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February 27, 1986

Mr. Satyendra Singh Huja
Director of Planning and Community Development
City of Charlottesville
Room 202
City Hall Building
Charlottesville, Virginia 22902

Dear Mr. Huja:

In accordance with our agreement, we are pleased to submit twenty-five (25) copies of our final report titled, "Charlottesville Parking Study, Central City Area."

This study outlines existing and projected parking conditions in the Central City Area of Charlottesville. Both early action and long-range parking recommendations are presented.

We take this opportunity to express our appreciation to you and other City representatives for your support and guidance during this important project. We trust our findings will assist the City in realizing a parking system which will contribute to a prosperous Central City Area.

Very truly yours,

WILBUR SMITH AND ASSOCIATES

Thomas E. Flynn

Thomas E. Flynn, P.E.
Associate-in-Charge

TEF:csp

Prepared in cooperation with the United States Department of Transportation, the Federal Highway Administration, the Urban Mass Transit Administration, and the Virginia Department of Highways and Transportation. The contents of this report reflect the view of the firm of Wilbur Smith and Associates, which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Federal Highway Administration, the Urban Mass Transit Administration, the Urban Mass Transit Administration, or the Virginia Department of Highways and Transportation. This report does not constitute a standard specification or regulation.

CHARLOTTESVILLE PARKING STUDY

Central City Area

Prepared for the
Charlottesville/Albemarle
Metropolitan Planning Organization

Prepared by
Wilbur Smith and Associates

February, 1986

EXECUTIVE SUMMARY
Charlottesville Parking Study

The City of Charlottesville commissioned Wilbur Smith and Associates to define short-term and long-term parking needs in the central city and recommend alternative solutions to these needs.

Purpose and Scope

The following tasks define the scope of work items that were addressed during the course of the study:

- The demand for parking needs by geographic area;
- Inventory of existing parking spaces and existing utilization of the parking spaces and turnover rates; and,
- Analysis of parking priorities and of parking supply and demand for current and projected conditions.

Existing Conditions

This section presents information concerning the field inventory of parking spaces, accumulation of parked vehicles, turnover rates, and use of land in the study area.

Parking inventory provides information on the location, type and quantity of off-street and curb spaces within the study area. The inventory results show a total effective supply of 4,140 spaces.

The three sub-areas were analyzed for their land use characteristics. A square footage of office, commerical and special building uses was determined by zone area, and a comparison made between land use and parking accumulation.

Analysis of Parking Needs

This section presents information on parking priorities, parking indices, and a parking space supply/demand comparison for existing and projected conditions.

Parking needs by type of parker have been identified, with transient shopper being the most important. Parking deficiencies in each study sub-area reveal a total deficit of 800 parking spaces. A deficiency of 190 spaces exists in the "Corners" Section (Area 1) while the "downtown" area (Area 3) contains a 636 space deficiency. The Main Street Section (Area 2) contains a surplus of 26 spaces. The projected future parking supply of 4,725 spaces is approximately 585 spaces more than the present inventory.

Recommendations

A specific parking implementation plan has been developed. The following figure presents the parking recommendations by type and location.

Elements of the parking plan that should be considered for implementation in the first stage of overall parking development are as follows:

1. Development of a multi-level parking facility at the site of the Jefferson National Bank surface lot at Market and First Streets; location of a multi-level structure at the existing public surface lot on Water Street between Second and Fourth Streets with capability to expand in the future; Financial feasibility studies should be done for these structures;

2. Expanded use of metered curb spaces in non-residential areas which will benefit the shopper by ensuring a greater supply of convenient curb spaces to their retail destination. Increase of metered rates and parking fines will reduce short-term parking by commuters, promote higher parking space utilization and provide additional revenues for implementation of other parking plan recommendations.

3. Installation of long-term meters on public streets where the predominance of parking is all-day commuters.

4. Pursuit of parking management options by the public and private sector, such as public transit, carpooling, and bicycle parking areas;

5. Encouragement of public and private parking facilities now in various stages of planning and development;

In addition to these high priority considerations, there are ten recommended parking facilites given low and moderate priority. Fringe area parking shuttles are not considered viable in the near future due to conditions in Charlottesville.

Pricing policy and financial considerations are discussed in detail in the parking study, as are recommendations for residential parking and other parking management plans.

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INTRODUCTION

Chapter 1

INTRODUCTION

Automobile parking plays a primary role in the economic development of today's city. Parking needs are most important in the central business district--usually the focus of the urban region's activity--and in areas of high commercial development. As major contributors to the city's tax base, these area types require efficient accessibility and adequate parking areas to encourage and maintain economic growth. Recognizing these needs, the City of Charlottesville commissioned Wilbur Smith and Associates to define specific parking needs in the central city and to recommend specfic, implementable alternative solutions to the needs.

Purpose and Scope of Study

The purpose of this study is to identify the short-term and long-term parking needs of the area, develop alternative approaches to meeting these needs, and submit a recommended plan addressing, among other things, financing approaches, parking charges, and facility use.

The following tasks define the scope of work items that were addressed during the course of the study:

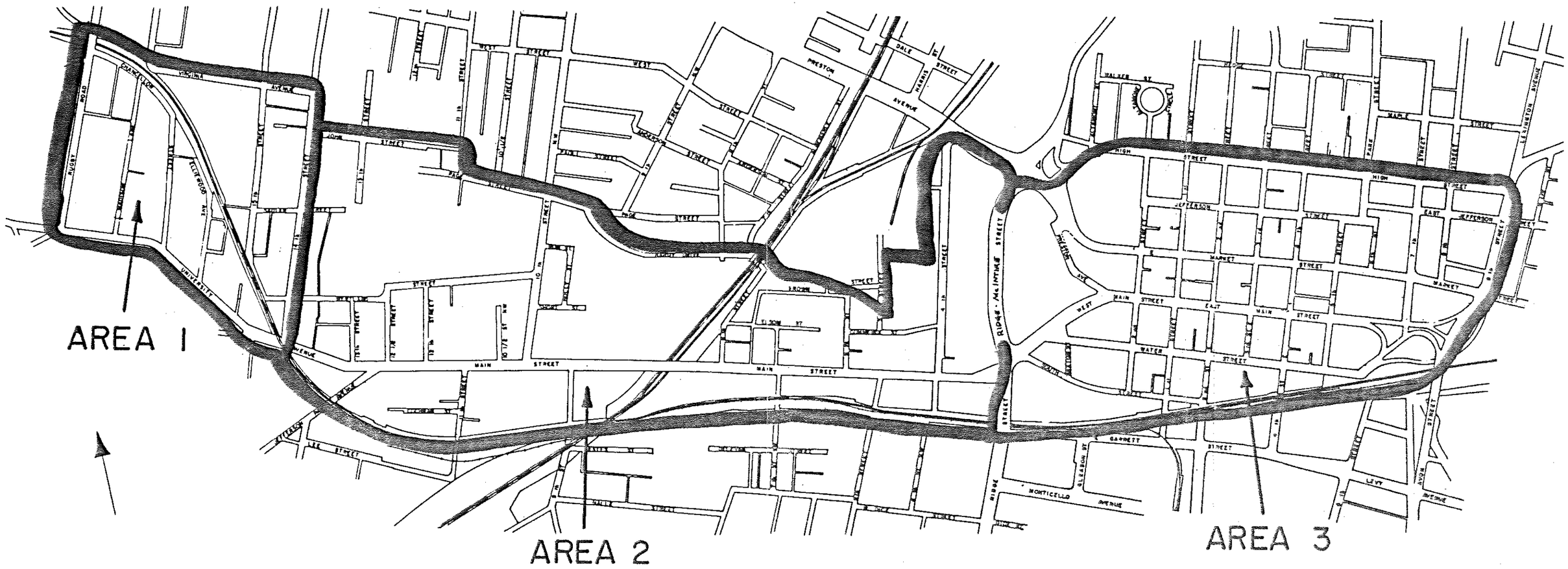
1. The demand for parking needs by geographic area;
2. Inventory of existing parking spaces and existing utilization (accumulation) of the parking spaces and turnover rates in the study sub-areas; and,
3. Analysis of parking priorities and of parking supply and demand for current and projected conditions.

Study Area

The study area, as shown in Figure 1, extends from Ninth Street, in the CBD area, to the University of Virginia Corner area. It is essentially sub-divided into three sections based on different land use activities--the University Corner Area, West Main Street, and the CBD area--designated as Study Areas 1, 2, and 3, respectively.

The following parking requirement types needed for the three sub-areas were determined based primarily on an assessment of the present land use and desired future land use development needs:

- Office;
- Commercial (includes retail, banks, etc., in which parking needs, excluding employees, are essentially short-term);



STUDY AREA MAP

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FIGURE 1

- Government (City and State-related functions involving a mix of short-term and long-term parking needs, excluding employees);
- University;
- Residential; and,
- Church and other special types, such as hotels, schools, etc.

Chapter 2

EXISTING CONDITIONS

Chapter 2

EXISTING CONDITIONS

This chapter presents information concerning the field inventory of parking spaces, accumulation of parked vehicles, turnover rates, and use of land in the study area.

Parking Inventory

A field survey was conducted to inventory the quantity and location of parking spaces in the study areas. As shown in Figure 2, the inventory included both public and private parking spaces, and has been summarized by zone areas. Table 1 shows inventory results of an effective, or adjusted, total supply of 4,856 spaces in the study area. The effective supply is 85 percent of total supply, and accounts for normal inefficiencies such as a car parking incorrectly and occupying two spaces.

Off-Street - Figure 3 gives a detailed, graphic account of the location, type, and quantity of parking spaces for the entire study area, including residential parking. The large number of small private lots is due to residential driveways.

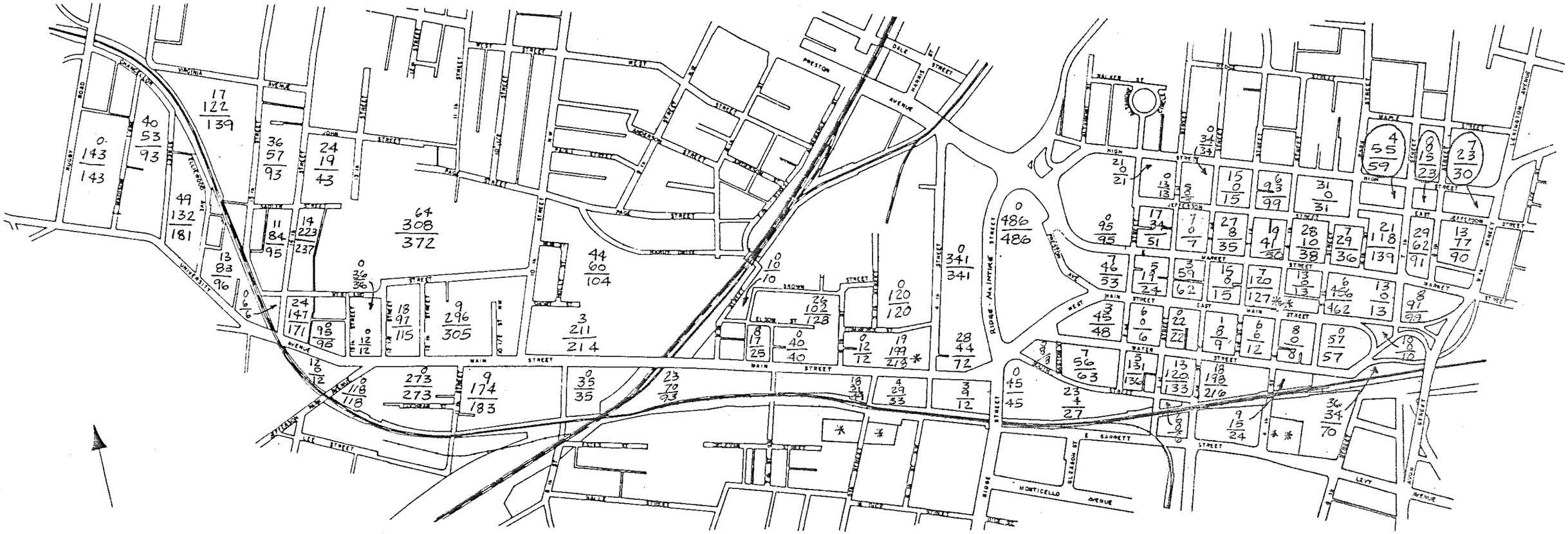
Curb - Figure 4 shows the location, type, and quantity of curb parking available in the three study areas. It distinguishes between metered and non-metered parking as well as loading, taxi, and handicap parking.

