Davis
California

Draft Downtown Parking Management Plan

March 25, 2014

ACKNOWLEDGEMENTS

DOWNTOWN PARKING TASK FORCE

Jennifer Anderson

Michael Bisch

Cliff Contreras, ex-officio (UC Davis TAPS)

Robb Davis

Sara Granda

Amanda Kimball, Vice-Chair

Alzada Knickerbocker

Matt Kowta, Chair

Rosalie Paine

Steve Tracy

Johannes Troost

Lynne Yackzan

CITY STAFF

Brian Abbanat, Transportation Planner

Brian Mickelson, Assistant City Engineer (Transportation Manager)

Mike Webb, Director, Community Development & Sustainability Department

Bob Clarke, Director, Public Works Department

Melody Eldridge, Transportation Planning Intern

Jimmy Fong, Active Transportation Specialist

Michele Sharitz, Police Services Specialist

Roxanne Namazi, Senior Civil Engineer

CITY COUNCIL SUBCOMMITTEE TO DOWNTOWN PARKING TASK FORCE

Brett Lee

Lucas Frerichs

SPECIAL THANKS TO

Deb Niemeier, Ph.D., P.E., University of California, Davis

Tracy Heidersbach, University of California, Davis

Naor Deleanu, University of California, Davis

EXECUTIVE SUMMARY

Constrained space, high parking demand, and limited parking supply are perfect ingredients for a downtown parking problem. In fact, the downtown parking problem has been one of Davis' most persistent challenges, dating back decades to the first study conducted in the late 1950s. Over time, various parking management and supply measures were used to improve parking conditions, with varying degrees of success. However, recognizing downtown parking problems continue and over 15 years have passed since the last comprehensive downtown parking management plan was completed, in October 2012 the Davis City Council appointed a Downtown Parking Task Force to develop a parking management plan to provide more effective, enduring improvements to downtown parking. In October 2013, the Task Force completed a 10-month process of studying downtown parking, reviewing national research and best practices, and refining recommendations.

No fewer than eight downtown parking studies have occurred since 1958. While Davis has grown from approximately 7,700 residents to over 65,000, the downtown footprint has remained relatively unchanged. That the downtown has managed to accommodate a nearly ten-fold increase in population during this time period is a testament to community values prioritizing the downtown as a commercial center and resourcefulness in investing in the infrastructure necessary to ensure convenient access by all modes of transportation. For automobiles, this includes several surface parking lots and two parking garages. However, the downtown's emergence as an arts, entertainment, and food destination over the past ten years has resulted in a growing community sentiment that downtown parking conditions are deteriorating and a comprehensive approach to addressing the problem is needed.

How Does Parking Fit Into Downtown's Success?

Generally speaking, people tend to shop at the most convenient locations with the most goods and services needed.[1] Over the past 100 years, the downtown's role in fulfilling a community's entire shopping needs has evolved. Suburban strip malls, enclosed malls, "big box"-anchored shopping centers, and online retailing have emerged as compelling alternatives for buying everyday goods. As shopping has evolved, so has understanding of its effect on traditional downtowns. Fortunately Davis' downtown has succeeded despite increased competition from alternative shopping options. While many downtowns were decimated by the proliferation of suburban shopping options, downtown Davis continues to thrive due to supportive community values and policies.

[1] Garrison, Abby. "Why Don't More People Shop Downtown?" 2010.

More importantly, downtown itself has adapted to serve a niche better aligned with its competitive strengths (food, arts, entertainment, and office). A downtown parking problem is a good one to have, considering the circumstances of many downtowns.

Parking is one of many variables influencing the downtown success equation. What downtown Davis offers missing in other commercial settings is a memorable shopping experience. Downtowns provide shopping variety, gathering places for social interaction, and sensory stimulation (architecture, streetscape amenities, ambience), all contributing to a difficult-to-define "sense of place"; critical factors that compel visitors and customers to visit because the experience is unique. Downtown just feels "right". Whether the ultimate destination is a coffee shop, boutique shop, national or independent retail chain, specialized restaurant, park, museum, music performance, conference, community event, or any combination thereof, the downtown Davis experience cannot be replicated in a suburban shopping setting. While a legitimate question can be raised whether downtown currently has an ideal balance of uses; this topic is best left for separate consideration. Regardless, downtown's existing strengths are the foundation upon which continued prosperity can be built, and for which changes in parking management and supply can support.

Research in parking psychology reveals that downtowns face real, but surmountable, challenges in attracting new customers. These challenges are a by-product of several generations of auto-centric transportation policy – including parking - resulting in a misunderstanding of the *complementary* role automobiles play in a downtown setting. Downtowns feel "right" because they are first and foremost *walking* environments. Yet, because generations of consumers (both local and external) are accustomed to the suburban shopping experience, downtown Davis appears inconvenient, if not chaotic, for driving and, subsequently, parking. Thus, viewing parking through the lens of customers' *actual* parking expectations is useful. This should not imply downtown can accommodate the entirety of suburban shoppers' parking expectations, because downtowns are configured differently and constrained by space. However, insight can be gleaned in the interest of finding solutions that can offer equivalent or superior value as a substitute for the parking variable in the downtown success equation. That is, understanding behaviors and beliefs about common parking expectations can help inform potential parking management and supply revisions.

What Do People Expect From Parking?

Post World War II suburbanization in America has resulted in nearly three generations of drivers conditioned to suburban parking convenience. However, traditional downtowns were not originally designed to store the volumes of automobiles that accompany ubiquitous motoring. Despite this, it is still important to understand drivers'

parking expectations so that downtown parking recommendations can attempt to accommodate as many as possible and if not, return equal or greater value by other means. Research offers insight into parking psychology:[2]

- Visitors expect parking to be free.
- People want to park as close to their destination as possible.
- Drivers like to see their destination from their parked cars.
- People prefer angled to parallel parking.
- People covet surface parking.
- People are unwilling to search very hard for available spaces.
- Even when parking spaces are plentiful, drivers tend to believe there is a shortage.
- Employees and business owners tend to take prime on-street parking spaces.

