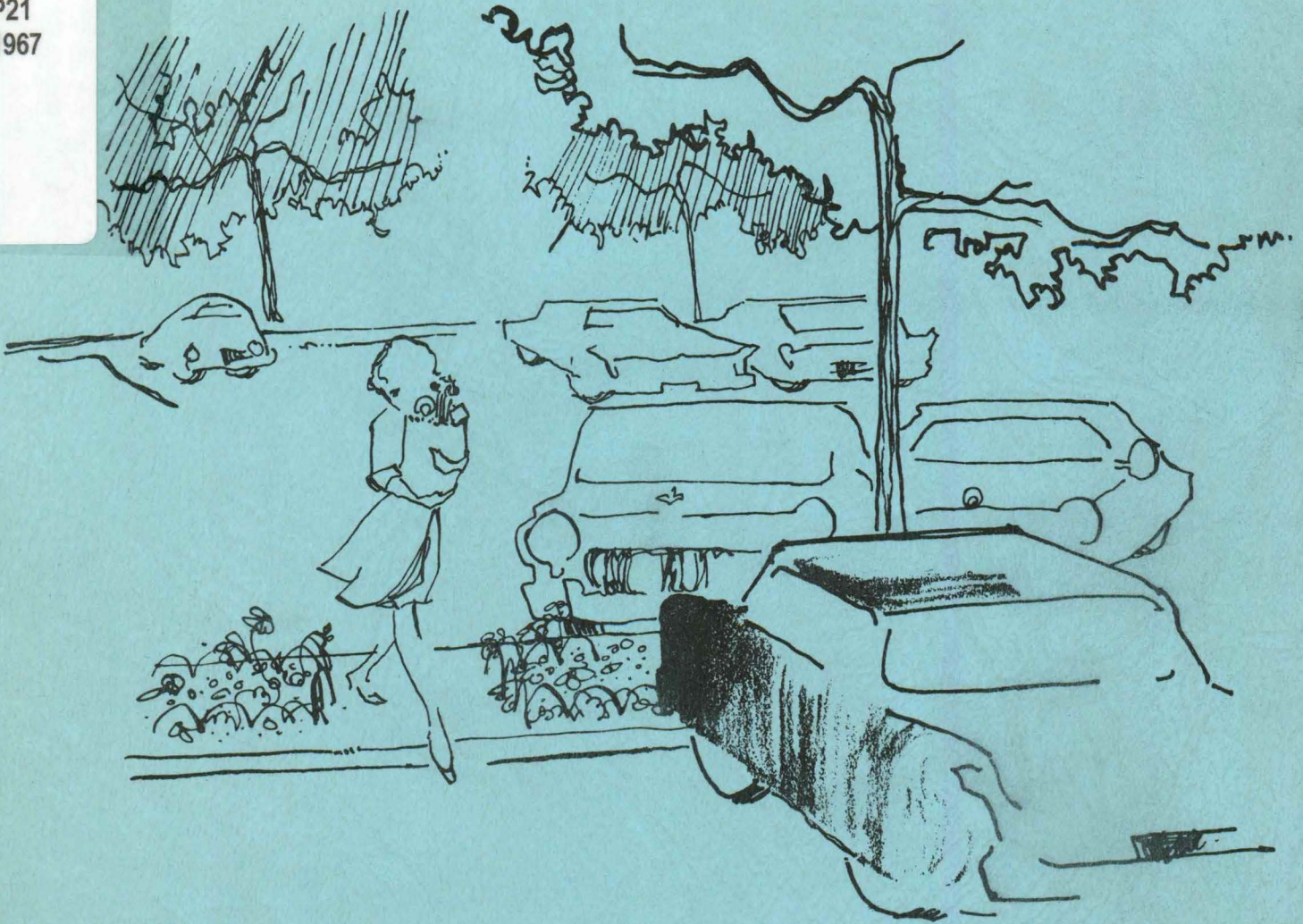


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1967



**parking**

PROBLEMS

POSSIBILITIES

PROGRAMS

IOWA DEPARTMENT OF TRANSPORTATION  
LIBRARY  
800 LINCOLN WAY  
AMES, IOWA 50010

AN IMPROVEMENT PROGRAM FOR  
IOWA CITY'S DOWNTOWN PARKING  
SYSTEM, PREPARED BY THE  
IOWA CITY PLANNING DEPT.

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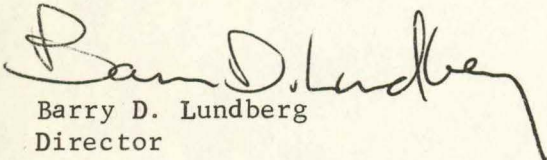
MEMO TO: City Manager  
FROM: Director of Planning & Urban Renewal  
SUBJECT: Report: Downtown Parking System

We are pleased to submit the following report dealing with the downtown parking system.

We find that demand for parking - both short-term and long-term - imparts undue pressure on the existing system. The parking demand generated by the University aggravates the situation but does not appear to be as critical as originally assumed. In any regard, we feel that primary City responsibility in regards to parking in the CBD be directed towards the public drawn to the CBD for business purposes.

The recommendations made in this report are intended to improve the entire parking system through a systematic combination of parking rates and time limits, additional on-street and off-street spaces, enforcement, and improved traffic circulation and bus service.

Respectfully submitted,

  
Barry D. Lundberg  
Director

BDL/cm

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APPENDIX B.

Preliminary Parking Report (November 27, 1967)

(This report contains an inventory of the existing system, data on occupancy, turnover, current revenues, and some preliminary suggestions for improving the existing parking system.)

## INTRODUCTION

There is probably no single element of the community that has been studied, analyzed and restudied as many times as the downtown parking system. In the past thirteen years, parking in and near the CBD has been a concern in at least six published reports.<sup>(1)</sup> We suggest this is as it should be for by the same token, probably no other public facility is as susceptible to change in Iowa City as is the parking system. Dramatic increases in University enrollment over the past thirteen years have added an extremely illusive variable to the parking problem and only recently has the CBD faced the competitive situation of outlying shopping centers. Changes such as these have occurred quickly and repeatedly in our community. More changes certainly can be anticipated. To the above list of studies, we now offer one of our own.

This report is intended to propose a program of improvement to the downtown parking system which we feel would serve the important needs of the CBD yet which is within reasonable economic limits and could be achieved in the near future. Certain ideas will be taken from previous reports, other ideas will be new. Our goal is to use the best previous sources and incorporate certain ideas which suit today's demand and leave the system flexible to meet tomorrow's needs.

In general terms, the proposed parking plan is consistent with the parking proposals contained in the City's comprehensive plan.<sup>(2)</sup> The proposed plan includes recommendations concerning curb parking, regulations to improve turnover and use, and proposals for off-street facilities which we feel merit immediate attention.

- 
- (1) Associated Consultants Report - 1954  
Major Streets & Parking; Harlan, Bartholomew & Associates, 1960  
Iowa City in the Future; Robert J. Wheeler, 1960  
Location & Economic Feasibility of a Major Parking Facility for  
Downtown; Powers & Assoc., 1963  
Iowa City Looks at It's Future; Citizens Advisory Committee, 1964  
City-University Urban Renewal Project; City of Iowa City, 1967
- (2) Comprehensive City Plan; Harlan, Bartholomew & Associates, 1961.

## CONSIDERING THE TOTAL TRANSPORTATION SYSTEM

The parking system is only one element of the total transportation system of the community. At the outset, it is well advised to discuss the other primary elements of the total system - the street system and the bus system - to be reminded of the integral relationship of each to the other.

The street system serves moving traffic throughout the community. The system of streets must adequately serve all areas of the community - while at the same time not interfering with major land uses. For example, we respect the University's objective of a traffic free campus. On the other hand, an objective of the City is to keep extraneous traffic from the shopping core of the CBD. However, the street system must adequately serve the CBD by making it accessible to the motorist while reserving the shopping core for shopper traffic and pedestrian use. Once a vehicle has reached its destination in the CBD, the second element of the transportation system comes into play - the parking system. Once the motorist has stored his automobile, he becomes a pedestrian. His needs at this time must also be considered. It is interesting to ponder the effect of providing an abundance of parking with no improvement to the street system. Although convenient parking might be provided for everyone, traffic congestion would actually increase because of the increased number of cars attracted to the CBD area - trying to move on the existing streets.

The third element of the transportation system - mass-transit - is very much related to traffic and parking. If a perfect bus system were developed, there would be no need for parking - on the other hand, if a perfect parking system were developed, there would be little need for mass transit. A stated objective of the City's continued and improved mass transportation program is the reduction of traffic and parking pressures in the CBD. This

can only be achieved if a proper relationship between mass transit, the street system, and parking is established and maintained. Simply put, if it is convenient for everyone to drive and park his automobile downtown, there isn't much point in continuing the bus system based on the above objective. More investment towards an improved bus system should mean less of an investment in the improvement of the street and parking system.

## PRINCIPLES, OBJECTIVES AND POLICIES

In considering the matter of parking in and near the central business district (CBD), it is appropriate to first determine what is to be accomplished by the parking system and the development of policies directed at the achievement of these objectives. Basically, the concern over parking in the CBD area stems from the principle that to meet the demands of today's shopper and thereby remain a viable business center, the CBD must, among other things, offer convenient and adequate parking. Parking facilities in the central area should be located, designed, and priced to serve four distinct types of daily uses: (1) shopper, business, and patron parking, (2) errand parking (of 30-40 minute maximum duration), (3) employee parking for executives and others requiring mid-day use of cars; and (4) long-term or all-day employee parking.

Upon the above principles as well as considering the relationship of traffic circulation and mass transit, the following objectives are intended to specify the direction of programs for the improvement of the parking system.

1. To provide an adequate supply of parking spaces which effectively meet the demand posed by the shopper and other short-term visitors to the CBD shopping core, preferably within 500-600 feet of that area.
2. To provide a reasonable supply of parking spaces to serve long-term needs of employees and extended stay visitors preferably within 1200-1400 feet of employee walking destinations.
3. Develop and maintain the proper balance between the circulation system, the bus system and the downtown parking system.

In order to achieve the above objectives within the limited space available for parking in and near the CBD, policies which shape programs must be stipulated. The following policies are suggested:

1. Parking programs and operations will be based upon the following priority needs:



First Priority, short-term shopper and visitor  
Second Priority, long-term employee and visitor  
Third Priority, Other (Householder and University  
affiliate)

2. An adequate supply of short-term parking spaces will be provided within 500-600 feet of the CBD core area.
3. To insure proper usage of these short-term spaces, an aggressive enforcement program will be developed and maintained.
4. A reasonable supply of parking spaces to serve the long-term demand generated by all-day employees of the CBD area will be provided within 1200 to 1400 feet of the CBD area.
5. Street system and traffic system improvements will be made that result in improved accessibility to the downtown area and the parking system while at the same time protecting the shopping core from the intrusion of through traffic.
6. Bus service will be improved so that it becomes an attractive alternative mode of transportation to the downtown area.

