashier at approximately $5,000 and paving and access gates costing $2,000 to $4,000. Both options 2 and 3 will require access control barriers such as telephone poles to be installed by City staff. All revenue collectors and repair of equipment will be performed by the added parking meter collector/repairer.

Administrative Clerical Support

Administrative clerical support will be required for the Residential Parking Permit Program, the Handicapped Parking Space Program, and the processing and follow-up of parking tickets. The type of administrative activities required to support these programs is discussed in Table 2 under the applicable program area. The type of activities include processing requests for new permits and permit renewals, maintaining a database of active permits, processing ticket payments, more aggressive follow-up of unpaid tickets, and other requested management summary information that may include, but not be limited to, number of tickets issued and ticket payments, number of permits issued, and number of tickets issued in the enforcement of the Residential Parking Permit Program, including handicapped violations. To support these activities, it is estimated that two Accounting Clerk II positions will be required.

Bus Operators and Mechanics

The planned park-n-ride service will require four and one-half full-time equivalent (FTE) bus operators and one full-time mechanic helper. An additional 0.5 FTE will be necessary if the employee express shuttle is implemented along with the regular shuttle service. Additional information regarding the details of these shuttle services is provided in the full operational plan in Appendix B. In addition, staffing needs will need to be explored further if the South Roosevelt Boulevard Bus Route is to be revisited. This route was recommended for implementation in a June 1995 report prepared by Center for Urban Transportation Research (CUTR) at the University of South Florida. A copy of this report is provided in Appendix C, Service Plan for South Roosevelt Boulevard Bus Route.

Equipment and Other Needs

In addition to the above described personnel needs, the following equipment and other needs are required in order to support the program areas:

- Two personal computers will be required to support the administrative positions;
- Parking garage revenue control system for the City Hall Parking Garage;
- Acceleration of the meter replacement program so that all the meters in the area bounded by Whitehead, Front, Simonton and South Beach are replaced with the new digital parking meters;
- Purchase of parking meters for the south side of South Roosevelt along Smathers Beach;
- Development of user friendly database software (using PC relational database) for the tracking, monitoring and reporting on permit programs and other related activities; and
- Purchase of three additional hand held ticket issuance devices to support expanded enforcement activities;
- Purchase additional materials and supplies necessary for the operation of the park-n-ride service;

- Purchase new bus if both the park-n-ride service and the South Roosevelt Boulevard bus route are implemented;
- Purchase of two automobiles for additional Parking Enforcement Specialists;
- Signage and striping to support residential parking permit program;
- Purchase of revenue control equipment for west and bridle path area.

Purchase of the above equipment and related items should be planned based on the sequencing of activities in the implementation plan of action.

PROGRAM COSTS AND REVENUES

Additional Program Costs

The additional cost associated with the Staffing Requirements and Equipment Needs was developed based on current personnel cost pay ranges, discussions with City personnel and estimated costs of the equipment identified above. These costs are subject to refinement based upon review by the appropriate City departments. Below is a summary of these costs.

- **Staffing costs are based on the entry level of pay range plus 35 percent fringe benefit for a total of $367,000**
  - Two Parking Enforcement Specialists (Grade 16, $42,000);
  - Two Parking Garage Attendants for the City Hall Garage (Grade 16, $42,000);
  - Two Parking Attendants and one part-time Parking Attendant for the Grinnell Street Garage (Grade 16, $56,000);
  - One Part Time Parking Garage Attendant (Grade 16, 10% overhead, $14,000);
  - Two Accounting Clerk II's (Grade 19, $46,000);
  - One Meter Collector/Repairer (Grade 16, $21,000);
  - Five full-time bus drivers (Grade 21, $122,000);
  - One full-time mechanic helper (Grade 20, $24,000);

- No staffing needs were identified in South Roosevelt transit route study;

- **Operating Related Costs Total $286,300**
  - Annual operating costs for park-n-ride ($52,300 excluding labor);
  - Annual operating costs for the South Roosevelt Boulevard bus route were estimated at $189,000 (including labor) in the June 1995 CUTR report;
  - Signage and stripping for residential permit program (100 signs and space skipping where appropriate) ($20,000)
  - Miscellaneous support operating cost contingency ($25,000)
- **Capital related costs total $251,000**
  - Two personal computers ($7,000);
  - Revenue Control System ($30,000);
  - Parking meters, total needed is approximately 150 less 40 removed from City Hall Garage gives net requirement of 110 meters at $250 each ($29,000);
  - Parking meters, total needed at Smathers Beach is 150 meters at $250 each ($29,000);
  - PC based relational database software for tracking, monitoring and reporting on permit programs and other related activities ($15,000);
  - Three hand held parking ticket issuance devices ($24,000);
  - If both the park-n-ride service and the South Roosevelt Boulevard bus route are implemented, a new 16-passenger, alternative fueled bus must be purchased ($75,000);
  - Smathers Beach revenue control equipment for Bridle Path and miscellaneous improvements for options 2 and 3 (18,000);
  - Two automobiles for new Parking Enforcement Specialists at $12,000 each ($24,000).

In summary, the total cost to support the program areas is $904,300. Of this total, $367,000 is reoccurring salary costs, $286,300 is for operating costs while the remainder of $251,000 is the capitalized cost of equipment and database software.

Program Costs and Revenues

An analysis was undertaken of projected Fiscal Year 1995/1996 revenues compared to the estimated revenues based on implementation of the programs discussed in Table 4. Appendix D, Parking Revenue Analysis, provides an analysis of the off street and on street revenues and associated assumptions. Table 5, Projected Annual Costs and Revenues, presents a comparison of the projected annual costs to the projected annual revenues that would be generated based on implementation of the program areas discussed in Table 4. The assumptions used to develop the costs and revenues in Table 5 are summarized below:

- Projected annual costs were reviewed by 5% for personnel and 2% for operating over the current year budget level;
- The costs of new programs, as discussed in the Staffing and Equipment Needs section, is added to the existing program costs to develop the total projected annual costs of all programs;
- For Mallory Square, the hourly rate was increased to $2.00 per hour with all remaining spaces (117) used as hourly parking; monthly parking was eliminated; lot utilization was decreased approximately 10 percent due to the rate increase and the availability of the shuttle service from the Grinnell Street Garage;
- For the Caroline Street Lot, the hourly rate was increased to $1.50 per hour in increments of 20 minutes; no monthly parking; lot utilization was decreased approximately 40% due to rate increase and the availability of the shuttle service from the Grinnell Street Garage;
- For the Green Street Lot, the hourly rate was increased to $1.50 per hour in increments of 20 minutes; no monthly parking; lot utilization was decreased approximately 20% due to rate increase and the availability of the shuttle service from the Grinnell Street Garage;
- For the unimproved lot, the monthly rate was increased to $50.00 per month to be consistent with the Grinnell Street Garage;
- For City Hall Garage, 136 spaces became public hourly parking spaces at $2.00 per hour; no monthly parking; 22 spaces reserved on the top level for City Department Heads and

Officials; assumed 30% utilization of total available revenue hours from 11:00 a.m. to 11:00 p.m.;

- For Grinnell Street Garage, assumed 200 available spaces for public; 50 spaces provided to City Electric at no cost (in exchange for land); monthly rate is $50.00 per month; 100 spaces reserved for monthly parking; Shuttle and Park rate is $3.00 per day (validation required), with non-Shuttle user rate set at $6.00 per day;
- On-street meter rates were set at $1.00 per hour; utilization rate drops by 20% due to rate increase;
- Residential Parking Permit fine was set at $20.00 per ticket with 15 tickets written daily; meter violation was increased to $15.00 per ticket; other parking code ticket violations were increased to $20.00 per ticket; reduced ticket writing opportunities by 20% due to fine increase; increased ticket writing opportunities by 10% due to nighttime and weekend enforcement.
- In addition to the revenues generated by Grinnell Street garage, the associated park-n-ride service will generate an estimated $4,500 from non-garage users using the shuttle service (nominal fee of $0.25 per trip);
- Smathers Beach meter rates are assumed at $.25 per hour with gate controlled access in the Bridle Path area at $1.00 per entry;
- A one-half cent bed tax is expected to generate approximately $750,000. This is based on a review of the last four years revenue collections;
- An in-lieu fee is implemented at the rate of $4,000 for each space that is waived from requirements of meeting the on-site parking requirements. The average number of spaces waived by variances per year is estimated at 100 spaces.

Table 5 summarizes the projected annual costs and revenues for the parking and transit programs in Key West. Various notes and assumption are provided in footnotes at the bottom of the table, as well as in the above section.

TABLE 5
KEY WEST PARKING AND TRANSIT
PROJECTED ANNUAL COSTS AND REVENUES

	COSTS				REVENUES			NET
	(1) Approved FY 95/96 Budget	(2) Projected Annual Cost (status quo)	(3) Projected Annual Cost (new program)	(4) Incremental Cost of New Programs and Services (3) - (2)	(5) Projected FY 1995/96 Revenue (existing rates)	(6) Projected Annual Revenue (new program)	(7) Incremental Rev of New Programs and Services (6) - (5)	(8) New Program Balance (6) - (3)
Mallory Square								
Personnel Services	$303,884	$319,078	$319,078	$0	$0	$0	$0	
Operating Expenses	$61,874	$63,111	$63,111	$0	$0	$0	$0	n/a
Capital Outlay	$23,400	$0	$0	$0	$0	$0	$0	n/a
Debt Service	$0	$0	$0	$0	$0	$0	$0	n/a
Subtotal	$389,158	$382,190	$382,190	$0	$607,033	$532,350	($74,683)	$150,160
Key West Bight								
Personnel Services	$82,978	$87,127	$87,127	$0	$0	$0	$0	
Operating Expenses	$11,300	$11,526	$11,526	$0	$0	$0	$0	n/a
Capital Outlay	$0	$0	$0	$0	$0	$0	$0	n/a
Debt Service	$0	$0	$0	$0	$0	$0	$0	n/a
Subtotal	$94,278	$98,653	$98,653	$0	$110,432	$233,756	$123,324	$135,103
Key West DOT								
Personnel Services	$385,938	$405,235	$550,858	$145,623	$0	$0	$0	
Operating Expenses	$137,907	$140,665	$192,949	$52,284	$0	$0	$0	n/a
Capital Outlay	$6,875	$0	$75,000	$75,000	$0	$0	$0	n/a
Debt Service	$0	$0	$0	$0	$0	$0	$0	n/a
South Roosevelt Route	$0	$0	$188,838	$188,838	$0	$47,210	$47,210	n/a
Park-N-Ride Revenue	n/a	n/a	n/a	n/a	n/a	$4,563	$4,563	n/a
Subtotal	$530,720	$545,900	$1,007,645	$461,745	$545,900	$597,673	$51,773	($409,973)
Other Off Street Parking								
Green Street Lot	$0	$0	$0	$0	$30,722	$81,900	$51,178	$81,900
Unimproved Monthly Lot	$0	$0	$0	$0	$31,200	$31,200	$0	$31,200
City Hall Garage	$0	$0	$56,000	$56,000	$0	$371,280	$371,280	$315,280
Grinnell Street Garage	$0	$0	$56,000	$56,000	$0	$196,875	$196,875	$140,875
Subtotal	$0	$0	$112,000	$112,000	$61,922	$681,255	$619,333	$569,255
Total Off Street Parking	$483,436	$480,843	$592,843	$112,000	$779,387	$1,447,361	$667,974	$854,518
On Street Parking								
Meters	$0	$0	$0	$0	$350,250	$560,400	$210,150	n/a
Violations and Fines	$0	$0	$0	$0	$163,333	$320,600	$157,267	n/a
Residential Permit Fees	$0	$0	$0	$0	$0	$49,000	$49,000	n/a
Residential Fines/Violations	$0	$0	$0	$0	$0	$75,000	$75,000	n/a
Smathers Beach Parking	$0	$0	$0	$0	$0	$44,000	$44,000	n/a
Subtotal	$0	$0	$109,000	$109,000	$513,583	$1,049,000	$535,417	$940,000
Total Off and On Street Parking	$1,014,156	$1,026,743	$1,709,488	$682,745	$1,838,870	$3,094,034	$1,255,164	$1,384,546
Other Revenue Sources								
Increase in Bed Tax (1/2 cent)	$0	$0	$0	$0	$0	$758,664	$758,664	$758,664
In lieu Parking Fee	$0	$0	$0	$0	$0	$400,000	$400,000	$400,000
Subtotal	$0	$0	$0	$0	$0	$1,158,664	$1,158,664	$1,158,664
TOTAL	$1,014,156	$1,026,743	$1,709,488	$682,745	$1,838,870	$4,252,697	$2,413,827	$2,543,210

NOTES:

(1) Projected annual cost (status quo) is estimated by increasing personnel services by 5 percent and operating expenses by 2 percent.

(2) The South Roosevelt Bus Route is provided as a lump sum since a breakdown of costs was unavailable from the June 1995 CUTR report.

(3) If both the park-n-ride service and the South Roosevelt bus route are implemented, it will be necessary fo the KWDOT to acquire one additional vehicle; the cost of that vehicle is reflected in the capital outlay for KWDOT under the heading of incremental cost of new programs and services.

(4) A 16-passenger alternative fuel bus is assumed to cost $75,000. The original grant application for the park-n-ride service in November of 1995 indicated a cost of $70,000 per vehicle.

(5) Projected annual cost (status quo) is assumed to be covered by Federal and State grants, local match, and farebox revenue.

(6) Revenue for the South Roosevelt Boulevard bus route is estimated using the ratio of operating revenue to operating expense for fiscal year 1995 (25%).

(7) 1/2 cent bed tax was estimated by projecting FY 1996 revenues (using annualized growth rate from FY 1993 to FY 1995) from the existing 3-penny bed tax and then dividing by six to estimate funding that could result from an additional 1/2 cent.

(8) The cost of operating the Green Street Lot and the Unimproved Monthly Lot is included in the cost for Mallory Square.

(9) Revenues for Smathers Beach Parking includes Options 1 and 2 discussed previously in the report.

(10) Based on parking variances, an average of 100 parking spaces are waived per year at $4,000 per space.

The table indicates that the proposed program will generate an additional $668 thousand in revenues from off street parking and $535 thousand in revenue from on street parking. When compared to the cost of operating these facilities, off street parking generates a positive fund balance of $855 thousand, while on street parking generates a positive fund balance of $940 thousand. The expansion in transit services results in a negative fund balance of $410 thousand. The total cost for off and on street parking combined is $1.7 million, while total revenues are $3.1 million, resulting in an overall positive fund balance of $1.4 million.

Other revenue sources are provided at the bottom of the table, including estimates for a ½ cent increase in the bed tax and the implementation of an in lieu parking fee.

Revenues from the 3-penny bed tax were evaluated for fiscal years 1993, 1994, and 1995. An annualized growth rate of 5.9 percent was computed using this information. This growth rate was applied to the 1995 value to estimate funding from this source for fiscal year 1996. In 1996, an estimated $4.5 million will be generated by the 3-penny bed tax. This results in $759 thousand per ½ penny.

In addition, an in lieu parking fee was estimated as a potential new funding source as well. Based on parking variances, an average of 100 parking spaces are waived per year. At $4,000 per space, an estimated $400,000 could be generated by an in lieu parking fee.

Including the ½ cent bed tax and the in lieu parking fee increases total revenues for the program from $3.1 million to $4.3 million, resulting in a final fund balance of $2.5 million.

IMPLEMENTATION PLAN OF ACTION

The purpose of the implementation plan of action is to provide the City of Key West with guidance as to the changes being recommended to the City Parking Program, and more specifically, with a

sequence of actions necessary in order to implement the changes approved by the City. Below is the Consultant team recommendations.

Residential Parking Permit Program and Residential Handicapped Space Program

- Update and refine draft ordinance to implement the Residential Parking Permit Program and if necessary, the Handicapped Space Program (by September 1996).
- Develop software to track Permit Program and Handicapped Spaces (by October 1996).
- Develop forms and internal procedures for Permit Program and Handicapped Space programs (by September 1996).
- Hire two additional Parking Enforcement Specialistsand implement night time and weekend enforcement of permit programs (initiate in July to have on staff by October 1996).
- Hire one additional Accounting Clerk II to support permit programs (initiate in June to have on staff by September 1996).
- Order two PC's and hand held parking ticket issuance devices (initiate in July to have equipment by October 1996).
- Implement both programs by December of 1996.

On-Street Parking Changes

- Codify meter rate and violation changes as necessary (initiate in July 1996, to be effective December of 1996).
- Hire additional Meter Collector/Maintenance Mechanic (initiate in July to have on staff by October 1996).
- Place order for 260 additional parking meters (order by July 1996 to have Old Town area installed by December of 1996 and Smathers Beach by April 1997).
- Change meter rates on exiting digital meters (by December 1996).
- All new rates in effect by December 1996.

Off-Street Parking Changes

- Implement rate changes in all garages and lots (excluding City Hall Garage) (initiate any required code changes, signage, and public information by August 1, 1996 to be effective December of 1996;
- Implement hourly parking in City Hall Garage; order Revenue Control equipment to be installed by December 1, 1996 (to be effective January 1, 1997).

Park-n-Ride Service

- It is recommended that the park-n-ride service be implemented in conjunction with the opening of the new Grinnell Street Garage according to the operational plan presented in Appendix B. It should be noted that this program can accommodate implementation of the employee shuttle.

APPENDIX A

PARKING CONDITIONS SURVEY, 1995

City of Key West
Parking Conditions Survey, 1995

Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Western	1	1	179	0	179	0	0	0	358	137	0	0	0	137	38%	151	0	0	0	151	42%
Western	1	15	14	0	5	0	0	0	19	13	0	0	0	13	68%	14	0	0	0	14	74%
Western	1	16	12	0	6	0	16	0	34	13	0	0	7	20	59%	12	0	0	9	21	62%
Western	1	17	4	0	4	0	75	0	83	4	0	0	53	57	69%	4	0	0	57	61	73%
Western	1	18	4	0	0	0	3	0	7	3	0	0	3	6	86%	4	0	0	2	6	86%
Western	1	19	9	0	3	0	0	0	12	9	0	0	0	9	75%	9	0	0	0	9	75%
Western	1	2	17	0	6	0	0	76	99	15	0	0	0	15	15%	17	0	0	0	17	17%
Western	1	20	20	0	16	0	52	0	88	20	0	0	37	57	65%	20	0	0	32	52	59%
Western	1	3	16	0	3	0	0	0	19	14	0	0	0	14	74%	16	0	0	0	16	84%
Western	1	4	9	0	9	0	38	400	456	9	0	0	21	30	7%	9	0	0	19	28	6%
Western	1	5	13	0	0	0	30	0	43	5	0	0	3	8	19%	8	0	0	7	15	35%
Western	1	6	27	0	0	0	124	0	151	13	0	0	14	27	18%	14	0	0	19	33	22%
Western	1	8	10	0	10	0	0	0	20	10	0	0	0	10	50%	9	0	0	0	9	45%
Western	1	9	35	0	17	0	62	0	114	22	0	0	27	49	43%	24	0	0	23	47	41%
Western Area 1 Total			**369**	**0**	**258**	**0**	**400**	**476**	**1503**	**287**	**0**	**0**	**165**	**452**	**30%**	**311**	**0**	**0**	**168**	**479**	**32%**
Western	2	24	25	0	23	0	139	0	187	0	0	0	114	114	61%	24	0	0	126	150	80%
Western	2	25	22	0	10	0	60	0	92	16	0	0	22	38	41%	21	0	0	27	48	52%
Western	2	26	9	0	8	0	42	0	59	9	0	0	21	30	51%	9	0	0	21	30	51%
Western	2	27	16	0	8	0	57	0	81	15	0	0	21	36	44%	17	0	0	21	38	47%
Western	2	28	18	0	16	0	64	0	98	18	0	0	10	28	29%	17	0	0	23	40	41%
Western	2	29	17	0	16	0	25	0	58	16	0	0	10	26	45%	0	0	0	11	11	19%
Western	2	30	16	0	4	0	117	0	137	16	0	0	100	116	85%	15	0	0	108	123	90%
Western	2	31	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Western	2	36	13	0	13	0	198	0	224	13	0	0	127	140	63%	13	0	0	0	13	6%
Western	2	37	16	0	11	0	207	0	234	14	0	0	152	166	71%	16	0	0	150	166	71%
Western	2	38	19	0	9	0	17	0	45	11	0	0	6	17	38%	12	0	0	1	13	29%
Western	2	39	35	0	13	0	17	0	65	23	0	0	4	27	42%	18	0	0	6	24	37%
Western	2	40	25	0	0	38	56	0	119	19	0	28	22	69	58%	17	0	5	11	33	28%
Western Area 2 Total			**231**	**0**	**131**	**38**	**999**	**0**	**1399**	**170**	**0**	**28**	**609**	**807**	**58%**	**179**	**0**	**5**	**505**	**689**	**49%**
Western	3	43	26	0	11	0	102	0	139	13	0	0	73	86	62%	12	0	0	69	81	58%
Western	3	44	32	0	0	0	25	0	57	16	0	0	8	24	42%	18	0	0	5	23	40%
Western	3	45	92	0	0	7	19	0	118	18	0	2	6	26	22%	19	0	5	6	30	25%
Western	3	48	16	0	16	0	151	0	183	16	0	0	56	72	39%	10	0	0	53	63	34%
Western	3	49	55	0	0	0	30	0	85	43	0	0	9	52	61%	37	0	0	7	44	52%

Kisinger Campo and Associates, Corperation
Tindale Oliver and Associates, Inc.

