

STAFF REPORT

DATE: November 7, 2017

TO: City Council

FROM: Robert A. Clarke, Public Works Director
Brian Mickelson, Assistant City Engineer/Transportation Manager
Brian Abbanat, Senior Transportation Planner

SUBJECT: Downtown Paid Parking, CIP No. 8252

Recommendation

1. Approve Proposed Revisions for expansion of downtown paid parking and revisions to time-restricted parking (Attachment 1).
2. Direct staff to return to City Council with ordinances, resolutions, and contracts implementing revisions.

Fiscal Impact

Staff estimates non-construction work related to implement the recommendations at approximately \$120,000. CIP 8252 (Downtown Parking Improvements) includes approximately \$254,000 in the FY 2017/18 adopted budget. However, the existing funding was originally budgeted for the downtown Parking Guidance System (PGS), which is expected to range from \$350,000 - \$450,000. Thus, while existing funding is sufficient to cover the proposed expenses to advance non-construction work for downtown paid parking without a Budget Adjustment, additional funding will be required to approve construction activity later this fiscal year to fully implement the PGS.

Council Goal(s)

This plan is consistent with the Council Goal to Build and Promote a Vibrant Downtown and is tied to the specific task to “Continue to support increased parking availability and implement City Council adopted Downtown Parking Task Force Recommendations.”

Background and Analysis

In Spring 2014, the City Council received the Downtown Parking Management Plan (DPMP), which reflected the outcome of the Council-appointed Downtown Parking Task Force (DPTF). The DPTF met monthly over the course of a year which concluded in Fall of 2013. The DPTF unanimously supported the package of 19 recommendations to improve downtown parking management and supply. The topic of paid parking was discussed at length during the DPTF process. The DPTF concluded that given downtown parking conditions, paid parking is a necessary tool for effective parking management, with remaining recommendations dependent on appropriate application of this tool.

Over time, Staff has periodically updated City Council on the DPMP implementation progress, including several discussions on paid parking. For brevity, this staff report does not review the

full history of downtown paid parking discussions. Council members are referred to the DPMP and staff reports from the following Council meetings for more detailed information:

1. December 3rd, 2013
2. March 25th, 2014
3. April 15th, 2014
4. January 13th, 2015
5. July 12th, 2016
6. December 20th, 2016
7. August 29, 2017

At the December 20, 2016 meeting, City Council directed Staff to:

1. Rename Regal lot to City lot (at Olive Drive) and use it exclusively for X-Permit parking,
2. Add paid parking as follows:
 - a. Surface lots only (3rd/4th/E/F Streets lot, Boy Scout lot, 2 lots on G Street),
 - b. Install multi-space parking meter kiosks,
 - c. Establish a 4-hour time limit,
 - d. Direct staff to return to Council with pricing structure, to include consideration of a differential (such as increase fees for hours 3 and 4), and
 - e. Direct staff to develop a validation program.
3. Improve technology of E Street Plaza meters, and
4. Direct Staff to gather data for 12 months following paid parking implementation to potentially consider expansion of paid parking to surface streets.

While Staff has received a cost estimate from our current vendor for multi-space meters (MSMs), implementation has not occurred yet as Staff is coordinating the hardwiring of a power supply for both the downtown parking guidance system (PGS) and MSMs.

At the August 29, 2017 meeting, City Council pulled from consent an update on the Downtown Parking Management Plan implementation status for the purpose of offering Staff some direction regarding the paid parking discussion. Outcomes from Council discussion included:

1. Willingness to consider a pilot program for limited geography on-street program (Lee),
2. Interest to not preclude off-street lots from consideration (Frerichs), and
3. Consider paid parking on C, D, and E Streets (Swanson).

In considering the use of paid parking as a tool to improve overall parking availability, Staff believe the following five criteria are the primary factors that should be considered, the first four of which directly affect City enforcement operations:

1. **Geography/Scale.** Geography and scale should align with greatest peak demand with the objective of successfully addressing parking management objectives as defined in the DPMP.
2. **Technology.** Single-space vs. multi-space meters, operations/maintenance costs, re-capitalization.

3. **Enforcement Implications.** Paid parking should be deployed at a scale for feasible enforcement routing operations. Paid parking will increase staffing needs due to currency collection requirements at any scale.
4. **Implications to Existing Time-Restricted Parking.** Paid parking scale should consider the pattern of remnant 2-hr time-restricted parking and whether consistency should be established for both enforcement routing and customer experience purposes.
5. **Customer Experience.** Ensuring that paid parking is as convenient as possible and that remaining time-restricted parking supply is easily understood by visitors.

A solution that addresses the above factors while accommodating the City Council’s suggestions is a challenge. After further consideration, Staff sustains the belief that applying paid parking in the southeast quadrant best balances the varied objectives for managing the downtown parking supply best prioritizes users, while accommodating the needs of many user groups, and is operationally feasible. An explanation of Staff thoughts in response to City Council comments expressed at the August 9, 2017 meeting is as follows:

Limited Geography Pilot Program (Lee). Staff does not recommend a small, limited geography pilot for on-street paid parking due to the five primary operational factors. A small scale is inefficient from a parking enforcement standpoint and Staff believes will result in parking behavior similar to what was experienced at the E Street Plaza lot upon its implementation: displacement of downtown employee parking impacts to adjacent block faces. Staff’s recommendation for a larger scale (i.e. southeast quadrant) is expected to more effectively mitigate displacement impacts by increasing downtown employee walking distances and reducing time-restrictions from two hours to ninety minutes on remaining block faces.

Off-Street Lots (Frerichs). The Staff recommendation maintains paid parking in the existing E Street Plaza lot, and introduces paid parking to the south G Street lot because they are both located within the southeast quadrant, where demand is highest. Remaining off-street lots would continue with two- or three-hour free parking with paid parking thereafter in selected lots and garages. Additional lots could be converted to paid parking at Council discretion. However, that would increase the percentage of total supply to which paid parking has been applied, conflicting with a limited geography objective and not consistent with overall demand.

Consider Paid Parking on C, D, and E Streets (Swanson). The Staff recommendation to establish paid parking in the southeast quadrant includes D and E Streets between First and Third Streets. North of Third Street, parking occupancy rates are lower, even during peak periods. Based on peak parking occupancy data, a case can be made for applying paid parking to B and C Streets between First and Third Streets as well. However, high occupancy rates can partially be explained by on-street X Permit parking supply, which is where downtown employees are encouraged to park. Layering paid parking over X-Permit parking could be considered on C Street, but this would also conflict with a limited geography objective.

Downtown Parking Occupancy Data

Occupancy data should inform Council actions related to downtown parking. Downtown Parking Management Plan Recommendation (DPMP) #12, approved by City Council in Spring 2014 directs City staff to collect parking occupancy data on a quarterly basis. Historically, Staff has collected, input, analyzed, and summarized parking occupancy data manually. Due to staffing

workload priorities, Staff has been unable to support parking occupancy data collection on a quarterly basis. The most recent data collected in Spring 2016 is provided for reference (Attachment 2).

In late 2016, the Police Department acquired License Plate Recognition (LPR) technology that digitally captures license plate records as parking enforcement scooters conduct their routes. These records can be retrieved (with license plate scrambling to ensure anonymity) and converted to parking occupancy data reports through integration with Geographic Information Systems.