## RECOMMENDATIONS AND CONSIDERATIONS

Considerable time and effort have been devoted to the study of the parking situation in and near the CBD. Our preliminary report on parking documented that there is considerable pressure on available spaces in the CBD core. (A copy of this preliminary report is attached as Appendix B.) There is a peak demand for shopper type parking in excess of 1400 spaces generated by the core retail and office activities alone! Superimpose upon this, the unknown quantity of the University affiliate parker, the long-term demand created by the core area, the demands from the fringe commercial and housing areas, and the problem becomes practically incomprehensible.

On the basis of the data collected and projections made, we conclude that an adequate supply of short-term spaces can be provided to serve the CBD. However, the long-term demand posed by the CBD core and fringe area is impractical to fully meet and probably should not be met totally, in any regard, if City operation of the bus system is to have any real justification.

The recommendations which follow are aimed primarily at the objective of providing adequate and convenient parking space for the short-term patron and visitor to the CBD area. Consideration is also given to providing long-term needs. However, as stated above, we consider this to be a secondary problem and one that may be unattainable in any regard.

The various recommendations which pertain to the creation of "new" short-term parking space in and near the shopping core are aimed at meeting the theoretical demand from this area plus an excess of 20-30% (approximately 2100 short-term spaces). We feel a vacancy rate in this range would make the "shopper-parking" system function well. The following recommendations are intended to move the vacancy ratio above the 20% point. It is recommended that upon implementation of a program to improve the parking system, periodic

checks should be made to determine the vacancy factor. If the proposed adjustments to the system do not produce satisfactory turnover and vacancy figures, appropriate changes should be made.

In general, the proposed program for the revamping of the downtown parking system involves a "systematic" combination of the following elements: a) restructuring of rates and parking time limits, b) additional on-street metered spaces, c) increase in number of spaces available through new lots and/or structures, d) strict enforcement program, e) improved traffic circulation pattern, and f) improved mass transportation to the CBD. It should not be expected that improvements to one or two of the above elements will produce overall improvement to the parking situation. In summary, these elements should be integrated and complement each other.

The quantification of land use units for the computation of theoretical peak parking demand and the methodology used in arriving at our recommendations are found in Appendix A.

## RECOMMENDATIONS:

### On-Street Parking Facilities

As mentioned in the preliminary report (Appendix B.) there exists a great variety of rate and time-limit combinations. In achieving the objective of serving the "shopper-parking" needs first, we recommend that all available public parking spaces within 500-600 feet of the core area be established as short-term spaces; e.g. high rate/high turnover.

We recommend all on-street spaces included in Zone "A" of the CBD shopping core area shown on Map 1 be established as one hour facilities @ 10¢ per hour; that all on-street spaces in Zone "B" be 2 hour @ 10¢ per hour. This would add approximately 95 short-term on-street metered spaces to the system and bring the total controlled on-street spaces in this, the CBD shopping core service area, to approximately 880. We feel these spaces could appropriately serve short-term shopper needs.

As a general rule, we recommend the parking spaces at the end of each block in Zone "A" be established as 1/2 hour facilities @ 10¢ per hour. These spaces would serve the errand type of parker.

Consistent with the objective of providing some long-term parking space, we recommend all available on-street public parking spaces beyond Zone "B" - but within approximately 1000 feet of the core area (Zone "C") be established as 10 hour facilities @ 5¢ per hour. This would add approximately 255 long-term on-street spaces within a reasonable walking distance of the CBD and bring the total controlled long-term on-street spaces to approximately 475.

There are several isolated areas in Zone "C" where we recommend some short-term on-street spaces: adjacent to the Me Too on Van Buren Street (8

spaces); adjacent to the commercial area near Breneman's Seed Store on Court Street and Gilbert Street (10 spaces); adjacent to the Court House Square on Clinton Street (12 spaces).

### Off-Street Parking Facilities

#### Parking Garage:

In considering sites for a parking garage, the 1963 Powers & Assoc. "Location and Economic Feasibility Report" is an excellent source. Six possible sites were discussed in this report. These sites are shown on Map 2. Site "C", the present College Street parking lot, was considered to be the prime location for a parking garage. Site "A" and "E" were considered to have good potential for garage development but both lack the more central location of site "C". The result of the parking studies associated with the urban renewal planning also placed a parking garage on the College Street site; however, it was proposed to be oriented in a north-south direction and extending into the block north of College Street to provide maximum development opportunities to the west on the western part of the present parking lot. We continue to feel that the College Street parking lot area is the best location for Iowa City's first downtown parking garage. In all probability, future parking demands may warrant additional structure parking. Should further demand develop, it is our view that Site "A" should be given prime consideration for a second structure. We feel site "A" offers a more favorable "visual" connection to the shopping core than Site "E". In addition, the University has indicated possible campus expansion in the blocks south of the Pentacrest which contain Site "E".

The fact that the construction of a parking garage on the College Street parking lot is linked with the proposed urban renewal program cannot

be evaded. To build a parking garage in east-west direction on the entire lot would remove the possibility of assembling an adequate site for the development of a major retail operation - short of extensive property acquisition and clearance in another area. The two primary reasons for originally selecting this area as appropriate for such a site were a) general location, and b) site assembly potential. Attraction of a major department store to the CBD to fill the void left by the exodus of Sears and Wards is considered to be a key element in the redevelopment program. The elimination of this element would, for all practical purposes, reduce the program at hand from one of revitalization to one of rehabilitation. In our judgement, the maintenance and preservation of downtown Iowa City as the dominate shopping and business center remains a worthwhile goal. We believe the potential for successful accomplishment of this objective is still high. However, we recognize the fact that indecision - voluntary or otherwise - because of the renewal program, has become very frustrating for all concerned. We feel that a workable solution to the construction of a parking garage, given the above considerations, can be developed. Alternatives should be explored so that action can be taken in this regard as soon as possible.

Based upon our study, there is ample short-term parking demand in the CBD at the present time (even without implementation of the presently proposed urban renewal plan) to justify additional parking spaces in the core area which could be provided by a parking ramp. However, we believe the capacity of the garage should be in direct proportion to any redevelopment plan. We offer the following answer to the parking garage question: construction of a parking garage on the east 180-200 feet of the College Street parking lot to accommodate approximately 400 automobiles. Such a structure could be designed with "expandability" to the west or north or vertically to

provide maximum flexibility to adapt to any renewal plan. (See Maps 3 and 4.) If renewal were undertaken, the original development site could still be assembled and the ramp expanded to the north or south as originally planned. If renewal were not undertaken - or if the plan were modified - surface parking could be retained on the west section of the College Street parking lot (about 60 spaces), a "green area" could be created, or this site could be sold for private development.

In any regard, we believe the concept of expandability does provide the possibility for moving ahead with the downtown parking garage while at the same time not impairing the potentials for redevelopment. We recommend this solution to the parking ramp dilemma.

#### Parking Lots:

The locations of proposed new parking lots and parking garage are shown on Map 5.

We recommend all off-street spaces (ramp and lots) included in the "A" and "B" Zones (CBD shopping core service area) be established as 2 hour facilities @ 10¢ per hour. The new lots, as proposed, would add approximately 255 short-term spaces to the shopping core service area. The parking garage as previously recommended would produce a net gain of short-term parking spaces on the College Street lot site of approximately 300. These additions would bring the total number of short-term off-street spaces in the CBD shopping core service area to approximately 1,180.

We also recommend the proposed parking lots located in Zone "C" (long-term zone) be established as ten hour lots @ 5¢ per hour. The new lots proposed in this area would provide approximately 395 spaces. (This, however, would only produce a net gain of about 250 spaces as there now exists space

for about 145 automobiles on the Railway property adjacent to Ralston Creek between Washington Street and Burlington Street. This area is heavily used at the present time.) This would result in total of approximately 490 long-term off-street spaces (net gain of 345 spaces). Continuance of the City's policy to sell annual parking permits for these long-term lots is recommended. Based upon revenue projections for this type of parking an annual fee of \$60 to \$100 appears to be appropriate.

Due to the development of the above recommended new off-street parking areas, a number of properties would be transferred from private to public ownership. This, of course, means some loss of taxable property. It may be of interest to note that the 1966 total property tax income from all of the properties necessary for the development of the recommended parking improvements was about \$17,000 - of this, about \$5,000 was the City's share.

#### Enforcement

It is recommended that all available means be employed to insure proper turnover of the short-term spaces, both on-street and off-street. WE CONSIDER THIS TO BE THE KEY TO THE SUCCESS OF THE PROPOSED PARKING PROGRAM.

We feel the City is working towards this end and only urge that the Police Department and the parking force continue to receive the support and resources necessary for the conduct of a positive parking enforcement program.

#### Market Street Commercial Area

The Market Street Commercial Area (Zone "D") was included as a part of the overall parking study. We feel the parking facilities in this area



are adequate at this time. We do recommend however, that the time limits and rates be adjusted so that they coincide with the improvements to the rest of the system. These revisions are shown on Map 6. We suggest that the parking situation in this area be re-evaluated upon completion of the Mercy Hospital expansion program.

## RECOMMENDED PARKING SYSTEM

The system as proposed would offer 3,053 controlled parking spaces to the motoring public, over 1/2 of which would be provided off-street. This represents almost an 80% increase of controlled parking spaces in and near the CBD, and a 130% increase of off-street space. Tentative projections indicate over a 100% increase to parking revenue - due in part to rate adjustments as well as the substantial increase to the number of controlled spaces. Although operations, maintenance and enforcement costs would obviously have to increase to service the larger system, less than a 50% increase to these items is anticipated. Calculations pertaining to these projections can be found in Appendix A; pages 40 - 43.

For a graphic and tabular presentation of the recommended parking system, see Map 6. and Table I. respectively.

A summary cost estimate for the recommended improvements can be found in Table II. The scope of this report does not include a financing program for these improvements. If this improvement program is acceptable, we would suggest that the potentials of the recommended ramp be studied in terms of design and economic feasibility, plus the development of a financing program for the entire program.

We would recommend that the entire parking program as proposed be implemented at once if it proves to be financially feasible (within the bonding capacity of the system); in any regard, we recommend the following sequence of activities be followed:

1. Evaluation of the bonding capabilities of the proposed system.
2. Consideration of calling and retiring the \$200,000 bonds outstanding on the system.

3. Installation of all recommended additional on-street meters and conversion of existing meters (on-street and off-street except Nall Lot and Clinton Street Lot) to effect recommended changes in rates and time limits.
4. Acquisition and improvement of the property located at the north-east corner of the Clinton Street parking lot.
5. Leasing and improvement of the "Fairbanks" property. (We would recommend vacating this site after the parking garage is completed.)
6. Construction of the parking garage on the east 180-200 feet of the College Street parking lot.
7. Acquire and improve the remaining properties to fill out the Civic Center lot and the properties necessary to create the large lot between Washington Street and Burlington Street.
8. Move the water works storage yard from Gilbert Street to the Service Building area and convert this property to a parking lot.
9. Acquire and improve the lot areas proposed between Burlington Street and Court Street. (The existing Nall Lot would be converted to short-term at this time.)

A detailed tabulation indicating suggested staging, costs and spaces gained in each stage is found in Appendix A., pages 36 - 39.