City of Key West
Parking Conditions Survey, 1995

Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Western	3	52	13	9	13	34	153	0	222	12	1	12	65	90	41%	8	4	0	83	95	43%
Western	3	53	16	0	0	0	14	0	30	21	0	0	14	35	117%	13	0	0	6	19	63%
Western	3	54	36	0	0	0	22	0	58	28	0	0	11	39	67%	27	0	0	9	36	62%
Western	3	57	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Western	3	58	4	10	0	0	2	1	17	2	7	0	3	12	71%	3	7	0	1	11	65%
Western	3	59	21	0	0	0	9	0	30	11	0	0	3	14	47%	11	0	0	6	17	57%
Western	3	60	10	4	0	0	38	0	52	4	4	0	9	17	33%	6	4	0	9	19	37%
Western Area 3 Total			**321**	**23**	**40**	**41**	**565**	**1**	**991**	**184**	**12**	**14**	**257**	**467**	**47%**	**164**	**15**	**5**	**254**	**438**	**44%**
Western	4	10	0	0	0	0	20	0	20	0	0	0	13	13	65%	0	0	0	14	14	70%
Western	4	101	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Western	4	102	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Western	4	103	0	0	0	0	14	0	14	0	0	0	6	6	43%	0	0	0	11	11	79%
Western	4	104	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Western	4	105	11	0	0	0	179	0	190	10	0	0	51	61	32%	11	0	0	89	100	53%
Western	4	106	0	33	0	0	0	0	33	0	0	0	0	0	0%	0	7	0	0	7	21%
Western	4	107	12	13	0	4	0	0	29	2	2	0	0	4	14%	5	3	0	0	8	28%
Western	4	108	16	10	0	0	7	0	33	7	3	0	4	14	42%	11	6	0	5	22	67%
Western	4	109	18	17	0	0	16	0	51	8	7	0	5	20	39%	12	11	0	8	31	61%
Western	4	11	12	0	9	0	185	0	206	11	0	0	81	92	45%	13	0	0	64	77	37%
Western	4	110	19	16	0	0	13	0	48	14	11	0	8	33	69%	17	15	0	10	42	88%
Western	4	12	0	0	0	0	30	0	30	0	0	0	12	12	40%	0	0	0	16	16	53%
Western	4	126	26	8	0	0	92	0	126	15	4	0	37	56	44%	21	6	0	43	70	56%
Western	4	127	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Western	4	128	28	0	0	0	24	0	52	17	1	0	10	28	54%	19	0	0	12	31	60%
Western	4	13	0	0	0	19	164	0	183	0	0	12	82	94	51%	0	0	10	56	66	36%
Western	4	139	11	0	8	0	85	0	104	8	0	0	19	27	26%	10	1	0	31	42	40%
Western	4	14	61	0	0	0	71	0	132	38	0	0	31	69	52%	55	0	0	0	55	42%
Western	4	140	0	0	0	0	103	0	103	0	0	0	48	48	47%	0	3	0	56	59	57%
Western	4	21	36	0	34	0	108	0	178	36	0	0	52	88	49%	37	0	0	68	105	59%
Western	4	22	25	0	14	0	60	0	99	18	0	0	16	34	34%	23	0	0	17	40	40%
Western	4	23	12	0	9	0	87	0	108	10	0	0	39	49	45%	12	0	0	41	53	49%
Western	4	7	0	0	0	0	31	0	31	0	0	0	6	6	19%	0	0	0	0	0	0%
Western Area 4 Total			**287**	**97**	**74**	**23**	**1289**	**0**	**1770**	**194**	**28**	**12**	**520**	**754**	**43%**	**246**	**52**	**10**	**541**	**849**	**48%**
Western	5	152	72	0	59	133	109	133	506	47	0	79	51	177	35%	39	0	61	44	144	28%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Western	5	153	17	10	11	0	68	0	106	7	8	0	22	37	35%	13	10	0	36	59	56%
Western	5	165	39	0	6	0	72	0	117	23	0	0	23	46	39%	29	0	0	28	57	49%
Western	5	166	12	0	0	0	36	0	48	7	0	0	6	13	27%	6	0	0	6	12	25%
Western	5	167	31	0	0	0	22	0	53	22	0	0	9	31	58%	27	0	0	13	40	75%
Western	5	32	7	0	7	0	56	0	70	7	0	0	36	43	61%	7	0	0	36	43	61%
Western	5	33	14	0	11	0	80	0	105	14	0	0	4	18	17%	14	0	0	22	36	34%
Western	5	34	11	0	7	0	47	0	65	11	0	0	17	28	43%	11	0	0	19	30	46%
Western	5	35	17	0	16	0	73	0	106	16	0	0	13	29	27%	16	0	11	18	45	42%
Western	5	41	34	0	0	0	20	0	54	23	0	0	6	29	54%	23	0	0	4	27	50%
Western	5	42	45	0	0	0	53	0	98	38	0	0	16	54	55%	39	0	0	12	51	52%
Western	5	50	36	0	0	0	20	0	56	27	0	0	3	30	54%	27	0	0	3	30	54%
Western	5	51	66	0	0	0	23	1	90	40	0	0	7	47	52%	52	0	0	4	56	62%
Western Area 5 Total			**401**	**10**	**117**	**133**	**679**	**134**	**1474**	**282**	**8**	**79**	**213**	**582**	**39%**	**303**	**10**	**72**	**245**	**630**	**43%**
Western	6	201	58	0	0	0	18	0	76	32	0	3	4	39	51%	39	4	0	7	50	66%
Western	6	202	12	0	0	0	13	0	25	0	0	0	4	4	16%	9	1	0	6	16	64%
Western	6	203	37	7	0	0	52	0	96	26	2	34	9	71	74%	27	7	21	9	64	67%
Western	6	204	37	0	0	0	16	0	53	11	0	0	5	16	30%	4	0	0	1	5	9%
Western	6	205	10	9	0	0	18	0	37	4	3	8	9	24	65%	3	2	3	2	10	27%
Western	6	206	13	0	0	0	6	0	19	3	3	1	1	8	42%	5	2	0	1	8	42%
Western	6	207	0	0	0	0	10	0	10	0	1	0	0	1	10%	0	1	0	2	3	30%
Western	6	208	0	0	0	9	1	0	10	8	1	0	0	9	90%	0	1	5	0	6	60%
Western	6	209	9	0	0	0	5	0	14	7	0	0	2	9	64%	5	1	0	4	10	71%
Western	6	211	49	0	0	0	38	0	87	17	2	0	4	23	26%	32	1	0	6	39	45%
Western	6	212	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Western	6	213	0	0	0	0	6	0	6	0	0	0	3	3	50%	0	0	0	2	2	33%
Western	6	216	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Western	6	220	41	0	0	0	26	0	67	20	3	0	8	31	46%	23	0	0	8	31	46%
Western	6	221	40	0	0	0	3	0	43	12	0	0	1	13	30%	19	0	0	1	20	47%
Western	6	222	37	0	0	0	9	0	46	17	1	0	2	20	43%	12	1	0	3	16	35%
Western	6	223	44	0	0	0	9	0	53	17	1	0	2	20	38%	27	0	0	2	29	55%
Western	6	224	24	0	0	0	19	0	43	15	1	0	7	23	53%	11	0	0	4	15	35%
Western	6	225	26	0	0	0	11	0	37	8	0	0	5	13	35%	15	1	0	4	20	54%
Western	6	226	14	0	0	0	33	0	47	8	3	0	14	25	53%	11	2	0	8	21	45%
Western	6	46	45	0	0	0	17	0	62	24	0	0	8	32	52%	32	0	0	5	37	60%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Western	6	47	72	0	0	19	24	0	115	39	0	12	8	59	51%	39	0	2	6	47	41%
Western	6	55	42	0	0	0	30	0	72	28	0	0	9	37	51%	17	0	0	16	33	46%
Western	6	56	67	0	0	0	24	1	92	40	0	0	14	54	59%	45	0	0	5	50	54%
Western	6	61	3	0	0	0	17	0	20	3	0	0	6	9	45%	3	0	0	7	10	50%
Western	6	62	32	0	0	0	38	0	70	24	0	0	19	43	61%	24	0	0	18	42	60%
Western	6	63	2	0	0	0	13	0	15	1	0	0	3	4	27%	2	0	0	6	8	53%
Western	6	64	33	0	0	0	29	1	63	22	0	0	11	33	52%	27	0	0	12	39	62%
Western	6	65	64	0	0	0	34	5	103	30	0	0	12	42	41%	28	0	0	21	49	48%
Western	6	66	18	0	0	0	19	2	39	7	0	0	10	17	44%	4	0	0	13	17	44%
Western	6	67	31	0	0	0	17	1	49	17	0	0	8	25	51%	17	0	0	9	26	53%
Western	6	68	24	0	0	0	7	0	31	13	0	0	4	17	55%	11	0	0	2	13	42%
Western Area 6 Total			**884**	**16**	**0**	**28**	**562**	**10**	**1500**	**453**	**21**	**58**	**192**	**724**	**48%**	**491**	**24**	**31**	**190**	**736**	**49%**
Western	7	111	14	12	0	0	73	0	99	1	4	0	25	30	30%	4	4	0	32	40	40%
Western	7	112	12	8	0	0	19	0	39	3	2	0	9	14	36%	8	2	0	12	22	56%
Western	7	113	20	0	0	0	17	0	37	12	0	0	7	19	51%	18	0	0	7	25	68%
Western	7	114	14	7	0	0	65	0	86	2	3	0	17	22	26%	3	3	0	21	27	31%
Western	7	115	40	16	0	0	16	0	72	7	3	0	7	17	24%	16	5	0	6	27	38%
Western	7	116	19	0	0	0	19	0	38	7	0	0	1	8	21%	13	0	0	1	14	37%
Western	7	117	10	12	0	0	8	0	30	0	3	0	2	5	17%	4	4	0	2	10	33%
Western	7	118	7	6	0	0	3	0	16	3	2	0	0	5	31%	6	2	0	0	8	50%
Western	7	119	2	0	0	0	9	0	11	0	0	0	4	4	36%	1	0	0	6	7	64%
Western	7	120	6	19	0	0	5	0	30	1	9	0	2	12	40%	4	11	0	2	17	57%
Western	7	121	13	8	0	0	1	0	22	5	3	0	0	8	36%	12	6	0	0	18	82%
Western	7	122	17	0	0	0	19	0	36	3	0	0	8	11	31%	13	0	0	12	25	69%
Western	7	123	7	0	0	0	39	0	46	0	0	0	13	13	28%	6	0	0	19	25	54%
Western	7	124	21	0	0	0	0	0	21	6	0	0	0	6	29%	9	0	0	0	9	43%
Western	7	125	0	7	0	14	0	0	21	0	0	2	0	2	10%	0	3	6	0	9	43%
Western	7	129	18	2	0	0	34	0	54	12	1	0	5	18	33%	15	1	0	16	32	59%
Western	7	130	24	0	0	0	19	0	43	17	0	0	6	23	53%	21	0	0	7	28	65%
Western	7	131	13	10	0	0	20	0	43	6	2	0	4	12	28%	8	6	0	6	20	47%
Western	7	132	12	5	0	0	12	0	29	12	2	0	15	29	100%	12	2	0	7	21	72%
Western	7	133	11	10	1	0	14	0	36	8	9	0	10	27	75%	8	10	0	11	29	81%
Western	7	134	10	22	0	0	14	0	46	7	8	0	6	21	46%	7	16	0	9	32	70%
Western	7	135	21	11	0	0	20	0	52	11	6	0	7	24	46%	16	8	0	8	32	62%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Western	7	136	6	14	0	0	12	0	32	4	5	0	7	16	50%	4	6	0	6	16	50%
Western	7	137	0	15	0	3	10	0	28	0	5	0	5	10	36%	0	11	2	3	16	57%
Western	7	138	0	7	0	0	0	0	7	0	5	0	0	5	71%	0	6	0	0	6	86%
Western	7	141	0	0	0	0	51	0	51	0	0	0	10	10	20%	0	0	0	12	12	24%
Western	7	142	8	0	4	0	39	0	51	5	0	0	15	20	39%	3	0	0	21	24	47%
Western	7	143	23	0	6	0	46	0	75	16	0	0	10	26	35%	16	0	0	8	24	32%
Western	7	144	7	8	3	0	55	0	73	3	3	0	15	21	29%	4	5	0	21	30	41%
Western	7	145	15	8	6	0	39	0	68	6	9	0	14	29	43%	11	8	0	12	31	46%
Western	7	146	11	10	5	0	41	0	67	10	8	0	13	31	46%	9	9	0	18	36	54%
Western	7	147	34	8	0	0	6	0	48	17	3	0	0	20	42%	18	8	0	3	29	60%
Western	7	148	16	18	6	0	44	0	84	9	7	0	14	30	36%	10	11	0	11	32	38%
Western	7	149	26	0	0	0	25	0	51	15	0	0	12	27	53%	15	0	0	12	27	53%
Western	7	150	51	0	12	0	94	0	157	22	0	0	11	33	21%	28	0	0	27	55	35%
Western	7	151	14	0	13	0	8	0	35	10	0	0	4	14	40%	12	0	0	6	18	51%
Western Area 7 Total			**522**	**243**	**56**	**17**	**896**	**0**	**1734**	**240**	**102**	**2**	**278**	**622**	**36%**	**334**	**147**	**8**	**344**	**833**	**48%**
Western	8	154	0	6	0	0	41	0	47	0	5	0	24	29	62%	0	7	0	24	31	66%
Western	8	155	8	11	0	0	57	0	76	9	7	0	11	27	36%	7	7	0	17	31	41%
Western	8	156	8	10	0	0	40	0	58	4	8	0	22	34	59%	8	9	0	29	46	79%
Western	8	157	22	8	0	0	19	0	49	14	7	0	9	30	61%	19	6	0	12	37	76%
Western	8	158	28	0	10	0	167	0	205	16	0	0	106	122	60%	23	0	0	93	116	57%
Western	8	159	12	15	5	0	213	0	245	4	9	0	8	21	9%	5	12	0	10	27	11%
Western	8	160	9	15	2	0	32	0	58	3	6	0	8	17	29%	6	9	0	8	23	40%
Western	8	161	17	10	9	0	11	0	47	6	5	0	7	18	38%	10	6	0	4	20	43%
Western	8	162	25	6	15	0	41	0	87	12	2	0	16	30	34%	16	5	0	21	42	48%
Western	8	168	16	14	0	0	41	0	71	9	6	0	18	33	46%	13	12	0	26	51	72%
Western	8	169	13	0	0	0	72	0	85	9	1	0	47	57	67%	8	0	0	50	58	68%
Western	8	170	0	39	0	0	10	0	49	0	31	0	7	38	78%	0	34	0	7	41	84%
Western	8	171	0	31	0	0	14	0	45	0	24	0	7	31	69%	0	24	0	7	31	69%
Western	8	172	0	9	0	0	74	0	83	0	6	0	17	23	28%	0	6	0	14	20	24%
Western	8	173	1	6	0	0	27	0	34	0	0	0	17	17	50%	1	6	0	21	28	82%
Western	8	174	0	0	0	0	48	0	48	0	3	0	20	23	48%	2	0	11	0	13	27%
Western	8	210	20	0	0	0	97	0	117	12	0	0	14	26	22%	11	1	0	22	34	29%
Western	8	228	21	44	0	0	200	0	265	15	5	0	60	80	30%	0	13	0	59	72	27%
Western	8	229	4	61	0	0	26	0	91	0	8	0	5	13	14%	0	11	0	7	18	20%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Western	8	230	0	36	0	0	81	0	117	0	7	0	19	26	22%	0	17	0	2	19	16%
Western	8	231	23	24	0	0	124	0	171	11	13	0	14	38	22%	7	15	0	15	37	22%
Western	8	242	0	17	0	0	3	0	20	0	11	0	3	14	70%	0	0	0	0	0	0%
Western	8	246	0	28	0	0	16	0	44	0	12	0	11	23	52%	0	0	0	0	0	0%
Western Area 8 Total			**227**	**390**	**41**	**0**	**1454**	**0**	**2112**	**124**	**176**	**0**	**470**	**770**	**36%**	**136**	**200**	**11**	**448**	**795**	**38%**
Western	9	214	32	0	0	0	18	0	50	13	1	0	7	21	42%	16	2	0	6	24	48%
Western	9	215	0	3	0	0	54	0	57	1	2	0	10	13	23%	2	5	0	12	19	33%
Western	9	217	26	0	0	0	18	0	44	17	3	0	7	27	61%	18	1	0	7	26	59%
Western	9	218	27	2	0	0	9	0	38	14	2	0	2	18	47%	13	3	0	2	18	47%
Western	9	219	6	1	0	0	63	0	70	9	1	0	16	26	37%	11	0	0	18	29	41%
Western	9	227	25	2	0	0	70	0	97	9	4	0	43	56	58%	11	9	0	34	54	56%
Western	9	239	0	29	0	0	45	0	74	0	14	0	13	27	36%	0	13	0	14	27	36%
Western	9	240	0	26	0	0	39	0	65	0	10	0	8	18	28%	0	12	0	8	20	31%
Western	9	241	0	13	0	6	14	0	33	0	11	3	7	21	64%	0	7	4	9	20	61%
Western	9	243	0	34	0	0	9	0	43	0	13	0	5	18	42%	0	4	0	10	14	33%
Western	9	244	0	32	0	0	13	0	45	0	21	0	9	30	67%	0	0	0	0	0	0%
Western	9	245	0	37	0	0	11	0	48	0	17	0	4	21	44%	0	5	0	1	6	13%
Western	9	247	0	26	0	0	15	0	41	0	11	0	7	18	44%	0	0	0	0	0	0%
Western	9	248	1	26	0	0	26	0	53	0	16	0	10	26	49%	0	0	0	0	0	0%
Western	9	249	0	25	0	0	9	0	34	0	5	0	4	9	26%	0	0	0	0	0	0%
Western	9	263	0	30	0	0	22	0	52	0	12	0	6	18	35%	0	15	0	12	27	52%
Western	9	264	28	14	0	0	23	0	65	16	2	0	11	29	45%	12	5	0	8	25	38%
Western	9	265	0	21	0	0	13	0	34	0	4	0	6	10	29%	0	4	0	9	13	38%
Western	9	266	3	20	0	0	41	1	65	3	12	0	31	46	71%	2	11	0	26	39	60%
Western	9	267	39	6	0	0	18	0	63	25	5	0	5	35	56%	21	6	0	4	31	49%
Western	9	268	5	31	0	0	12	0	48	2	16	0	8	26	54%	3	21	0	9	33	69%
Western	9	277	18	8	0	0	43	0	69	18	8	0	15	41	59%	17	5	0	14	36	52%
Western	9	278	39	0	0	0	17	0	56	27	0	0	4	31	55%	16	0	0	6	22	39%
Western	9	279	24	0	0	0	26	0	50	11	0	0	11	22	44%	7	0	0	8	15	30%
Western Area 9 Total			**273**	**386**	**0**	**6**	**628**	**1**	**1294**	**165**	**190**	**3**	**249**	**607**	**47%**	**149**	**128**	**4**	**217**	**498**	**38%**
Western	10	163	44	0	28	0	179	0	251	12	0	0	77	89	35%	37	0	0	91	128	51%
Western	10	164	14	0	8	0	124	0	146	10	0	0	80	90	62%	9	0	0	78	87	60%
Western	10	175	5	11	5	0	97	0	118	1	7	0	27	35	30%	1	3	0	43	47	40%
Western	10	176	36	12	0	0	8	0	56	13	5	0	5	23	41%	0	6	0	5	11	20%

Kisinger Campo and Associates, Corperation
Tindale Oliver and Associates, Inc.

