VPP Parking Regional Analysis Project Appendix

September 2015

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Appendix A: Key Definitions

Externality: An externality is an economic term referring to the cost or benefit that is produced by one party but affects another party.

Single Occupancy Vehicle (SOV): An SOV is a private vehicle that transports only the driver, and no passengers.

Price Elasticity of Demand: Price elasticity of demand measures the rate of change in the quantity demanded in response to a unit change in the price.

Ridesharing: Ridesharing refers to a mode of travel including vanpooling or carpooling, where one vehicle carries multiple passengers.

Business Improvement District (BID): A BID is a non-profit organization of a defined commercial area where businesses pay a separate tax in order to fund projects to improve the district, often with the goal of drawing customers to the area.

Travel Demand Management (TDM): Travel Demand Management encompasses all the tools used to manage transportation systems and traffic congestion.

Scenario Analysis: Scenario analysis in transportation modeling includes considering future alternatives, while comparing and analyzing the alternative outcomes.

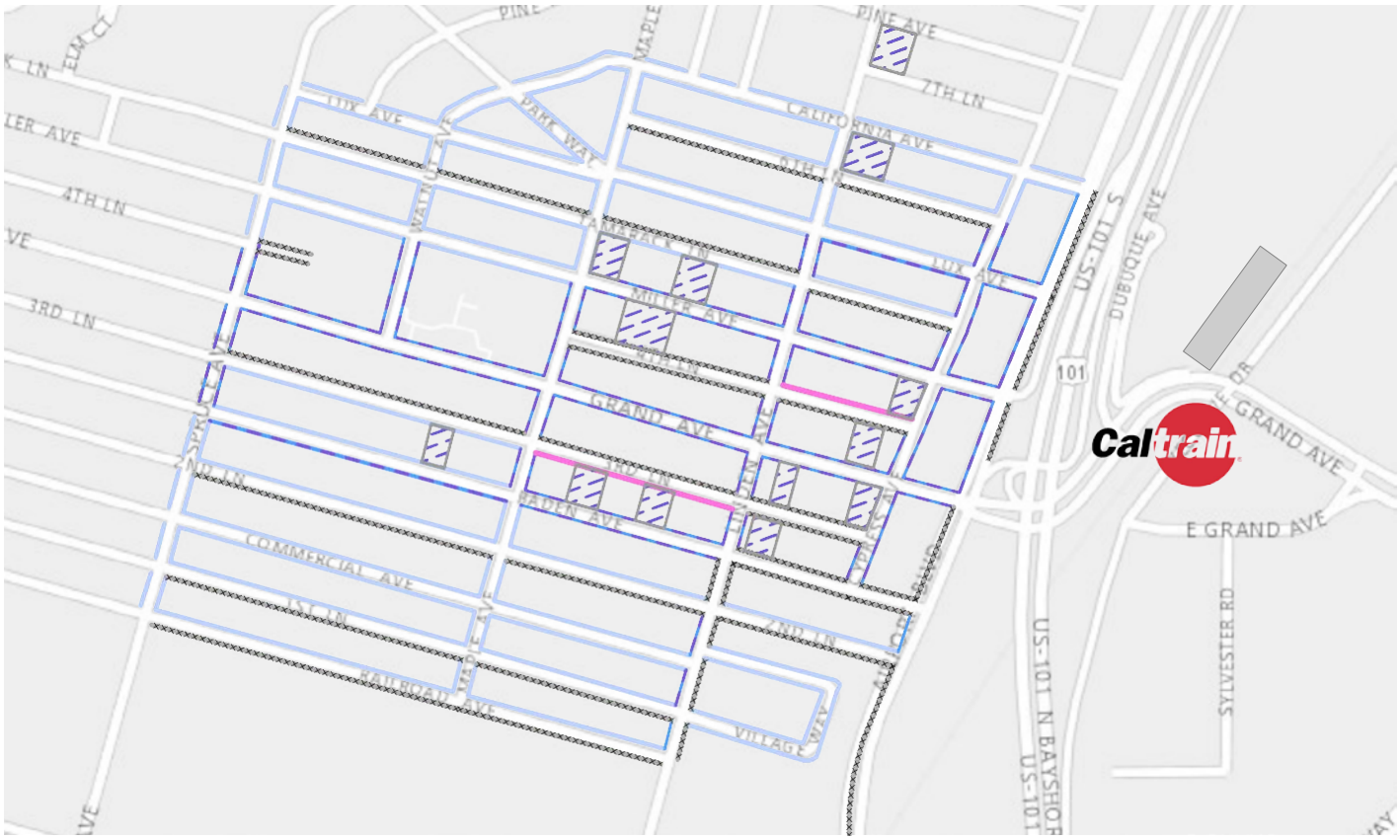
Appendix B: Analysis of 25 cities

The following pages include detailed analysis of all 25 study areas sites where data was collected for the project.

South San Francisco, CA

Downtown and Caltrain Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

South San Francisco, CA

Collection dates: 7/29/2014 and 8/2/2014

Total spaces: 2,124

- on-street: 1,475
- off-street: 649

Price description: On-streetpricing ranges from $0.75-$1.00/hr. Off-street pricing ranges from $0.75-$3.00/hour and includes daily permit.

Time restrictions: on-street only

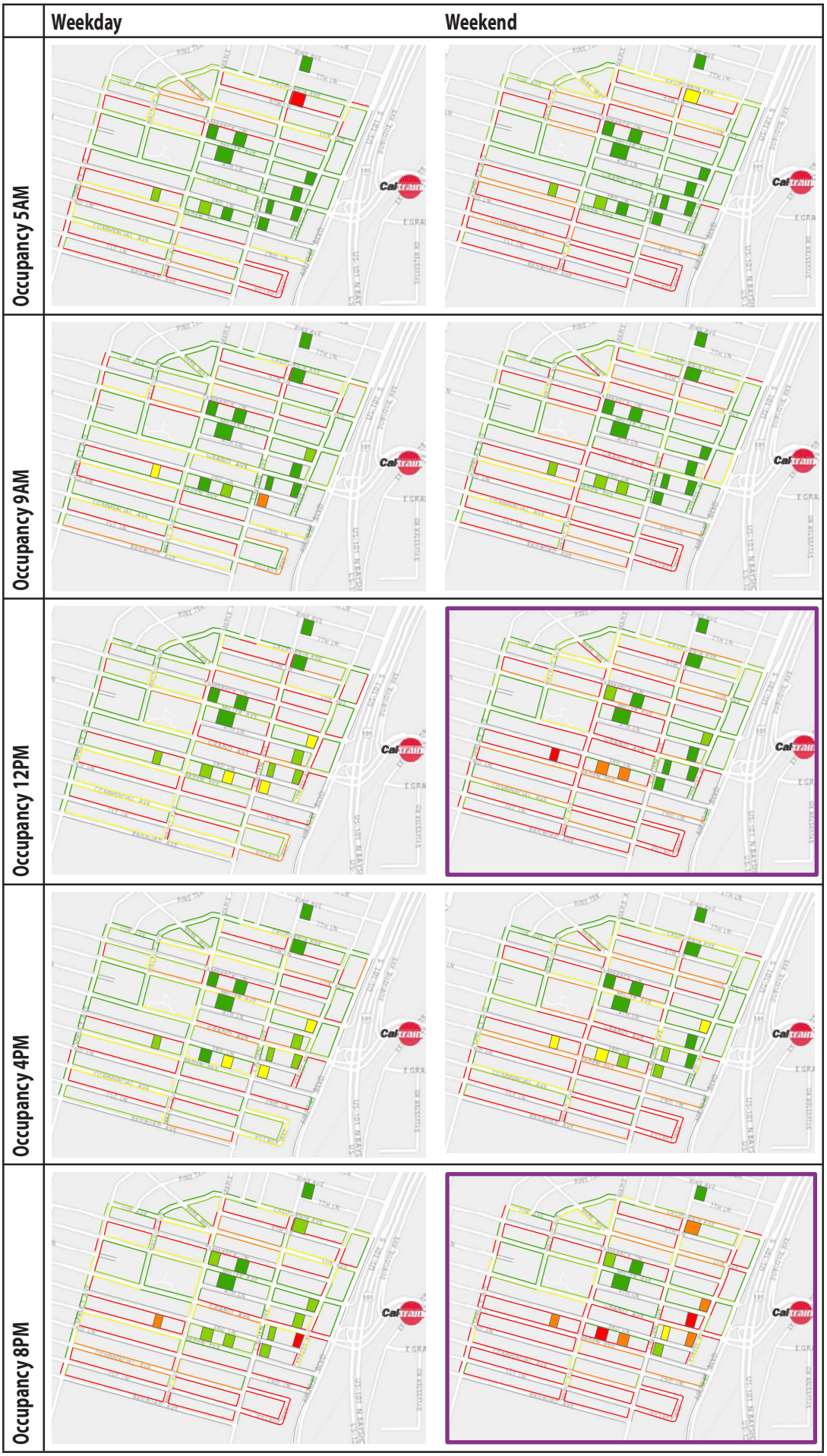
Typical restriction hours: 9AM-6PM Mon-Sat

In the South San Francisco parking study area, on-street occupancy is very high during most times of the day and days of the week, while off-street occupancy is very low. Comparing occupancy trends to time restrictions and pricing, it appears that parkers are avoiding restrictions by parking outside the restricted area. This high occupancy outside restricted areas could also be due to residential parking, as high occupancy even occurs during the 5AM data collection period. These occupancies are above 95%, suggesting that residents and visitors have difficulty finding available spaces in some areas of the Downtown.

While on-street parking utilization is very high, off-street parking utilization is relatively low. With the exception of weekend evenings, most off-street parking is underutilized. Peak periods for both weekends and weekdays occur in the late evening period.

Strategies to address these issues:

- Remove time restrictions within areas that are priced
- Increase prices of on-street parking and decrease prices of off-street parking
- Expand areas that are priced or time restricted
- Extend hours of enforcement until 8PM at the earliest, and expand enforcement throughout the weekend
- Consider transportation demand management approaches to support alternative modes, including information about alternatives and financial incentives



Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Periods

Peak off-street: 54%
(Weekend 8PM)

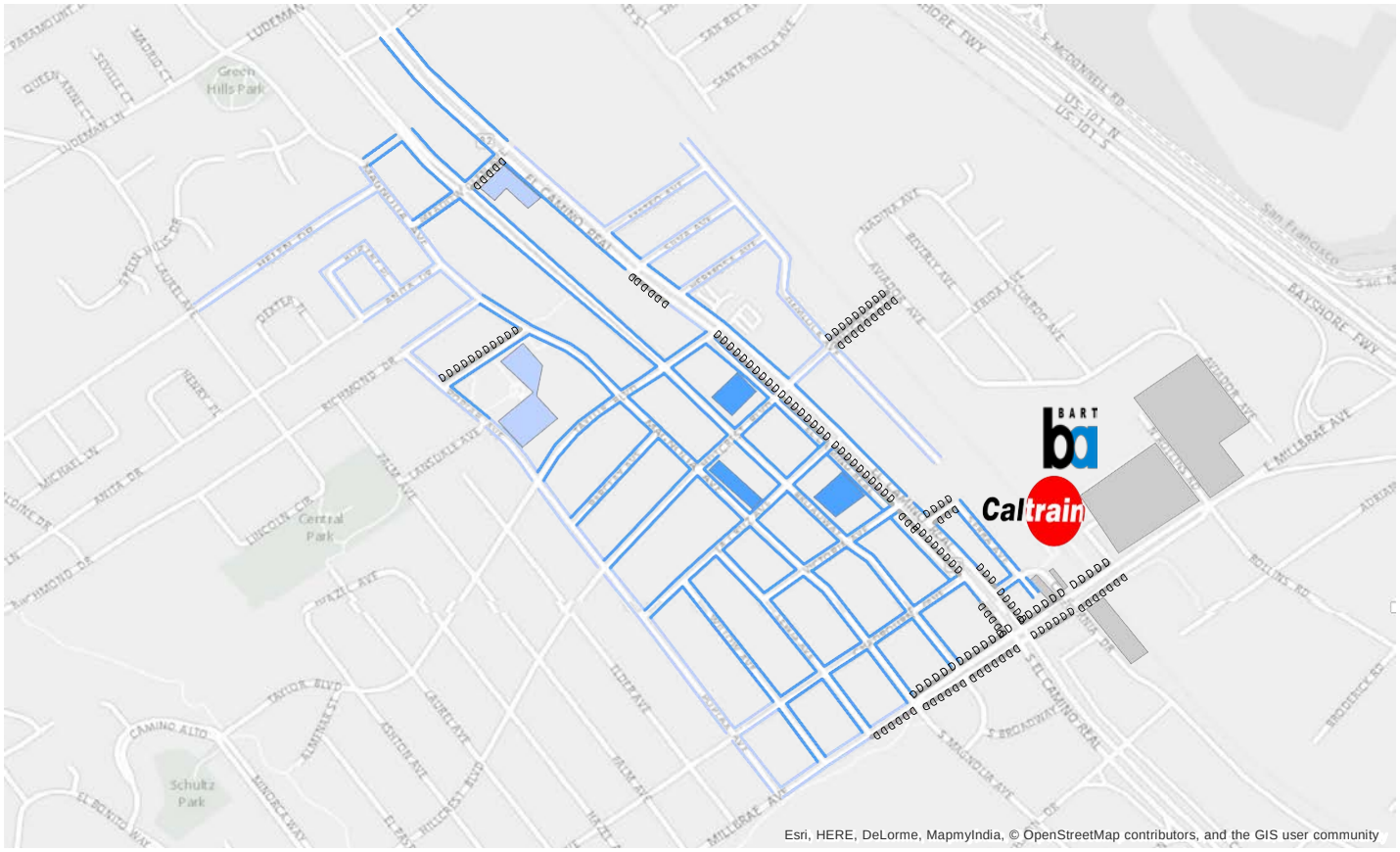
Peak on-street: 82%
(Weekend 8PM)

Total peak: 78%
(Weekend 12PM)

Millbrae, CA

Downtown and Caltrain Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Millbrae, CA: Downtown/ Caltrain Station Area

Collection dates: 1/22/2014 and 1/24/2014

Total spaces collected: 2,813

- on-street: 2,413
- off-street: 400

Price description: No on-street or off-street pricing.

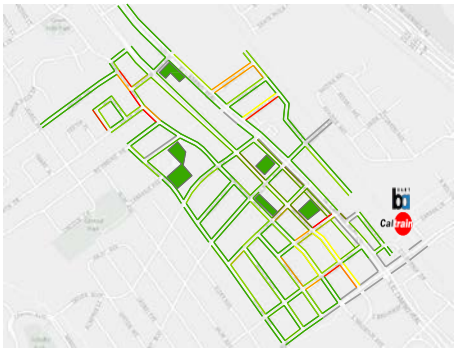
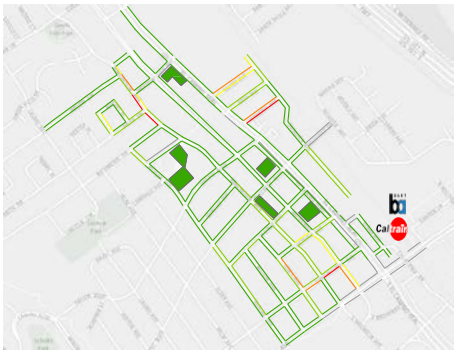
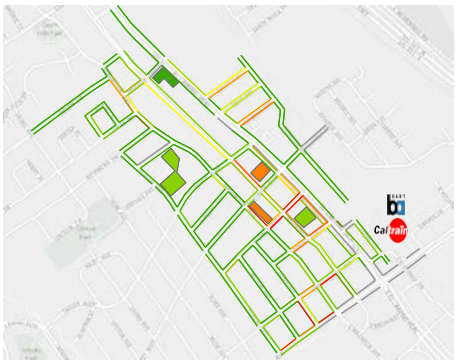
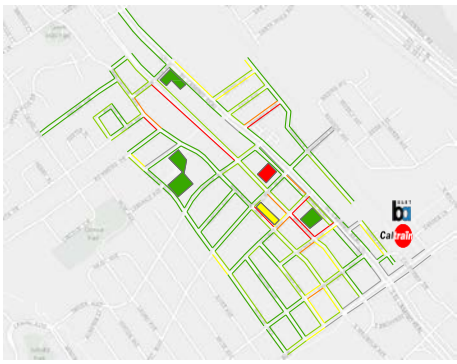
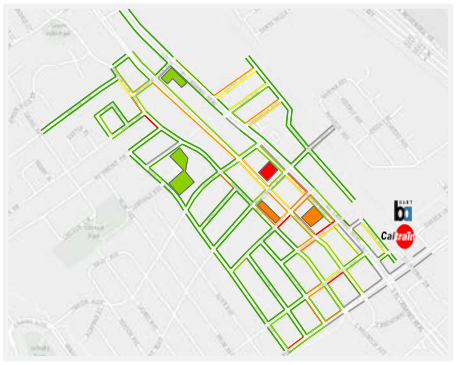
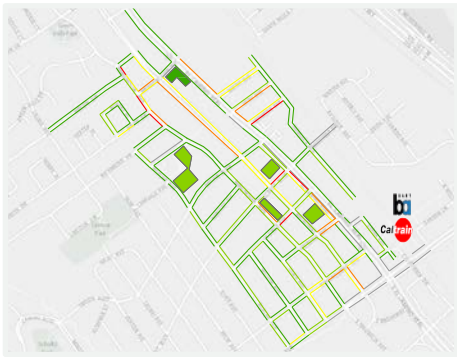
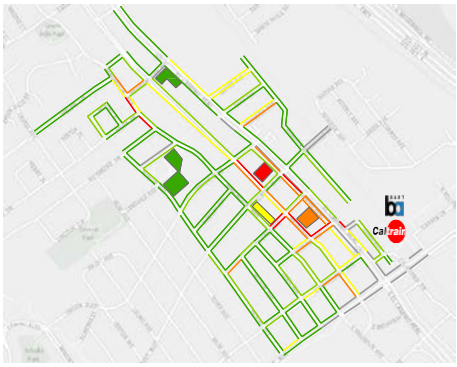
Time restrictions: Yes, select on-street and off-street facilities

Typical restriction hours: 9AM-6PM Mon-Fri

The Millbrae Downtown/Caltrain Station parking study area has relatively low overall parking demand in most areas except for a small hot spot of high demand in the downtown. This area of high demand is bordered by Magnolia Ave, El Camino Real, Meadow Glen Ave and Richmond Dr. This is a popular restaurant area: occupancy during midday and evening hours are the highest. Time restrictions exist in this area of high demand, but also extend to areas of very low demand between magnolia Ave and Poplar Ave. Policies could help parking from areas of low demand to high demand.

Strategies to address these issues:

- Eliminate time restrictions in areas with low demand
- Extend hours of enforcement until 8PM and throughout the weekend in areas of highest demand
- Implement pricing restrictions or daily parking fees in the small hot-spot area to balance out the low demand elsewhere
- Ensure good bicycle and pedestrian infrastructure to encourage transit use and walking modes
- Consider transportation demand management approaches to support alternative modes, including information about alternatives and financial incentives

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 79%
(Weekday 4PM)

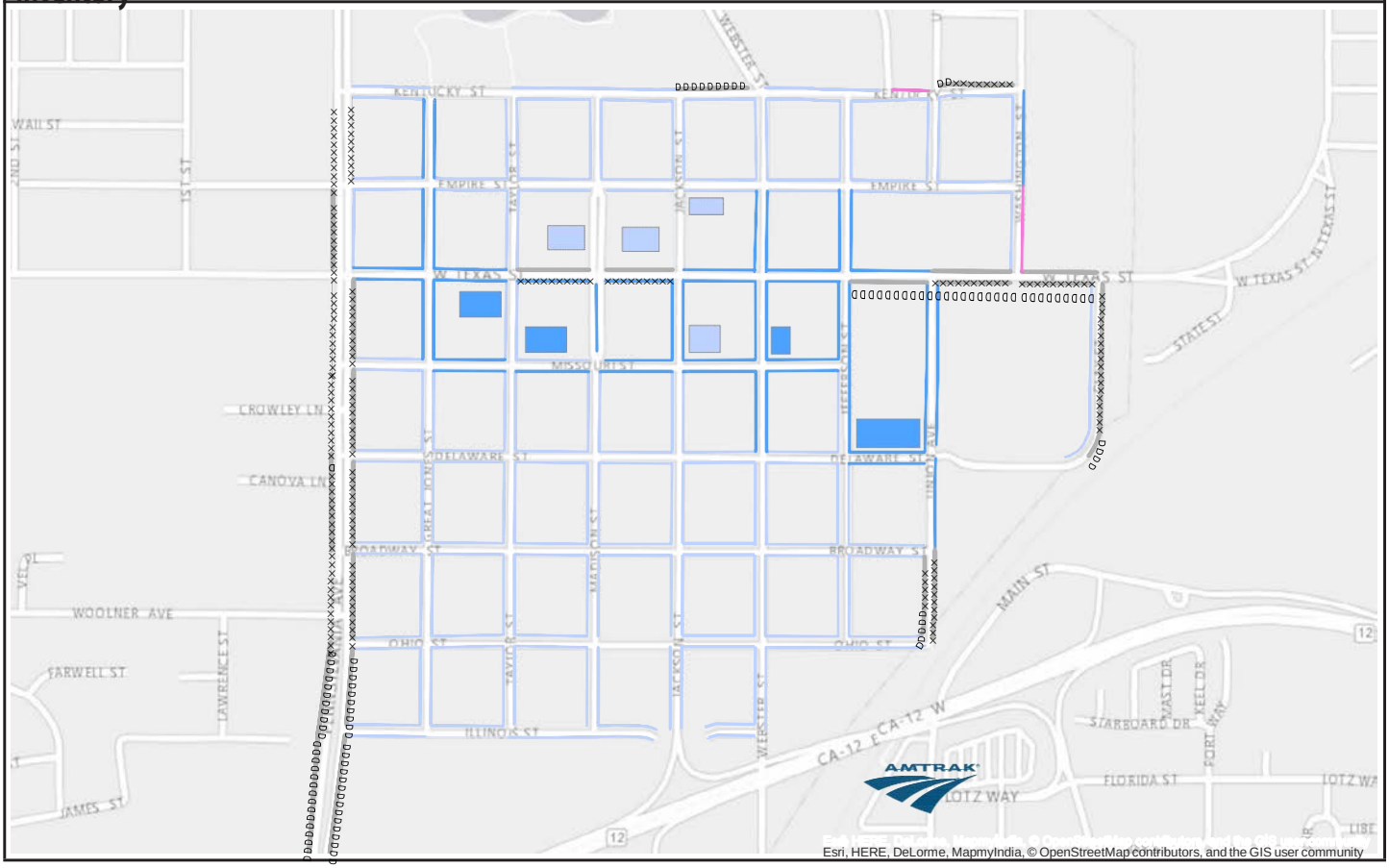
Peak on-street: 59%
(Weekend 12PM)

Total peak: 63%
(Weekend 12PM)

Fairfield, CA

Downtown and Amtrak Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Fairfield, CA - Downtown & Amtrak Station Area

Collection dates: 1/28/2015 and 2/21/2015

Total spaces:3,274

- on-street: 2,274
- off-street: 1,000

Price description: No on-street or off-street pricing.