Parking Accumulation

Parking accumulation is an inventory, or count, of total vehicles parked at a given moment. Data on accumulation of vehicles parked in the study areas between the hours of 10:00 A.M. and 3:00 P.M. is shown in Figure 5, giving the curb and off-street numbers separately for each zone area.

Land Use

The three study sub-areas are adjacent to each other but distinctive in their land use activities. The University Corner area (Study Area 1), transitioning between the West Main Street and the University of Virginia areas, includes commercial and residential. The West Main Street area (Study Area 2) is on the Central Business District fringe, and includes lower intensity commercial development and a mix of retail and residential. Finally, the Downtown area (Study Area 3) represents a classic financial and commercial-oriented Central Business District of a small city, with a mix of retail and government land use functions included. Dispersed among the three areas are land uses considered special for purposes of this study, such as hotels, schools, and churches. The total parking inventory for these areas is shown in Table 1.



EXISTING PARKING SUPPLY

Table 1

INVENTORY RESULTS

EXISTING	TOTAL SUPPLY	TOTAL ACCUMULATION
AREA 1	846	551
AREA 2	3,395	2,481
AREA 3	3,183	2,681

CURB PARKING SUPPLY

LEGEND

SPACES

NON-METERED

←00/ST→

←00/LT→

←00/6→

←[00]→

METERED

CLASSIFICATION

NUMBER OF SPACES / SHORT TERM

NUMBER OF SPACES / LONG TERM

NUMBER OF SPACES / GOVERNMENT (CITY) VEHICLES

HANDICAP ONLY

LOADING, TAXI

OFF-STREET PARKING SUPPLY

LEGEND

LOT TYPE

PRIVATE LOTS

E-000

C-000

T-000

G-000

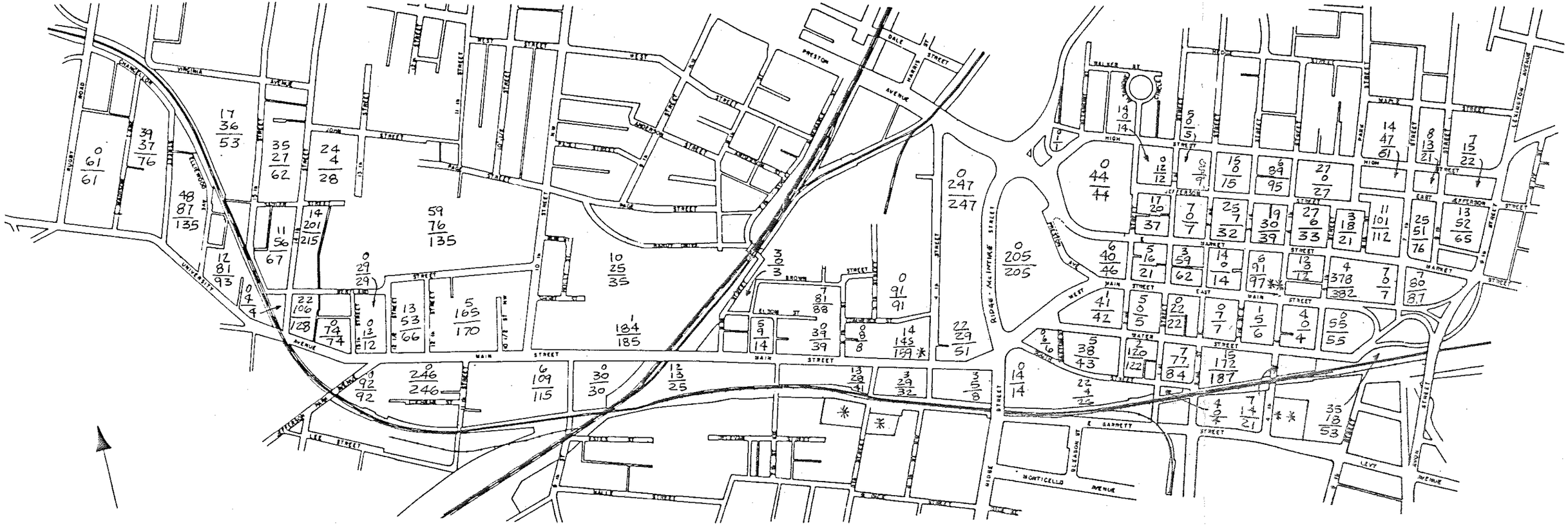
CLASSIFICATION

EMPLOYEES & CUSTOMERS OF BUSINESS - NUMBI

CHURCH - NUMBER OF SPACES

TENANTS OF RESIDENCE - NUMBER OF SP

GOVERNMENT/CITY VEHICLES ONLY - NU



LEGEND

00	CURB SPACES OCCUPIED
00	OFF STREET SPACES OCCUPIED
00	TOTAL SPACES OCCUPIED

* Number includes employee parking lots located west and east of 5th street (see * for location).

* * Number includes employee parking lot located east of 4th street (see * * for location).

PARKING ACCUMULATION

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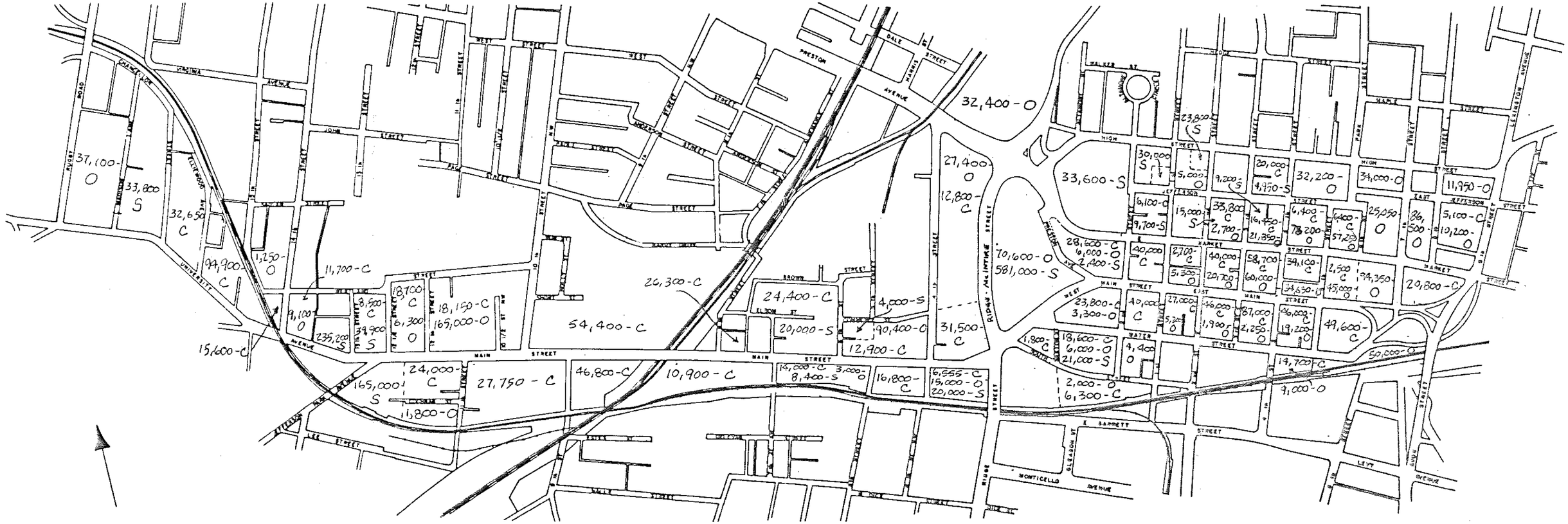
FIGURE 5

Figure 6 gives the square footage by zone area for the office, commercial, and special building uses. These numbers were determined using aerial photos, field surveys, and a land use computer printout.

A comparison of land use and parking accumulation for the study areas is summarized in Table 2. The existing parking factors represent an accumulation to total square footage ratio. A parking indice represents the number of parking spaces needed per thousand square feet. The three numbers are somewhat lower than typical parking indices due to the use of accumulation numbers in these calculations and the fact that the downtown area, for example, consists of a mixture of short-term and long-term parkers. These parking factors serve as an independent check of the appropriateness of the subsequently proposed study area parking indices.

Turnover Rates

Tables 3 and 4 give the turnover rates by study area for off-street facilities and curb parking, respectively. In Table 3, the 2.6 turnover rate is perhaps lower than typical due to a large number of monthly parkers. The 4.2 for Study Area 2 and 3.3 for Study Area 3 are fairly typical turnover rates for an urbanized city, as is each of the curb rates as shown in Table 4.



LEGEND

C	COMMERCIAL (Sq. Ft.)
O	OFFICE (Sq. Ft)
S	SPECIAL (includes: hospitals, hotels, churches, schools, etc.)

LAND USE MAP

FIGURE 6

TABLE 2
EXISTING LAND USE &
PARKING ACCUMULATION COMPARISONS

AREA	TOTAL SQUARE FOOTAGE			PARKING ACCUMULATION			PARKING FACTORS EXISTING		
	COMMERCIAL	OFFICE	TOTAL SQ. FT.	COMMERCIAL	OFFICE	TOTAL ACCUMULATION	COMMERCIAL	OFFICE	TOTAL
1	143,150	1,250	144,400	268	6	274	1.9	4.8	1.
2	353,405	290,600	644,005	952	605	1,557	2.7	2.1	2.
3	639,350	763,250	1,402,600	1,190	855	1,971	1.9	1.1	1.

Table 3

OFF-STREET PARKING TURNOVER

AREA	VEHICLE TURNOVER RATE PER DAY (1)
1	2.6
2	4.2
3	3.3

(1) Based on a five-hour day

Table 4

CURB PARKING TURNOVER

AREA	VEHICLE TURNOVER RATE PER DAY (1)
1	4.3
2	4.8
3	3.9

(1) Based on a five-and-a-half hour day.

Chapter 3

ANALYSIS OF PARKING NEEDS

Chapter 3

ANALYSIS OF PARKING NEEDS

This chapter presents information on parking priorities, parking indices, and a parking space supply/demand comparison for existing and projected conditions.

Parking Priorities

Availability of parking affects all land use activity in the Central Area. Parking needs by type parker have been identified, and ranked in order of importance (most important listed first):

1. Transient Shopper - Many retail establishments are critically dependent on an adequate supply of short-term parking.

2. Transient Business - Similarly, office type businesses require short-term parking for clients, business associates, and others in order to maintain a viable business.

3. Residential - To ensure maintenance of a viable residential stock in the Central Area, adequate resident parking is required.