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Western	10	232	0	9	0	0	85	1	95	0	5	0	44	49	52%	0	3	0	41	44	46%
Western	10	233	0	18	0	0	17	0	35	0	4	0	6	10	29%	0	8	0	3	11	31%
Western	10	234	0	12	0	0	40	0	52	0	1	0	26	27	52%	0	3	0	11	14	27%
Western	10	235	0	39	0	0	10	0	49	0	14	0	1	15	31%	0	14	0	8	22	45%
Western	10	236	0	15	0	0	6	1	22	0	7	0	2	9	41%	0	7	0	2	9	41%
Western	10	237	0	18	0	0	2	22	42	0	12	0	0	12	29%	0	18	0	1	19	45%
Western	10	238	0	40	0	0	48	0	88	0	26	0	43	69	78%	0	17	0	31	48	55%
Western	10	250	0	22	0	0	52	0	74	0	4	0	18	22	30%	0	2	0	7	9	12%
Western	10	251	7	18	0	0	11	0	36	0	7	0	4	11	31%	3	4	0	1	8	22%
Western	10	252	0	13	0	0	13	0	26	0	2	0	6	8	31%	0	1	0	10	11	42%
Western	10	253	0	10	0	0	15	0	25	0	7	0	9	16	64%	0	3	0	7	10	40%
Western	10	254	0	2	0	0	46	0	48	0	1	0	17	18	38%	0	0	0	0	0	0%
Western	10	255	0	8	0	0	10	0	18	0	2	0	5	7	39%	0	0	0	6	6	33%
Western	10	256	0	10	0	0	40	0	50	0	1	0	13	14	28%	0	0	0	0	0	0%
Western	10	257	0	9	0	0	13	0	22	0	3	0	2	5	23%	0	2	0	5	7	32%
Western	10	258	0	30	0	0	143	0	173	0	21	0	0	21	12%	0	11	0	0	11	6%
Western	10	259	0	18	0	0	15	0	33	0	9	0	7	16	48%	0	2	0	12	14	42%
Western	10	260	0	36	0	0	76	0	112	0	35	0	19	54	48%	0	0	0	0	0	0%
Western	10	261	0	19	0	0	10	1	30	0	3	0	6	9	30%	0	7	0	5	12	40%
Western	10	262	0	20	0	0	7	1	28	0	8	0	1	9	32%	0	6	0	5	11	39%
Western	10	269	0	10	0	168	8	0	186	0	7	0	1	8	4%	0	3	0	3	6	3%
Western	10	270	0	10	0	0	24	0	34	0	5	0	7	12	35%	0	3	0	9	12	35%
Western	10	271	8	15	0	0	17	0	40	0	3	0	8	11	28%	0	5	0	7	12	30%
Western	10	272	0	16	0	0	19	0	35	0	6	0	11	17	49%	0	3	0	5	8	23%
Western	10	273	12	5	0	0	27	0	44	2	2	0	10	14	32%	5	1	0	10	16	36%
Western	10	274	38	0	0	0	13	0	51	6	0	0	5	11	22%	6	0	0	9	15	29%
Western	10	275	27	13	0	0	15	0	55	6	2	0	6	14	25%	1	1	0	7	9	16%
Western	10	276	54	41	0	0	0	0	95	9	2	0	0	11	12%	29	2	0	0	31	33%
Western	10	280	4	0	0	19	0	0	23	12	0	19	0	31	135%	0	0	0	0	0	0%
Western	10	281	6	19	0	0	24	0	49	0	3	0	8	11	22%	3	2	0	9	14	29%
Western	10	282	8	10	0	0	34	0	52	1	7	0	14	22	42%	2	2	0	18	22	42%
Western	10	283	8	16	0	0	26	0	50	4	4	0	12	20	40%	2	0	0	15	17	34%
Western	10	284	15	3	0	0	28	0	46	1	0	0	13	14	30%	1	0	0	14	15	33%
Western	10	285	31	0	0	0	14	0	45	4	0	0	4	8	18%	1	0	0	3	4	9%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Western	10	286	27	17	0	0	11	0	55	1	0	0	5	6	11%	2	2	0	4	8	15%
Western	10	287	19	22	0	400	0	0	441	3	0	12	0	15	3%	0	1	4	0	5	1%
Western	10	288	0	4	0	108	0	0	112	0	0	59	0	59	53%	0	1	54	0	55	49%
Western Area 10 Total			**363**	**590**	**41**	**695**	**1327**	**26**	**3042**	**85**	**225**	**90**	**522**	**922**	**30%**	**102**	**143**	**58**	**485**	**788**	**26%**
Western Region Total			**3878**	**1755**	**758**	**981**	**8799**	**648**	**16819**	**2184**	**762**	**286**	**3475**	**6707**	**40%**	**2415**	**719**	**204**	**3397**	**6735**	**40%**
Central	1	300	0	15	0	0	37	0	52	0	6	0	15	21	40%	0	9	0	28	37	71%
Central	1	301	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Central	1	302	6	0	0	0	0	0	6	6	0	0	0	6	100%	0	0	0	0	0	0%
Central	1	303	10	0	0	0	5	0	15	9	0	0	2	11	73%	10	0	0	1	11	73%
Central	1	304	25	0	0	0	11	0	36	9	0	0	4	13	36%	15	0	0	1	16	44%
Central	1	305	24	0	0	0	9	1	34	12	0	0	2	14	41%	14	0	0	4	18	53%
Central	1	306	31	0	0	0	8	0	39	15	0	0	3	18	46%	19	0	0	0	19	49%
Central	1	307	40	0	0	0	35	5	80	16	0	0	13	29	36%	15	0	0	15	30	38%
Central	1	308	12	0	0	0	11	0	23	10	0	0	6	16	70%	11	0	0	5	16	70%
Central	1	309	31	0	0	0	8	0	39	21	0	0	1	22	56%	18	0	0	3	21	54%
Central	1	310	34	0	0	0	5	1	40	13	0	0	2	15	38%	13	0	0	2	15	38%
Central	1	311	26	0	0	0	10	0	36	15	0	0	2	17	47%	17	0	0	3	20	56%
Central	1	312	30	0	0	0	3	0	33	9	0	0	1	10	30%	9	0	0	2	11	33%
Central	1	313	33	0	0	0	5	0	38	8	0	0	3	11	29%	9	0	0	2	11	29%
Central	1	314	27	0	0	0	8	1	36	8	0	0	2	10	28%	13	0	0	1	14	39%
Central	1	315	29	0	0	0	7	1	37	13	0	0	2	15	41%	17	0	0	1	18	49%
Central	1	316	30	0	0	0	0	0	30	14	0	0	0	14	47%	15	0	0	0	15	50%
Central	1	317	28	0	0	0	3	0	31	9	0	0	1	10	32%	13	0	0	0	13	42%
Central	1	318	18	0	0	0	7	0	25	5	0	0	4	9	36%	7	0	0	3	10	40%
Central	1	319	17	0	0	0	11	1	29	6	0	0	6	12	41%	12	0	0	5	17	59%
Central	1	320	17	0	0	0	2	0	19	13	0	0	0	13	68%	14	0	0	0	14	74%
Central	1	321	17	0	0	0	7	2	26	5	0	0	4	9	35%	4	0	0	4	8	31%
Central	1	322	14	0	0	0	8	0	22	3	0	0	5	8	36%	4	0	0	1	5	23%
Central	1	323	15	0	0	0	2	0	17	3	0	0	1	4	24%	6	0	0	1	7	41%
Central	1	324	12	0	0	0	2	0	14	4	0	0	1	5	36%	9	0	0	1	10	71%
Central	1	325	13	0	0	0	8	0	21	3	0	0	1	4	19%	2	0	0	1	3	14%
Central	1	326	0	17	0	0	0	0	17	0	8	0	0	8	47%	0	12	0	0	12	71%
Central	1	327	100	0	0	0	40	0	140	71	0	0	20	91	65%	76	0	0	30	106	76%
Central	1	328	71	0	0	0	0	0	71	45	0	0	0	45	63%	62	0	0	0	62	87%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Central	1	329	0	0	0	134	0	0	134	0	0	129	0	129	96%	0	0	133	0	133	99%
Central	1	330	0	0	0	79	107	0	186	0	0	78	42	120	65%	0	0	79	74	153	82%
Central Area 1 Total			**710**	**32**	**0**	**213**	**359**	**12**	**1326**	**345**	**14**	**207**	**143**	**709**	**53%**	**404**	**21**	**212**	**188**	**825**	**62%**
Central	2	331	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Central	2	332	42	0	0	0	77	0	119	21	0	0	7	28	24%	11	0	0	2	13	11%
Central	2	333	16	16	0	0	23	2	57	4	14	0	10	28	49%	5	5	0	6	16	28%
Central	2	334	10	16	0	0	74	0	100	4	10	0	33	47	47%	1	8	0	20	29	29%
Central	2	335	8	18	0	0	27	6	59	6	5	0	6	17	29%	1	10	0	4	15	25%
Central	2	336	7	7	0	0	78	0	92	5	2	0	26	33	36%	5	2	0	15	22	24%
Central	2	337	29	0	0	0	0	0	29	10	0	0	0	10	34%	14	0	0	0	14	48%
Central	2	338	14	0	0	0	0	0	14	4	0	0	0	4	29%	5	0	0	0	5	36%
Central	2	339	13	20	0	2	6	0	41	4	9	1	4	18	44%	6	12	0	4	22	54%
Central	2	340	14	23	0	0	10	0	47	4	7	0	3	14	30%	5	10	0	2	17	36%
Central	2	341	4	30	0	0	8	1	43	1	13	0	4	18	42%	0	9	0	6	15	35%
Central	2	342	0	41	0	0	10	0	51	0	12	0	2	14	27%	0	10	0	2	12	24%
Central	2	343	0	35	0	0	18	0	53	0	14	0	4	18	34%	0	12	0	6	18	34%
Central	2	344	0	32	0	0	11	0	43	0	11	0	4	15	35%	0	9	0	6	15	35%
Central	2	345	8	24	0	0	5	0	37	2	13	0	3	18	49%	4	20	0	0	24	65%
Central	2	346	8	25	0	0	3	0	36	5	9	0	2	16	44%	2	9	0	0	11	31%
Central	2	347	0	10	0	0	25	0	35	0	0	0	0	0	0%	0	0	0	0	0	0%
Central	2	348	500	150	0	0	0	0	650	300	20	0	0	320	49%	300	40	0	0	340	52%
Central	2	349	5	0	0	44	39	0	88	4	0	26	10	40	45%	0	0	14	8	22	25%
Central	2	350	15	0	0	0	10	0	25	3	0	0	4	7	28%	11	0	0	4	15	60%
Central	2	351	2	0	0	0	9	0	11	0	0	0	1	1	9%	0	0	0	2	2	18%
Central	2	352	0	19	0	0	6	0	25	0	5	0	4	9	36%	0	6	0	1	7	28%
Central	2	353	0	20	0	0	6	0	26	0	2	0	3	5	19%	0	3	0	0	3	12%
Central	2	354	28	0	0	0	24	0	52	7	0	0	7	14	27%	8	0	0	5	13	25%
Central	2	355	12	23	0	0	18	0	53	2	5	0	4	11	21%	4	6	0	4	14	26%
Central	2	356	36	0	0	0	22	0	58	5	0	0	4	9	16%	11	0	0	4	15	26%
Central	2	357	32	8	0	0	22	0	62	7	3	0	7	17	27%	9	8	0	11	28	45%
Central	2	358	12	12	0	0	29	1	54	3	2	0	4	9	17%	6	4	0	8	18	33%
Central	2	359	18	13	0	0	15	0	46	3	4	0	3	10	22%	10	6	0	3	19	41%
Central	2	501	0	9	0	55	12	0	76	0	3	16	4	23	30%	0	4	14	1	19	25%
Central	2	502	22	35	0	0	42	0	99	9	17	0	31	57	58%	3	27	0	37	67	68%