What Do Davis Residents Think About Downtown Parking?

Within the past year, the City of Davis and Davis Downtown (the organization representing downtown businesses) have independently conducted surveys of Downtown parking perceptions. While neither is scientifically based, each offers insight into the parking expectations of those working and shopping in downtown Davis. The below bullets summarize the responses for improving downtown parking.

- 42% believed that the downtown parking supply should be increased.
- 37% believed that conditions could be improved through better parking management.
- 33% believed that downtown parking needs are adequately met.
- 83% of respondents live in Davis. Respondents were evenly split between living less than or greater than two miles from downtown.
- 72% of respondents stated they visit Downtown daily or multiple times during the week.
- Approximately 60% stay downtown between 1-2 hours; 33% stay for longer than 2 hours.
- Approximately one-third of respondents believe there is an adequate supply of parking. Two-thirds believe parking is inadequate.
- 69% of respondents stated that parking conditions impact their ability to enjoy their visit Downtown.

[2] Paraphrased from: Robertson, Kent. "The Psychology of Downtown Parking." ULI, 2007.

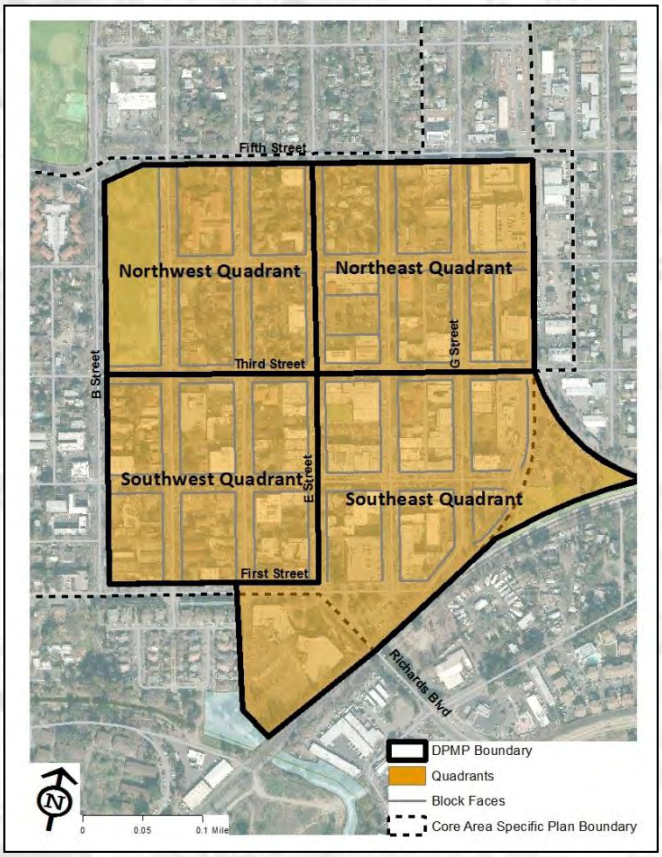
- Despite these negative feelings about downtown parking, 99% of people stated they would visit Downtown in the future.

A common theme uniting respondents is most are dissatisfied with the current downtown parking state and believe *something* should be done. The Downtown Parking Master Plan strives to provide clarity regarding prioritization of this limited resource.

Downtown Parking Supply

Downtown Davis, defined in this project by the area roughly bounded by First Street, B Street Fifth Street, and the railroad tracks, has approximately 2,100 publicly available spaces consisting of on-street block face parking, surface lots, and parking garages. The majority of these spaces are restricted to two-hours or 90-min / X permit (on the western and northern periphery), the latter of which encourages downtown employees to park on the periphery, ensuring parking is available for customers in the downtown core. Longer term parking is available in the E Street Plaza parking lot and parking garages.

Downtown Parking Management Plan Boundaries



Downtown Parking Occupancy Rates

Various metrics can assess downtown parking performance, including parking space turnover rates, average parking duration, circling time, and parking occupancy rates. Parking occupancy rates are the most useful metric as the primary indicator of available parking for downtown customers. This data can be collected accurately and with modest resources.

Parking researchers and practitioners have long known parking operates most efficiently when occupancy rates range between 80% and 90%. That is, when eight or nine out of ten spaces are occupied by cars. When occupancy rates consistently measure below 80%, parking availability is not considered a problem. When occupancy rates consistently exceed 90%, parking management / supply adjustments are needed.

Several symptoms result when parking occupancy rates exceed 90% in a downtown setting:[3]

- Vehicles circling to find a parking space can represent 80% to more than 95% of all vehicle traffic in the downtown.
- Parking space search time increases from 1 minute to up to 10 minutes.
- Traffic delays increase.
- Vehicle pollution increases.
- Greenhouse gas emissions increase.
- Accidents increase.
- Conflicts in the travel lane and at crosswalks increase, degrading the bicycle and pedestrian environment.

To understand performance of the Downtown Davis parking supply, occupancy rate data were collected over four days in October 2012, during a "typical" week when UC Davis was in session.

Overall, parking occupancy rates in Davis mirror that in many downtowns: Parking is readily available on weekday mornings, but becomes constrained during the lunch "peak". Following the lunch "peak", parking availability improves, though not to the same extent as before. Evening data collection was limited to the 6:30 p.m. – 7:30 p.m. time frame. With the exception of Mondays, the data indicate increasing occupancy rates up to this time. Personal observations from survey respondents and DPTF members support the conclusion that parking occupancy rates continue to increase beyond 7:30 p.m., especially Friday and Saturday nights.

