

**UPDATE OF THE
DOWNTOWN PARKING
MANAGEMENT PLAN**

**Prepared By
Edwards Engineering, Inc.
September 2007**

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EXECUTIVE SUMMARY

The parking recommendations are divided into two parts: Immediate or Short Range Parking and Future Parking Needs. The Immediate or Short Term Parking Recommendations are those improvements that can be made in a relatively short period-a year or so. These recommendations are comprised of those improvements that do not involve the acquisition of property, are relatively low cost and primarily involve better management of existing facilities. Examples of Immediate Recommendations are: the addition of on-street parking, the redesign of off-street lots, improved parking enforcement and parking promotion.

Future Parking Needs Recommendations involve those recommendations that will take 2-5 years to accomplish. They include the construction of new parking facilities, off-street parking as a part of a public-private development, new governmental parking and continuing parking administration and management.

Immediate or Short Range Parking Recommendations

Since 2001, the downtown area has actually lost parking spaces. Although the City built a major parking facility containing 344 spaces, the downtown area as a whole has lost 169 parking spaces. New construction that displaced surface parking lots accounts for the majority of the loss (± 117 spaces) while a shift in the study area boundary accounts for a loss of 52 spaces. This has caused an increase in parking occupancy and many short-term spaces are filled with long-term parkers. The recommendations that follow are intended to immediately improve the situation.

Add On-Street Parking

- Currently, McCachern Boulevard has many unused on-street spaces which could provide for long term parkers. With the addition of angle parking on the street as many as 15-20 additional spaces could be gained. Plans for the streetscaping improvements have been prepared. The current plans call for 36 parallel and 45 degree angle spaces-a net loss of 5 parking spaces. Revise the plans for the McCachern Boulevard to add spaces to the proposed streetscape plan. This is a minor revision which will gain 2 spaces rather than loose 5 spaces.



- Market Street with perpendicular parking is used inefficiently and poses a safety issue. We recommend the conversion of the 90 degree parking on the west side of Market Street to 45 degree parking and the addition of on-street parking on the east side of the street for a net gain of 16 spaces. See Figure 7 for the recommended redesign. Work with the private property owners on the east side of Market Street to combine and redesign the off-street parking areas to improve the appearance and operation of these facilities.

Redesign/Combine Off-Street Lots

- The Church Street Lot is the best location for easily increasing public parking. The redesign of Church Street lot by restriping the lot from two bays of 90° parking which provides 122 spaces to three bays of 45° parking which provides 142 spaces will result in a net gain of 20 spaces. There is no property acquisition or reconstruction costs. This improvement will provide increased employee and public parking. Figure 9 illustrates these recommended improvements.
- The Bicentennial Lot along with the private parking lot & drive-thru for the Wachovia banking facilities are adjacent to each other and share driveways and aisles. We recommend that a redesign of a small portion of the Bicentennial Lot and the privately owned parking and drive-thru facility will add approximately 20 more spaces. Note this will be privately owned and controlled.
- The parking demand for Court related activities generates the heaviest peak demand for short-term parking spaces in the southern part of the Study Area. The redesign of the Barbrick Street Lot is the best opportunity for increasing the parking supply in this area. One design approach for short-term is to combine the two lots into one and designate parking for jurors and county officials in this lot. A combination and restriping plan ,see Figure 11-a, provides better circulation and a gain of 6 parking spaces.

Parking Enforcement

- A number of improvements have been made in enforcement since the 2001 parking study. The one recommendation that has not been implemented is the purchase of hand-held computers and the related software to allow the tracking of habitual parking violators and the improved management of parking enforcement personnel. We recommend the purchase of hand-held computers and related software for use in enforcing the time limit regulations and maintaining an enforcement records system
- Once the enforcement records system is in place it will be possible to identify those habitual violators. We recommend that the City increase overtime parking penalties for habitual over-time parkers as shown on page 29 and to initiate increased fines for late payers.

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- The turnover survey performed yielded a total of 144 time-limit violations between the hours of 8:00 am to 5:00 pm. To increase the effectiveness of the current enforcement program, we recommend the parking enforcement officer make hourly rounds (8 rounds per day) of all time-restricted spaces.
- In view of the low occupancy of the on-street spaces on McCachern Avenue and our recommendation that all-day parking be encouraged here, it is recommended that the City eliminate the sections of two-hour parking time-limit on McCachern Avenue except for the area in front of the Post Office which should retain as 10-minute parking.

Parking Promotion

- The CDDC has circulated a map of downtown businesses that also shows public off-street parking locations and time limits. A separate parking map that illustrates where the public and private off-street lots are located should be printed in quantity (4-5000 copies) and circulated to every downtown business and governmental agency. The map should also indicate the time limit zones and the parking regulations as well as the total number of spaces available. See Figure 12 for an example of a good parking map.
- Prepare a brochure on the parking deck including specific information on the use of the second and third levels for leased parking. The brochure should contain the requirements for leasing parking, the monthly and annual rates and suggestions that employers lease spaces for their employees.
- The signage in the city parking deck should be improved. We suggest color coding and additional signage be added to provide positive reinforcement for the “unfamiliar user”. Signage should encourage the use of the upper 3-levels of the deck as long-term parking.
- Provide a map to be included with the jury summons designating juror and defendant parking areas. The wording in the summons should be firm and include a statement that the court will not excuse parking tickets.
- Publish articles in the regional media (Charlotte Observer) on the positive aspects of the parking system and the Parking Management Plan. Provide samples of media articles to all the local media. Follow-up with editors and writers prior to the printing of the article. See Figure 13 for an example of an article for the local media and for circulation to all businesses in the downtown area.

Parking Management

- The peak occupancy surveys indicated that only 49% of the existing private off-street spaces are occupied. This represents a large resource of existing parking not being used. The CDDC

should initiate a “shared parking” program to encourage off-street lot owners to allow public parking on their unused lots. This involves the identification of parking that is not normally used during the normal weekday-parking peak.

- In the 2001 Parking Management Plan it was recommended that a Parking Steering Committee be established on a continuing basis to monitor the implementation of the plan. It is again recommended that a Parking Steering Committee be maintained as a permanent committee to monitor and review the operation, planning and implementation of the parking program
- It is recommended that the City remove the time limit restrictions on the upper 3 floors of the parking deck as well as remove the designation of the second and third floors for city parking only. This does not preclude the city from leasing reserved parking spaces on the upper level. With this recommendation, the upper 3 floors of the deck will be in-play for any and all who desire short or long-term parking. Note that the lower floor should remain a 3-hour parking zone.

Future Parking Needs Recommendations

Add Parking

- The Consultants investigated the possibility of adding parking over part of the Bicentennial Lot. Schematic plans were prepared and evaluated but even with the acquisition of TJ’s Deli the land and construction cost and the low efficiency of the layout does not make this a feasible site for deck parking.
- The 2001 Downtown Master Plan envisioned the development of the Spring Street Commons as a major mixed use site. This site is in public ownership, which makes it easier to develop with a private developer. The topography of the site will allow the development of a two level parking facility without the need for an internal ramping system-making the parking layout much more efficient. Market the Spring Street Commons site and work with a developer to implement a mixed use development with related deck parking.
- Block four contains the old Helig-Meyers Building. Active negotiations between the City and a developer have been on-going for some time for the redevelopment of parts of this block. This might involve a structured parking facility. The City should continue the negotiations to a successful conclusion.
- The Church Street Lot is under public ownership. Immediate Plan recommendations have suggested a redesign of the existing lot to provide more spaces. For the long-range, this site is a primary site for redevelopment. The County could work with a private developer to redevelop the site in accordance with the long range plan stated in the 2001 Downtown Master

Plan. The property could be redeveloped to include retail at street level with a three-level parking deck behind the retail. A preliminary layout of a deck on that site indicates a potential gain of about 80 spaces per level or a net gain of 120-130 space.

- The Barbrick Street Lot could be expanded by demolishing the building on the southwest corner of the lot. The additional property combined with the two existing county lots as shown in Figure 11-b yield an increase of 40 parking spaces. Note this could be a precursor to the construction of a parking deck on said lot.
- It is recommended that the county construct a deck on the Barbrick Street lot for county business and employee use. A two-level facility could provide 300-350 spaces or a net gain of 175 spaces.
- With the completion of the county Justice Center the existing sheriff's lot can be converted to public use. This is especially important for the success of the new Arts Center in the historic Courthouse where a demand of 25-30 spaces during the peak hour is anticipated and an even higher demand at night and on weekends will occur.

Future Parking Promotion

As additional parking demand occurs and changes in marking needs is apparent, it will be necessary for the Parking Steering Committee to monitor the changes. A continuing program of parking publicity and promotion will be needed to assure the public that parking needs are being met on a regular basis. It is recommended that the Parking Steering Committee, CDDC or some department of the City of Concord be charged with the responsibility of preparing a quarterly newsletter that can be put on the City's website and that can be published in the local or regional media.

Project Implementation

The following table shows short-term and long-term priorities and the associated agencies that should be charged with implementing the various elements of the plan. Obviously, the recommendations are suggestions only since the involved public and private agencies will need to consider them and make the final decisions on who will do what.

Table 1 -

<u>Immediate Action Projects</u>		<u>Responsibility</u>
Add On-street Parking	Market Street	City
	McCachern Street	City
Redesign Off-street Lots	Church Street Lot	County
	Former Bank/Trust	Private
	Barbrick Street Lot	County
Parking Enforcement	Hand Held Computers	City
	Increase Parking Fines	City
Parking Promotion	Media Articles	CDDC, City
	Parking Maps	CDDC, City
	Wayfinding Signing	City
	Marketing City Deck	CDDC, City
<u>Long Range Projects</u>		<u>Responsibility</u>
New Parking	Spring Street Deck	City, Private
	Church Street Deck	County, Private
	Justice Ctr. Lot	County
	Barbrick Street Deck	County
	Sherriff's Lot	County

Recommended Implementation Program



INTRODUCTION

In the early 2000's the City of Concord embarked on the preparation of a Downtown Master Plan. This master plan process was a "four part effort" that began with a visioning session by the N.C. Downtown Development Association early in 2001. An Economic Analysis of downtown was completed in December 2001, which resulted in a Marketing Plan. In 2001 the City commissioned a parking management plan, in 2003 the Downtown Master Plan was published and in 2003 the City Center Plan was completed. Included in these plans were analyses and recommendations for economic development, land use, neighborhood revitalization, traffic improvements and downtown parking.

Since the plans were prepared there have been significant changes in downtown; a major parking deck containing 344 parking spaces has been built and opened, there is a new police facility, Cabarrus County has begun the construction of the Justice Center including a sheriff administration facility and a separate detention facility, and there have been numerous consolidations and changes in downtown banking, retail and other private firms.



The recommendations of the 2001 Parking Management Plan are six years old. There have been many changes in building use and parking demand in the intervening period. There are many more changes in this immediate future so it is time for an update of the Parking Management Plan. The stated goals of the plan are:

"to address existing and future needs with specific attention to making existing parking more efficient", and

"to assure that future parking demands are met with new facilities that are consistent with the goals of the Downtown Master Plan."

The Study Process

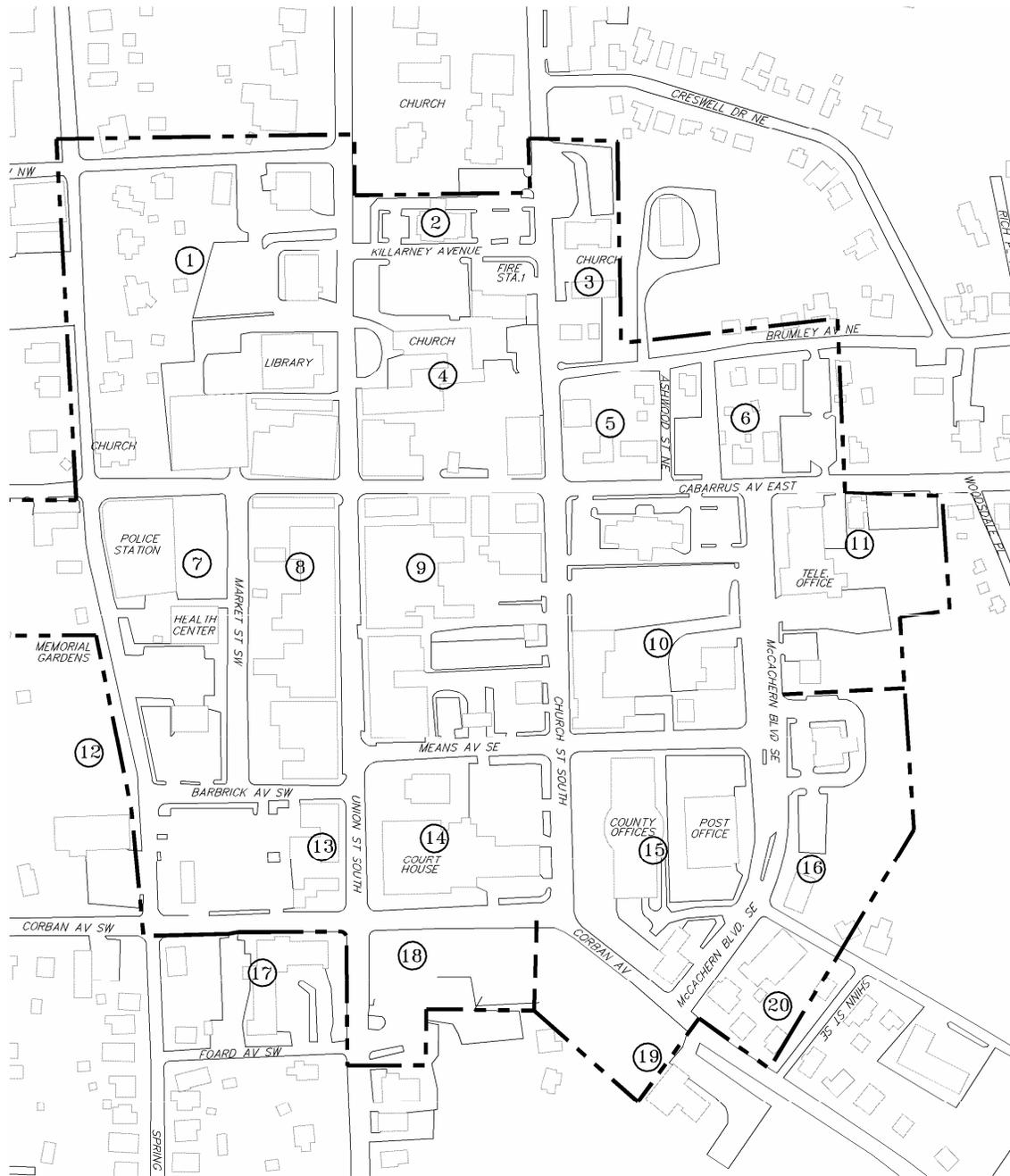
In 2001, the preparation of the Parking Management Plan was done under the direction of a Parking Management Steering Committee composed of both public and private members who were involved in the day-to-day operations in downtown. This planning effort is likewise directed and monitored by a Parking Steering Committee whose names appear on a previous page of this report. The Steering Committee has met at least four times during the preparation of this Plan. In addition, Community Workshops have been a part of the planning process. Finally, a presentation of the plan and an implementation schedule has been made to the City Council for their action.