Kisinger Campo and Associates, Corperation
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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Central Area 2 Total			**855**	**586**	**0**	**101**	**629**	**10**	**2181**	**413**	**180**	**43**	**194**	**830**	**38%**	**421**	**220**	**28**	**161**	**830**	**38%**
Central	3	400	7	11	0	28	85	0	131	1	0	13	4	18	14%	0	0	10	6	16	12%
Central	3	401	5	42	0	2	24	0	73	0	8	0	12	20	27%	1	2	0	14	17	23%
Central	3	402	12	17	0	3	50	0	82	1	4	0	16	21	26%	1	2	0	17	20	24%
Central	3	403	14	33	0	0	25	0	72	5	3	0	14	22	31%	1	2	0	12	15	21%
Central	3	404	6	36	0	0	35	0	77	0	3	0	19	22	29%	0	7	0	21	28	36%
Central	3	414	0	31	0	60	0	0	91	0	4	29	0	33	36%	0	3	10	0	13	14%
Central	3	415	0	66	0	0	14	0	80	0	16	0	3	19	24%	0	17	0	1	18	23%
Central	3	416	0	56	0	0	23	0	79	0	4	0	2	6	8%	0	13	0	5	18	23%
Central	3	417	0	47	0	0	21	1	69	0	5	0	8	13	19%	0	15	0	7	22	32%
Central	3	418	14	46	0	0	23	1	84	0	13	0	4	17	20%	0	15	0	3	18	21%
Central	3	424	0	33	0	0	4	0	37	0	6	0	1	7	19%	0	9	0	0	9	24%
Central	3	425	0	202	0	0	11	0	213	0	14	0	1	15	7%	0	10	0	5	15	7%
Central	3	426	0	52	0	0	6	0	58	0	16	0	1	17	29%	0	10	0	2	12	21%
Central	3	427	13	28	0	0	22	3	66	0	2	0	5	7	11%	0	4	0	3	7	11%
Central	3	428	0	51	0	0	16	2	69	0	7	0	5	12	17%	0	10	0	2	12	17%
Central	3	434	17	11	0	0	20	0	48	3	4	0	12	19	40%	3	5	0	10	18	38%
Central	3	435	11	23	0	0	22	0	56	2	7	0	8	17	30%	2	5	0	10	17	30%
Central	3	436	0	40	0	0	19	0	59	0	3	0	2	5	8%	0	6	0	7	13	22%
Central	3	437	2	34	0	0	25	0	61	1	4	0	4	9	15%	0	5	0	6	11	18%
Central	3	438	0	33	0	0	25	0	58	0	4	0	6	10	17%	0	8	5	6	19	33%
Central	3	445	16	14	0	0	32	0	62	4	0	0	5	9	15%	2	0	0	8	10	16%
Central	3	446	13	17	0	0	18	0	48	1	3	0	7	11	23%	0	4	0	5	9	19%
Central	3	447	3	28	0	0	29	0	60	2	4	0	10	16	27%	2	3	0	10	15	25%
Central	3	448	2	35	0	0	21	0	58	0	9	0	7	16	28%	0	12	0	5	17	29%
Central	3	449	0	24	0	0	35	0	59	0	1	0	17	18	31%	0	4	0	8	12	20%
Central	3	503	7	19	0	0	5	0	31	1	8	0	2	11	35%	0	9	0	2	11	35%
Central	3	504	6	13	0	0	8	0	27	1	4	0	5	10	37%	1	8	0	4	13	48%
Central	3	505	28	8	0	0	3	0	39	14	2	0	2	18	46%	16	1	0	2	19	49%
Central	3	506	6	20	0	167	0	6	199	5	4	72	1	82	41%	2	4	126	0	132	66%
Central Area 3 Total			**182**	**1070**	**0**	**260**	**621**	**13**	**2146**	**41**	**162**	**114**	**183**	**500**	**23%**	**31**	**193**	**151**	**181**	**556**	**26%**
Central	4	405	3	28	0	0	30	0	61	0	12	0	14	26	43%	0	9	0	16	25	41%
Central	4	406	6	26	0	0	9	0	41	1	14	0	8	23	56%	2	8	0	8	18	44%
Central	4	407	0	15	0	0	8	0	23	0	9	0	4	13	57%	0	8	0	6	14	61%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Central	4	408	5	14	0	7	1	0	27	1	3	2	1	7	26%	0	2	5	1	8	30%
Central	4	409	0	25	0	0	7	0	32	0	5	0	3	8	25%	0	7	0	4	11	34%
Central	4	410	0	7	0	0	4	0	11	0	2	0	2	4	36%	0	2	0	1	3	27%
Central	4	411	3	24	0	0	7	0	34	3	13	0	3	19	56%	2	15	0	5	22	65%
Central	4	412	63	6	0	90	0	0	159	1	1	7	0	9	6%	5	1	7	0	13	8%
Central	4	413	0	0	0	3	12	0	15	0	0	0	3	3	20%	0	0	0	4	4	27%
Central	4	419	2	50	0	0	23	0	75	0	8	0	10	18	24%	0	16	0	9	25	33%
Central	4	420	0	52	0	0	20	0	72	0	8	0	7	15	21%	0	13	0	6	19	26%
Central	4	421	0	48	0	0	10	1	59	0	8	1	6	15	25%	0	12	0	3	15	25%
Central	4	422	0	50	0	0	23	0	73	0	4	0	4	8	11%	0	8	0	5	13	18%
Central	4	423	16	30	0	0	18	0	64	2	1	0	7	10	16%	5	2	0	4	11	17%
Central	4	429	0	60	0	0	14	2	76	0	9	0	4	13	17%	0	12	0	3	15	20%
Central	4	430	3	44	0	0	19	1	67	0	3	0	3	6	9%	0	9	0	3	12	18%
Central	4	431	3	44	0	0	19	1	67	0	3	0	3	6	9%	0	9	0	3	12	18%
Central	4	432	0	47	0	0	13	0	60	0	4	0	4	8	13%	0	7	0	5	12	20%
Central	4	433	0	60	0	0	13	1	74	0	8	0	3	11	15%	0	5	0	4	9	12%
Central	4	439	6	39	0	0	32	0	77	0	8	0	7	15	19%	0	9	0	9	18	23%
Central	4	440	7	33	0	0	22	0	62	0	3	0	12	15	24%	0	6	0	12	18	29%
Central	4	441	16	27	0	0	23	0	66	6	5	0	13	24	36%	3	8	0	14	25	38%
Central	4	442	19	22	0	0	30	0	71	3	2	0	5	10	14%	2	2	0	6	10	14%
Central	4	443	35	9	0	0	28	0	72	0	4	0	6	10	14%	7	0	0	7	14	19%
Central	4	444	6	13	0	0	20	0	39	0	2	0	0	2	5%	0	0	0	0	0	0%
Central	4	450	2	29	0	0	30	0	61	1	5	0	9	15	25%	1	9	0	11	21	34%
Central	4	451	0	35	0	0	14	0	49	0	7	0	3	10	20%	0	13	0	6	19	39%
Central	4	452	14	26	0	0	19	0	59	2	4	0	11	17	29%	3	2	0	8	13	22%
Central	4	453	35	8	0	0	21	0	64	12	4	0	9	25	39%	11	7	0	6	24	38%
Central	4	454	33	10	0	0	24	0	67	11	0	0	11	22	33%	8	0	0	11	19	28%
Central	4	551	0	28	0	0	38	0	66	0	8	0	17	25	38%	0	12	0	18	30	45%
Central	4	552	17	17	0	0	29	0	63	8	2	0	8	18	29%	1	4	0	6	11	17%
Central	4	553	13	22	0	0	12	0	47	0	10	0	6	16	34%	1	13	0	7	21	45%
Central	4	554	5	21	0	0	29	0	55	4	4	0	13	21	38%	2	2	0	17	21	38%
Central	4	555	16	19	0	0	26	0	61	8	10	0	10	28	46%	11	10	0	6	27	44%
Central	4	556	0	23	0	0	54	0	77	0	5	0	19	24	31%	0	8	0	13	21	27%
Central	4	557	44	70	184	0	44	184	526	0	6	0	26	32	6%	0	13	0	21	34	6%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Central Area 4 Total			**372**	**1081**	**184**	**100**	**745**	**190**	**2672**	**63**	**204**	**10**	**274**	**551**	**21%**	64	263	12	268	607	23%
Central Region Total			**2119**	**2769**	**184**	**674**	**2354**	**225**	**8325**	**862**	**560**	**374**	**794**	**2590**	**31%**	920	697	403	798	2818	34%
Eastern	1	509	17	22	0	0	6	0	45	6	5	0	1	12	27%	5	9	0	3	17	38%
Eastern	1	510	4	31	0	0	6	0	41	2	8	0	2	12	29%	0	12	0	4	16	39%
Eastern	1	511	3	25	0	0	6	0	34	1	8	0	2	11	32%	3	14	0	3	20	59%
Eastern	1	512	3	33	0	0	10	0	46	1	18	0	6	25	54%	0	13	0	18	31	67%
Eastern	1	513	0	30	0	0	8	0	38	0	9	0	5	14	37%	0	14	0	3	17	45%
Eastern	1	514	36	7	0	12	7	4	66	19	6	2	3	30	45%	7	4	1	4	16	24%
Eastern	1	515	0	33	0	0	8	1	42	0	12	0	4	16	38%	0	17	0	3	20	48%
Eastern	1	516	0	30	0	0	6	1	37	0	6	0	2	8	22%	0	10	0	3	13	35%
Eastern	1	517	10	16	0	0	6	0	32	2	4	0	1	7	22%	2	12	0	3	17	53%
Eastern	1	518	0	30	0	0	5	0	35	0	11	0	2	13	37%	0	18	0	3	21	60%
Eastern	1	519	0	24	0	0	11	1	36	0	7	0	7	14	39%	0	9	0	6	15	42%
Eastern	1	520	6	13	0	12	2	0	33	5	5	0	1	11	33%	3	2	0	1	6	18%
Eastern	1	521	0	16	0	0	34	1	51	0	2	0	13	15	29%	0	7	0	8	15	29%
Eastern	1	522	0	28	0	0	14	0	42	0	9	0	6	15	36%	0	8	0	4	12	29%
Eastern	1	523	0	29	0	0	10	0	39	0	9	0	4	13	33%	0	15	0	1	16	41%
Eastern	1	524	0	27	0	0	12	0	39	0	10	0	8	18	46%	0	13	0	6	19	49%
Eastern	1	525	4	25	0	0	21	0	50	0	9	0	3	12	24%	0	12	0	3	15	30%
Eastern	1	526	9	19	0	0	3	0	31	1	9	0	2	12	39%	5	8	0	2	15	48%
Eastern	1	529	6	27	0	0	4	0	37	0	8	0	2	10	27%	0	8	0	1	9	24%
Eastern	1	530	0	28	0	0	16	0	44	0	11	0	7	18	41%	0	10	0	5	15	34%
Eastern	1	531	57	21	0	0	7	0	85	2	9	0	0	11	13%	0	9	0	3	12	14%
Eastern	1	532	0	26	0	0	7	0	33	0	21	0	1	22	67%	0	12	0	2	14	42%
Eastern	1	533	7	13	0	0	8	2	30	0	5	0	1	6	20%	1	5	0	1	7	23%
Eastern	1	539	9	11	0	0	14	4	38	6	7	0	9	22	58%	7	7	0	3	17	45%
Eastern	1	540	16	21	0	0	62	2	101	3	7	0	12	22	22%	13	8	0	52	73	72%
Eastern	1	541	0	36	0	0	20	2	58	0	15	0	1	16	28%	0	14	0	11	25	43%
Eastern	1	542	0	36	0	0	20	2	58	0	15	0	1	16	28%	0	14	0	11	25	43%
Eastern	1	543	0	29	0	0	17	2	48	0	15	0	0	15	31%	0	11	0	10	21	44%
Eastern Area 1 Total			**187**	**686**	**0**	**24**	**350**	**22**	**1269**	**48**	**260**	**2**	**106**	**416**	**33%**	**46**	**295**	**1**	**177**	**519**	**41%**
Eastern	2	558	16	2	0	0	78	0	96	9	1	0	39	49	51%	5	1	0	26	32	33%
Eastern	2	559	6	10	0	0	50	0	66	2	6	0	35	43	65%	3	0	0	13	16	24%
Eastern	2	560	0	37	0	0	30	0	67	0	5	0	12	17	25%	0	3	0	17	20	30%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Eastern	2	561	120	18	0	0	23	0	161	115	6	0	17	138	86%	0	3	0	0	3	2%
Eastern	2	562	300	21	0	0	8	0	329	0	3	0	2	5	2%	0	3	0	5	8	2%
Eastern	2	563	12	0	0	0	103	0	115	12	0	0	100	112	97%	1	0	0	5	6	5%
Eastern	2	564	19	22	0	0	12	0	53	3	6	0	3	12	23%	6	6	0	7	19	36%
Eastern	2	565	25	88	0	0	30	0	143	7	13	0	8	28	20%	11	6	0	13	30	21%
Eastern	2	566	8	22	0	0	14	0	44	0	11	0	5	16	36%	3	6	0	5	14	32%
Eastern	2	567	30	44	0	0	40	0	114	1	16	0	16	33	29%	1	8	0	8	17	15%
Eastern	2	568	0	34	0	0	16	0	50	0	5	0	8	13	26%	0	8	0	11	19	38%
Eastern	2	569	8	33	0	0	80	0	121	0	9	0	19	28	23%	0	6	0	6	12	10%
Eastern	2	570	0	11	0	0	6	0	17	0	3	0	3	6	35%	0	3	0	4	7	41%
Eastern	2	636	0	40	0	0	0	0	40	0	7	0	0	7	18%	0	5	0	0	5	13%
Eastern	2	637	0	50	0	0	36	0	86	0	8	0	19	27	31%	0	9	0	18	27	31%
Eastern	2	638	0	40	0	0	10	0	50	0	9	0	5	14	28%	0	9	0	8	17	34%
Eastern	2	639	4	50	0	0	16	0	70	0	7	0	10	17	24%	1	6	0	8	15	21%
Eastern	2	640	2	25	0	0	24	0	51	1	1	0	4	6	12%	0	5	0	7	12	24%
Eastern	2	641	0	28	0	0	23	0	51	0	10	0	10	20	39%	0	13	0	12	25	49%
Eastern	2	642	0	26	0	0	17	0	43	0	9	0	4	13	30%	0	10	0	9	19	44%
Eastern	2	643	0	34	0	0	32	0	66	0	14	0	10	24	36%	0	11	0	13	24	36%
Eastern	2	644	0	44	0	0	16	0	60	0	8	0	9	17	28%	0	8	0	12	20	33%
Eastern Area 2 Total			**550**	**679**	**0**	**0**	**664**	**0**	**1893**	**150**	**157**	**0**	**338**	**645**	**34%**	**31**	**129**	**0**	**207**	**367**	**19%**
Eastern	3	545	14	6	0	0	5	0	25	11	3	0	2	16	64%	7	5	0	2	14	56%
Eastern	3	546	13	13	0	0	15	1	42	8	8	0	0	16	38%	7	12	0	9	28	67%
Eastern	3	547	0	39	0	0	11	3	53	0	12	0	2	14	26%	0	18	0	8	26	49%
Eastern	3	548	13	26	0	0	21	0	60	12	11	0	9	32	53%	8	4	0	15	27	45%
Eastern	3	549	6	22	0	0	9	0	37	0	8	0	1	9	24%	3	8	0	5	16	43%
Eastern	3	550	5	16	0	0	12	1	34	0	6	0	0	6	18%	2	6	0	3	11	32%
Eastern	3	600	16	0	0	0	5	0	21	0	0	0	0	0	0%	3	0	0	1	4	19%
Eastern	3	601	18	0	0	0	12	0	30	8	0	0	3	11	37%	11	0	0	6	17	57%
Eastern	3	602	15	23	0	0	23	0	61	10	6	0	6	22	36%	11	8	0	8	27	44%
Eastern	3	603	15	17	0	0	24	0	56	6	5	0	9	20	36%	6	6	0	10	22	39%
Eastern	3	604	0	34	0	0	28	0	62	0	4	0	8	12	19%	0	10	0	11	21	34%
Eastern	3	605	1	27	0	0	24	0	52	0	4	0	11	15	29%	0	4	0	10	14	27%
Eastern	3	606	0	50	0	0	28	0	78	0	9	0	14	23	29%	0	14	0	17	31	40%
Eastern	3	607	0	32	0	0	20	0	52	0	3	0	6	9	17%	0	5	0	9	14	27%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Eastern	3	608	0	44	0	0	20	0	64	0	3	0	6	9	14%	0	5	0	8	13	20%
Eastern	3	609	0	31	0	0	18	0	49	0	8	0	9	17	35%	0	10	0	10	20	41%
Eastern	3	610	0	24	0	0	54	0	78	0	8	0	28	36	46%	0	12	0	34	46	59%
Eastern	3	611	0	17	0	0	30	0	47	0	3	0	10	13	28%	0	4	0	10	14	30%
Eastern Area 3 Total			**116**	**421**	**0**	**0**	**359**	**5**	**901**	**55**	**101**	**0**	**124**	**280**	**31%**	**58**	**131**	**0**	**176**	**365**	**41%**
Eastern	4	612	0	15	0	0	0	0	15	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	4	613	6	20	0	0	7	0	33	3	4	0	2	9	27%	5	6	0	2	13	39%
Eastern	4	614	14	0	0	1	9	0	24	7	0	0	4	11	46%	6	0	0	3	9	38%
Eastern	4	615	14	26	0	4	10	0	54	2	2	2	3	9	17%	7	4	1	4	16	30%
Eastern	4	616	29	20	0	0	24	0	73	7	3	0	8	18	25%	9	4	0	9	22	30%
Eastern	4	617	8	14	0	0	98	0	120	0	2	0	9	11	9%	0	2	0	6	8	7%
Eastern	4	618	16	7	0	0	7	0	30	7	1	0	3	11	37%	9	1	0	5	15	50%
Eastern	4	619	16	27	0	0	15	0	58	5	0	0	5	10	17%	8	0	0	7	15	26%
Eastern	4	620	10	31	0	0	13	0	54	3	6	0	5	14	26%	7	13	0	8	28	52%
Eastern	4	621	10	34	0	0	22	0	66	5	4	0	11	20	30%	2	7	0	15	24	36%
Eastern	4	622	0	38	0	0	40	0	78	0	2	0	17	19	24%	0	9	0	23	32	41%
Eastern	4	623	0	48	0	0	30	0	78	0	7	0	10	17	22%	0	10	0	11	21	27%
Eastern	4	624	15	32	0	0	26	0	73	2	2	0	8	12	16%	6	3	0	12	21	29%
Eastern	4	625	20	3	0	0	10	0	33	9	0	0	3	12	36%	11	0	0	4	15	45%
Eastern	4	626	38	10	0	0	26	0	74	9	2	0	12	23	31%	5	3	0	13	21	28%
Eastern	4	627	20	23	0	0	38	0	81	6	2	0	12	20	25%	9	5	0	13	27	33%
Eastern	4	628	7	28	0	0	43	0	78	4	3	0	17	24	31%	4	7	0	24	35	45%
Eastern	4	629	9	34	0	0	41	0	84	0	4	0	15	19	23%	1	10	0	21	32	38%
Eastern	4	630	24	21	0	0	30	0	75	4	4	0	10	18	24%	5	4	0	11	20	27%
Eastern	4	631	12	0	0	0	290	0	302	5	0	0	210	215	71%	4	0	0	121	125	41%
Eastern	4	632	19	0	0	0	97	0	116	8	0	0	62	70	60%	6	0	0	48	54	47%
Eastern	4	633	12	0	0	0	162	0	174	1	0	0	66	67	39%	0	0	0	54	54	31%
Eastern	4	6341	32	40	0	0	100	0	172	0	6	0	6	12	7%	0	4	0	2	6	3%
Eastern	4	6342	83	7	0	0	65	0	155	24	2	0	31	57	37%	25	3	0	36	64	41%
Eastern	4	635	33	6	0	0	27	0	66	9	2	0	12	23	35%	15	2	0	15	32	48%
Eastern Area 4 Total			**447**	**484**	**0**	**5**	**1230**	**0**	**2166**	**120**	**58**	**2**	**541**	**721**	**33%**	**144**	**97**	**1**	**467**	**709**	**33%**
Eastern	5	645	0	10	0	0	186	0	196	0	0	0	95	95	48%	0	1	0	117	118	60%
Eastern	5	646	4	12	0	45	0	0	61	0	0	28	0	28	46%	0	0	12	0	12	20%
Eastern	5	647	0	0	0	0	34	0	34	0	0	0	2	2	6%	0	0	0	4	4	12%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Eastern	5	648	5	0	0	75	0	0	80	5	0	11	0	16	20%	4	0	16	0	20	25%
Eastern	5	649	8	0	0	60	87	0	155	0	0	7	20	27	17%	1	0	9	20	30	19%
Eastern	5	650	16	13	0	0	328	0	357	6	9	0	214	229	64%	4	7	0	184	195	55%
Eastern	5	651	27	0	0	0	18	0	45	7	0	0	10	17	38%	11	0	0	13	24	53%
Eastern	5	801	22	0	0	0	0	0	22	6	0	0	0	6	27%	12	0	0	0	12	55%
Eastern	5	802	83	0	0	0	70	0	153	23	0	0	15	38	25%	62	0	0	28	90	59%
Eastern	5	803	53	0	0	0	0	0	53	16	0	0	0	16	30%	38	0	0	0	38	72%
Eastern	5	804	52	0	0	0	0	0	52	16	0	0	0	16	31%	40	0	0	0	40	77%
Eastern	5	805	27	0	0	0	0	0	27	10	0	0	0	10	37%	21	0	0	0	21	78%
Eastern	5	806	0	0	0	0	134	0	134	0	0	0	40	40	30%	0	0	0	67	67	50%
Eastern	5	807	0	0	0	0	200	0	200	0	0	0	81	81	41%	0	0	0	131	131	66%
Eastern	5	808	60	0	0	0	0	0	60	18	0	0	0	18	30%	22	0	0	0	22	37%
Eastern	5	809	62	0	0	0	10	0	72	18	0	0	7	25	35%	46	0	0	9	55	76%
Eastern	5	810	14	0	0	0	0	0	14	6	0	0	0	6	43%	11	0	0	0	11	79%
Eastern	5	811	59	0	0	0	0	0	59	21	0	0	0	21	36%	45	0	0	0	45	76%
Eastern	5	812	38	0	0	0	0	0	38	15	0	0	0	15	39%	33	0	0	0	33	87%
Eastern	5	813	21	0	0	0	0	0	21	9	0	0	0	9	43%	14	0	0	0	14	67%
Eastern	5	814	17	0	0	0	50	0	67	7	0	0	10	17	25%	13	0	0	40	53	79%
Eastern	5	815	53	0	0	0	0	0	53	25	0	0	0	25	47%	45	0	0	0	45	85%
Eastern	5	816	0	7	0	0	39	0	46	0	3	0	8	11	24%	0	6	0	33	39	85%
Eastern	5	817	0	7	0	0	44	0	51	0	3	0	15	18	35%	0	5	0	37	42	82%
Eastern	5	818	13	0	0	0	0	0	13	4	0	0	0	4	31%	10	0	0	0	10	77%
Eastern	5	819	0	0	0	0	22	0	22	0	0	0	7	7	32%	0	0	0	16	16	73%
Eastern	5	820	0	33	0	0	219	6	258	0	12	0	91	103	40%	0	10	0	125	135	52%
Eastern Area 5 Total			**634**	**82**	**0**	**180**	**1441**	**6**	**2343**	**212**	**27**	**46**	**615**	**900**	**38%**	**432**	**29**	**37**	**824**	**1322**	**56%**
Eastern	6	701	68	0	0	0	35	0	103	14	0	0	11	25	24%	22	0	0	23	45	44%
Eastern	6	702	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	703	70	1	0	0	32	0	103	13	0	0	9	22	21%	28	1	0	19	48	47%
Eastern	6	704	62	0	0	0	36	0	98	10	0	0	9	19	19%	16	0	0	15	31	32%
Eastern	6	705	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	706	47	0	0	0	16	0	63	7	0	0	6	13	21%	0	0	0	0	0	0%
Eastern	6	707	44	0	0	0	21	0	65	6	0	0	7	13	20%	12	0	0	6	18	28%
Eastern	6	708	39	0	0	0	17	3	59	10	0	0	6	16	27%	15	0	0	8	23	39%
Eastern	6	709	33	6	0	0	19	3	61	9	0	0	6	15	25%	15	2	0	8	25	41%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Eastern	6	710	0	53	0	0	34	0	87	0	12	0	14	26	30%	0	21	0	25	46	53%
Eastern	6	711	0	20	0	0	11	0	31	0	7	0	8	15	48%	0	5	0	7	12	39%
Eastern	6	712	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	713	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	714	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	715	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	716	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	717	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	718	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	719	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	6	720	19	27	0	0	22	0	68	5	4	0	8	17	25%	8	14	0	17	39	57%
Eastern	6	721	37	2	0	0	28	3	70	7	0	0	8	15	21%	8	0	0	14	22	31%
Eastern	6	722	0	39	0	0	21	1	61	0	12	0	8	20	33%	0	17	0	12	29	48%
Eastern	6	821	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern Area 6 Total			**419**	**148**	**0**	**0**	**292**	**10**	**869**	**81**	**35**	**0**	**100**	**216**	**25%**	**124**	**60**	**0**	**154**	**338**	**39%**
Eastern	7	723	0	28	0	0	20	0	48	0	11	0	5	16	33%	0	19	0	11	30	63%
Eastern	7	724	0	34	0	0	14	0	48	0	13	0	5	18	38%	0	26	0	7	33	69%
Eastern	7	725	0	18	0	0	23	0	41	0	10	0	13	23	56%	0	12	0	22	34	83%
Eastern	7	726	11	0	0	0	70	0	81	3	0	0	45	48	59%	0	0	0	41	41	51%
Eastern	7	727	0	34	0	0	15	0	49	0	17	0	4	21	43%	0	28	0	9	37	76%
Eastern	7	728	0	27	0	0	20	0	47	0	16	0	12	28	60%	0	20	0	14	34	72%
Eastern	7	729	0	27	0	0	14	0	41	0	7	0	7	14	34%	0	12	0	11	23	56%
Eastern	7	730	18	5	0	0	25	0	48	1	1	0	9	11	23%	3	2	0	15	20	42%
Eastern	7	731	0	13	0	0	65	0	78	0	2	0	24	26	33%	0	1	0	39	40	51%
Eastern	7	732	11	20	0	0	7	0	38	3	5	0	4	12	32%	7	7	0	5	19	50%
Eastern	7	733	17	17	0	0	34	0	68	2	7	0	8	17	25%	2	7	0	16	25	37%
Eastern	7	734	82	0	0	0	64	2	148	7	0	0	16	23	16%	23	0	0	34	57	39%
Eastern	7	735	36	6	0	0	43	7	92	4	2	0	10	16	17%	7	0	0	19	26	28%
Eastern	7	736	0	21	0	0	36	0	57	0	9	0	7	16	28%	0	10	0	18	28	49%
Eastern	7	737	0	25	0	0	9	0	34	0	4	0	5	9	26%	0	6	0	6	12	35%
Eastern	7	738	19	21	0	0	21	1	62	6	7	0	8	21	34%	7	6	0	14	27	44%
Eastern	7	739	24	17	0	0	28	3	72	6	3	0	12	21	29%	10	6	0	14	30	42%
Eastern	7	740	29	13	0	0	24	4	70	2	2	0	10	14	20%	9	2	0	14	25	36%
Eastern	7	741	15	13	0	0	9	0	37	1	3	0	2	6	16%	3	4	0	3	10	27%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
Eastern	7	742	0	13	0	0	32	2	47	0	7	0	9	16	34%	0	8	0	17	25	53%
Eastern	7	743	9	17	0	0	18	1	45	1	2	0	13	16	36%	2	3	0	8	13	29%
Eastern	7	744	33	4	0	0	29	1	67	5	2	0	12	19	28%	6	0	0	14	20	30%
Eastern	7	745	0	6	0	0	2	0	8	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	7	746	0	8	0	0	12	0	20	0	0	0	0	0	0%	0	1	0	3	4	20%
Eastern	7	747	8	17	0	0	14	0	39	1	0	0	5	6	15%	0	0	0	2	2	5%
Eastern	7	748	0	7	0	0	12	2	21	0	0	0	6	6	29%	0	0	0	0	0	0%
Eastern	7	749	6	14	0	0	12	1	33	0	4	0	6	10	30%	0	2	0	1	3	9%
Eastern	7	750	0	6	0	0	12	1	19	0	0	0	0	0	0%	0	3	0	7	10	53%
Eastern	7	751	7	11	0	0	13	1	32	1	0	0	9	10	31%	1	1	0	9	11	34%
Eastern	7	752	0	10	0	0	3	0	13	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern	7	753	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
Eastern Area 7 Total			**325**	**452**	**0**	**0**	**700**	**26**	**1503**	**43**	**134**	**0**	**266**	**443**	**29%**	**80**	**186**	**0**	**373**	**639**	**43%**
Eastern Region Total			**2353**	**2500**	**0**	**209**	**4336**	**43**	**9441**	**666**	**638**	**50**	**1824**	**3178**	**34%**	**835**	**741**	**39**	**2005**	**3620**	**38%**
North Eastern	1	1001	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	1	1002	0	0	0	0	107	0	107	0	0	0	32	32	30%	0	0	0	17	17	16%
North Eastern	1	1003	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	1	1004	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	1	507	32	3	0	60	10	59	164	11	0	12	10	33	20%	14	2	31	0	47	29%
North Eastern	1	508	10	0	0	112	5	0	127	5	0	53	2	60	47%	5	0	60	2	67	53%
North Eastern	1	527	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	1	528	11	0	0	121	0	0	132	16	0	52	0	68	52%	1	0	41	0	42	32%
North Eastern	1	534	0	0	0	0	0	0	0	0	0	0	34	34	0%	0	0	0	0	0	0%
North Eastern	1	535	0	0	0	0	41	0	41	0	0	0	13	13	32%	0	0	0	0	0	0%
North Eastern	1	536	0	27	0	0	19	0	46	0	0	0	0	0	0%	0	20	0	17	37	80%
North Eastern	1	537	0	0	0	98	0	0	98	0	0	0	0	0	0%	0	0	42	0	42	43%
North Eastern	1	538	12	7	0	21	10	1	51	15	2	0	0	17	33%	8	2	15	5	30	59%
North Eastern	1	544	7	9	0	0	1	0	17	6	3	0	0	9	53%	7	3	0	1	11	65%
North Eastern Area 1 Total			**72**	**46**	**0**	**412**	**193**	**60**	**783**	**53**	**5**	**117**	**91**	**266**	**34%**	**35**	**27**	**189**	**42**	**293**	**37%**
North Eastern	3	1017	0	0	0	158	0	0	158	0	0	103	0	103	65%	0	0	110	0	110	70%
North Eastern	3	1018	0	0	0	620	0	0	620	0	0	235	0	235	38%	0	0	305	0	305	49%
North Eastern	3	1019	25	0	0	48	6	0	79	9	0	18	2	29	37%	3	0	5	5	13	16%
North Eastern	3	1020	0	0	0	0	144	0	144	0	0	0	44	44	31%	0	0	0	33	33	23%
North Eastern	3	1021	0	16	0	0	52	0	68	0	6	0	0	6	9%	0	3	0	20	23	34%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
North Eastern	3	1022	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	3	1023	0	13	0	0	15	0	28	0	4	0	7	11	39%	0	7	0	10	17	61%
North Eastern	3	1024	0	15	0	0	55	23	93	0	4	0	14	18	19%	0	2	0	28	30	32%
North Eastern	3	1026	0	6	0	0	0	0	6	0	2	0	0	2	33%	0	2	0	0	2	33%
North Eastern	3	1029	0	21	0	0	18	0	39	0	7	0	4	11	28%	0	8	0	7	15	38%
North Eastern	3	1031	0	20	0	0	88	0	108	0	11	0	4	15	14%	0	10	0	21	31	29%
North Eastern Area 3 Total			**25**	**91**	**0**	**826**	**378**	**23**	**1343**	**9**	**34**	**356**	**75**	**474**	**35%**	**3**	**32**	**420**	**124**	**579**	**43%**
North Eastern	4	1032	294	0	0	140	0	0	434	0	0	42	0	42	10%	70	0	47	0	117	27%
North Eastern	4	1033	0	30	0	0	10	0	40	0	1	0	3	4	10%	0	7	0	9	16	40%
North Eastern	4	1034	0	42	0	0	16	0	58	0	12	0	4	16	28%	0	23	0	12	35	60%
North Eastern	4	1035	0	33	0	0	20	0	53	0	14	0	4	18	34%	0	11	0	8	19	36%
North Eastern	4	1036	0	26	0	0	218	0	244	0	9	0	3	12	5%	0	8	0	37	45	18%
North Eastern	4	1037	0	24	0	0	20	0	44	0	8	0	4	12	27%	0	6	0	11	17	39%
North Eastern	4	1038	0	38	0	0	23	0	61	0	9	0	9	18	30%	0	11	0	17	28	46%
North Eastern	4	1039	0	17	0	0	12	0	29	0	0	0	3	3	10%	0	2	0	6	8	28%
North Eastern	4	1040	0	16	0	0	11	0	27	0	3	0	4	7	26%	0	1	0	5	6	22%
North Eastern	4	1041	0	0	0	0	241	0	241	0	0	0	86	86	36%	0	0	0	70	70	29%
North Eastern	4	1042	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	4	1043	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	4	1044	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	4	1045	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	4	1046	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	4	754	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	4	755	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern Area 4 Total			**294**	**226**	**0**	**140**	**571**	**0**	**1231**	**0**	**56**	**42**	**120**	**218**	**18%**	**70**	**69**	**47**	**175**	**361**	**29%**
North Eastern	5	1005	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
North Eastern	5	1006	0	0	0	0	109	68	177	0	0	0	40	40	23%	0	0	0	59	59	33%
North Eastern	5	1007	0	0	0	99	0	0	99	0	0	51	0	51	52%	0	0	49	0	49	49%
North Eastern	5	1008	0	0	0	130	0	0	130	0	0	57	0	57	44%	0	0	52	0	52	40%
North Eastern	5	1009	0	0	0	38	0	0	38	0	0	0	0	0	0%	0	0	9	0	9	24%
North Eastern	5	1010	168	0	0	541	0	0	709	89	0	257	0	346	49%	56	0	314	0	370	52%
North Eastern	5	1011	0	0	0	566	0	0	566	0	0	299	0	299	53%	0	0	334	0	334	59%
North Eastern	5	1012	0	0	0	0	115	0	115	0	0	0	63	63	55%	0	0	0	34	34	30%
North Eastern	5	1013	0	0	0	89	0	0	89	0	0	58	0	58	65%	0	0	49	0	49	55%

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Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
North Eastern	5	1014	7	0	0	3	120	0	130	5	0	0	59	64	49%	1	0	0	35	36	28%
North Eastern	5	1015	0	0	0	0	87	0	87	0	0	0	17	17	20%	0	0	0	18	18	21%
North Eastern	5	1016	0	0	0	0	87	0	87	0	0	0	24	24	28%	0	0	0	13	13	15%
North Eastern Area 5 Total			**175**	**0**	**0**	**1466**	**518**	**68**	**2227**	**94**	**0**	**722**	**203**	**1019**	**46%**	**57**	**0**	**807**	**159**	**1023**	**46%**
North Eastern	6	1025	0	24	0	0	7	0	31	0	8	0	1	9	29%	0	8	0	4	12	39%
North Eastern	6	1027	0	13	0	0	5	0	18	0	7	0	1	8	44%	0	5	0	1	6	33%
North Eastern	6	1028	0	24	0	0	7	0	31	0	7	0	1	8	26%	0	13	0	6	19	61%
North Eastern	6	1030	0	26	0	0	13	0	39	0	12	0	5	17	44%	0	11	0	5	16	41%
North Eastern Area 6 Total			**0**	**87**	**0**	**0**	**32**	**0**	**119**	**0**	**34**	**0**	**8**	**42**	**35%**	**0**	**37**	**0**	**16**	**53**	**45%**
North Eastern Region Total			**566**	**450**	**0**	**2844**	**1692**	**151**	**5703**	**156**	**129**	**1237**	**497**	**2019**	**35%**	**165**	**165**	**1463**	**516**	**2309**	**40%**
South Eastern	1	1066	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
South Eastern	1	1067	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
South Eastern	1	1068	59	0	0	0	0	0	59	42	0	0	0	42	71%	59	0	0	0	59	100%
South Eastern	1	1069	0	0	0	0	197	0	197	0	0	0	64	64	32%	0	0	0	83	83	42%
South Eastern	1	1070	0	0	0	0	82	0	82	0	0	0	72	72	88%	0	0	0	82	82	100%
South Eastern	1	1071	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
South Eastern Area 1 Total			**59**	**0**	**0**	**0**	**279**	**0**	**338**	**42**	**0**	**0**	**136**	**178**	**53%**	**59**	**0**	**0**	**165**	**224**	**66%**
South Eastern	2	1063	0	0	0	510	0	0	510	0	0	253	0	253	50%	0	0	273	0	273	54%
South Eastern	2	1064	0	0	0	42	0	0	42	0	0	7	0	7	17%	0	0	17	0	17	40%
South Eastern	2	1065	272	0	0	0	0	0	272	51	0	0	0	51	19%	45	0	0	0	45	17%
South Eastern Area 2 Total			**272**	**0**	**0**	**552**	**0**	**0**	**824**	**51**	**0**	**260**	**0**	**311**	**38%**	**45**	**0**	**290**	**0**	**335**	**41%**
South Eastern	3	1047	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
South Eastern	3	1048	0	0	0	0	10	0	10	0	0	0	0	0	0%	0	0	0	0	0	0%
South Eastern	3	1049	0	0	0	0	10	0	10	0	0	0	3	3	30%	0	0	0	3	3	30%
South Eastern	3	1050	0	0	0	0	250	0	250	0	0	0	35	35	14%	0	0	0	58	58	23%
South Eastern	3	1051	0	0	0	0	337	0	337	0	0	0	169	169	50%	0	0	0	247	247	73%
South Eastern	3	1055	0	0	0	0	117	0	117	0	0	0	77	77	66%	0	0	0	72	72	62%
South Eastern	3	1056	0	52	0	0	0	0	52	0	24	0	0	24	46%	0	0	0	0	0	0%
South Eastern	3	1057	37	0	0	0	0	0	37	17	0	0	0	17	46%	23	0	0	0	23	62%
South Eastern	3	1058	0	7	0	0	0	0	7	0	7	0	0	7	100%	0	0	0	0	0	0%
South Eastern	3	1059	0	0	0	0	119	0	119	0	0	0	52	52	44%	0	0	0	37	37	31%
South Eastern	3	1060	0	0	0	0	106	0	106	0	0	0	25	25	24%	0	0	0	28	28	26%
South Eastern	3	1061	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0%
South Eastern	3	1062	0	0	0	0	76	0	76	0	0	0	42	42	55%	0	0	0	43	43	57%

Kisinger Campo and Associates, Corperation
Tindale Oliver and Associates, Inc.