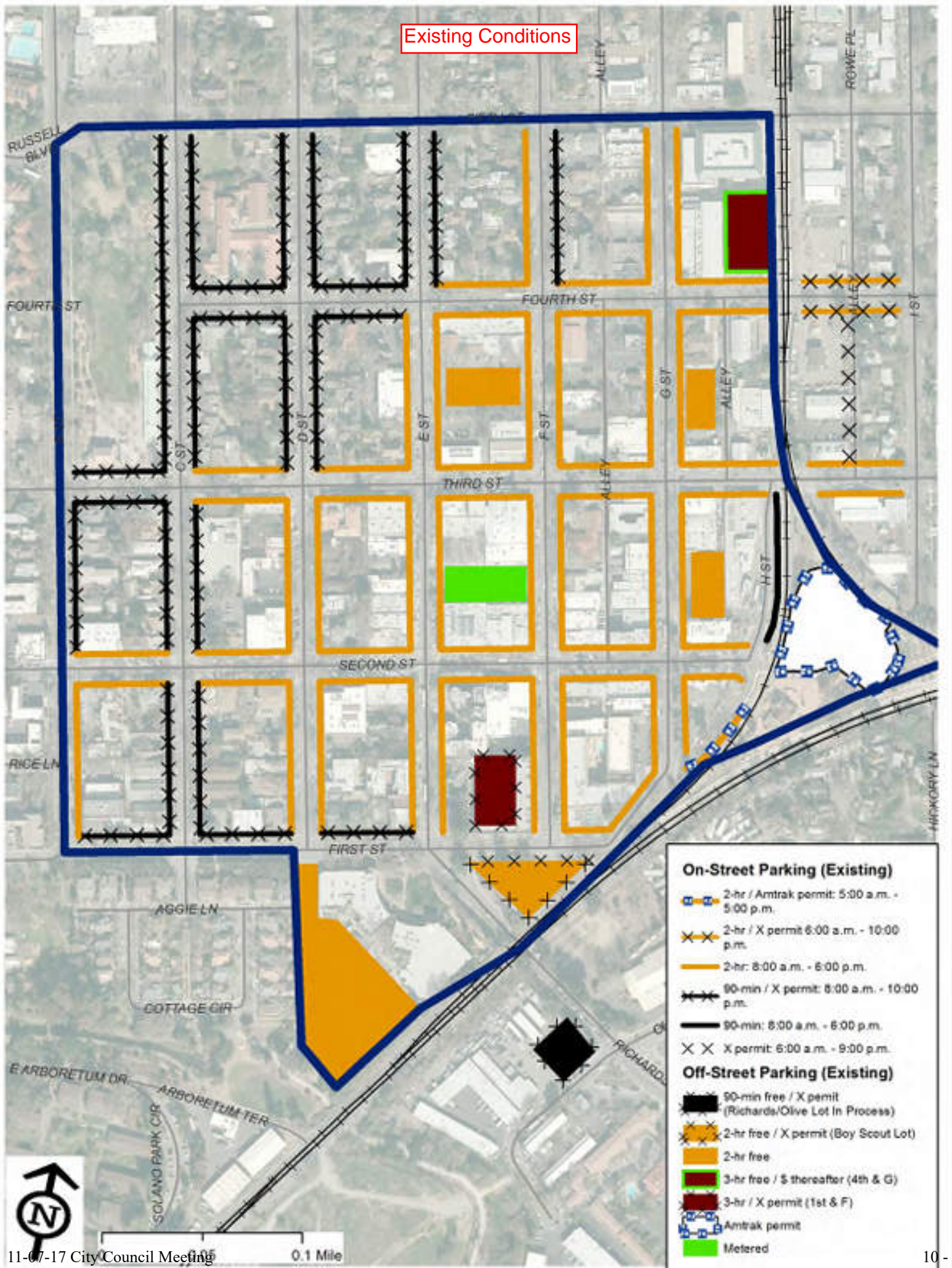
For the past several months, Staff has negotiated with our LPR vendors PCS Mobile, Genetec, and T2 Systems to develop a “parking data occupancy report” that will allow Staff to retrieve, summarize, and analyze the data already collected daily by the LPR system. This can be accomplished without the significant labor effort previously required. Additionally, the data can be retrieved for any time period in which the scooters were out on enforcement with the LPR turned on.

Staff is preparing to engage the vendor to create the reporting format to provide the data and expect to be able to run occupancy reports later this winter and will provide ongoing updates per the original DPMP recommendation.

Attachments

1. Existing Conditions and Proposed Revisions Maps
2. Spring 2016 Downtown Parking Occupancy Rate Survey

Existing Conditions

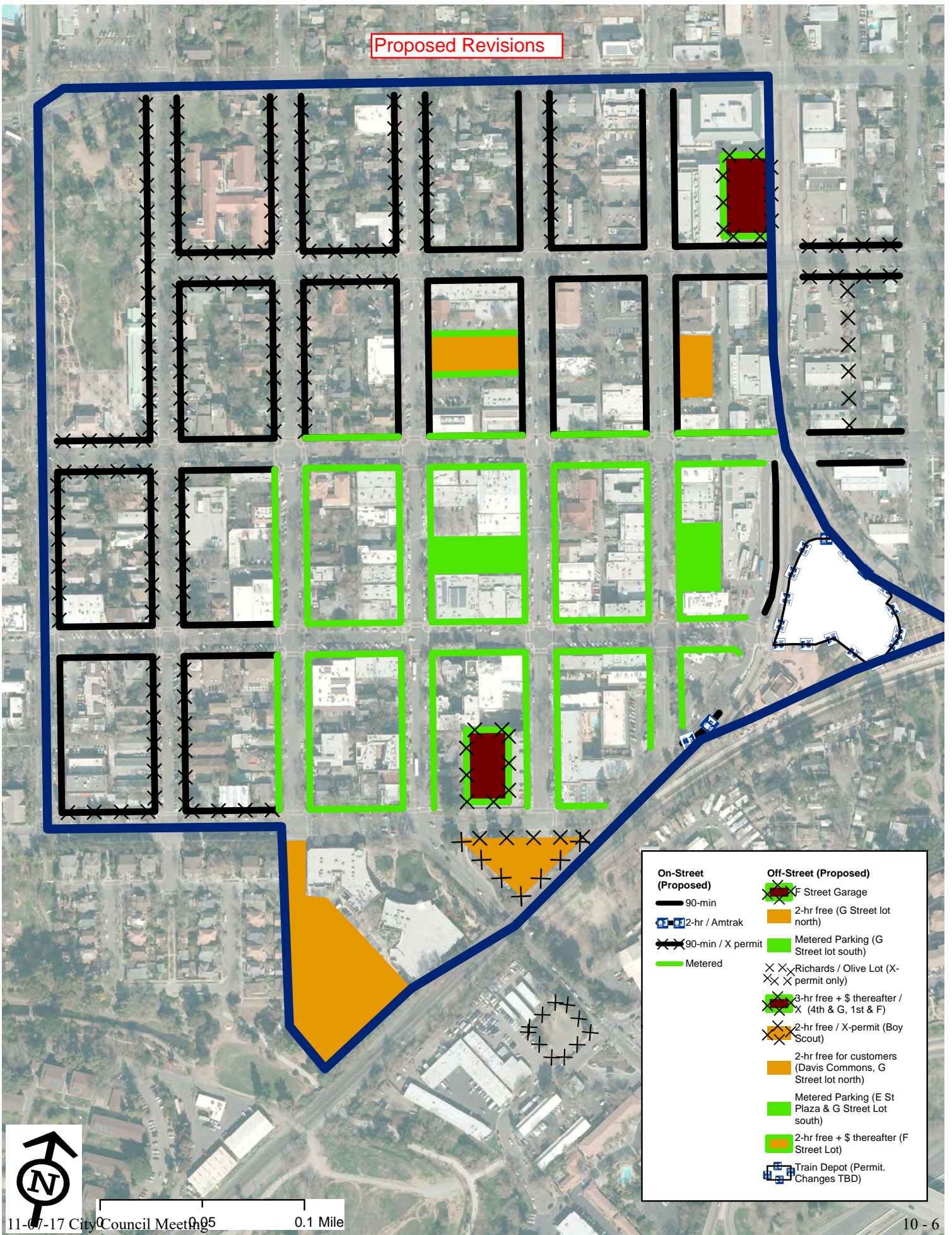


| On-Street Parking (Existing) | |
|-------------------------------|--|
| | 2-hr / Amtrak permit: 5:00 a.m. - 5:00 p.m. |
| | 2-hr / X permit: 6:00 a.m. - 10:00 p.m. |
| | 2-hr: 8:00 a.m. - 6:00 p.m. |
| | 90-min / X permit: 8:00 a.m. - 10:00 p.m. |
| | 90-min: 8:00 a.m. - 6:00 p.m. |
| | X permit: 6:00 a.m. - 9:00 p.m. |
| Off-Street Parking (Existing) | |
| | 90-min free / X permit (Richards/Olive Lot In Process) |
| | 2-hr free / X permit (Boy Scout Lot) |
| | 2-hr free |
| | 3-hr free / \$ thereafter (4th & G) |
| | 3-hr / X permit (1st & F) |
| | Amtrak permit |
| | Metered |