## CONSIDERATIONS:

### Circulation

The general remarks pertinent to traffic accessibility and mass transit at the beginning of this report were intended to direct proper consideration towards the relationship of these elements of the City's transportation system to parking. No attempt will be made in this report to analyze either the street system or the bus system in detail. However, we do feel that the circulation pattern for the core area developed as a part of the redevelopment program has merit at this time. This pattern was developed to permit through traffic to "by-pass" the congested shopping area, to re-orient the shopping area towards the pedestrian, to make the internal movement of traffic in the CBD more orderly, and to relate traffic movements to major parking areas. Revision of the circulation pattern in the core area as shown on Map 7. should be considered. If these modifications were carried out, parking should be removed from Gilbert Street; however, the one block of Dubuque removed from the circulation system could temporarily be converted to a parking lot.

### Mass Transit

We feel the bus system can further relieve pressure for parking spaces near the core area (particularly long-term) if routes are extended, more of the City covered, headway times reduced; in short, if overall service is improved. We consider automobile transportation to the CBD appropriate for the shopper in Iowa City; whereas bus transportation ought to be a reasonable alternative for the worker or long-term visitor. Some long-term parking should be provided in order to offer a choice to shoppers, employees and long-term visitors. This type of parking should be within a reasonable

walking distance from the core area and must be priced so that it is competitive with University facilities. However, at the same time, the bus system should be improved to the point that it is made equally attractive to many of the people who work in or visit the CBD for extended periods of time. A bus must offer reliable, convenient, and efficient service plus an "economic" advantage to the rider. We feel the City is heading in that direction and urge that the objective of the bus system, directed at reducing traffic and parking problems in the CBD, be kept in mind, as improvements to mass transportation and parking are sought.

#### Park-and-Shop/Ride-and-Shop

To be fully competitive with the convenient and free parking offered in the outlying shopping centers, parking in the CBD should be free. Theoretically, a CBD parking system could function properly without parking fees, through rigid enforcement of parking limits, however, this enforcement would have to be paid for from some source. We feel however, that the principle of a parking system paying its own way should be adhered to; i.e. from fees paid for the use of the facilities. Parking fees can be collected in several ways. The common methods are: a) parking meters, and b) un-metered attended facilities. Parking meters aid in performing several important functions; frequent turnover of parking space resulting in a higher parking capacity, improved observation of parking regulations and easier detection of violations. Off-street facilities where the parking fees are collected by an attendant offers several advantages to the parker: chiefly a) payment for the actual time parked, and b) convenience.

The "park-and-shop" idea is a partial answer to free shopper parking. The usual method of implementing this is for merchants to purchase "parking"

stamps from the City and issue these stamps to shoppers for each business transaction with a limit of several tickets which would permit one or two hours of parking. This, of course, can only be done in attendant facilities. However, the business community might issue special meter "tokens" or offer to pay the cost of parking for any shopper who asks for meter money. We recognize the difficulty of identifying who is or is not a parker in this situation. An alternative to these ideas (which are basically designed to "pay back" the parker) would be for the parking system to truly be free to the user - no meters - no attendants - and the cost of providing space and enforcement be born by the business community and/or by the public in general, although, general public financing is contrary to the principle of a self-sustaining system.

By the same token, we feel there is merit to a "ride-the-bus-and-shop" program. In such a program, the bus shopper is given either a bus pass or fare by participating merchants. Although, this was unsuccessful several years ago, we feel it merits reconsideration at this time.

Although public action can go far towards making the transportation aspect of downtown competitive with the outlying shopping centers through improving accessibility, circulation, and available parking, we feel that programs as mentioned above are necessary to make the downtown parking system fully competitive with those of the outlying centers.

#### Executive Type Parking

The parking system as recommended is consistent with the principle of providing parking facilities to serve 1.) shopper, business, and patron parking, 2.) errand parking, and 3.) long-term or employee parking. Parking space for the fourth type of user - professionals and businessmen such as doctors, lawyers, realtors, insurance men, and architects - whose business

necessitates frequent midday trips to and from their offices has not been considered to this point. We believe it is important to retain as many of these professional and business services in the downtown in terms of the long-term viability of this area. Although parking that is convenient to this type of user is by no means a guarantee that such businesses will not choose other locations in the future, we feel it is an important locational consideration to many professionals.

We suggest that this type of parking is most appropriately provided privately, and there is some private parking serving this need at the present time. It may be difficult, however, for private parking to adequately serve this need either in quantity or location. In this case, we feel it is proper - considering the total needs of the downtown area - for the City to consider ways to meet this specialized demand.

To complete our report on parking, we offer several ways that this need could be met for your consideration.

A. Un-Reserved - Parking Permit

A parking permit which would be valid for any parking space (on-street or off-street) with the exception of 30 minute and 1 hour meter spaces could be sold on an annual basis. Under this system, spaces would not be reserved either curb side or off-street, but the permit would allow the user to park in any space at any time without having to deposit money in the meter or pay a lot fee. It is questionable at this time as to whether or not a limit should be set upon the number of such parking permits sold in a given year. Perhaps a year's experience with this would indicate the demand for such permits and the resulting impact upon the entire parking system.

B. Reserved Spaces - Core Area Lots

Parking permits could be sold which permit parking in a reserved space in one of the several off-street parking facilities within the CBD

service area. There could be a specific number of spaces set aside in each lot for this type of parking (5-10 percent). Application could be made for these spaces prior to the first of the year; and if an excess number of applications were made, over the spaces allocated, a drawing could be held to determine the people who would receive the parking permits for that year. (If only a few additional applications were received, perhaps several additional spaces could be allocated for this.)

Those wishing to use this special type of parking should be expected to pay a premium price for this privilege. Based upon revenue projections made for on-street and off-street parking spaces within the core area under normal operating conditions, an appropriate charge for this type of parking appears to be from \$200 to \$300 per year.



TABLE I

SUMMARY OF PARKING IN AND NEAR THE CBD - EXISTING & PROPOSED

	<u>Existing</u>	<u>% of Total Existing</u>	<u>Proposed</u>	<u>% of Total Proposed</u>
Short-term/ on-street	785	46%	929	30%
Short-term/ off-street lots	624	36%	778	26%
Ramp	---	---	400	13%
Long-term/ on-street	217	13%	443	15%
Long-term/ off-street	93	5%	503	16%
	<hr/>	<hr/>	<hr/>	<hr/>
	1,720	100%	3,053	100%

---

Total On-Street	1,002	59%	1,372	45%
Total Off-Street	717	41%	1,681	55%

TABLE II

ESTIMATE OF COST FOR RECOMMENDED PARKING IMPROVEMENTS

Meters	Conversion of Old Meters	\$ 5,104
	New Meters	27,680
Surface Lots	Total of 698 spaces	\$1,138,000
Garage	400 spaces @ \$2,500/space	\$1,000,000
	<b>TOTAL</b>	<u>\$2,170,784</u>

M A P S

Map 1 . . . . . STUDY ZONES

Map 2 . . . . . LOCATION OF POTENTIAL GARAGE SITES

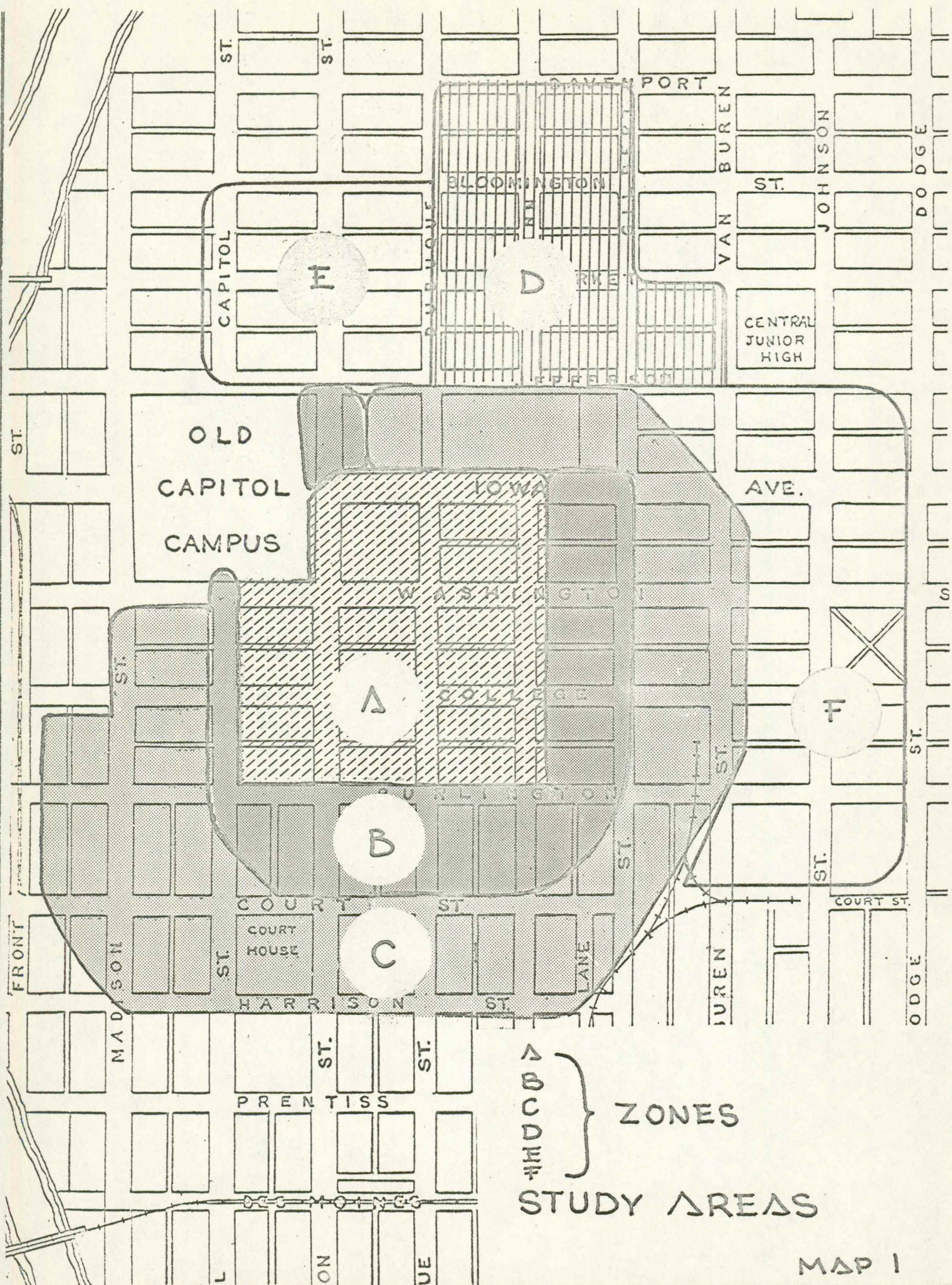
Map 3 . . . . . PARKING GARAGE - SCHEME A