City of Key West
Parking Conditions Survey, 1995

Parking Location			Inventory							Weekday Demand						Weekend Demand					
			On Street			Off - Street				On Street		Off - Street				On Street		Off - Street			
Region	Area	Block	Formal	Informal	Metered	Public	Private	Garage	Total	Formal	Informal	Public	Private	Total	Utilization	Formal	Informal	Public	Private	Total	Utilization
South Eastern Area 3 Total			37	59	0	0	1025	0	1121	17	31	0	403	451	40%	23	0	0	488	511	46%
South Eastern Region Total			368	59	0	552	1304	0	2283	110	31	260	539	940	41%	127	0	290	653	1070	47%

Notes:

APPENDIX B

TRANSIT OPERATIONAL PLAN FOR THE KEY WEST PARK-N-RIDE PROJECT

TRANSIT OPERATIONAL PLAN
FOR THE KEY WEST PARK-N-RIDE PROJECT

INTRODUCTION

The purpose of this analysis is to perform a review of plans for the proposed transit shuttle service from the Grinnell/Caroline parking facility to the Old Town area. This review includes refining the operating plan and costs for the proposed shuttle service and recommends coordination of its service and fares with existing Key West Department of Transportation (KWDOT) routes, and between KWDOT routes and private tour shuttles. In addition, operational considerations are reassessed to enhance the attractiveness of the system, and to coordinate the shuttle service with the parking study conducted by Tindale-Oliver and Associates.

The recommendations provided in this report characterize a park-n-ride shuttle service that is believed to have the greatest probability for success. However, it is extremely important to monitor the service closely in the days, weeks, and months following implementation in order to adjust and adapt to actual public response to the service.

This section begins with an overview of the park-n-ride project, including a summary of the original grant application and description of the efforts undertaken to review and refine the operational and financial plan for the park-n-ride service. This is followed by a discussion of each of the operational issues associated with the implementation of the service. Recommendations are made concerning each of these operational issues. Financial issues also are addressed, including recommendations regarding the fare/parking rate structure and the development of cost and revenue estimates associated with operating the service.

OVERVIEW OF PROJECT

Existing Grant Application

Parking has been considered a problem in the Old Town area of Key West for some time due to cost and short supply. It is believed that this problem is detrimental to downtown business activity and

results in difficulty for employers to attract and retain lower income service workers. One response to this problem was the construction of a multi-level parking garage just outside the Old Town area to intercept tourists and employees and shuttle them to their destinations in Old Town through some other form of transportation, including bus, bicycle, or walking. Specific benefits of such a project were identified in the grant application and are summarized below:

Parking Benefits and Congestion Relief - Automobile traffic destined for Old Town can be intercepted at the parking facility, relieving the parking shortage in Old Town and reducing traffic congestion throughout the Old Town area. In addition, the availability of parking spaces will likely increase for residents of adjacent neighborhoods.

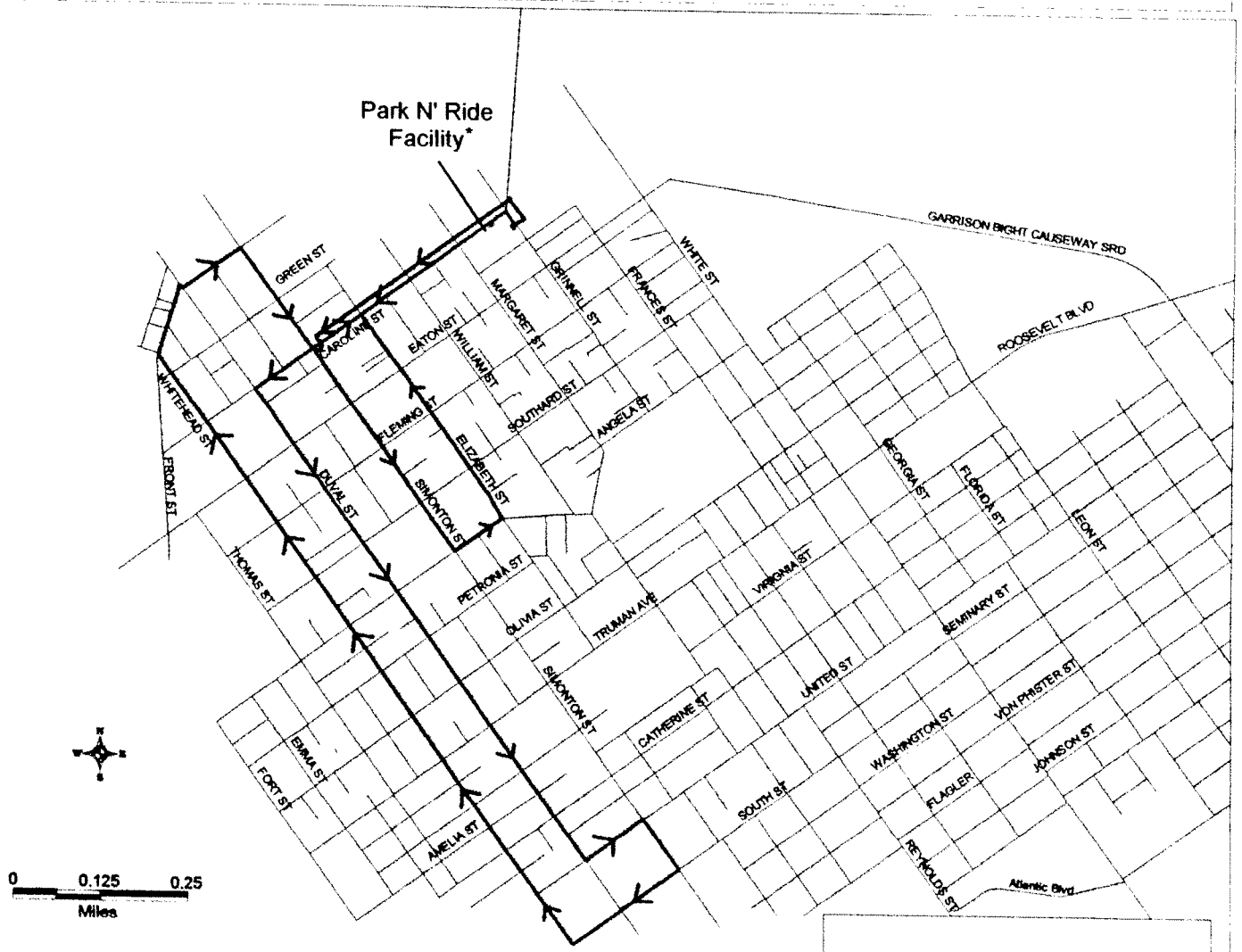
Housing Benefits - The cost of new single-family housing up the Keys is about two-thirds the cost in New Town and less than one-half the cost in Old Town. The park-n-ride facility will help link potential employees in the center of Key West, providing access for workers who could not otherwise afford to live in the city, or pay high parking charges in the Old Town area.

A 300-space, 3-story park-n-ride facility is being constructed at the intersection of Grinnell and Caroline Streets, across from the City Electric Key West plant. Shuttle service from the parking facility to destinations in the Old Town area is currently planned. Figure 1 illustrates the location of the park-n-ride facility, as well as the shuttle route proposed in the grant application. Operational and financial characteristics of the park-n-ride shuttle service as proposed in the original grant application are provided below:

Shuttle Route - As indicated in Figure 1, the shuttle route begins at the Grinnell/Caroline Street park-n-ride facility, proceeds South down Caroline Street to Duval Street, then Southeast on Duval to South Street, then South on South Street to Whitehead Street, then Northwest on Whitehead Street to Front Street, then North on Front Street to Simonton Street, then Southeast on Simonton Street to Caroline Street, then North on Caroline Street back to the parking garage.

Hours of Service - Service would be provided daily from 7:00 a.m. to 10:00 p.m., 365 days a year.

Figure 1
Location of Park N' Ride Facility and Proposed Shuttle Route



* Shuttle Route begins at the Caroline St. exit from the Park N' Ride Facility and ends at the Grinnell St. entrance to the facility.

Headways - Shuttle service would be available on a 20-minute headway daily, including Saturdays and Sundays.

Bus Stops/Signage - No information on bus stops or signage for the shuttle route was provided in the original grant application.

Access Routes/Signage - Most potential users of the park-n-ride facility will approach Key West from the northeast, traveling south on U.S. 1 (Roosevelt Boulevard). At the corner of U.S. 1 and Palm Avenue, prominent signs are planned to direct travelers to the park-n-ride facility. Additional signage (4' x 8' signs) also is currently planned at Stock Island and Boca Chica as travelers proceed south toward Key West.

Vehicles - The original grant application indicates a total fleet size and peak-hour vehicle requirement of three. The original plan was to purchase three 16-passenger alternative fuel buses for this new service that would be owned and operated by the Key West Transit Authority.

Coordination With Other Transit Services - The park-n-ride facility also will be served by existing public transit service, The Conch Loop, and by the privately-operated transit service, The Conch Trolley. Although not an integral part of the park-n-ride project, these additional transit services do provide additional connectivity throughout Key West.

Staffing - The original grant application identifies the following staffing needs:

- 2 full-time drivers (260 days per year)
- 1 full-time driver (105 days per year)
- 2 part-time driver (260 days per year)
- 1 part-time driver (105 days per year)
- 2 full-time informational clerks/attendants (260 days per year)
- 1 part-time informational clerk/attendant (365 days per year)

Marketing -The original grant application indicates that a marketing program will be undertaken and will include a kiosk located at the Grinnell/Caroline Street parking facility operated by the Tourist

Development Council during the tourist seasons. The program also will include handouts at hotels/motels and other tourist attractions, directional signs to the parking facility, and media coverage in Marathon and Miami. The new service also will be advertised over the radio broadcasting station owned and operated by the City of Key West.

Fare/Parking Rate Structure - Shuttle service patrons would be assessed an hourly parking fee of $1.50 with a maximum of $6.00 per day. In addition, a monthly parking pass could be acquired for $60. Users of the parking facility can then use the shuttle service for free. The original grant application also included an inducement to use transit by assessing a surcharge on those who park in the facility but do not use the shuttle service. The surcharge would be $0.25 per hour, or and additional $1.50 per day, increasing the daily maximum to $7.50. The surcharge would be imposed on facility users who do not present a validated transit ticket.

Revenues - Revenues from parking charges and kiosk/advertising are estimated at $312,000 per year.

Costs - Annual operating costs of the shuttle service are estimated at $224,047, while the capital cost of three 16-passenger transit vehicles is estimated at $70,000 each, or a total of $210,000.

Review Process

During the month of February, CUTR and Tindale-Oliver personnel reviewed the existing park-n-ride Project grant application, and conducted a site visit to interview relevant personnel and to visually inspect the facility and proposed shuttle routing. Over a two day period the team met with Raymond Archer (Director of the City of Key West DOT) and Ben Gibson (KWDOT), as well as Paul Cates (Assistant City Manager) to discuss the existing operational plan, as well as suggested revisions to the original operational plan.

The team drove the proposed route to analyze travel time, turning movements, and stop locations, as they relate to the overall feasibility of the routing. This analysis was performed during the a.m., midday, and p.m. peaks of the day to observe time of day traffic patterns and volumes. The team also drove the service area entering from different access points to the Old Town area, so as to develop a signage plan for directing individuals to the park-n-ride facility.

Based on the original grant application and the site visit, including the interviews and detailed analysis of the currently proposed park-n-ride shuttle service, an operational plan was prepared that is believed to have the greatest probability for the successful implementation of a park-n-ride service from the parking facility to destinations in the Old Town area. Each of the specific operational and financial issues is discussed in the remainder of this report, including specific recommendations regarding how each of the respective issues should be addressed as part of the implementation process. The recommendations are summarized at the conclusion of this document.

OPERATIONAL ISSUES

This section presents an analysis of the operational plan that was included in the original grant application. Each of the issues identified in the grant application summary is addressed in this section. Additional issues are identified and discussed as appropriate. Recommendations are made regarding how the operational plan should be revised to increase the likelihood of a successful park-n-ride program.

Shuttle Routes

The currently proposed park-n-ride shuttle route is presented again in Figure 2. The shuttle route measures 3.3 miles from the origin at the exit of the parking facility on to Caroline Street to the entrance of the parking facility on Grinnell Street. Upon testing the route proposed in the original grant application for travel time and service area, and reviewing potential alternative routing scenarios, it is determined that the shuttle route, as originally proposed, adequately serves the Old Town area. Nearly every activity center in the Old Town area is directly served by this route, including restaurants, retail shopping, hotels, motels, night life, employment destinations, and Mallory Square, among others.

In addition to the shuttle route described above, it is recommended that an "employee shuttle express" route also be implemented. This route would operate only in the a.m. and p.m. peak periods as a direct shuttle for employees parked at the garage. As shown in Figure 2, the recommended routing for this service is north out of the garage onto Caroline Street, left on Simonton, left on Angela, left on Elizabeth Street, right on Caroline and back to the garage. The

purpose of this shortened routing is to eliminate the long travel times for the majority of monthly parkers who work in the Old Town area. With the shortened route, headways can also be shortened, increasing the amount of transit service to the workers.

As more employees begin to use the express service, the route can be adjusted to more directly serve the majority of riders. Care must be taken not to extend the route so far as to eliminate the express nature of the service.

Hours and Days of Service

The original operational plan included the operation of park-n-ride shuttle service from 7:00 a.m. to 10:00 p.m., 365 days a year. In order to adequately serve both persons working in the Old Town area, and to serve tourists with a high propensity for nightlife, it is recommended that the hours of service be extended from 6:30 a.m. to 12:00 midnight, 365 days a year. These times also correspond to the manned operation of the garage. The employee shuttle would only operate on weekdays, 255 days per year.

Estimated Ridership

The grant application projects garage usage of 67 percent occupancy of 150 daily spaces (which equates to 100 cars), 100 long term monthly parking spaces, and the set aside of 50 parking spaces for use by employees of the City of Key West Electric Plant. Subtracting the 50 set aside spaces, approximately 250 potential garage parkers are available for use of the park-n-ride shuttle. It can be assumed that all of the monthly parkers will use the shuttle to travel to their work destination in the Old Town area. Note that this assumes the City of Key West designates one hundred City employees who currently use other City of Key West parking facilities, to use the park-n-ride garage and shuttle. Based on the observation of travel patterns, and the close proximity of the garage to the Old Town area, approximately 75 percent of the daily parking garage users are estimated to use the shuttle for their trip into Old Town, with the remaining 25 percent making their trip by walking or bicycling (rental bicycles will be available at the garage), or may board one of the two privately operated tour buses.

The assumed occupancy of the vehicles parking in the garage is 1.2 persons for each of the monthly parkers, and 2.5 persons for each of the daily parkers. This is based on the likelihood that the monthly users are primarily one person per vehicle work trips, and that the remaining daily parkers are higher occupancy tourist/recreational trips. As shown in Table 1, this would equate to 308 persons boarding the shuttles daily from the parking garage. Assuming all riders boarding at the garage make a return trip, the total daily ridership on the shuttles is estimated to be 616 riders. Two hundred of the 616 riders will be weekday only, representing the monthly parkers using the employee express shuttle. Note that additional trips may be made throughout the day by non-garage users wishing to traverse the entire length of the corridor, as well as garage users making additional trips during the day. The non-garage users are estimated at 50 per day, resulting in a total estimated daily passenger trips of 666.

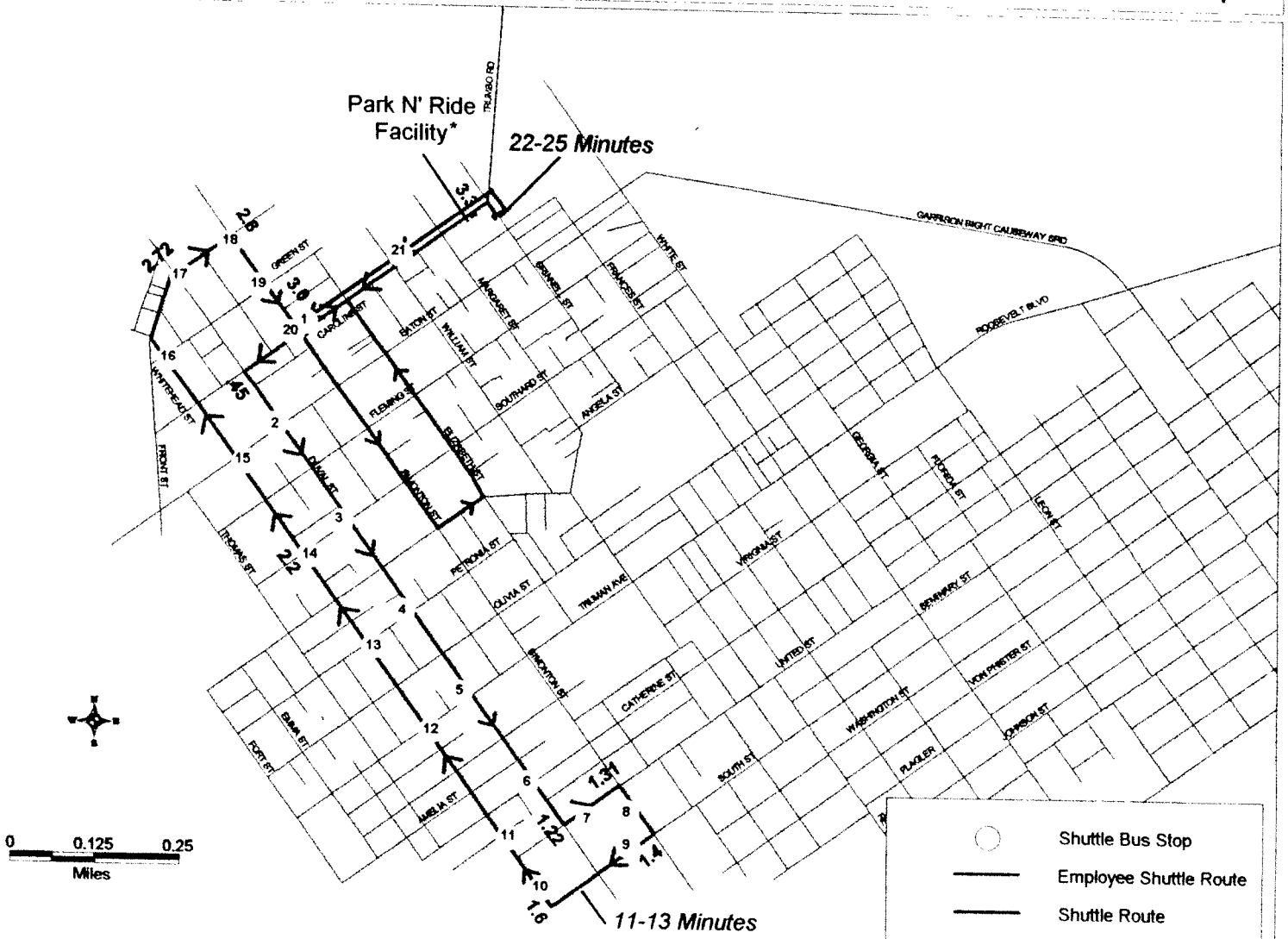
Table 1
Projected Shuttle Usage

Type of User	Utilization of Parking Spaces	Avg. Veh. Occupancy	Potential Shuttle Users	% Shuttle Users	Total Shuttle Users	Total Passenger Trips
Daily	100	2.5	250	75.00%	188	376
Monthly	100	1.2	120	100.00%	120	240
Non-garage user	NA	NA	NA	NA	50	50
TOTAL	200	1.85	370	NA	358	666

Headways

The operational plan in the grant application called for 20 minute service at all times of the day. As shown in Figure 2, the roundtrip travel time of the shuttle route is approximately 22 to 25 minutes depending upon the time of day. With driver layover, and the need to account for unexpected delays, a reasonable total travel time for one roundtrip is 30 minutes. This would equate to 30 minute headways operating with one bus, 15 minute headways with two buses, and 7.5 minute headways with three buses in service. The roundtrip travel time for the employee shuttle express route is estimated to be 10 minutes.

Figure 2
Proposed Shuttle Route with Mileage Markers, Time Points, and Shuttle Bus Stops



* Shuttle Route begins at the Caroline St. exit from the Park N' Ride Facility and ends at the Grinnell St. entrance to the facility.

Based on the above ridership estimates, the driving factor for the development of an adequate headway is the number of peak a.m. and p.m. work trip riders. This is due to the fact that workers have a compressed start and end time period for their work day. If workers are allowed to start between 7:30 a.m. and 9:00 a.m., and end their shift between 4:30 p.m. and 6:00 p.m., this would equate to 100 riders in a 90 minute time period. These factors necessitated the development of the employee shuttle express route. Based on a headway of 10 minutes, nine bus trips could be made in the 90 minute time period. With a capacity of 16 seated and two standing persons per vehicle, a 10 minute headway could easily accommodate the 100 riders in the a.m. and p.m. peaks. This alternative is a realistic approach to how workers could use flextime as an option.

It is recommended that a 15 minute headway be operated during the 10:00 a.m. to 6:00 p.m. time period for the regular shuttle route, as shown in Table 2. This eight hour peak time period will shift with the seasonal changes, and with the time of sundown, which is a major tourist draw in the Old Town area. Thirty minute headways will be provided in the early a.m. and later p.m. off peaks periods.

Table 2
Proposed Headways for Shuttle Services

	6:30-7 a.m.	7-8:30 a.m.	8:30-10 a.m.	10 a.m.-4:30 p.m.	4:30-6:00 p.m.	6-12 midnight
Shuttle	30	30	30	15	15	30
Employee Shuttle Express	NA	10	NA	NA	10	NA

Bus Stops/Signage

As the shuttle route was test driven numerous times, the location of bus stops was reviewed and considered, keeping in mind a number of important issues, including safety, location of traffic lights, and the KWDOT transit stop policy (nearside, farside, midblock). A series of stops is recommended as illustrated in Figure 2. Note that no signed stops are recommended for the employee shuttle express route, as this may confuse the casual user. To the extent possible, the KWDOT transit stop

policy was followed by placing stops at the nearside (before) of the intersection. In addition, the stops also were located next to traffic lights whenever possible to minimize unnecessary delays at unsignalized intersections. Due to relatively high pedestrian volumes in the Old Town area, especially in the peak time period, it may be confusing for bus drivers to know which stops have actual patrons needing to board. This constant stopping at each stop can add significantly to the total travel time of the trip. Therefore, in marketing the service to potential patrons, they should be told to board buses only at designated stops, and to flag down (signal) the driver to stop. Route schedules, maps, and other promotional materials must emphasize the concept of flag stops in order to educate potential users. Initial review of the stop locations might lead one to believe that too many stops are included in the plan. However, the research team believes that frequent stops are necessary to provide the convenience needed for a successful shuttle service. It is important to recognize that a shuttle bus will not stop at all of the locations every time a run is made, but only at those stops where patrons are flagging the driver down. Designated stops are listed below in order along the shuttle route, with the number coinciding with the designated stop number presented in Figure 2.