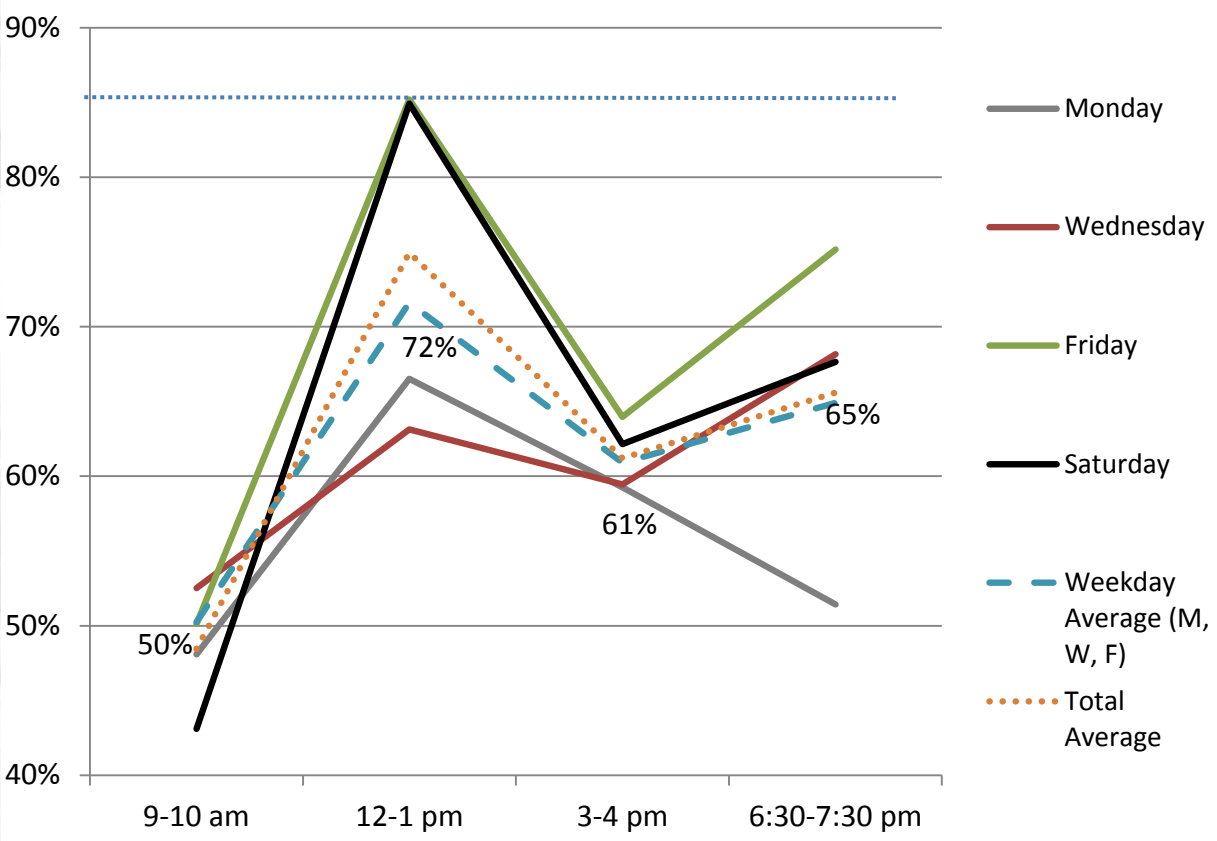
The data shows the average occupancy rate for all publicly available parking spaces across all days and times for which data was collected is 63%. The table and graph below summarize downtown parking conditions.

Downtown Parking Utilization Averages (M, W, F, Sa)

Day	9-10 a.m.	12-1 p.m.	3-4 p.m.	6:30-7:30 p.m.	Average
Monday	48%	67%	59%	51%	**56%**
Wednesday	53%	63%	59%	68%	**61%**
Friday	50%	85%	64%	75%	**69%**
Saturday	43%	85%	62%	68%	**64%**
Weekday Average (M, W, F)	50%	72%	61%	65%	**62%**
Total Average	**48%**	**75%**	**61%**	**66%**	**63%**