Map 4 . . . . . PARKING GARAGE - SCHEME B

Map 5 . . . . . LOCATION OF PROPOSED OFF-STREET  
FACILITIES

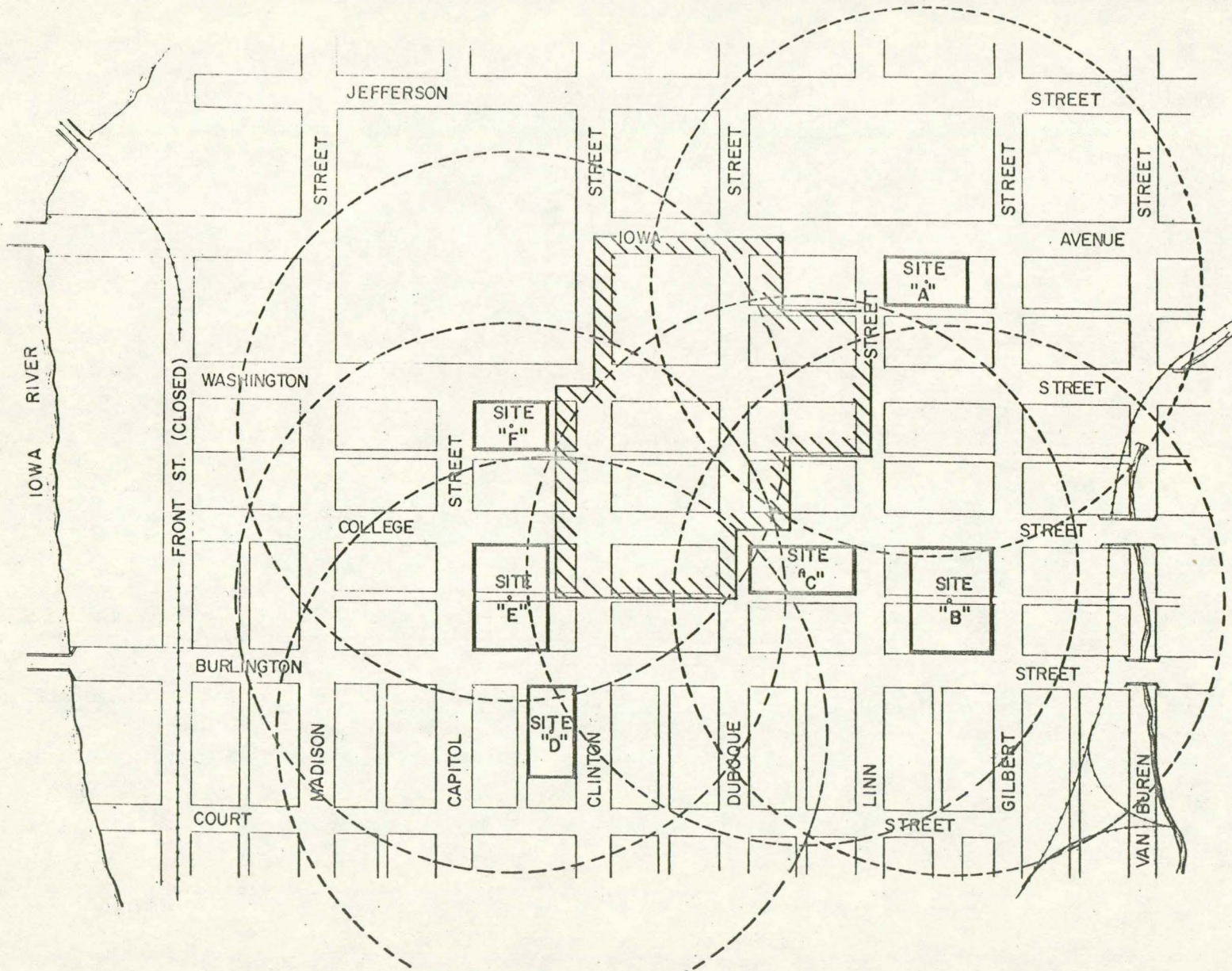
Map 6 . . . . . PROPOSED PARKING SYSTEM

Map 7 . . . . . SUGGESTED CORE CIRCULATION PATTERN



A  
 B  
 C  
 D  
 E  
 F

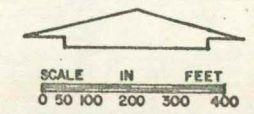
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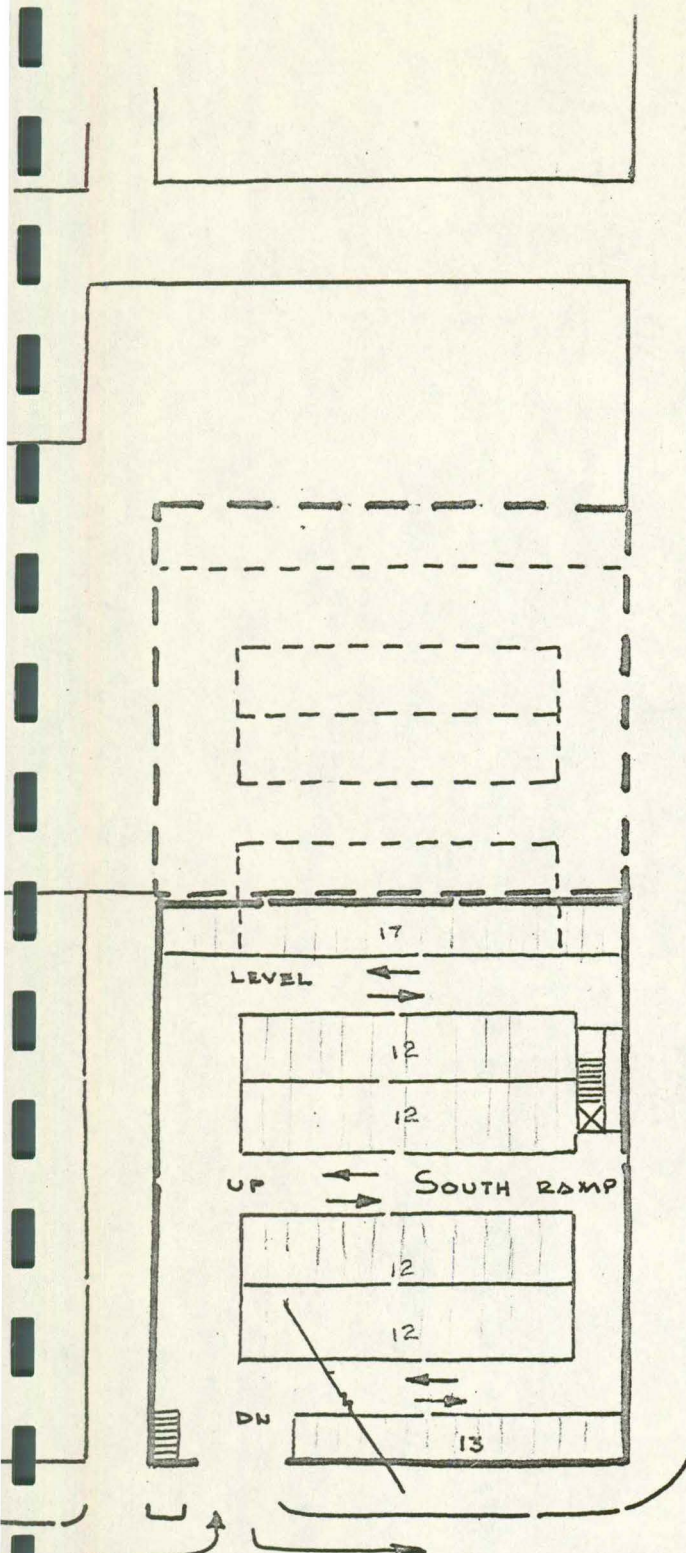
POWERS AND ASSOCIATES  
 PLANNERS · ENGINEERS · ARCHITECTS  
 AIRPORT IOWA CITY, IOWA

# LOCATION OF POTENTIAL PARKING SITES

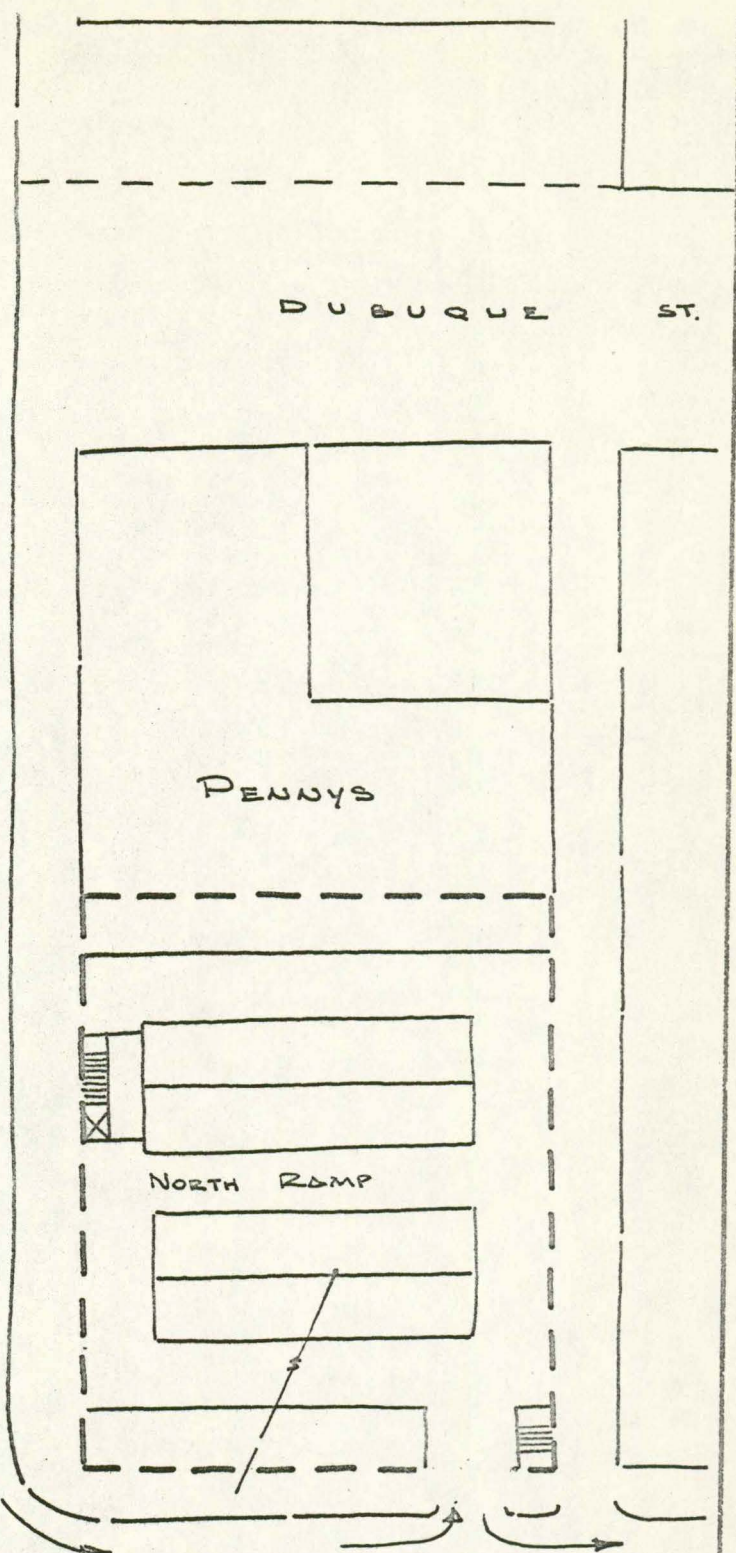
CENTRAL BUSINESS DISTRICT IOWA CITY, IOWA



MAP  
 2



COLLEGE ST.