0.05 0.1 Mile

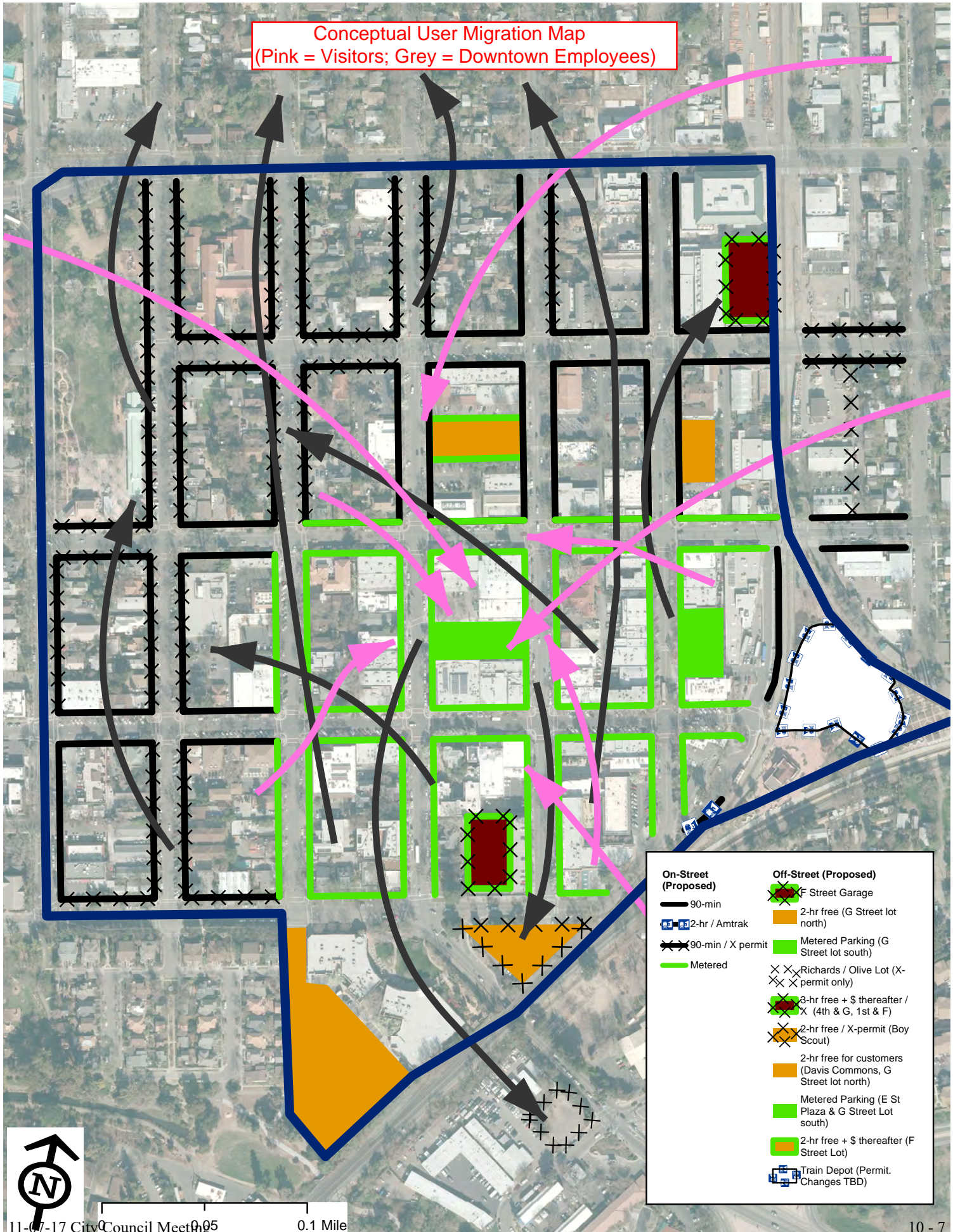
Proposed Revisions



| On-Street (Proposed) | Off-Street (Proposed) |
|----------------------|---|
| — 90-min | ■ F Street Garage |
| ■ 2-hr / Amtrak | ■ 2-hr free (G Street lot north) |
| ⊗ 90-min / X permit | ■ Metered Parking (G Street lot south) |
| — Metered | ⊗ Richards / Olive Lot (X-permit only) |
| | ■ 3-hr free + \$ thereafter / X (4th & G, 1st & F) |
| | ⊗ 2-hr free / X-permit (Boy Scout) |
| | ■ 2-hr free for customers (Davis Commons, G Street lot north) |
| | ■ Metered Parking (E St Plaza & G Street Lot south) |
| | ■ 2-hr free + \$ thereafter (F Street Lot) |
| | ■ Train Depot (Permit. Changes TBD) |



Conceptual User Migration Map
 (Pink = Visitors; Grey = Downtown Employees)



| On-Street (Proposed) | Off-Street (Proposed) |
|----------------------|---|
| — 90-min | ■ F Street Garage |
| 🚗 2-hr / Amtrak | ■ 2-hr free (G Street lot north) |
| ⊗ 90-min / X permit | ■ Metered Parking (G Street lot south) |
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| | 🚗 Train Depot (Permit. Changes TBD) |



STAFF REPORT

DATE: June 9, 2016
TO: Bicycling, Transportation, and Street Safety Commission
FROM: Brian Abbanat, Transportation Planner
SUBJECT: Spring 2016 Downtown Parking Occupancy Rate Survey
(Downtown Parking Management Plan: Phase 1 Recommendation #12)

Recommendation

Informational

Fiscal Impact

Approximately \$2,500 for parking occupancy data collection charged to CIP 8252 (Downtown Parking Management Plan Implementation).

Council Goal(s)

Goal 4: Build and Promote a Vibrant Downtown

Objective 1: Improve downtown as a bicycle and pedestrian friendly destination for residents and visitors.

Task A: Implement City Council adopted Downtown Parking Task Force Recommendations.

Background and Analysis

Downtown Parking Management Plan information can be found at the below url:

<http://cityofdavis.org/city-hall/public-works/transportation/transportation-planning>

Pursuant to City Council approval of the Downtown Parking Management Plan (DPMP) Phase 1 recommendations in early April staff conducted a downtown parking occupancy rate survey. Both on-street parking and off-street public lots and garages were surveyed. Parking occupancy data was collected by UC Davis Transportation and Parking Services (TAPS). Surveys were conducted on:

- Monday, April 4th
- Wednesday, April 6th
- Friday, April 8th
- Saturday, April 9th

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Figure 1: Fall 2015 Downtown Parking Survey Boundary



Occupancy rates were collected between 9-10 am, 12-1 pm, 3-4 pm, and 6:30 – 7:30 pm.

Conclusions

Generally speaking, the ideal parking occupancy rate is in the vicinity of 85%. At this usage, the parking supply is being efficiently used while spaces remain available for new arrivals, preventing vehicles “circling” downtown blocks in search of a parking space.

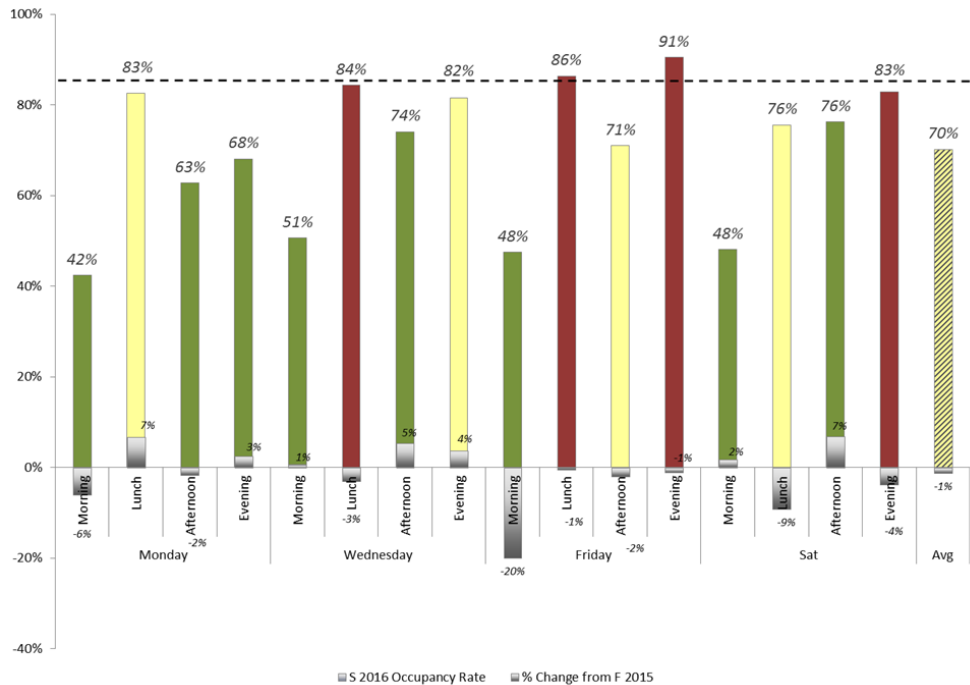
Overall Parking Occupancy Rates

The average parking occupancy rate for the days and times collected was 70%. Compared with Fall 2015, parking occupancy rates appear to have declined approximately 1% on average with a range of -20% to +7%.