The Study Area

In 2001 a study area was established which essentially covered the Downtown Municipal Service District. This Plan will use the same area with the exclusion of the St. James Lutheran Church parking at Corban and Union Streets. Figure 1 illustrates the study area boundaries. Some consideration was given to further subdividing the Study Area into a “Core” and a “Fringe” area as is in common with larger downtowns. After consideration of the parking survey data it was decided that a further breakdown of the study area would not add to the understanding of parking issues and problems.



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- LEGEND**
-  STUDY AREA BOUNDARY
 -  BLOCK NUMBERS



Figure 1 - Study Area



PART I - REVIEW OF PAST PLANNING EFFORTS

Downtown Concord has a rich history of planning for downtown and is one of the reasons that the City has had such success in implementing its plans. Continuity is one of the "cornerstones" in successful implementation of plans. This brief review of the results of recent plans will provide a basis for the recommendations included in this report.

2001 Parking Management Plan

In 2000 there were 2473 parking spaces in downtown. This Plan recommended the construction of the parking garage on the current site, the addition of parking through redesign and construction of parking lots, the addition of angle parking on McCachern Boulevard, improved parking enforcement and a parking promotion program. Most of the recommendations have been implemented or are in the process of implementation.

2001 Economic Assessment of Downtown Concord

This economic study included a retail analysis, residential analysis and a marketing strategy for downtown Concord. The economic analysis found there were 90,000 persons living in the Primary Market Area and that downtown could support 78,000 to 155,000 s. f. of additional retail floor space. Findings included recommendations for new store space in the book, home furnishing, drug, hobby, sporting goods, and eating and drinking establishments. The site assembly recommendations for redevelopment were of particular importance. This was further detailed in the Downtown Master Plan.

Another part of the economic analysis was the development of a "marketing piece" which included a marketing image-"Classic Concord"-and related publicity pieces, a Wayfinding Signing Program and promotion of the downtown as a "Cultural and Historic Center".

2001 Downtown Master Plan

This planning effort, completed in 2001, contained two major parts:

- an illustrative master plan and
- a detailed implementation strategy and action plan

Significant in the illustrative Master Plan were two major redevelopment sites: (1) **The Spring Street Commons** on the west side between Market and Spring Streets and (2) **The Church Street Mixed Use Development** on the east side over the County's off-street parking lot. The Spring Street Commons envisions mixed-use development including upper story residential with shared parking. The Church street site envisioned mixed uses to support development on Union Street with a parking deck on lower levels.

A third major development which has occurred in more recent times is the construction of a new Justice Center by the County. This has and will have a major impact on parking due to the loss of existing spaces and the provision of additional parking when the project is complete.

2003 Center City Plan

The Center City Plan covered a larger geographic area than simply downtown but will have a great impact on the downtown area. The Plan addressed the major traffic corridors serving the downtown area, multimodal connections, gateways, and the street-scaping of Cabarrus and Church Streets. This plan also included "Classic Concord", a marketing plan for downtown.

All of the above elements have helped to establish a "continuity of thought" to the redevelopment of downtown and the adjacent neighborhoods. This continuity is most important to the successful implementation of the plan recommendations. That is why we refer to this Parking Management Plan as "An Update of the 2001 Downtown Parking Management Plan."

PART II - PARKING IN DOWNTOWN CONCORD

In 2001, Downtown Concord had 2473 parking spaces within the study area. This included both public and private spaces - on-street and off-street. As pointed out in the previous study, Concord had 49 spaces/1000 population - less than the average city of that size. It was recommended that Concord build additional parking - which it did; but in the intervening years, parking spaces were lost! Currently, the downtown study area has 38 spaces/1000 population. Table 2 provides a comparison of parking supply between 2001 and 2007.

Table 2 - Downtown Parking Inventory - 2001 and 2007		
Type	Year 2001	Year 2007
On-street	212	192
Off-street Public	1,036	1,043
Off-street Private	1,225	1,036
Sub total Off-street	2,261	2,079
TOTAL ALL SPACES	2,473	2,271

Source: 2000, 2001, and 2007 Parking Surveys

Although the City built a major parking facility containing 344 spaces, the downtown area actually lost in the total number of spaces. The primary loss was in blocks numbers 17, 18, and 19. Block # 17 containing 52 spaces was removed from the study area, since the church parking lot was not available for public use. Blocks 18 and 19 containing 237 spaces is the site of the new justice center that is under construction. There are minor reductions in other blocks as well. As one would expect, since the number of spaces has declined, the number of spaces/1,000 population has declined as well to 38 spaces/1,000 population. This is less than half the national average of 75 spaces/1,000 population based on an estimated population of Concord of 65,431 (July 2007 census)

The percentage of on-street to total parking has remained essentially the same over the six year period - about 8-9% and the public percentage of parking has increased slightly from 50% to 53%. These numbers are about average for a downtown of this size. One can see that the off-street parking areas illustrated in Figure 2 are well dispersed geographically throughout the downtown area, minimizing walking distances.

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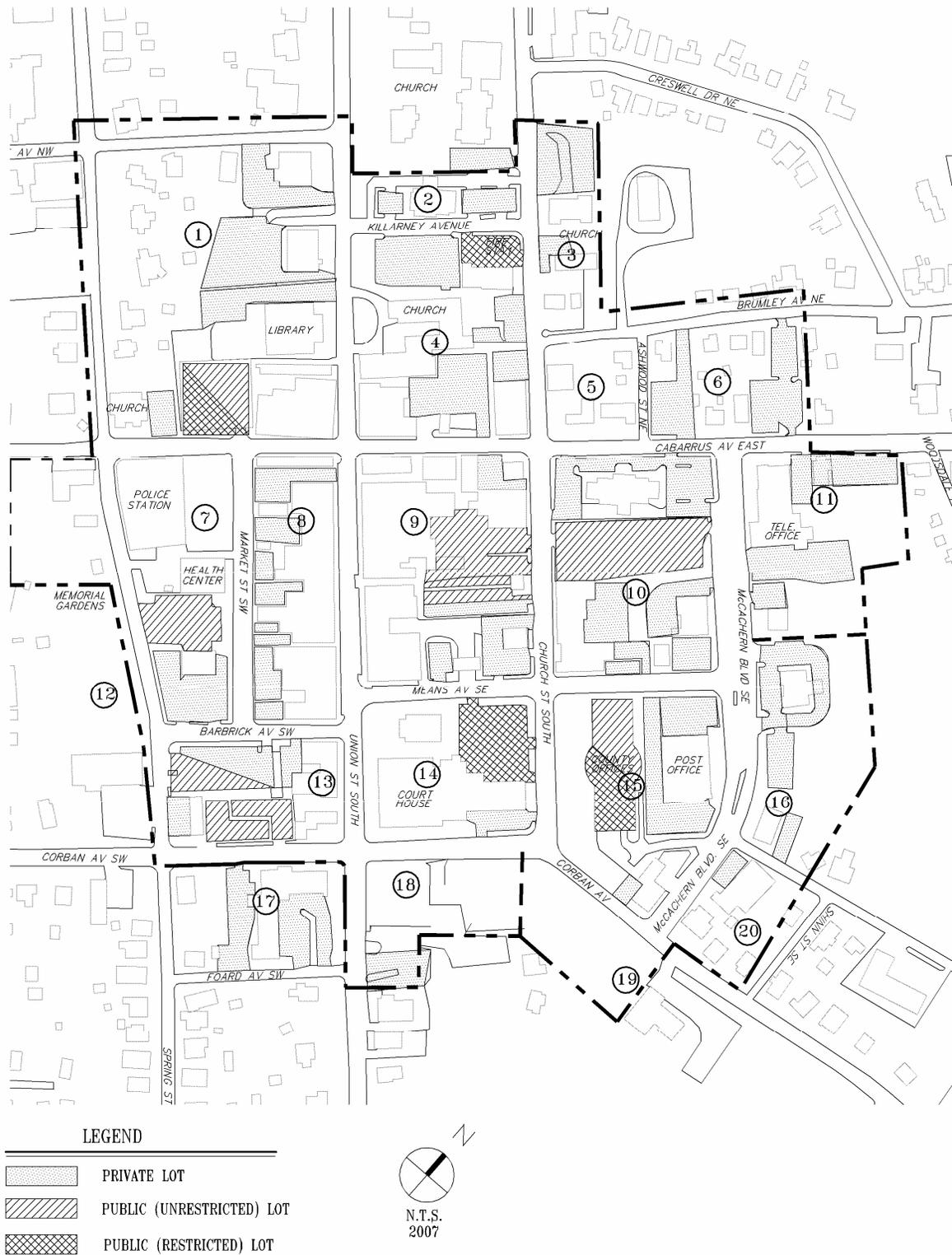


Figure 2 - Off Street Parking Areas

Of special note is the Parking Deck in Block 1, which contains 344 parking spaces. The ground level is devoted to short term (3 hours or less) parking intended for shoppers and short-term parkers. The second and third levels are reserved for City vehicles and City employees. There were 151 of these vehicles parked leaving 56 spaces vacant on the third and fourth levels of the garage. These spaces are currently being leased for \$15.00 per month to downtown businesses.

Parking Usage

Parking usage is defined as the peak number of cars parked at spaces within the study area. Parking occupancy surveys were conducted every hour from 9:00 a.m. to 4:00 p.m. and the cars were counted in all facilities - both on street and off street, public and private. There were 1419 cars parked between 10:00 a.m. - 11:00 a.m. within the study area. This represents an occupancy of 62% - slightly lower than the peak recorded in December 2000 (remember the 2000 surveys were done during the Christmas period). For on-street parking, the occupancy was 79% - very close to the maximum number of cars that can be served on an overall basis without extensive cruising.

	2001			2007		
Type	Supply	Use	Percent 11-12 Noon	Supply	Use	Percent 11-12 Noon
On-street	212	158	75%	192	152	79%
Off-street Private	1225	625	51%	1036	511	49%
Off-street Public	1036	785	76%	1043	756	72%
GRAND TOTAL	2473	1568	63%	2271	1419	62%

Off-street private spaces were about the same while public spaces were about 4 percent lower which probably reflects the higher supply as well as the impact of the new parking deck.

Figure 3 illustrates the peak use of on-street parking for those block faces that exceed 70%. Almost all of the retail block faces exceed 80% occupancy, indicating a real shortage in short term parking. The east curb parking on Union Street exceeded 115% indicating illegal parking. Clearly, there is a serious shortage of parking Blocks 8, 9, 10, and 13. Of particular concern is the on-street occupancy along Union Street between the Library and the Court House. This is the heart of the retail district and every block face is over 95% except at the Concord Hotel.



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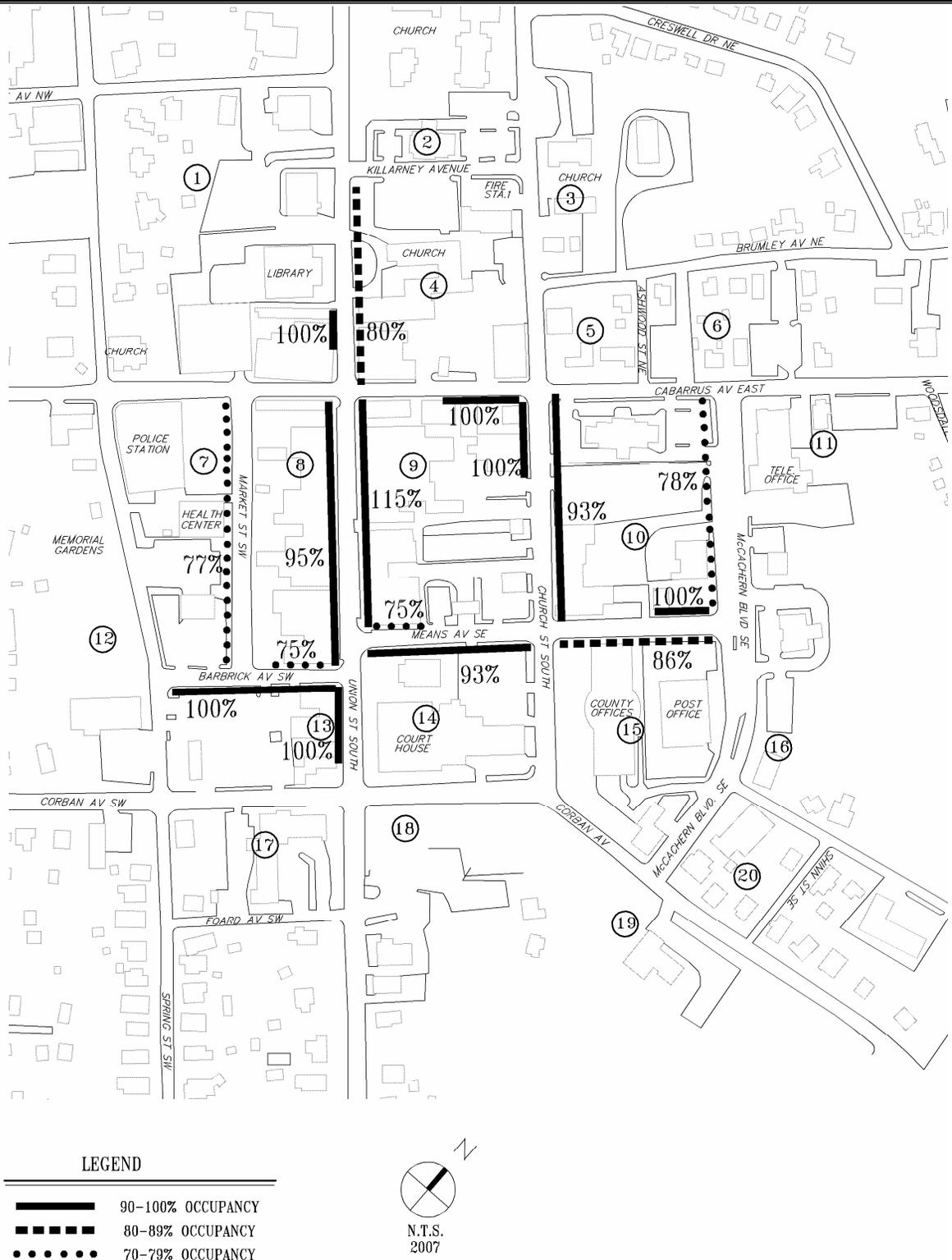


Figure 4 illustrates peak occupancies for off-street parking. A further examination of peak occupancy in off-street lots emphasizes the shortage. In Blocks 9, 10, and 13 there are off-street peak occupancies of 73%, 79% and 65% respectively. Several of the lots represented in the above totals (What-a-Burger) are private lots that are restricted use and, therefore, may have low occupancy. The parking deck with 344 spaces had an occupancy of 195 cars. Forty-four spaces in this deck are three hour short term spaces.