DUBUQUE ST.

PENNY'S

NORTH RAMP

LINN ST.

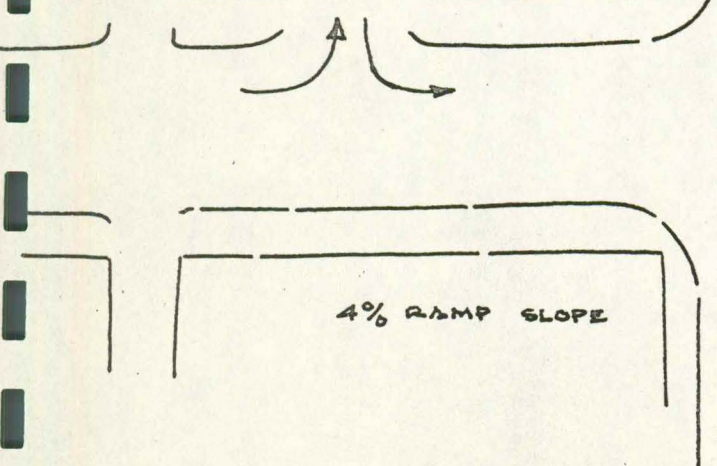
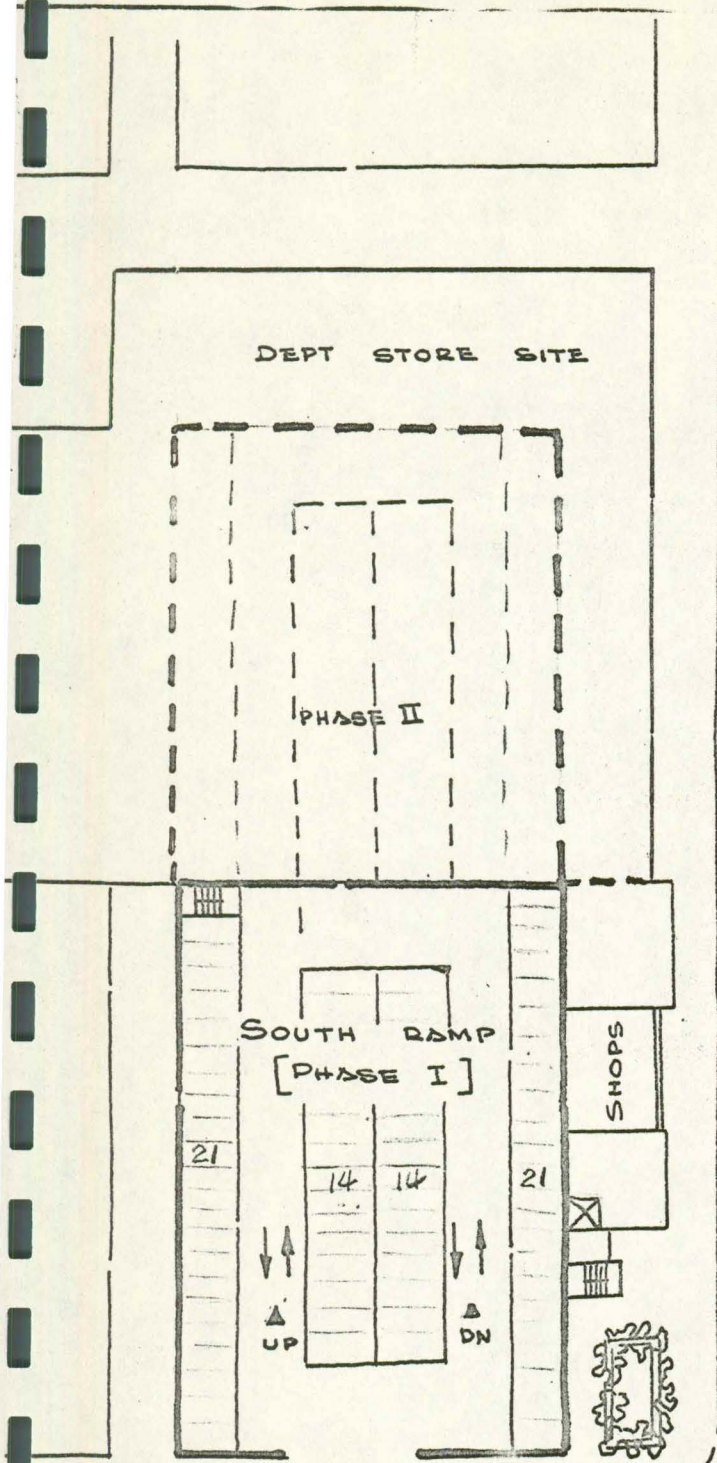
5% RAMP SLOPE

NORTH RAMP 6FL @ 78 = 468  
 SOUTH RAMP 6FL @ 78 = 468  
 " " " PHASE II 288  
 " " " PHASE II<sub>a</sub>\* 144

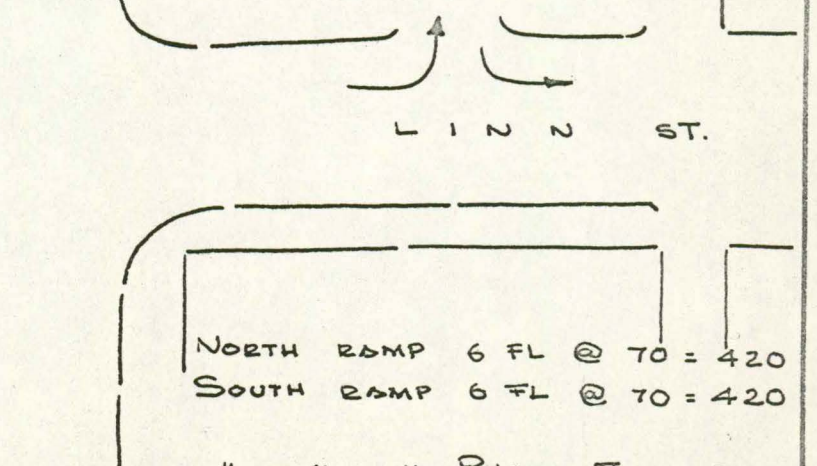
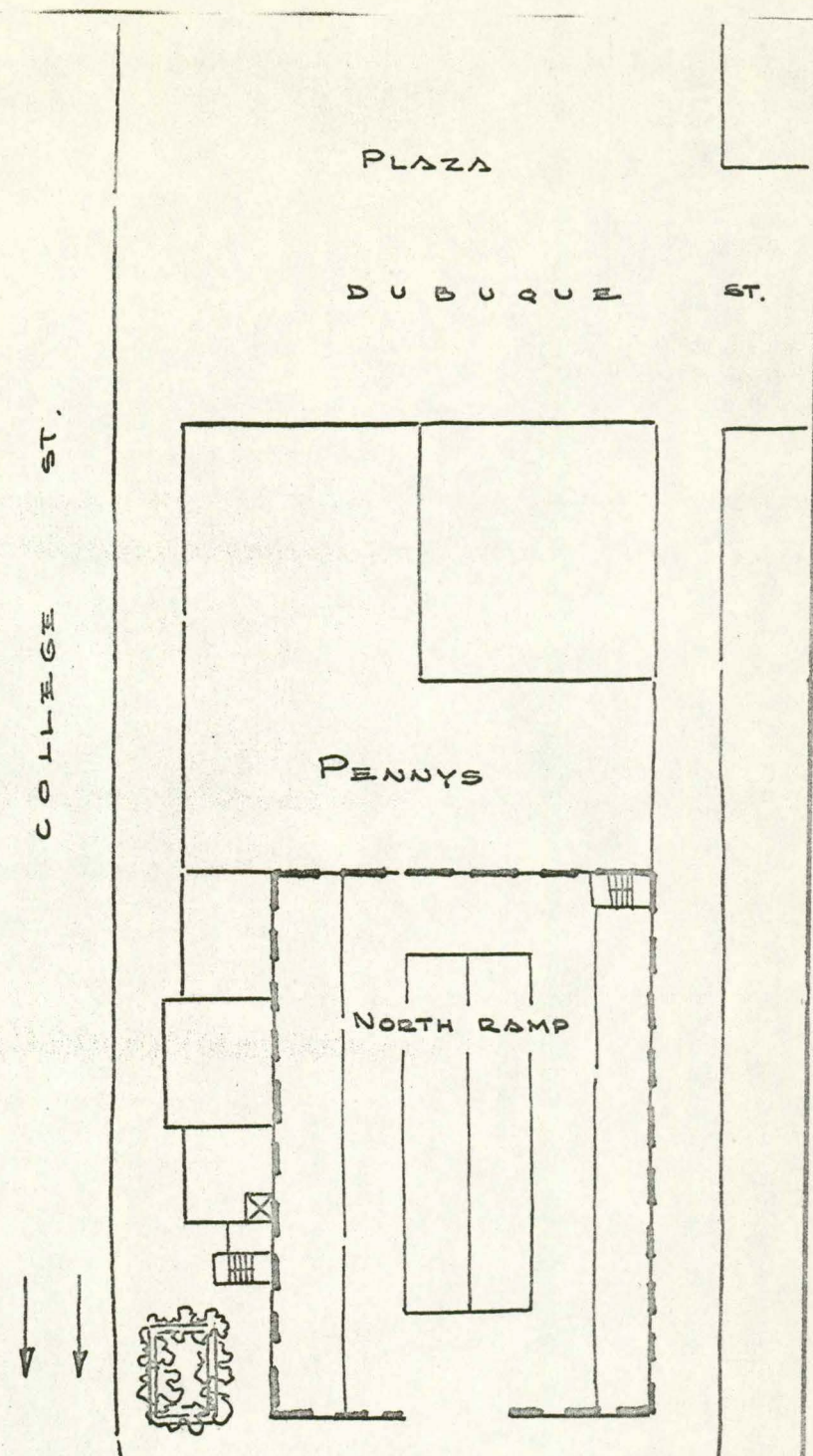
SCHEME "A"