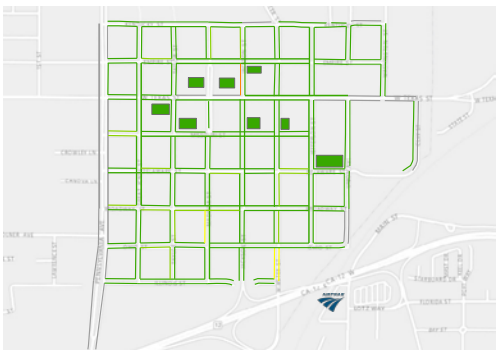
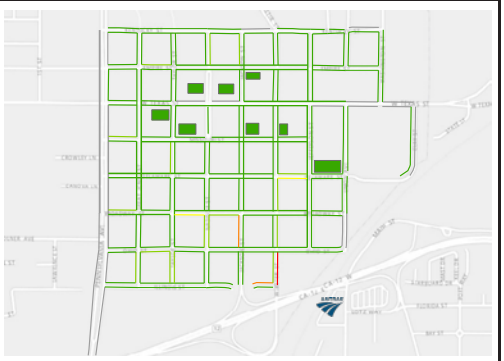
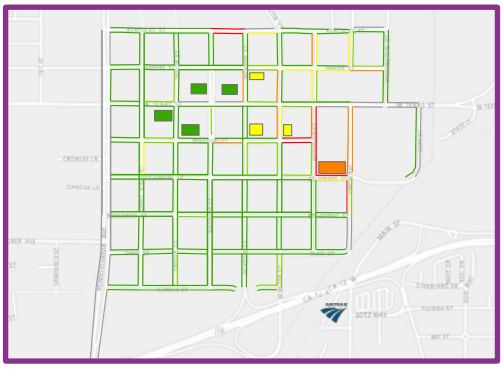
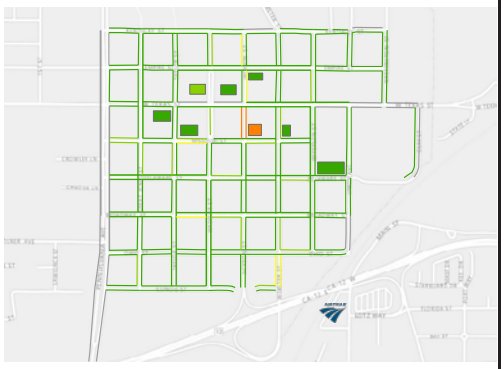
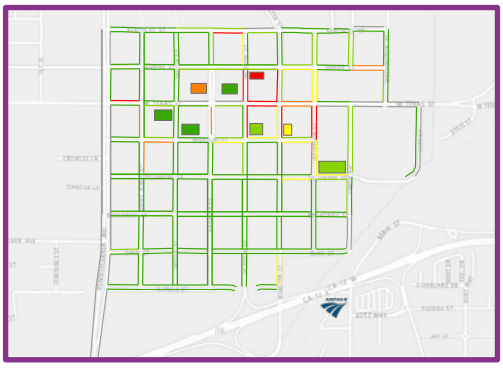
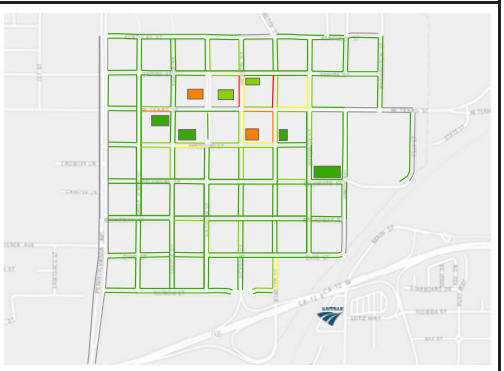
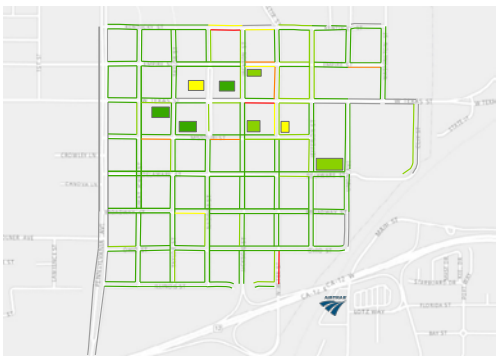
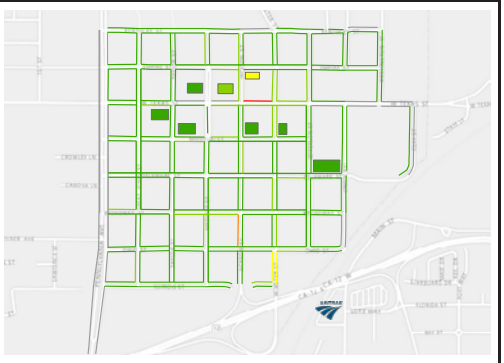
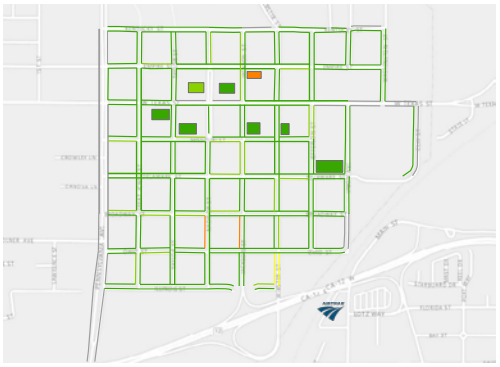
Time restrictions: Limited on-street and select off-street facilities

Typical restriction hours: 8AM-6PM Mon-Fri

The Fairfield Downtown and Amtrak Station Area parking study area has low parking demand on average. While demand increases on weekdays at 12PM, weekend and evening parking demand is especially low. Time regulations within on-street facilities generally match where demand is higher; however, time restrictions on off-street facilities do not match demand: many facilities with time restrictions have a lower parking demand than those without. Overall, this area in Fairfield has an excess parking supply relative to occupancy.

Strategies to address these issues:

- Eliminate off-street time restrictions in facilities with low demand
- Eliminate parking requirements for new development to reduce additional unneeded supply
- Improve way-finding directing parkers towards underutilized off-street facilities

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy12PM		
Occupancy4PM		
Occupancy8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 76%
(Weekday 9AM)

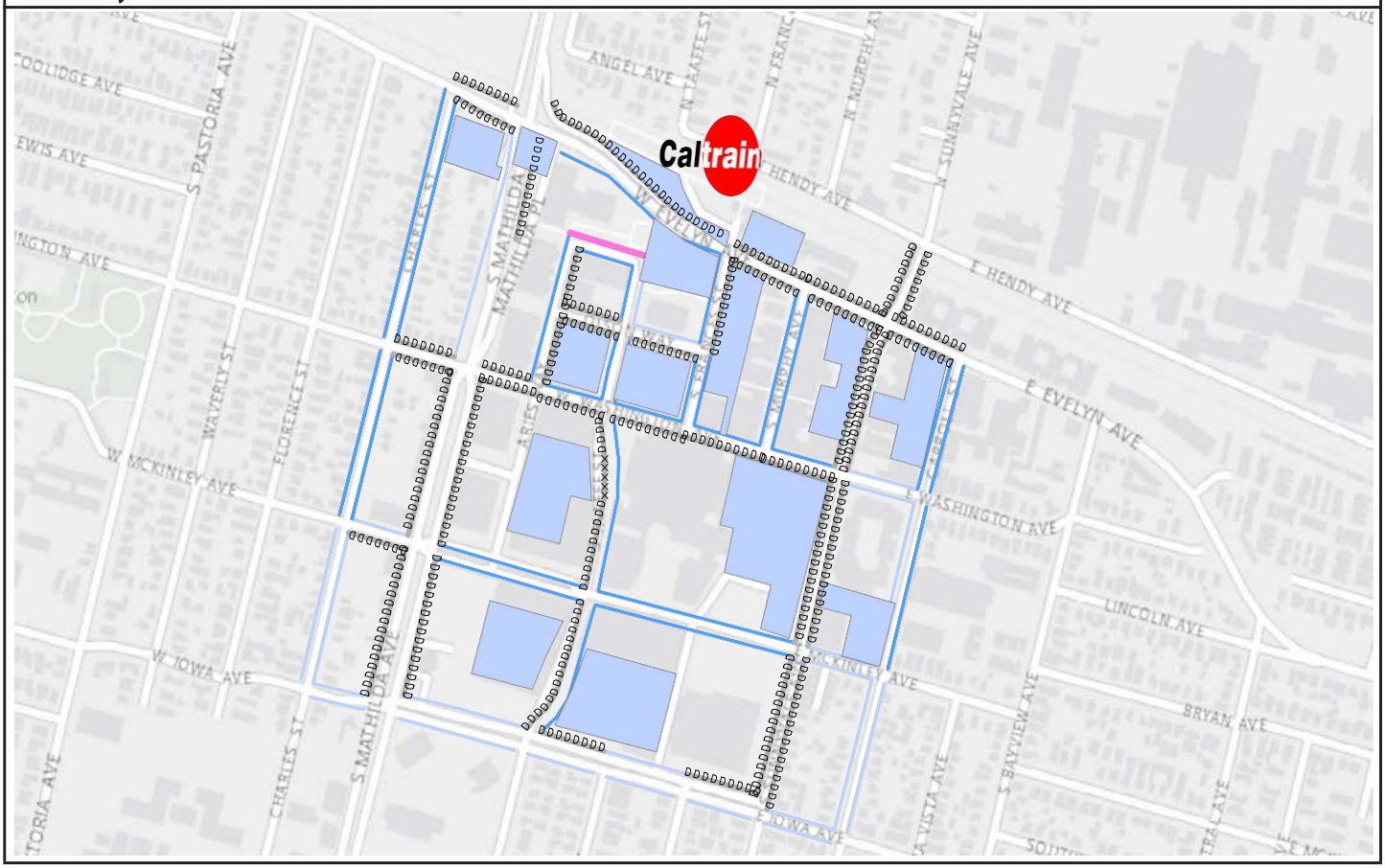
Peak on-street: 36%
(Weekday 12PM)

Total peak: 48%
(Weekday 9AM)

Sunnyvale, CA

Downtown and Caltrain Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Sunnyvale, CA - Downtown and Caltrain Station Area

Collection dates: 11/5/2014 and 1/10/2015

Total spaces:4,205

- on-street: 674
- off-street: 3,531 (some private)

Metering: No

Price description: None

Time restrictions: On-street only

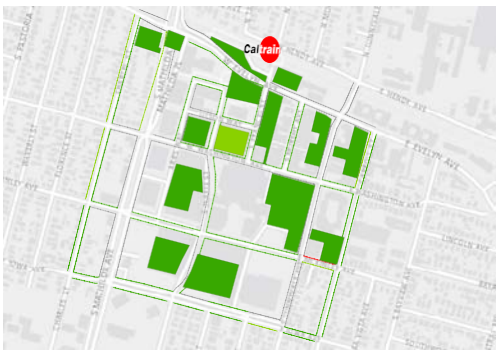
Typical restriction hours: varies depending on location; no evening restriction

Notes: Several off-street facilities where data was collected are private facilities

In the Sunnyvale Downtown and Caltrain Station parking study area, occupancy is high in select off-street parking facilities and on-street facilities in the Northeastern area of the study area. However, in the Southwestern half of the parking study area, occupancy remains low during both weekdays and weekend collection periods. Most of the total 4,205 parking spaces remain underutilized throughout the day.

Strategies to address these issues:

- Expand regulations to public off-street parking facilities with high demand on both weekends and weekdays
- Extend hours of enforcement until 8PM and throughout the weekend in areas of highest demand
- Remove on-street time restrictions in areas of low demand (southern and western areas of the study area)
- Consider reducing off-street parking supply and repurposing this land for different uses
- Eliminate parking requirements for new development to reduce additional unneeded supply
- Consider improving bicycle access through convenient and secure bicycle parking facilities, and quality bike lanes to key destinations
- Consider transportation demand management approaches to support employees and visitors in considering alternative modes, including information about alternatives and financial incentives

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 52%
(Weekday 12PM)

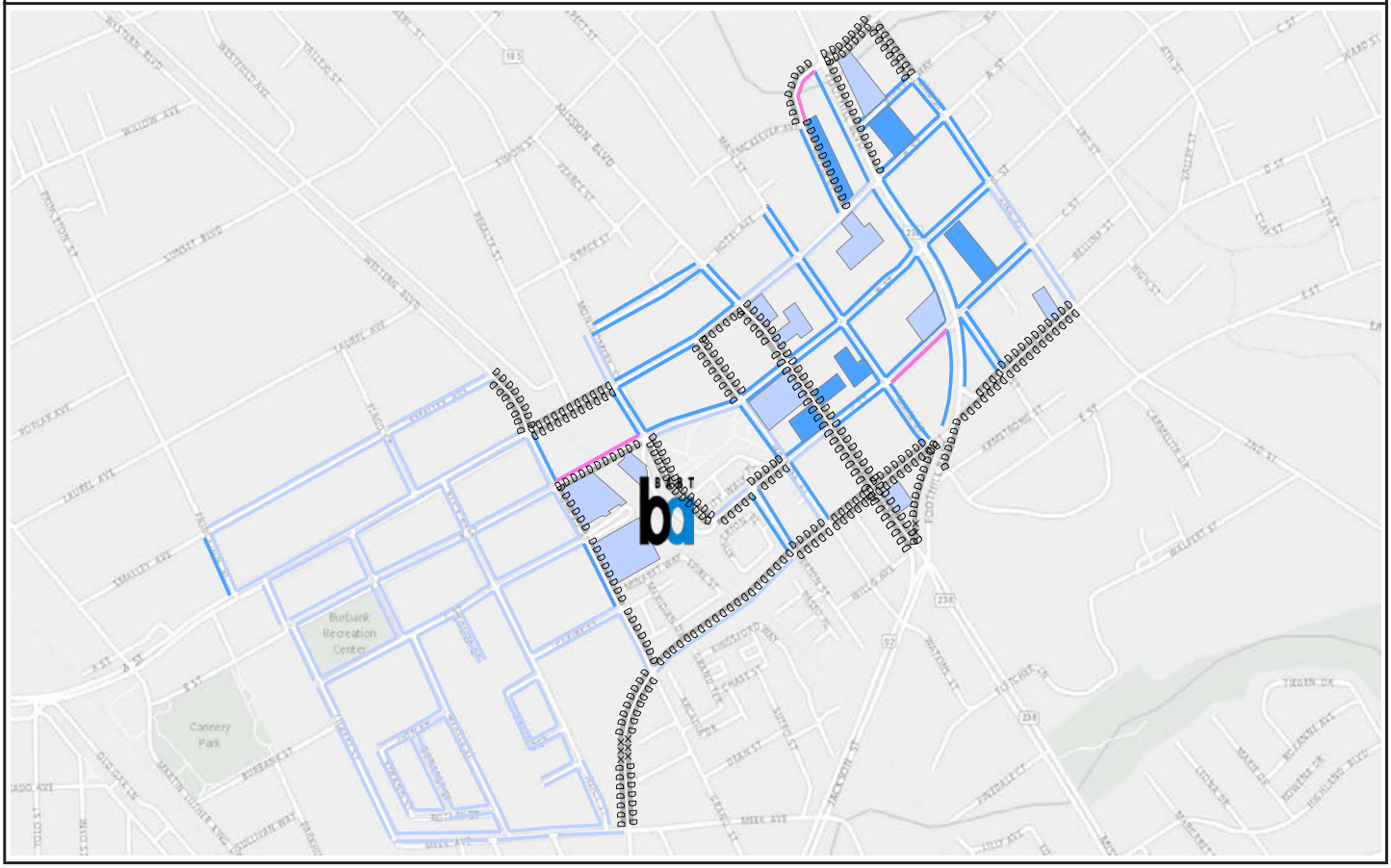
Peak on-street: 52%
(Weekday 12PM)

Total peak: 52%
(Weekday 12PM)

Hayward, CA

Downtown and BART Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Hayward, CA - Downtown and BART Station Area

Collection dates: 8/5/2014 and 8/9/2014

Total spaces: 5,094

- on-street: 2,031
- off-street: 3,063

Price description: No on-street or off-street pricing at public facilities. Recent implementation of BART pricing after time of data collection (2015).

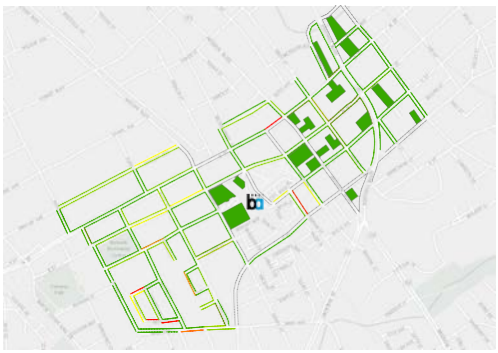
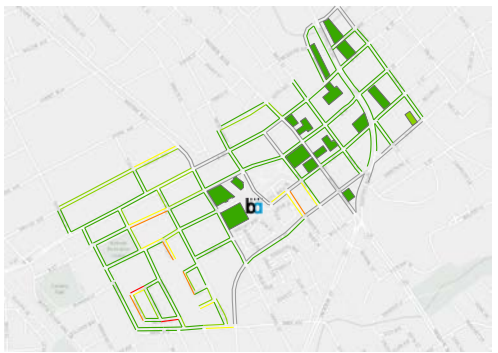
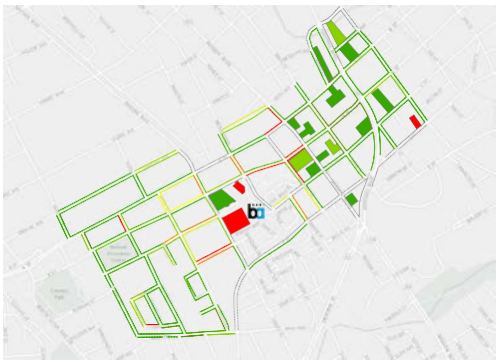
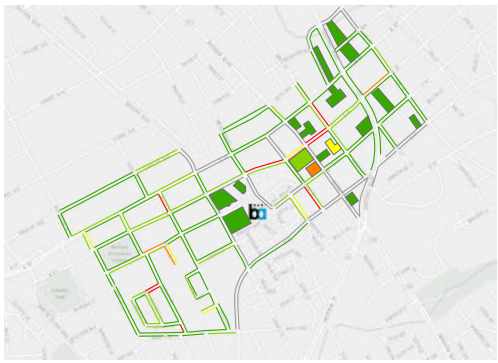
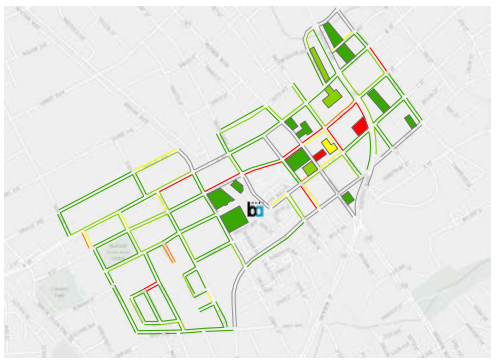
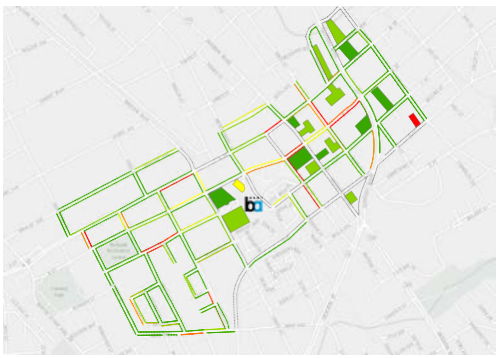
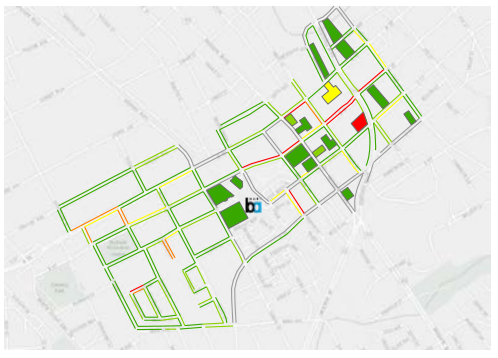
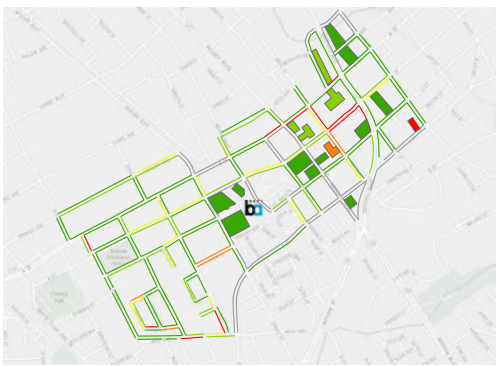
Time restrictions: On-street and off-street

Typical restriction hours: 7AM-6PM Mon-Fri

The Hayward Downtown/BART Station Area has on-street hot spots on high demand, most notably along B Street. Peak period is at 12PM on weekdays, but is highly influenced by BART commuter parking. Comparing occupancy trends to time restrictions and pricing, on-street parking just east of the BART station has high occupancy and no restrictions. Excluding BART facilities, off-street occupancy is low, yet many facilities are time restricted. Weekend occupancy within the off-street Cinema parking garage is high.

Strategies to address these issues:

- Implement pricing restrictions or daily parking fees in high demand areas to balance out the low demand elsewhere
- Extend hours of enforcement until 8PM and throughout the weekend in areas of highest demand
- Consider transportation demand management approaches to support employees and visitors in considering alternative modes, including information about alternatives and financial incentives
- Consider weekend-only regulations within the Cinema garage

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 72%
(Weekday 12PM)

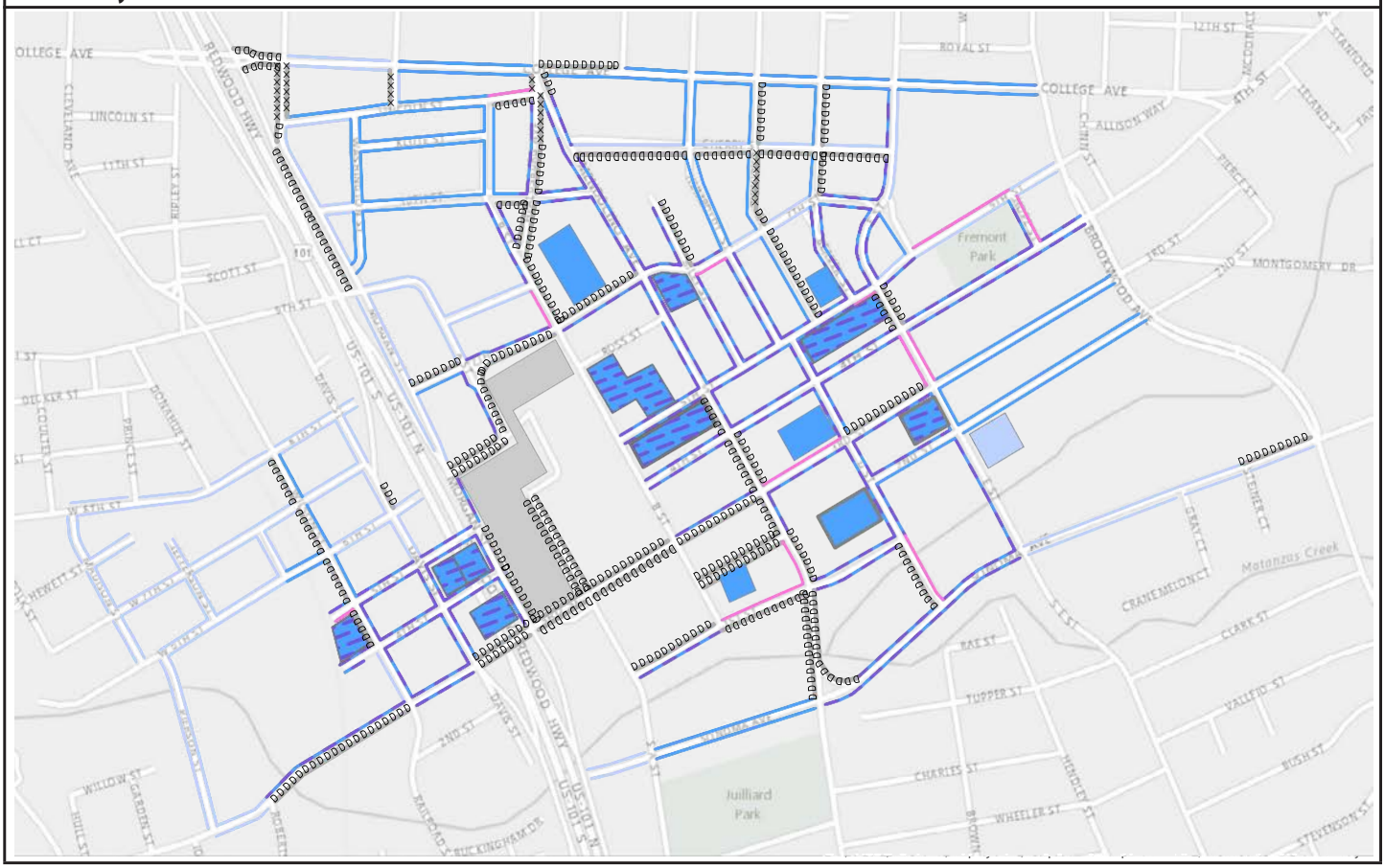
Peak on-street: 47%
(Weekday 12PM)

Total peak: 70%
(Weekday 12PM)

Santa Rosa, CA

Downtown, Railroad Square, and Surrounding Areas

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Santa Rosa, CA - Downtown, Railroad Square, and Surrounding Areas

Collection dates: 8/9/2014 and 8/12/2014

Total spaces:6,645

- on-street: 3,128
- off-street: 3,517

Metering: On-street and off-street

Price description: $1/hour

Time restrictions: On-street and off-street

Typical restriction hours: 8AM-6PM Mon-Sat

In the Downtown Santa Rosa Area, occupancy is relatively low overall but there is a hot spot of high occupancy centered around 4th Street between B Street and D Street where many restaurants are located. Comparing occupancy trends to time restrictions and pricing, it appears that the price regulated but non-time restricted areas near major shopping centers serve their purpose in capturing a large pool of drivers coming into the area. Enforcement ends at 6PM, despite high occupancy during the evening nearby popular restaurants.