1 Nearside of Caroline Street and William Street
2 Nearside of Caroline Street and Simonton Street
3 Nearside of Duval Street and Eaton Street
4 Nearside of Duval Street and Southard Street
5 Nearside of Duval Street and Petronia Street
6 Nearside of Duval Street and Truman Avenue
7 Nearside of Duval Street and Catherine Street
8 After left turn from Duval Street on to United Street
9 After right turn from United Street on to Simonton Street
10 After right turn from Simonton Street on to South Street
11 After right turn from South Street on to Whitehead Street
12 Nearside of Whitehead Street and Louisa Street
13 Nearside of Whitehead Street and Truman Avenue
14 Nearside of Whitehead Street and Petronia Street
15 Nearside of Whitehead Street and Southard Street
16 Nearside of Whitehead Street and Eaton Street

17 Nearside of Whitehead Street and Green Street
18 Farside of Front Street and Duval Street
19 Nearside of Front Street and Simonton Street
20 Nearside of Simonton Street and Green Street
21 Nearside of Simonton Street and Caroline Street
22 Nearside of Caroline Street and William Street

Access Routes/Signage

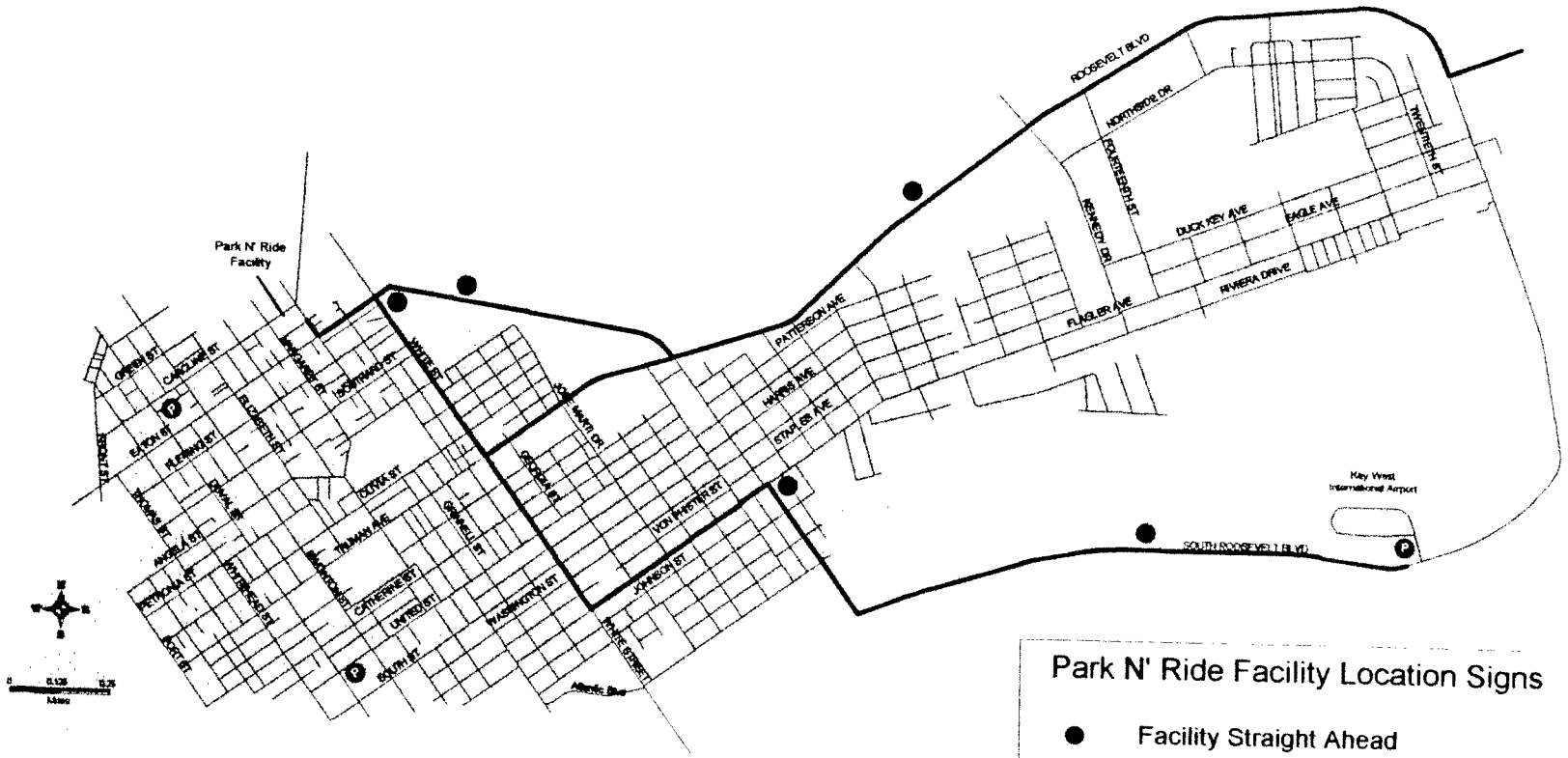
Access to the parking garage also was analyzed by driving to the garage from various directions into and throughout Key West. As shown in Figure 3, three primary access routes were identified, including:

- Access from east to west starting at US 1, travelling along Roosevelt to a right on Garrison Bight, left on Eaton, and right on Grinnell to the garage.
- Similar to previous access except traveler continues west on Roosevelt into Truman, right on White Street, left on Eaton, right on Grinnell to the garage.
- From the southeast and the Airport/rental cars/beaches, South Roosevelt, right on Bertha, left on Flagler, right on White, left on Eaton, right on Grinnell to the garage.

As shown in Figure 3, a total of 11 signs would be placed on the island, strategically located along the three access routes to direct travelers to the garage. The signs are placed at all turns in the access routes. It is believed that the majority of travel to the garage will be by way of access along Roosevelt to Garrison Bight.

In addition, it is recommended that three informational signs be placed at both ends of the shuttle route (Duval and Caroline Streets, Duval and Union Streets) and at the airport exit detailing the location of the garage. These signs would aid in directing drivers who unsuccessfully attempted to park in the Old Town area, and to inform newly arrived visitors exiting the airport.

Figure 3
Access Routes and Parking Facility Signs



Vehicles

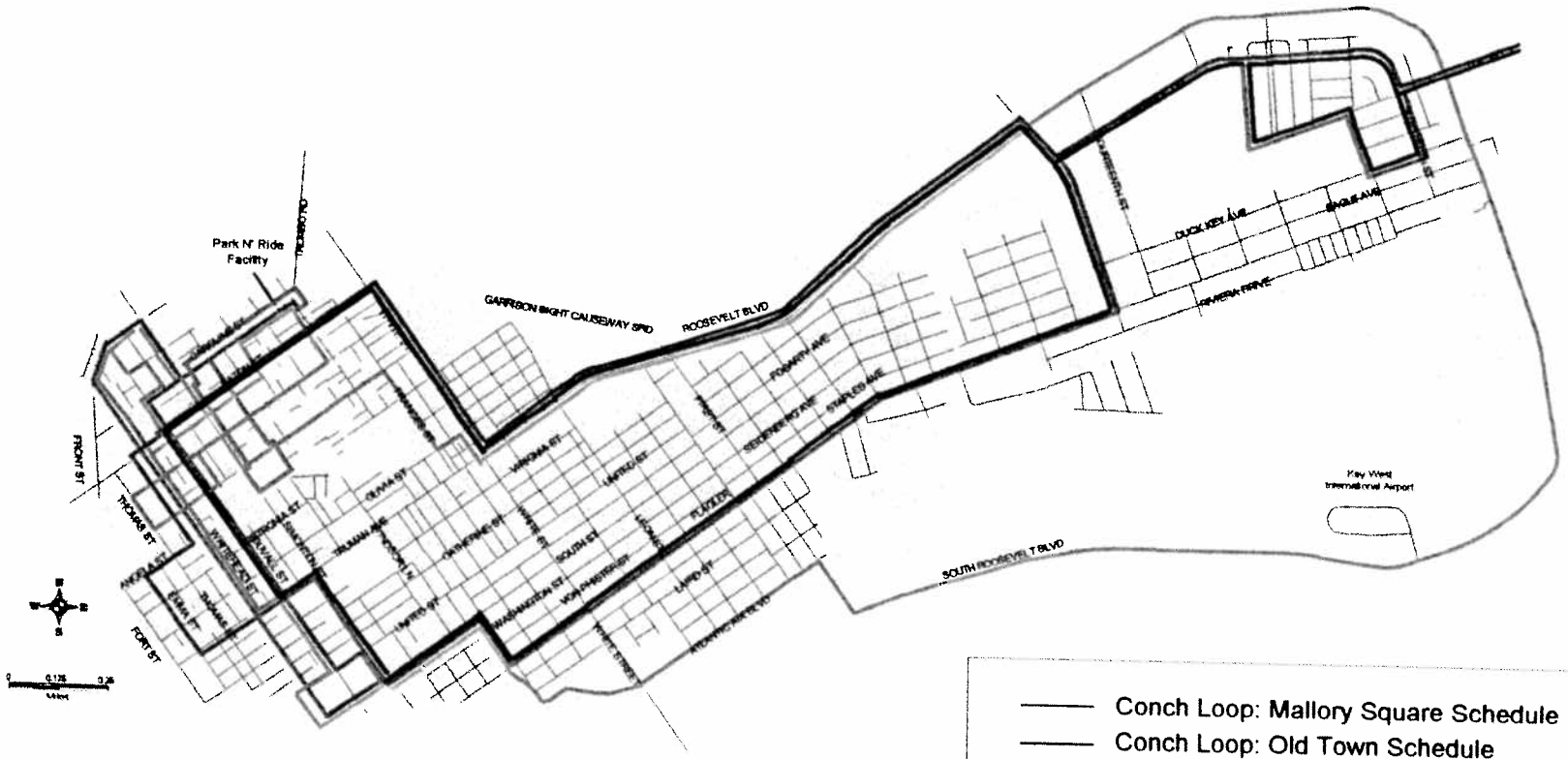
KWDOT currently operates nine 16-passenger buses fueled by liquid propane. The current two KWDOT loop routes require four buses in the peak period and two in the off peak. The original grant application requested the purchase of three new 16-passenger liquid propane buses similar to those in service. Based on the previously recommended headways (see Table 2) for the two proposed shuttle routes, two buses would be required in the a.m. peak period (7:30 - 8:30 am.) to operate at a 30 minute headway on the shuttle, and a 10 minute headway on the employee express shuttle. Three buses would be required in the p.m. peak period (4:30 - 6:00 p.m.) in order to operate a 15 minute headway on the shuttle, and a 10 minute headway on the employee express shuttle. Only one bus would need to be in service in the off-peak to operate thirty minute service. This would increase the KWDOT peak vehicle requirement to seven buses in the p.m. peak, and three buses in the off peak. The spare ratio of two buses is within normal system guidelines. If patronage is much greater than anticipated and a continuous peak load factor problem occurs, it may become necessary to operate at a 7.5 minute headway throughout the day. This would require the continuous use of a third vehicle and may result in the need to purchase an additional vehicle to maintain an adequate spare ratio. It is therefore recommended that KWDOT operate the proposed service using vehicles currently in the existing fleet.

However, in order to market the shuttle service, it is recommended that KWDOT paint two buses with a easily recognized marketing scheme. A third bus can maintain the existing fleet colors, but would require a magnetic decal(s) to properly market the service when one of the two painted buses is undergoing unscheduled service, or during the p.m. peak period when three buses are in service.

Coordination With Other Transit Services

As shown in Figure 4, there are currently four other routes serving the Old Town area, including two routes associated with the regular public transit service, the Conch Loop, and a single route for both the Conch Tour Train and the Old Town Trolley. Each of these transit services is described briefly below.

Figure 4
Key West Transit Systems



Conch Loop - The Conch Loop operated by KWDOT includes two loop routes operating in a clockwise (Old Town Route) and counterclockwise (Mallory Square Route) direction serving the North side of the island with service into the Old Town area. Service operates between 6:35 a.m. and 10:35 p.m. (Monday-Sunday) for the Mallory Square route, and between 6:05 a.m. and 6:05 p.m. (Monday-Saturday), 9:05 a.m. to 6:05 p.m. (Sunday) for the Old Town route. Both routes operate 30 minute service except for the Sunday service on the Old Town route which operates hourly.

Conch Tour Train - The Conch Tour Train provides a guided tour of Key West on open-air trains. Approximately 100 points of interest and major sites are part of the tour, including the Hemingway House, Old Town, and the Southernmost Point, among others. Tours depart every 30 minutes from depots located at Front and Duval Street in Old Town and The Key West Welcome Center on N. Roosevelt Blvd.

Old Town Trolley - The Old Town Trolley also provides tours of the City of Key West. A fully narrated, 90-minute tour of the island, the Trolley tours also highlight over 100 points of interest over an 18-mile route. Unlike the Conch Tour Train, the Trolley includes 14 stops throughout the island, where riders can access and egress the Trolley throughout the day for one price. The 14 stops include:

- Mallory Square
- Key West Hand Print Fashions and Fabrics (corner of Simonton and Greene Streets)
- Holiday Inn La Concha (401 Duval Street)
- Angela Street Depot (corner of Angela and Duval Street)
- Trolley Carbarn (1910 N. Roosevelt Blvd.)
- Fairfield Inn (2200 N. Roosevelt Blvd.)
- Ramada Inn (3420 N. Roosevelt Blvd.)
- Econolodge (3820 N. Roosevelt Blvd.)
- Key West Welcome Center (3840 N. Roosevelt Blvd.)
- Key Ambassador (3755 S. Roosevelt Blvd.)
- East Martello Fort Museum (3501 S. Roosevelt Blvd.)
- Sheraton Suites Key West (S. Roosevelt Blvd.)

- Casa Marina Resort (1500 Reynold Street)
- Why Not? Rentals (corner of South and Simonton Streets)

Coordination - Both of the Conch Loop routes operate within two blocks of the parking garage. It is not envisioned that parkers at the garage would use the two KWDOT routes very often; therefore, it is recommended that the routes not be deviated from their current routing to directly serve the garage. However, Conch Loop information should be available at the garage to inform potential patrons of its availability nearby, as well as where it travels throughout the City..

It is recommended that the City of Key West coordinate with the private tour trains to include potential stops at the parking facility. This is particularly true for the Old Town Trolley which already includes 14 stops throughout Key West.

Staffing

To provide the shuttle service previously recommended, and as shown in Table 2, four and one-half full time equivalent (FTE) bus operators and one full time mechanic helper will need to be hired. The employee express shuttle will require an additional 0.5 FTE which can be filled by a current part- time operator.

Other Amenities

While the garage is intended to primarily serve the auto user transferring to a shuttle bus, other amenities and services should be added to the facility, including bicycle lockers, bicycle rental, sale of tour train tickets, vending machines, and tourist information/kiosk, among others.

Marketing and Customer Information

A formal marketing and customer information plan will be of critical importance for increasing the potential for a successful park-n-ride service. Potential marketing and customer information opportunities that should be explored for inclusion in this plan include the following:

- the development of a "catchy" name, slogan, and logo that will assist in making the service easily recognizable;

- design the service so that it will be remembered as part of the Key West experience, including colorful buses, special uniforms for drivers that would be associated with Key West, the use of commemorative tokens that could be taken home as souvenirs, and other unique service characteristics;

- the development of a shuttle map and schedule that is visually appealing and easy to understand; note that the employee shuttle express route should be marketed separately so as not to confuse the casual user.

- the availability of the shuttle map/schedule at locations throughout Key West, including hotels/motels, restaurants, Chamber of Commerce, and the airport, among others;

- the development and implementation of an access signage plan as discussed previously and illustrated in Figure 3;

- the use of media coverage in Key West, Marathon, and Miami to promote the service to those traveling to Key West;

- the placement of a kiosk at the parking garage facility that will be operated by the Tourist Development Council and will include general information for Key West visitors, including information on the availability of public transportation throughout the City.

FINANCIAL ISSUES

Fare/Parking Rate Structure

As recommended in the discussion of parking rates for the parking garage, the cost of using the shuttle service should be included in the cost of parking at the facility. The recommended cost of parking at the facility for those using the shuttle service is $0.50 per hour up to $3.00 per day. In order to pay the lower parking rate, users must have their parking ticket validated by a shuttle bus driver to show that the shuttle service was used. Those without a validated ticket will pay a premium for parking in the garage. The recommended cost of parking for non-shuttle users is $1.00 per hour up to $6.00 per day. This rate structure is designed to encourage maximum use of the shuttle service. It is also recommended that a monthly parking/shuttle pass be offered at a cost of $50.00. Monthly pass users would not be required to validate a parking ticket. Unlimited use of the shuttle service would be available for hourly, daily, and monthly parking facility users. Monthly users would have unlimited use of the shuttle during the month of their pass, while daily/hourly users would have unlimited use during that specified day. It is recommended that non-garage shuttle users be charged a minimal fare of 25 cents for each use of the shuttle service or these users may choose to purchase an all-day pass for $1.00.

Costs

Cost estimates were derived using costs from the FY 1995 Section 15 report, the City of Key West Original Budget, and driver and mechanic hourly rates and fringe benefit costs as provided by KWDOT. This estimate only includes costs related to the operation of the shuttle services as proposed previously in this report, and do not reflect other costs associated with the operation of the garage. Table 3 presents the results of this estimation. A series of notes and assumptions is provided at the bottom of the table.

Table 3

Estimated Shuttle Operational Costs

Cost Category	Shuttle	Shuttle Express	Total Costs
Operator Salaries and Wages	$81,338	$9,038	$90,376
Maintenance Salaries and Wages	$17,493	$0	$17,493
Fringe Benefits	$34,591	$3,163	$37,754
Materials and Supplies	$20,090	$2,203	$22,293
Miscellaneous (signs, tokens, etc.)	$2,000	$0	$2,000
Promotional Activities	$10,000	$0	$10,000
Contingency (10%)	$16,551	$1,440	$17,991
TOTAL	$182,063	$15,844	$197,907

Notes: *1. The cost provided are the marginal costs to provide the new shuttle service.*

2. Bus driver hourly rates are $8.69/hour, as provided by KWDOT.

3. Mechanic helper hourly rate is $8.41/hour as provided by KWDOT.

4. The shuttle service requires 4.5 driver FTEs, and 0.5 for the shuttle express.

5. The shuttle service requires 1 additional mechanics helper.

6. Materials and supplies were estimated based on the ratio of materials and supplies cost per revenue mile ($.032) as reported in the 1995 Section 15 report.

7. Miscellaneous includes 33 bus stop and informational access route signs at $50 each, and $350.00 for the purchase of tokens.

Revenues

Given the assumed parking facility use and the parking rate structure identified previously, annual parking facility revenues were estimated and are summarized in Table 4. The projected parking facility utilization was presented as part of shuttle service ridership projections previously in this report. The same utilization assumptions were used to project projected parking facility revenues. A summary of the revenue calculations is provided below.

Daily Users = [(75) x ($3.00) + (25) x ($6.00)] x (365) = $136,875
Monthly Users = [(100) x ($50.00)] x (12) = $60,000
Non-Garage Shuttle Users = [(50) x ($0.25)] x (365) = $4,563
Total Revenue = ($136,875 + $60,000 + $4,563) = $201,438

As detailed previously, the estimated cost for providing the shuttle service is $197,907. With projected revenues of $201,438 from both the parking garage and to a smaller extent farebox revenues, the operational funding surplus is $3,531. Note that this does not include costs for operating and maintaining the parking facility.

Table 4
Projected Parking Facility and Farebox Revenues

Type of User	Parking Utilization	# Using Shuttle	# Not Using Shuttle	Parking Rate		Annual Revenue
				User	Non-User	
Daily	100 cars	75 cars	25	$3.00	$6.00	$136,875
Monthly	100 cars	100 cars	0	$50.00	NA	$60,000
Non-garage user	NA	50 persons	NA	$0.25/trip	NA	$4,563
TOTAL	200 cars	NA	NA	NA	NA	$201,438

SUMMARY

The purpose of this analysis was to perform a review of plans for the proposed transit shuttle service from the Grinnell/Caroline parking facility to the Old Town area. This review included refining the operating plan and costs for the proposed shuttle service and recommends coordination of its service and fares with existing Key West Department of Transportation (KWDOT) routes, and between KWDOT routes and private tour shuttles. In addition, operational considerations are reassessed to enhance the attractiveness of the system, and to coordinate with the Tindale-Oliver parking study.

The recommendations provided in this report characterize a park-n-ride shuttle service that is believed to have the greatest probability for success. However, it is extremely important to monitor the service closely in the days, weeks, and months following implementation in order to adjust and adapt to actual public response to the service. Tables 5 and 6 summarize the operating characteristics and costs and revenues of the shuttle service.

Table 5

Recommended Operational Characteristics for Key West Park-n-Ride Service

Shuttle Route Length Employee Shuttle Route Length	3.3 miles 1.5 miles
Estimated Travel Time Shuttle Employee Shuttle Express	 22-25 minutes 10 minutes
Hours of Service	6:30 a.m. to 12 midnight
Days of Service	365 days per year 255 for "employee shuttle"
Estimated Daily Ridership Daily Monthly Non-Garage Users Total	 376 240 50 666
Headways Shuttle Peak Off-Peak Employee Shuttle Express	 15 minutes 30 minutes 10 minutes
Shuttle Stops	22 flag stops
Access Routes	3
Access Route Signs Key West Outside Key West	 11 2
Vehicles Needed Peak Off-Peak	 2 in a.m., 3 in p.m. 1
Coordination With Other Transit Services	Conch Loop Conch Tour Train Old Town Trolley

Table 6

Shuttle Service Cost and Revenues

REVENUES	1996 $
-daily	$136,875
-monthly	$60,000
-non-garage (farebox)	$4,563
TOTAL REVENUES	$201,438
TOTAL COSTS	$197,907
SURPLUS	$3,531

APPENDIX C

SERVICE PLAN FOR SOUTH ROOSEVELT BUS ROUTE

FLORIDA DEPARTMENT OF TRANSPORTATION/
KEY WEST DEPARTMENT OF TRANSPORTATION

Service Plan for South Roosevelt Boulevard Bus Route

Final Report

Prepared for
Florida Department of Transportation

Prepared by
Center for Urban Transportation Research
College of Engineering
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June 1995

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Chapter 1
SITE VISITS, INTERVIEWS AND PRELIMINARY ROUTINGS

Two recommendations in the City of Key West Transit Development Plan (TDP), prepared for the Florida Department of Transportation (FDOT) District VI office by the Center for Urban Transportation Research (CUTR), are to "provide transit service connecting Old Town and the Key West International Airport" and to "provide transit service to hotel locations." In followup to these recommendations, the Key West Department of Transportation (KWDOT) requested CUTR's assistance in designing a transit route to serve the Key West International Airport and hotels along South Roosevelt Boulevard, both currently unserved by the existing transit system.

This analysis includes two major tasks. Chapter 1 reports on a site visit to examine various routing options, meet with KWDOT personnel and discuss the proposed routing with community officials. These interviews were held with the Key West Hotel & Motel Association, Chamber of Commerce, specific hotels along South Roosevelt Boulevard, and the Key West International Airport. A preliminary routing is also developed as part of Chapter 1.

Chapter 2 presents a detailed routing plan of service to the airport and hotels, including service frequency, bus stop locations, demand estimates, load factor analysis, coordination with the existing Conch Loop routes, coordination with the existing airline schedules, fare policy and marketing strategies.

This chapter presents the results of Task 1 of this study. As noted in the following section, interviewees responded very positively to the new routing concept. Alternate routings are outlined and discussed, and preliminary cost estimates and potential funding sources are provided. Details such as proposed stop locations and running time of the route have also been included here.