4. Long-Term Commercial, Office, and Government - This category consists mainly of employees whose parking needs must be met regardless of type and location. Parking is important, but not as critical to business operation as the above categories.

5. University, Church, and Other Special - Parking supply for these types is considered isolated in that the supply typically is self-contained.

Parking Indices

Table 5 summarizes the parking indices--parking spaces required per unit (square feet, employee, etc.)-- by study area incorporated into the computer program section which calculates demand. Also given in the Table are typical parking indices based on study areas of similar size. The indices--varying 1.63 and 3.04--are consistent with the values developed in other studies.

Supply/Demand Comparison

A parking supply/demand computer model was used to determine parking demand on a block-by-block basis. The computer output providing block-by-block data on parking supply and demand in terms of both short-term and long-term parking, is included as Appendix Tables A - F. For purposes of this study, the special building uses, such as hotels, churches, residential units,

TABLE 5
PARKING INDICES

TYPICAL

LOCATION	SPACES/1000SF
Central Business District, moderate size city, average of all land	2.0 - 2.5
Suburban Settings	
Shopping Centers	4.0 - 4.5
Office Buildings	2.9 - 4.0
Sit-down Restaurants	10.0

PROPOSED

LOCATION	SPACES PER 1000 S.F.					
	Office			Commercial		
	L.T.	S.T.	Total	L.T.	S.T.	Total
Area 1 (Corner)	2.21	0.20	2.41	0.74	2.30	3.04
Area 2 (Main St)	2.21	0.20	2.41	0.74	2.30	3.04
Area 3 (CBD)	1.90	0.30	2.20	0.63	1.00	1.63

NOTE: L.T. indicates Long Term Parking;
S.T. indicates Short Term Parking.

etc., were considered to have adequate parking to meet their needs so that the supply met the demand, and thus are grouped separately within the respective study area.

Existing - Table 6 summarizes the key results of the computer output by study area. The "special" zone areas have been excluded from this Table.

The deficiency of 190 spaces in Study Area 1 can be attributed to the fact that a large number of parkers utilize curb parking along 14th Street and other residential streets as well as streets outside of the study area. The deficiency of 636 spaces in Area 3 can also be attributed to parkers utilizing free curb parking available outside the boundaries. For example, east of 9th Street and along Garrett Street, an inventory was taken showing 169 spaces existing with 144 of them being occupied, most likely by all-day parkers with destinations in Area 3.

Projected - A projection of future parking conditions in the study area was performed utilizing the computer model. Assumptions for future changes in land use and parking were determined. These assumptions are presented in Table 7 and shown graphically in Figure 7.

The computer output results of the analysis are provided in Appendix Tables G - L in the same format as the existing conditions were analyzed. A summary of the results is given in Table 8. The projection results indicate a future deficit in Areas 1 and 3 and a surplus in Area 2, assuming, of course, that development assumptions summarized in Table 7 are implemented. Total adjusted supply of 4,725 spaces is approximately 585 spaces more than the present inventory. It should be pointed out, however, that it is unlikely that all these projects will be implemented in the next several years.

TABLE 6
EXISTING
COMMERCIAL & OFFICE PARKING RELATIONSHIPS

AREA	PARKING ACCUMULATION	EXISTING SUPPLY	ADJUSTED SUPPLY	PERCENT OCCUPANCY	DEMAND	PARKING SURPLUS (+) OR DEFICIENCY (-)
1	274	291	247	1.11	437	-190
2	1,557	2116	1,799	Ø.87	1773	26
3	2,Ø45	2463	2,Ø94	Ø.98	273Ø	-636

---

1. 85% OF GROSS SUPPLY
2. ACCUMULATION / ADJUSTED SUPPLY
3. ADJUSTED SUPPLY - DEMAND

Table 7

FUTURE DEVELOPMENT ASSUMPTIONS

		DEVELOPMENT PARAMETERS	
ZONE(1)	AREA	LAND USE CHANGES	PARKING SUPPLY CHANGES
4	1	---	39-Space Deck (+39 spaces)
10	2	---	75,000 Square Foot Garage (1 Floor, plus 60 spaces)
11	2	10,000 Square Feet Commercial	200 Space Garage (plus 125 spaces)
18	2	---	165,000 Square Foot Garage(2) (2 Floors, plus 150 spaces)
23	2	28,850 Square Foot Mall	Gain of 25 spaces
85	2	16,000 Square Foot Commercial Development	----------
38	3	---	25,500 Square Foot Parking Lot Development (plus 75 spaces)
42	3	32,400 Square Foot Commercial Development	Loss of 33 spaces
54	3	---	24,000 Square Foot Garage (plus 60 spaces)
74	3	13,500 Square Foot Office Rehabilitation	Plus 15 spaces
75	3	10,000 Square Foot Office Development	Loss of 29 Spaces
81	3	41,600 Square Foot Office Development	Loss of 62 Spaces
82	3	30,000 Square Foot Office Development	165-175 Space Garage (plus 102 Spaces)
74	3	25,000 Square Foot Commercial Development	Loss of 20 Spaces

Table 7 (continued)

FUTURE DEVELOPMENT ASSUMPTIONS

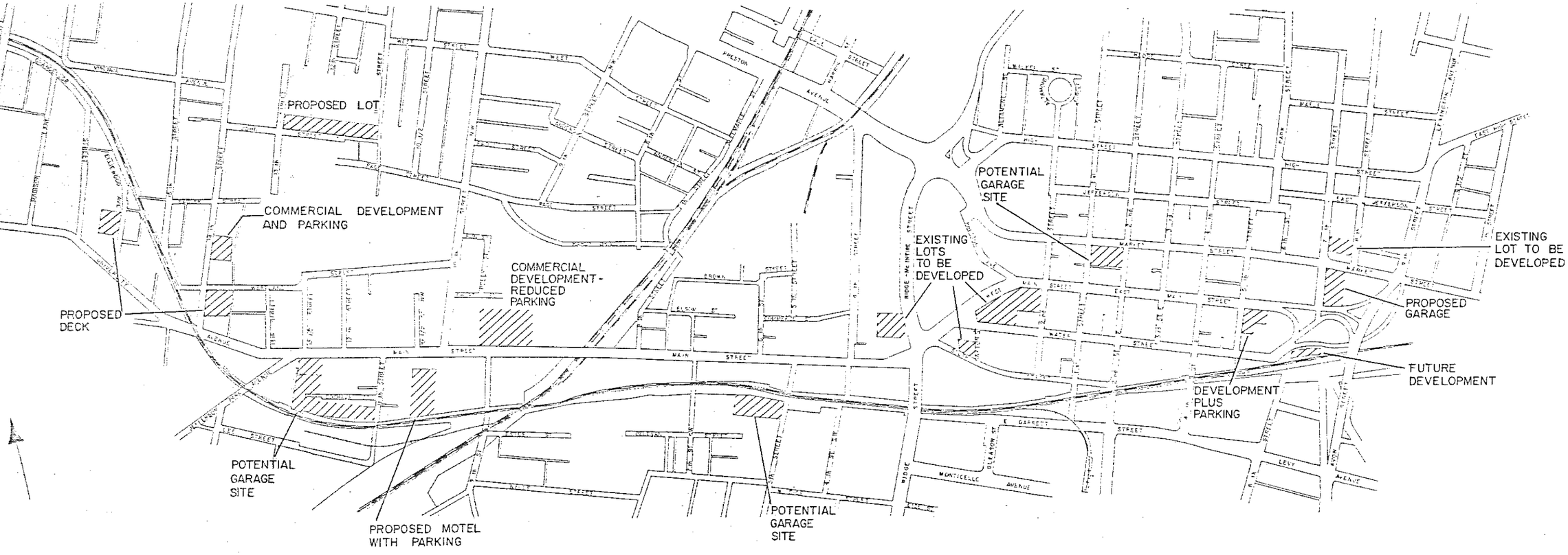
ZONE	AREA	DEVELOPMENT PARAMETERS	
		LAND USE CHANGES	PARKING SUPPLY CHANGES
58	3	60-80 Apartment Units; 5,000 Square Foot Office Development	---
86*	2	---	50,000 Square Foot Surface Lot (plus 145 spaces)
87**		---	24,000 Square Foot Garage(1) (2 Floors plus 36 spaces)
43	3	18,000 Square Foot Change From Existing Commercial to Office Development	---

* Located North of John Street (See Figure 7)

** Located East of 7th Street S.W. (See Figure 7)

(1) See Appendix Figure A for location of zones.

(2) Not included in future projections summarized in Table 8.



PLANNED LAND USE
AND PARKING DEVELOPMENT

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FIGURE 7

Table 8

PROJECTED PARKING DEMAND

AREA	DEMAND			ADJUSTED SUPPLY	SURPLUS (+) OR DEFICIENCY (-)
	Long-Term	Short-Term	Total		
1	108	329	437	281	- 156
2	732	950	1,682	2,105	423
3	2,042	918	2,960	2,339	- 621
TOTAL				4,725	

Chapter 4

RECOMMENDATIONS

Chapter 4

RECOMMENDATIONS

This chapter presents a proposed plan for meeting future parking deficiencies in the Charlottesville Central Area. Alternative parking concepts are discussed first, followed by a specific recommended parking program. Included in this program are recommendations regarding new facilities, management, pricing policies, implementation cost estimates, and other financing matters.

To assist in understanding the overall program, a "Proposed Early Action Plan" section is included which outlines recommendations to be given high priority and implemented initially. Further detail, and alternate plans, are subsequently discussed.

Alternative Parking Approaches

Five different fundamental parking approaches were considered in assessing ways to meet future parking needs. These options are briefly discussed below, and summarized in tabular form in Table 9.

Parking Management Techniques - This approach involves non-capital intensive measures, such as carpooling, transit, and more efficient parking operation changes such as compact car space delineation. Measures such as carpooling and increased transit use result in reduced parking demand, whereas the efficiency measures increase parking supply without physical expansion or provision of new facilities. As long as the commuter time to the central area is relatively short, and commuter parking costs continue to remain relatively inexpensive or free, it is unlikely that parking management measures, by themselves, can substantially impact total parking shortfalls. They are highly cost effective measures, however, and should be encouraged under any parking strategy.

Fringe Parking/Bus Shuttle System - Under this approach, free or low cost surface parking lots are provided on the fringe of the downtown area, and connected to the work place by a transit shuttle. For the same reasons as above--relative short commuter time and present availability of inexpensive or free parking--this approach also is unlikely to be a significant contributor to the commuter parking need in the foreseeable future.

New Parking Structures - The major advantage of this plan is that substantial additional parking, within close proximity of commuter destinations, can be provided. The major disadvantage is the substantial capital and operating cost involved in development of parking structures. Because of present low

Table 9

PARKING STRATEGY OPTIONS

Charlottesville Central Area

PARKING PLAN OPTION	SPECIFICS	ABILITY TO MEET FUTURE PARKING NEED
rking Management chniques	Carpooling, Transit, Compact Car Striping	As long as parking is inexpensive or free (within tolerable walking distance), and modest transit system, PM techniques won't offset shortfall
inge Parking/Bus uttle System	Free/low cost CBD fringe lot parking connected to study area by transit shuttles	Same As Above
w Parking ructures	Build all garages shown in "Planned Parking Development" figure plus additional long term parking, say at CPI Water Street lots	Sufficient sites available, environmentally preferred over surface lots. Would require extensive capital and annual operating subsidies, likely born by City
rface Parking ts	Build numerous lots in study area, likely requiring clearing considerable blocks with existing buildings	Land purchasing and building demolition could be considerab uses potentially developable land, unlikely sufficient land can be obtained to meet total need, environmentally least desirable of all options
mbination Plan	Encourage parking management, construct private and public garage projects presently proposed, provide lots where feasible, ultimately implement fringe shuttle for CBD long term parkers, charge for curb parking	Combination of options should provide sufficient spaces, permits flexibility to provide parking within constraints of different areas

monthly parking rates, parking structures oriented to meet commuting needs would have to be heavily subsidized, no doubt requiring major commitment by the City.