Compared to the reduced data set collected in Spring 2015 (i.e. Wednesday, Friday: lunch, afternoon, evening) occupancy rates declined 2%.

Figure 2 illustrates downtown parking occupancy rates from Spring 2016 and percentage change from Fall 2015.

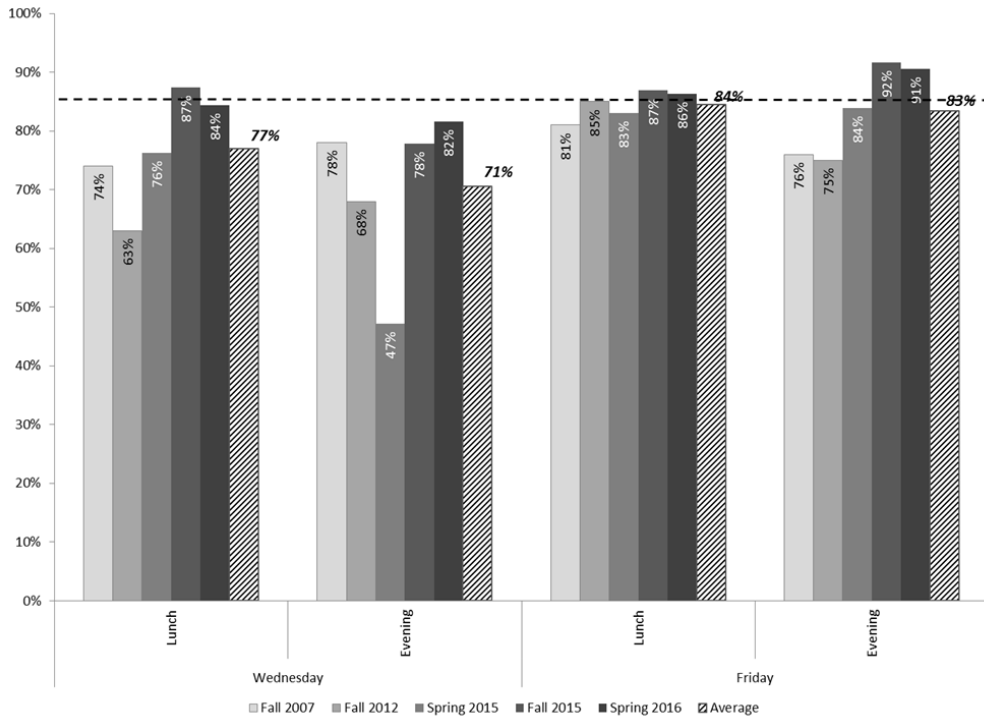
Figure 2: Downtown Parking Occupancy Rates (S 2015 vs. F 2015)



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Downtown experiences parking “peaks” during the lunch and evening timeframes. During these peaks, downtown parking closely reaches capacity resulting in vehicles circling around the block to find spaces, resulting in added congestion. Between 2007 and 2016, parking occupancy data has been collected five times for the Wednesday and Friday peaks. Figure 3 illustrates these peaks for an historical perspective.

Figure 3: Peak Downtown Parking Occupancy Rates (S 2016 vs. F 2015)



On-Street vs. Off-Street Parking Occupancy Rates

The downtown parking supply can be split into two categories: on-street and off-street parking (i.e. public parking lots and garages). Customers typically prefer on-street parking as it is most convenient and therefore, the most impacted, particularly during the lunch and evening peaks. Figures 4 and 5, illustrate parking occupancy rates by category.

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Figure 4: On-Street Parking Occupancy Rates (S 2016 vs. F 2015)

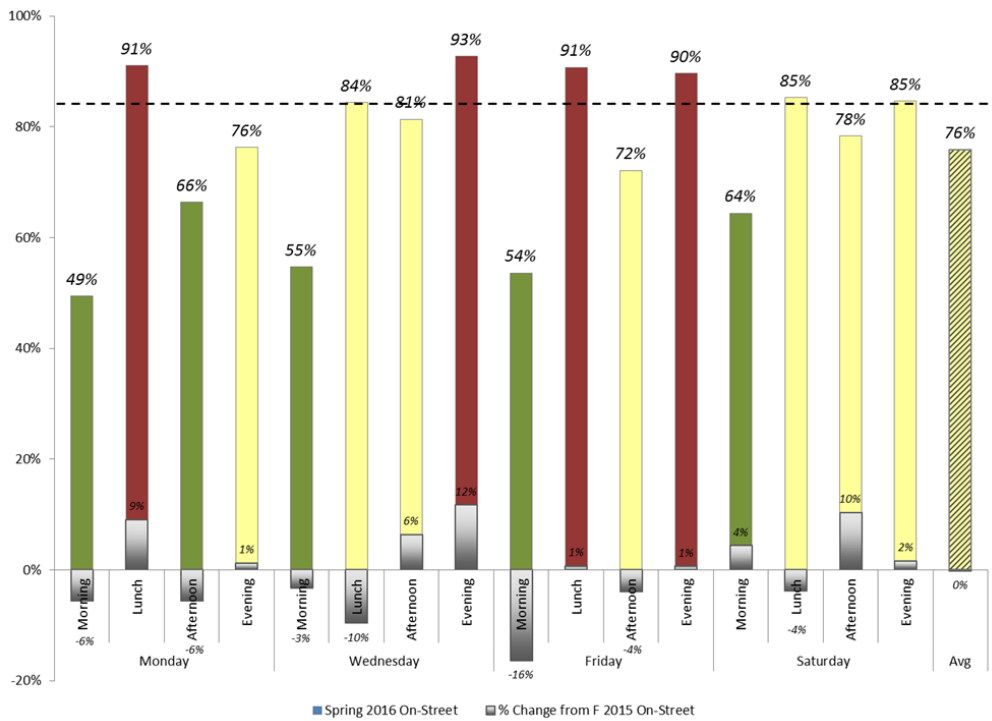
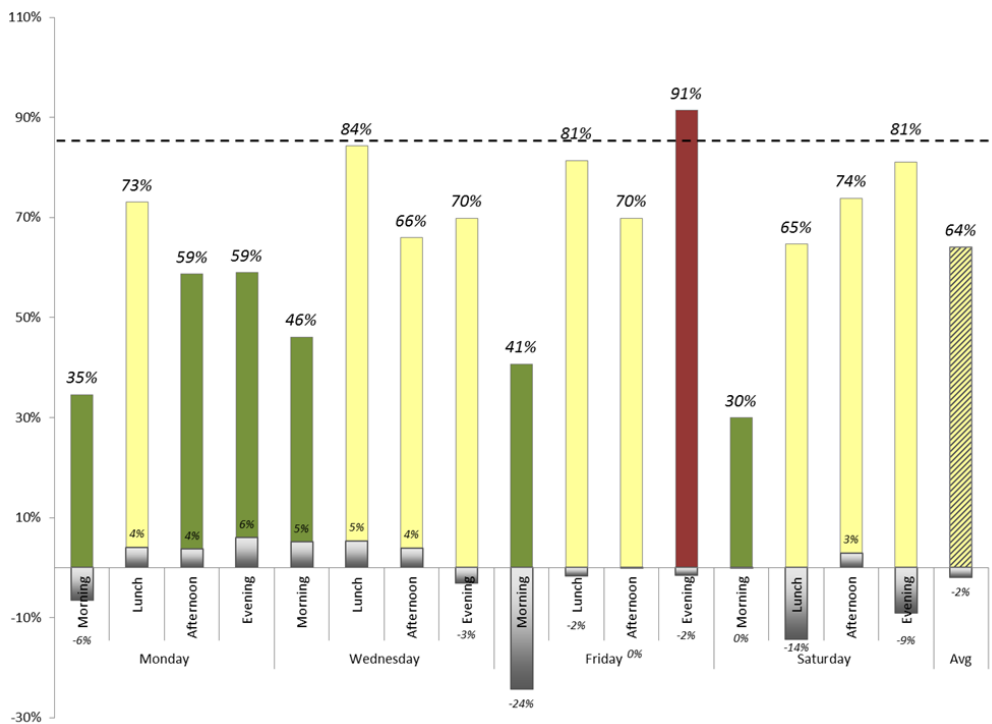


Figure 5: Off-Street Parking Occupancy Rates (S 2016 vs. F 2015)