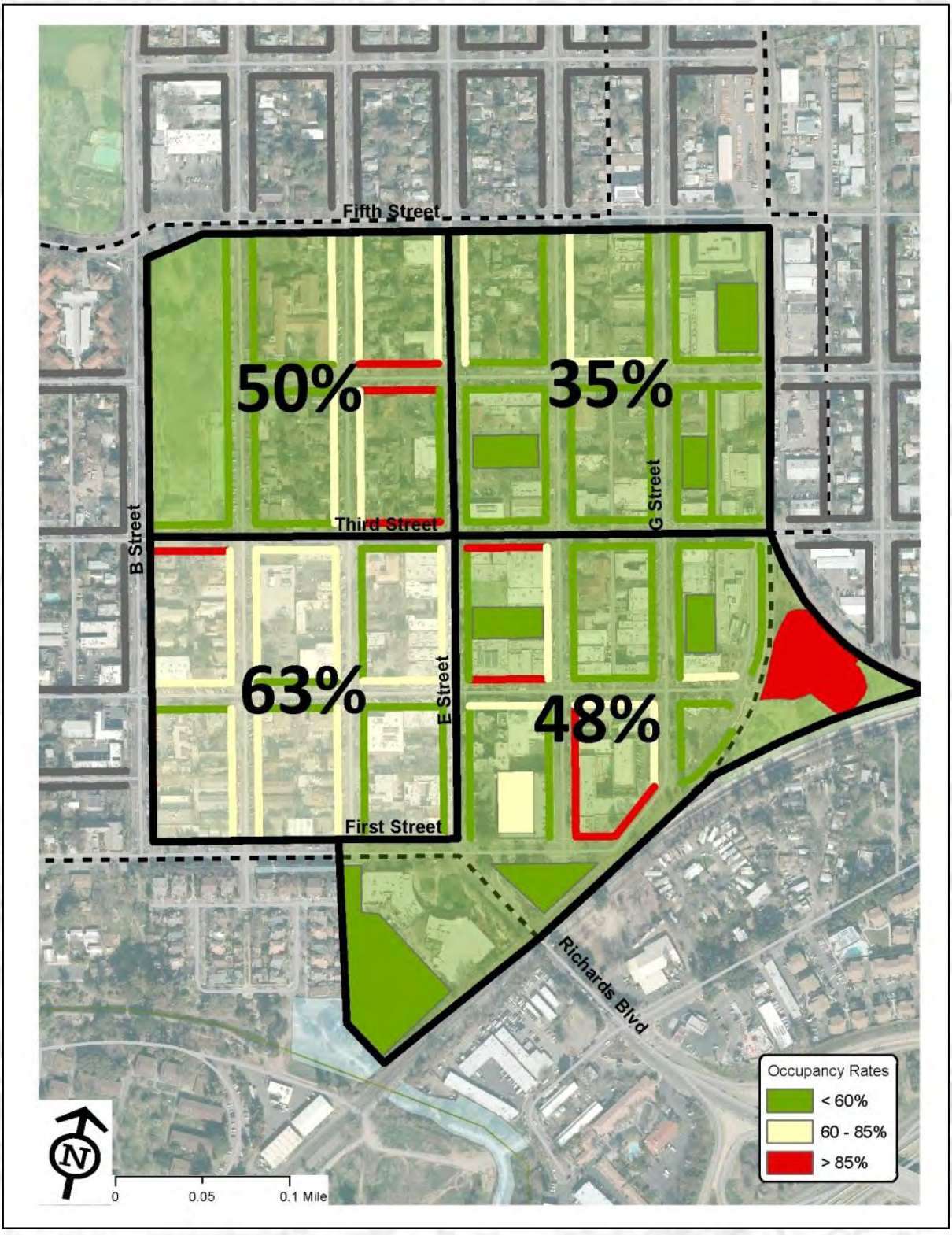
[3] Shoup, Donald. The High Cost of Free Parking. American Planning Association, 2007.

Downtown Parking Utilization Averages (M, W, F, Sa)