In summary, overall the peak occupancy is considered high for the downtown area. When compared to the 2001 figures, parking availability has become more severe even with the new city deck.

Parking Turnover and Duration

In the 2001 survey there were 1027 cars parked in the study area. In 2007 there were 937 cars parked. This represents a decline of 9% in the number of cars parked (the 2001 survey data was collected during the Christmas shopping period and the 2007 Study Area contains 202 less spaces) so the numbers may be lower than normal. Figure 5 illustrates the average duration of cars parked as compared to the national average duration. Eighty-four (84) percent of the cars parked on street stayed for 2 hours or less while 16% stayed for more than 2 hours. This compares to 20% in 2001. This 16% used 344 space hours or 26% of the on-street space hours as compared to 46% used in 2001. There has been a definite improvement in parking duration due to enforcement.

Parking Enforcement

Parking enforcement is a very important element of any parking management plan. Many police department routinely make time limit enforcement a very low priority resulting in the loss or reduced availability of the most convenient parking. The Concord Police department has chosen to make time limit enforcement a priority. Valuable on-street parking spaces in downtown are, therefore, available for shoppers. Since the Parking Plan in 2001, the Concord Police Department has purchased an enforcement vehicle and has a full time enforcement officer from 9:00 a.m. to 4:00 p.m. enforcing the time limits. Figure 6 illustrates the time limit areas for on-street and off-street areas.

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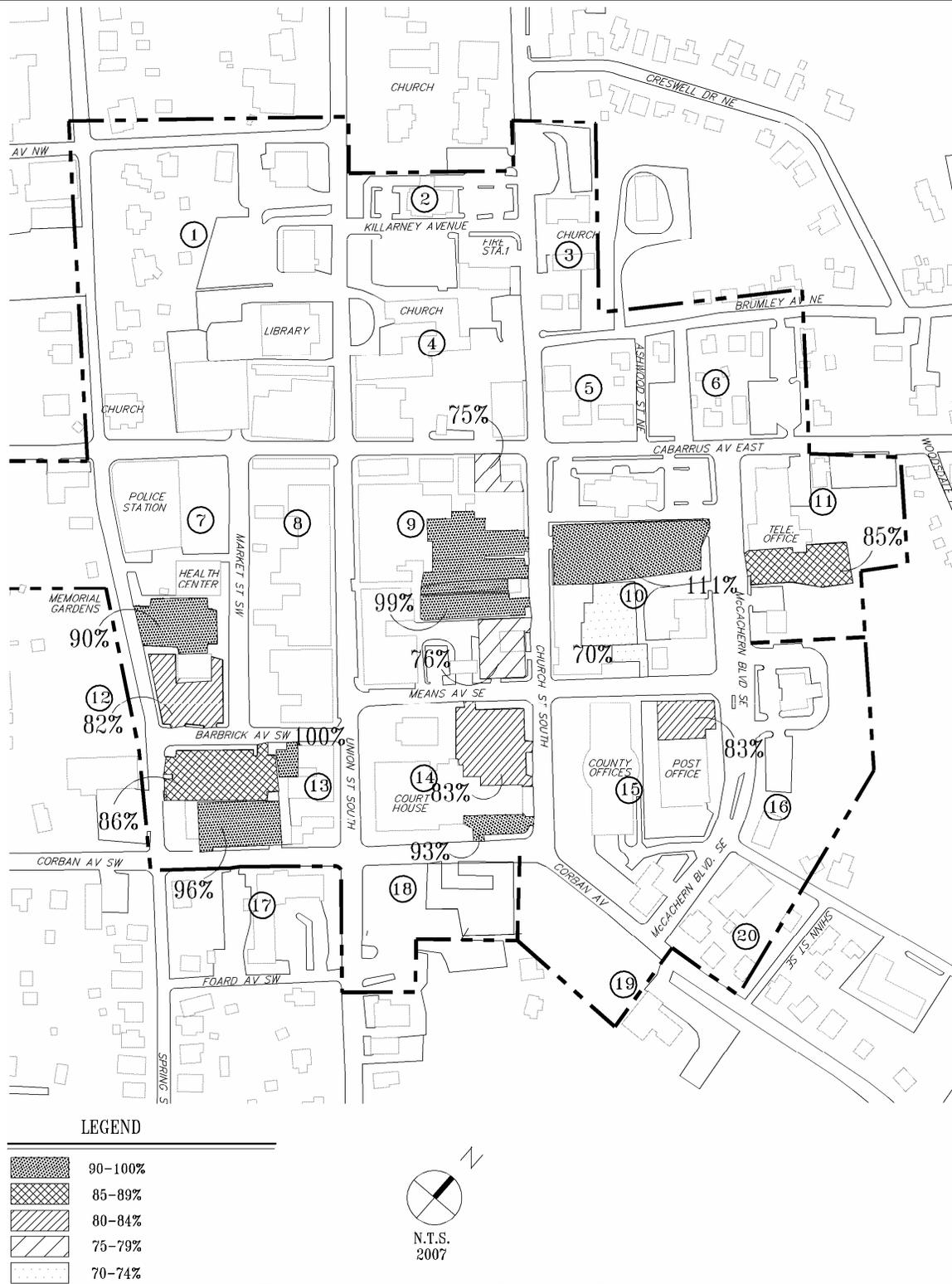


Figure 4 - Off-street Parking Occupancy



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Concord is unique in that two off-street public facilities have time limits - the lower floor of the parking deck and the Bicentennial Parking Lot. Each facility has a three-hour time limit to provide for longer term shoppers. In reality, this makes parking enforcement less effective because long-term parkers find the avoidance of the time limit regulations easier. Clearly, this is related to the interval in which the parking enforcement officer makes his rounds. The fewer the rounds, the easier it is to avoid the time limit regulation.



The turnover survey performed yielded a total of 144 time-limit violations between the hours of 8:00 am to 5:00 pm. To increase the effectiveness of the current enforcement program, we recommend the parking enforcement officer make hourly rounds (8 rounds per day) of all time-restricted spaces.

Enforcement in Concord has improved since the original survey. In 2001 20% of the on-street parkers stayed longer than two hours and used 46% of the available space hours. Currently, the 2+ hour parkers account for 16% of the total parkers and use 26% of the available space hours.

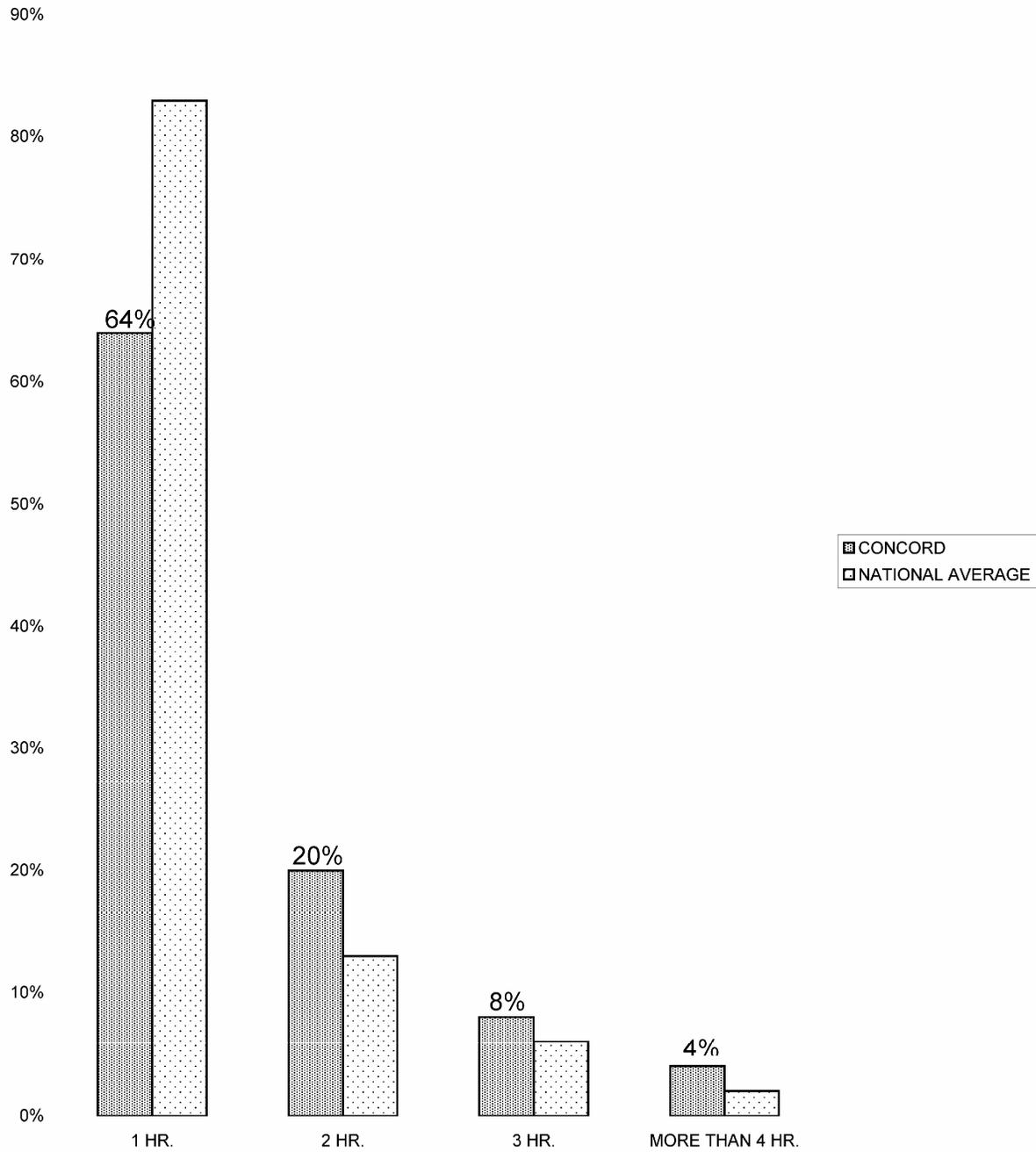


Figure 5 - Comparison of Average Duration with National Data

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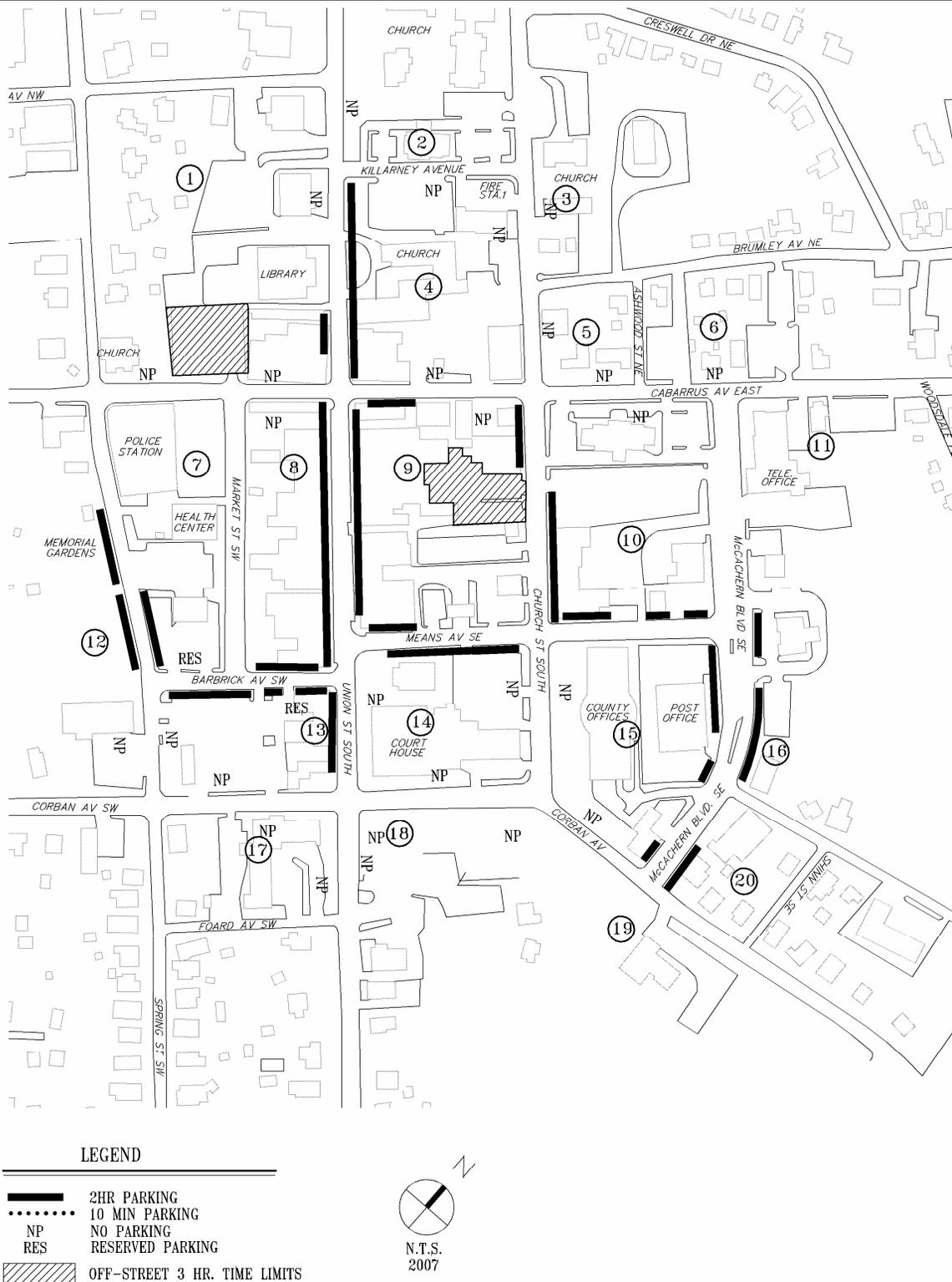


Figure 6 – Two-hour Time Limit Zones



A series of interviews and comments from the Steering Committee and the Community Workshop meetings revealed a number of issues related to downtown parking. The list below summarizes the essence of the comments which were numerous and addressed a wide range of topics.