Surface Parking Lots - This approach is somewhat of a compromise between the new parking structure approach and fringe parking in that additional parking is provided, but at a somewhat lesser cost and farther distance from the commuter destination as compared with the new structure approach. A shortfall in this plan is the lack of available land, particularly in the central business area, to provide adequate additional parking to meet future projected long-term parking shortages.

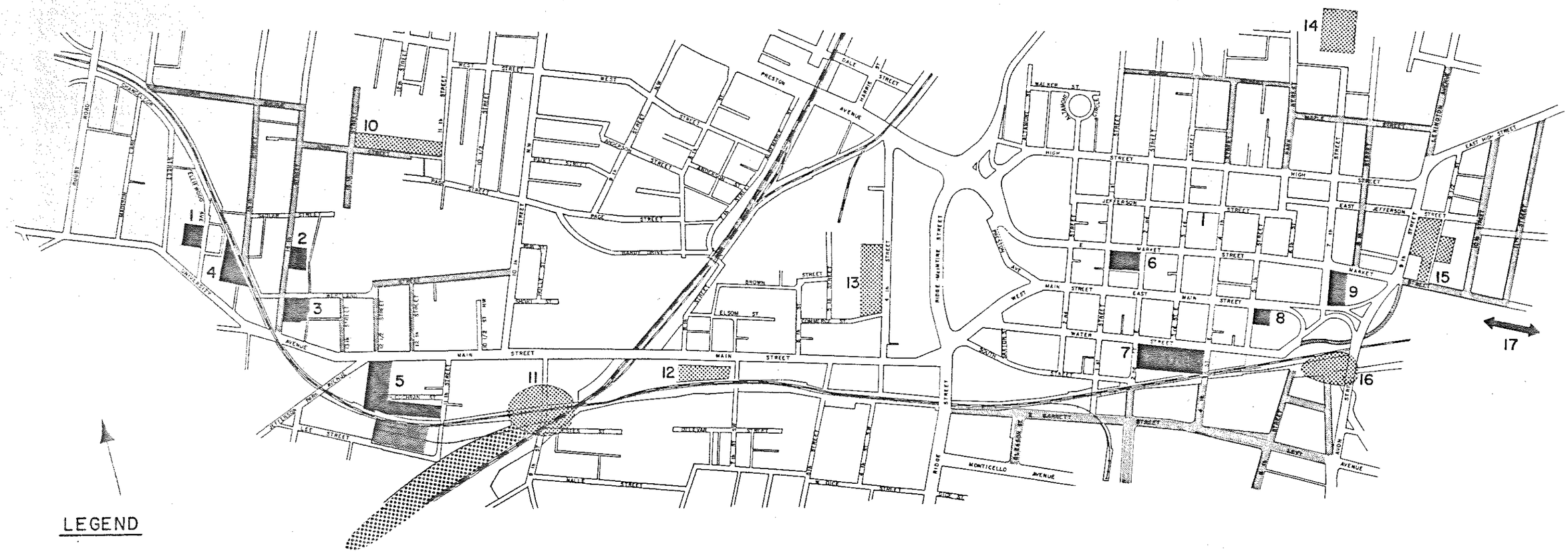
Combination Plan - This approach essentially takes elements from all above options and applies them at the most appropriate location and set of conditions. Carpooling, transit, and other parking management options should be strongly encouraged, thereby reducing total parking demand. Parking structures should be developed where the private sector is prepared to bear the capital and operating costs totally, or at highly desirable locations where capital and operating investment by the City can be substantially recouped through parking revenues. Less expensive surface lots should be provided where there is a demand for the additional parking, and the land is available for development.

Although the fringe shuttle parking program is a valid concept which has proven successful in other cities, such an approach likely will be the last parking plan to be implemented. This is due to the fact that it will only be successful at the point when downtown area parking rates have increased substantially and there is no available free or relatively low cost parking within acceptable walking distance.

Proposed Early Action Plan

Based on the above analysis, the specific parking implementation plan has been developed. Parking recommendations by type and location are presented in Figure 8 and summarized in Table 10. Additionally, an implementation priority--high, moderate, and low--to provide a relative importance or degree of need to each recommendation is included in Table 10.

The projected future parking demand and supply is based on an approximate 5-year future condition (say, the year 1990). To meet the projected deficiency, a wide array of specific recommendations, and in some cases alternates to these recommendations, are presented in subsequent sections of this chapter. This section outlines the most important elements of the plan which should be considered for implementation in the first stage of overall parking development. The subsequent sections discuss many of these early action items in greater detail.



LEGEND

- 00 ITEM NUMBER (See Table 10)
- PROPOSED GARAGE
- PROPOSED LOT
- FRINGE PARKING SHUTTLE
- COMMUTER PARKING (METERS OR PERMIT)

PROPOSED PARKING PLAN

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FIGURE 8

Table 10

PARKING IMPLEMENTATION STRATEGY

Charlottesville Central Area

ITEM NUMBER	TYPE PARKING[1]	PARKING SPACES (NET INCREASE)	IMPLEMENTATION PRIORITY	BUILT OR MANAGED BY	COMMENTS
	New Facilities				
1	Structure-ST	39	High	Private	Under construction.
2	Structure-ST&LT	60	High	Private	Approved for construction
3	Structure-ST	125+	High	Private/City	Approved for construction
4	Structure-ST&LT	100	Low	Private	No plans at present
5	Structure-ST&LT	150+	Low	Private	No plans at present
6	Structure-ST&LT	60+	Moderate	Private/City	Short term and preminum monthly, build if site cost effective
7	Structure-ST&LT	150+	Moderate	Private/City	Only significant LT structure proposed
8	Structure-ST	15+	High	Private	Planned
9	Structure-ST&LT	87	Moderate	City	Planned
10	Lot - LT	140	High	City	Serve commuters in day, residents at night
11	Lot - LT	40	Low	City	Serve commuters
12	Lot - LT	100	Moderate	Private/City	Serve commuters, lease from Amtrak, long range potential garage site. Presently not available.
13	Lot - LT		Moderate	City	May be allocated to site users; serve commuters if spaces available.
14	Lot - LT	40	High	Private/City	First Presbyterian Church; interim measure
15	Lot - LT	100	Low	Private/City	Several land parcels may not be available
16	Lot - LT	20	Moderate	Private/City	Serve commuters, better use of C&O Railroad and City property
	Fringe Area Shuttle				
17	Lot - LT	200+	Low	City	Fringe commuter lot with shuttle, consider Barnes Lumber area
	Metered Parking				
Various	Curb - LT	---	Moderate	City	Metered or permit curb parking for commuters
	TOTAL SPACE INCREASE	1,426+			

1. ST = Short Term, LT = Long Term

1. Development of the Jefferson National Bank surface lot at Market and 1st Streets as a multi-level parking facility should be supported. If this facility cannot be financed and built through private sources exclusively, then a joint public/private venture should be considered, with implementation perhaps within the next three years.

2. The existing public surface lot on Water Street, between 2nd and 4th Streets, should be identified as the location for a multi-level structure to provide substantial additional commuter parking in the downtown area. Initial consideration should be given to designing a structure which has the capability to expand in the future to meet future demand requirements, but may not be financially practical to develop in the very near future. This structure should be considered for implementation within the next three years.

3. Short-term (say 2 hour) metered curb parking should be expanded in the non-residential areas to provide a more consistent and rational parking control plan. Specifically, it is suggested that such parking be provided on all curb spaces in the downtown area generally bounded by (an including) Ridge-McIntire, High and Ninth Streets, and the C&O Railroad tracks. Furthur, existing West Main Street metered parking beginning at Ninth Street should be extended east to the proposed downtown area.

   Both metered rates and parking violation fines should be increased to reduce use of this short-term parking by commuters, promote higher parking space utilization (i.e., turnover) and provide additional revenues for implementing other parking plan recommendations. Institution of these parking meter plans will most directly benefit the shopper by ensuring a greater supply of convenient curb parking to their retail destination.

4. Long-term (say, 10 hour) meters should be installed on public streets such as South Garrett Street and 14th Street, N.W., where the predominence of parking is all-day commuters. Such action will encourage the use of off-street parking facilities for commuters, term parkers, and provide revenues to assist in implementing the other parking recommendations.

5. The City and private sector should aggressively pursue parking management options which contribute to reducing total parking demand. This includes the use of public transit, carpooling, and provision of bicycle parking areas.

6. The public and private parking facilities now in various stages of planning and development should be encouraged. This includes the privately developed garages on Elliewood Avenue and 14th Street, N.W., and the City planned facility at Market and 7th Streets.

New and Modified Existing Parking Facilities

Recommendations regarding surface lots and structures, both new and modification of existing ones, are described below. These include greater detail of the above early action plans, as well as other recommendations.

A. Where a private developer plans to develop a parking structure, totally through his own resources, it is strongly recommended that these plans be supported. Proposed structures such as those at Location Numbers 1 (now under construction), 2, and 3 (recently approved for construction) are given a high implementation rate.

Approximately 60 spaces are proposed as part of a commercial development on 14th Street, N.W. (Location No. 2). Although this proposal is supported based on area parking needs, it is recognized that this could adversely impact adjacent residential land uses. Particular attention should, therefore, be given to ensuring that the development is acceptable from an aesthetic and land use impact perspective.

B. In Area 2 (West Main Street) total projected parking supply is projected to exceed supply, recognizing the possibility of specific shortages such as forshort-term parking along Main Street. Accordingly, none of the Area 2 proposed improvements, excluding those funded by private funds totally, are given a high priority.

An indicator of adequate parking can be demonstrated by the recent events at the old Safeway site on Main Street. Until recently this lot was filled with parkers who were not required to pay for the use of this private property. The owner began charging for parking, at a rate of up to $2.50 per day. Since pay parking has been in effect, the facility has had an average occupancy of less than five cars.

This shows a substantial number of parkers are finding free parking within acceptable walking distance of their destination. This further suggests that there is an adequate parking supply in the area. It is, therefore, impractical to provide additional off-street parking when existing private lots, charging a modest fee, are not utilized.

C. Observations of the First Presbyterian Church parking lot (Location No. 14) indicate that a significant number of parking spaces presently rented on a monthly basis normally are empty. The availability of these spaces should be promoted with the public.

D. Location No. 15 is proposed surface parking between 9th and 10th Streets. This area is an attractive location because of its close proximity to the central business area, and the fact that much of it already is parking. Combining all the land into one parking facility could bring efficiencies resulting in additional spaces. This location is a low priority, however, because: the land is not available at present; existing buildings would have to be demolished and the site regraded, increasing development costs; and, land of a number of different landowners would have to be acquired.

E. The existing lot at Location No. 6, owned by Jefferson National Bank, is perhaps the best location north of Main Street to achieve optimum parking revenues and return on investment. Further, this is one of the few locations compatible with the surrounding land uses. High priority, therefore, is given to developing additional parking at this location. If private development of the facility is not feasible, then joint public/private financing should be considered.