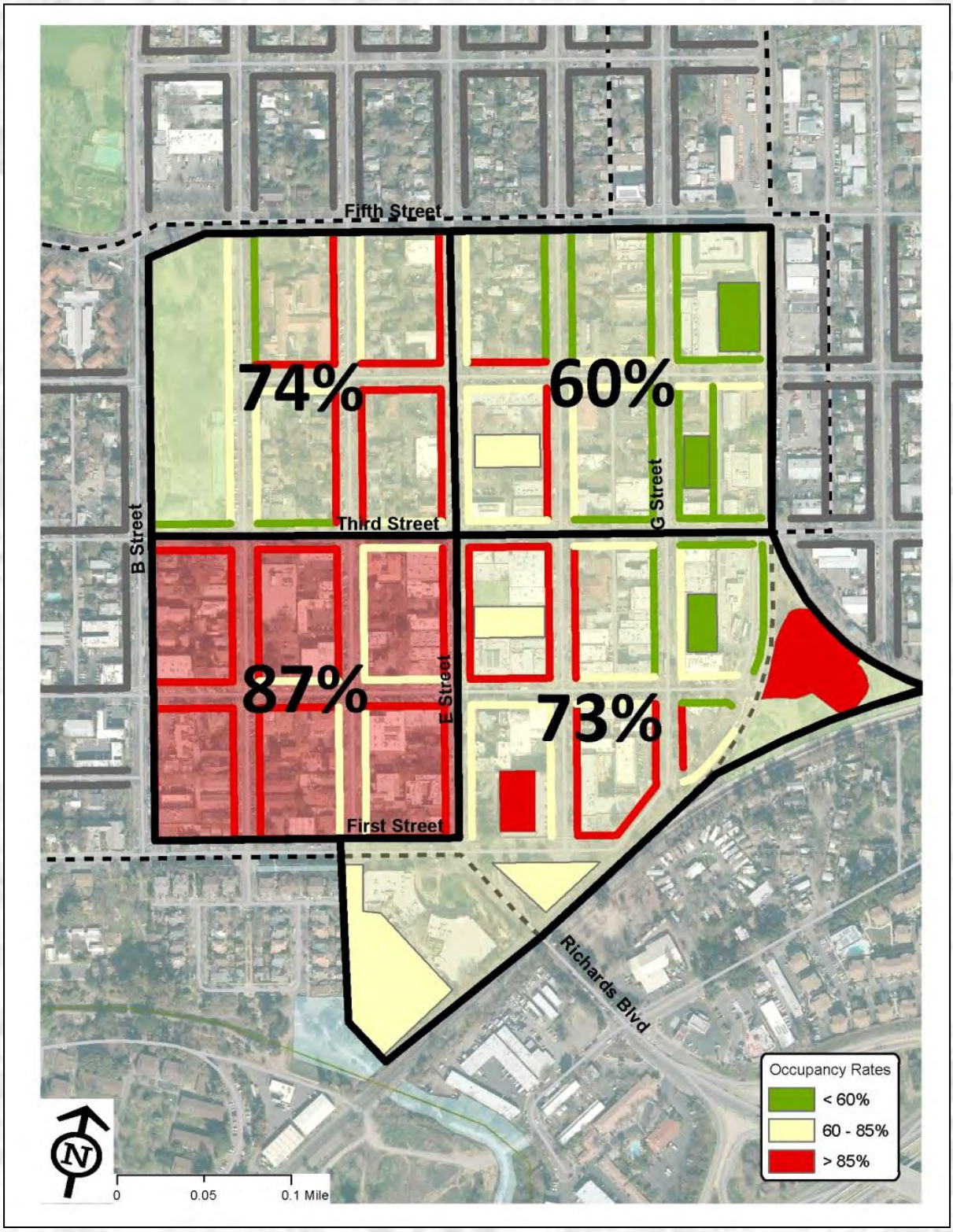


Occupancy rates for the entire downtown assist in understanding broad parking supply /demand relationships. However, "hot spots" - high demand locations where visitors expect available parking within their willingness to walk – are disguised. Inadequate parking supply where most desired can affect visitors' overall impression of the downtown parking supply and subsequently, potentially affect return visits. Analyzing downtown parking conditions at the downtown quadrant level yields additional insight. The following figures show parking availability (or absence thereof) at both the block face, lot/garage, and quadrant levels.

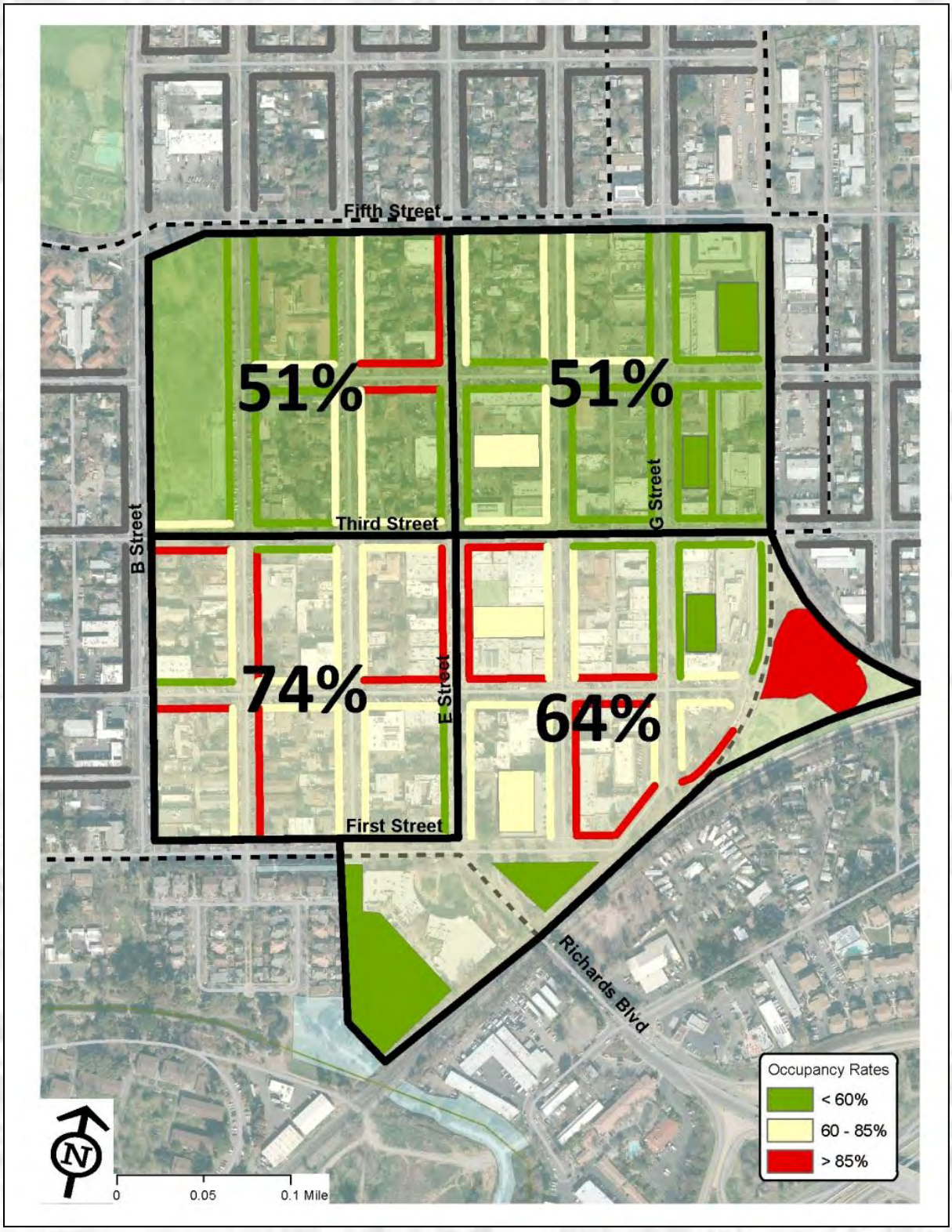
Weekday Utilization: 9 a.m. - 10 a.m. (M, W, F)