WHAT WE HEARD!

- **There Is A General Perception That If The Cabarrus Court System Would Provide Adequate Parking It Would Solve Most Of Downtown's Parking Problem.**
- **There Are A Few Merchants/Employees Who Continue To Park In Front Of Their Business, Even With All The Publicity On The Loss of Sales.**
- **Parking In The New Deck Is Gradually Increasing But There Is A Perception That It Is Not Safe.**
- **There Have Been No Incidents In The Parking Deck So The Perception Of Lack Of Security Is Incorrect –**
- **There Is A Perception That the Cabarrus County Court System Does Not Support Time Limit Enforcement.**
- **The Arts Council Outreach Programs Will Create The Demand For More Parking**
- **There Is A Need To Address Issues Of Parking On Union Street - Especially Lawyers And Court Officials.**
- **Downtown patrons are confused about where to park for both short and long term.**
- **The Perception Of Not Enough Parking Downtown Is Wrong**

Parking Promotion

The City and the Concord Downtown Development Corporation (CDDC) have initiated a way-finding signing program and have produced a brochure that contains the location of public off-street parking areas within the downtown area. The wayfinding signs are quite small and several entrees to downtown are not signed. A comprehensive analysis of existing and needed signing should be done. The wayfinding signing program should be coordinated with the parking signing program so that there is a definable link between the two.

Parking promotion efforts are needed to educate the merchants and the patrons of downtown what is available in the way of parking facilities. A marketing program on the municipal parking deck especially related to the fact that off-street parking is abundant and is available for lease to the downtown employers is needed. A brochure that short term and long term parking is available should be prepared and circulated.

For the County, a parking map included with the jury summons telling where parking is available will help to get long term parkers in long term spaces. More needs to be done on signing and on parking promotion.

PART III - RECOMMENDED PARKING MANAGEMENT STRATEGIES FOR EXISTING PARKING

The recommended strategies for improving parking in downtown Concord have been divided into two parts: (1) improvements for existing parking and (2) improvements for long term parking needs. The recommended management strategies for existing parking operations are very “low cost”. Some recommendations for adding to existing parking are included where improvement costs are relatively low.

Adding On-Street Parking

Probably the least expensive improvements are those done on the public rights-of-way involving little but some traffic paint. There are two areas that are candidates for this type of treatment: (1) McCachern Boulevard from Cabarrus Avenue to Corban Avenue and (2) Market Street.

McCachern Boulevard

Plans for streetscape improvements along McCachern Boulevard have been developed. The current plan envisions 36 parallel and 45° angle spaces - a net loss of 5 spaces. By making minor changes in the parking layout and changing the angle parking from 45° to 60° the net gain in parking over the existing layout is +2. These revisions do not reduce any sidewalks or landscaping.



Market Street

Market Street poses more difficult design issues. The west curb line of Market Street presents a great opportunity to increase parking assuming all of the curb can be used between Cabarrus Street Avenue and Barbrick Avenue. Currently, there are 22 spaces marked. It is possible to mark 30 to 32 spaces with 45° angle parking on the west curb line.

For the east side, if driveways and off-street lots were combined there could be parallel parking on the east side as well. Figure 7 illustrates the resulting added on-street spaces. This design would result in an increase of on-street spaces by 16 with at net total of 38 spaces.

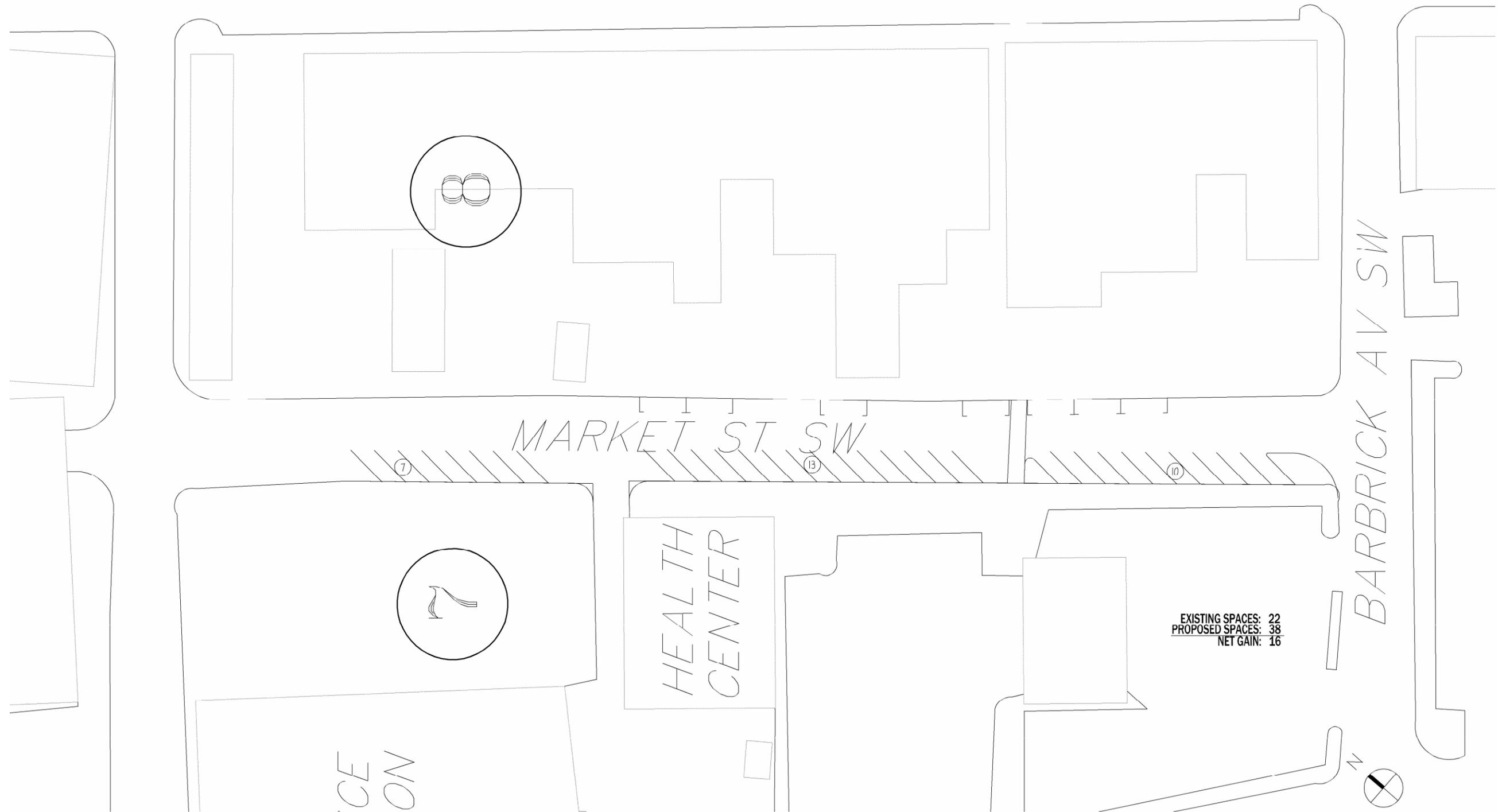


Figure 7 - Market Street Redesign

Redesign of Off-Street Lots

There are three candidate sites for redesign: (1) the County lot in Block 10; (2) the Bicentennial Lot in Block 9, and (3) the County lots in Block 13. Each of these lots is under public ownership so no property acquisition is necessary. The major costs will be restriping and some minor curbing and paving. Figure 8 illustrates the location of these lots.

Church Street Lot - Block 10

This is the easiest lot to redesign. It simply involves restriping the lot from two bays of 90° parking which provides 122 spaces to three bays of 45° parking which provides 146 spaces or a net gain of 24 spaces. There is no property acquisition, however there will be minor repaving, and construction costs. See Figure 9. This lot is a candidate for mixed use development and a future parking deck.



The Bicentennial Lot - (Block 9)

This lot has been redesigned and reconstructed before as a part of the Concord Bicentennial celebration in 1996. Recently, it became apparent that an addition to the lot would be possible with the relocation of the Wachovia banking operation at South Union Street. While the drive-in operation will remain, the major banking operation has been relocated. Figure 10 shows the possible redesign of the bank drive-thru stacking area for use as public parking. This redesign will net an increase of 20 parking spaces.

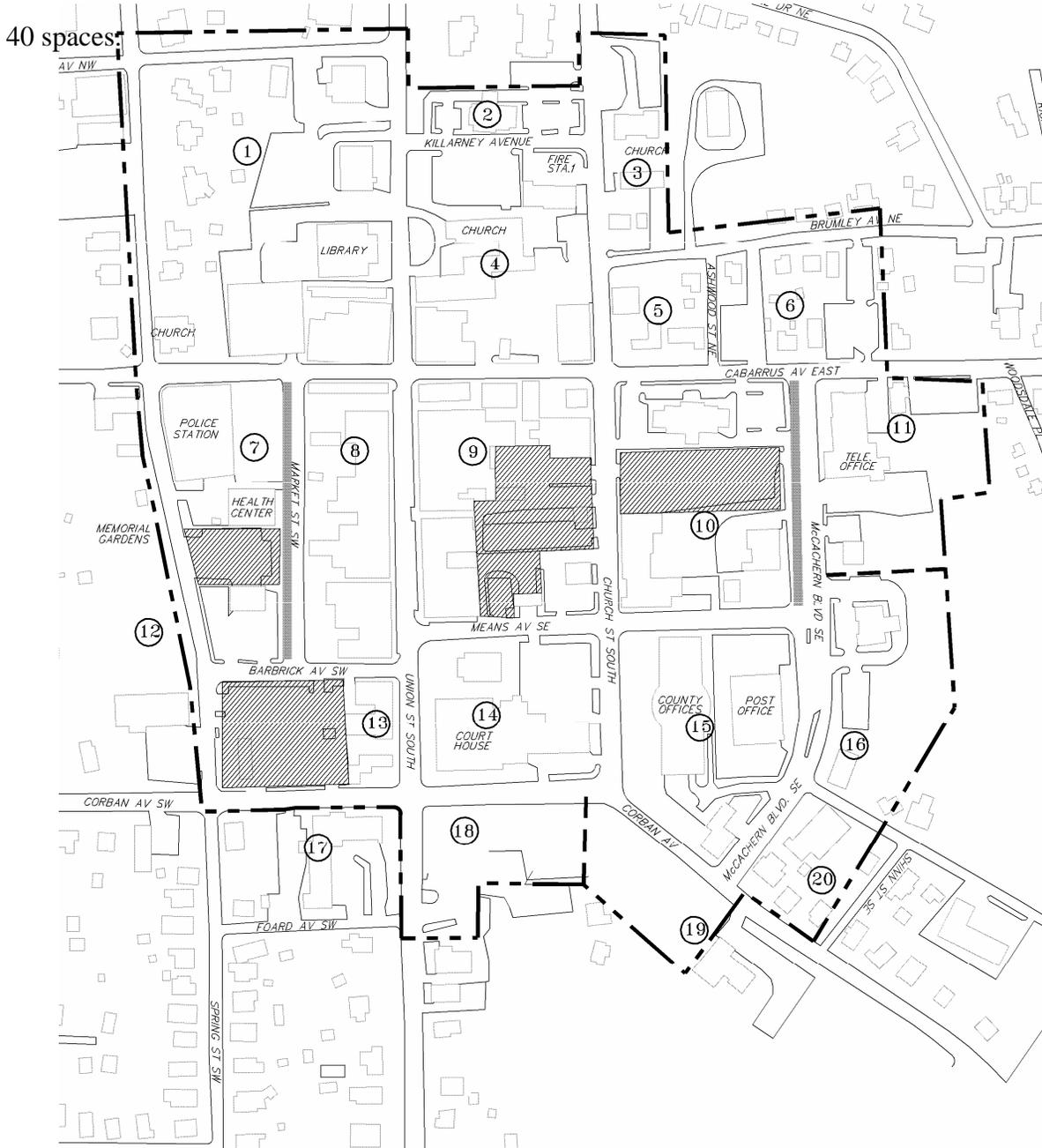


Barbrick Street Lot - Block 13

There are two county lots in the block. With the relocation of the sheriff's department and the jail, these two lots could be combined and configured as shown in Figure 11-a. Two alternatives are possible - Alternative "A" uses only that property currently owned by the county. While this alternative will provide only a small increase of 6 spaces over the current supply, operating conditions of the current facility are much improved and the two lots operate as one.