\* PHASE II<sub>a</sub> WITH DEPT STORE

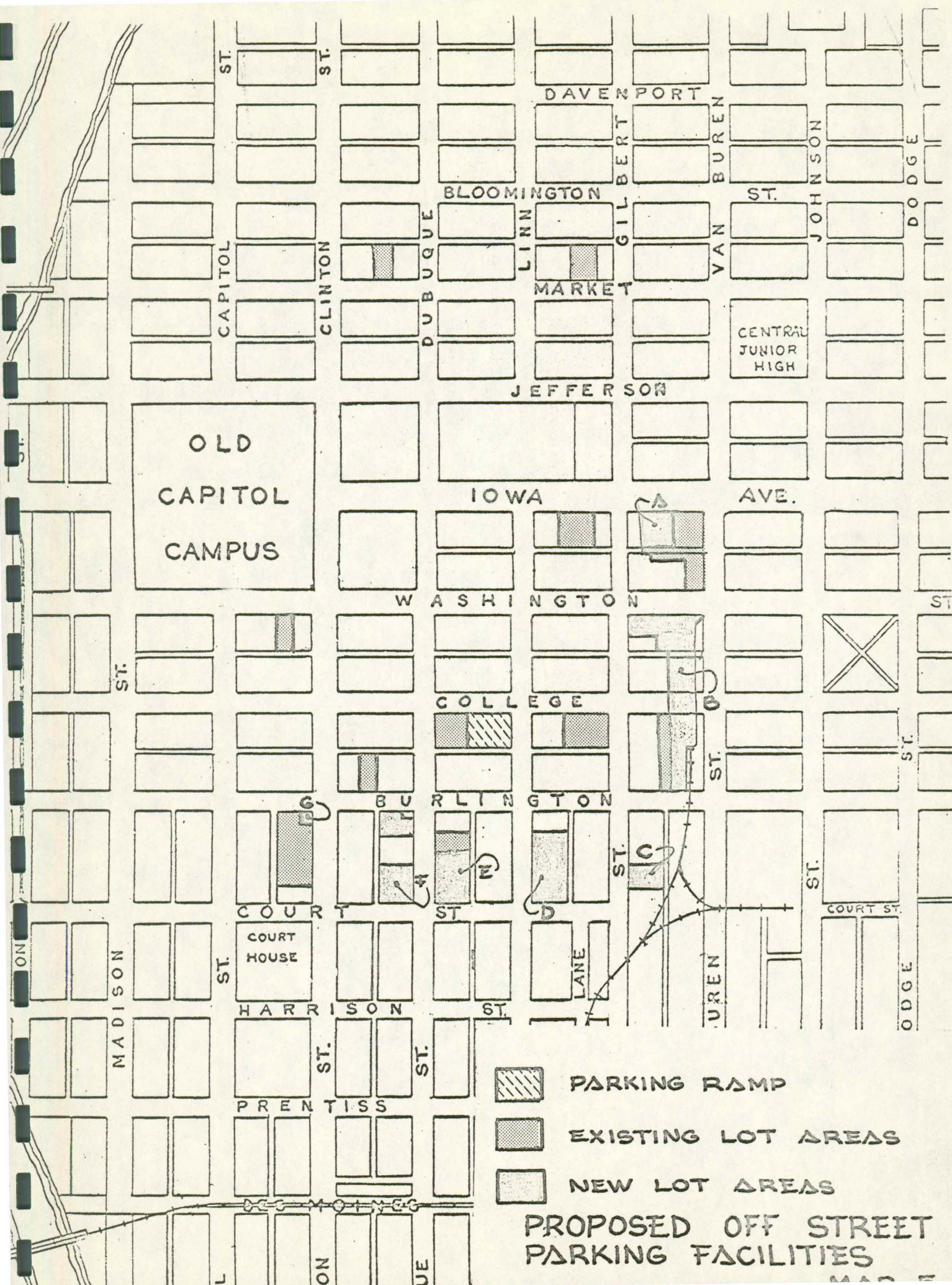
MAP 3



SCHEME "B"






NORTH RAMP	6 FL @ 70 =	420
SOUTH RAMP	6 FL @ 70 =	420
" " "	PHASE II =	394
" " "	PHASE IIa =	192



OLD  
CAPITOL  
CAMPUS

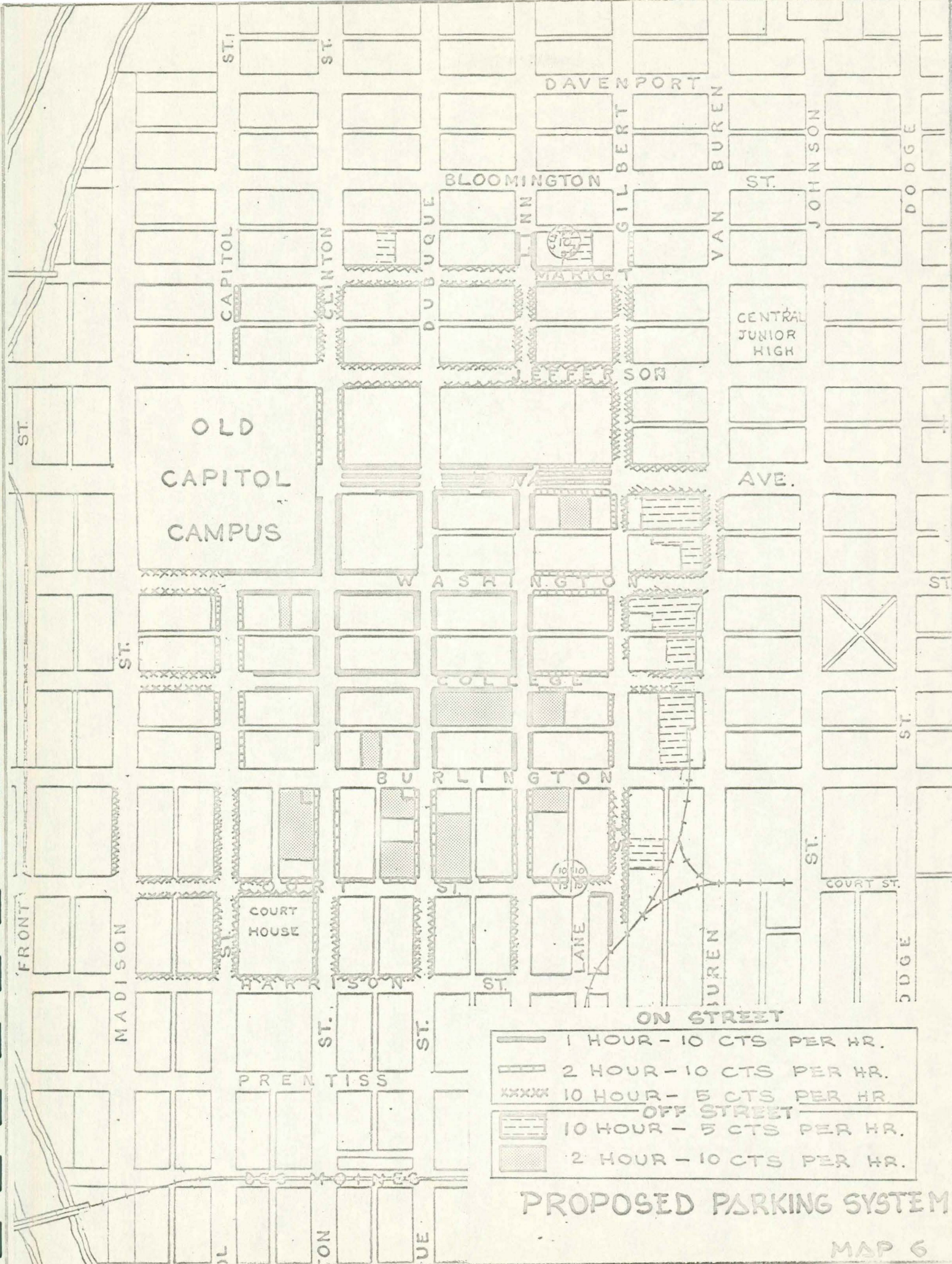
CENTRAL  
JUNIOR  
HIGH

COURT  
HOUSE

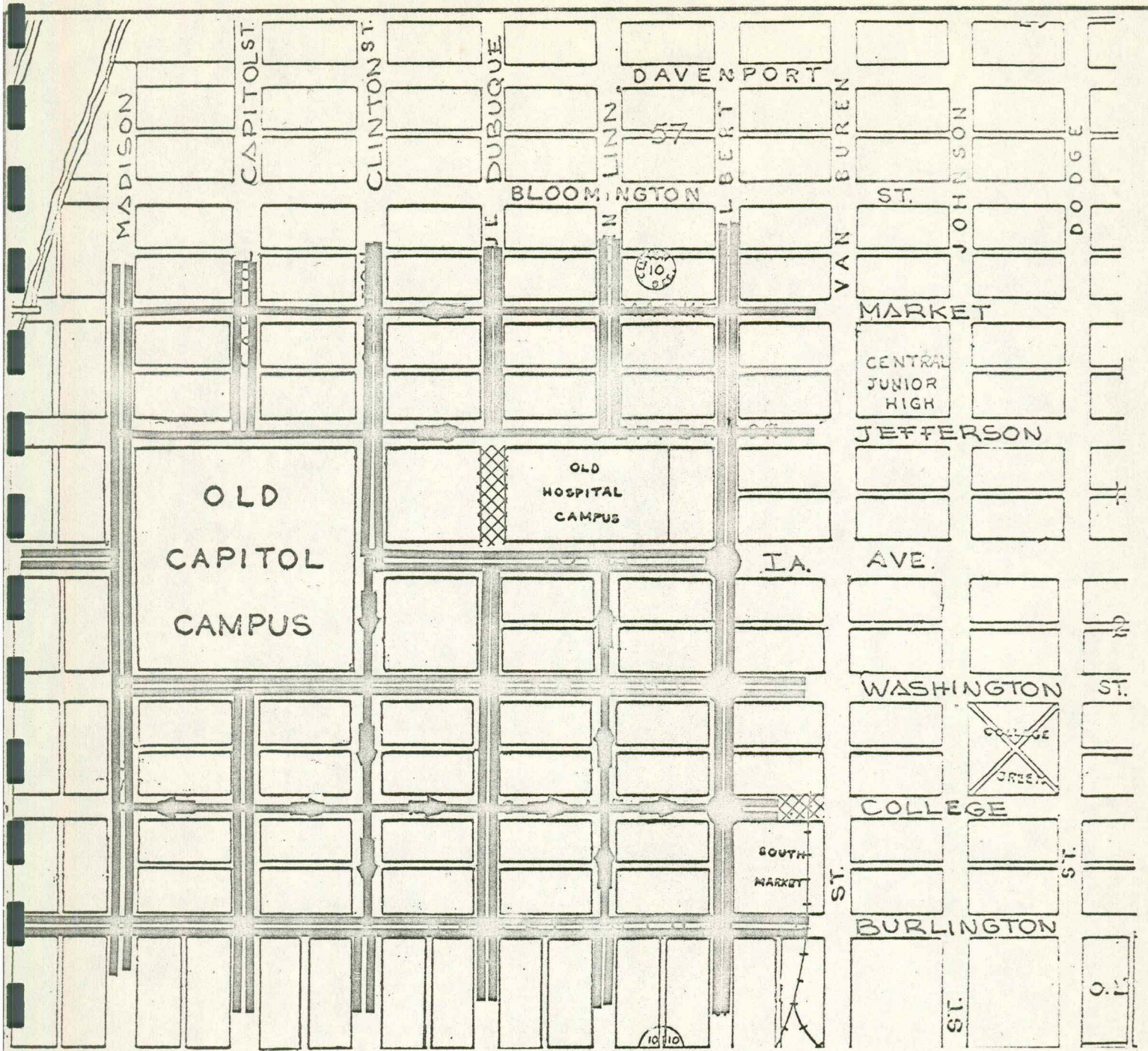
-  PARKING RAMP
-  EXISTING LOT AREAS
-  NEW LOT AREAS

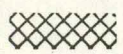



**PROPOSED OFF STREET  
PARKING FACILITIES**





# PROPOSED PARKING SYSTEM



-  STREET CLOSURE
-  ONE WAY FLOW
-  TWO WAY FLOW
-  STOP SIGN

SUGGESTED CORE  
CIRCULATION PATTERN

APPENDIX A

## DEFINING THE STUDY AREAS

Because of the lack of congruity in the location of demand and supply of parking, the motorist must usually park at some point removed from his ultimate destination and complete his trip as a pedestrian. Because of the parking cost in areas of high land value, many motorists will walk a considerable distance to save expense. However, there is a complex relationship between the motorist's desire to walk a short distance opposed to his desire to incur minimum parking cost. Even in the largest cities, sixty percent of parkers park their vehicles not more than two blocks from their destination. Parking facilities more than two blocks from a particular generator can be expected to accommodate only a minority of road users whose trips are related to that generator. Inventories of parking habits in Iowa City in May of 1965 indicated that 80 percent of the shoppers and business patrons were walking less than 600 feet from their parked cars to their destination with the average distance being approximately 500 feet. These factors plus the test of reasonableness and other experience were used in selecting a walking distance for short-term parkers of 500-600 feet as a basis for recommendations in this report.