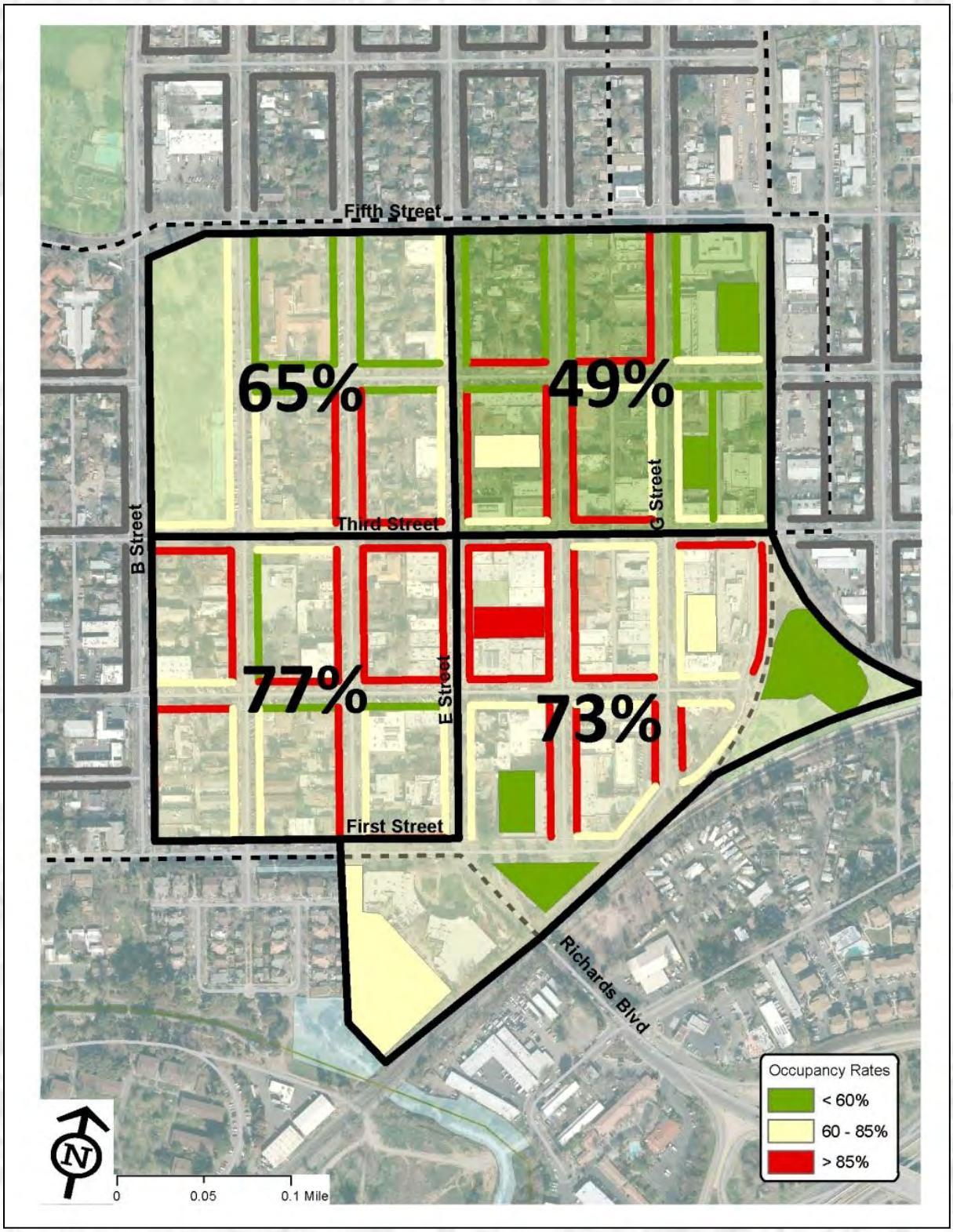
Weekday Utilization: 12 p.m. - 1 p.m. (M, W, F)



Weekday Utilization: 3 p.m. - 4 p.m. (M, W, F)



Weekday Utilization: 6:30 p.m. - 7:30 p.m (M, W, F)



Generally speaking, the most coveted on-street parking can be very difficult to find on most days beginning with the lunch time peak and extending through the evening during the week. On-street parking and off-street parking lots and garages are underutilized. On Saturdays (not displayed), the northwest quadrant reaches capacity in the morning (due to Farmer's Market), the entire downtown reaches capacity during the lunch peak, and the southeast quadrant reaches capacity at the evening peak. Still, these generalizations disguise context-specific factors reflecting symptoms of the larger parking problem.

Context-Specific Factors

Several context-specific factors affect parking supply and perceptions thereof and warrant additional analysis for understanding recommendations proposed by the Downtown Parking Task Force.

Employee Parking. Parking literature and past studies conducted in Davis confirm downtown employees occupy prime downtown parking spaces. While it is not known what percentage of the downtown parking supply is occupied by commuters throughout the day, the desire to influence employee parking behavior dates back to the 1961 Core Area Plan. If employees can be shifted from prime on-street parking spaces into the underutilized parking supply, the downtown carrying capacity can increase, stimulating economic growth.

The downtown currently has approximately 650 spaces available for downtown commuters between the 90-min / X-permit and D - permit zones, the latter restricted to the First and F parking structure. Both commuter permits are considered "hunting licenses" and downtown employees are not guaranteed an available space. Parking utilization varies considerably between the two permit zones.

X-permit employee parking is underutilized , even during peak hours. However, D-permit employee parking can often be difficult to find, in part due to its location in the employee-dense southeast quadrant.

Amtrak Parking Lot. The Davis train station is the second busiest along the 168-mile Capitol Corridor service. Parking is currently free for the 106 spaces in the lot for Amtrak riders. Three side effects of managing the lot in this manner are:

1. The lot fills to capacity early in the morning.
2. Out-of-town riders drive to the Davis station for their train departure.
3. Parking is unavailable other riders or users for most of the day.

Fourth and G Garage. The Fourth & G garage was built in 1998, accompanying the larger Fifth & G redevelopment project. Of the 425 spaces, 199 are publicly available, with the remainder reserved for tenants during normal business hours. Because of its location and inadequate wayfinding signage, the publicly available spaces are not fully utilized. Occupancy rates range from 10% to 59%.

Big Picture Goals and Desired Outcomes

Four "Big Picture" goals were established by the DPTF to provide broad direction toward a better downtown parking environment:

Goal #1: Improve customer / visitor parking convenience and experience.