With the acquisition of the private building on the corner of Corban and Spring Streets, additional efficiency for the layout of the design is possible. Alternative "B" (Figure 11-b) shows the use of the entire block west of the buildings along Union Street. This will result in 167 spaces or a net gain of

Update of the Downtown Parking Management Plan Concord, North Carolina



LEGEND

 AREA FOR REDESIGN

 ON-STREET AREA FOR REDESIGN

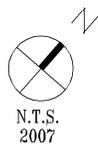


Figure 8 - Candidate On-street and Off-street Sites



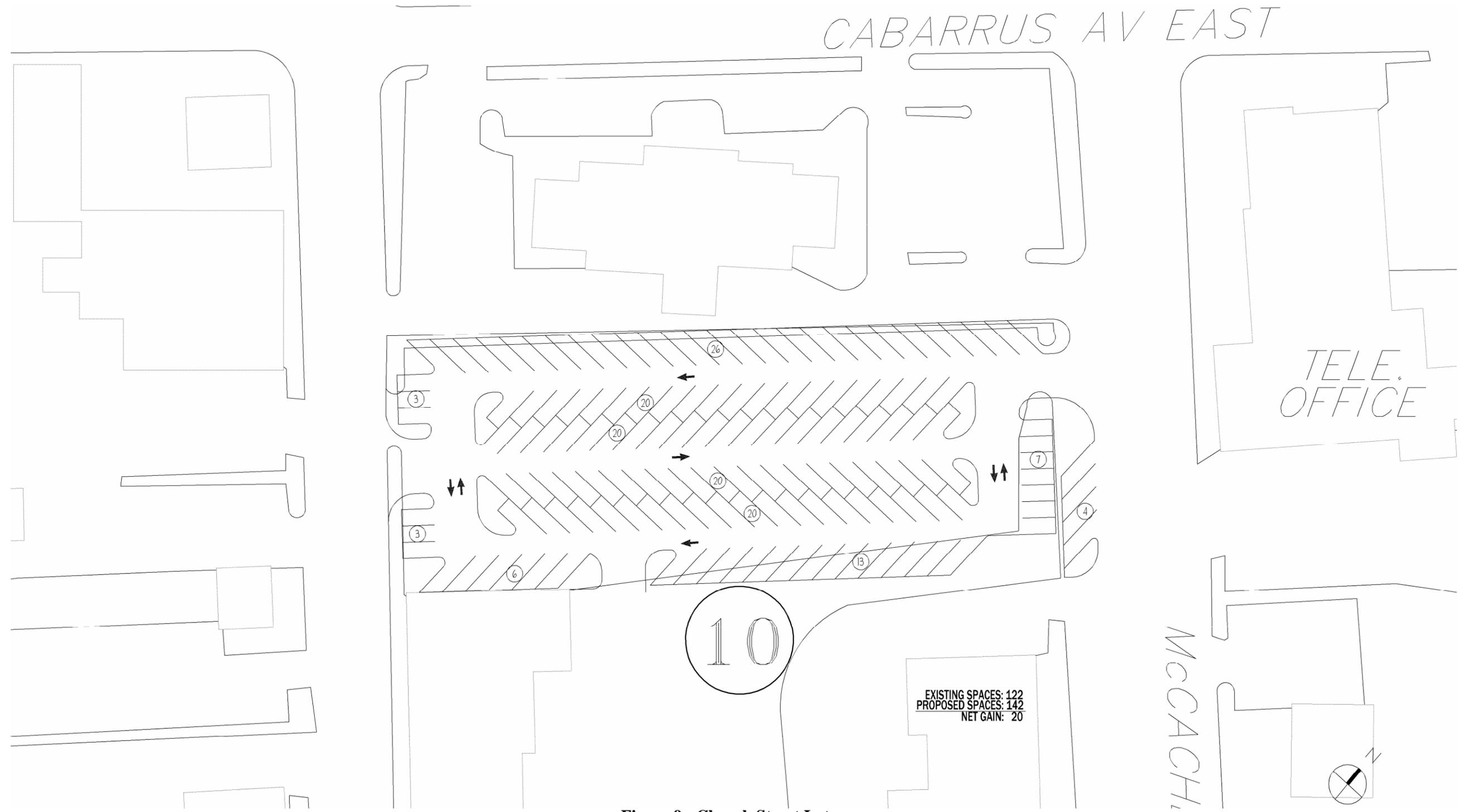


Figure 9 - Church Street Lot

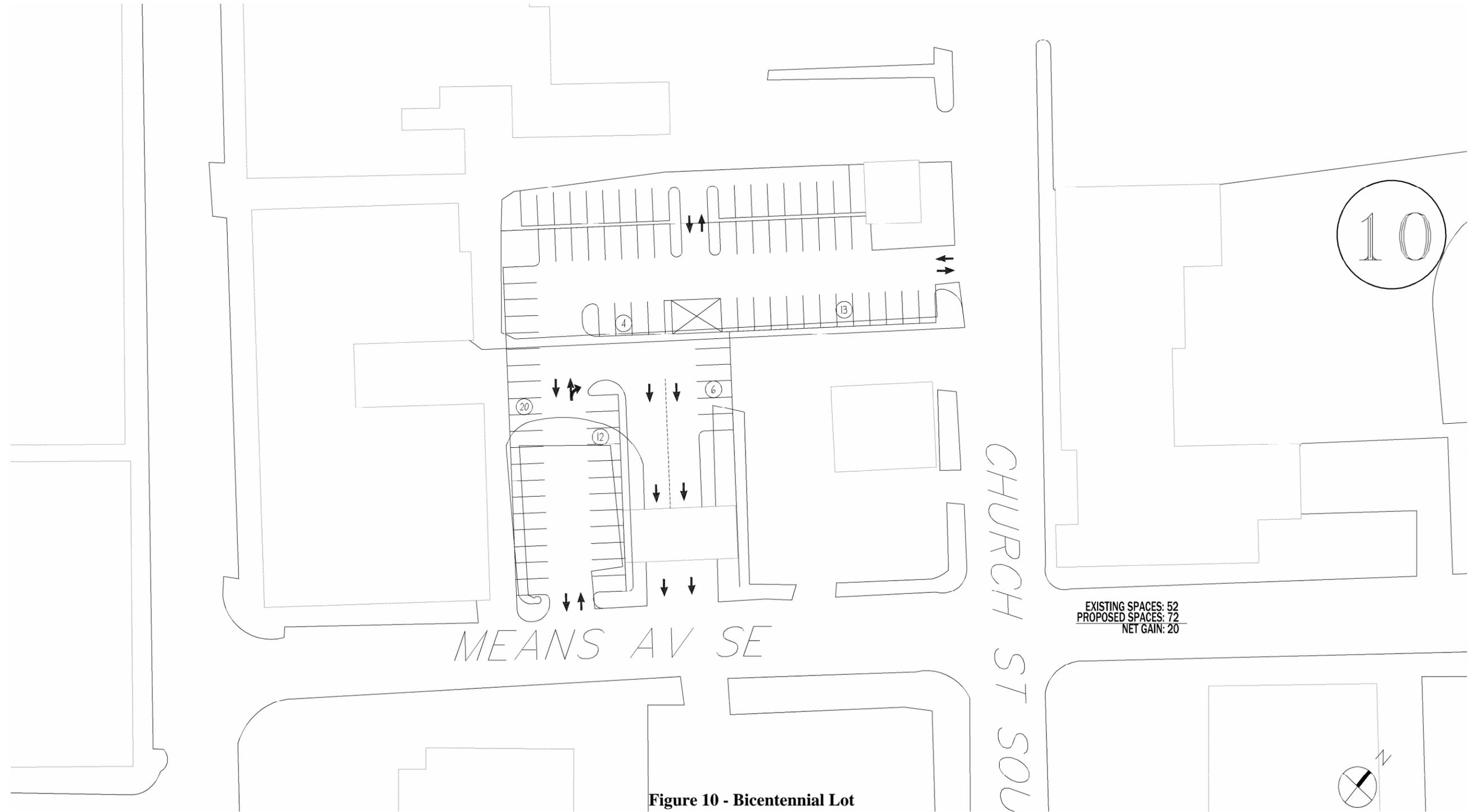


Figure 10 - Bicentennial Lot

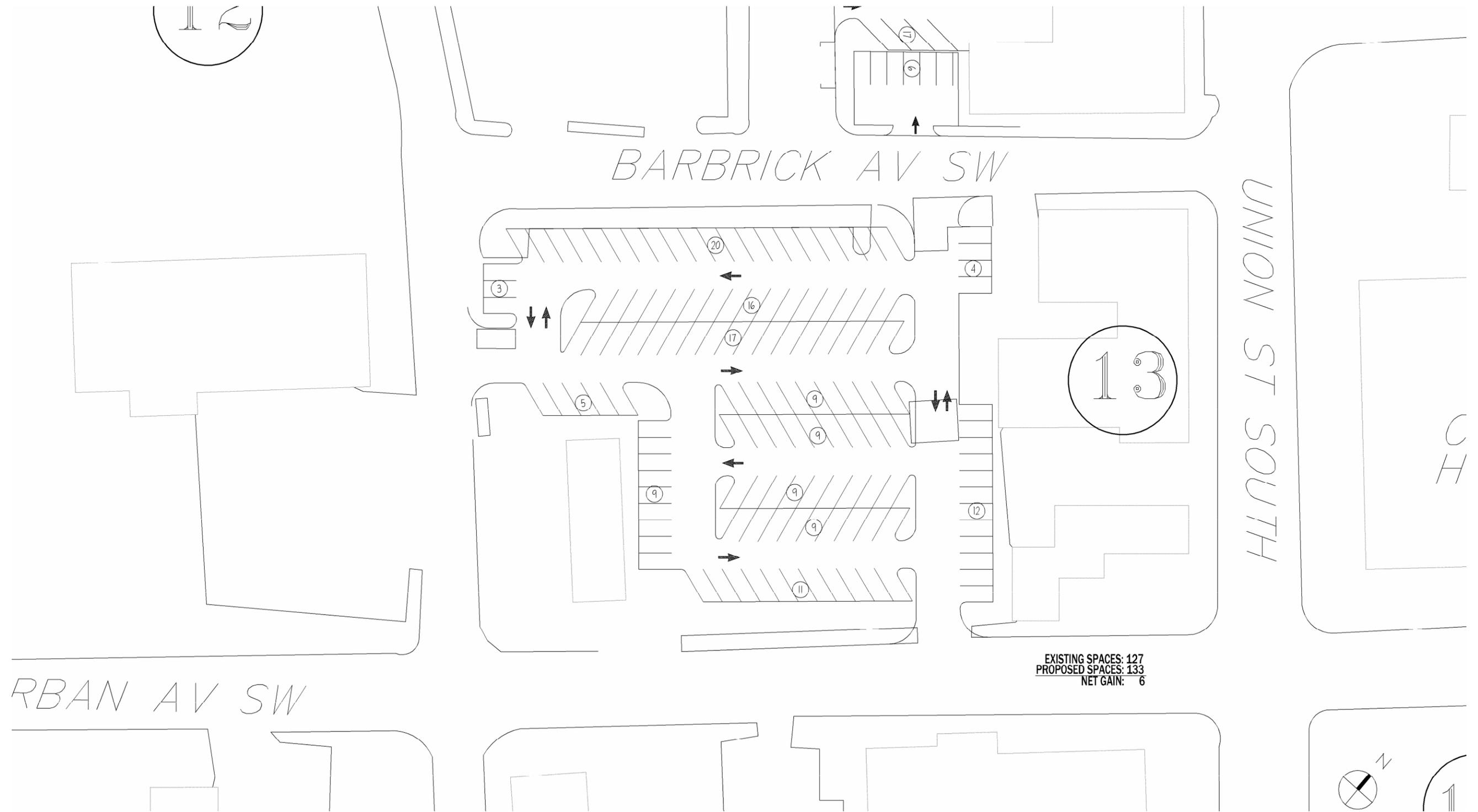


Figure 11-a - Barbrick Street Lot Alt "A"

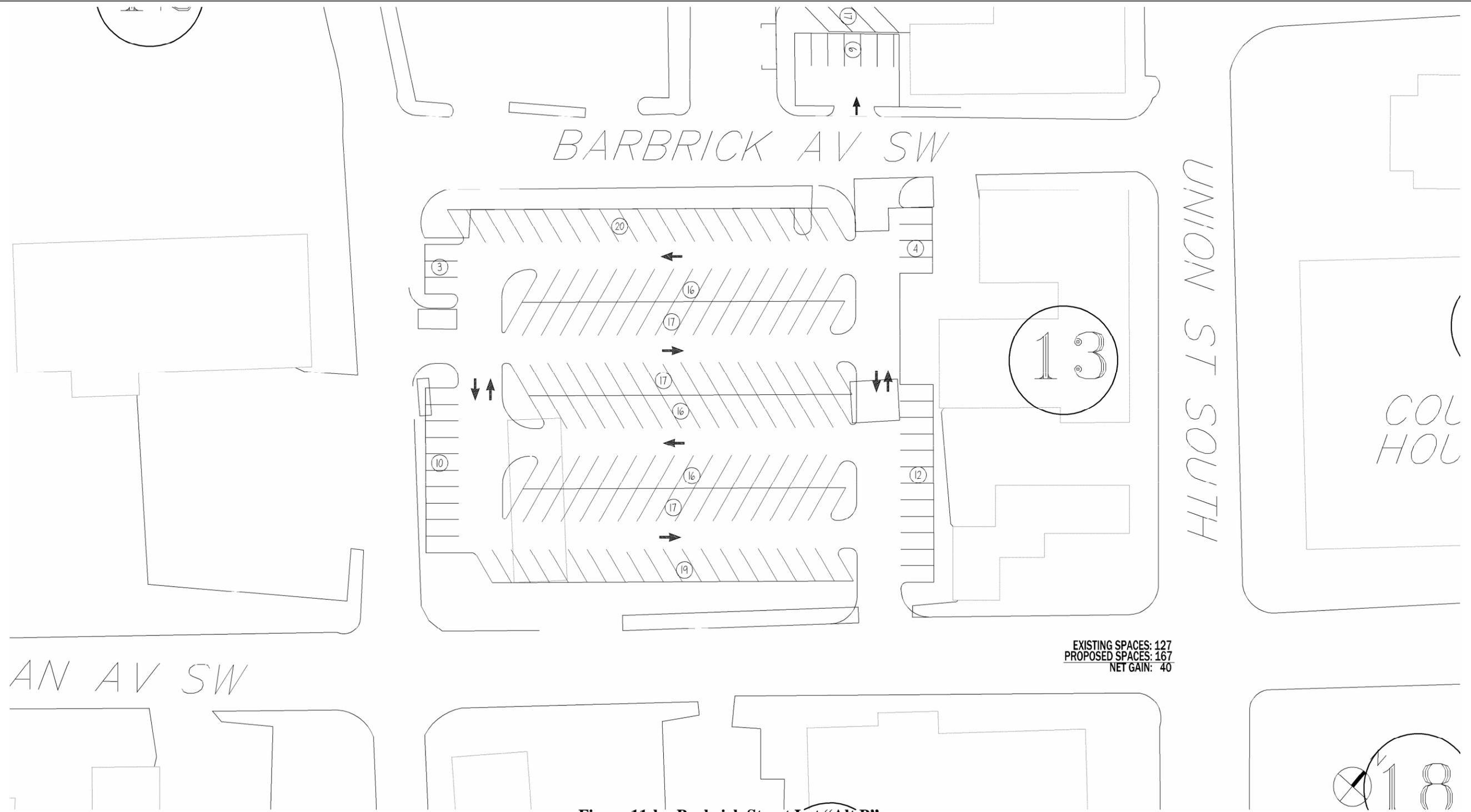


Figure 11-b - Barbrick Street Lot "Alt B"

Parking Enforcement

As mentioned earlier, considerable improvement has been made in parking enforcement. There has been a slight reduction in long term parkers on the street. The 2001 Parking Plan recommended the purchase of hand held computers for time limit enforcement. This is presently budgeted. A parking enforcement vehicle has been purchased and is being used.