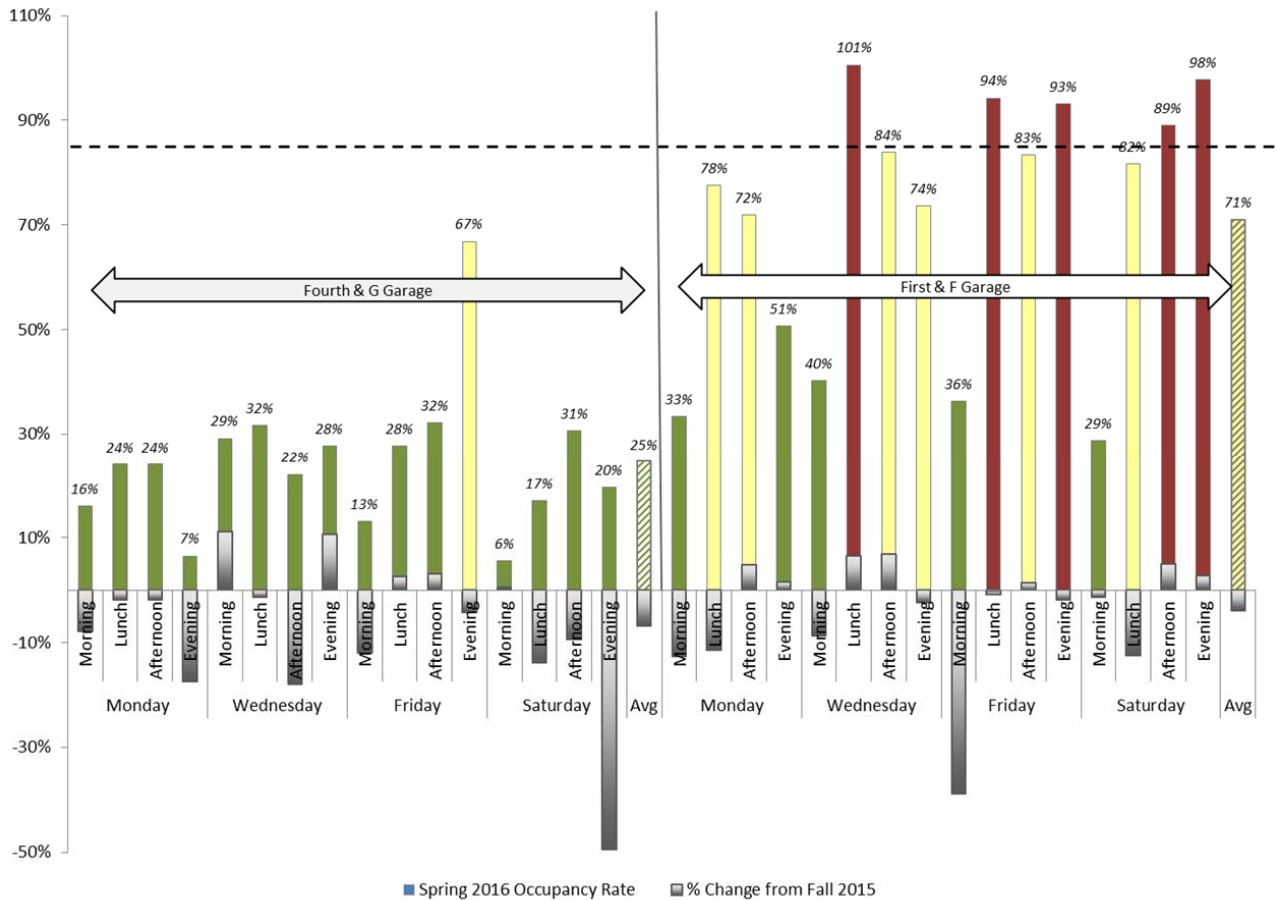


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Compared with Fall 2015, Spring 2016 on-street parking occupancy rates remained stable at approximately 76%, while parking lots and garages have increased approximately declined by 2% with a 64% average. Table 1, below, shows the percentage change for each day and timeframe, by parking category.

Davis has two parking structures downtown, one at Fourth & G Streets and another at First and F Streets. Figure 5, below isolates the performance of those two facilities.

Figure 6: Parking Structures (S 2016 vs. F 2015)



The Fourth & G structure continues to experience low occupancy rates for the publicly available spaces, with an average of 25%. In contrast, the First and F structure has an average occupancy rate of 71% with several peaks hovering near or above the 85% threshold. Compared with Fall 2015, the Fourth & G and First and F structures have experienced a 7% and 4% decline, respectively.

Parking Occupancy Rates by Quadrant

The demand for downtown parking also varies by geography. Typically, the highest demand for parking is in the southeast quadrant, the heart of the downtown commercial district. The

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southwest quadrant also typically has high occupancy rates because this is where the most convenient X-permit (downtown employee) parking is located and there are no underutilized surface parking lots or garages. Table 21 shows parking occupancy rates by day, time, and quadrant.

Table 1: Parking Occupancy Rates by Quadrant

| Day | Time | Quadrant | Occupancy Rate |
|-----|------------|----------|----------------|
| Mon | 9-10 am | NE | 31% |
| | | NW | 42% |
| | | SE | 46% |
| | | SW | 49% |
| | 12-1 pm | NE | 59% |
| | | NW | 88% |
| | | SE | 90% |
| | | SW | 85% |
| | 3-4 pm | NE | 46% |
| | | NW | 56% |
| | | SE | 74% |
| | | SW | 66% |
| | 630-730 pm | NE | 47% |
| | | NW | 64% |
| | | SE | 76% |
| | | SW | 80% |
| Wed | 9-10 am | NE | 41% |
| | | NW | 57% |
| | | SE | 56% |
| | | SW | 48% |
| | 12-1 pm | NE | 64% |
| | | NW | 73% |
| | | SE | 94% |
| | | SW | 98% |
| | 3-4 pm | NE | 51% |
| | | NW | 93% |
| | | SE | 82% |
| | | SW | 74% |
| | 630-730 pm | NE | 69% |
| | | NW | 96% |
| | | SE | 81% |
| | | SW | 88% |

| Day | Time | Quadrant | Occupancy Rate |
|-------------|------------|----------|----------------|
| Fri | 9-10 am | NE | 36% |
| | | NW | 49% |
| | | SE | 53% |
| | | SW | 51% |
| | 12-1 pm | NE | 68% |
| | | NW | 86% |
| | | SE | 94% |
| | | SW | 95% |
| | 3-4 pm | NE | 53% |
| | | NW | 67% |
| | | SE | 82% |
| | | SW | 75% |
| | 630-730 pm | NE | 87% |
| | | NW | 86% |
| | | SE | 94% |
| | | SW | 93% |
| Sat | 9-10 am | NE | 27% |
| | | NW | 89% |
| | | SE | 45% |
| | | SW | 50% |
| | 12-1 pm | NE | 56% |
| | | NW | 86% |
| | | SE | 81% |
| | | SW | 81% |
| | 3-4 pm | NE | 66% |
| | | NW | 67% |
| | | SE | 85% |
| | | SW | 80% |
| | 630-730 pm | NE | 65% |
| | | NW | 71% |
| | | SE | 95% |
| | | SW | 89% |
| Grand Total | | | 70% |

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Location-Specific Parking:

The E Street plaza and X-Permit parking areas useful to analyze as they are unique indicators for longer term visitor parking and downtown employee commuter parking demand, respectively. Figures 6 and 7 illustrate the E Street Plaza lot and X-permit parking performance, respectively, contrasted with Fall 2015.