F. The Southern Railroad property, at Location No. 12, adjacent to the AMTRAK railroad station, should be considered on an interim basis, as a commuter facility. This also is a good location for a parking structure. This, naturally, would be a long-range low priority plan. Immediate use of this site is not realistic since Southern Railroad presently is not interested in leasing the property.

G. Development of a multi-level garage at the existing surface lot on Water Street, between 2nd and 4th Streets, N.E. (Location No. 7) offers the best opportunity to provide substantial additional commuter parking at a good location downtown. An initial structure could be built, with expansion capability to meet future demand increases.

New development is envisioned in the area generally bounded by West Main, South and 2nd Streets. Should this development have a significant retail component, onsite parking could be provided, and would be appropriate, the employee parking component of this development could be met at the proposed parking structure at Water and 2nd Streets, or by also expanding one of the two surface lots west of this parking site.

H. A surface lot at John and 13th Streets (Location No. 10) to serve commuters during the day (nominal monthly rate) and residents at night (no charge) should be implemented if space shortages continue after opening of the UVA Hospital 14th Street (Location 3), and Elliewood Avenue garages, and institution of the long-term metered curb parking plan. Prior to implementing the Corners Area metered parking and John Street surface lot, vehicle accumulation and turnover field surveys should be conducted to confirm that an areawide parking shortage remains.

I. Some additional parking spaces could be realized if the area in Location No. 16--both C&O Railroad and City property--was formally delineated with striped parking spaces. This area does not lend itself to high turnover (i.e., shopper) use and, therefore, should continue as primarily commuter parking.

J. An analysis of the area revealed a very limited number of potential locations for fringe parking shuttle operations. One possible area for consideration is the land parcel surrounding Carlton Road and its intersection with the C&O Railroad lines, in the vicinity of the adjacent land uses, including the junkyard and Barnes Lumber Company. Perhaps a portion of these large land areas could be made available for a fringe parking lot. This lot could be served fairly efficiently from a shuttle to and from the downtown utilizing Market Street. No viable sites were identified north, west, or south of the Downtown area.

A 650-space parking garage to serve the University of Virginia medical complex is scheduled to open within the next 1-1/2 years. This facility will serve staff and visitors to the expanded medical center, and should not have a significant impact on the Corners area (Study Area 1) which is on the other (north side of Main Street.

The University will continue to use their large surface lot on Wertland Street. The same land use concerns expressed regarding the 14th Street proposed retail/parking development (Location No. 2) apply to the University parking. This use is not compatible with the long-term goal of a viable residential community in this area. Accordingly, the University should be encouraged to relocate this employee parking function to an area of more appropriate land use, and revert the Wertland Street lots to a residential, or residential compatible, use.

As shown in Table 11, there would be an additional 468 spaces (total of 5,193 of Table 11 versus Table 8 total of 4,725) compared to planned spaces, if all of these recommendations were implemented. The 71 space shortage in Area 1 likely can be accommodated by the surplus parking in adjacent Area 2. Again,

Table 11

PROJECTED PARKING CONDITIONS
With Implementation of Proposed Plan

	DEMAND	ADJUSTED SUPPLY	SURPLUS OR DEFICIENCY
Area 1	437	366	-71
Area 2	1,682	2,224	542
Area 3	2,960	2,603	-357
	TOTAL	5,193	

the Area 2 surplus will be realized only if all the recommendations summarized in Table 10 are implemented.

The central business area will still have a projected shortage of commuter parking (357 spaces) even if all recommendations are implemented, excluding the fringe shuttle bus program. This deficiency can be further reduced, assuming proper financial conditions, by increasing the size of the proposed Water Street structure (Location No. 7) beyond the initial assumption of a net increase of 150 spaces. If the policy is accepted that this commuter demand simply cannot be met through use of predominantly residential street curb parking, as is the present practice, the most viable option appears to be the extensive development of fringe shuttle parking facilities.

Pricing Policies

It can be argued that a moderate sized urban area such as Charlottesville benefits from having available free parking for those commuters willing to walk a limited distance. A disadvantage of this circumstance is that private sector only market forces cannot be expected to develop the needed total parking supply based on a reasonable return on investment. As long as the present situation of the availability of reasonably close free curb and off-street parking for commuters exists, there will be very few instances in which the private sector can step in and create the necessary parking to meet future demands. With this in mind, it is therefore appropriate for local government to participate to the extent and form necessary to optimize public sector parking in providing parking, and help insure success in meeting a community goal of providing adequate parking for all central area needs.

Based on the above background and premises, it is recommended that the City seriously consider a pricing policy regarding public parking. Specifically, there should be a charge to individual users of public parking provided in commercial and retail areas where parking is in high demand. This policy is appropriate for the following reasons:

- Charging for parking in these areas provides consistency in the policy. A good example of present policy consistency is the presence of metered curb spaces on West Main Street west of approximately Ninth Street, and the present of free unmetered curb spaces east of Ninth Street, despite the fact that both sections of Main Street are comparable in terms of present adjacent retail land use.

- As long as valuable public parking in retail and commercial areas ia made available free of charge, there is little incentive for the private sector to develop additional off-street parking. There is virtually no

incentive to the private sector to develop parking available to the public in general since there is no potential for realizing a return on investment. The only parking to be developed will be as part of an overall land use development, and oriented to serving only the public frequenting the retail or commercial developing portion of the entire development.

- Free curb or off-street parking discourages number of different vehicles utilizing the same space. This results in fewer citizens being able to use a given parking spaces.

- Free parking takes away a potential revenue source to the City to help defray subsidy requirements for development and operation of new off-street parking facilities to serve the public.

Based on the above parking pricing policy, the following specific actions should be taken:

1. A nominal fee should be considered at the present free public off-street parking lot north of West Main Street, between 7th and 6th Streets, and the northeast corner of the Water and 5th Streets intersection;

2. Use of both long-term and short-term metered curb parking spaces in the downtown, and along West Main Street, should be expanded, as discussed under "Proposed Early Action Plan".

3. The present base metered rate of 5 cents per hour should be increased to at least 10 cents per hour. At limited locations where very high turnover is desirable, and alternate offstreet parking is available, the rates should be increased to 10 cents per 15 minutes. These pricing actions will help discourage use of metered spaces by all day commuters, increase space usage (turnover) and increase City revenues for developing additional parking.

4. Curb parking presently serving primarily commuters in the study area should be converted to metered parking. These should be long-term meters, for example, charging $.50 for 10 hours parking. Preliminary thoughts on candidate blocks for the streets suggested are located in the predominantly residential area north of University Avenue and West Main Street in The Corner area, and the commercial and residential area south of the downtown in the general vicinity of East Garrette Street.

If the visual impact of additional meters in these predominantly residential areas is considered unacceptable, then commuter permit parking zones could be established. Parking would be regulated through signage, similar to residential permit parking zones. A disadvantage of this approach is that there is greater difficulty in enforcement plus the substantial additional administrative costs. Residents could be provided permits free of charge.

Installation of long-term meters in these locations will have the positive impact of providing greater parking space turnover, and thereby increasing the availability of parking to residents. A certain number of commuters will change to other parking, further freeing parking for residents. Finally, residents could be issued a permit to exempt them from having to "feed the meters." Use of the meters would not be in effect in the evenings or weekends.

It is recognized that there may be opposition to implementing pay parking at present free parking facilities. This likely will be most vocal from owners of retail establishments where metered short-term curb parking is proposed. They may perceive metered parking as adversely affecting their business.

The proposal of pay parking presents a fundamental parking policy issue. Maintaining the present practice of extensive free public parking no doubt would be the more popular one. As previously stated, this would substantially reduce the revenue potential for new parking facilities, thereby requiring greater participation and associated capital and operation investments on the part of the City. The result would be greater cost to the City and, likely, less of total parking needs being met. The City must decide which of these two approaches will be taken to help contribute to a viable Central Area.

Residential Parking

The importance of adequate parking as part of a viable Central Area residential community was discussed in Chapter 3. The following recommendations relate to parking in residential areas:

1. Existing residential permit parking zones should remain, with the specific boundaries modified as appropriate. Although such restricted parking plans have inherent problems, they provide a solution to meeting residential parking needs in an area competing with commuter parkers.

2. A variation of residential permit parking, as previously discussed, is commuter oriented meters (or permits) in residential areas. This enhances residential parking but still permits non-resident parking.

3. In areas where parking also is a problem in evenings and weekends, such as north of "The Corner", offstreet parking should be available for use by residents. The existing and proposed offstreet facilities on 14th and John Streets, for example, could help meet these unique parking needs.

Other Parking Management Plans

Parking management techniques focus on measures which reduce parking demand or provide more efficient use of existing facilities, rather than the development of additional spaces. The means of effecting these measures often is through the City code.

It is recommended that existing parking codes be reviewed from the point of view of enhancing parking management techniques, including the following:

1. Transit and ridesharing should be enhanced through information distribution and programs (i.e., transit service and availability of ridesharing programs). A developer could be given parking space credits by promoting transit and ridesharing. At City parking facilities, carpoolers could be allocated the most conveniently located spaces, and at a reduced monthly rate. Similar carpool preferential programs have been instituted for curb parking and favorably received by the public, in Portland and Seattle.

2. Consideration should be given to permitting compact car spaces in certain conditions. For example, a large parking facility for a private employer may be an appropriate case to permit a certain percent of compact spaces, thereby permitting more spaces in the same parking area.

3. Responding to the increase in percent of compacts and the overall downsizing of the automobile over the past 10 years, consideration should be given to reducing the size of the parking space. One size typically used is a space 8-1/2 feet wide, 18 feet long, and a 58-foot wide bay (2 rows of parking and an aisle) for perpendicular parking.

4. Parking tickets are intended to be a deterent to violating parking controls. The present $3.00 expired time ticket is too small to be a deterent and should be increased, perhaps to at least $5.00.

Construction Cost Estimate

For general planning purposes, a cost estimate to implement the recommendations depicted in Figure 8 has been developed. Costs have been categorized by the three priority types--high, moderate and low. Total cost for all proposed facilities is $4,863,000 (see Table 12.)

Financing Considerations

High interest rates and limited investment funds have caused local governments to seek innovative methods of financing parking facilities such as those proposed in this study. In particular, mixed-use projects with public-private participation have led to very complex funding requirements for the public portion (often the parking).

Parking authorities, popular in the past, have been losing interest because of their conservative tendencies in expanding parking supply. This conservatism is partly due to increasd economic difficulties, and the limited legal ability to generate non-parking revenues to support existing and new parking development. Accordingly, it is suggested that any public parking expansion, at least initially, be conducted through the present City financial structure.

Conversely, increasing numbers of cities are leasing their parking system to private operators with the goal of achieving lower operating cost and more intensive utilization. At this time, this appears to be an appropriate practice for the City of Charlottesville, utilizing entities such as the Charlottesville Parking Corporation.

Before any specific parking facility, especially structured parking, is built by the City, a formal financial feasibility study should be performed. Such studies address the following issues:

- facility location;
- type--lot, garage, deck, etc.;
- number of spaces
- parking rates;
- operating characteristics--short-term vs. long-term parking, hours of operation, revenue collection system (cashier meters, etc.)
- preliminary design features; and,
- construction cost estimate and annual revenue/cost analysis.

The most appropriate financing method will depend on a myriad of factors--type facility, public vs. public/private ownership, financial market factors, and financial feasibility of project.