Goal #2: Provide adequate parking options for downtown employees.

Goal #3: Ensure adequate parking supply to serve the needs of existing and future development.

Goal #4: Promote alternative access to downtown to reduce parking demand.

Downtown parking Goals were expanded into nine tangible Desired Outcomes, reflecting a more detailed framework for establishing recommendations in fulfillment of the Goals. Though some overlap between Desired Outcomes and Goals occurs, the following common themes emerged from the DPTF process:

Outcome #1: Provide convenient parking for downtown visitors.

Outcome #2: Maximize existing off-street parking resources.

Outcome #3: Provide reasonably convenient employee parking.

Outcome #4: Promote and incentivize downtown parking opportunities and alternative transportation options.

Outcome #5: Effectively enforce parking restrictions and revise parking violation policies.

Outcome #6: Improve pedestrian & bicycling experience downtown.

Outcome #7: Effectively use emerging technologies.

Outcome #8: Incorporate parking needs associated with future development.

Outcome #9: Support increased downtown economic activity.

Recommendations

Downtown Davis finds itself in similar circumstances experienced by other communities where parking efficiencies have been effectively maximized with existing parking management techniques and parking supply. A coordinated set of management and supply changes are needed to ensure substantive improvement in downtown parking conditions.

The proposed recommendations will significantly change how parking is managed in the downtown. These are based on a deliberate process driven by data, literature review, public input, case studies, and task force members' acquired understanding of parking principles and best management practices. The Task Force balanced the many interests of downtown users and stakeholders, carefully considering input from the Davis business community. Citizens gave input at meetings, and the Task Force reviewed results of surveys that collected information from local residents relating to downtown parking. The 11 voting Task Force members (and ex-officio member) represented diverse viewpoints, including those of retailers, service providers and office tenants, residents of downtown and adjacent neighborhoods, and property owners, as well as bicycling advocates and concerned Davis residents. All members shop downtown and treasure its success and vitality. The Task Force recommendations follow, accompanied by an illustrative map on page 17:[4]

Recommendation #1: Establish paid parking in Southeast Quadrant.

Recommendation #2: Increase employee parking location options.

Recommendation #3: Increase employee permit fees and streamline employee parking to single "X" permit.

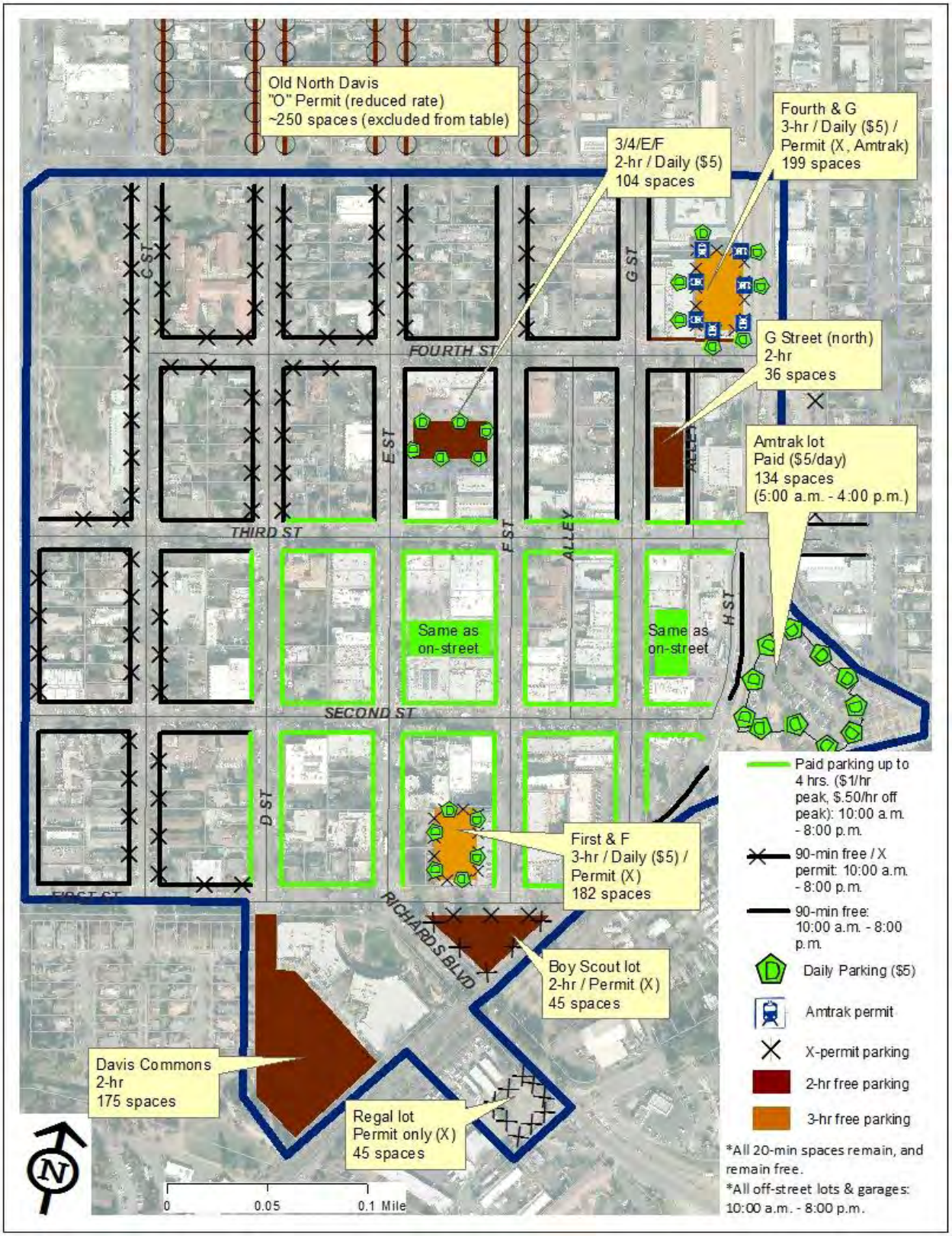
Recommendation #4: Convert Amtrak Lot to paid parking.