Strategies to address these issues:

- Increase parking fees in areas of highest demand
- Implement variable pricing rates, with higher rates for areas of highest demand
- Extend hours of enforcement until 8PM and throughout the weekend in areas of highest demand
- Improve way-finding directing parkers towards off-street facilities

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 47%
(Weekday 12PM)

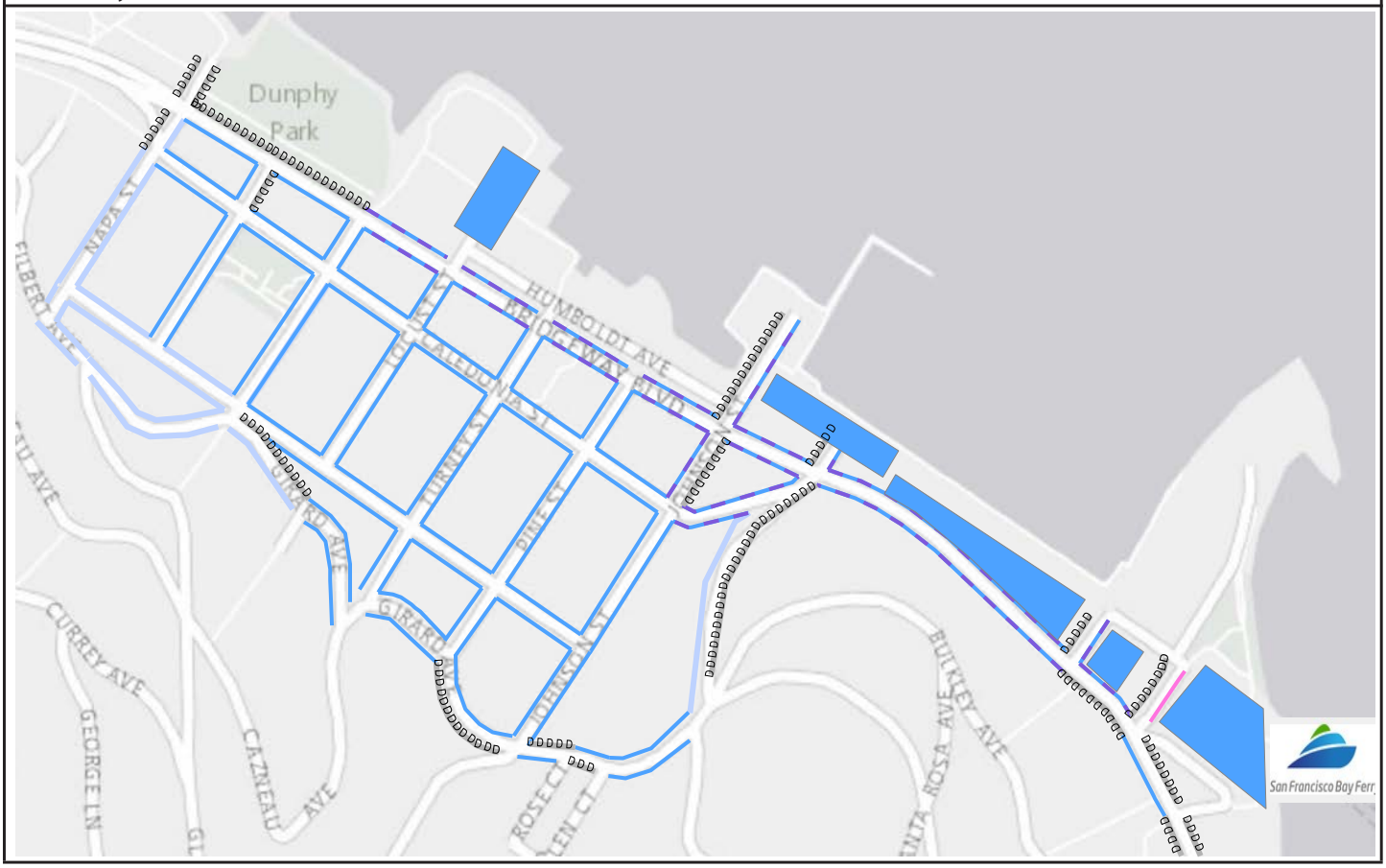
Peak on-street: 43%
(Weekend 8PM)

Total peak: 46%
(Weekday 12PM)

Sausalito, CA

Downtown and Waterfront

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Sausalito, CA - Downtown and Waterfront

Collection dates: 7/26/2014, and 7/31/2014

Total spaces: 1,499

- on-street: 906
- off-street: 593

Metering: On-street and off-street

Price description: Select on-street ($1/hr) and off-street varies dependent on location

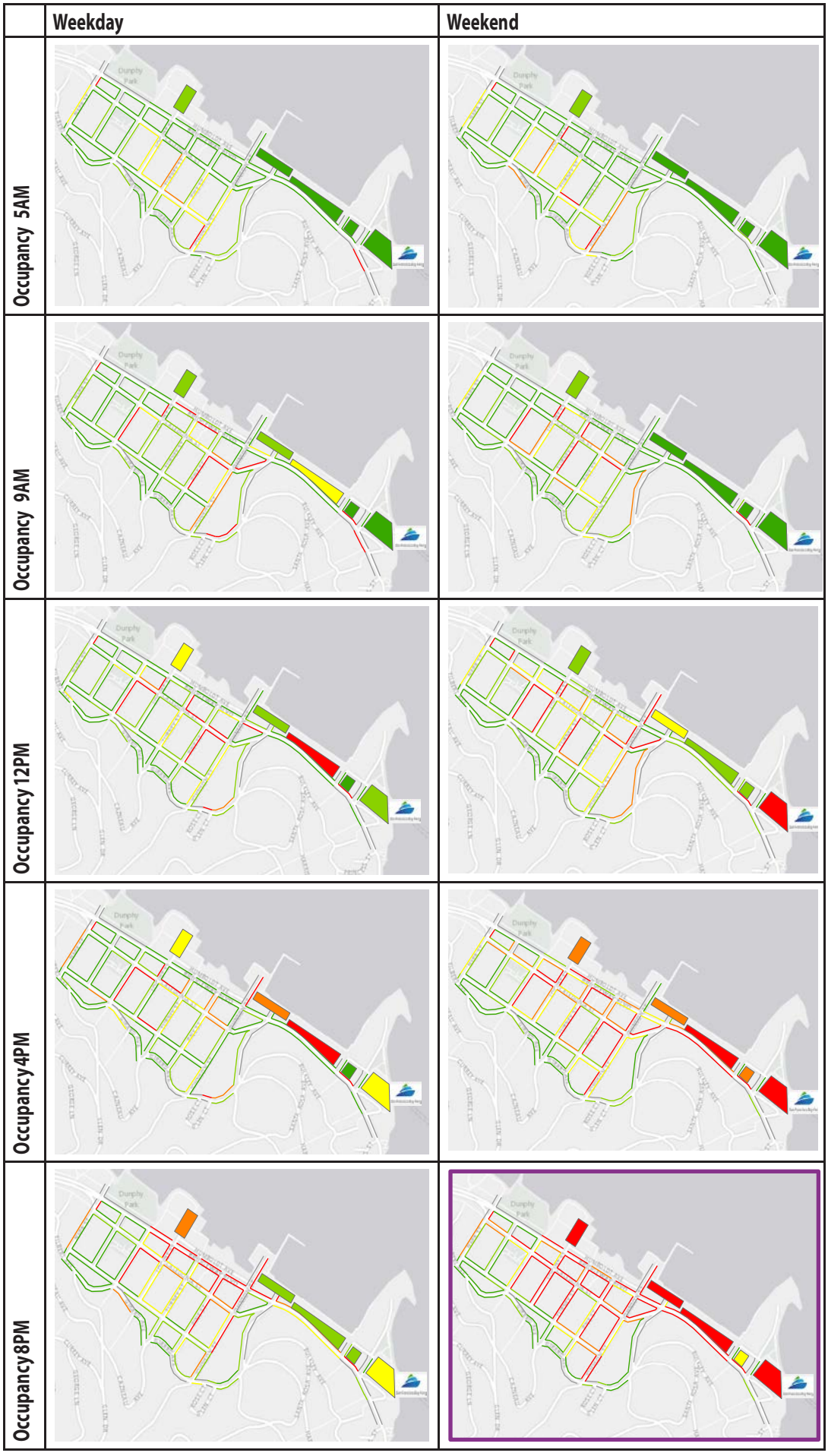
Time restrictions: Select on-street and off-street locations

Typical restriction hours: Varies depending on location; no evening and weekend restriction

In the Downtown and Waterfront area of Sausalito, occupancy dramatically peaks during weekend evenings. Parking occupancy is higher than 95 percent within most off-street facilities as well as on-street facilities closest to the Waterfront area. During all other times, on-street parking occupancy is high on many on-street facilities, but there is excess availability within some off-street facilities. Higher occupancy rates (above 75 percent) along multiple streets at the 5AM hour suggest there is also moderate demand for residential or overnight parking. The high rates of occupancy at 8PM strongly suggests that residents and visitors have significant challenges finding adequate parking near the Downtown and Waterfront area.

Strategies to address these issues:

- Extend hours of enforcement until 8PM and throughout the weekend in areas of highest demand
- Expand pricing restrictions in high demand areas, especially on weekends and evenings
- Increase parking fees within on-street and off-street facilities that are currently priced, especially during weekend evenings
- Consider transportation demand management approaches to support employees and visitors in considering alternative modes, including information about alternatives and financial incentives



Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 96%
(Weekend 8PM)

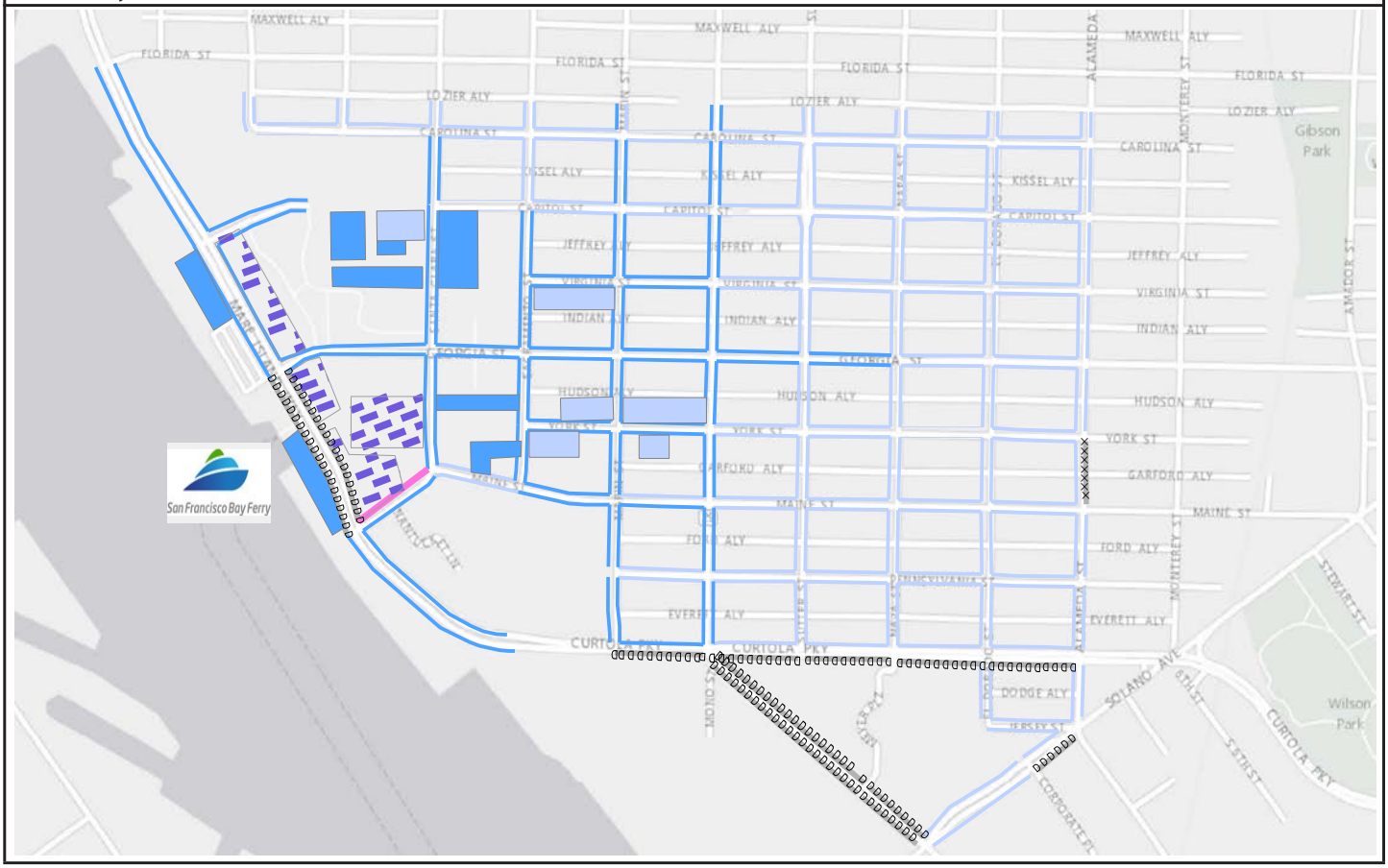
Peak on-street: 74%
(Weekend 8PM)

Total peak: 83%
(Weekend 8PM)

Vallejo, CA

Downtown and Waterfront

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Vallejo, CA - Downtown and Waterfront

Collection dates: 7/31/2014 and 8/2/2014

Total spaces:5,680

- on-street: 3,165
- off-street: 2,515

Price description: No on-street pricing; some off-street pricing at $5.00 daily fees and/or $20 monthly passes.

Time restrictions: On-street and off-street

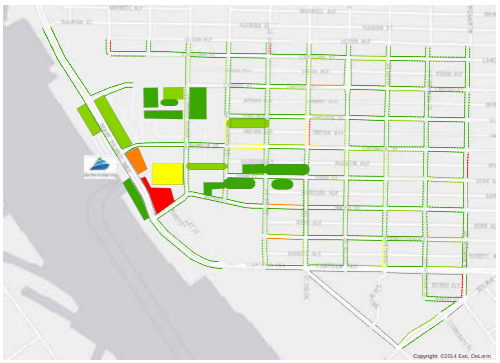
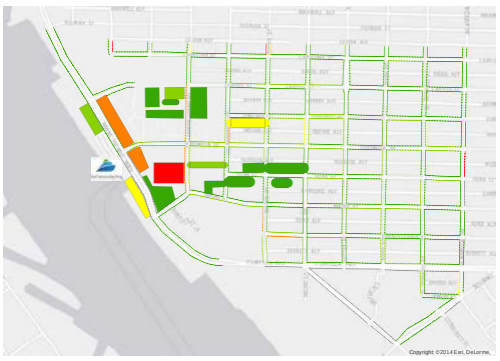
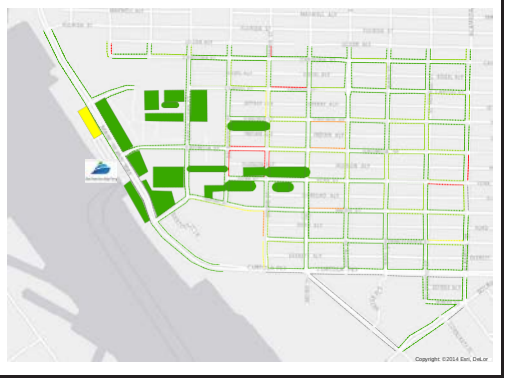
Typical restriction hours: 7AM-6PM Mon-Sun

In the Downtown and Waterfront area of Vallejo, occupancy is low overall. Some off-street facilities with high-occupancy are located near the waterfront, but there are many underutilized facilities nearby. The strong distinctions between weekday and weekend parking patterns suggest the waterfront area is a high center of attraction for commuters. There are a small handful blockfaces with high on-street occupancy at 12PM, but these are adjacent to areas with excess parking supply. Besides the waterfront area, weekday and weekend parking occupancy rates tend to remain low through the area.

Strategies to address these issues:

- Remove off-street regulations on underutilized facilities
- Increase parking fees within off-street facilities that are currently priced and in high demand
- Eliminate parking requirements for new development
- Consider improving bicycle access through convenient and secure bicycle parking facilities, and quality bike lanes to key destinations
- Consider transportation demand management approaches to support employees and visitors in considering alternative modes, including information about alternatives and financial incentives

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy12PM		
Occupancy4PM		
Occupancy8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

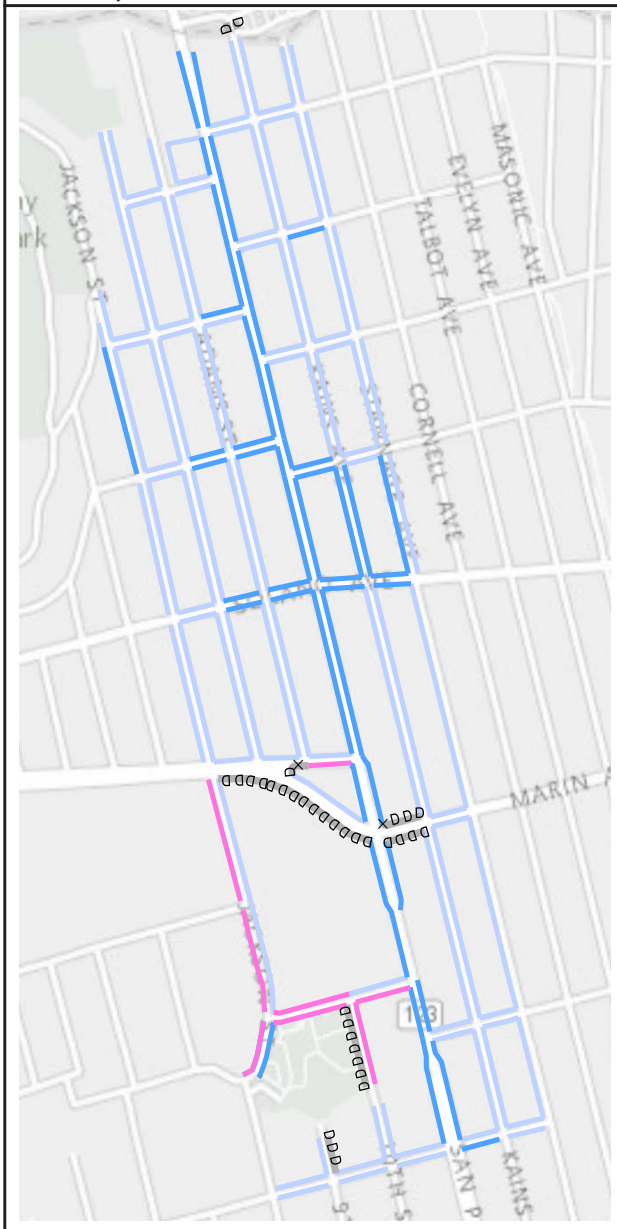
Peak off-street: 70%
(Weekday 12PM)

Peak on-street: 39%
(Weekend 9AM)

Total peak: 54%
(Weekday 12PM)

Albany, CA

Inventory



Albany, CA - San Pablo Avenue Commercial Corridor

Collection dates: 10/4/2015 and10/6/2015
Total spaces: 2,599

- on-street: 2,599
- off-street: 0

Metering: No
Price description: None
Time restrictions: On-street
Typical restriction hours: 8AM-6PM Mon-Sat

San Pablo Avenue Commercial Corridor

In Albany's San Pablo Avenue Commercial Corridor study area, occupancy is moderate throughout the weekday and weekend. However, despite having no available off-street parking, there is available parking supply. High occupancy is limited to specific streets and areas, but there is excess supply within adjacent streets. It appears that time restrictions are not placed in areas of highest demand, but are likely successful in keeping plenty of parking available along San Pablo Avenue, where customers are most likely to park. Residential parking further away from San Pablo Avenue is in very high demand during the 5AM time period. The areas where this is likely causing frustration and inconveneience for both residents and visitors is on Solano Avenue and just north of Solano Avenue. This is a very popular area for restaurants during the evening period, and different users are likely competing for the same spaces.