Table 12

CONSTRUCTION COST ESTIMATE

Proposed New Facilities

ITEM NUMBER (Fig.8)	LOCATION	TYPE FACILITY	PARKING SPACES* (NET INCREASE)	IMPLEMENTATION PRIORITY	COST ESTIMATE	COMMENTS
1	Ellwood Avenue	Garage	39	High	214,500	
2	14th Street south of Sadler	Garage	60	High	330,000	
3	14th Street south of Wertland	Garage	125+	High	687,500	
8	East Main and Fifth	Garage	15+	High	82,500	
10	John Street between 11th and 15th	Lot	145	High	217,500	
14	7th north of Maple	Lot	40	High	----	Existing paved lot
		SUBTOTAL			1,532,000	
6	East Market Street between 1st and 2nd	Garage	60+	Moderate	330,000	
7	Water Street between 2nd and 4th	Garage	150+	Moderate	825,000	
9	East Main and 7th	Garage	102	Moderate	561,000	
12	Main Street and 7th S.W.	Lot	100	Moderate	----	Existing paved lot
13	4th and Commerce	Lot	---	Moderate	----	Existing paved lot
16	Avon Street south of Railroad Tracks	Lot	20	Moderate	30,000	Lot now unpaved
		SUBTOTAL			1,746,000	
4	Chancellor north of University Avenue	Garage	100	Low	550,000	
5	Jefferson Park Avenue and Main Street	Garage	150+	Low	825,000	
11	9th and Estes	Lot	40	Low	60,000	
15	9th between East Jefferson and Estes	Lot	100	Low	150,000	
		SUBTOTAL			1,585,000	
		GRAND TOTAL			4,863,000	

*(Spaces not adjusted to 85%)

General Notes:

1. Building demolition or land acquisition not included in costs.
2. Garage costs based on $5,500 per space, for the net increase (i.e., surface parking would remain).

Accordingly, it is not possible to recommend a specific financial program as part of this study, but rather, available options..

Present financing trends and related observations relevant to Charlottesville are discussed below. Much of the information presented is from a research article by Wilbur S. Smith, published in the July, 1983 edition of Transportation Quarterly. Three areas of financing are discussed--public, private sector and public/private.

Public Financing - The more traditional methods of funding public parking projects are still being used with some success. These include general obligation bonds, enterprise (parking revenue) bonds, lease rental revenue bonds, industrial revenue bonds, and special assessment district bonds (a form of general obligation bond).

Section 103(a) of the Internal Revenue Code provides that all municipal bonds issued for parking purposes fall in the tax-exempt category. However, the leasing of bond-financed facilities to a "non-exempt" operator subjects the bond financing (either revenue or general obligation bonds) to a trade or business text in order that the bonds not be considered industrial development bonds, subject to more stringent IRS restrictions.

The cost-income squeeze associated with many new parking facilities eliminates unsupported parking bonds as a financing method. Public agencies that have developed parking facilities over past years, and who have consistently adjusted parking rates to keep pace with inflation, can successfully market revenue bonds by pledging surplus earnings from existing system elements.

There are limits on the use of industrial revenue bonds for development projects, but these can be a funding source. Tax increment bonding is a form of special assessment district financing that pledges the incremental increase in ad valorem tax resulting from redevelopment of specific areas to the retirement debt incurred to financing public infrastructure in those areas.

Because of recent radical fluctuations in interest rates in the bond market (since 1977), another concept now in vogue in parking facility development reverts to the use of short-term borrowing. Use of Bond Anticipation Notes (BANs) continues, as well as Certificates of Deposit (CDs) whereby the applicant can hopefully have the flexibility to re-invest and also gain on the margins of interest rate variations.

Private Sector Financing - For the private sector, the traditional long-term loan has nearly become extinct. In its place a literal supermarket of financing alternatives available to the private developer. The prominent sources for conventional mortgage financing still remain--major insurance

companies, pension funds, savings and loan associations, and commercial banks. However, due to the uncertain economy and fluctuating interest loans, mortages usually avoid long-term commitments at a fixed rate.

In one form or another, money is available to the qualified private developer, but the financing typically will include one or more financing modes, including: variable, indexed and renegotiable rate loans; blend mortages; shared appreciation mortgages; percent-of-cash flow/or presale by developer deals; and joint ventures. Sometimes, combinations of these alternatives will include syndications, sales/leasebacks, plus non-taxable funding (such as industrial revenue bonds or joint public-private venturing).

With some longer-term private financing of multi-use development, the convertible mortgage loan has gained interest. It permits the purchase of an income-producing property, where the investor can offer a project's owner or developer a mortgage loan at below market rates. The kicker is that the investor/lender gets an option to acquire the property in the future, on an agreed price. In other words, debt financing can be exchanged for an equity position--like a corporate debenture. It is not really a loan in conventional terms. It is basically a means of ultimately acquiring a property that might not otherwise come on the market with acceptable terms, in exchange for accomplishing the project. If the investor does not exercise the option when the time comes, the loan is allowed to mature and is payable.

An innovative San Francisco developer is financing a parking garage by selling the individual parking spaces for $16,000 to $21,000 (a motorcycle parking stall costs $2,000). Besides the purchase price, buyers must pay about $22.00 a month in dues to cover maintenance and insurance. They also must pay property taxes. Buyers, however, have the right to rent, sell or bequeath their title to space(s) purchased. Five-year, 12.5 percent financing is available, and the interest can be tax deductible for most buyers--for some investors, the cost can be depreciated. Similarly, condominium parking garages have been developed in Boston and proposed in Hartford.

Tax-exempt financing has been another alternative available to the private developer of parking to reduce the cost of borrowing. This can involve the financing of property acquisition and construction of parking facilities thereon by the issuance of tax-exempt municipal revenue bonds, and the leasing of such parking facilities to private operators.

Public/Private Venturing - With cooperation and support between the private and public sectors, and with sound fiscal advice, joint public/private venturing is feasible. Negotiation between private and public parties will normally include: the

final preliminary design, development schedules, an operating plan, cost estimates, a financial pro forma analysis, the financing program, and a cost/benefit analysis.

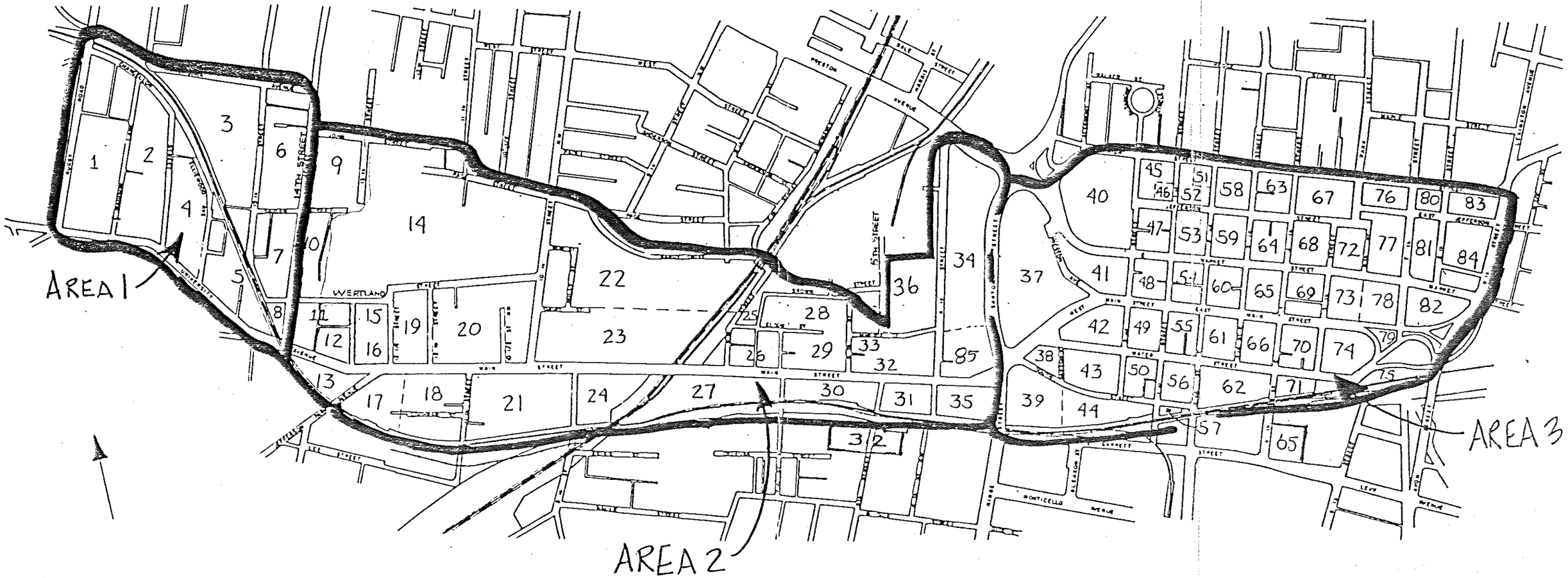
Sale and lease-back agreements have been used for many years to support debt service payments on enterprise bonds, with variations of this method routinely considered. These include provisions of so called "common area" assessments against the private components to underwrite parking revenue shortfalls; use of a letter of credit by the private developer to secure unrated bonds; and direct lease (guaranteed debt service) by private interests.

Over the past several years, there has been a significant amount of federal grant money available for public/private development projects. These include UDAG, EDA, UMTA, Community Block Grants, Revenue Sharing, etc. While many of these programs are no longer in effect, one such program has been very successful (UDAG) and may continue in some form. It is especially designed for the interaction of public and private sector financing of new mixed-use projects, and has been well received and supported. The City should keep apprised of which federal programs are viable as each project evolves.

APPENDIX

APPENDIX TABLES A - F

EXISTING PARKING DATA



PARKING ZONE IDENTIFICATION MAP

Appendix Table A-1

AREA 1
EXISTING OFFICE AND COMMERCIAL USES

ZONE	GROSS SQFT. OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY(UNADJ)	SPECIAL DEMANDS LONG-TERM	SHORT-TE
2	0	0	43	0	
4	0	32650	103	0	
5	0	94900	96	0	
7	1250	0	23	0	
8	0	15600	6	0	
TOTAL	1250	143150	291	0	

Appendix Table A-2

AREA 1
EXISTING OFFICE AND COMMERCIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for LT	.8
Avg. AUTO Occupancy for LT	1.2
ST Demand Per Sqft. of OFFICE	.0003
ST DEMAND PER SQFT. OF COMM	.001

Appendix Table A-3

AREA 1
EXISTING OFFICE AND COMMERCIAL USES

PARKING DEMAND (Selected Zones)

ZONE	LONG-TERM	SHORT-TERM
2	0	0
4	24	75
5	70	218
7	3	0
8	11	36
TOTAL	108	329

Appendix Table A-4

AREA 1
EXISTING OFFICE AND COMMERCIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY--	--DEMAND-- LT	ST
2	43	0	0
4	123	24	75
5	96	70	218
7	23	3	0
8	6	11	36
TOTAL	291	108	329

Long-Term Surplus + (Deficit -): +183
Short-Term Surplus + (Deficit -): -329

Appendix Table B-1

AREA 1
EXISTING SPECIAL USES

ZONE	GROSS SQFT. OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY(UNADJ)	SPECIAL DEMANDS LONG-TERM	SHORT-TER
1	Ø	Ø	143	143	Ø
3	Ø	Ø	139	139	Ø
6	Ø	Ø	93	93	Ø
91	Ø	Ø	181	181	Ø
TOTAL	Ø	Ø	556	556	Ø

Appendix Table B-2

AREA 1
EXISTING SPECIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for LT	.85
Avg. AUTO Occupancy for LT	1.1
ST Demand Per Sqft. of OFFICE	.0002
ST DEMAND PER SQFT. OF COMM	.0023