Site Visits and Interviews

On August 16 and 17, 1994 CUTR staff met with Raymond Archer, Director of the Key West Department of Transportation and his staff to discuss the project. The agreed approach was for CUTR to develop alternate scenarios for the operation of the service along South Roosevelt Boulevard, in an attempt to balance cost, service coverage and frequency of service. KWDOT pointed out that, in order for this project to be immediately successful, hotels would need to help out

by guaranteeing ridership through the purchase of tickets, sponsoring bus shelters, and aggressively marketing the service.

Also during this visit, CUTR met with representatives of the Key West Chamber of Commerce and the Hotel & Motel Association. CUTR also had discussions with managers of three hotels along South Roosevelt Boulevard. In all interviews the destinations of the proposed route (airport, hotels, Old Town), and funding/participation issues were discussed. After the site visit CUTR contacted and interviewed by telephone personnel from the Ocean Walk Apartments and Monroe County, which owns and operates Key West International Airport (KWIA).

In every interview, the proposed bus service to the airport and the hotels along South Roosevelt was extremely well received. Hotel managers mentioned their inability to attract workers who did not own or have access to automobiles. Also, all of the hotels stated that their guests have frequently inquired about bus service to the beach and Old Town area. Interviewees also mentioned that guests are very sensitive to the taxi rates and costs for renting an automobile for such short trips. One hotel currently runs a scheduled shuttle to Old Town, and two of the hotels use vans to shuttle visitors to and from the airport. The Ocean Walk Apartments approved the use of a loop in front of their office as a turn around and bus stop. Peter Horton (KWIA) approved the installation of a bus stop and transit information display at the western end of the airport pick up/drop off area.

In discussions with the hotels, it was clear that the majority of hotel workers started between 7:00 and 9:30 a.m. and ended their shift between 4:30 and 5:30 p.m. These crews were definitely lower paid workers in need of transit service, and could be readily served within current hours of bus operation. The hotel managers mentioned that if service were to connect their hotels to the existing Key West bus service, then the bus route would open up another market of workers for them. The airport employs very few workers, although the airlines have a significant number of employees working between approximately 5:30 a.m. and 11:00 p.m. when airline service is arriving or departing.

All of those interviewed agreed that serving the beaches was an excellent idea. This would open up beach access not only to the hotels east of the beach and guests in the Old Town area, but to residents and hotel guests on the north side of the island through a transfer with the existing Conch Loop.

Routing Options

Three alternate routings are presented in this section. The first, developed initially by KWDOT staff, is a clockwise loop of the entire island duplicating much of the existing bus service on the north side of the island. South of U.S. 1 on the eastern side of Key West, this routing serves the Ocean Walk Apartment complex, hotels along Roosevelt Boulevard, the Key West International Airport and Smathers Beach on its way into Old Town to complete the loop. The proposed route is 10 miles in length and would operate on a one hour headway, 16 hours per day, 7 days a week, all year long. Figure 1 details the existing Conch Loop routes and the proposed hotel/airport routing loop (Alternate 1).

Alternate 2 is a non-loop routing which begins service at 20th and Duck on the east end of the key, where the route would meet the existing Conch loops. As with Alternate 1, this routing serves the hotels along South Roosevelt Boulevard and the airport. Alternate 2 differs from Alternate 1 in that it more directly serves Higgs beach by travelling along Atlantic Boulevard, and it stays on Whitehead Street in Old Town. Alternate 2 returns on the same path in an easterly direction. The airport would be served in both an inbound and outbound direction, while the Ocean Walk Apartments would only be served directly during the inbound trip. Since Ocean Walk is near the end of the proposed route, outbound passengers could choose to stay on the bus for two or three extra minutes in order to travel directly to the Ocean Walk inbound stop. The Key Ambassador and the Key Wester would be served directly through their off-street entrances for the inbound trips, and would be served by stops streetside across South Roosevelt Boulevard on the outbound trips. Both hotels have tentatively agreed to allow this direct access to their properties. The Sheraton Hotel also mentioned that it is currently reconfiguring its access driveway and would consider direct access to their hotel. The roundtrip distance for this alternative is 12 miles and would operate on one hour headways. The routing for this alternative is presented in Figure 1. Table 1 presents a preliminary running distance and travel time by bus stop for Alternative 1.

Alternate 2A is similar to Alternate 2, with the major difference that it does not serve Old Town. Instead, this route terminates at Bertha Street and Flagler Avenue, where passengers can transfer to the Conch Loop buses. This same route would also be used in the outbound direction. While this route is shorter and presumably less costly, its running time precludes reliable operation on a 30-minute frequency. Thus, like the other alternatives, Alternative 2A would operate on a one hour headway. Roundtrip distance is approximately 7.8 miles.

Figure 1
South Roosevelt Blvd. Routing Alternatives

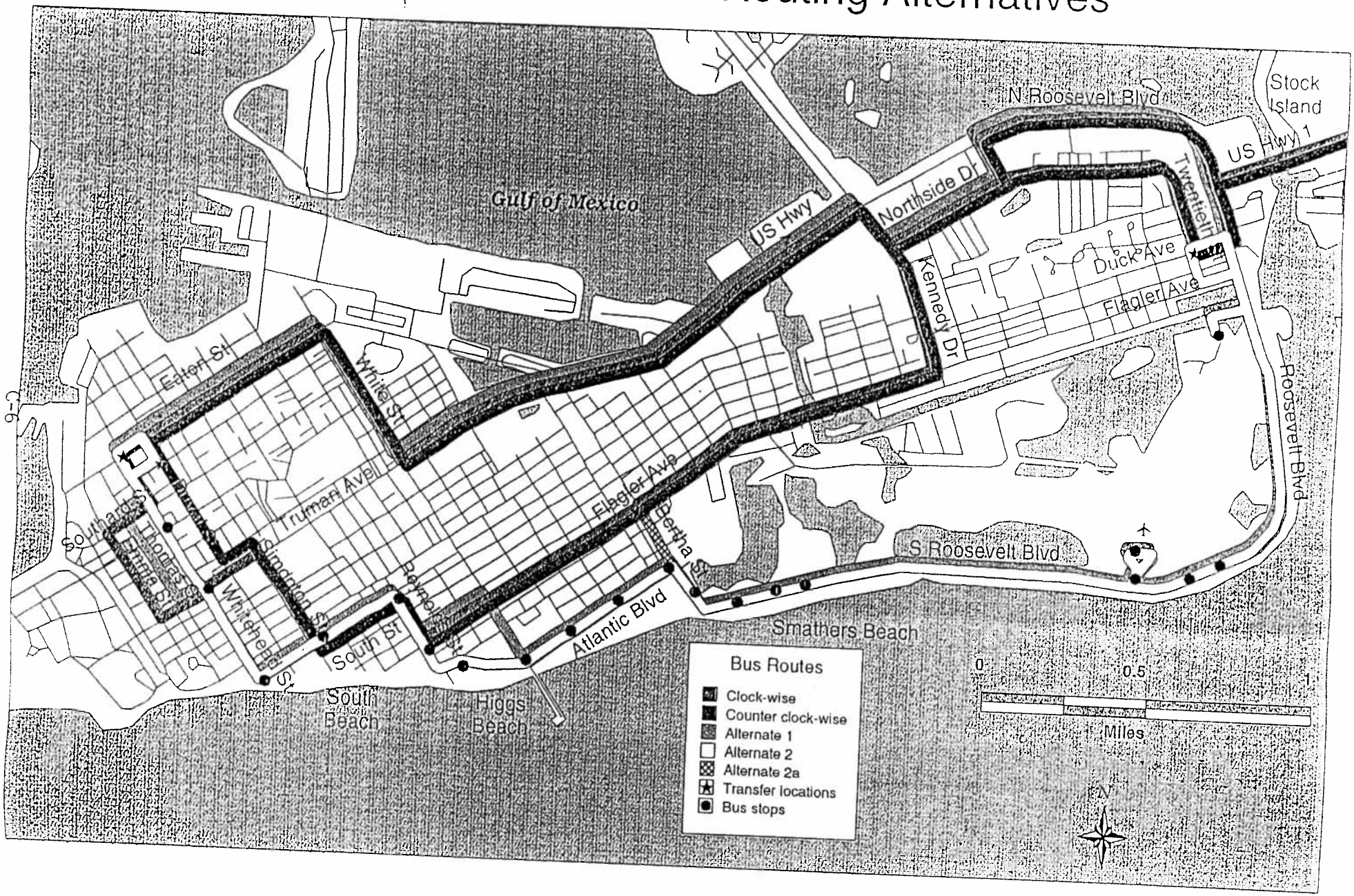

TABLE 1
KEY WEST AIRPORT/HOTEL/BEACH SERVICE
Proposed Routing Characteristics

TIMEPOINT	RUNNING DISTANCE (Miles)	RUNNING TRAVEL TIME (Minutes)	COMMENTS
INBOUND			
Duck/20th	0.0	0	Transfer location with existing routes
Ocean Walk Office	0.8	4	Loop in on inbound only
Key Ambassador Entrance	1.6	6	
Key Wester Entrance	1.8	8	
KWIA	2.2	10	Stop at western end of pickup/drop off
Teen Center			Stop before turn onto South Roosevelt
Key West by the Sea	3.2	14	
Sheraton	3.3	15	Stops could be combined
La Brisa/Smathers Beach House	3.5	16	
1800 Atlantic/Bertha St entrance	3.7	17	
1800 Atlantic main entrance	3.8	18	
Atlantic/Thompson			
Key West Beach Club	4.1	19	
Atlantic/White - Higgs Beach	4.3	20	
Atlantic/Reynolds - Astro City	4.4	21	
Reynolds/Seminole - Casa Marina	4.6	22	
South/Reynolds	4.8	23	
South/Simonton	5.0	24	
Southernmost Point	5.2	25	
Whitehead/Truman	5.5	26	
Whitehead/Angela	5.8	28	
Whitehead/Caroline	6.2	29	
Eaton/Duval	6.3	32	
OUTBOUND			
Eaton/Duval	0.0	0	Transfer location with existing routes
Whitehead/Angela	0.2	1	
Whitehead/Truman	0.4	3	
Southernmost Point	0.7	4	
South/Simonton	0.9	6	
South/Reynolds	1.2	7	
Reynolds/Seminole - Casa Marina	1.3	8	
Reynolds/Atlantic	1.6	9	
Atlantic/White -Higgs Beach	1.7	10	
Key West Beach Club	1.9	10	
Atlantic/Thompson		11	
1800 Atlantic main Entrance	2.2	11	
1800 Atlantic/Bertha St entrance	2.3	12	
La Brisa/Smathers Beach House	2.4	13	Stop on outbound Roosevelt
Sheraton	2.7	14	" " " "
Key West by the Sea	2.8	14	" " " "
Teen Center	3.7	16	" " " "
KWIA	4.0	18	
Key Wester	4.5	19	Stop on outbound Roosevelt
Key Ambassador	4.7	20	" " " "
Ocean Walk	5.2	21	" " " "
Duck/20th	5.7	22	
Roundtrip total	12.0	54.0	

Table 2 presents the estimated annual operating costs for the three alternatives. Operating costs are based on a system average $3.84 per revenue mile, and do not include passenger revenues. This estimate is for comparison only in that the actual cost to operate the service will be based on a marginal cost not a fully allocated cost. Greater level of detail for estimating costs is presented in Chapter 2. All three routes are proposed to operate on a one hour headway, and for this comparison are projected to operate 16 hours per day (6:00 a.m. to 10:00 p.m.), 365 days per year. Based on these operating characteristics Alternative 1 is estimated to cost $224,256, while Alternates 2 and 2A are estimated to cost $269,107 and $174,920 respectively.

Table 2
Estimated Operating Costs

ALTERNATIVE	ANNUAL REVENUE MILES	HEADWAY	# OF BUSES REQUIRED	ANNUAL REVENUE HOURS	ESTIMATED ANNUAL OPERATING COST (1)
Alternate 1 - loop	58,400	1 hour	1	5,840	$224,256
Alternate 2	70,080	1 hour	1	5,840	$269,107
Alternate 2A	45,552	1 hour	1	5,840	$174,920

Based on system average cost per revenue mile of $3.84.

Funding Options

The Key West Department of Transportation currently has a service development grant with the Florida of Department of Transportation for the partial funding (up to 50%) of bus service on South Roosevelt Boulevard with service to the airport and hotels. The FDOT funding for this project totals $136,162 and is available for a three year period.

As part of the on-site visit, interviewees were asked about the potential for private participation in the funding and marketing of the new service. In all cases positive responses were elicited. The hotels will consider buying fare media in advance to be used by their guests and employees. One hotel stated that it would consider purchasing up to $500.00 per week in fare media if bus service were frequent and reliable enough to warrant elimination of its private shuttle service.

One issue of concern raised during the questioning of private participation was whether the hourly service and existing vehicle size would be able to accommodate the potential peak load ridership. During these interviews the concept of using a token as a new fare media in promoting the new service as well as aiding in the bulk purchase of fares was presented. The tokens could be stamped with a commemorative logo distinctive to Key West. This issue will be discussed further in Chapter 2 of this analysis.

Conclusions

The positive response to this proposed project has been overwhelming. The only comment of concern was whether the route would be able to accommodate peak levels of riders, a concern any transit agency would love to have. Private businesses support the service and appear willing to aid in the financing of the service through prepaid fare purchases, marketing, shelter placement and direct access to their properties.

Chapter 2 will provide a recommended routing and level of service, and will detail costs and revenue sources to provide the service. A revised fare policy, marketing plan and an implementation schedule will also be developed.

Chapter 2
RECOMMENDED SOUTH ROOSEVELT BOULEVARD ROUTING AND IMPLEMENTATION PLAN

Based on information collected in Chapter 1 along with further discussions with FDOT and Key West DOT personnel, a recommended alternative for bus routing along South Roosevelt Boulevard serving the Key West International Airport, the beaches and area hotels is presented. A detailed cost analysis for the recommended alternative and implementation plan are also provided.

Recommended Routing

Based on the interviews with the hotels, Chamber of Commerce and others, it is apparent that service to the airport, beaches and hotels along South Roosevelt Boulevard as well as service into the Old Town area must be as direct as possible in order to attract the discretionary rider. Only Alternative 2 from the previous chapter allows direct service to/from the airport and to the beaches and hotels along South Roosevelt Boulevard and into the Old Town area. Transfers can be made with the two existing loops at locations in Old Town or at Duck and 20th Street. This routing also opens up a market for workers who live in Old Town or near the existing loop routes to now have access to the hotels along South Roosevelt Boulevard. Finally, with only one transfer, hotel patrons and residents who can now ride the existing loops will be able to access the beaches. For these reasons Alternative 2 from the previous chapter is the recommended alternative for implementation. Figure 2 presents the recommended alternative and the existing loop routes. Bus stops and transfer locations are also presented.

It is further recommended that this route operate initially on a one hour headway with timed transfers with the existing loop routes in Old Town and at Duck and 20th. Should ridership warrant increased service this route can be changed to a one-half hour headway with transfers to the existing routes on the hour. The implementation of the South Roosevelt Boulevard route will cause KWDOT to reintroduce transfers and a related transfer fare media to the system. Similar to the existing routes, the South Roosevelt Boulevard route is recommended to operate 16 hours per day (6:00 a.m. to 10:00 p.m.) 365 days per year.

Finally, while it is necessary that the route scheduling is developed around meeting the two loop routes for transfers, opportunity to meet arriving or departing planes at KWIA should also be

Figure 2
Recommended South Roosevelt Blvd. Routing

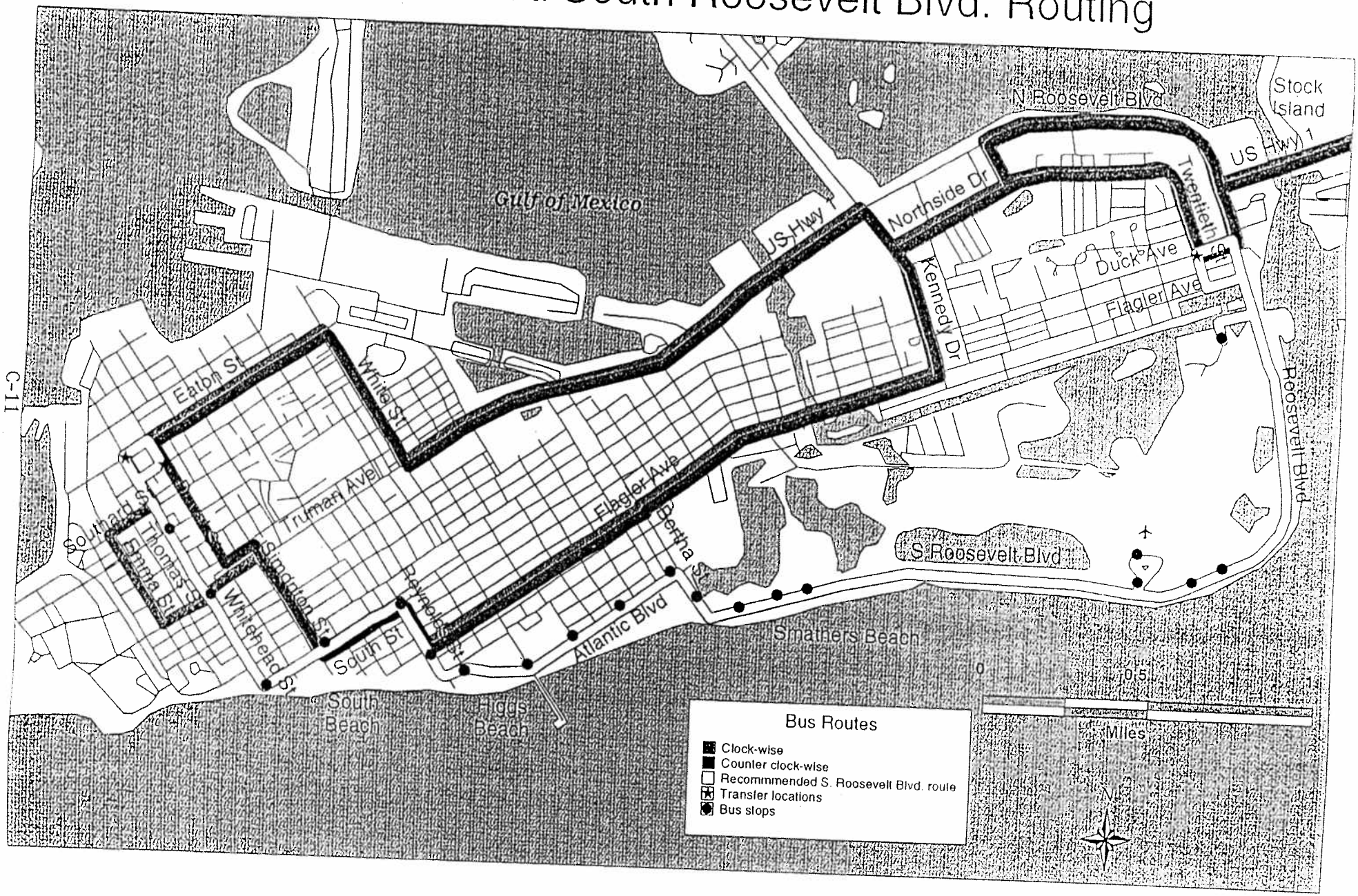

Table 3
KWIA Passenger Service Arrivals and Departures

Time	Number of Arrivals	Number of Departures	Total
5:01 - 6:00	2	0	2
6:01 - 7:00	3	0	3
7:01 - 8:00	0	1	1
8:01 - 9:00	2	3	5
9:01 - 10:00	3	2	5
10:01 - 11:00	3	1	3
11:01 - 12:00	2	2	3
12:01 - 13:00	3	3	6
13:01 - 14:00	3	4	7
14:01 - 15:00	3	2	5
15:01 - 16:00	3	3	6
16:01 - 17:00	4	2	6
17:01 - 18:00	1	3	4
18:01 - 19:00	3	1	4
19:01 - 20:00	1	2	3
20:01 - 21:00	0	0	0
21:01 - 22:00	0	1	1
22:01 - 23:00	0	2	2
23:01 - 24:00	1	1	2
TOTAL	37	33	70

explored. Table 3 presents the number of arriving and departing passenger service flights based on the posted weekday schedules at the airline ticket counters within the airport. As shown in the table, 70 passenger service flights arrive or depart each weekday. The greatest number of flights arrive or depart between 12:00 noon and 5:00 p.m.

Demand Estimates

To derive the potential demand for transit service, CUTR analyzed existing route ridership and assessed the number of hotel/resort units, employees and residential apartment units located adjacent to the proposed route. Estimates of ridership on an existing shuttle operating into the Old Town area from the Sheraton Suites on South Roosevelt Boulevard were also obtained.

The existing loop routes carried approximately 238,300 riders in Fiscal Year 1993. This breaks out into 119,150 riders per loop route or 326 riders per route per day.

There are 12 major hotels/resorts located along the proposed route prior to entering the Old Town area. Based on a telephone survey of the hotels/resorts, there are approximately 1,450 units served by 775 employees. There are also 3 major apartment complexes served by the route (Ocean Walk, La Salinas and 1800 Atlantic) which contain approximately 700 apartments and employ 35 workers.

Assuming a conservative 50% occupancy rate for the hotels/resorts and a 90% occupancy rate for the apartment complexes, this new route would open a new transit market to approximately 2,165 persons. Approximately 800 of these persons are hotel/resort and apartment employees, a very transit-dependent (lower income, low auto availability) market. Given the demographics of the existing riders of the loop routes, there is reason to believe that the proposed South Roosevelt Boulevard route could exceed the current ridership levels. This does not even consider the airport patronage or the new riders who may use the existing loop routes and transfer to the new South Roosevelt Boulevard route.

As an example of potential ridership, the Sheraton Suites currently operates a shuttle bus into the Old Town area for its guests. According to their statistics between March and August of this year, this shuttle carried approximately 100 trips per day. This is based on only 8 trips per day.

Based on the above data, an estimate of 400 riders per day would be conservative. This represents approximately 10-15 riders per trip. During our discussions with the hotels along the route, one major concern was whether the smaller buses would be able to handle the demand during peak periods.

Estimated Route Costs

In Chapter 1, CUTR used average cost per revenue miles to estimate the total cost of adding the proposed South Roosevelt Boulevard route. A marginal cost allocation model is developed in this section to provide a more detailed cost estimate for this service expansion.

The Model

A three-variable unit cost model is commonly used in the industry and is applied in the development of the marginal cost model. Three major steps are involved with developing a marginal cost equation:

Step 1: Assign Expense Object Classes to Allocation Variables

This first step involves the allocation of expense classes to one or more allocation variables selected for the model. This model uses four variables: peak vehicles, revenue hours, revenue miles and a fixed variable. Each expense class should then be assigned to the allocation variable to which it is most closely associated. For example, costs directly related to the delivery of service, i.e., driver wages, are allocated to revenue hours since these costs are a function of the number of revenue hours operated. When costs are allocated to the fixed variable, then it is believed that there is no change in this cost with the incremental increase in service.

Table 4 presents the assignment of expense classes to allocation variables for the fully allocated cost model developed for the Key West transit system. This assignment is based on the recommended guidelines provided by Price Waterhouse.[1] There are no "hard and fast" rules for the allocation of expense classes to allocation variables; it is based solely on good judgment and sound rationale.