Strategies to address these issues:

- Extend hours of enforcement until 8PM and throughout the weekend in areas of highest evening demand
- Implement pricing restrictions in highest demanded area
- Implement transportation demand management approaches to support residents, employees and visitors in considering alternative modes, including information about alternatives and financial incentives

Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

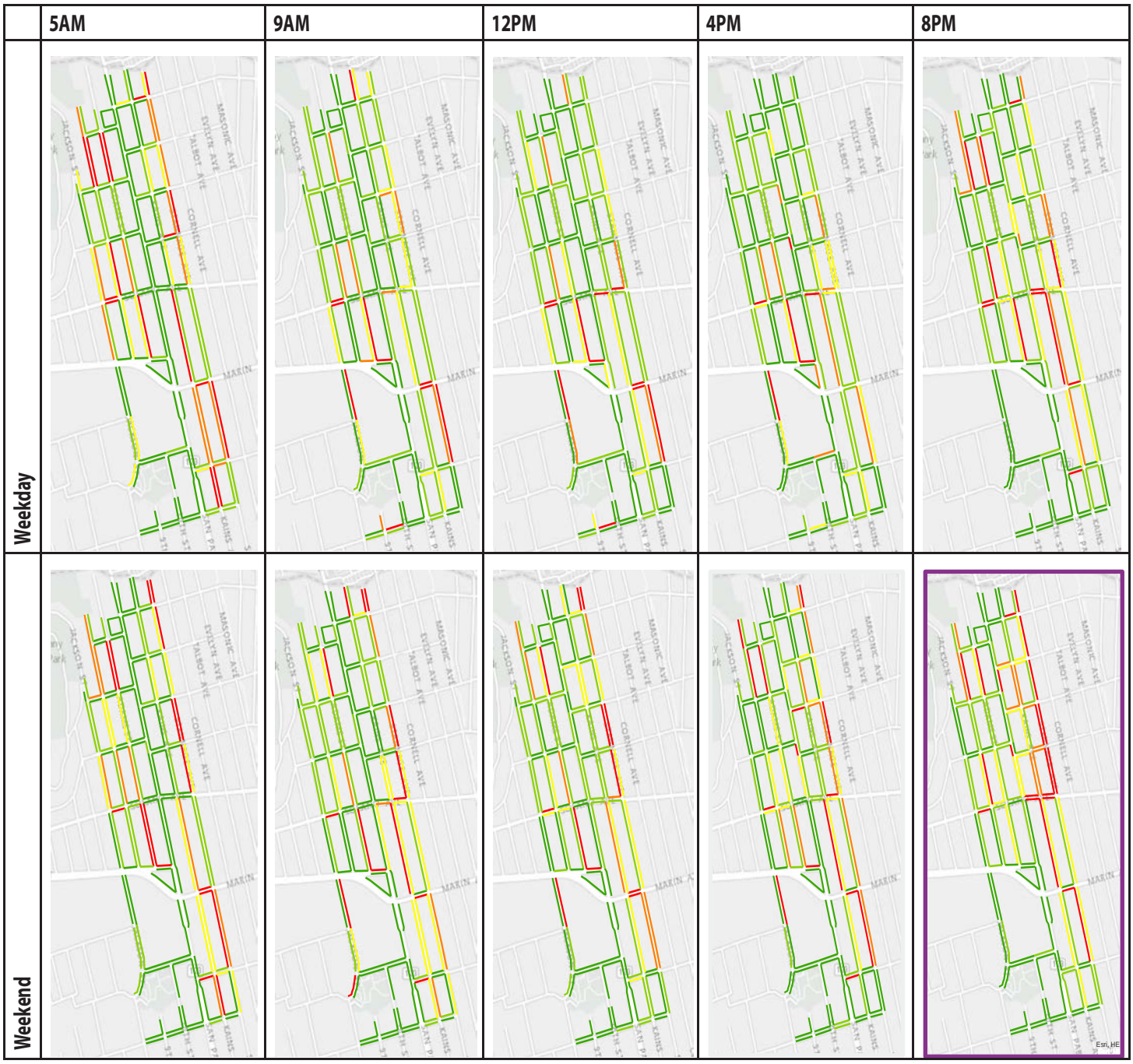
Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.



Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: N/A

Peak on-street: 59%
(Weekend 8PM)

Total peak: 59%
(Weekend 8PM)

Alameda, CA

Park Street Commercial Corridor

Inventory

Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Alameda, CA - Park Street Commercial Corridor

Collection dates: 8/28/2014 and 9/6/2014

Total spaces:1,879

- on-street:1,699
- off-street: 180

Price description: On-street pricing varies from $1.00 - $1.50./hour throughout Alameda; Prices are $1.50 in the Park Street business district and $1 around Webster Street; no off-street pricing.

Time restrictions: On-street and off-street

Typical restriction hours: 9AM-4PM Mon-Sat

Along the Park Street Commercial Corridor of Alameda, both on- and off-street parking occupancy is very high during the afternoon and evening time periods. While there is available off-street parking during most time periods, off-street occupancy during weekend evenings is above 95%. On-street occupancy is also high during weekend evenings, but also during the afternoon periods. Occupancy is highest on weekends.

Strategies to address these issues:

- Increase parking fees within on-street facilities
- Expand parking fees to on-street facilities with
- Extend hours of enforcement until 8PM at the earliest and through the weekend
- Consider improving bicycle access through convenient and secure bicycle parking facilities, and quality bike lanes to key destinations
- Consider transportation demand management approaches to support employees and visitors in considering alternative modes, including information about alternatives and financial incentives

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 98%
(Weekend 8PM)

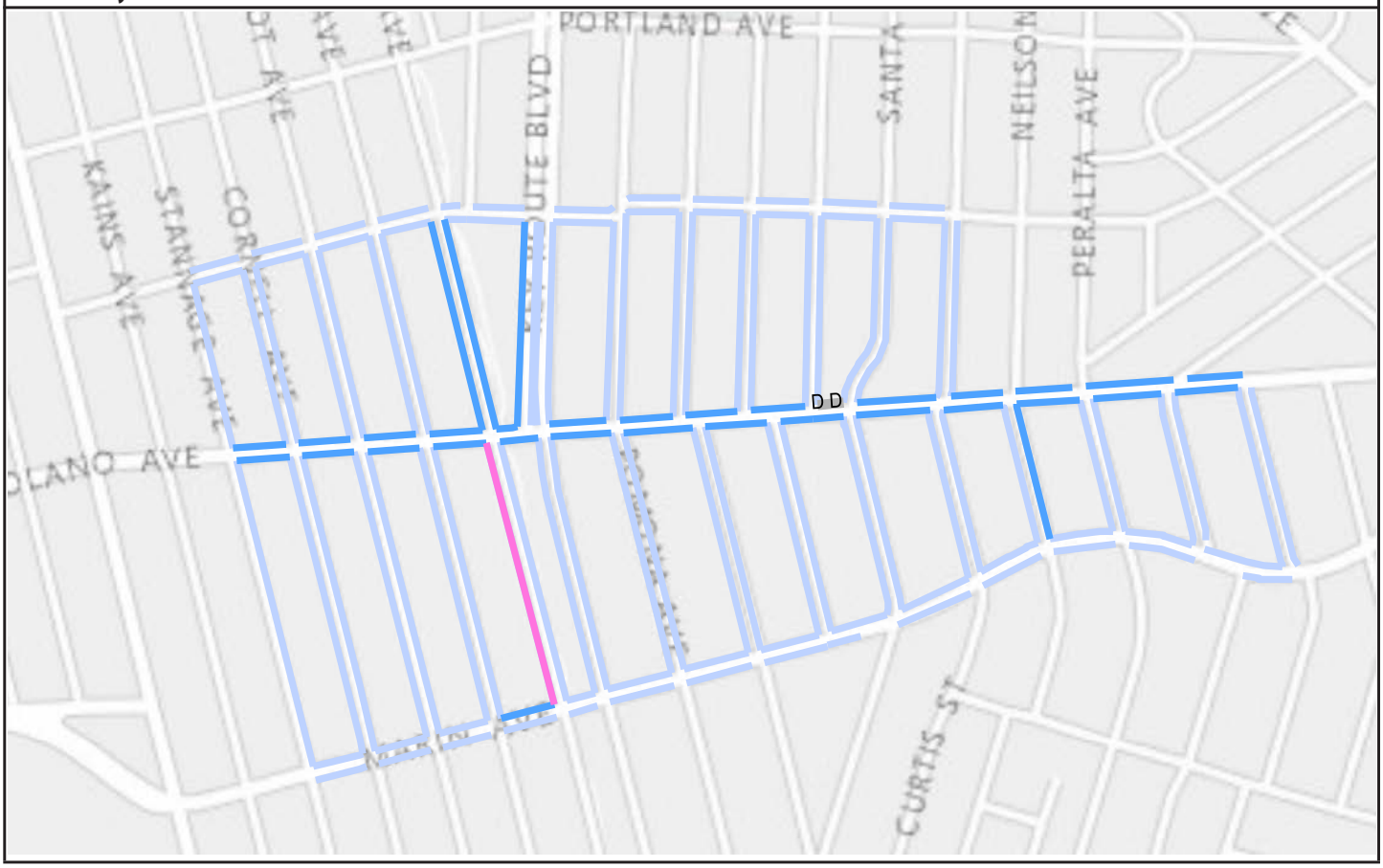
Peak on-street: 89%
(Weekend 8PM)

Total peak: 90%
(Weekend 8PM)

Albany, CA

Solano Avenue Commercial Corridor

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Albany, CA - Solano Avenue Commercial Corridor

Collection dates: 10/4/2014 and 10/6/2014

Total spaces:2,131

- on-street: 2,131
- off-street: None

Price description: None

Time restrictions: On-street only

Typical restriction hours: 8AM-6PM Mon-Sat

In Albany's Solano Avenue Commercial Corridor study area, occupancy is high within a "hot spot" throughout the weekday and weekend. The "hot spot" where demand is signficantly higher than supply occurs is between Romana Avenue and Curtis Street on both sides of Solano Avenue. Occupancy in these areas is highest during the midday periods, and early morning occupancy suggests that it is not in high demand by residents. While there are restrictions on Solano Avenue, there are no restrictions within these side streets. Therefore, if employees were encourages to park further away from the areas of highest demand, conditions could be greatly improved.

Strategies to address these issues:

- Extend hours of enforcement until 8PM and throughout the weekend in areas of highest evening demand
- Implement time restrictions and/or pricing restrictions in highest demanded area
- Implement transportation demand management approaches to support residents, employees and visitors in considering alternative modes, including information about alternatives and financial incentives

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: None

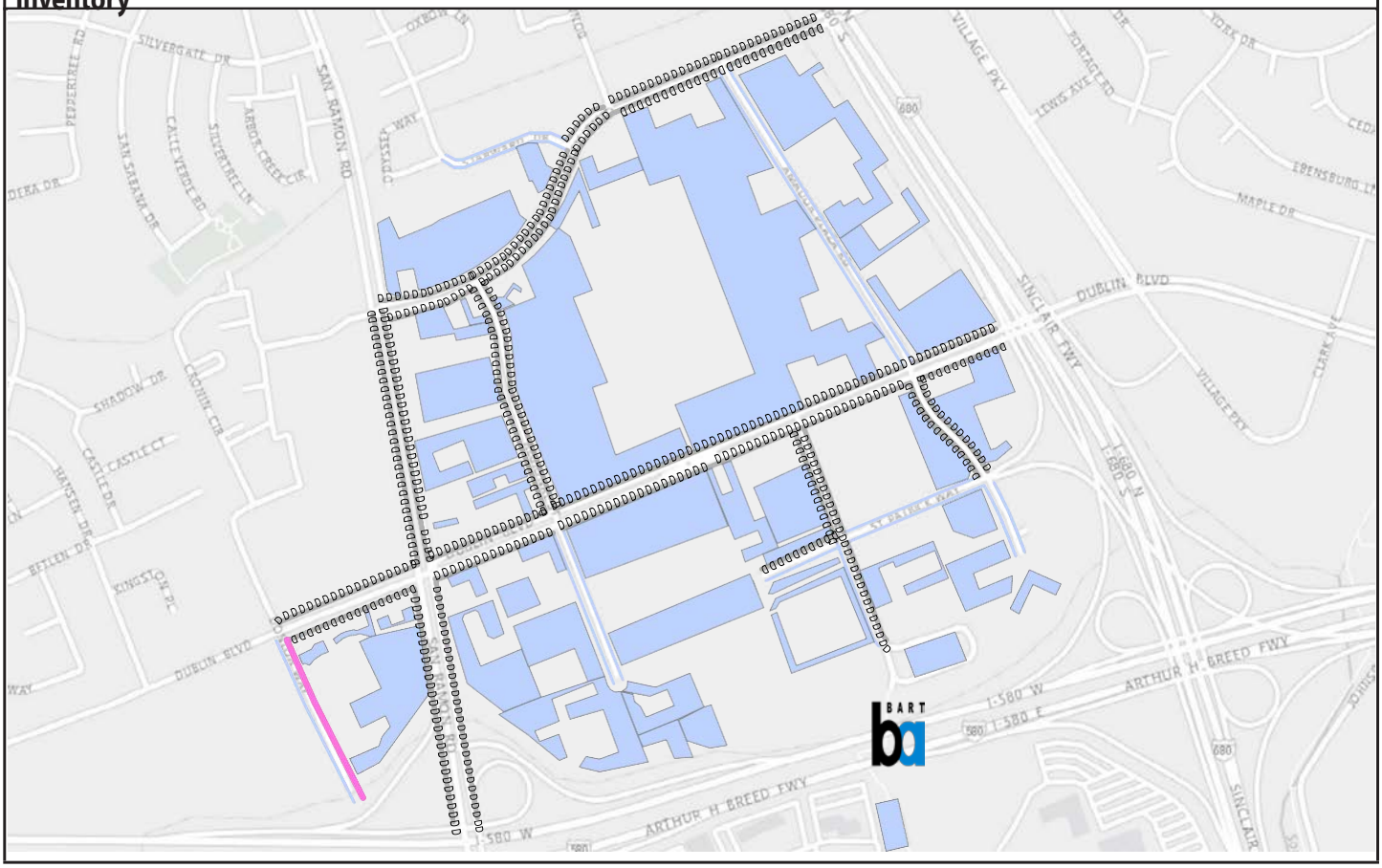
Peak on-street: 58%
(Weekday 12PM)

Total peak: 58%
(Weekday 12PM)

Dublin, CA

Downtown and BART Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Dublin, CA - Downtown and BART Station Area

Collection dates: 11/12/2014 and 11/15/2014

Total spaces:9,723

- on-street: 315
- off-street: 9,408

Price description: None

Time restrictions: Off-street

Typical restriction hours: None available

In the Downtown and BART Station Area of Dublin, the supply of parking far exceeds demand. Occupancy rates in the BART Station Area and downtown do not surpass 45 percent occupancy, suggesting large availability of parking, both on- and off-street. However, preferred parking is higher at or near the two BART parking structures and the Dublin Retail Center. Parking data was collected on both public and private off-street facilities, showing large private off-street parking lots that are underutilized throughout the day.

Strategies to address these issues:

- Eliminate parking requirements for new development to reduce additional unneeded supply
- Repurpose off-street parking lots for other uses
- Support TOD development in place of large underutilized parking lots

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy12PM		
Occupancy4PM		
Occupancy8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 45%
(Weekday 4PM)

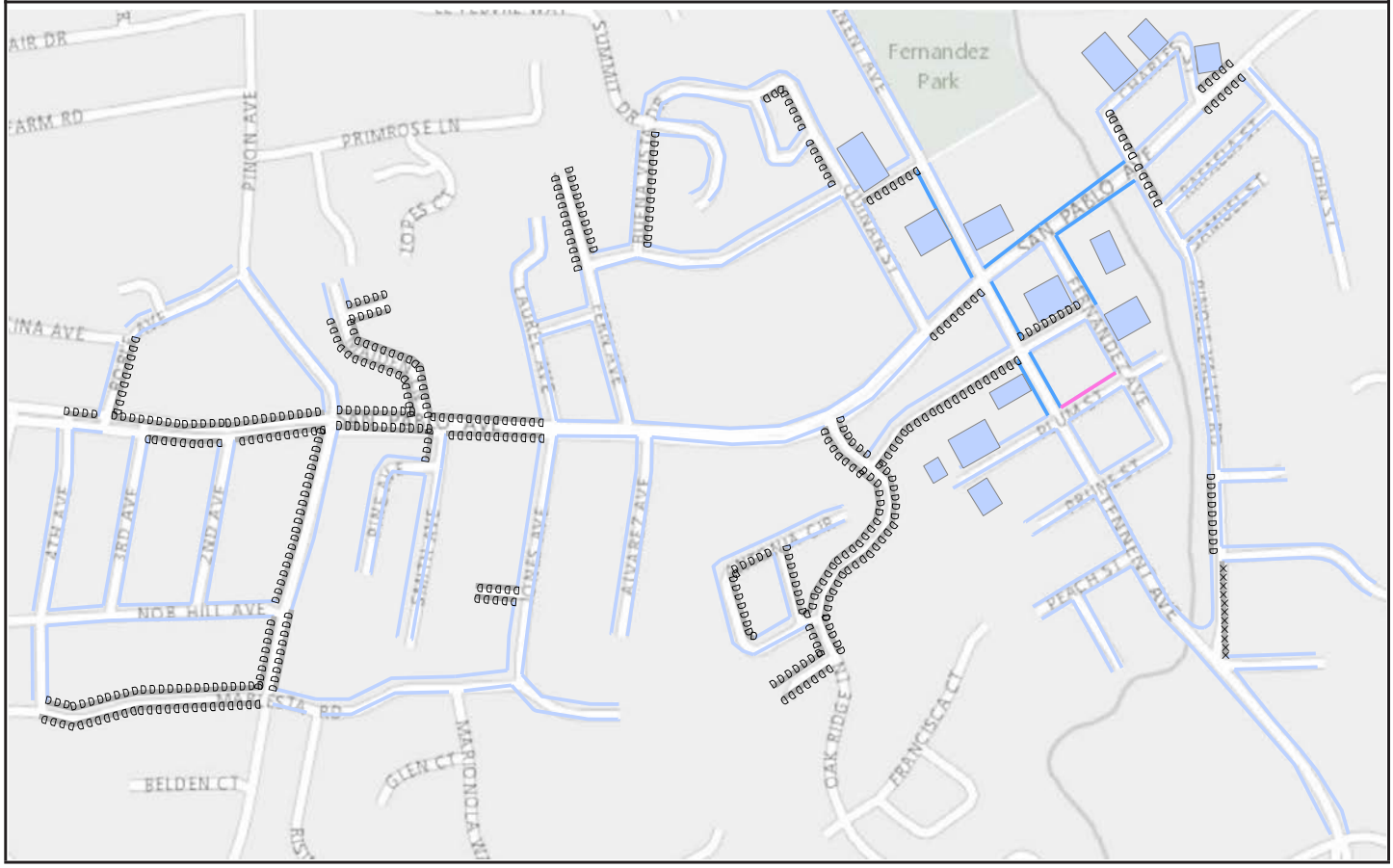
Peak on-street: 40%
(Weekday 9AM)

Total peak: 45%
(Weekday 4PM)

Pinole, CA

Downtown

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Pinole, CA - Downtown

Collection dates: 10/30/2014 and 11/1/2014

Total spaces: 1,926

- on-street: 1,509
- off-street: 417

Metering: No

Price description: None

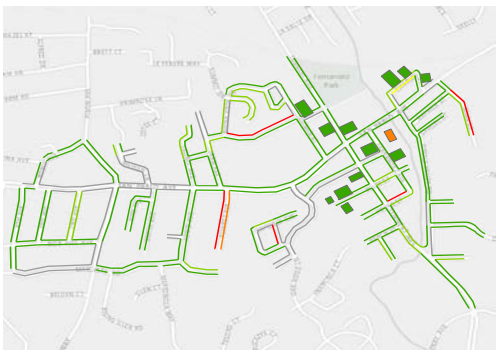
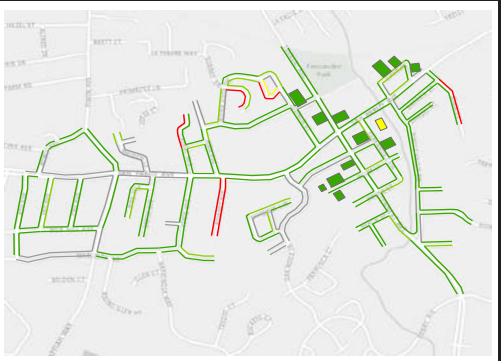
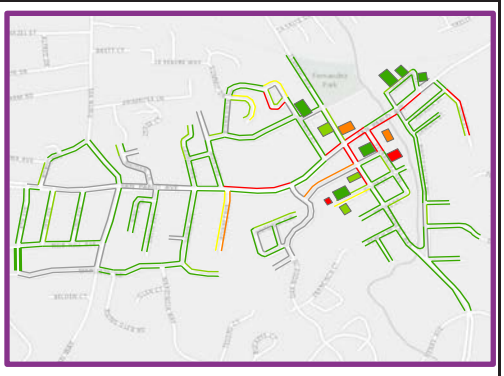
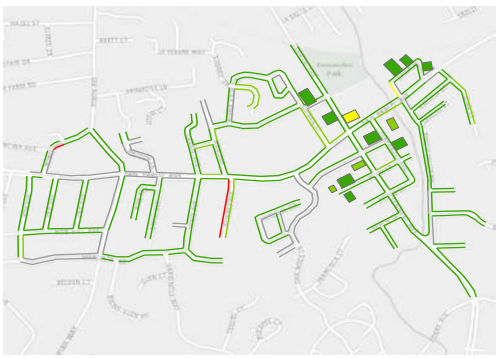
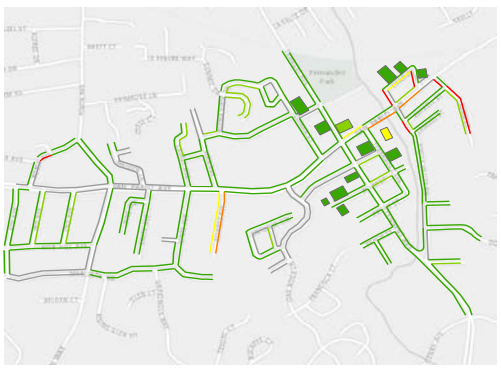
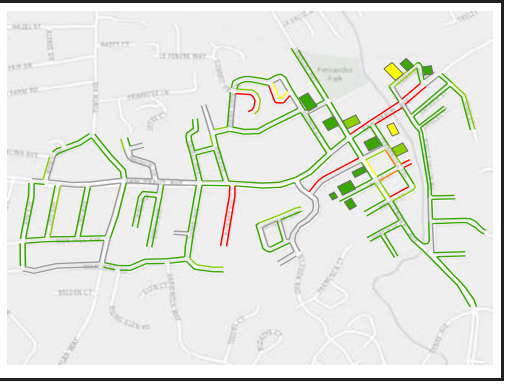
Time restrictions: On-street and off-street

Typical restriction hours: 9AM - 6PM Mon - Sat

The Pinole-San Pablo Avenue parking study area has relatively low overall parking demand in most areas. There are a few small hot spot with high parking demand—streets surrounding St. Joseph School on the weekends, restaurant parking lots around lunch time, and Alvarez Avenue throughout the day. The remaining study areas experience low to moderate occupancy, suggesting changes could be made to distribute parking demand away the areas that do have higher demand.