Appendix Table B-3

AREA 1
EXISTING SPECIAL USES

PARKING DEMAND (Selected Zones)

ZONE	LONG-TERM	SHORT-TERM
1	143	Ø
3	139	Ø
6	93	Ø
91	181	Ø
TOTAL	556	Ø

Appendix Table B-4

AREA 1
EXISTING SPECIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY--	--DEMAND-- LT	ST
1	143	143	0
3	139	139	0
6	93	93	0
91	181	181	0
TOTAL	556	556	0

Long-Term Surplus + (Deficit -): +0
Short-Term Surplus + (Deficit -): +0

Appendix Table C-1

AREA 2
EXISTING OFFICE AND COMMERCIAL USES

ZONE	GROSS SQFT. OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY(UNADJ)		SPECIAL DEMANDS LONG-TERM	SHORT-TE
10	0	0	213		0	
15	0	8500	42		0	
18	1800	24000	273		0	
19	6300	18700	93		0	
20	165000	18150	258		0	
21	0	27750	163		0	
23	0	54400	209		0	
24	0	46800	35		0	
25	0	0	10		0	
26	0	26300	24		0	
27	0	10900	93		0	
28	0	244400	116		0	
30	3000	14050	49		0	
31	0	16800	33		0	
32	90400	12900	218		0	
35	15000	6555	12		0	
85	0	31500	72		0	
11	9100	11700	171		0	
13	0	0	12		0	
TOTAL	290600	353405	2116		0	

Appendix Table C-2

AREA 2
EXISTING OFFICE AND COMMERCIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for LT	.85
Avg. AUTO Occupancy for LT	1.1
ST Demand Per Sqft. of OFFICE	.0002
ST DEMAND PER SQFT. OF COMM	.0023

Appendix Table C-3

AREA 2
EXISTING OFFICE AND COMMERCIAL USES

PARKING DEMAND (Selected Zones)

ZONE	LONG-TERM	SHORT-TERM
10	0	0
15	6	20
18	22	56
19	28	44
20	378	75
21	20	64
23	40	125
24	34	108
25	0	0
26	19	60
27	8	25
28	18	56
30	17	33
31	12	39
32	209	48
35	38	18
85	23	72
11	29	29
13	0	0
TOTAL	901	872

Appendix Table C-4

AREA 2
EXISTING OFFICE AND COMMERCIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY--	--DEMAND-- LT	ST
10	213	0	0
15	42	6	20
18	273	22	56
19	93	28	44
20	258	378	75
21	183	20	64
23	209	40	125
24	35	34	108
25	10	0	0
26	24	19	60
27	93	8	25
28	116	18	56
30	49	17	33
31	33	12	39
32	218	209	48
35	12	38	18
85	72	23	72
11	171	29	29
13	12	0	0
TOTAL	2116	901	872

Long-Term Surplus + (Deficit -): +1215
Short-Term Surplus + (Deficit -): -864

Appendix Table D-1

AREA 2
EXISTING SPECIAL USES

ZONE	GROSS SQFT. OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY(UNADJ)	SPECIAL DEMANDS LONG-TERM	SHORT-TE
9	Ø	Ø	43	43	
14	Ø	Ø	372	372	
16	Ø	Ø	12	12	
17	Ø	Ø	118	118	
22	Ø	Ø	104	104	
29	Ø	Ø	40	40	
33	Ø	Ø	12	12	
34	Ø	Ø	341	341	
36	Ø	Ø	120	120	
92	Ø	Ø	117	117	
TOTAL	Ø	Ø	1279	1279	

Appendix Table D-2

AREA 2
EXISTING SPECIAL USES

PARKING DEMAND (Selected Zones)

ZONE	LONG-TERM	SHORT-TERM
9	43	0
14	372	0
16	12	0
17	118	0
22	104	0
29	40	0
33	12	0
34	341	0
36	120	0
92	117	0
TOTAL	1279	0

Appendix Table D-3

AREA 2
EXISTING SPECIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for LT	.85
Avg. AUTO Occupancy for LT	1.1
ST Demand Per Sqft. of OFFICE	.0002
ST DEMAND PER SQFT. OF COMM	.0023

Appendix Table D-4

AREA 2
EXISTING SPECIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY--	--DEMAND-- LT	ST
9	43	43	0
14	372	372	0
16	12	12	0
17	118	118	0
22	104	104	0
29	40	40	0
33	12	12	0
34	341	341	0
36	120	120	0
92	117	117	0
TOTAL	1279	1279	0

Long-Term Surplus + (Deficit -): +0
Short-Term Surplus + (Deficit -): +0

Appendix Table E-1

AREA 3
EXISTING OFFICE AND COMMERCIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY--	--DEMAND-- LT	ST
41	53	30	30
42	48	21	25
43	61	23	20
44	23	8	7
45	21	0	0
47	49	30	5
48	28	85	40
49	6	25	40
50	136	8	1
52	5	10	2
53	7	0	0
54	62	12	4
55	28	27	29
56	133	0	0
57	6	0	0
58	15	0	0
59	35	5	1
60	15	65	46
61	9	33	47
62	216	0	0
63	99	13	20
64	29	52	23
65	94	152	77
66	12	60	88
67	31	61	10
68	38	149	23
69	13	91	49
70	8	66	52
71	24	26	17
72	36	113	24
73	462	87	16
74	57	31	50
75	70	95	15
76	59	65	10
77	139	48	8
78	13	180	28
79	10	0	0
80	23	25	4
81	91	165	26
82	99	13	21
83	22	23	4
84	90	23	8
TOTAL	2463	1860	870

Long-Term Surplus + (Deficit -): +603
Short-Term Surplus + (Deficit -): -870

Appendix Table E-2

AREA 3
EXISTING OFFICE AND COMMERCIAL USES

ZONE	GROSS SQFT. OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY(UNADJ)		SPECIAL DEMANDS LONG-TERM	SHORT-TE
41	6000	28600	53		0	
42	3300	23800	48		0	
43	6000	10600	61		0	
44	2000	6300	23		0	
45	0	0	21		0	
47	15800	0	49		0	
48	0	40000	22		0	
49	0	40000	6		0	
50	4400	0	136		0	
52	5000	0	5		0	
53	0	0	7		0	
54	5300	2700	62		0	
55	5300	27000	22		0	
56	0	0	133		0	
57	0	0	6		0	
58	0	0	15		0	
59	2700	0	35		0	
60	20700	40000	15		0	
61	1900	46000	9		0	
62	0	0	216		0	
63	0	20000	99		0	
64	21850	16450	29		0	
65	60000	58700	94		0	
66	2250	87000	12		0	
67	32200	0	31		0	
68	78200	0	38		0	
69	34650	39100	13		0	
70	19200	46000	8		0	
71	9000	14700	24		0	
72	57250	6400	36		0	
73	45000	2500	462		0	
74	0	49600	57		0	
75	50000	0	70		0	
76	34000	0	59		0	
77	25050	0	139		0	
78	94350	0	13		0	
79	0	0	10		0	
80	13200	0	23		0	
81	86500	0	91		0	
82	0	20800	99		0	
83	11950	0	22		0	
84	10200	5100	90		0	
TOTAL	763250	639350	2463		0	

Appendix Table E-3

AREA 3
EXISTING OFFICE AND COMMERCIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for LT	.8
Avg. AUTO Occupancy for LT	1.2
ST Demand Per Sqft. of OFFICE	.0003
ST DEMAND PER SQFT. OF COMM	.001

Appendix Table E-4

AREA 3
EXISTING OFFICE AND COMMERCIAL USES

PARKING DEMAND (Selected Zones)

ZONE	LONG-TERM	SHORT-TERM
41	30	30
42	21	25
43	83	20
44	8	7
45	0	0
47	30	5
48	25	40
49	25	40
50	8	1
52	10	2
53	0	0
54	12	4
55	27	39
56	0	0
57	0	0
58	0	0
59	5	1
60	65	46
61	33	47
62	0	0
63	13	20
64	52	23
65	152	77
66	60	88
67	61	10
68	149	23
69	91	49
70	66	52
71	26	17
72	113	24
73	87	16
74	31	50
75	95	15
76	65	10
77	48	8
78	180	28
79	0	0
80	25	4
81	165	26
82	13	21
83	23	4
84	23	8
TOTAL	1860	870

Appendix Table F-1

AREA 3
EXISTING SPECIAL USES

ZONE	GROSS SQFT. OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY(UNADJ)	SPECIAL DEMANDS LONG-TERM	SHORT-TE
37	Ø	Ø	486	486	
38	Ø	Ø	8	8	
39	Ø	Ø	45	45	
40	Ø	Ø	95	95	
46	Ø	Ø	13	13	
51	Ø	Ø	34	34	
93	Ø	Ø	39	39	
TOTAL	Ø	Ø	720	720	

Appendix Table F-2

AREA 3
EXISTING SPECIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for LT	.8
Avg. AUTO Occupancy for LT	1.2
ST Demand Per Sqft. of OFFICE	.0003
ST DEMAND PER SQFT. OF COMM	.001

Appendix Table F-3

AREA 3
EXISTING SPECIAL USES

PARKING DEMAND (Selected Zones)

ZONE	LONG-TERM	SHORT-TERM
37	486	Ø
38	8	Ø
39	45	Ø
40	95	Ø
46	13	Ø
51	34	Ø
93	39	Ø
TOTAL	720	Ø

Appendix Table F-4

AREA 3
EXISTING SPECIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	---SUPPLY---		---DEMAND--- LT	ST
37	486		486	Ø
38	8		8	Ø
39	45		45	Ø
40	95		95	Ø
46	13		13	Ø
51	34		34	Ø
93	39		39	Ø
TOTAL	720		720	Ø

Long-Term Surplus + (Deficit -): +Ø
Short-Term Surplus + (Deficit -): +Ø

APPENDIX TABLES G - L

PROJECTED PARKING DATA

Appendix Table G-1

AREA 1
PROJECTED OFFICE AND COMMERCIAL USES

ZONE	GROSS SQFT OF SALE		PARKING SPACES REQUIRED		E-SERIAL EMPLOYEES	
	OFFICE	COMMERCIAL	LONG-TERM	SHORT-TERM	LONG-TERM	SHORT-TERM
3	0	0	43	2	0	0
4	0	32630	163	2	0	1
5	0	54900	92	6	0	1
7	1250	0	25	0	0	0
8	0	15600	8	0	0	0
TOTAL	1250	143130	332	2	0	1

Appendix Table G-2

AREA 1
PROJECTED OFFICE AND COMMERCIAL USES

TRAVEL AND EMPLOYMENT CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	353
Avg. Sqft. Per Person COMM	1353
Percent Made by AUTO for LT	.85
Avg. AUTO Occupancy for LT	1.1
ST Demand Per Sqft. of OFFICE	.0023
ST DEMAND PER SQFT. OF COMM	.0023

Appendix Table G-3

AREA 1
PROJECTED OFFICE AND COMMERCIAL USES

ZONE	LONG-TERM	SHORT-TERM
3	0	0
4	24	75
5	70	218
7	3	0
8	11	36
TOTAL	108	329

Appendix Table G-4

AREA 1
PROJECTED OFFICE AND COMMERCIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY-- LT	ST	--DEMAND-- LT	ST
3	43	0	0	0
4	162	0	84	75
5	96	0	70	218
7	23	0	3	0
8	6	0	11	36
TOTAL	330	0	108	329