Figure 7: E Street Plaza

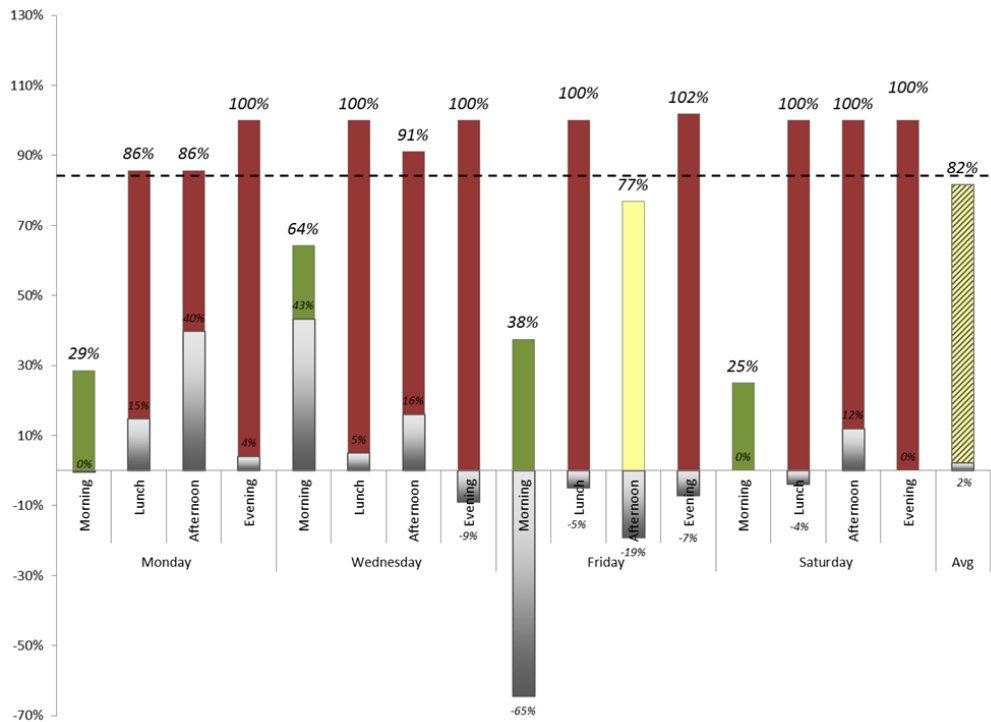
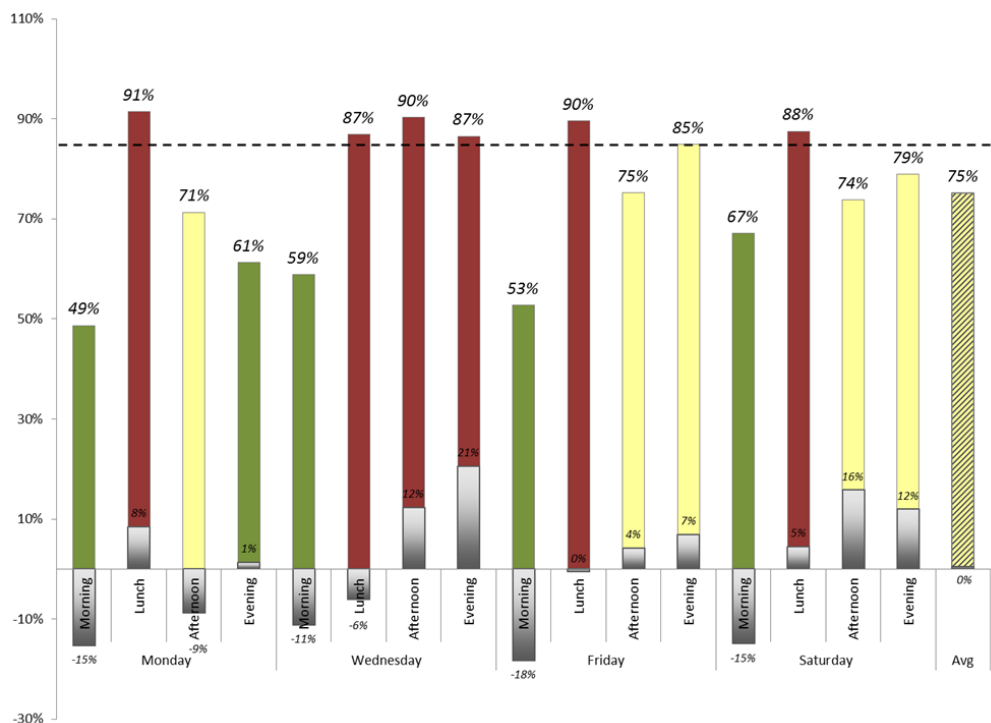
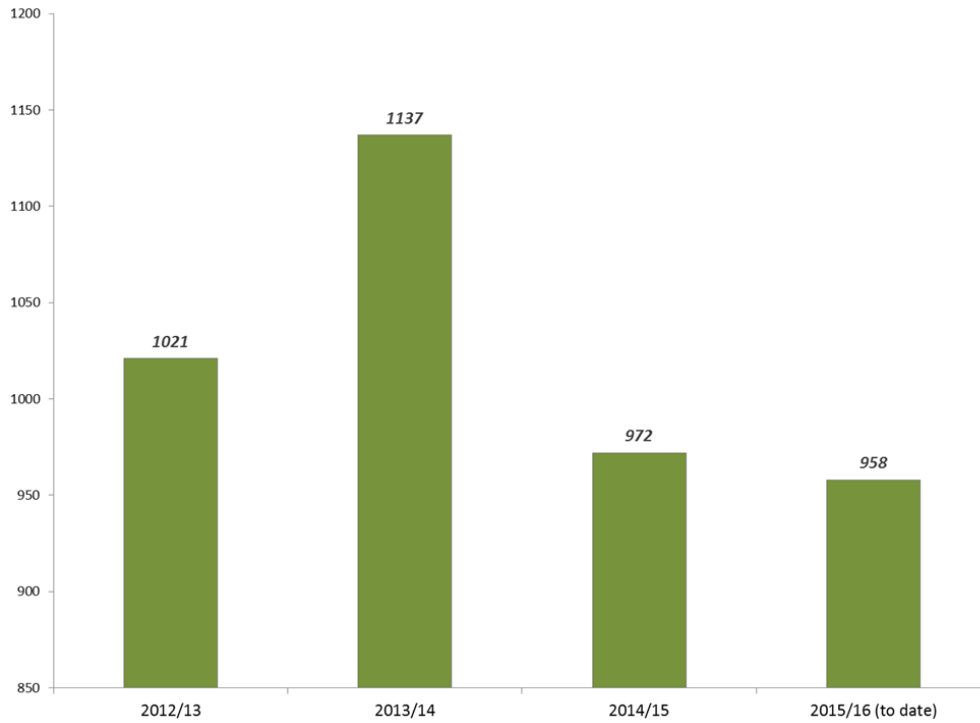


Figure 7: 90-min / X-permit Parking



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Figure 8: Downtown Commuter Permits Sold