Strategies to address these issues:

- Improve way-finding directing parkers towards off-street facilities
- Eliminate parking requirements for new development to reduce additional unneeded supply
- Consider improving bicycle access through convenient and secure bicycle parking facilities, and quality bike lanes to key destinations

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 65%
(Weekday 12PM)

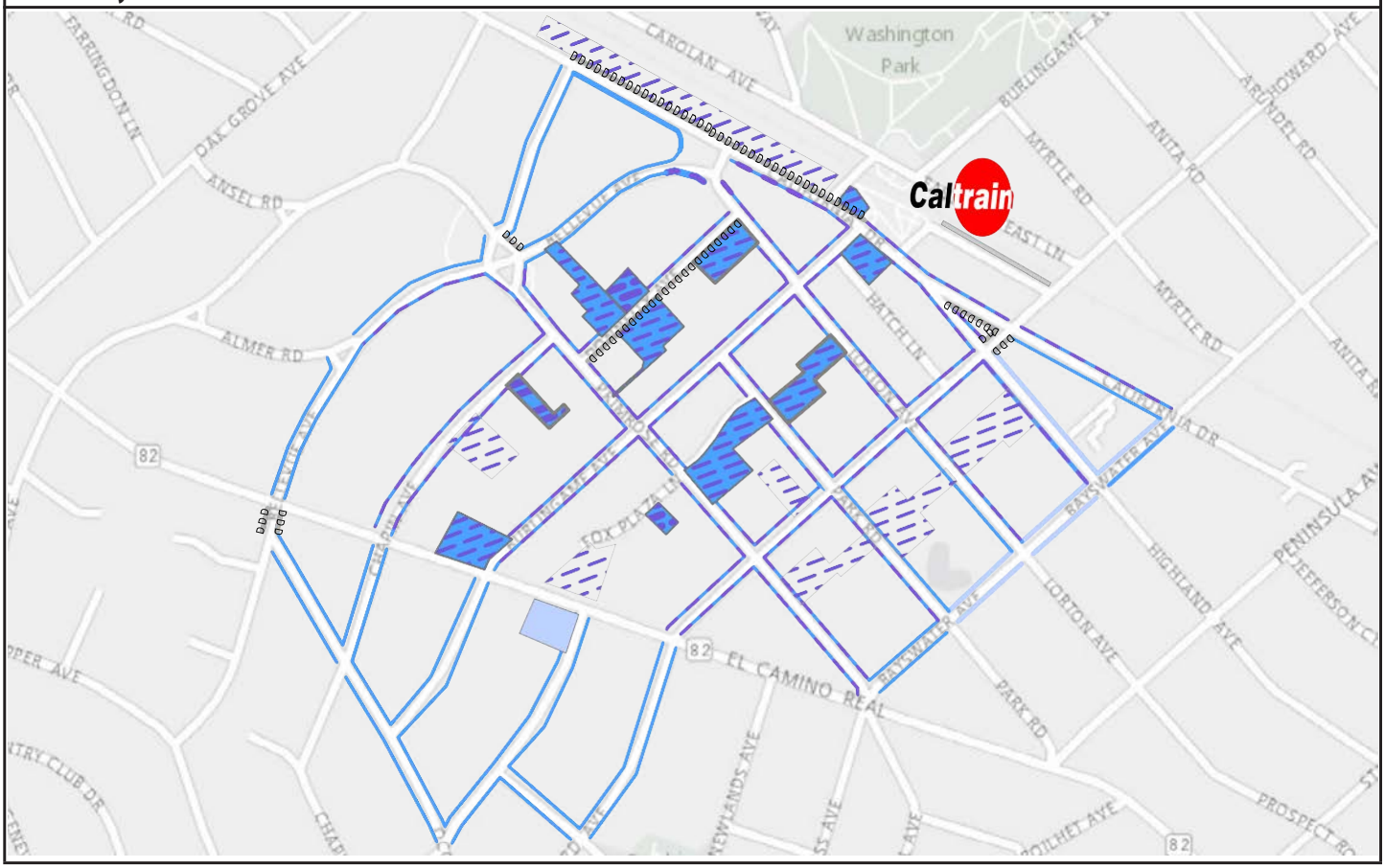
Peak on-street: 33%
(Weekend 12PM)

Total peak: 39%
(Weekend 12PM)

Burlingame, CA

Caltrain Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Burlingame, CA - Caltrain Stration Area

Collection dates: 10/18/2014 and 10/22/2014

Total spaces: 2,606

- on-street: 1,365
- off-street: 1,241

Price description: On-street pricing includes $1.00/hr on Howard Ave from Primrose Rd to Highland Ave, $1.00 first hour/$2.00 second hour on Burlingame Avenue, and $2.00 for 2 hours. Off-street pricing includes $1.00 first hour/$2.00 second hour or $3.00 for 10 hours for other facilities.

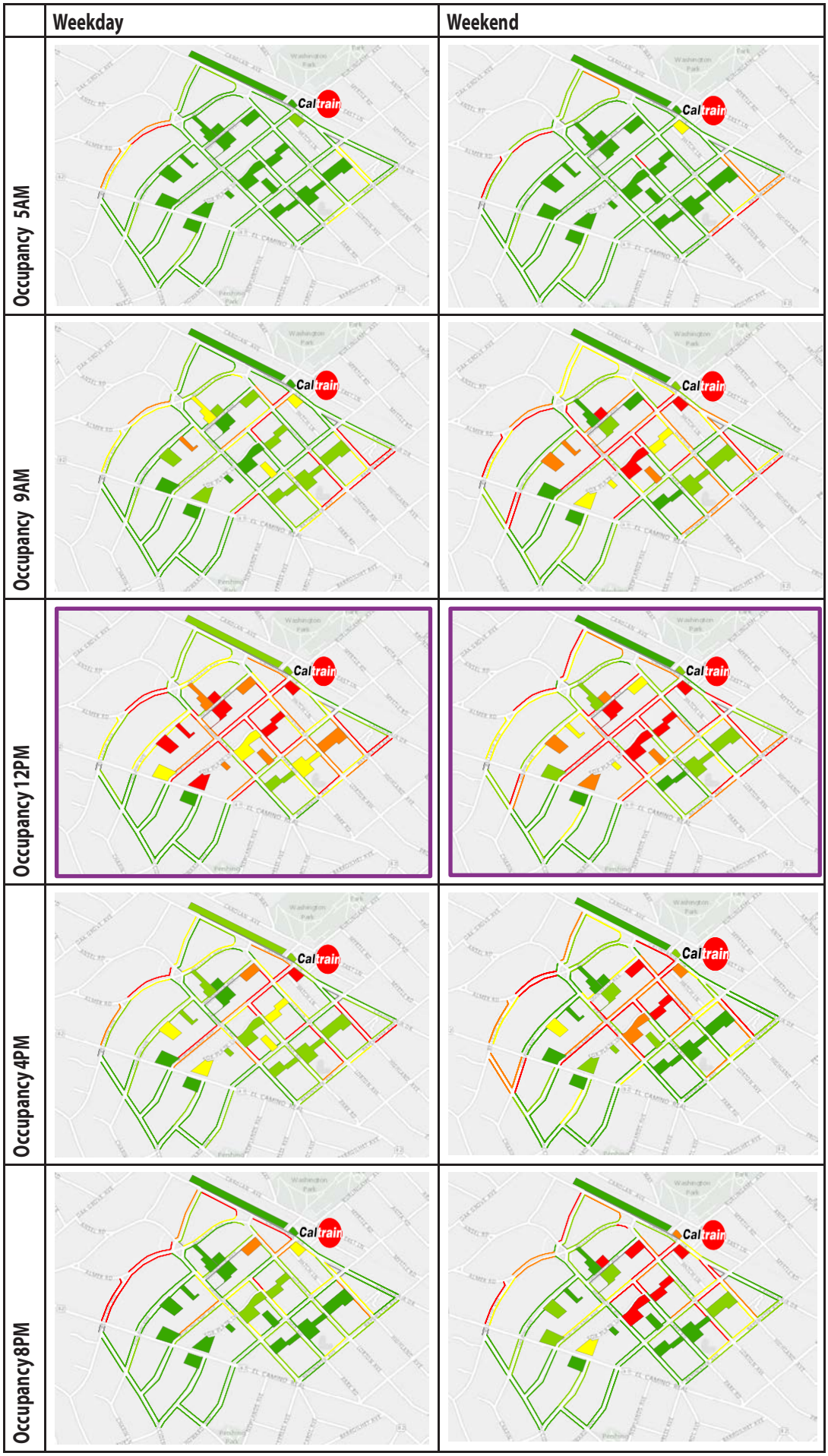
Time restrictions: On-street and off-street parking

Typical restriction hours: varies depending on location; 9AM - 6PM Mon - Sat on-street; 8AM - 6PM off-street

The Burlingame Caltrain Station Area has high overall parking demand in many areas, peaking during the 12PM period on both weekdays and weekends. Evening demand is much lower. Hot spots with very high parking demand occur near city hall, Burlingame Avenue and adjacent parking facilities, and Highland Avenue. It is only the outer most sections of the study area, the most single-use residential, and large parking facilities further than a city block from Burlingame, that see consistent levels of low occupancy rates. Many off-street facilities are fully occupied, however peak off-street demand is 83 percent, so some availability exists in periphery facilities. Parking restrictions are generally well placed in order to correlate with demand. Pricing restrictions could increase in order to further manage high demand areas.

Strategies to address these issues:

- Increase parking fees within on-street and off-street facilities with highest demand
- Expand pricing restrictions in high demand areas
- Consider expanding parking enforcement throughout the weekend
- Consider transportation demand management approaches to support employees and visitors in considering alternative modes, including information about alternatives and financial incentives



Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 83%
(Weekday 12PM)

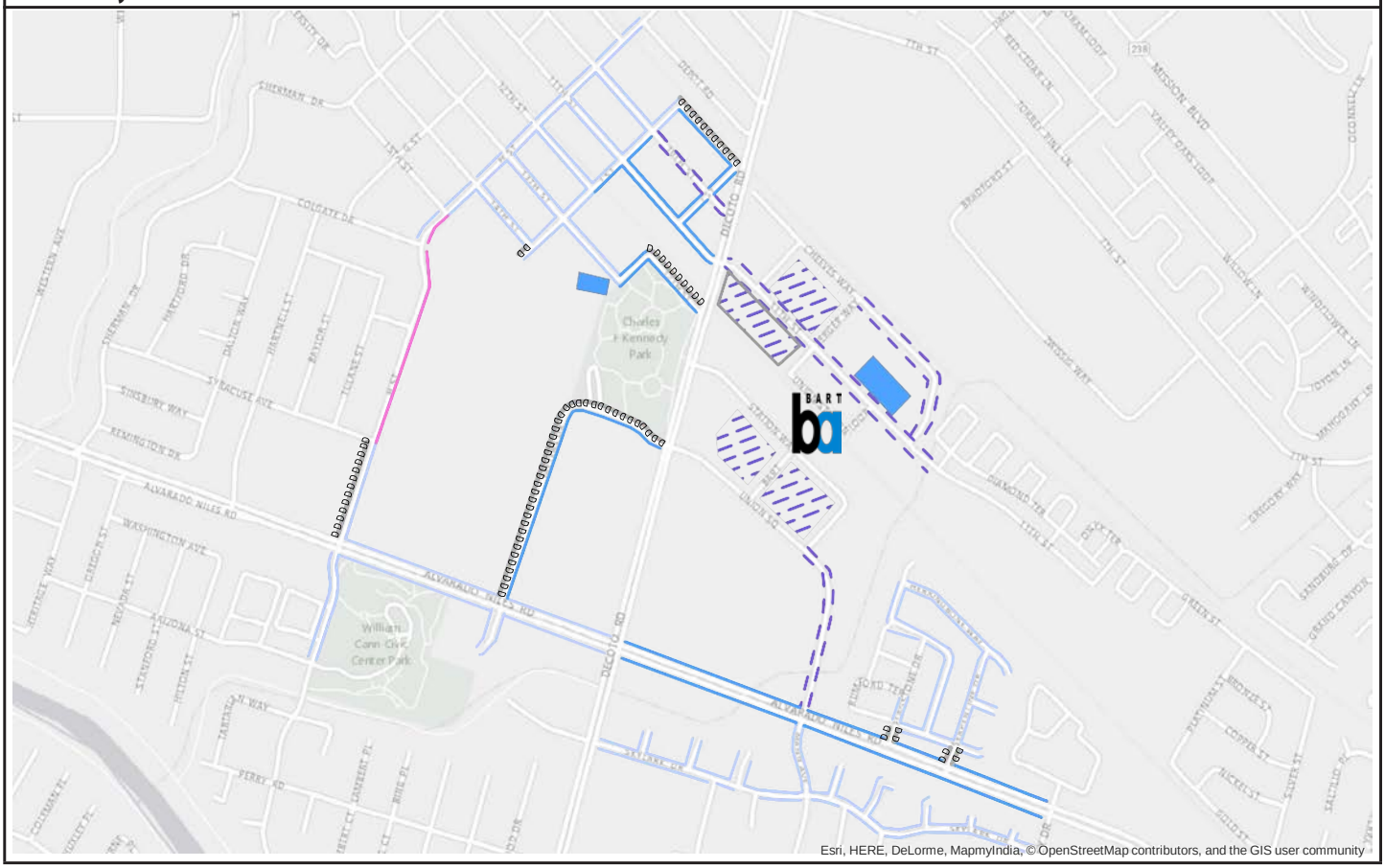
Peak on-street: 72%
(Weekend 12PM)

Total peak: 79%
(Weekday 12PM)

Union City, CA

Downtown and BART Station

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Union City, CA - Downtown & BART Station

Collection dates: 9/6/2014 and 10/28/2014

Total spaces: 3,565

- on-street: 1,702
- off-street: 1,863

Price description: On-street pricing at $0.50/hr. Off-street pricing ranges from $2.50-$3.00/hr.

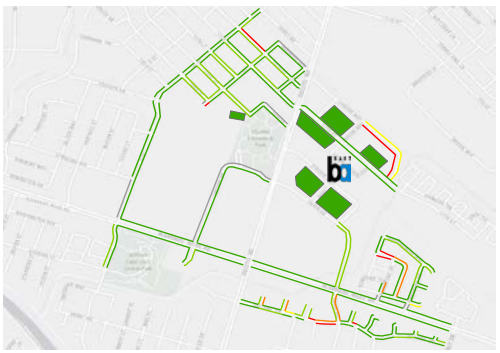
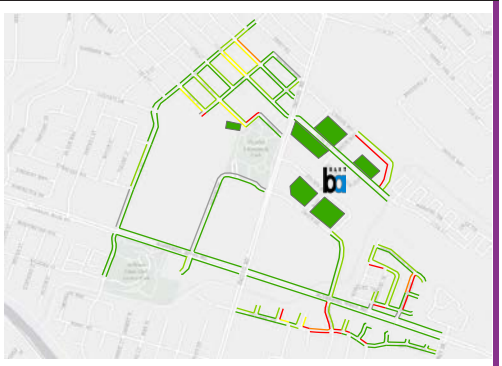
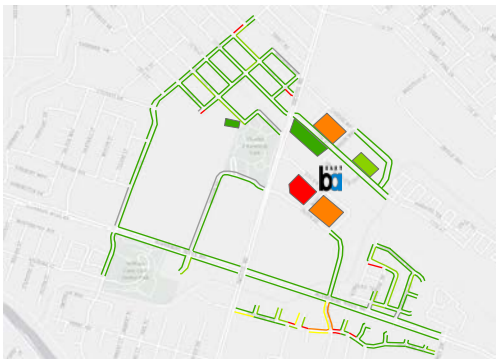
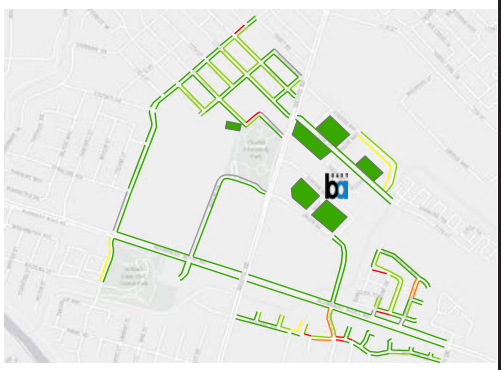
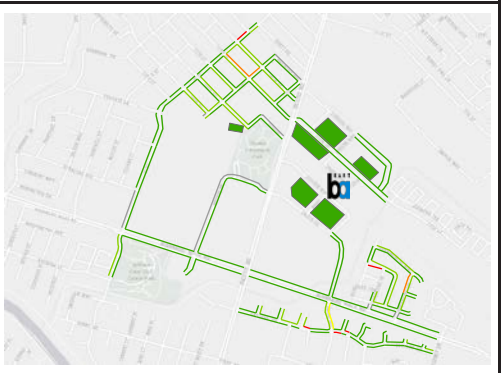
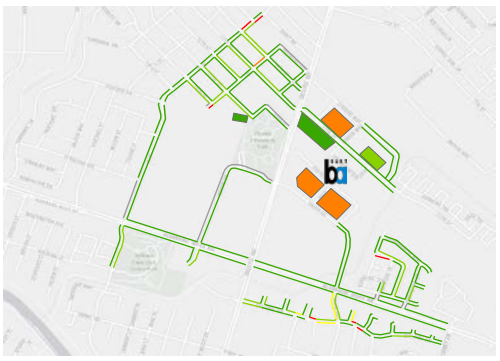
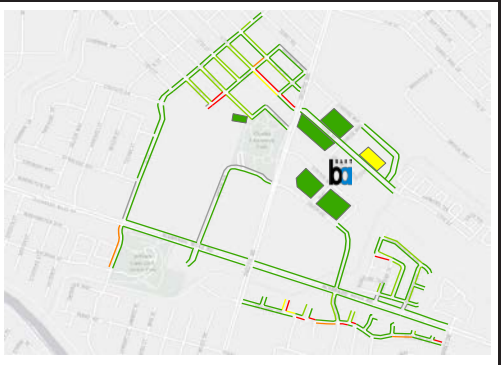
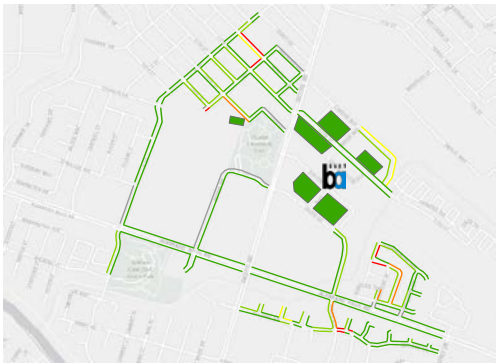
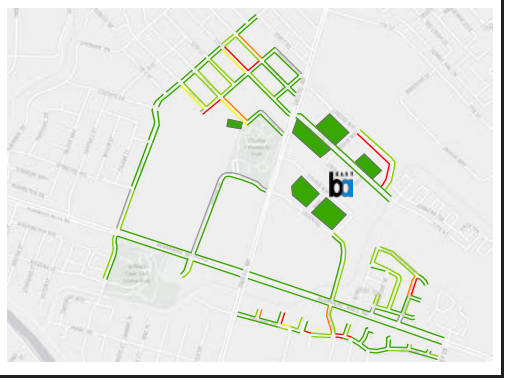
Time restrictions: On-street and off-street

Typical restriction hours: 8AM to 6PM Mon-Sat

Union City's Downtown and BART Station Area experience low overall parking occupancy outside the BART station off-street facilities. Downtown experiences low to moderate occupancy rates. Parking restrictions include on-street metering without time restrictions, and time-restricted-only parking nearby the BART Station. This likely prevents long-term BART parkers from parking in these areas.

Strategies to address these issues:

- Consider transportation demand management approaches to support employees and visitors in considering alternative modes, including information about alternatives and financial incentives

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 81%
(Weekday 12PM)

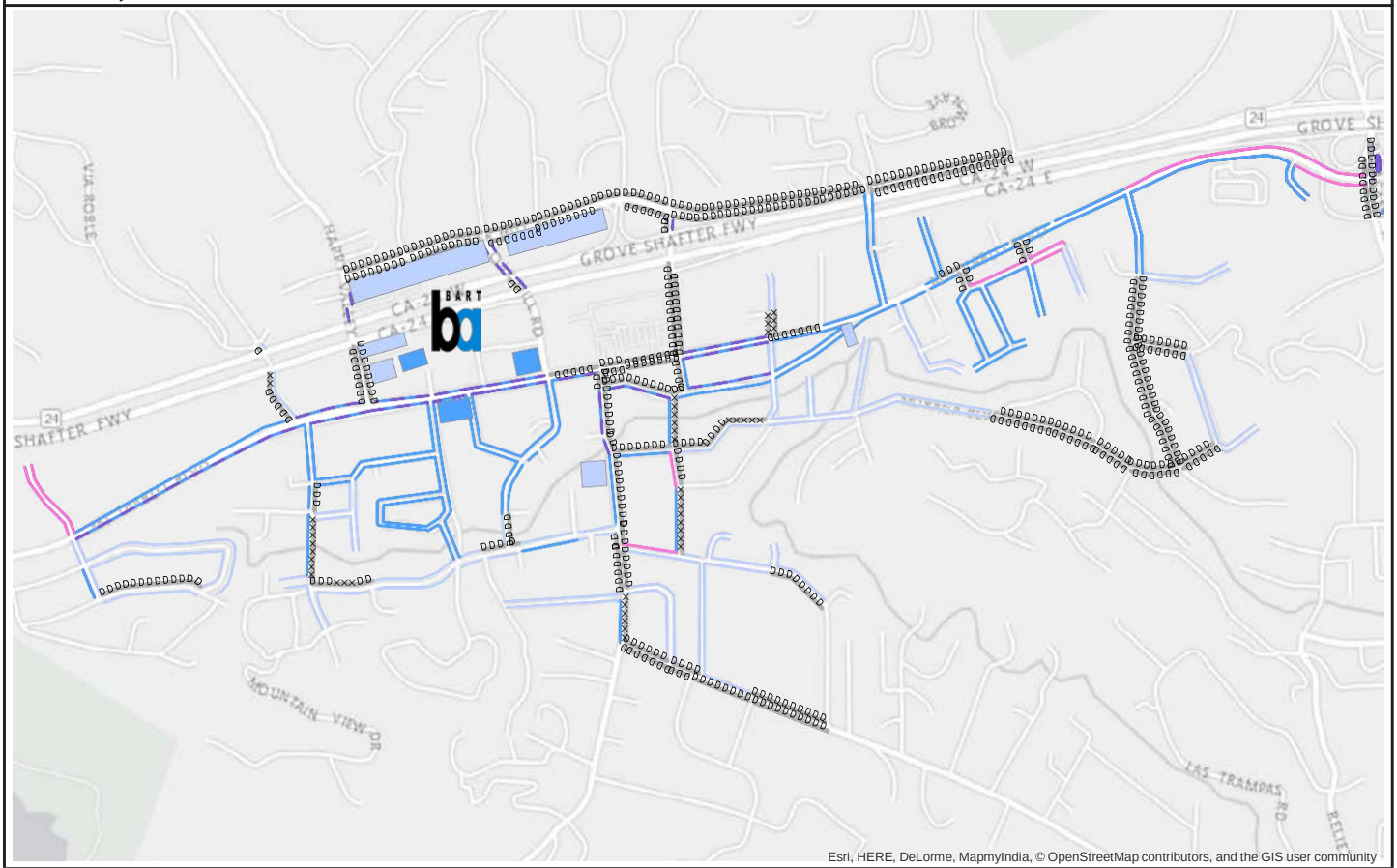
Peak on-street: 40%
(Weekend 5AM)

Total peak: 58%
(Weekday 12PM)

Lafayette, CA

Mt Diablo Blvd and BART Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Lafayette, CA - Mt Diablo Blvd & BART Station Area