The next step is to take advantage of the data base capabilities of the hand held computer to identify habitual parking violators, to escalate parking fines for habitual violators to encourage compliance and to escalate parking fines for those who don't pay within a reasonable period. The recommended fines are:

1.	Habitual violators	up to 5 tickets annually	\$10 each
		6 - 10 tickets annually	\$20 each
		Over 10 tickets annually	\$40 each
2.	Late payments	1 - 30 days	\$10 each
		31 - 60 days	\$20 each
		Over 60 days	\$40 each

Time Limits

The on-street two hour time limit zone is for the purpose of encouraging turnover. The time limit zone seems to be working well with only a few complaints. The provision of 3-hour time limits in the Parking Deck and in the Bicentennial Lot was requested by the downtown merchants. There are 90 three-hour parking spaces and during the 11:00 a.m. - 12 Noon period there were 44 cars parked. It appears that there are enough short term spaces in the parking deck.

For the Bicentennial Lot there are 69 spaces and almost all spaces were occupied during the peak period. More short term parking is needed. There is not a problem with long term parkers in this three hour lot. Out of 256 total daily parkers there were 29 who stayed over three hours or a violation rate of 11% which is well within reasonable limits of 10 - 15%.

Because McCachern Boulevard has such low occupancy we recommend the conversion of all time limit on-street parking on the east curb line to all day parking.



Parking Promotion/Shared Parking

The Concord Downtown Development Corporation (CDDC) has already published a parking map showing public off-street parking. This map should be updated to show on-street time limit spaces and a summary of parking regulations. Figure 12 is an example of a good parking map.

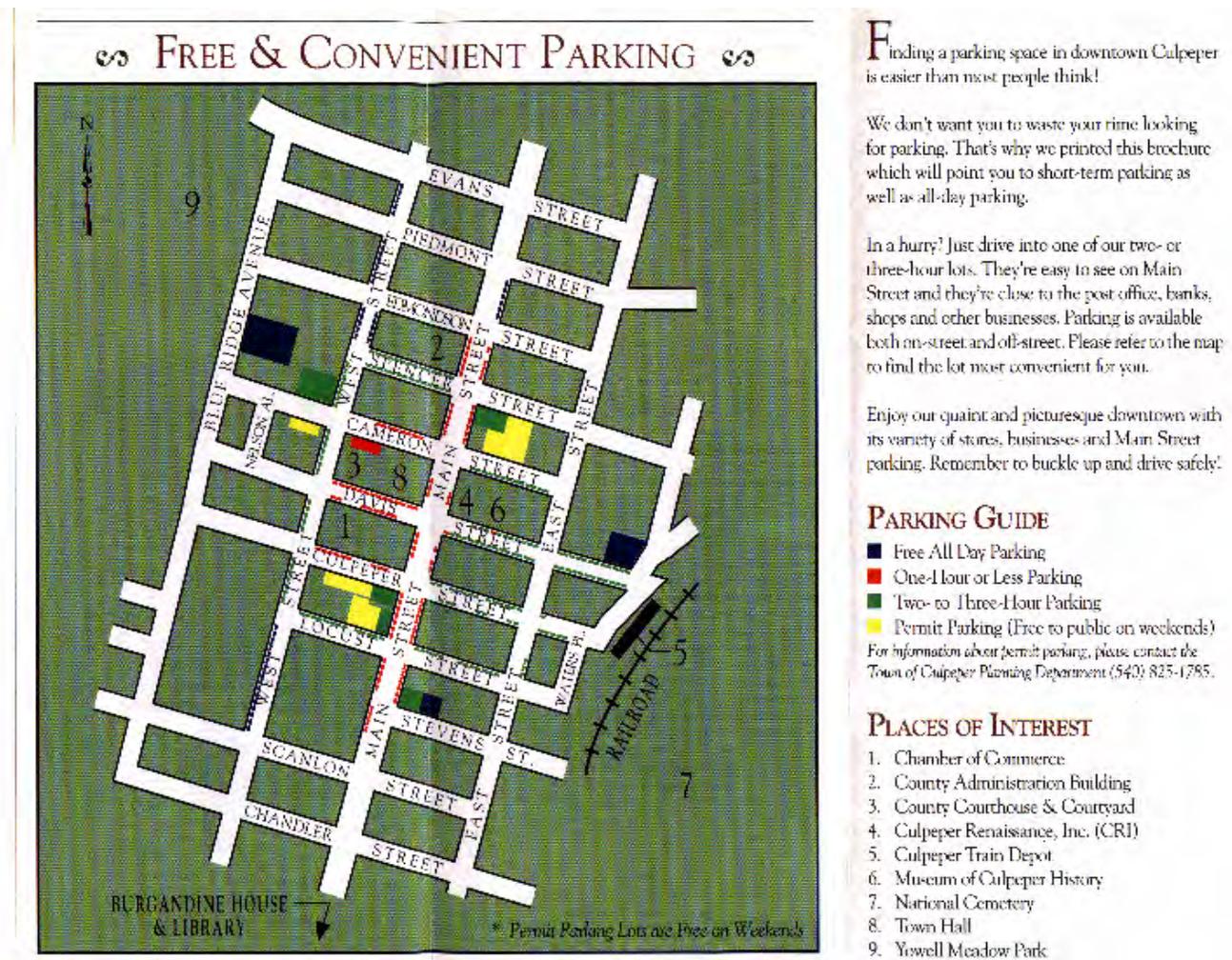


Figure 12 - Example of a Good Parking Map

Another initiative that the CDDC should undertake is the promotion of shared parking. This involves

the identification of parking that is not normally used during the normal weekday-parking peak. Candidate facilities are church parking lots; restaurants only open at night, funeral homes and theaters that operate primarily in the evening. Several candidate sites are present in downtown Concord including St. James Lutheran Church in Block 17, Central United Methodist Church in Block 4 and the off-street lot in Block 6. There are a total of 188 unused spaces in these three lots.

Media Articles

There will be many changes in parking over the next several years. These changes include parking regulations, the operation of the parking deck, changes on Market Street and McCachern Boulevard, and additions/changes in the Bicentennial and County lots. All of these changes/improvements should be publicized in the local media. A sample article is depicted in Figure 13.

Downtown West Bend:

Our Parking Problem!

Yes, parking Downtown is a problem that most of us have been aware of—and many have complained about—for a long time. Too long! It's time something proactive is done about it. And that means everyone must work together if any *real* change is going to take place.

Currently a group of volunteers has been working on ways to improve our Downtown and parking is one of the most glaring problems that needs addressing. While we have been successful in making some improvements, the real cure to our parking woes requires your help and cooperation. A aerial survey of Downtown West Bend indicates that the Downtown, as a whole, has ample parking. The key to our solution then lies in the way we use and manage our parking. That, in turn, leads to asking ourselves: *Could we be a part of the problem?*

If your business is located on or near Main Street, then the parking problem is particularly severe for you. Depending upon your location, you probably have some customer parking located directly outside your business. But where do you park? If you or your employees are parking "conveniently" near your place of business, then you are parking in your customers' space. In essence, you are making it inconvenient for customers to do business with you. You won't miss them—they just do not come.

You may have noticed how some people have figured out how to "beat the system".

In other words, park all day in the short-term parking areas, periodically check the car's tires, then erase any chalk mark. Another good example is to drive around the block a couple times each day and repark. Others have decided that a \$10.00 parking fine is an inexpensive cost for convenient parking. Please remember the cost of being inconsiderate is much more than \$10.00! The cost absorbed by your friends and neighbors may be enough to force them out of business. When the weather is wet or cold, you don't want to walk a block or two. Neither do Downtown customers. You have a choice, but so do potential Downtown customers—they may choose not to stop at all.

How much is a parking space worth?

Without going into a bunch of boring details, various sources have estimated the potential value of each on-street parking space to be around \$20,000 to \$30,000 in annual gross retail sales. That means a lot of potential revenue is being turned away every day by those who chose to park "conveniently".

"But," you say, "I am not a retailer and lost retail sales mean little or nothing to my livelihood."

Perhaps you are a sales representative who travels frequently, stopping in your Downtown office only periodically to retrieve messages or confirm appointments. You do not rely on "customer traffic" and, therefore, are not parking in your customers' space. So, then, why do you maintain your office in Downtown West Bend? It may be because of its central location, being part of a Downtown historical district with its unique buildings and distinctive atmosphere.

The ideal Downtown business mix includes a variety of retail, office, restaurant, entertainment, and residential components. If we are unable to maintain the retail and restaurant trade, for instance, the professional office and service sectors will also suffer or possibly disappear. That can only lead to an overall decline in reinvestment. As a result, buildings fall into disrepair and the Downtown's tax base decreases.

So who picks up the tab?

If the Downtown's value, sales tax collections and tax base decrease, we, as taxpayers, will be forced to "pick up the tab". We will realize this affects through escalating property tax levies on our homes and investment properties, or escalating tax bills passed on in rent increases charged by landlords.

The truth is, we all stand to gain from a healthy and vibrant Downtown.

We are asking all of you who make a living in Downtown West Bend to be aware of and care about your Downtown business community—your neighbors and friends. If you or your employees are parking near your door, you are literally taking dollars out of your pocket—or your neighbor's!

The City of West Bend and the Downtown West Bend Association are working to provide new parking facilities in areas that are especially "tight". We are also designing and producing maps and improved signage to direct customers and Downtown workers to appropriate parking areas. However, if Downtown workers are utilizing the most convenient parking spaces—those which should be available to Downtown shoppers—even the best map or signage program will do nothing to solve our parking problem.

Downtown West Bend has a "good problem".

We should all be proud and pleased that business is prospering and Downtown West Bend is truly being revitalized. Let's not be victims of our own success. The next time you are about to pull into that most "convenient" parking space, stop to think about its real value. Then show you care about your Downtown business community by parking in a little less "convenient" space. The short walk could benefit us all!

Figure 13 - Sample Media Article



Parking Signing

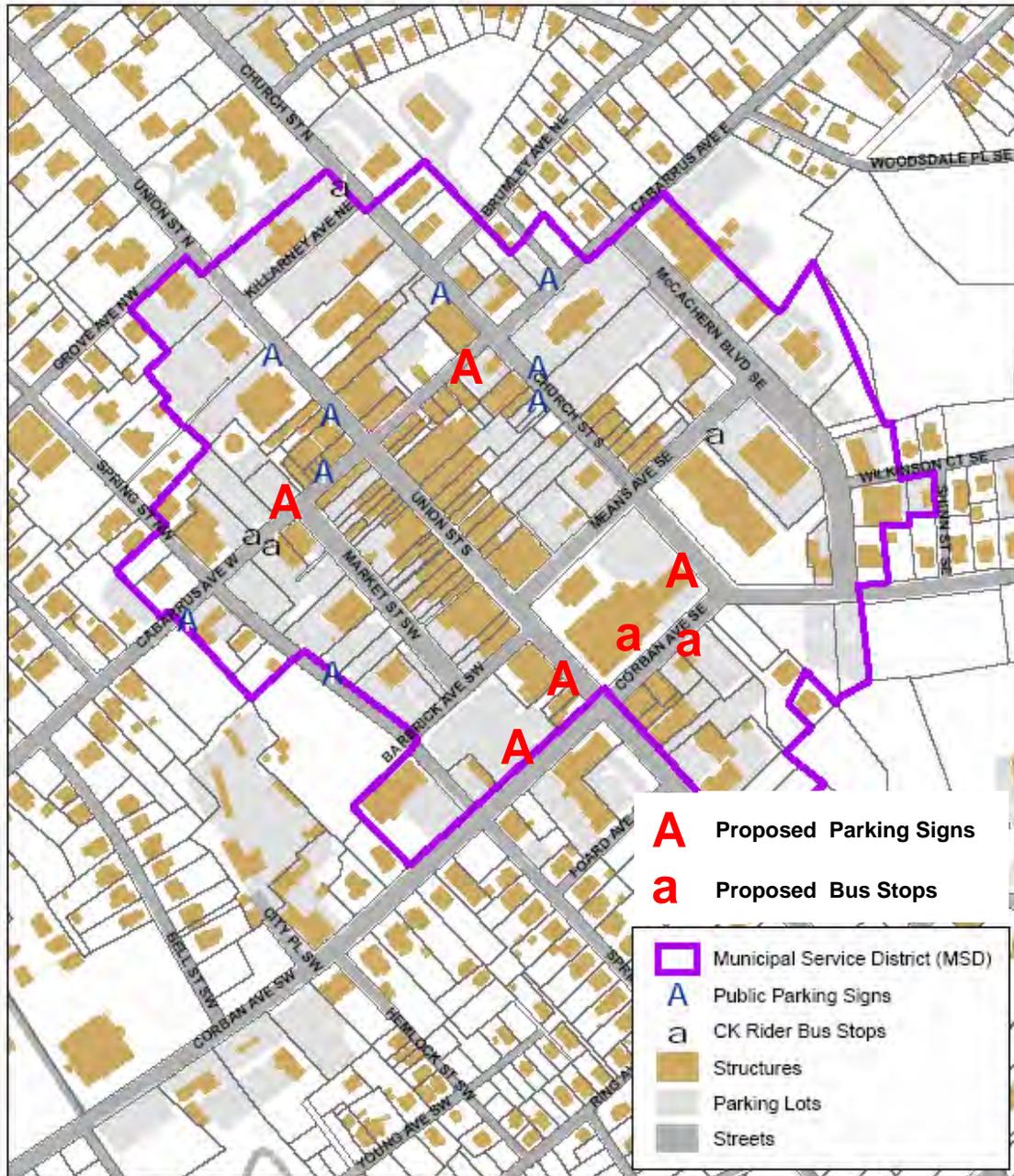
While the City has made an effort to add some wayfinding signs, there are not nearly enough. Some wayfinding signage is needed on Cabbarrus, Union, and Church Streets to direct parkers to public parking areas. Figure 15 provides suggested sign locations for off-street lot parking areas in red. Destination signs are needed for major public facilities such as the City Hall, the Police Stations, the County Courthouse, the Arts Center, the Parking Deck, the Library, and other major attractions.



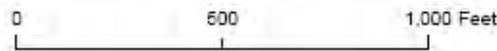
Additional parking time limit signs are needed on almost every downtown block especially at the beginning and the middle of the block. These signs should always be oriented perpendicular to the traffic flow for ease of visibility and to make it clear to the parker that he/she is in a time limit zone.