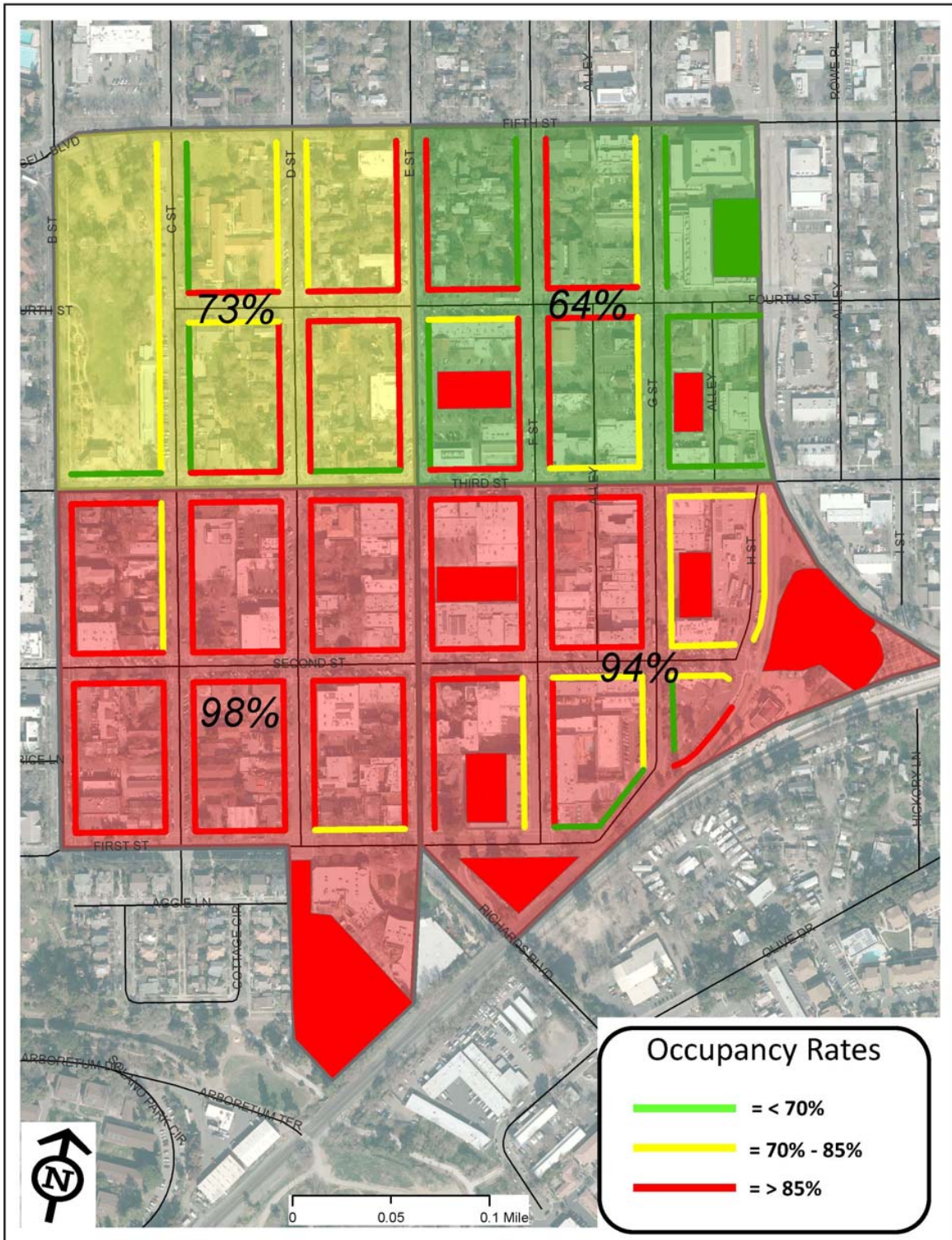


ATTACHMENTS:

- Downtown Parking Occupancy Rates Maps (Wed, Fri, Sat, peaks)

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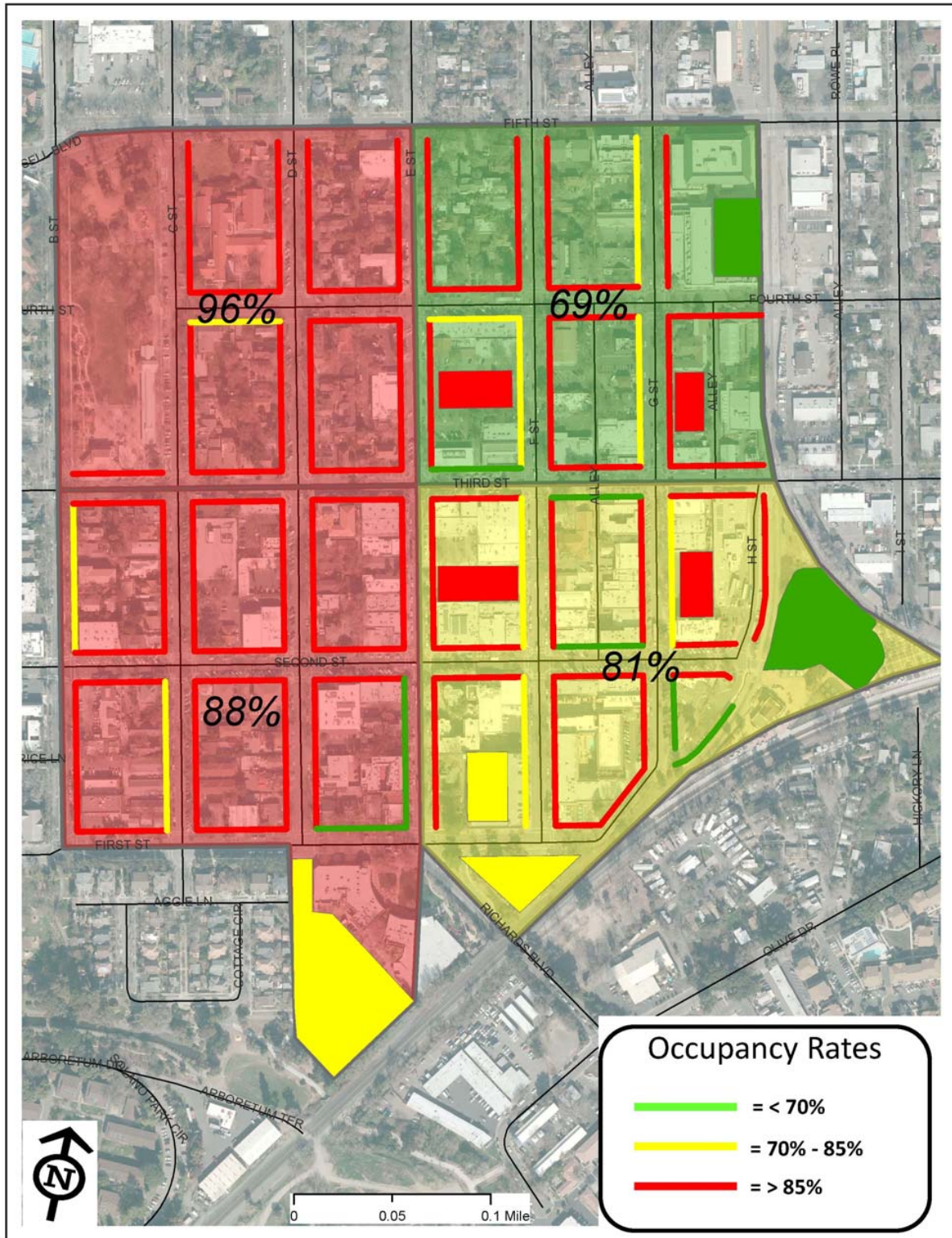
Figure 9: Wednesday, 12-1 pm¹



¹ Purple shading for all maps = null value (data not collected for lot on SW corner of Richards/Olive intersection)

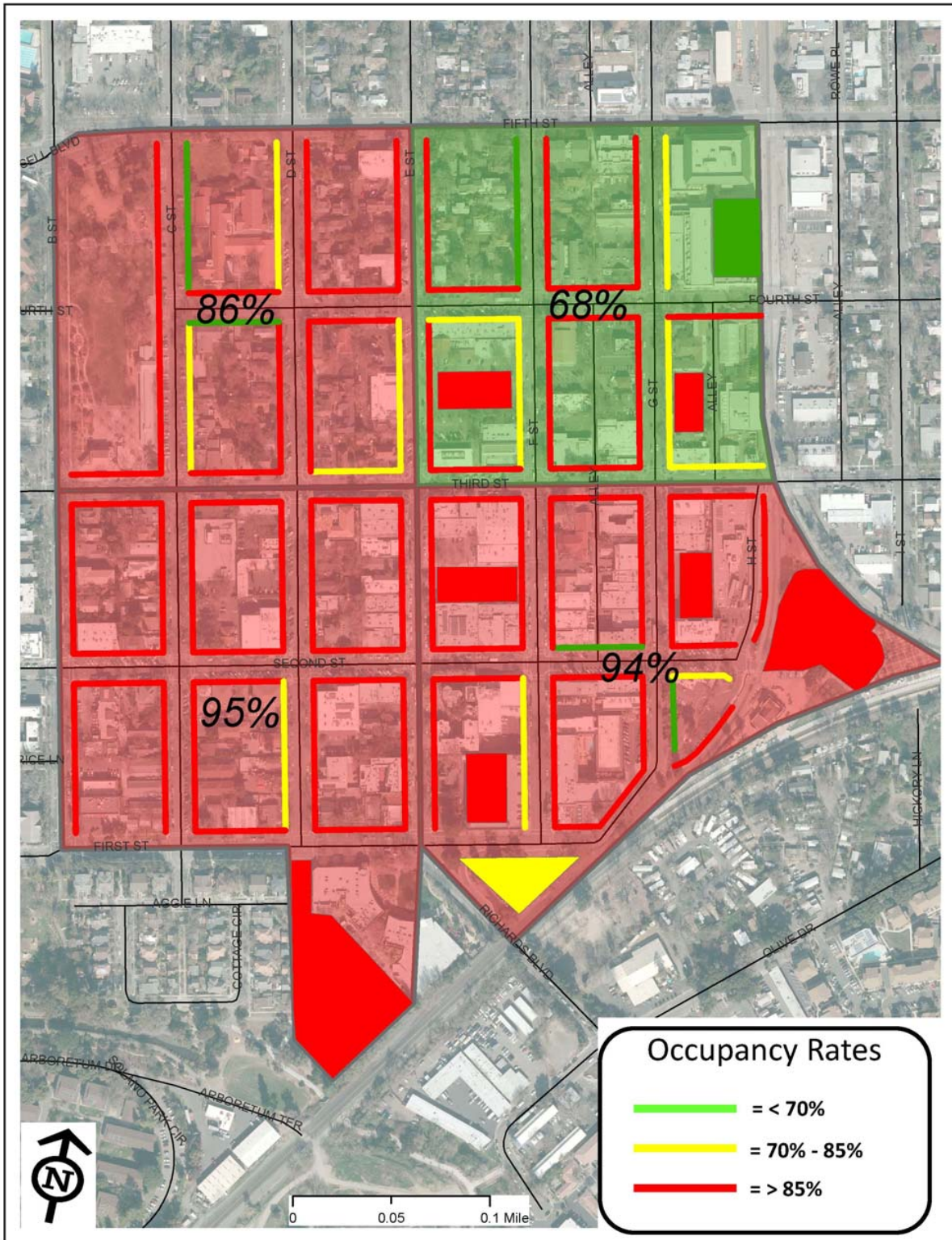
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Figure 10: Wednesday, 6:30-7:30 pm