Collection dates: 8/27/2014 and 9/6/2014

Total spaces: 4,707

- on-street: 2,725
- off-street: 1,982

Metering: On-street only

Price description: None

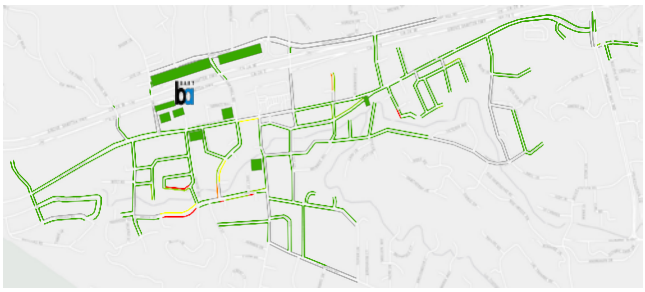
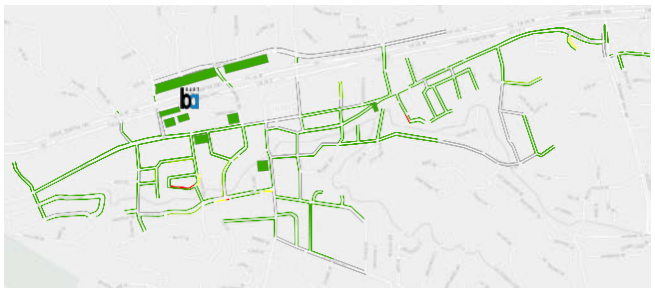
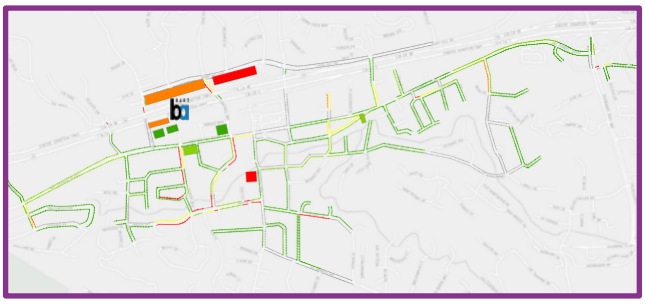
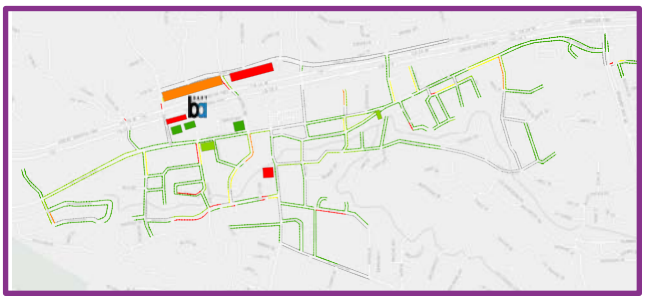
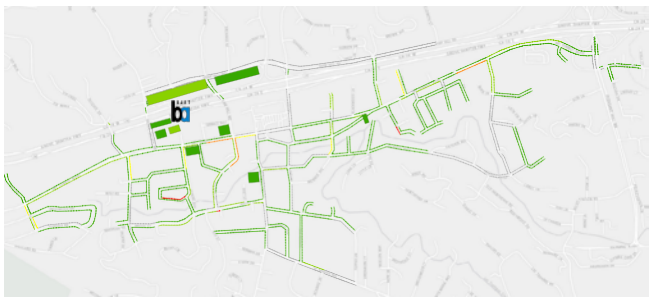
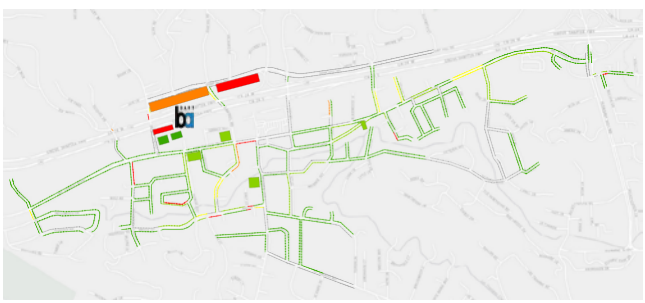
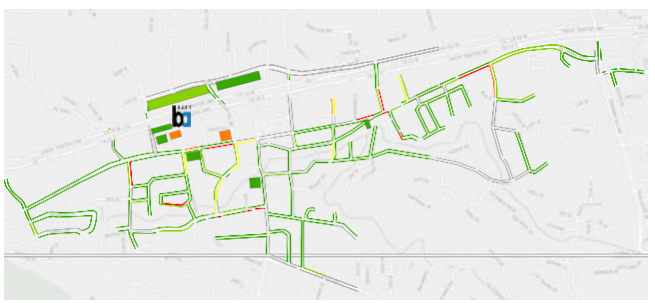
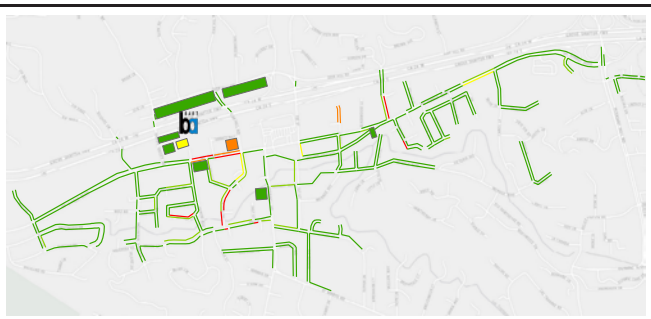
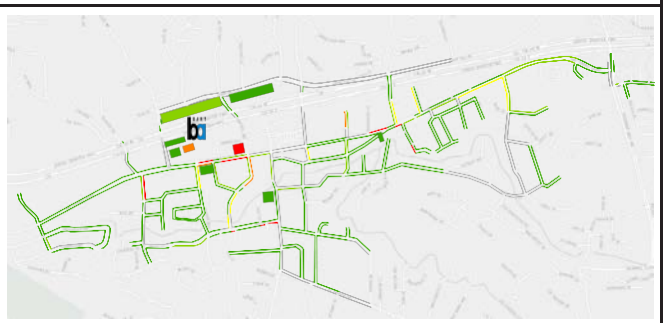
Time restrictions: On-street only

Typical restriction hours: varies depending on location; 7AM to 5PM

Lafayette's Mt Diablo Boulevard and the BART Station Area experience low occupancy rates overall, except for the BART station parking during weekday. Some on-street blockfaces have high occupancy, but these areas are scattered and located adjacent to street with occupancy under 50 percent. While regulations appear to be comprehensive, a greater number of parkers may be parking on Brook Street to avoid time restrictions just north of Brook Street. Based on the data, and current occupancy rates, time restrictions on some blockfaces might be able to be removed. Because demand where pricing occurs is not above 85% in most areas, more flexibility for the parker as well as revenue for the City could be given if time restrictions on streets with pricing were removed.

Strategies to address these issues:

- Removing time restrictions on blockfaces that are priced
- Lengthen or remove time restrictions on blockfaces with low demand
- Implement travel demand management strategies to increase alternative mode access to BART station facilities

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy
Percent of total spaces with vehicles occupying spaces

Peak Period

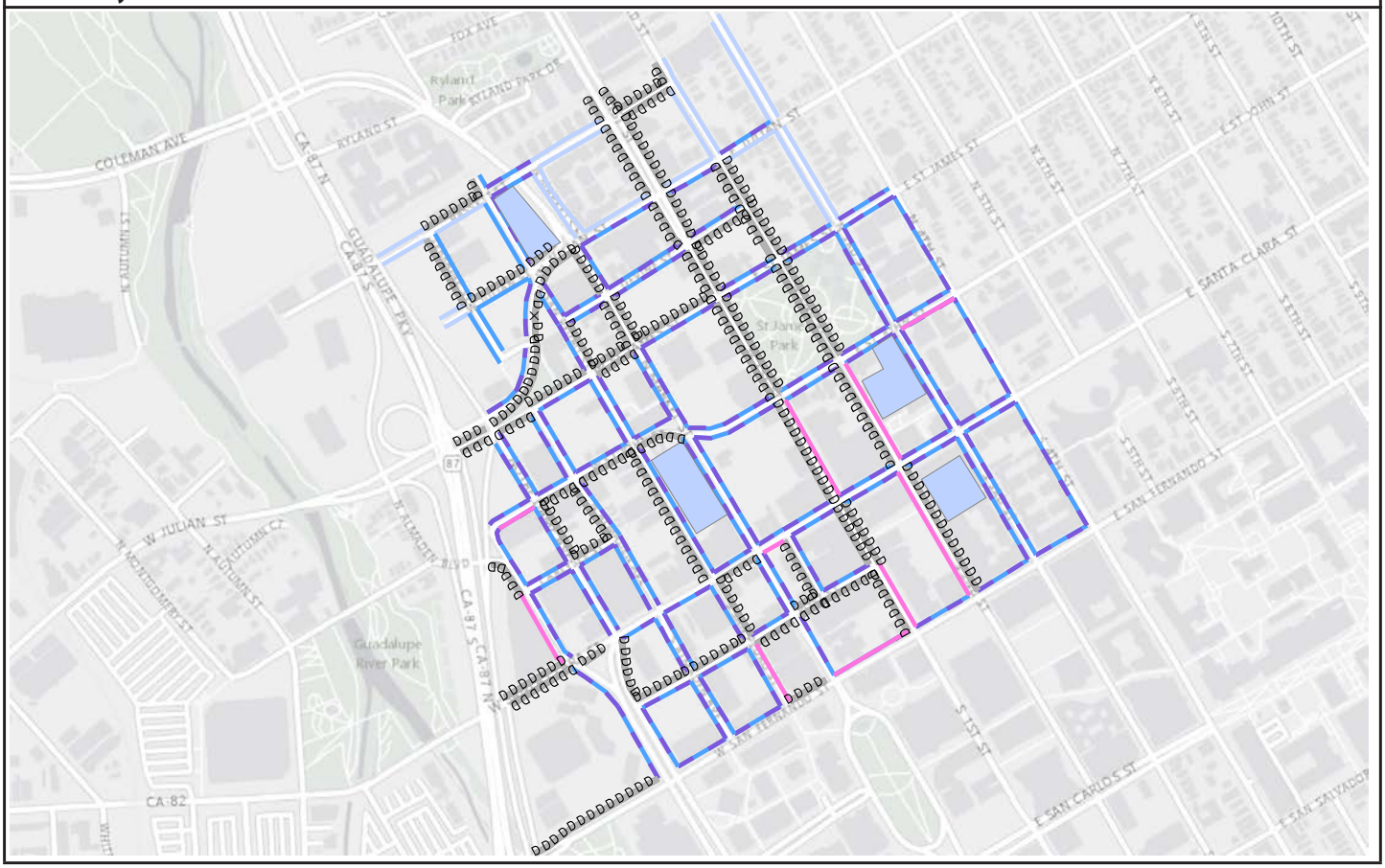
- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak off-street: 88%
(Weekday 9AM)

Peak on-street: 35%
(Weekday 9AM)

Total peak: 63%
(Weekday 12PM)

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

San Jose, CA - North Downtown

Collection dates: 11/6/2014 and 11/8/2014

Total spaces:3,557

- on-street: 1,350
- off-street: 2,207

Price description: San Jose parking meters charge $2 per hour in the downtown core (except multi-space meters) and $1 per hour outside the downtown core. Multi-space meters charge $2 on weekday snear Diridon Station and special pricing during events or near the Convention Center. Off-street pricing at $1.00 for 20 min/$20 max weekends $5.00 flat fee.

Time restrictions: On-street and off-street

Typical restriction hours: 9AM - 6PM Mon - Sat

During the day time on both weekdays and weekends, occupancy is moderately low in the North San Jose study area. However, on-street occupancy is very high during the evenings. Most blockfaces are more than 95% occupied throughout the entire study area during the weekday 8PM collection. However, there is available supply in this area during this time, because off-street occupancy is low. While daytime regulations are beneficial for this occupancy pattern, enforcement hours for most parking ends at 6PM. Therefore, there is no parking management after this time to encourage parkers to utilize off-street supply when on-street supply is overutilized.

Strategies to address these issues:

- Extend hours of enforcement to 8PM or later
- Improve way-finding directing parkers towards off-street facilities

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 73%
(Weekday 12PM)

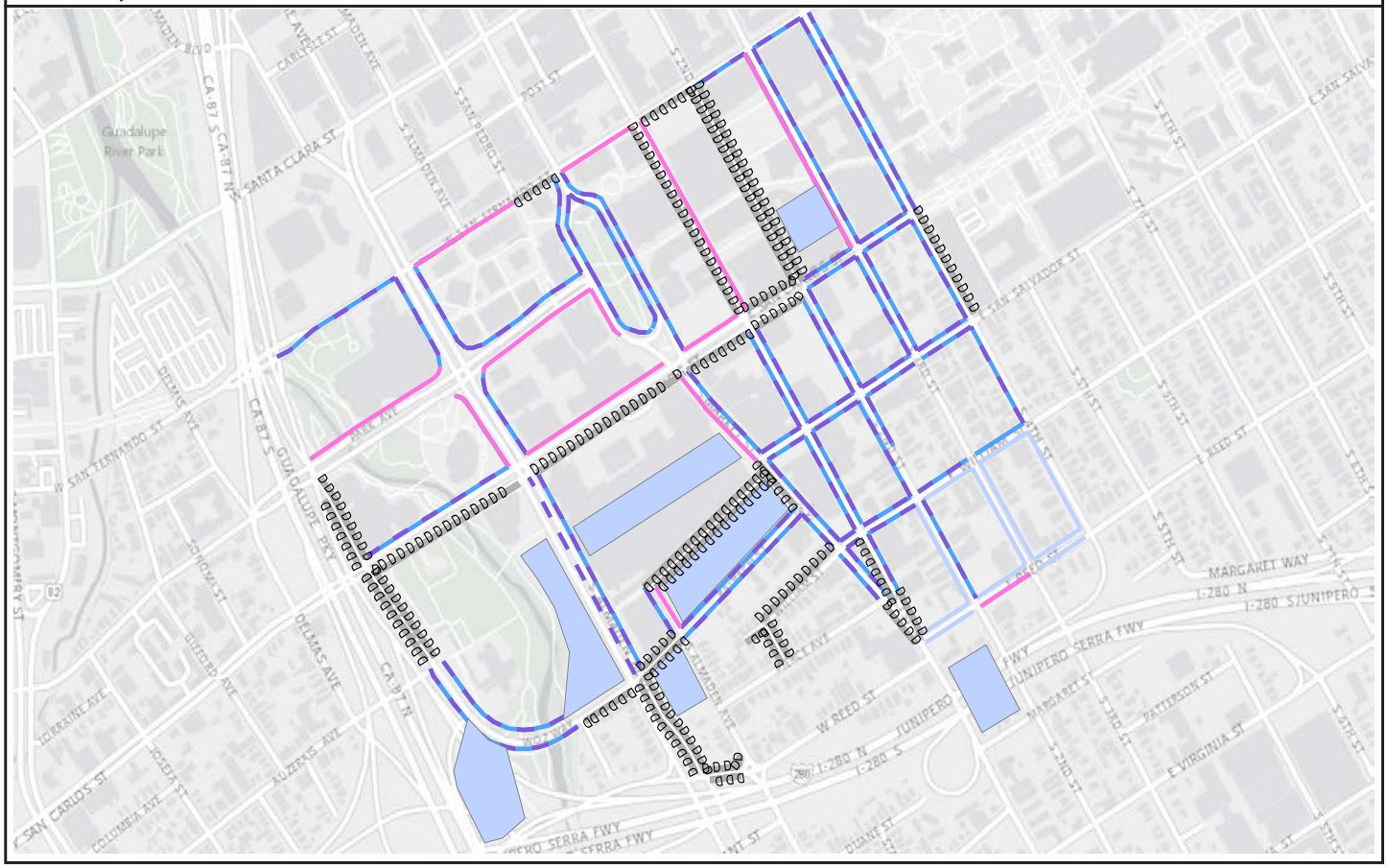
Peak on-street: 77%
(Weekday 8PM)

Total peak: 65%
(Weekday 12PM)

San Jose, CA

South Downtown

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

San Jose, CA - South Downtown

Collection dates: 11/13/2014 and 3/14/2015

Total spaces:3,538

- on-street: 1,405
- off-street: 2,133

Price description: San Jose parking meters charge $2 per hour in the downtown core (except multi-space meters) and $1 per hour outside the downtown core. Multi-space meters charge $2 on weekday snear Diridon Station and special pricing during events or near the Convention Center. Off-street pricing at $1.00 for 20 min/$20 max weekends $5.00 flat fee.

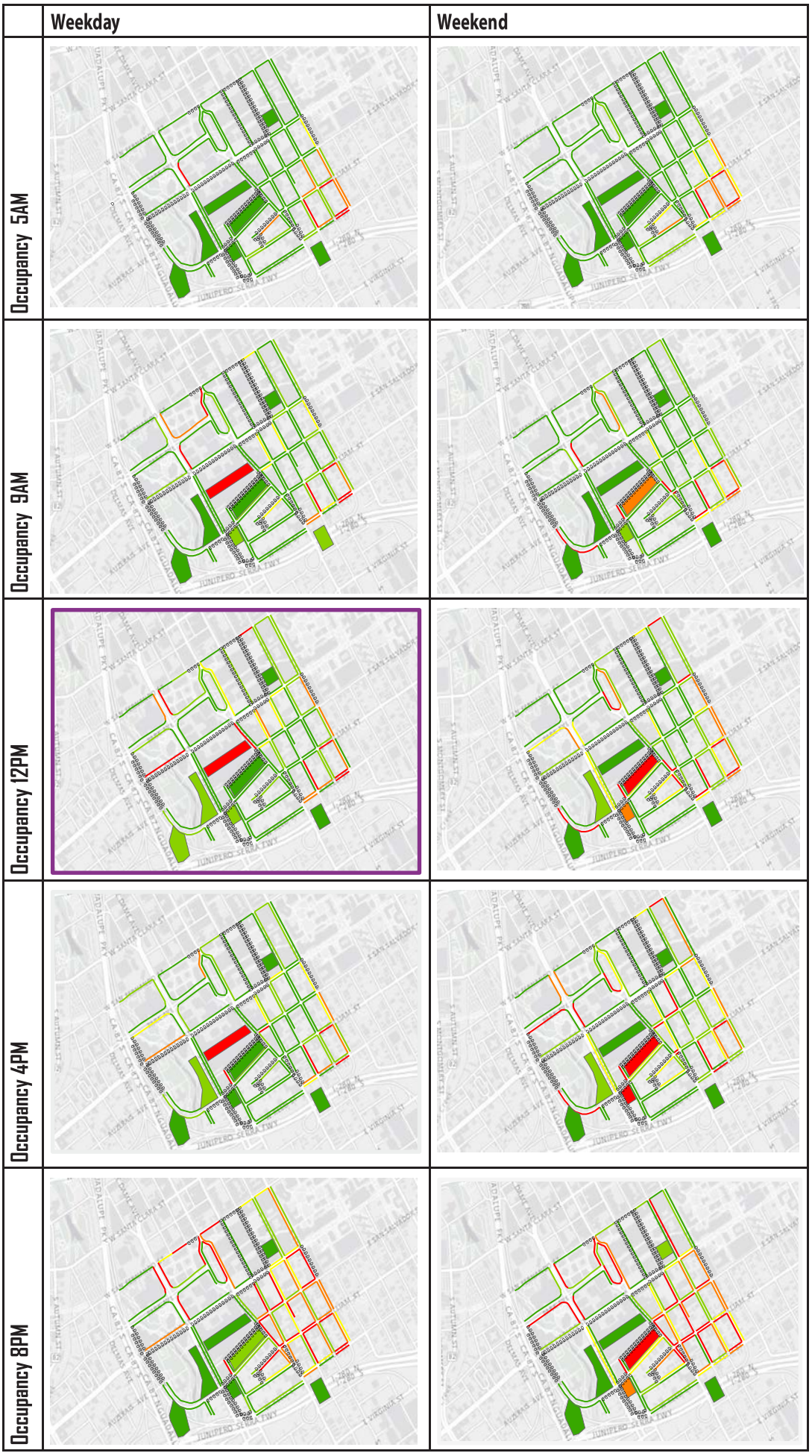
Time restrictions: On-street only and off-street

Typical restriction hours: 9AM - 6PM Mon-Sat

Like North San Jose, the South Downtown San Jose study area has high evening on-street occupancy, but moderate occupancy during the day. Off-street occupancy is also very low when demand for on-street parking is highest. This suggests that while there is adequate supply, parking demand is not distributed among the supply. During weekdays, there is one parking facility with very high demand—the Convention and Visitors Bureau parking garage. During weekends, there is one parking facility with very high demand—the South Hall parking garage. However, both of these garages are adjacent to each other and are also located nearby additional off-street parking facilities. Wayfinding to alert people to facilities with excess parking and/or improved pedestrian access between these facilities could alleviate this high demand.

Strategies to address these issues:

- Extend hours of enforcement to 8PM or later
- Improve way-finding directing parkers towards off-street facilities
- Improved pedestrian connectivity between adjacent off-street facilities



Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 52%
(Weekday 12PM)

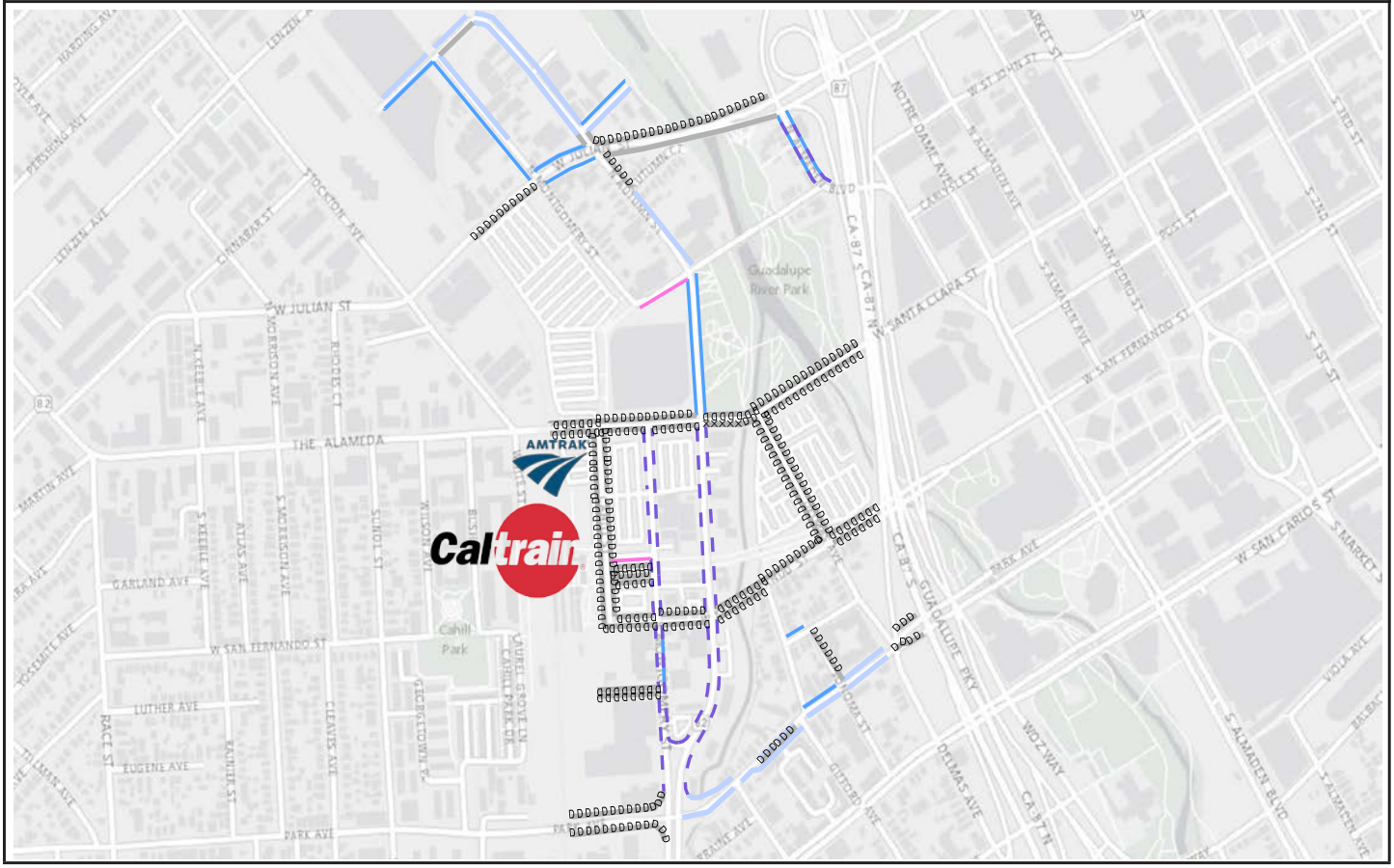
Peak on-street: 52%
(Weekday 12PM)

Total peak: 52%
(Weekday 12PM)

San Jose, CA

Diridon Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

San Jose, CA - Diridon Staiton Area

Collection dates: 2/18/2015 and 2/21/2015

Total spaces: 820

- on-street: 820
  - off-street: 0

Price description: **Price description**: San Jose parking meters charge $2 per hour in the downtown core (except multi-space meters) and $1 per hour outside the downtown core. Multi-space meters charge $2 on weekday snear Diridon Station and special pricing during events or near the Convention Center. Off-street pricing at $1.00 for 20 min/$20 max weekends $5.00 flat fee.