[1]Price Waterhouse, "Fully Allocated Cost Analysis Guidelines for Public Transit Providers," April 1987, p. 12.

Step 2: Calculate Total Costs Assigned to Each Allocation Variable

Once the assignment process has been completed, the base year costs (FY 1993 in this model) for each expense object class are allocated to each of the three variables based on the assignment in Step 1. The breakdown of expenses was taken from the FY 1993 Section 15 Report.

Step 3: Calculate Unit Costs

Once total costs have been assigned to one of the three variables in the model, unit costs can then be calculated for each allocation variable. This can be done by dividing the total cost allocated to each variable by the actual value of the allocation variable in the same fiscal year. The cost model equations for 1993, 1994 and 1995 are presented below.

Cost Model Equations

FY 1993 Cost Equation =
($17,857 x # of peak vehicles) + ($18.98 x # of revenue hours) +
($0.61 x # of revenue miles)

FY 1994 Cost Equation =
($18,750 x # of peak vehicles) + ($19.92 x # of revenue hours) +
($0.64 x # of revenue miles)

FY 1995 Cost Equation =
($19,688 x # of peak vehicles) + ($20.92 x # of revenue hours) +
($0.67 x # of revenue miles)

Marginal Cost Estimation

The route is proposed to be implemented in 1995 and will require one bus in maximum service. The new route is expected to provide 5,840 revenue hours and 70,080 revenue miles of service. The cost model equations can then be used to estimated the cost of providing this new route.

Peak Vehicles = 1
Revenue Hours = 5,840
Revenue Miles = 70,080

Marginal Cost Model Equation, 1995

Cost of new or expanded service =
($19,688 x ΔPeak Vehicles) + ($20.92 x ΔRevenue Hours) + ($0.67 x ΔRevenue Miles) =
($19,688 x 1) + ($20.92 x 5,840) + ($0.67 x 70,080) =
$19,688 + $122,180 + $46,970 = $188,838

Funding Options

As discussed in the previous chapter, KWDOT has secured a grant from the Florida Department of Transportation in the amount of $136,162 to partially match operation of the service over a three year period. Based on an estimate of 400 riders per day and a conservative estimate of an average fare of $0.56 (Fiscal Year 1993 average), farebox revenue would generate approximately $81,760. The estimated route cost from the marginal cost model is $188,838 per year. After accounting for farebox revenues and one-third of the FDOT funds ($45,387) available annually, the remaining unfunded annual route cost is $61,691. The remaining funds will need to be generated either through local City of Key West revenues, advertising revenues on the new route, and/or through pre-purchased fares from the hotels along South Roosevelt Boulevard which exceed the actual ridership.

Implementation Plan

Based on our meetings with the hotels and business persons in Key West it is obvious that there is a willingness to cooperate and assist in funding of the proposed route. The purchase of pre-paid fares by the hotels will need to be worked out over an approximate 6 month period. This should not stop the implementation of the route. Implementation would show a good faith effort on behalf of the City and the FDOT in funding the project, and would begin to show the benefits of the route to the hotels and their guests. One hotel had suggested a willingness to purchase up to $500.00 in pre-paid fares per week if the service were able to accommodate the travel needs of their guests.

Table 4
Assignment of Expense Object Classes to Allocation Variables, Marginal Cost Model

Cost Categories	Allocation Shares			
	Fixed	Vehicles	Hours	Miles
Wages				
Bus Operators			1.000	
Mechanics		0.500		0.500
Administration	1.000			
Other Vehicle Maintenance	1.000			
Non-Vehicle Maintenance	1.000			
Fringe Benefits				
Bus Operators			1.000	
Mechanics		0.500		0.500
Administration	1.000			
Other Vehicle Maintenance	1.000			
Non-Vehicle Maintenance	1.000			
Services				
Bus Operators	1.000			
Mechanics	1.000			
Administration	1.000			
Other Vehicle Maintenance	1.000			
Non-Vehicle Maintenance	1.000			
Material & Supply				
Fuel and Oil				1.000
Tires and Tubes				1.000
Vehicle Maintenance				1.000
Non-Vehicle Maintenance	1.000			
Other		0.500		0.500
Utilities				
Non-Propulsion Power	1.000			
Casual & Liable				
Premiums	1.000			
Payouts	1.000			
Taxes				
Vehicle License		1.000		
Fuel and Lube				1.000
Miscellaneous				
Operations	1.000			
Maintenance	1.000			
Non-Vehicle Maintenance	1.000			
Misc. General Fund	1.000			

CUTR recommends the following sequential steps for implementation. First, KWDOT should finalize the agreements with the FDOT for the funding assistance for this project and present this report and its recommendations to the City of Key West for initial funding of the project. Upon implementation of the service, KWDOT should begin discussion with the hotels along the route to secure arrangements for the purchase of pre-paid fares. Working with the hotels and the Chamber of Commerce, KWDOT may wish to create a commemorative token that symbolizes Key West and simplifies purchase and fare payment.

The ridership and operating statistics for this service should be monitored on a monthly basis to see if peak demands are being met. If ridership exceeds the level of service it may become necessary to add trips to the service. The clientele served by this route will demand adequate vehicle capacity or the hotels may go back to providing private service.

KWDOT further needs to work with adjacent land owners to secure bus stop locations and/or shelter locations. Many parties we met with seemed favorable for the potential of providing space for a bus stop and assisting in the purchase of shelters.

Finally, there were discussions in our interviews about the potential for the route to be served using a trolley type vehicle so as to highlight the nature of the route serving the beaches and the Old Town area. If the service is deemed successful and it is necessary to increase the capacity of the vehicle KWDOT may need to consider the purchase of alternative vehicles.

APPENDIX D

PUBLIC CONDITIONS WORKSHOP WRITTEN COMMENTS

PARKING REVENUE SUMMARY

	PROJECTED FY 1995/96 REVENUES (existing rates)	PROJECTED ANNUAL REVENUE (Scenario 1 rates)	NET DIFFERENCE IN PROJECTED REVENUE (existing - Scenario 1)
OFF STREET PARKING			
MALLORY SQUARE	$607,033	$532,350	($74,683)
CAROLINE STREET LOT	$110,432	$233,756	$123,324
GREEN STREET LOT	$30,722	$81,900	$51,178
UNIMPROVED MONTHLY LOT	$31,200	$31,200	$0
CITY HALL GARAGE	$0	$371,280	$371,280
GRINNELL STREET GARAGE	$0	$196,875	$196,875
TOTAL OFF STREET	$779,388	$1,447,361	$667,974
ON STREET PARKING			
METERS	$350,250	$560,400	$210,150
VIOLATIONS AND FINES	$163,333	$320,600	$157,267
RESIDENTIAL PROGRAM PERMIT FEES	$0	$49,000	$49,000
RESIDENTIAL PROGRAM FINES/VIOLATIONS	$0	$75,000	$75,000
SMATHERS BEACH PARKING	$0	$44,000	$44,000
TOTAL ON STREET	$513,583	$1,049,000	$535,417
OTHER REVENUES			
MISCELLANEOUS	$0	$0	$0
INTEREST EARNINGS	$0	$0	$0
TOTAL ALL PARKING	$1,292,971	$2,496,361	$1,203,390

ESTIMATED MALLORY SQUARE PARKING REVENUE BASED ON HISTORICAL GRAPH

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR
1991/92	$28,400	$33,500	$34,600	$46,000	$58,300	$60,900	$48,300
1992/93	$31,500	$35,500	$35,100	$46,600	$61,000	$65,200	$63,700
1993/94	$40,400	$41,700	$40,000	$55,800	$63,300	$71,200	$62,000
1994/95	$37,500	$38,300	$39,800	$55,900	$65,600	$73,200	$65,800
4 YEAR AVG	$34,450	$37,250	$37,375	$51,075	$62,050	$67,625	$59,950
LAST 3 YEAR AVG	$36,467	$38,500	$38,300	$52,767	$63,300	$69,867	$63,833

YEAR	MAY	JUN	JUL	AUG	SEP	TOT	AVG/MO
1991/92	$40,100	$34,800	$45,100	$42,000	$18,600	$490,600	$40,883
1992/93	$52,500	$46,700	$62,800	$51,700	$39,800	$592,100	$49,342
1993/94	$45,100	$40,800	$57,800	$51,700	$29,000	$598,800	$49,900
1994/95	$53,200	$48,400	$62,700	$52,500	$37,300	$630,200	$52,517
4 YEAR AVG	$47,725	$42,675	$57,100	$49,475	$31,175	$577,925	$48,160
LAST 3 YEAR AVG	$50,267	$45,300	$61,100	$51,967	$35,367	$607,033	$50,586

MALLORY SQUARE REVENUE ALTERNATIVES

BASED ON 200 SPACES	
AVERAGE ANNUAL REVENUE (1992/93 - 1994/95)	200
AVERAGE ANNUAL REVENUE PER SPACE LAST 3 YEARS 200 SPACES	$607,033
	$3,035
MONTHLY PARKING PERMITS	
MONTHLY PARKING RATE	50
ANNUAL REVENUE FROM MONTHLY PARKING	$60
	$36,000
NUMBER OF SPACES FOR HOURLY REVENUE	
CURRENT HOURLY RATE	150
	$1.50

REDUCTION IN PARKING SPACES FROM 200 TO 117

BASED ON 117 SPACES	
NUMBER OF MONTHLY SPACES	117
ANNUAL REVENUE FROM MONTHLY PARKING	50
NUMBER OF HOURLY SPACES	$36,000
AVERAGE ANNUAL REVENUE PER HOURLY SPACE LAST 3 YEARS	67
ANNUAL REVENUE FROM HOURLY PARKING	$3,807
	$255,062
DAYS OPEN PER YEAR	350
REVENUE GENERATED PER DAY PER SPACE	$10.88
TOTAL REVENUE HOURS PER DAY (11:00 AM TO 11:00 PM)	13
TOTAL REVENUE IF 100% OCCUPIED FOR 13 HOURS	$19.50
PERCENT UTILIZATION BASED ON AVERAGE HOURLY REVENUE GENERATED PER SPACE	55.78%
ASSUMED UTILIZATION DUE TO RATE INCREASE AND PARK N RIDE	50.00%
ESTIMATED ANNUAL REVENUE WITH 67 HOURLY AND 50 MONTHLY SPACES	$291,062
ESTIMATED ANNUAL REVENUE WITH 117 HOURLY AND 0 MONTHLY SPACES	$445,406
ASSUME HOURLY RATE IS INCREASED TO $2.00 PER HOUR	$2.00
ESTIMATED ANNUAL REVENUE WITH 117 HOURLY, 0 MONTHLY SPACES, & $2.00/HR RATE	**$532,350**
NET REVENUE LOSS IF KEEP 50 MONTHLY SPACES	($315,972)
NET REVENUE LOSS IF ALL SPACES ARE HOURLY SPACES AT CURRENT RATES	($161,627)
NET REVENUE LOSS IF ALL SPACES ARE HOURLY SPACES AT INCREASED RATES	($74,683)

ESTIMATED REVENUE CAROLINE STREET LOT

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR
1991/92							
1992/93							
1993/94							
1994/95							
1995/96	$13,064	$8,796	$11,281	$11,047	$11,047	$11,047	$4,766
AVG	$13,064	$8,796	$11,281	$11,047	$11,047	$11,047	$4,766

YEAR	MAY	JUN	JUL	AUG	SEP	TOT	AVG/MO
1991/92						$0	$0
1992/93						$0	$0
1993/94						$0	$0
1994/95	$11,811	$4,359	$6,880	$8,275	$8,059	$44,150	$4,906
1995/96						$66,282	$11,047
AVG	$11,811	$4,359	$6,880	$8,275	$8,059	$110,432	$9,203

CAROLINE STREET REVENUE ALTERNATIVES

EXISTING NUMBER OF SPACES	137
CURRENT PARKING RATE PER DAY	$3.00
ASSUMED NUMBER OF COLLECTION DAYS PER YEAR	350
REVENUE GENERATION PER SPACE PER YEAR	$806.07
ESTIMATED ANNUAL REVENUE GENERATION WITH TURNOVER = 1.0	$143,850
ACTUAL TURNOVER RATE	0.77
TURNOVER RATE PER SPACE PER DAY	2.00
MAXIMUM POTENTIAL REVENUE PER SPACE PER YEAR	$2,100
CURRENT ESTIMATED UTILIZATION	38.38%
ASSUME RATE CHANGE TO HOURLY RATE OF $1.50 IN INCREMENTS OF 20 MINUTES	$1.50
TOTAL REVENUE HOURS PER DAY (11:00 AM TO 11:00 PM)	13
TOTAL REVENUE IF 100% OCCUPIED FOR 13 HOURS	$19.50
PERCENT UTILIZATION BASED ON AVERAGE HOURLY REVENUE GENERATED PER SPACE	$7.48
TOTAL REVENUE HOURS PER YEAR ASSUMING 350 DAYS AND 13 HOURS/DAY	623,350
REDUCED UTILIZATION FROM GARAGE USAGE AND RATE INCREASE TO 25%	25.00%
REVENUE GENERATION PER SPACE PER DAY BASED ON REDUCED UTILIZATION	$4.88
ESTIMATED ANNUAL REVENUE PER SPACE BASED ON CURRENT UTILIZATION	$2,619.74
ESTIMATED ANNUAL REVENUE ASSUMING RATE CHANGE	$358,904
ESTIMATED ANNUAL REVENUE PER SPACE BASED ON REDUCED UTILIZATION	$1,706.25
ESTIMATED ANNUAL REVENUE ASSUMING RATE CHANGE AND REDUCED UTILIZATION	**$233,756**
NET INCREASE IN REVENUE ASSUMING EXISTING UTILIZATION	$248,472
NET INCREASE IN REVENUE ASSUMING REDUCED UTILIZATION	$123,324

ESTIMATED REVENUE GREEN STREET LOT

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR
1991/92							
1992/93							
1993/94							
1994/95							
1995/96	$2,821	$2,108	$2,812	$2,580	$2,580	$2,580	$0
							$2,580
AVG	$2,821	$2,108	$2,812	$2,580	$2,580	$2,580	$2,580

YEAR	MAY	JUN	JUL	AUG	SEP	TOT	AVG/MO
1991/92						$0	$0
1992/93						$0	$0
1993/94						$0	$0
1994/95	$4,228	$2,739	$3,285	$1,603	$806	$12,661	$2,532
1995/96						$18,061	$2,580
AVG	$4,228	$2,739	$3,285	$1,603	$806	$30,722	$2,560

GREEN STREET REVENUE ALTERNATIVES

EXISTING NUMBER OF SPACES	80
CURRENT PARKING RATE PER DAY	$3.00
ASSUMED NUMBER OF COLLECTION DAYS PER YEAR	350
REVENUE GENERATION PER SPACE PER YEAR	$384.03
ESTIMATED ANNUAL REVENUE GENERATION AT 1 TURNOVER PER DAY	$84,000
ACTUAL TURNOVER RATE	0.37
TURNOVER RATE PER SPACE PER DAY	2.00
MAXIMUM POTENTIAL REVENUE PER SPACE PER YEAR	$2,100
CURRENT ESTIMATED UTILIZATION	18.29%
ASSUME RATE CHANGE TO HOURLY RATE OF $1.50 IN INCREMENTS OF 20 MINUTES	$1.50
TOTAL REVENUE HOURS PER DAY (11:00 AM TO 11:00 PM)	13
TOTAL REVENUE IF 100% OCCUPIED FOR 13 HOURS	$19.50
PERCENT UTILIZATION BASED ON AVERAGE HOURLY REVENUE GENERATED PER SPACE	$3.57
TOTAL REVENUE HOURS PER YEAR ASSUMING 350 DAYS AND 13 HOURS/DAY	623,350
REDUCED UTILIZATION FROM GARAGE USAGE AND RATE INCREASE TO 15%	15.00%
REVENUE GENERATION PER SPACE PER DAY BASED ON REDUCED UTILIZATION	$2.93
ESTIMATED ANNUAL REVENUE PER SPACE BASED ON CURRENT UTILIZATION	$1,248.09
ESTIMATED ANNUAL REVENUE ASSUMING RATE CHANGE	$99,848
ESTIMATED ANNUAL REVENUE PER SPACE BASED ON REDUCED UTILIZATION	$1,023.75
ESTIMATED ANNUAL REVENUE ASSUMING RATE CHANGE AND REDUCED UTILIZATION	**$81,900**
NET INCREASE IN REVENUE ASSUMING EXISTING UTILIZATION	$69,125
NET INCREASE IN REVENUE ASSUMING REDUCED UTILIZATION	$51,178

ESTIMATED REVENUE UNIMPROVED LOT - MONTHLY PERMITS

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR
1991/92							
1992/93							
1993/94							
1994/95							
1995/96			$2,640				
AVG			$2,640				

YEAR	MAY	JUN	JUL	AUG	SEP	TOT	AVG/MO
1991/92						$0	$0
1992/93						$0	$0
1993/94						$0	$0
1994/95						$0	$0
1995/96						$2,640	$2,640
AVG							$0

UNIMPROVED LOT REVENUE ALTERNATIVES

80 EXISTING NUMBER OF SPACES	80
MONTHLY RATE OF $40.00	$40.00
EXISTING MONTHLY PERMITS	65
ESTIMATED ANNUAL REVENUE GENERATION AT 65 PERMITS/MONTH	**$31,200**
REVENUE GENERATION PER SPACE PER YEAR	$396.00
EXPECTED ANNUAL REVENUE GENERATION PER SPACE AT 100% UTILIZATION	$38,400
CURRENT ESTIMATED UTILIZATION	81.25%
ASSUME RATE CHANGE TO $50.00 PER MONTH	$50.00
ESTIMATED ANNUAL REVENUE PER SPACE AT CURRENT UTILIZATION WITH RATE INCREASE	$39,000
NET INCREASE IN REVENUE ASSUMING EXISTING UTILIZATION WITH RATE INCREASE	$7,800

ESTIMATED REVENUE CITY HALL GARAGE

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR
1995/96							

YEAR	MAY	JUN	JUL	AUG	SEP	TOT	AVG/MO
1995/96							

CITY HALL GARAGE REVENUE ALTERNATIVES

158 EXISTING SPACES IN MULTILEVEL SINGLE THREADED GARAGE	158
ASSUME 136 SPACES BECOME PUBLIC AND 22 SPACES ON 4TH FLOOR RESERVED FOR CITY	136
ASSUMED HOURLY RATE	$1.50
ASSUMED NUMBER OF COLLECTION DAYS PER YEAR	350
ASSUMED REVENUE HOURS (11:00 AM TO 11:00 PM)	13
TOTAL AVAILABLE REVENUE HOURS PER YEAR AT 100% UTILIZATION	618,800
ASSUMED AVERAGE UTILIZATION RATE 1	20.00%
ESTIMATED ANNUAL REVENUE 1	$185,640
ESTIMATED REVENUE PER SPACE UTILIZATION RATE 1	$1,365
ESTIMATED REVENUE PER SPACE PER DAY UTILIZATION RATE 1	$3.90
ASSUMED AVERAGE UTILIZATION RATE 2	30.00%
ESTIMATED ANNUAL REVENUE 2	$278,460
ESTIMATED REVENUE PER SPACE UTILIZATION RATE 2	$2,048
ESTIMATED REVENUE PER SPACE PER DAY UTILIZATION RATE 2	$5.85
ASSUMED AVERAGE UTILIZATION RATE 3	50.00%
ESTIMATED ANNUAL REVENUE 3	$464,100
ESTIMATED REVENUE PER SPACE UTILIZATION RATE 3	$3,413
ESTIMATED REVENUE PER SPACE PER DAY UTILIZATION RATE 3	$9.75
ASSUMED INCREASE IN HOURLY RATE	$2.00
ASSUMED NUMBER OF COLLECTION DAYS PER YEAR	350
ASSUMED REVENUE HOURS (11:00 AM TO 11:00 PM)	13
TOTAL AVAILABLE REVENUE HOURS PER YEAR AT 100% UTILIZATION	618,800
ASSUMED AVERAGE UTILIZATION RATE 1	20.00%
ESTIMATED ANNUAL REVENUE 1	$247,520
ESTIMATED REVENUE PER SPACE UTILIZATION RATE 1	$1,820
ESTIMATED REVENUE PER SPACE PER DAY UTILIZATION RATE 1	$5.20
ASSUME AVERAGE UTILIZATION RATE 2	30.00%
ESTIMATED ANNUAL REVENUE 2	**$371,280**
ESTIMATED REVENUE PER SPACE UTILIZATION RATE 2	$2,730
ESTIMATED REVENUE PER SPACE PER DAY UTILIZATION RATE 2	$7.80
ASSUME AVERAGE UTILIZATION RATE 3	50.00%
ESTIMATED ANNUAL REVENUE 3	$618,800
ESTIMATED REVENUE PER SPACE UTILIZATION RATE 3	$4,550
ESTIMATED REVENUE PER SPACE PER DAY UTILIZATION RATE 3	$13.00

ESTIMATED REVENUE GRINNELL STREET GARAGE

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR
1995/96							

YEAR	MAY	JUN	JUL	AUG	SEP	TOT	AVG/MO
1995/96							

GRINNELL STREET GARAGE REVENUE ALTERNATIVES

EXISTING SPACES IN MULTILEVEL GARAGE	250
NUMBER OF SPACES RESERVED FOR CITY ELECTRIC	50
NUMBER OF PUBLIC USE SPACES	200
ASSUMED NUMBER OF MONTHLY SPACES	100
ASSUMED NUMBER OF DAILY SPACES	100
ASSUMED TURNOVER RATE FOR HOURLY SPACES	1
ASSUMED NUMBER OF DAILY PARKERS	100
ASSUMED MONTHLY PARKING RATE	$50.00
ASSUMED DAILY PARKING RATE - SHUTTLE USER	$3.00
ASSUMED DAILY PARKING RATE - NON-SHUTTLE USER	$6.00
ASSUMED PERCENT OF MONTHLY PARKERS USING SHUTTLE	100.00%
ASSUMED PERCENT OF DAILY PARKERS USING SHUTTLE	75.00%
ASSUMED NUMBER OF COLLECTION DAYS PER YEAR	365
ESTIMATED ANNUAL REVENUE FROM MONTHLY SPACES	$60,000
ESTIMATED ANNUAL REVENUE FROM DAILY SPACES	$136,875
TOTAL ESTIMATED ANNUAL PARKING REVENUE	**$196,875**

ESTIMATED PARKING METER REVENUE

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR
1991/92							
1992/93							
1993/94							
1994/95							
4 YEAR AVG							
LAST 3 YEAR AVG							

YEAR	MAY	JUN	JUL	AUG	SEP	TOT	AVG/MO
1991/92						$363,000	$30,250
1992/93						$356,000	$29,667
1993/94						$324,000	$27,000
1994/95						$358,000	$29,833
4 YEAR AVG						$350,250	$29,188
LAST 3 YEAR AVG						$346,000	$28,833

MULTIPLIER FOR DOUBLING RATE FROM $0.50 TO $1.00 PER HOUR	2
ASSUMED CORE METER RATES $1.00 PER HOUR WITH UTILIZATION DROPPING TO 80%	80.00%
PROJECTED REVENUE WITH RATE INCREASE AND LOWER UTILIZATION	**$560,400**