Long-Term Surplus + (Deficit -): +222
Short-Term Surplus + (Deficit -): -329

Appendix Table H-1

AREA 1
PROJECTED SPECIAL USES

ZONE	GROSS SQFT. OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY(UNADJ)	SPECIAL DEMANDS LONG-TERM	SHORT-TE
1	Ø	Ø	143	143	
3	Ø	Ø	139	139	
6	Ø	Ø	93	93	
91	Ø	Ø	181	181	
TOTAL	Ø	Ø	556	556	

Appendix Table H-2

AREA 1
PROJECTED SPECIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for LT	.85
Avg. AUTO Occupancy for LT	1.1
ST Demand Per Sqft. of OFFICE	.0002
ST DEMAND PER SQFT. OF COMM	.0023

Appendix Table H-3

AREA 1
PROJECTED SPECIAL USES

PARKING DEMAND (Selected Zones)

ZONE	LONG-TERM	SHORT-TERM
1	143	0
3	139	0
6	93	0
91	181	0
TOTAL	556	0

Appendix Table H-4

AREA 1
PROJECTED SPECIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY--		--DEMAND-- LT	ST
1	143		143	Ø
3	139		139	Ø
6	93		93	Ø
91	181		181	Ø
TOTAL	556		556	Ø

Long-Term Surplus + (Deficit -): +Ø
Short-Term Surplus + (Deficit -): +Ø

Appendix Table I-1

AREA 2
PROJECTED OFFICE AND COMMERCIAL USES

ZONE	GROSS SQFT. OF B-A-I OFFICE	COMMERCIAL	PARKING SPACES (ADJ) LONG-TERM	SHORT-TERM	SPECIAL DEMANDS LONG-TERM	SHORT-TERM
10	0	0	226	0	0	0
11	9100	21700	365	0	0	0
13	0	0	12	0	0	0
15	0	6500	42	0	0	0
18	1800	24200	273	0	0	0
19	6300	18700	93	0	0	0
20	165000	18150	256	0	0	0
21	0	27750	183	0	0	0
23	0	63250	234	0	0	0
24	0	46800	55	0	0	0
25	0	0	12	0	0	0
26	0	25300	84	0	0	0
27	0	12500	93	0	0	0
28	0	34400	116	0	0	0
30	3000	14050	46	0	0	0
31	0	16800	53	0	0	0
35	15000	6555	12	0	0	0
85	0	47500	72	0	0	0
TOTAL	200200	393355	2003	0	0	0

Appendix Table I-2

AREA 2
PROJECTED OFFICE AND COMMERCIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Ave. Sqft. Per Person COMM	1050
Percent Made by AUTO for LT	.85
Avg. AUTO Occupancy for LT	1.1
ST Demand Per Sqft. of OFFICE	.0008
ST DEMAND PER SQFT. OF COMM	.0023

Appendix Table I-3

AREA 2
PROJECTED OFFICE AND COMMERCIAL USES

ZONE	LONG-TERM	SHORT-TERM
10	0	0
11	56	52
13	0	0
15	5	20
16	92	56
19	36	44
20	376	75
21	30	64
23	61	191
24	34	108
25	0	0
26	19	60
27	6	25
28	18	56
30	17	23
31	12	36
35	36	18
85	35	109
TOTAL	732	950

Appendix Table I-4

AREA 2
PROJECTED OFFICE AND COMMERCIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY-- LT	ST	--DEMAND-- LT	ST
10	228	0	0	0
11	250	0	36	52
12	12	0	0	0
15	48	0	5	22
18	273	0	23	58
19	93	0	25	44
20	258	0	373	75
21	183	0	20	64
23	234	0	61	191
24	55	0	34	108
25	10	0	0	0
26	24	0	15	60
27	93	0	0	25
28	116	0	15	56
30	49	0	17	32
31	33	0	12	39
32	12	0	33	16
33	72	0	35	109
TOTAL	2063	0	732	950

Long-Term Surplus + (Deficit -): +1331
Short-Term Surplus + (Deficit -): -942

Appendix Table J-1

AREA 2
PROJECTED SPECIAL USES

ZONE	GROSS SQFT OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY (UNADJ)	SPECIAL DEMANDS LONG-TERM	SHORT-T
12	0	0	95	95	
9	0	0	43	43	
14	0	0	372	372	
16	0	0	12	12	
22	0	0	104	104	
29	0	0	40	40	
33	0	0	12	12	
34	0	0	341	341	
92	0	0	117	117	
TOTAL	0	0	1136	1136	

Appendix Table J-2

AREA 2
PROJECTED SPECIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for LT	.8
Avg. AUTO Occupancy for LT	1.2
ST Demand Per Sqft. of OFFICE	.0003
ST DEMAND PER SQFT. OF COMM	.0013

Appendix Table J-3

AREA 2
PROJECTED SPECIAL USES

PARKING DEMAND (Selected Zones)

ZONE	LONG-TERM	SHORT-TERM
12	95	Ø
9	43	Ø
14	372	Ø
16	12	Ø
22	104	Ø
29	40	Ø
33	12	Ø
34	341	Ø
92	117	Ø
TOTAL	1136	Ø

Appendix Table J-4

AREA 2
PROJECTED SPECIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY--	--DEMAND-- LT	ST
12	95	95	0
9	43	43	0
14	372	372	0
16	12	12	0
22	104	104	0
29	40	40	0
33	12	12	0
34	341	341	0
92	117	117	0
TOTAL	1136	1136	0

Long-Term Surplus + (Deficit -): +0
Short-Term Surplus + (Deficit -): +0

Appendix Table K-1

AREA 3
PROJECTED OFFICE AND COMMERCIAL USES

ZONE	GROSS SQFT. OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY (LAND) LONG-TERM	SHORT-TERM	SPECIAL LONG-TERM	BEYOND SHORT-TERM
36	0	0	63	0	5	0
41	6000	28600	53	0	0	0
42	3300	56200	15	0	0	0
43	24000	600	61	0	0	0
44	3000	6300	20	0	0	0
45	0	0	81	0	0	0
47	15800	0	45	0	0	0
48	0	42000	182	0	0	0
49	0	40000	6	0	0	0
50	4400	0	136	0	0	0
52	5000	0	8	0	4	0
53	0	0	7	0	0	0
54	5300	2700	12	0	0	0
55	5300	27000	28	0	0	0
56	0	0	133	0	0	0
57	0	0	6	0	0	0
58	0	5000	15	0	0	0
59	2700	0	18	0	0	0
60	20700	40000	18	0	0	0
61	1300	46000	9	0	0	0
62	0	0	216	0	0	0
63	0	20000	90	0	0	0
64	21850	16450	128	0	0	0
65	60000	58700	94	0	0	0
66	2250	87000	12	0	0	0
67	32200	0	31	0	0	0
68	76200	0	38	0	0	0
69	34650	39100	13	0	0	0
70	19200	46000	8	0	0	0
71	9000	14700	24	0	0	0
72	57850	5400	36	0	0	0
73	45000	2500	462	0	0	0
74	13500	74600	72	0	0	0
75	60000	0	41	0	0	0
76	34000	0	59	0	0	0
77	25050	0	138	0	0	0
78	94350	0	13	0	0	0
79	0	0	10	0	0	0
80	13800	0	23	0	0	0
81	128100	0	89	0	0	0
82	0	0	186	0	0	0
83	11950	0	62	0	0	0
84	10200	5100	50	0	0	0
TOTAL	846350	662930	2584	0	5	0

Appendix Table K-2

AREA 3
PROJECTED OFFICE AND COMMERCIAL USES

BASE AND PARCEL CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for "L"	.8
Avg. AUTO Occupancy for "L"	1.2
ST Demand Per Sqft. of OFFICE	.0003
ST DEMAND PER SQFT. OF COMM	.001

Appendix Table K-3

AREA 3
PROJECTED OFFICE AND COMMERCIAL USES

ZONE	LONG-TERM	SHORT-TERM
38	6	0
41	30	30
42	42	57
43	46	8
44	8	7
45	0	0
47	30	5
48	25	40
49	85	42
50	0	1
52	10	2
53	0	0
54	12	4
55	27	89
56	0	0
57	0	0
58	3	8
59	5	1
60	83	46
61	33	47
62	0	0
63	13	20
64	52	23
65	152	77
66	60	88
67	61	10
68	149	23
69	51	49
70	66	58
71	26	17
72	113	84
73	87	16
74	73	79
75	114	18
76	68	10
77	48	6
78	180	88
79	0	0
80	25	4
81	244	38
82	0	0
83	23	4
84	80	6
TOTAL	2042	916

Appendix Table K-4

AREA 3
PROJECTED OFFICE AND COMMERCIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY-- LT	ST	--DEMAND-- LT	ST
38	80	0	8	0
41	58	0	30	30
42	15	0	42	57
43	81	0	46	8
44	83	0	8	7
45	21	0	0	0
47	49	0	30	5
48	80	0	85	40
49	6	0	85	40
50	136	0	8	1
52	5	0	10	2
53	7	0	0	0
54	122	0	12	4
55	30	0	27	29
56	133	0	0	0
57	6	0	0	0
58	15	0	3	5
59	35	0	5	1
60	15	0	68	46
61	9	0	33	47
62	216	0	0	0
63	99	0	13	20
64	29	0	52	23
65	94	0	182	77
66	12	0	80	88
67	31	0	61	10
68	38	0	149	23
69	13	0	91	49
70	8	0	66	52
71	24	0	26	17
72	36	0	113	24
73	462	0	87	16
74	72	0	73	79
75	41	0	114	18
76	59	0	65	10
77	139	0	48	8
78	13	0	160	28
79	10	0	0	0
80	23	0	25	4
81	29	0	244	38
82	186	0	0	0
83	22	0	23	4
84	90	0	23	8
TOTAL	2584	0	2042	918

Long-Term Surplus + (Deficit -): +542
Short-Term Surplus + (Deficit -): -918

Appendix Table L-1

AREA 3
PROJECTED SPECIAL USES

ZONE	GROSS SQFT. OF SPACE OFFICE	COMMERCIAL	PARKING SUPPLY(UNADJ)	SPECIAL DEMANDS LONG-TERM	SHORT-TERM
36	0	0	120	449	0
37	0	0	486	486	0
39	0	0	45	45	0
40	0	0	95	95	0
46	0	0	13	13	0
51	0	0	34	34	0
93	0	0	39	39	0
TOTAL	0	0	832	1161	0

Appendix Table L-2

AREA 3
PROJECTED SPECIAL USES

TRAVEL AND PARKING CHARACTERISTICS VARIABLES

Avg. Sqft. Per Person OFFICE	350
Avg. Sqft. Per Person COMM	1050
Percent Mode by AUTO for LT	.8
Avg. AUTO Occupancy for LT	1.2
ST Demand Per Sqft. of OFFICE	.0003
ST DEMAND PER SQFT. OF COMM	.001

Appendix Table L-3

AREA 3
PROJECTED SPECIAL USES

PARKING DEMAND (Selected Zones)

ZONE	LONG-TERM	SHORT-TERM
36	449	Ø
37	486	Ø
39	45	Ø
40	95	Ø
46	13	Ø
51	34	Ø
93	39	Ø
TOTAL	1161	Ø

Appendix Table L-4

AREA 3
PROJECTED SPECIAL USES

SUPPLY-DEMAND COMPARISON (Selected Zones)

ZONE	--SUPPLY--	--DEMAND-- LT	ST
36	120	449	0
37	486	486	0
39	45	45	0
40	95	95	0
46	13	13	0
51	34	34	0
93	39	39	0
TOTAL	832	1161	0

Long-Term Surplus + (Deficit -): -329
Short-Term Surplus + (Deficit -): +0