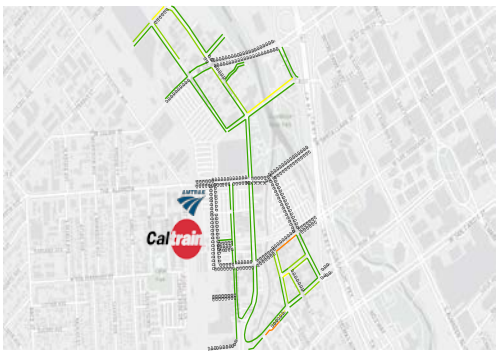
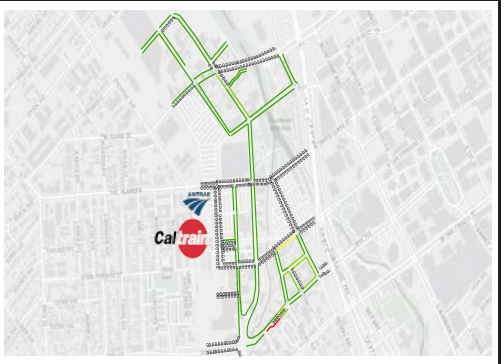
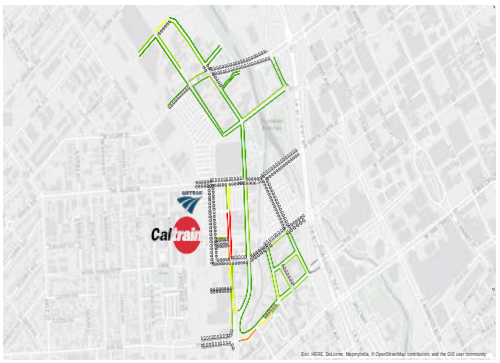
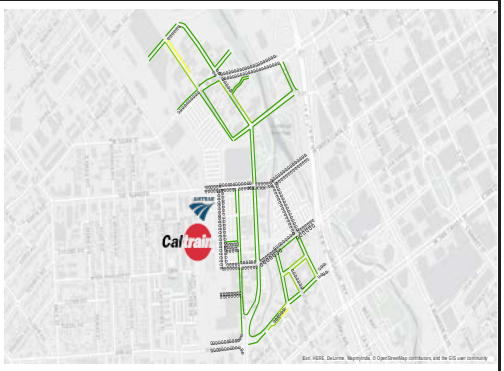
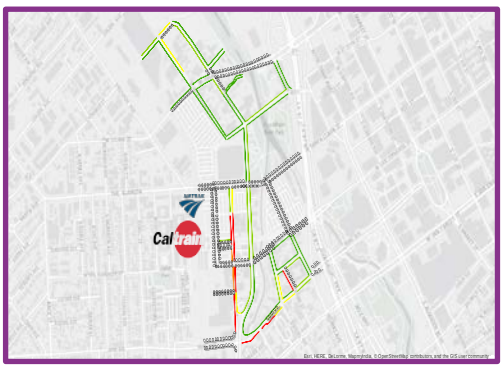
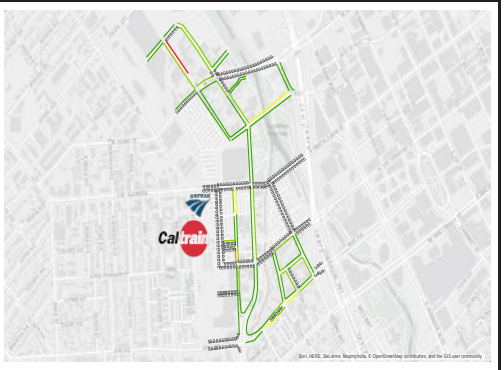
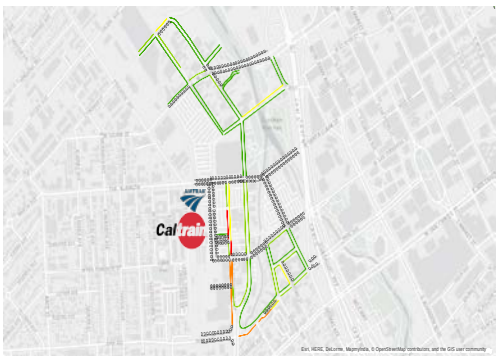
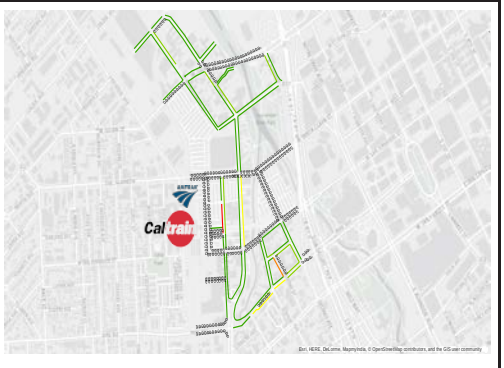
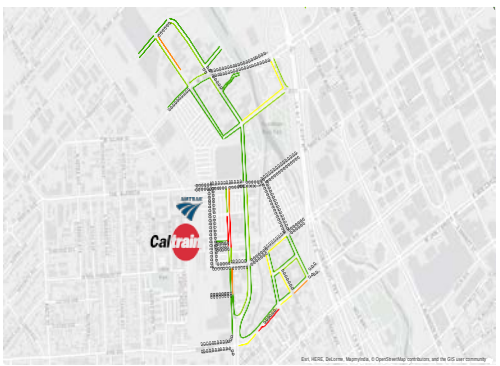
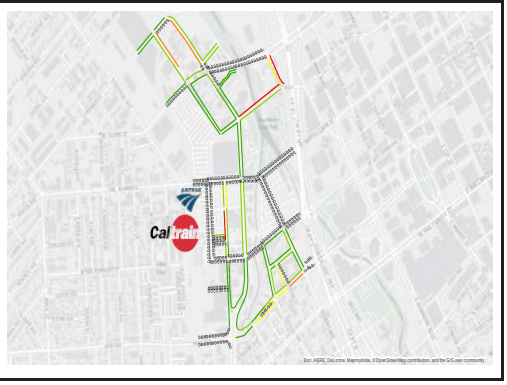
Time restrictions: On-street only

Typical restriction hours: 8AM - 3AM Mon-Sun

Parking occupancy in the San Jose Diridon station area is relatively low overall. Demand is high on South Montgomery Street adjacent to the Caltrain and Amtrak station.

Strategies to address these issues:

- Extend hours of enforcement to 8PM or later
- Increase travel demand management strategies to increase alternative mode access to transit facilities
- Monitor and potentially re-evaluate parking time restrictions and pricing

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: None

Peak on-street: 50% (Weekday 12PM)

Total peak: 50% (Weekday 12PM)

San Jose, CA

Northeast Downtown

Inventory

Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

San Jose, CA - Northeast Downtown

Collection dates: 11/6/2014 and 11/8/2014

Total spaces:4,352

- on-street: 2,371
- off-street: 1,981

Price description: **Price description**: San Jose parking meters charge $2 per hour in the downtown core (except multi-space meters) and $1 per hour outside the downtown core. Multi-space meters charge $2 on weekday snear Diridon Station and special pricing during events or near the Convention Center. Off-street pricing at $1.00 for 20 min/$20 max weekends $5.00 flat fee.

Time restrictions: On-street and off-street

Typical restriction hours: 8AM - 3AM Mon - Sun

In the Northeast Downtown study area, on-street parking occupancy on some blockfaces is high. Pricing and time restrictions exist throughout most of the study area, but enforcement hours end at 6PM. The off-street facilities in this area have relatively low parking demand.

Strategies to address these issues:

- Extend hours of enforcement to 8PM or later
- Monitor and potentially re-evaluate parking time restrictions and pricing

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 29%
(Weekday 12PM)

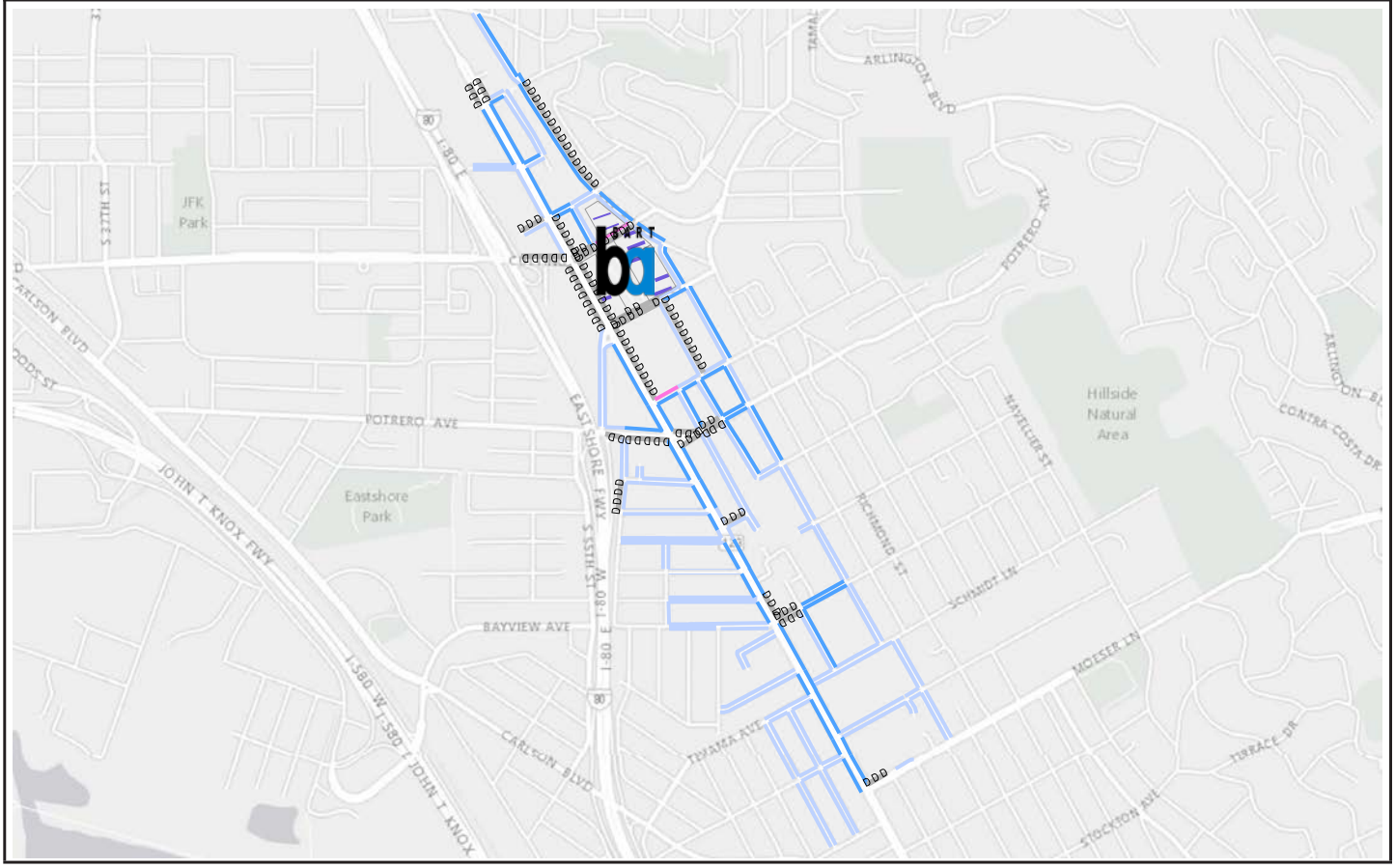
Peak on-street: 57%
(Weekday 8PM)

Total peak: 39%
(Weekday 12PM)

El Cerrito, CA

Del Norte BART Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

El Cerrito, CA - Del Norte BART Station Area

Collection dates: 11/5/2014 and 11/8/2014

Total spaces: 5,450

- on-street: 3,279
- off-street: 2,171

Price description: Off-street pricing at $1.00-$3.00/day at BART facilities

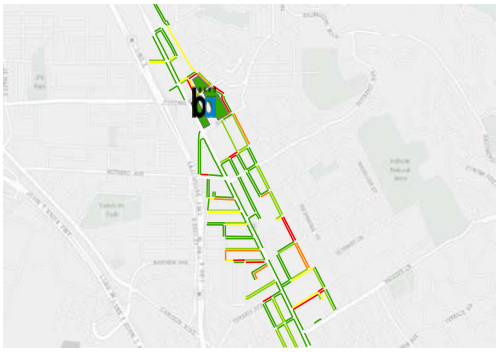
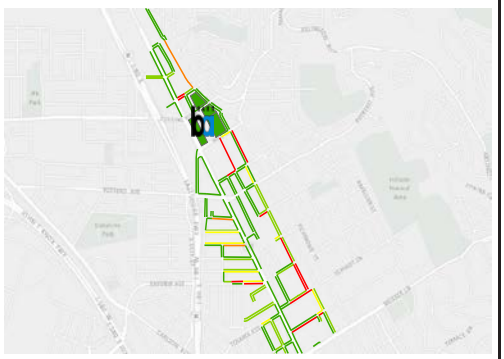
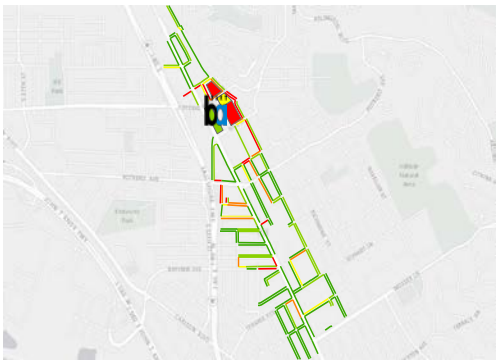
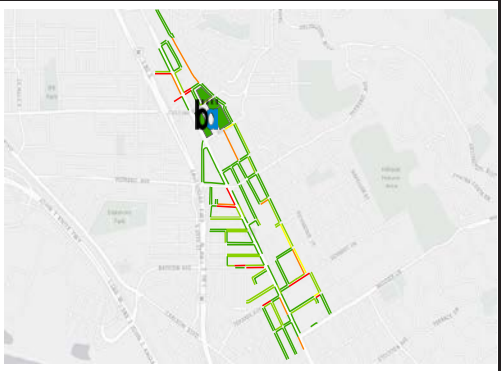
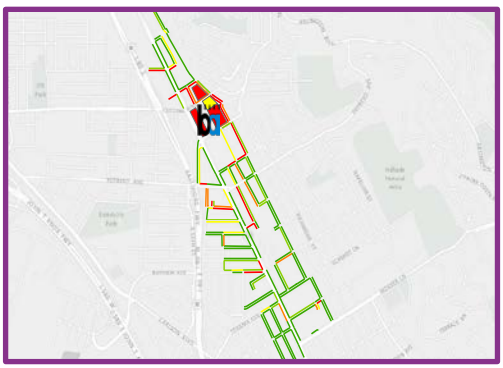
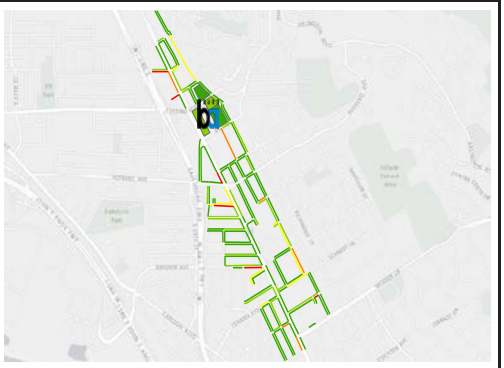
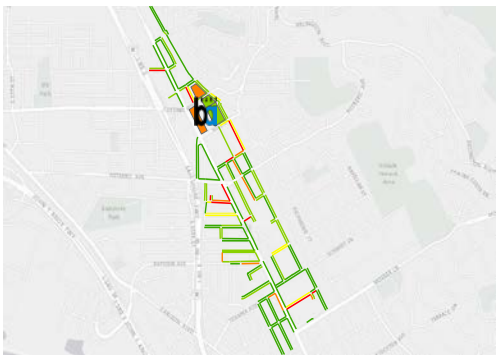
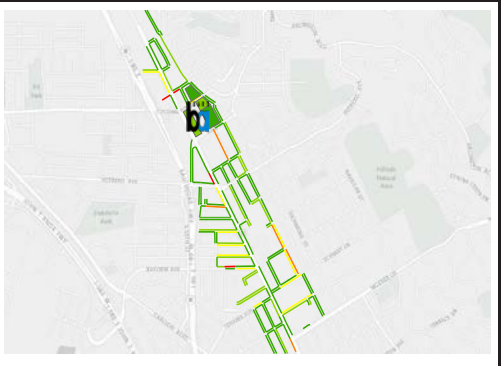
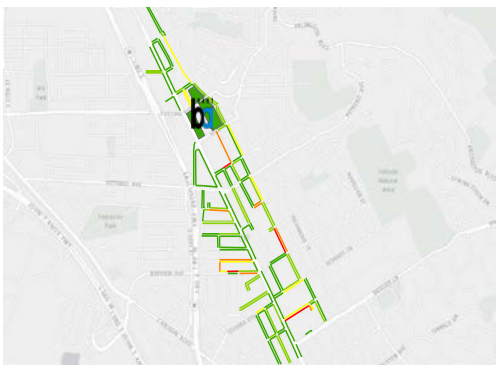
Time restrictions: On-street only

Typical restriction hours: varies depending on location; 7AM - 6PM Mon - Fri on-street or 4AM - 3PM Mon - Fri off-street

In the El Cerrito Del Norte BART Station study area, on-street parking occupancy on some blockfaces is high. It appears that time restrictions are not placed in areas of highest demand, but are likely successful in keeping plenty of parking available along San Pablo Avenue, where customers and visitors are most likely to park. All of the off-street facilities are for BART parking, and therefore have high demand from commuters during the weekday.

Strategies to address these issues:

- Expand time restrictions in high demand areas
- Consider transportation demand management approaches to support residents, employees and visitors in considering alternative modes, including information about alternatives and financial incentives

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 98%
(Weekday 12PM)

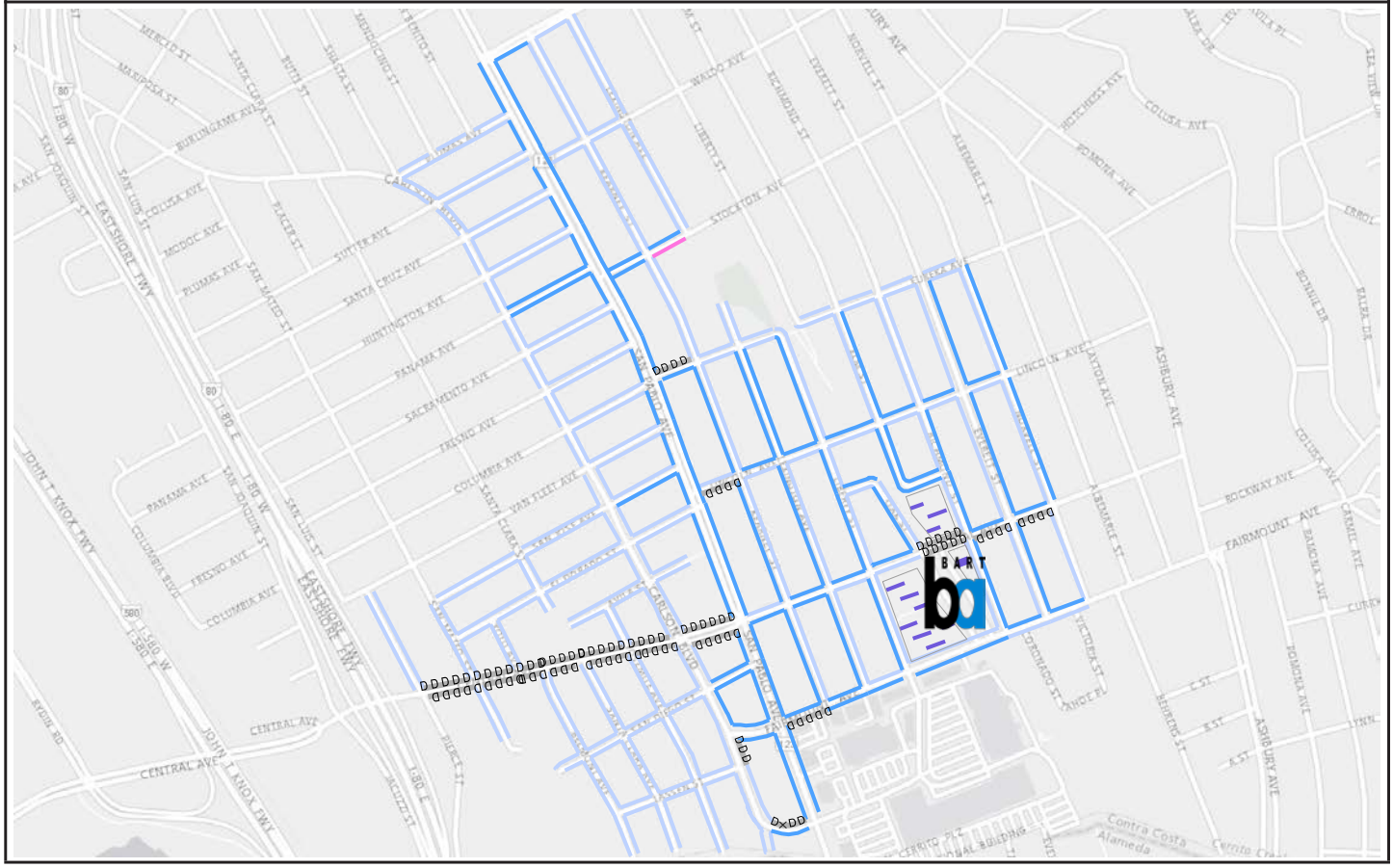
Peak on-street: 50%
(Weekday 12PM)

Total peak: 71%
(Weekday 12PM)

El Cerrito, CA

Plaza BART Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

El Cerrito, CA - Plaza BART Station Area

Collection dates: 11/12/2014 and 1/17/2015

Total spaces: 2,886

- on-street: 2,185
- off-street: 701

Price description: No on-street pricing; $3 daily fee at El Cerrito BART parking.