Figure 14 - Examples of Good Parking Signing



**Downtown Municipal Service District (MSD)
 Bus and Public Parking Signage**



2

Figure 15 – Proposed Parking Wayfinding Sign Locations



PART III - FUTURE DOWNTOWN PARKING NEEDS

Existing parking supply and usage has been addressed in Part II of this report. We have shown that there are 2,271 spaces in the downtown study area and the peak usage is 1,419 spaces during the average weekday between 10:00 A.M. and 11:00 A.M. This is based upon occupied floor space of 1,343,090 square feet.

Future parking needs for Year 2012 or a development level of 1,733,107 sq. ft. of building floor space has been estimated and is the subject of this chapter. The determination of future parking needs is dependent on several factors including the existing parking supply, the current level of parking usage, expected downtown development projects, the loss of existing parking due to new buildings in the parking areas and the management of the parking system.

Application of the Parking Model

The determination of existing parking demand and the projection of future parking needs are accomplished through the use of a parking model. This approach uses mathematical equations to precisely determine existing demand by block and to predict future conditions by applying parking generation rates to occupied floor space by type of building use. The development and application of the parking model for Concord includes several elements: a building use inventory, a survey of occupied floor space, the application of parking generation rates for downtown uses and the forecast of occupied floor space for the target study year.

The principal advantages of utilizing a parking model are twofold: first, the parking model, being a more precise estimation tool, facilitates prediction of parking needs on a block-by-block basis; and secondly, once the model has been developed and calibrated, it can be used to accurately estimate future parking needs for alternative development scenarios. The Parking Model will be used to project future needs for downtown Concord.

Building Occupancy and Use

In order to determine parking demand it is necessary to inventory the quantity of occupied and vacant building square footage for each block by type of use. An inventory containing both occupied square footage and vacant square footage for most of the buildings in the study was provided by the City of Concord Department of Business and Neighborhood Services and is shown in Table 4. Note that the vacant space shown in the table presents the best opportunity for new businesses to locate in the downtown area. In fact, out of 390,017 S.F. of increased floor space 87,898 comes from a reduction

in vacant floor space.

Table 4 - Existing and Projected Floor Space by Type

Time Frame Space Use Category	Existing		Projected (5 Yr.)	
	Sq. Ft.	Percent (%)	Sq. Ft.	Percent (%)
Prof. Off/Serv.	291,012	21.7	392,622	22.7
Government Office	394,051	29.3	485,326	28.0
Residential	68,020	5.1	87,537	5.1
Retail	147,360	11.0	212,003	12.2
WHSE,IND,MFC	0	0.0	0	0.0
Restaurant	57,355	4.3	66,022	3.8
Church,Clubs	126,018	9.4	126,018	7.3
Other Uses	23,046	1.7	47,833	2.8
Hotel	0	0.0	0	0.0
Educational	32,720	2.4	32,720	1.9
Detention Ctr.	21,027	1.6	184,457	10.6
Financial	66,013	4.9	69,999	4.0
TOTAL OCCUPIED FLOOR SPACE	1,226,622	91.3	1,704,537	98.4
VACANT FLOOR SPACE	116,468	8.7	28,570	1.6
TOTAL FLOOR SPACE	1,343,090	100.0	1,733,107	100.0

Source: City of Concord Department of Planning and Community Development, July 2007

The largest category of floor space increase is the County's Justice Center, now under construction, with 184,457 sq. ft. This accounts for almost half of the total increase in the five year period. Other significant increases are professional office and service floor space - 101, 610 sq. ft; governmental office - 91, 275 sq. ft. and retail use - 64, 643 sq. ft. Of particular note is the anticipated increase in residential use of 19,517 sq. ft.- the equivalent of 19 to 24 average size dwelling units. This estimate of new residential uses downtown is conservative based on the trends in the last five years.

The Parking Generation Rates

The second element in the Parking Model is the parking generation rate. Parking generation rates for downtowns have been determined from a number of studies conducted over the past 20 years by the Institute of Transportation Engineers, the Urban Land Institute and others. These rates are representative of the peak number of parkers likely to patronize a specific use in a downtown location.



Table 5 - Parking Generation Rates for Downtown

Table 5 illustrates the parking generation rates to be used in this study. Generally the rates applied to downtown Concord are somewhat lower than the average rates. This may be due to larger storage areas within the business establishments or a lower level of activity per square foot for the occupied floor space.

Calibrating the Parking Model

Due to the variation in generation rates for each location and city, it is necessary to relate the “model generated peak demand” to the actual usage for each study area; i.e.

Concord. Applying the generation rates in Table 5 to the existing occupied floor space, the demand on a block-by-block basis was calculated and compared to the actual peak usage as determined by the turnover surveys. A comparison of the modeled peak use with actual field surveys allows one to adjust or calibrate the parking model to more accurately reflect actual conditions and, therefore, more accurately predict future parking demand. This is an important step, allowing one to project future demand based on the existing parking characteristics of parkers in Concord, not some national average parking rate that may or may not be similar to the use in Concord.

There were 1,433 parking spaces actually used during the peak period on June 4, 5 and 6, 2007 within the study area compared to the calculated “demand” of 1,521 spaces. We believe the model to be sufficiently accurate (97%) and can be used for projection purposes. This is important since the calibrated model should closely match the actual peak usage to enable an accurate projection of future demand.

Projected Future Demand

Using the calibrated parking model and the projected building use, future parking demand has been estimated. The projected building use and expansion is based upon known projects, expansions of

Land Use Category	National Average Rate/1,000 s.f.	Range Rate/1,000 s.f.	2001 Rate/1,000 s.f.	2007 Rate/1,000 s.f.
Prof. Off/Service	2.0	0.7 - 3.0	2.0	1.8
Government Office	1.4	0.8 - 5.0	1.4	1.3
Residential	0.5	0.5 - 0.7	0.5	0.5
Retail	2.0	1.4 - 3.0	2.0	1.6
WHSE,IND,MFC	0.1	0.1 - 4.7	0.1	0.1
Restaurant	0.5	0.5 - 20.0	0.5	0.5
Vacant	0.0	0.0	0.0	0.0
Church/Clubs	0.3	0.2 - 6.5	0.3	0.2
Other Uses	0.5	0.3 - 4.7	0.5	0.5
Hotel	0.2	0.2 - 2.0	0.2	0.2
Educational	0.5	0.1 - 3.0	0.5	0.4
Detention Ctr.	0.6	N/A	0.6	0.3
Financial	2.0	0.6 - 5.2	2.0	1.6
Recreation	1.0	0.6 - 2.0	1	0.6

Source: Institute of Transportation Engineers; The RBA Group; John D. Edwards, P.E., Transportation Consultant, Inc.



existing businesses and the economic projections of floor space needs by type of use. In general, about 529 “new” spaces will be needed for the anticipated increase in occupied floor space. The projected future demand of ± 2,011 spaces is theoretically within the total of 2,388 existing spaces within the study area; however individual blocks will have future surpluses and deficits as they do now depending on where they are able to park. Table 6 compares the peak use and the future projected peak demand on a block-by-block basis using the parking model.

Table 6- Comparison of Existing Parking Supply with Projected Peak Demand

The demand calculations show that considerable variations occur between spaces available, peak occupancy and calculated demand. This is to be expected since “space available” may not be available to all users and; therefore some users are “forced” to park in other blocks. Likewise, disparities in the peak occupancy and calculated demand are caused by a lack of parking in high demand blocks and a surplus of parking in low demand blocks. If all spaces could be used where they are, there would be a surplus of 377 spaces; however, this is not possible. Many of the spaces are private spaces and are not available to the general public and many spaces are remotely located beyond “acceptable walking distances” and will not be heavily used.

Block Number	Parking Supply (Net)	Existing Peak Use	Calculated Existing Demand	Calculated Future Demand	Projected Surplus & Deficit
Block 1	465	269	151	151	314
Block 2	26	23	7	7	19
Block 3	52	0	15	16	36
Block 4	175	68	81	170	5
Block 5	5	0	10	10	-5
Block 6	109	11	0	18	91
Block 7	111	92	130	153	-42
Block 8	103	70	242	251	-148
Block 9	180	161	173	212	-32
Block 10	263	212	79	163	100
Block 11	125	78	112	112	13
Block 12	61	30	22	22	39
Block 13	153	135	35	44	109
Block 14	100	86	113	117	-17
Block 15	205	143	243	243	-38
Block 16	58	31	68	68	-10
Block 17	27	5	15	15	12
Block 18	20	8	22	55	-35
Block 19	150 ^{*1}	0	3	184	-34
Block 20	33	11			
Subtotal	2,421	1,433	1,521	2,011	377
Adjustments	-33 ^{**2}	49 ^{**2}	0	0	0
Total	2,388	1,482	1,521	2,011	377

^{*1}Under construction with expected completion of 2008.

^{**2}Adjustments for Block 9, 13 & 20

The comparison of modeled demand and peak use shows significant variations in Blocks 1,4,7, 8, 9, 10, 18, and 19. A block-by block analysis follows:



Block 1: This block contains the municipal parking deck and is usable for parkers in Blocks 1, 2, 4, 7, 8 and 9. The combined deficit in blocks 7, 8 & 9 is 222 space. This parking demand will be met by the municipal parking deck in Block 1 as it is within a one block walking distance.

Block 4: Development proposals for this block indicate a large increase in demand. A portion of the demand can be met in Block 10 if the Church Street lot is “decked”.

Block 8: One would expect the considerable deficit in this block to be served by the existing parking deck and a possible deck to be constructed in Block 7 in conjunction with the Spring Street Commons Project.

Block 9: This continues to be a problem block due to the high demand. If an 8,000 sq. ft. addition to retail use and a 5,000 sq. ft. of addition to restaurants are built in this block, then minor increases in parking supply will not suffice. If a new structured parking facility is built in Block 10 then this could meet the excess demand.

Block 10: The Downtown Master Plan proposes a mixed-use development over the existing County Church Street Lot. This site presents an opportunity for a major commercial development and a structured parking facility to meet the additional demand in this and in adjacent blocks.

Block 13: This block contains the County’s surface parking lot. This block is a prime location to provide structured parking to meet County and public parking needs. Parking deficits in Blocks 14 and 18 can be served from this site.

Block 19: This block will contain the County’s new Justice Center and will create a demand for 184 parking spaces. Current proposals for a 150 space facility will not meet the future demand in this block.

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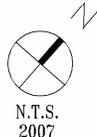
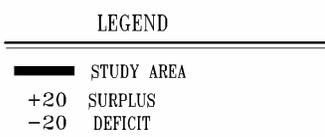
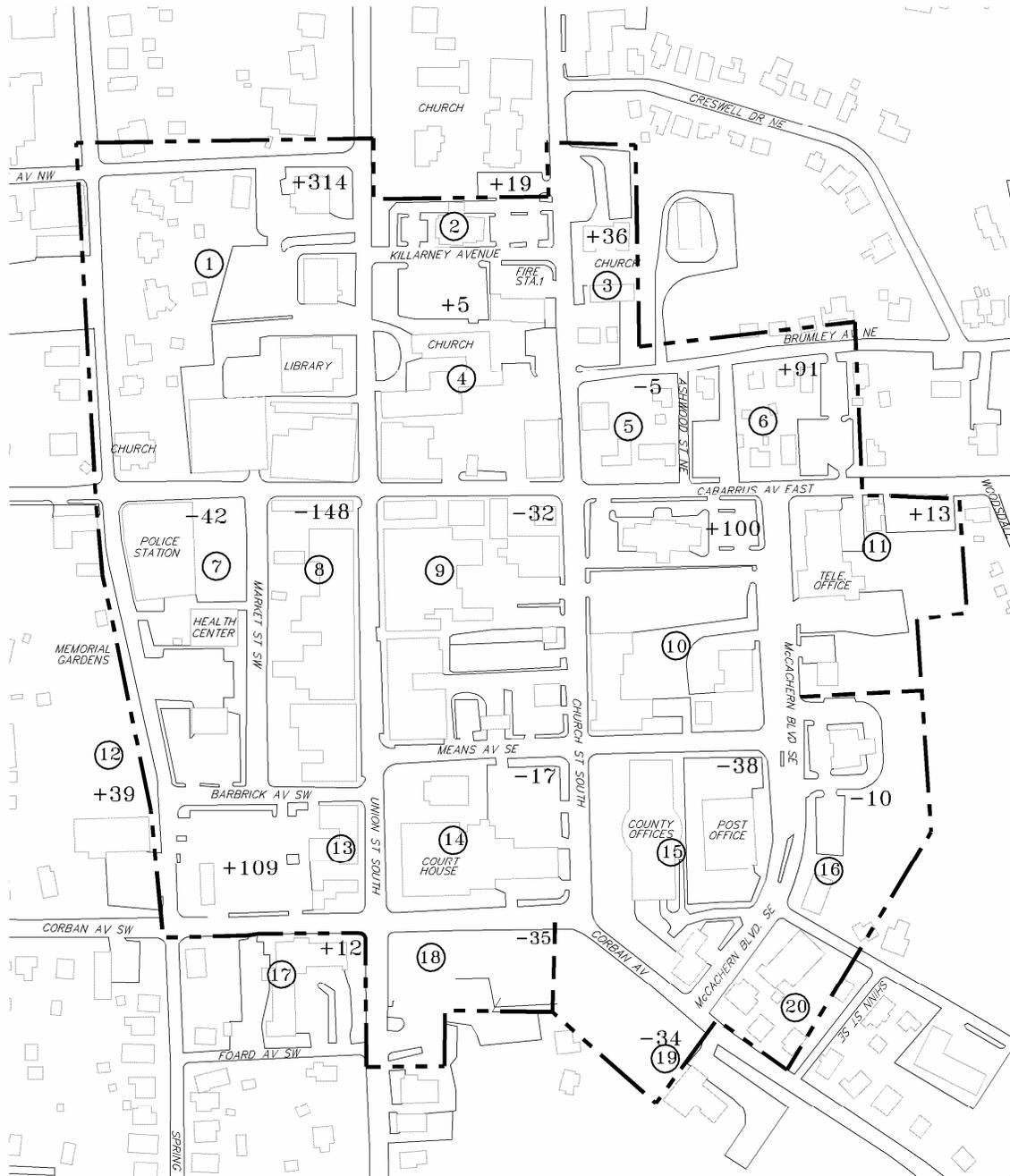


Figure 16 - Blocks with Significant Surpluses and Deficits-Future Conditions



PART IV - THE RECOMMENDED FUTURE PARKING PLAN

The recommended parking management plan considers the issues identified by the Parking Steering Committee, the results of the parking occupancy and turnover surveys and the results of the parking model. This section of the report describes the recommended parking management plan to meet future parking needs. Part III of the report focused on improvements which can be done in a relatively short time with relatively low cost. This section contains more long-range recommendations that involve major construction and/or public investments. Some of these recommended projects will take several years to accomplish.