Map 1. shows the division of downtown Iowa City into four major parking areas. Area A. is considered as a short-term area with the controlled on-street spaces having a one hour limit and the controlled off-street spaces having a two-hour limit. Area B. is also considered a short-term area with the on-street and off-street spaces having a two hour limit. Area C. is proposed as a long-term area with the controlled spaces showing a 10 hour limit. Areas A, B, & C are considered as being related to the Central Business District core and the Central Business District Core service area. Area D. is the Market Street Commercial area and was studied as an area separate from the CBD. (Areas E and F were included in the study; however, they were considered to far removed from the CBD area to satisfactorily serve "downtown" parking needs.)

## FACTORS USED TO DETERMINE SHORT-TERM AND LONG-TERM PARKING DEMAND

It can be shown that parking demand can be directly linked to the amount of retail sales space, office space, service areas, theater seats, etc., available in a given commercial district. Although parking demand factors may vary slightly from city to city, when cities of similar size are studied, a fairly consistent ratio can be developed between certain types of land use and parking demand. The following factors reflecting experiences found in many other urban areas similar to the situation found in Iowa City are presented in "Information Report 182" prepared by the American Society of Planning Officials in 1964. They have been used to calculate the parking demand within the CBD service area.

### Short-term Demand

- 2.8 - Retail shopper space per 1000 square feet of retail floor area within the CBD core.
- 2.0 - Retail shopper space per 1000 square feet of retail floor area in the CBD fringe.
- 1.0 - Visitor space per 1000 square feet of office area.
- 2.0 - Visitor space per 1000 square feet of service establishment.

### Long-term Parking Demand

- .75- Employee space per 1000 square feet of retail floor area.
- 2.0 - Employee space per 1000 square feet of office area.
- .75- Employee space per 1000 square feet of service establishment.
- 1.0 - Space per 1000 square feet of office-warehouse establishment.
- 1.0 - Space per hotel or motel unit.
- 1.0 - Space per 5 theater or church seats.
- 1.0 - Space per household unit.

Building square footages and uses were obtained from the 1964 Citizens Advisory Committee report and augmented by the urban renewal surveys made in 1966. Land use changes in the area as shown on building permits and general knowledge of the area by Planning Department personnel were also incorporated.

All calculations were made for daytime shopping hours. As a result, some suppositions and assumptions were made for practical purposes, all of

them concerning long-term parkers.

1. Motel and hotel unit needs were not included, assuming that they require the major share of their parking spaces after regular daytime shopping hours.
2. Church parking needs were not included, assuming that this demand usually occurs on Sundays and some holidays.
3. Theater parking needs were also not included as it is assumed that the bulk of this demand occurs after normal shopping hours.

PARKING DEMAND BASED UPON LAND USE UNITS

Short-term:

Core Retail - Patron	364,500 sf	=	1055 spaces
Fringe Retail - Patron	120,550 sf	=	280 spaces
Office Visitor - Core	118,395 sf	=	118 spaces
Office Visitor - Fringe	158,260 sf	=	158 spaces
Service Visitor - Core	129,235 sf	=	259 spaces
Service Visitor - Fringe	154,780 sf	=	310 spaces

SUMMARY OF SHORT-TERM DEMAND (ZONES A, B, & C)

Core Type Demand	1,432		1,770 Demand in Zones A & B
Fringe Type Demand	748		410 Demand in Zone C
	<hr/>		<hr/>
	2,180	=	2,180

Long-Term:

Core Retail - Employees	364,500 sf	=	274 spaces
Fringe Retail - Employees	120,550 sf	=	91 spaces
Core Office - Employees	118,395 sf	=	237 spaces
Fringe Office - Employees	158,250 sf	=	317 spaces

Long-Term Cont:

Core Service - Employees	129,235 sf	=	97 spaces
Fringe Service - Employees	154,780 sf	=	116 spaces
Fringe Office - Warehouse	44,600 sf	=	45 spaces
Core Household Units	263 sf	=	263 spaces
Fringe Household Units	253 sf	=	253 spaces

SUMMARY OF LONG-TERM DEMAND (ZONES A, B, & C)

Core Type Demand	871		1,278 Demand in Zones A & B
Fringe Type Demand	822		415 Demand in Zone C
	<hr/>		<hr/>
	1,693	=	1,693

Map A-1. indicates the "theoretical" demand (short-term and long-term) in the study areas. (Zones A & B were combined for the purpose of determining the total parking demand generated by the business district area.)

PARKING IMPROVEMENT PROGRAM AND ITS RELATION TO EXISTING METERS AND PRESENT DEMAND

Parking Zone	A & B		C	
	Short-term	Long-term	Short-term	Long-term
Time Limit <sup>(1)</sup>				
Existing Publicly Controlled Spaces	1410		36	274
Proposed Publicly Controlled Spaces	660			684
Parking Garage	300			
Surface Lots	270		428	
Street Meters	90		256	
Existing Privately Controlled Spaces	110	365		182
Total Spaces	2180	365	36	1140
Total Demand <sup>(2)</sup>	1770	1278	410	415
Surplus <sup>(2)</sup>	410			725
Deficit		913	374	
Net Surplus	410			351
Net Deficit <sup>(3)</sup>	0	562		

(1) Short-term - Spaces having a one or two hour time limit.  
 Long-term - Spaces having a time limit longer than two hours.

(2) Surplus of short-term spaces in Zone A & B will provide for an average vacancy rate of 22.5%. Confusion sometimes exists as to the meanings of the terms use and demand when applied to parking facilities. If there were enough facilities to permit everyone to park just where he wanted to, use and demand would be exactly the same. In cities where parking space is at a premium, however, usage is not a direct indication of demand but rather the relative desirability of the existing facilities. Nevertheless, in the absence of information on demand, usage is a significant measure of parking adequacy. Our quantification of demand, based upon land use units compared to existing spaces available, indicate a theoretical balance of supply and demand. Actual field checks in the CBD area indicate an extremely tight



- (2) (Cont.) situation does in fact exist. (See Appendix B, pg. 3.) It is generally accepted that in order to have a parking system function efficiently and effectively, it is desirable to have between 20% and 30% vacancy rate at any one time. Most parking study reports recommend that additional spaces be provided even though the available spaces exceed the peak accumulation of vehicles. Many spaces that are "theoretically" available are unattractive because of physical (topographic or man-made features) or visual (the "apparent distance" to the destination is too far) reasons.
- (3) Net Deficit = surplus of long-term Zone C (725) minus deficit of short-term Zone C (374) - Net Surplus Zone C (351). In other words, part of the surplus of long-term spaces in Zone C will be used by the demand for short-term spaces in Zone C. Net surplus of long-term spaces in Zone C (351) minus deficit of long-term spaces in Zone A and B (913) = net deficit in Zone A and B of long-term spaces (562).

ESTIMATED COST OF RECOMMENDED OFF-STREET FACILITIES

Lot	Estimated Cost of Land (1)	Estimated Construction Cost (2)	Estimated Total Cost	Spaces Gained	Estimated per Space Space Gained
A	\$ 45,000	\$ 11,000	\$ 56,000	35	\$ 1,600
B	360,000	130,000	490,000	328	1,490
C	----	25,000	25,000	65	390
D	170,000	55,000	225,000	129	1,750
E	100,000	45,000	145,000	58 <sup>(3)</sup>	2,500
F	120,000	30,000	150,000	67	2,240
G	40,000	7,000	47,000	16	2,940
TOTALS	\$ 835,000	\$ 303,000	\$1,138,000	698	\$ 1,630

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- (1) Based upon assessed valuation, recent sales in the area and value judgements of staff personnel; (recommend appraisals be made to accurately determine this cost).
- (2) Includes demolition, surfacing and meter equipment.
- (3) Area purchased will accommodate approximately 77 automobiles; however, the parking situation on the Nall Lot is considered "tight" according to current standards (350 sq. ft. per space). Therefore, when this lot is expanded - and parking redistributed throughout the lot, there would be a net gain of only 58 spaces.

PROPOSED PROGRAM - COST OF IMPROVEMENTS

A program of improving and expanding the automobile parking system can be developed along four major steps. A breakdown of improvements included in each step and the cost of these improvements follows:

Step 1: This would involve the conversion of existing meters in Zones A, B, and C and the Market Street Area, excepting the Clinton Street and Nall lots, to the rates and time limits as proposed. This would also involve the addition of new on-street meters in Zones B and C. The meters to be converted are as follows:

A. Meters to change in both time limit and rate:

2 hr./5¢ per hour to 1 hr./10¢ per hour	103
5 hr./5¢ per hour to 2 hr./10¢ per hour	232
1 hr./5¢ per hour to 2 hr./10¢ per hour	18
½ hr./5¢ per ½ hour to 10 hr./5¢ per hour	12
5 hr./10¢ per hour to 10 hr./5¢ per hour	18
1 hr./10¢ per hour to 10 hr./5¢ per hour	9

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392

B. Meters to change rate only:

2 hr./5¢ per hour to 2 hr./10¢ per hour	198
1 hr./5¢ per hour to 1 hr./10¢ per hour	4

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202

C. Meters to change time limit only:

½ hr./5¢ per ½ hour to 2 hr./10¢ per hour	12
5 hr./5¢ per hour to 10 hr./5¢ per hour	140
2 hr./5¢ per hour to 10 hr./5¢ per hour	28
1 hr./5¢ per hour to 10 hr./5¢ per hour	134
12 hr./5¢ per hour to 10 hr./5¢ per hour	66

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383

D. Total meters to be converted

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977

Estimated cost of conversion at \$4.25 per meter  
(parts and labor) \$ 4,152.

E. In addition, there will be 346 new meters at the following rates and time limits:

2 hr./10¢ per hour	90
10 hr./5¢ per hour	256
	<hr/>
	346

F. Estimated cost of purchase and installation of new meters at \$80.00 per meter \$ 27,680

TOTAL ESTIMATED COST STEP 1. \$ 31,832

Step 2. This would include the expansion and conversion of the Clinton Street lot to a short-term lot (2 hour limit), the lease of the Fairbanks property and the start of construction of the College Street parking garage.