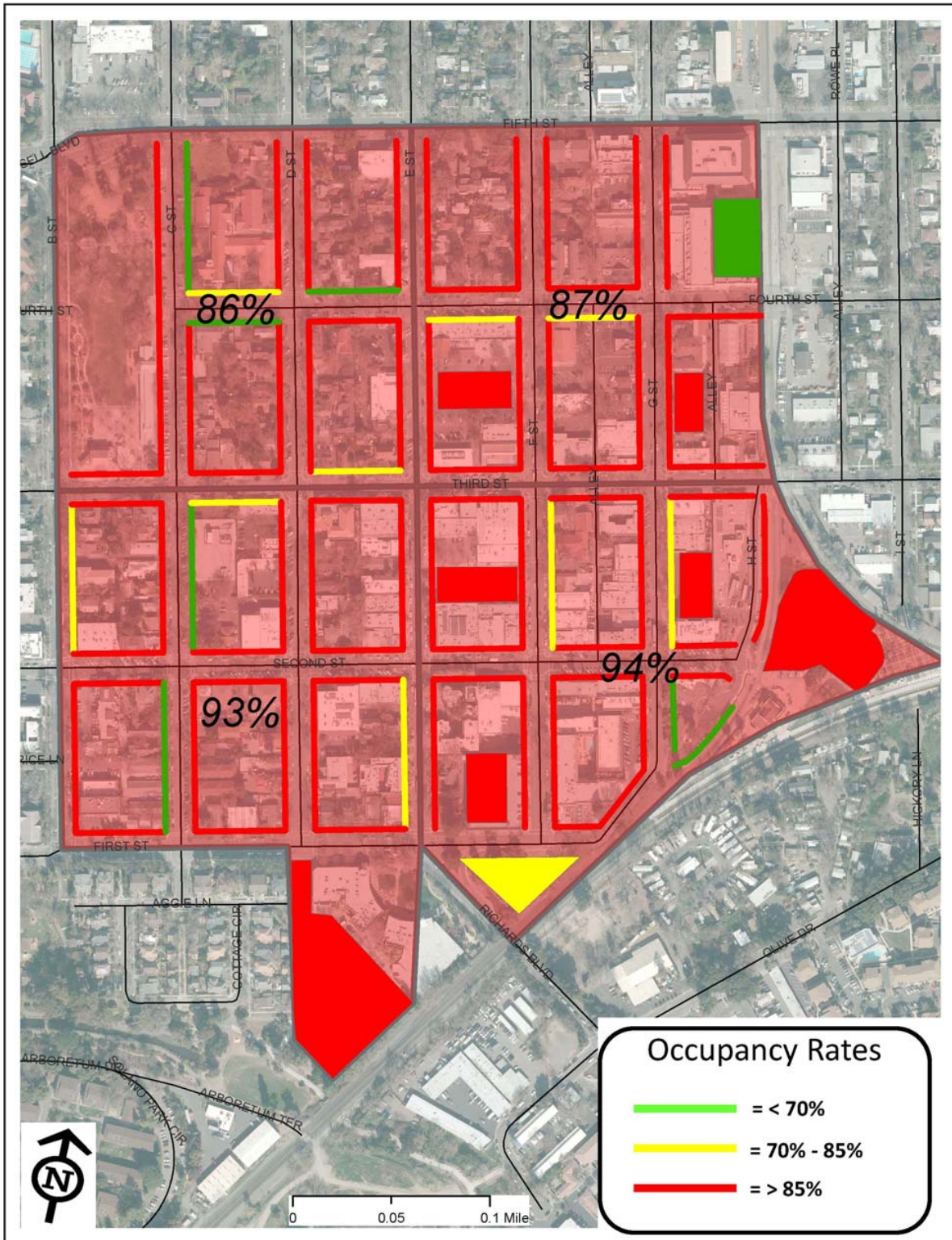
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Figure 11: Friday, 12-1 pm



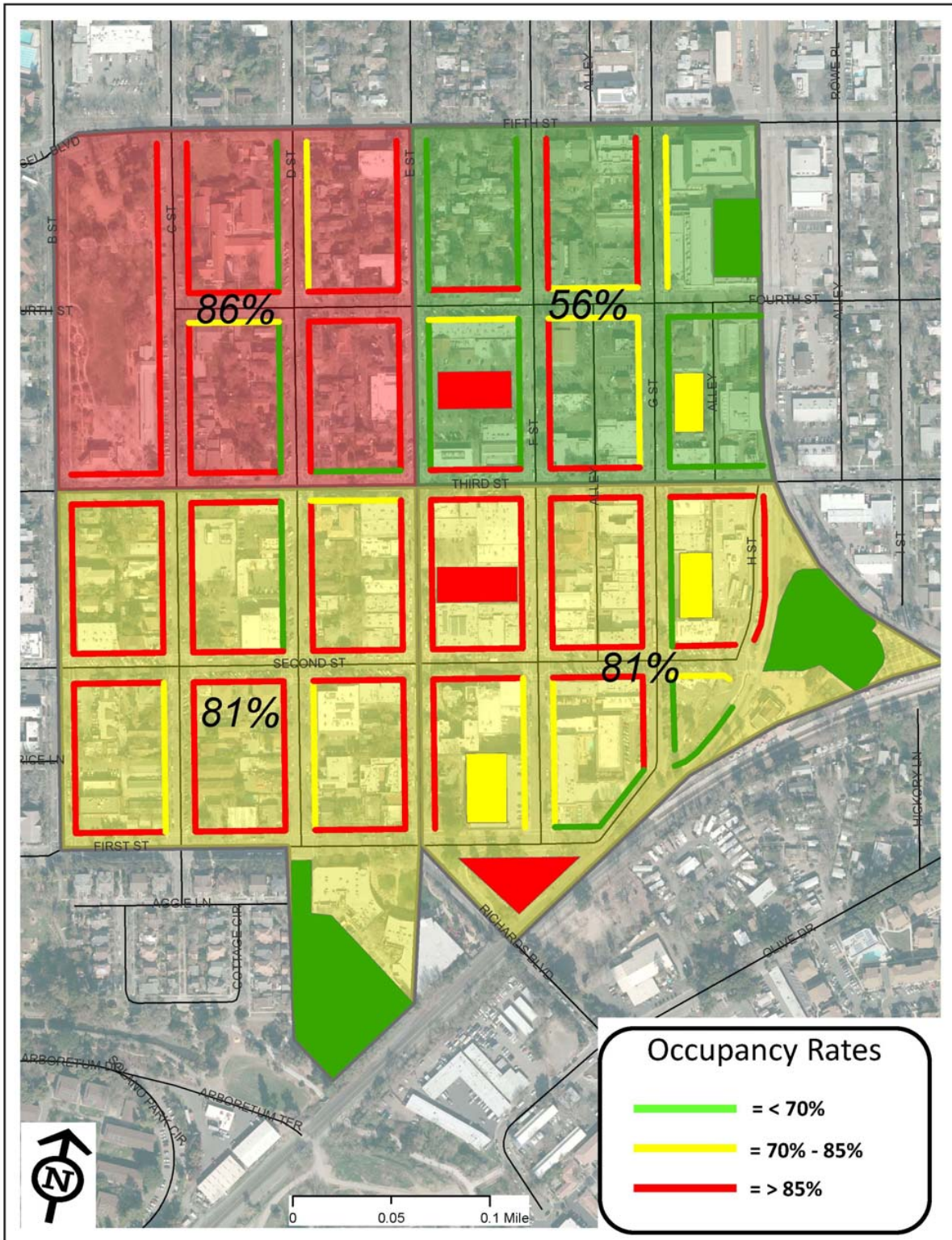
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Figure 12: Friday, 6:30-7:30 pm



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Figure 13: Saturday 12-1 pm



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Figure 14: Saturday 6:30-7:30 pm