Increasing Parking Supply

In the discussion of the results of the parking model and the projection of parking needs, several blocks were identified. This section will focus on specific projects within those blocks. Candidate sites for additional parking are shown in Figure 8.

Spring Street Commons (Block 7)

This site, located over an existing public parking lot was identified in the Downtown Master Plan as a prime mixed use site. A parking deck built in conjunction with this development could provide spaces needed in Blocks 7 and 8. A two-level facility could provide 100 spaces for a net gain of 50 spaces.

Bicentennial Lot (Block 9)

This existing facility provides the primary short-term parking for the retail district among South Union Street. Recommendations in Part III of this report have been made for minor changes in the layout of the lot. These changes would increase parking by 7-10 spaces. Consideration was given to the acquisition of TJ's Deli, and the addition of a second level over the existing lot. After a thorough design layout and the costing of such facility, it was determined that not enough gain in parking would occur and the costs per space were high. There are other options that can provide the needed spaces at more reasonable costs.

Cabarrus County Parking Needs

The greatest increase in parking demand is in Blocks 14, 15, 18 and 19-all blocks with a significant County governmental presence. The combined future demand is about 600 spaces. Current parking facilities owned by the County provide 486 spaces (Blocks 10, 13, 14 and 15) indicating a deficit of 116 spaces. The following recommendations are made to the County:

Church Street Mixed Use Development (Block 10)

The proposed mixed use development in the “air rights” over the County’s Church Street Lot provides the best opportunity for stimulating new retail and office development in downtown and for substantially increasing the parking supply in downtown. Due to the topography of the site, it is possible to have three levels of parking in a deck and to have retail and/or office frontage at street level on Church Street. A three-level facility could provide 200-250 spaces or a net gain of 120-130 spaces. These additional spaces could serve the new development as well as ameliorate the deficits in Blocks 9, 14, and 15. Work with a developer to market the site as a location for a new mixed use development with retail/office at the street level and a three level parking facility underneath. Maintain the lower level as a facility for county court parking and encourage the Court to designate the area for Juror Parking.

Barbrick Street Lot (Block 13)

In the section on “Parking Strategies for Existing Parking” it was recommended that these two lots be redesigned to provide 6 or 29 additional spaces-depending on the alternative selected. In the long range picture (2012) the County should be looking to put a deck on this site. Under this scenario it only makes sense to acquire the private property at the southwest corner of the block and construct a parking deck on this site containing a surface level and a structured level. This will provide 300-350 spaces for a net gain of 175 spaces for the future expansion of the Courthouse. The intent of the county is to relocate the county vehicles using this lot to the new 150 space facility in Block 18.

County Justice Center Block 18, 19

Currently a 150 parking space facility is planned for the Justice Center. This parking will be for the exclusive use of the jail, sheriffs and county officials and will replace the County facility in Blocks 13 & 14. The sheriff’s lot in Block 14 can be used for public parking-especially those persons on county business.

Existing Sheriff's Parking Lot (Block 14)

There is the possibility that the Sheriff's Lot in Block 14 will become available after the move of this department to the new county Justice Center. When this occurs the existing lot with 72 spaces will come available for public use. This will help with the increasing parking demand for the Arts Center located in the old courthouse. We estimate this demand to be 25-30 spaces during the weekday peak period and more than double that on the weekends and at night. There is ample parking at night and on weekends for Arts Center patrons, however during the weekday peak parking is short in this area of downtown.

Study of County and Court Parking Needs

The County is considering a study of the space needs for county departments and court use. This study will provide guidance on the future facilities and functions that will be lodged in the downtown location and the size of the needed facilities. As a part of the study, the related parking needs should be analyzed as an integral part of the process. Particular attention should be given to Court needs since large peak demands are made on the public parking system in downtown.

Sample Parking Deck Facades

Hereafter is shown a few sample parking deck facades for consideration. We believe the newly constructed city parking deck was well conceived and constructed and are not in any way suggesting it is inferior. These samples are merely included as "food for thought" as requested by the steering committee.



Figure 17 – Sample Parking Deck Facades

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 Concord, North Carolina

Appendix A - PARKING TURNOVER SURVEY

Parking Turnover Survey - June 5 & 6, 2007												
Block		On-street				Off-Street (private)			Off-Street (public)			
		#Spa	Occupied	% Occup	Parked	Turnover	#Spa	Occupied	% Occup	#Spa	Occupied	% Occup
Block 1	S						18	7	39%			
	S(DECK)									344	195	57%
	- E	3	3	100%			100	64	64%			
Block 2	S						35	14	40%			
	E						26	9	35%			
Block 3	W						52	0	0%			
Block 4	N									83	15	18%
	E						77	41	53%			
	W	15	12	80%								
Block 5	W						5	0	0%			
Block 6	S						109	11	10%			
Block 7	S						45	37	82%			
	E	22	17	77%								
	W	4	2	50%						40	36	90%
Block 8	S	4	3	75%	13	3.3						
	E	21	20	95%	113	5.4						
	W						78	47	60%			
Block 9	N	3	3	100%	6	2.0	12	9	75%			
	S	4	3	75%	22	5.5	42	32	76%			
	E	3	3	100%	7	2.3	35	29	83%	68	67	99%
	W	13	15	115%	71	5.5						
Block 10	N						50	15	30%			
	S	4	4	100%	12	3.0	44	31	70%			
	E	15	14	93%			19	6	32%			
	W	9	7	78%	34	3.8				122	135	111%
Block 11	N						57	25	44%			
	W	9	3	33%			59	50	85%			
Block 12	E	11	6	55%	17	1.5	50	24	48%			
	W											
Block 13	N	6	6	100%	25	4.2	5	5	100%	71	61	86%
	S									56	54	96%
	E	5	5	100%	24	4.8						
	W						10	4	40%			
Block 14	N	14	13	93%	76	5.4				72	60	83%
	S						14	13	93%			
Block 15	N	7	6	86%						163	113	69%
	S											
	E	11	4	36%	29	2.6				24	20	83%
Block 16	W	6	1	17%	6	1.0	52	30	58%			
Block 17	N						27	5	19%			
Block 18	N											
	W						20	8	40%			
Block 19	N											
Block 20	W	3	2	67%			8	3	38%			
	N						22	6	27%			

totals	192	152	79%				1036	525	51%	1043	756	72%
Total Spaces (Net)			2271									
Total Spaces Used			1433									
Total Occupancy			63%									

*Block 2 - Removed 35 spaces from net supply because associated building not in Land Use



Update of the Downtown Parking Management Plan
 Concord, North Carolina

Appendix B - DURATION OF ON-STREET PARKING

June 5 & 6, 2007									
Blockface	Hours					Total Vehicles	Time Limit	Number Violations	Percent Violations
	0-1	1-2	2-3	3-4	>4				
1 - S(DECK)	69	36	16	12	12	145	2	40	28%
- E	6	3	0	1	0	10	2	1	10%
2 - S									
- E									
3 - W									
4 - N									
- E									
- W	49	8	2	1	0	60	2	3	5%
5 - S									
- E									
6 - S									
7 - S									
- E									
- W	4	3	0	0	0	7	2	0	0%
8 - S	9	1	1	1	1	13	2	3	23%
- E	82	25	5	0	1	113	2	6	5%
- W									
9 - N	0	3	1	0	2	6	2	3	50%
- S	16	5	1	0	0	22	2	1	5%
- E	3	2	1	0	1	7	2	2	29%
- E(LOT)	150	49	28	14	15	256	2	57	22%
- W	53	14	3	1	0	71	2	4	6%
10 - N									
- S	9	1	1	1	0	12	2	2	17%
- E									
- W	22	10	2	0	0	34	2	2	6%
11 - N									
- W									
12 - E	10	6	1	0	0	17	2	1	6%
- W									
13 - N	17	5	2	1	0	25	2	3	12%
- S(LOT)									
- E	14	8	2	0	0	24	2	2	8%
- W									
14 - N	55	11	5	2	3	76	2	10	13%
- S									
15 - N									
- S									
- E	28	1	0	0	0	29	2	0	0%
16 - W	2	0	0	0	4	6	2	4	67%
17 - N									
- S									
18 - N									
- W									
19 - N									
20 - W	3	1	0	0	0	4	2	0	0%
Total	601	192	71	34	39	937		144	15%
	64%	20%	8%	4%	4%				



Appendix C - EXISTING BUILDING USE SURVEY

Land Use Category	Parking Gen. Rate	Block 1		Block 2		Block 3		Block 4		Block 5		Block 6		Block 7		Block 8		Block 9		Block 10			
		SF	#spa	SF	#spa	SF	#spa																
Prof. Off/Serv.	1.8	24184	44	0	0	0	0	0	0	3920	8	0	0	6825	13	47540	86	49070	89	27792	51	0	0
Government Office	1.3	1200	2	0	0	0	0	10222	14	0	0	0	0	89669	117	31078	41	0	0	0	0	0	0
Residential	0.5	22034	12	0	0	0	0	35815	18	0	0	0	0	0	0	3762	2	0	0	0	0	0	0
Retail	1.6	26102	42	0	0	7909	13	0	0	0	0	0	0	0	0	65017	105	41713	67	0	0	0	0
WHSE,IND,MFC	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restaurant	0.5	6000	3	0	0	0	0	7163	4	0	0	0	0	0	0	15112	8	21272	11	0	0	0	0
Vacant	0.0	0	0	0	0	748	0	53933	0	0	0	4000	0	0	0	10382	0	32442	0	0	0	0	0
Church,Clubs	0.2	12490	3	0	0	9710	2	29894	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Uses	0.5	0	0	0	0	0	0	0	0	2738	2	0	0	0	0	0	0	5224	3	0	0	0	0
Hotel	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Educational	0.4	32720	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detention Ctr.	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Financial	1.6	19186	31	3820	7	0	0	24099	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals		143916	151	3820	7	18367	15	161126	81	6658	10	4000	0	96494	130	172891	242	151221	173	17408	28	45200	79

Land Use Category	Parking Gen. Rate	Block 11		Block 12		Block 13		Block 14		Block 15		Block 16		Block 17		Block 18		Block 19		TOTALS			
		SF	#spa	SF	#spa	SF	#spa																
Prof. Off/Serv.	1.8	61708	112	10256	19	12161	22	0	0	0	0	35885	65	0	0	11671	22	0	0	291,012	531	0	0
Government Office	1.3	0	0	0	0	0	0	75192	98	186690	243	0	0	0	0	0	0	0	0	394,051	515	0	0
Residential	0.5	0	0	0	0	0	0	0	0	0	0	1409	1	0	0	0	0	0	0	5000	3	68,020	36
Retail	1.6	0	0	0	0	6619	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147,360	238
WHSE,IND,MFC	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restaurant	0.5	0	0	5128	3	0	0	0	0	0	0	2690	2	0	0	0	0	0	0	0	0	57,355	31
Vacant	0.0	0	0	3942	0	11021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116,468	0
Church,Clubs	0.2	0	0	0	0	0	0	36000	8	0	0	0	0	37924	8	0	0	0	0	0	126,018	27	0
Other Uses	0.5	0	0	0	0	2192	2	0	0	0	0	0	0	12892	7	0	0	0	0	0	23,046	14	0
Hotel	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Educational	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detention Ctr.	0.3	0	0	0	0	0	0	21027	7	0	0	0	0	0	0	0	0	0	0	0	0	32,720	14
Financial	1.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21,027	7
Totals		61708	112	19326	22	31993	35	132219	113	186690	243	39974	68	50816	15	11671	22	0	0	1,343,090	1521	66,013	108



Appendix D - PROJECTED BUILDING USE – 2012

Land Use Category	Parking Gen. Rate	Block 1		Block 2		Block 3		Block 4		Block 5		Block 6		Block 7		Block 8		Block 9		Block 10			
		SF	#spa	SF	#spa	SF	#spa																
Prof. Off/Serv.	1.8	24184	44	0	0	2000	4	30000	54	3920	8	10000	18	13650	25	55873	101	55677	101	47792	87	0	
Government Office	1.3	1200	2	0	0	0	0	10222	14	0	0	0	0	89664	117	31078	41	0	0	0	0	0	
Residential	0.5	22034	12	0	0	0	0	45815	23	0	0	0	0	0	0	12095	7	6184	4	0	0	0	
Retail	1.6	260*2	42	0	0	5909	10	21096	34	0	0	0	0	6825	11	56733	94	48809	79	30000	48	0	
WHSE.IND./MFC	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Restaurant	0.5	6000	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Vacant	0.0	0	0	0	0	748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Church/Clubs	0.2	12490	3	0	0	9710	2	29894	6	2738	2	0	0	0	0	0	0	0	0	0	0	0	
Other Uses	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hotel	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Educational	0.4	32720	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Detention Ctr.	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Financial	1.6	19186	31	3820	7	0	0	24099	39	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		143826	151	3820	7	18367	16	161126	170	6658	10	10000	18	110139	153	172891	251	151221	212	95200	163	50000	
												6000		13645									

Land Use Category	Parking Gen. Rate	Block 11		Block 12		Block 13		Block 14		Block 15		Block 16		Block 17		Block 18		Block 19		TOTALS				
		SF	#spa	SF	#spa	SF	#spa																	
Prof. Off/Serv.	1.8	61708	112	10256	19	12161	22	0	0	0	0	35885	65	0	0	24516	45	5000	9	392622	714	0		
Government Office	1.3	0	0	0	0	0	0	75192	98	186690	243	0	0	0	0	0	0	0	0	91280	119	485326		
Residential	0.5	0	0	0	0	0	0	0	0	0	0	1409	1	0	0	0	0	0	0	0	0	0	87537	
Retail	1.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6000	10	0	0	0	0	0	212003	
WHSE.IND./MFC	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Restaurant	0.5	0	0	5128	3	11021	6	0	0	0	0	2680	2	0	0	0	0	0	0	0	0	0	66022	
Vacant	0.0	0	0	3942	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23860	0	0	28570	
Church/Clubs	0.2	0	0	0	0	0	0	36000	8	0	0	0	0	37924	8	0	0	0	0	0	0	0	126018	
Other Uses	0.5	0	0	0	0	2192	2	21027	11	0	0	0	0	12892	7	0	0	0	0	0	0	0	47833	
Hotel	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Educational	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Detention Ctr.	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Financial	1.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	184457	56	0	184457	
Totals		61708	112	19326	22	33993	44	132219	117	186690	243	39974	68	50816	15	30516	55	304617	184	1,733,107	2011	69,999	114	
																								304617