A. Construct sixteen (16) new spaces in the Clinton Street lot at an estimated cost of \$2,940.00 per space \$ 47,000

B. Convert 153 meters in Clinton Street lot from 12 hr./5¢ per hour to 2 hr./10¢ per hour at \$4.25 per meter \$ 650

C. Construct College Street parking garage, 400 spaces at \$2,500.00 per space \$1,000,000

TOTAL ESTIMATED COST STEP 2. \$1,047,650

Step 3. This step would include the construction of new long-term lots in the area east of the Recreation Center, the two areas in Block 43, the area now occupied by the Water Works storage yard and the additional area north of the Civic Center.

A. Recreation Center (between Washington Street & Burlington St.) 328 spaces at \$1,490 per space. \$ 490,000

B. Water Works Storage Yard	
65 spaces at \$390.00 per space	\$ 25,000
C. Civic Center Addition - 35 spaces at \$1,600.00 per space	\$ 56,000
TOTAL ESTIMATED COST STEP 3.	<u>\$ 571,000</u>

Step 4. The final step in the parking improvement program includes the construction of new short-term lots south of Burlington Street on Dubuque Street and Linn Street and the expansion and conversion of the Nall Lot to short-term parking.

A. Construct 67 new spaces on Dubuque Street at \$2,240.00 per space	\$ 150,000
B. Construct 129 new spaces on Linn Street at \$1,750.00 per space	\$ 225,000
C. Expand the Nall Lot by 58 spaces at \$2,500.00 per space	\$ 145,000
Convert the 71 meters in the Nall Lot from 12 hr./5¢ per hour to 2 hr./10¢ per hour at \$4.25 per meter	\$ 302
TOTAL ESTIMATED COST STEP 4.	<u>\$ 520,302</u>

Total Estimated Cost of All Improvements	\$2,170,784
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## INCOME PROJECTION OF PROPOSED SYSTEM

The proposed change-over of certain existing meters and the addition of other controlled spaces to on-street parking facilities will increase parking revenue. The increase in parking revenues has been projected on the basis of estimated per space revenue per day in relation to the four major areas that constitute the improvement program. See Map 1.

Area A - corresponds to predominantly 10¢ per hour meters with 1 hour limitations.

Area B - shows predominantly 10¢ per hour meters with 2 hour limitations.

Area C - shows predominantly 5¢ per hour meters with 10 hour limitations.

Area D - is the Market Street commercial area and is divided as follows:

1. On-Street

- a) 27 meters - 10¢ per hour - 1 hour limit.
- b) 18 meters - 10¢ per hour - 2 hour limit.
- c) 130 meters - 5¢ per hour - 10 hour limit.

2. Off-Street

92 meters - 5¢ per hour - 10 hour limit.

Shuman Lot - 22 spaces  
Market Street Lot - 70 spaces

All parking lots in Areas A and B are 10¢ per hour with 2 hour limits. This also includes the parking garage.

All parking lots in Area C are 5¢ per hour with 10 hour limits except the parking lot north of the Civic Center which will have 110 spaces and will be rented at \$60.00 per space annually.

We wish to point out that the following revenue projections represent our best estimate based upon assumptions dealing with percent occupancy and usage. The assumptions were derived from the survey work represented in Appendix B. and the test of reasonableness. (The purpose of these projections is merely to study the general magnitude of revenue anticipated.)

THE FORMULA USED FOR PROJECTING INCOME IS AS FOLLOWS:

$$\begin{array}{cccccccc} \text{Number of meters} & & & & \text{Occupancy} & & & & \text{Hours} & & & & \text{Hourly} & = & \text{Daily} \\ \text{or spaces} & & \text{X} & & \text{Rate (\%)} & & \text{X} & & \text{Used} & & \text{X} & & \text{Rates} & & \text{Income} \end{array}$$

On-Street Parking

Area

A.	519	X	80%	X	6.9	X	10¢	=		\$	286
B.	393	X	75%	X	6.8	X	10¢	=			200
D.	432	X	90%	X	7	X	5¢	=			136

Daily Income		\$	622
Number of Days			300 <sup>(1)</sup>

Annual Income	\$	186,600
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Evening Parking			286
Number of days	x	50 <sup>(2)</sup>	

\$	14,300
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TOTAL ANNUAL INCOME ON-STREET METERS	\$	200,900
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(1) 300 days per year allows for Sundays, holidays, etc.

(2) Meters to be patrolled and enforced on Monday and Thursday evenings from 5:00 to 9:00 p.m. - 8 hours a week equal to one day a week times 50 weeks equals annual income.

Off-Street Parking

Area											
A&B	1272	X	77.5%	X	6.8	X	10¢	=	\$	670	
C.	393	X	90%	X	7	X	5¢	=		124	
<hr/>											
Daily Income										\$	794
Number of Days											300
<hr/>											
Annual Income										\$	238,200
Evening Parking										\$	2,740 <sup>(3)</sup>
Number of Days											50
<hr/>											
										\$	13,700
110 Rental Spaces @ \$60.00										\$	6,600
TOTAL ANNUAL INCOME OFF-STREET SPACES										\$	258,500

Market Street Area

Area												
D.	45	X	75%	X	6.8	X	10¢	=	\$	25		
	222	X	90%	X	7	X	5¢	=		70		
<hr/>												
Daily Income											\$	95
Number of Days												300
<hr/>												
Annual Income											\$	28,500
TOTAL ANNUAL INCOME MARKET STREET AREA											\$	28,500
<u>TOTAL ANNUAL INCOME - PROPOSED</u>										\$	<u>487,900</u>	
<u>CONTROLLED PARKING SYSTEM</u>												

(3) Same as (b). The selected lots, Burlington and the Eagle Lots, and ramp are the ones which, it is assumed, will be used for short-term parking during evening shopping hours.



OPERATIONAL PARKING SYSTEM EXPENDITURES

Estimated Expenditures - Existing System (1968 Budget)

Salaries:

Clerk Steno I	2	\$	6,540
Meter Repairmen	2		9,960
Lot Attendant	1		4,080
Meter Maids	7		29,280
Police Captain	1		7,320
Salary Adjustment			4,590

\$ 61,770

Goods & Services

\$ 32,430

TOTAL

\$ 94,200

Estimated Expenditures at Completion of Proposed Parking System

Salaries:

Clerk Steno I	2		\$	6,540
Meter Repairmen	3	(Add 1 @ \$4,500)		14,460
Lot Attendants	3	(Add 2 @ \$4,080 each)		12,240
Meter Maids	9	(Add 2 @ \$4,200 each)		37,680
Police Captain	1			7,320

\$ 78,240

Good & Services

(25% over 1968 Budget) \$ 40,500

Capital Outlay

\$ 21,060

TOTAL

\$ 139,800

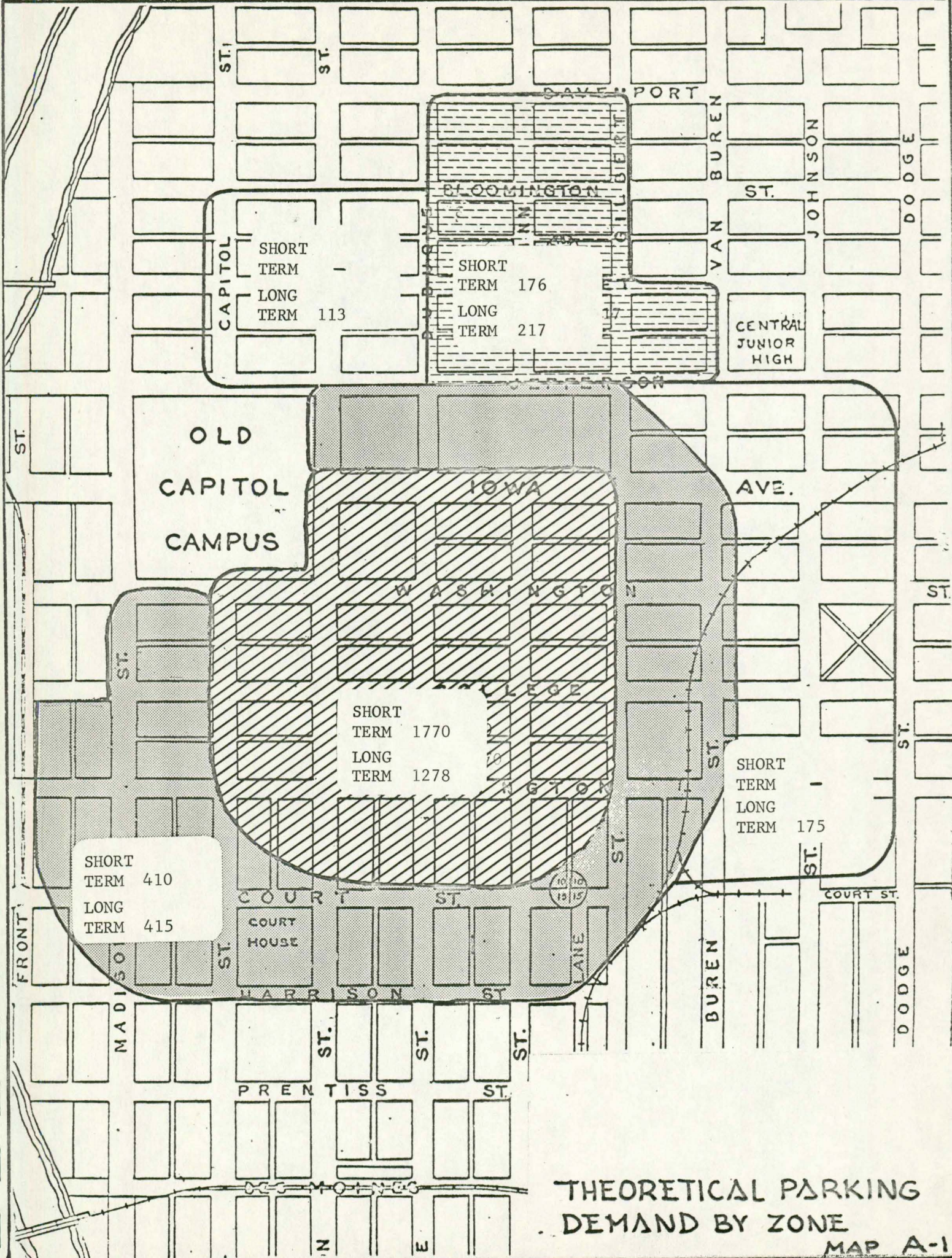
Operational Expense - Proposed System

\$ 139,800

Operational Expense - Existing System

94,200

\$ 45,600 or  
48.4% increase



SHORT TERM  
LONG TERM 113

SHORT TERM 176  
LONG TERM 217

CENTRAL JUNIOR HIGH

OLD CAPITOL CAMPUS

SHORT TERM 1770  
LONG TERM 1278

SHORT TERM  
LONG TERM 175

SHORT TERM 410  
LONG TERM 415

THEORETICAL PARKING DEMAND BY ZONE

APPENDIX B

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