Recommendation #5: Restrict delivery vehicle double-parking between 12:00 p.m. – 1:30 p.m. for the area bounded by Second Street, Fourth

[4] Refer to the Main Report for further elaboration of Task Force recommendations.

	Street, D Street and G Street (data could be used to refine limitations over time).
Recommendation #6:	Eliminate on-street green waste in downtown for the area bounded by First Street, Fifth Street, B Street, and the railroad tracks.
Recommendation #7:	Shift parking enforcement hours to 10:00 a.m. – 8:00 p.m., Monday – Saturday.
Recommendation #8:	Establish tiered-fine citation system.
Recommendation #9:	Upgrade parking enforcement technology.
Recommendation #10:	Invest in electronic information systems.
Recommendation #11:	Develop transportation and parking alternatives campaign.
Recommendation #12:	Collect quarterly parking occupancy and turnover data.
Recommendation #13:	Explore voluntary private shared-parking district.
Recommendation #14:	Provide van-accessible parking upon street resurfacing.
Recommendation #15:	Streetscape Improvements.
Recommendation #16:	Expand Parking Supply.
Recommendation #17:	Provide administrative resources necessary for successful implementation of the Downtown Parking Management Plan.
Recommendation #18:	Improve transit options into downtown.
Recommendation #19:	Re-examine parking in-lieu parking fee policies and procedures.

Recommendations Map



Implementation

Importantly, the recommendations presented in this report should be considered an integrated package, intended for coordinated implementation. Many recommendations have cause-and-effect and push/pull relationships that, if separated from the package, may result in less than optimal results. Additionally, adequate time must be allowed for implementation to occur and for the community and visitors to adjust to the changes. For successful implementation, the City will need to consider organizational changes to the parking management program. Administration changes could include staffing levels, enforcement routes, internal information systems, data security, citation issuance, coin management protocols, and roles and responsibilities. Changes to parking management could include a comprehensive parking management system that integrates citations, permits, meters, and sensors. While the package of recommendations is within the City's ability to implement, additional human resources will be required to execute, monitor, and maintain. As a result, growing pains may occur as Davis modernizes its approach to parking management, specifically if adequate resources are not allocated.

Conclusion

In October 2013, the Task Force completed an extensive process of studying parking conditions in Downtown Davis, reviewing research and case studies from across the country, and developing and refining a comprehensive set of recommendations for parking improvements in Downtown Davis. The Task Force voted unanimously (with one member absent) to forward the package of recommendations to the City Council.

Not all downtown parking spaces are created equal. Some parking spaces are much better suited to provide easy access for patrons who wish to make relatively quick stops in downtown, and for whom convenience is a key consideration in whether they visit downtown or some other nearby location. Other spaces are more appropriate for business owners or employees, who need a place to park their car and leave it for the entire day, for whom the cost of long-term parking may be a key consideration, rather than convenience. Between these two types of users are others with varying parking needs. The Task Force recommendations, one of which includes expanding paid parking, will create the potential to improve on our current system, by better aligning the different user groups with the characteristics of the parking spaces that they use. Task Force recommendations will help to ensure convenient spaces are easily accessible for shoppers with short-term parking needs, in the area where the greatest concentration of retail and service businesses who depend on this type of parking access exists. Second, Task Force recommendations will help to direct those for whom cost of parking is a priority to areas that are located more on the periphery of Downtown, where frequent turnover of parking spaces is less critical. A recommendation to improve alternative transportation options for Downtown aims to

help ensure that parking will be available for those who prefer to drive, or for whom driving is the only practical means of reaching downtown.

There are benefits to offering free parking at times when demand for parking space is low. The popular free 20-minute parking spaces found on most blocks will remain. In addition, there will be free parking designated at all times no more than about two blocks from any Downtown destination. Also, the recommendation to modify enforcement hours to free parking until 10:00 a.m., will be a win-win situation. By promoting the availability of free parking during extended morning hours when plentiful parking exists, Downtown can give something back to cost-sensitive shoppers. Implementation of Task Force recommendations will make the parking system easier to understand improve parking space availability; returning in value both convenience and time savings. Lastly, although parking meters in the southeast quadrant of downtown will encourage most drivers to leave their cars for shorter periods of time, the proposal to increase the parking time limit from two hours to four hours in this area will allow those who feel the current time limits are too short to enjoy a relaxed, extended visit to downtown without needing to move their cars.

Even if the most efficient use of the available Downtown parking supply is made, increased demand for parking due to new development in Downtown and elsewhere in the City and UC Davis will create the need for an expansion of the Downtown parking inventory over time. While the Task Force recommended further study of the exact timing and best strategy to address this need, any project substantially increasing the parking supply will require multiple years of planning. Thus, the City should undertake this process as soon as possible in order to be prepared to act when appropriate. Additionally, gathering the funds necessary to undertake such a project will most likely take considerable time; thus, it is important to define the project and its costs, and the appropriate strategy to fund it as soon as possible.

In closing, the Downtown Parking Task Force recommendations can provide a blueprint for City actions that will help to improve the vitality of Downtown Davis, making it a better place for shoppers and other visitors, business owners and employees, residents, and property owners. The Task Force submits the Downtown Parking Management Plan confident that the recommendations herein will achieve the desired results.

For more background information, parking-related data, and elaboration of recommendations, readers are encouraged to reference the Main Report.

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March 2014