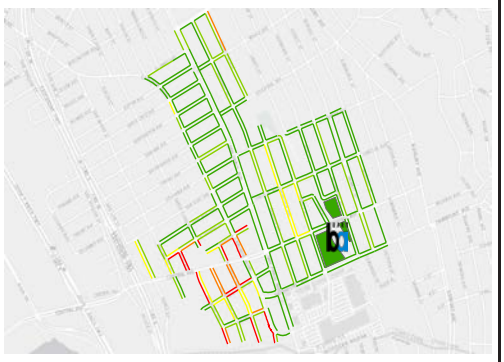
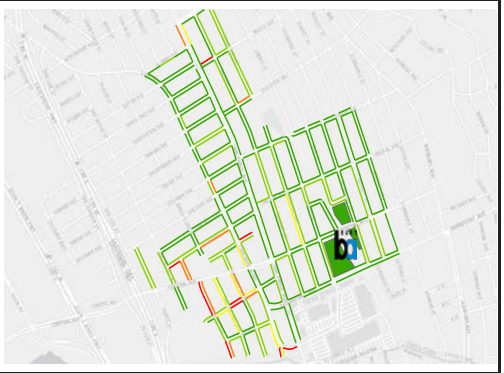
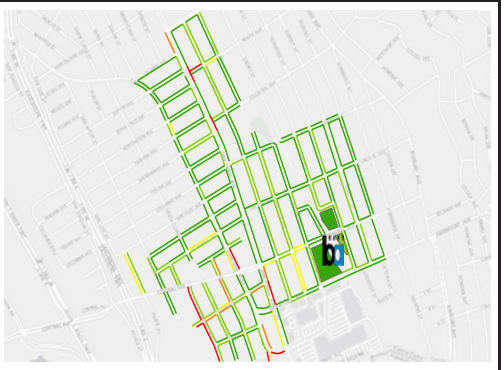
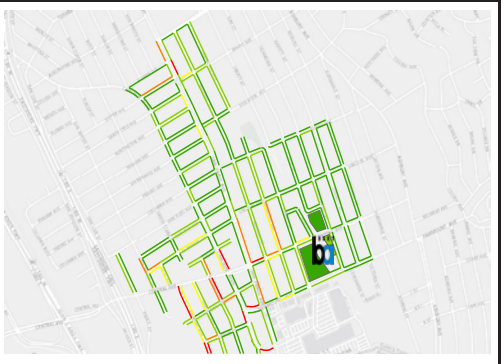
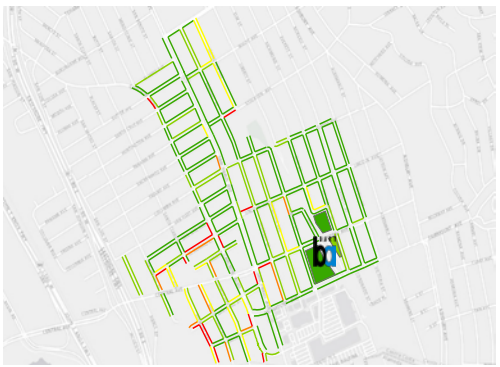
Time restrictions: On-street

Typical restriction hours: varies depending on location; 9AM - 4PM Mon - Fri on-street or 8AM -6PM off-street

In the El Cerrito Plaza BART Station study area, occupancy is moderate throughout the weekday and weekend. There are many streets with high occupancy, yet they are not clustered and typically adjacent to streets with lower occupancy. There is an area in the Southeast of the study area that has high demand and no restrictions; however, this high occupancy appears to be due mainly to residential demand (highest occupancy is at 5AM in this area). Parking time restrictions seem to be dispersed and located only on one side of most blocks in the BART station area. This is an interesting strategy as most people are avoiding restrictions by parking within unrestricted parking, yet it is also ensuring that there is some available parking in the restricted areas. While unconventional, it appears to be working successfully in this area.

Strategies to address these issues:

- Consider long-term fee parking within on-street facilities closest to BART station
- Consider transportation demand management approaches to support residents, employees and visitors in considering alternative modes, including information about alternatives and financial incentives

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 98%
(Weekday 4PM)

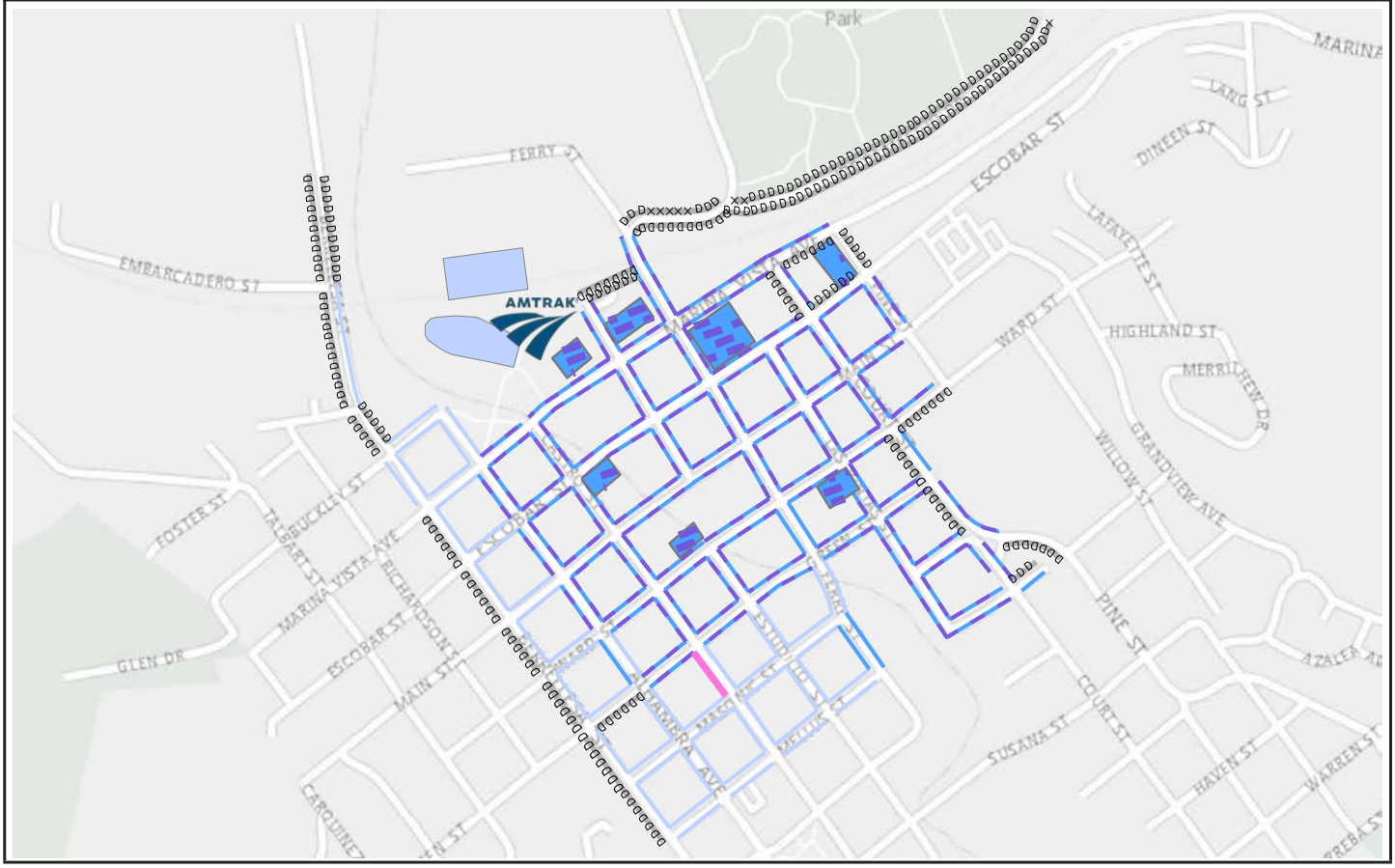
Peak on-street: 50%
(Weekday 12PM)

Total peak: 61%
(Weekday 12PM)

Martinez, CA

Downtown and Amtrak Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Martinez, CA - Downtown and Amtrak Station Area

Collection dates: 1/15/2015 and 1/17/2015

Total spaces: 1,873

- on-street: 1,232
- off-street: 641

Price description: Pricing at $0.50/hr.

Time restrictions: On-street and off-street

Typical restriction hours: 9AM - 6PM Mon - Fri

The parking occupancy in the Martinez Downtown and Amtrak Station Area varies widely by time of day and day of week. Hot spots of high demand occur at different areas and shift based on the time of day. This occurs on both on-street and off-street parking facilities. The Amtrak facility is typically in high demand, even on weekends, yet adjacent facilities are no more than 50% occupied during any time of day. This suggests that underutilized resources nearby the Amtrak station could encourage users to park in these facilities with a daily fee and/or long-term fee parking.

Strategies to address these issues:

- Provide long-term daily fee parking in underutilized off-street facilities nearby Amtrak station
- Improve way-finding directing parkers towards off-street facilities
- Consider transportation demand management approaches to support residents, employees and visitors in considering alternative modes, including information about alternatives and financial incentives

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 52%
(Weekday 12PM)

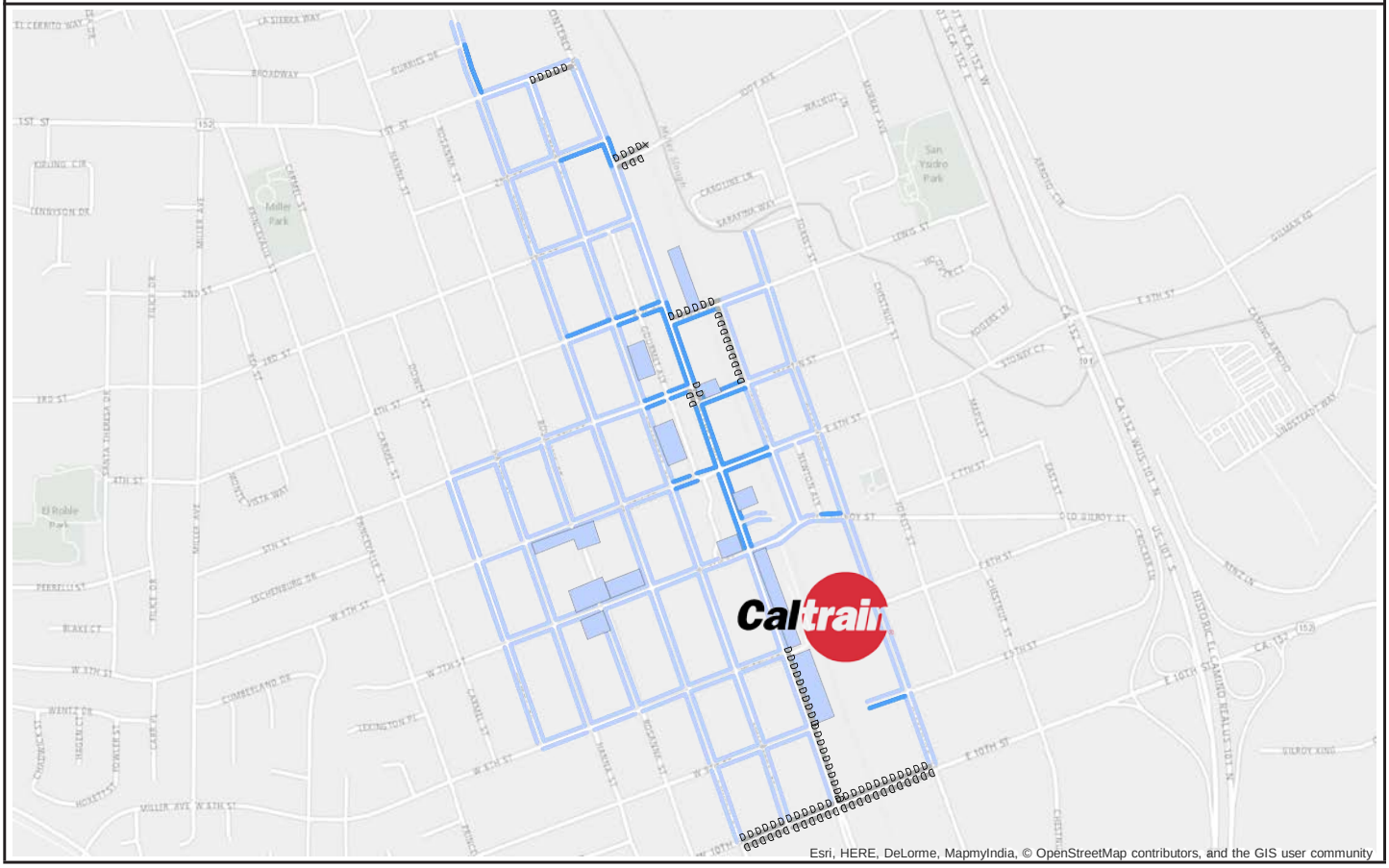
Peak on-street: 54%
(Weekday 12PM)

Total peak: 53%
(Weekday 12PM)

Gilroy, CA

Downtown and Caltrain Station Area

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Gilroy, CA - Downtown and Caltrain Station Area

Collection dates: 10/29/2014 and 1/10/2015

Total spaces: 3,743

- on-street: 2,780
- off-street: 963

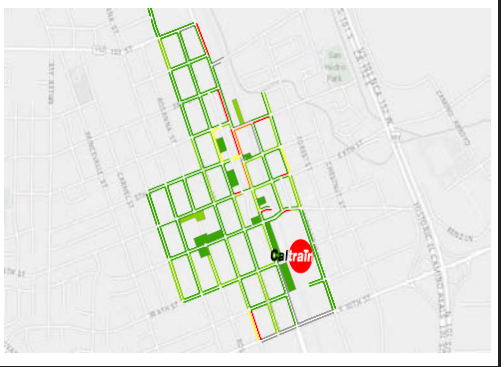
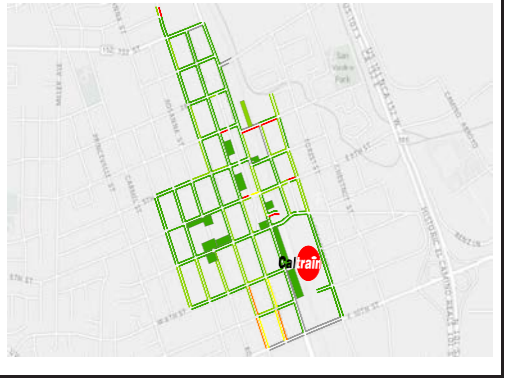
Price description: No on-street or off-street pricing.

Time restrictions: On-street only

Parking occupancy in Gilroy is highest in the weekday evenings and weekend day time. During weekday evenings, areas of high on-street occupancy are dispersed throughout the study area, but off-street occupancy is very low. During the weekend day time, occupancy is high around restaurant and retail destinations along Monterrey Road. However, there is excess supply outside this area. Parking time restrictions are well placed to correlate with this hot spot of high demand.

Strategies to address these issues:

- Consider on-street parking metering along Monterrey Road
- Extend hours of enforcement to Sundays
- Improve way-finding directing parkers towards off-street facilities

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy12PM		
Occupancy4PM		
Occupancy8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 50%
(Weekday 9AM)

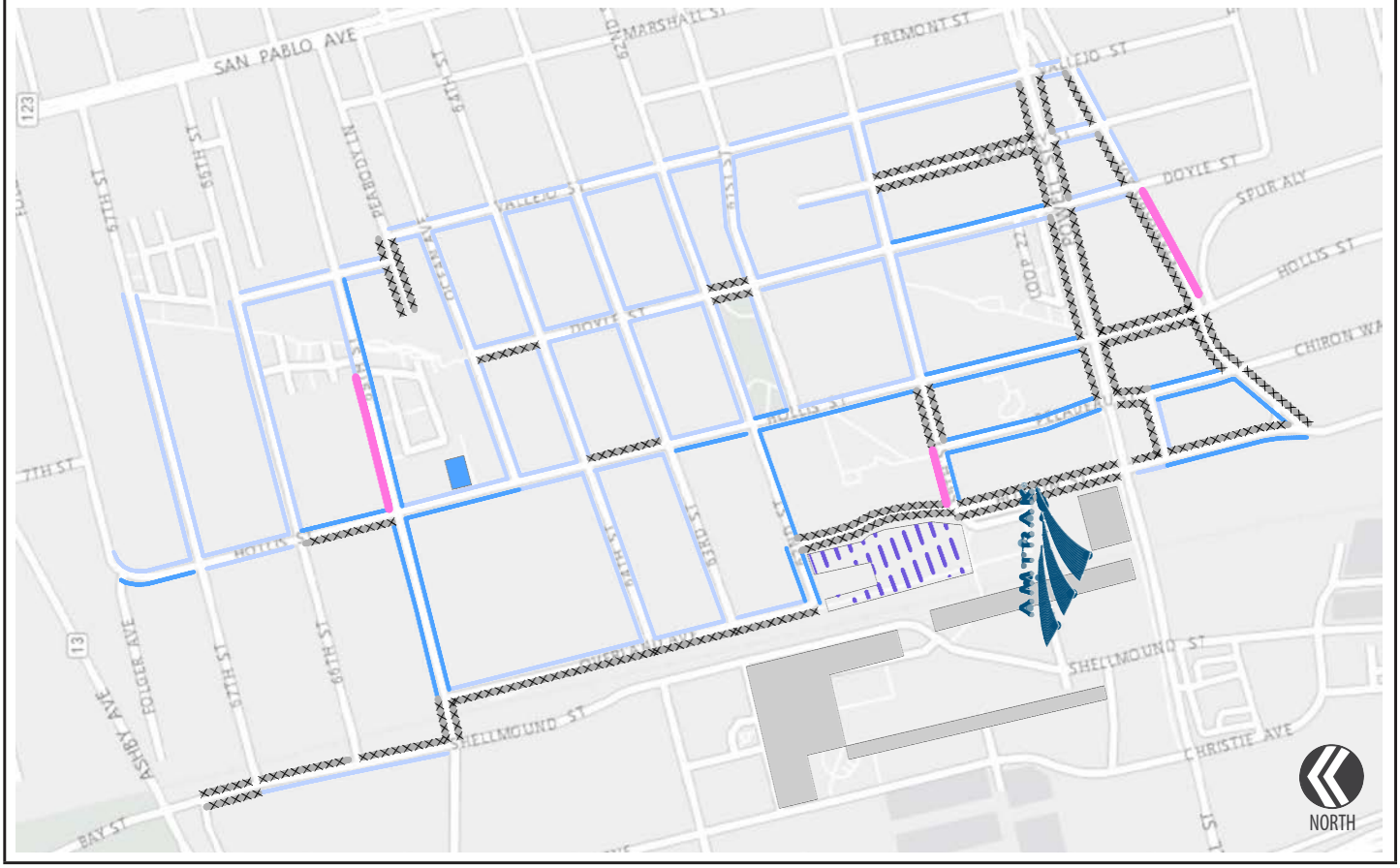
Peak on-street: 44%
(Weekday 8PM)

Total peak: 47%
(Weekday 12PM)

Emeryville, CA

Shopping District

Inventory



Legend

Inventory

Types of pricing and/or restrictions on space at any time

- No Parking
- Pricing restrictions
- Time restrictions
- Loading/Unloading Only
- No restrictions
- Data not available

Note: restrictions are for the most common restriction type per block or facility (priced, time restricted only, no restrictions, or loading/other). No parking includes blocks or facilities with less than 2 spaces.

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Note: Data was collected for the MTC VPP Regional Parking Pricing Analysis Project.

Emeryville, CA - Shopping District

Collection dates: 12/31/2014 and 1/22/2015

Total spaces:2,111

- on-street: 1,834
- off-street: 277

Price description: Off-street pricing within the Amtrak Lot ($2.50 per hour or $20.00 per day).

Time restrictions: On-street and off-street

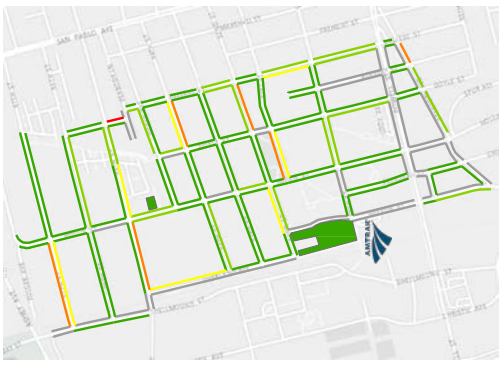
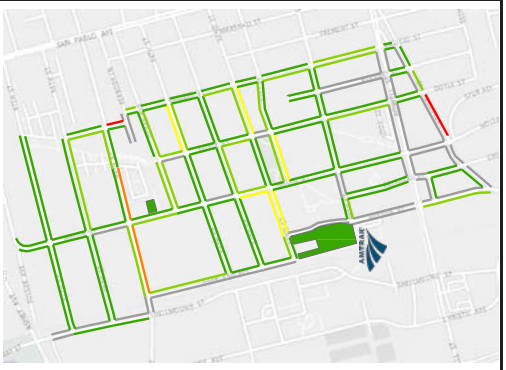
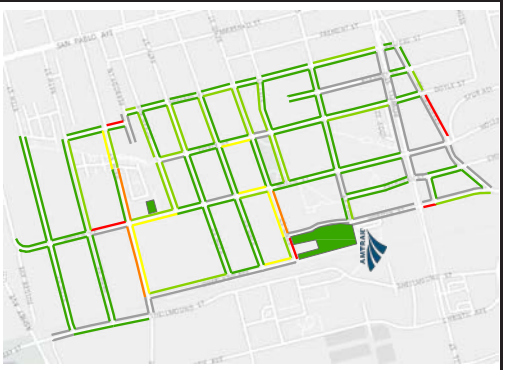
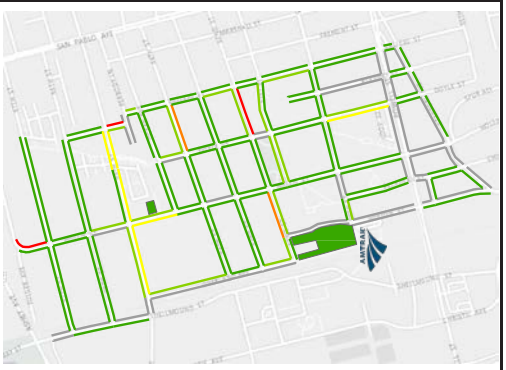
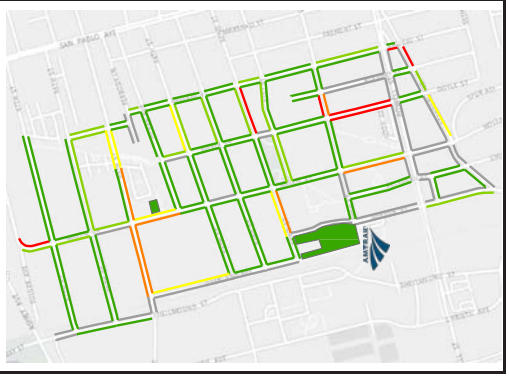
Typical restriction hours: 6AM - 5PM Mon - Fri

In the Emeryville parking study area, weekend and evening occupancy is relatively low, while weekday occupancy in the morning and midday is high. Comparing occupancy trends to time restrictions and pricing, time restrictions do not align with areas of highest demand between 62nd and 67th streets. This high on-street occupancy could be due to the density of shops in this area. The Bay Street shopping area - just West of the study area - has large amounts of off-street parking. These occupancies are above 95%, suggesting that residents and visitors have difficult finding available spaces in some areas nearby.

Only two off-street public parking facilities were included in the study area: the Amtrak Station Lot and the Glas Haus parking garage. Throughout all data collection times, the Glas Haus parking garage (57 spaces) is underutilized, despite 4-hour free parking. Further data collection in an expanded area during weekday morning and afternoon time periods could help understand these conditions.

Strategies to address these issues:

- Consider transportation demand management approaches to support employees in considering alternative modes, including information about alternatives and financial incentives
- Consider improving bicycle access through improved land use and infrastructure such as quality bike lanes to key destinations
- Improve way-finding directing parkers towards off-street facilities
- Implement on-street pricing during weekdays during morning and afternoon periods

	Weekday	Weekend
Occupancy 5AM		
Occupancy 9AM		
Occupancy 12PM		
Occupancy 4PM		
Occupancy 8PM		

Legend

Occupancy

Percent of total spaces with vehicles occupying spaces

- Less than 50%
- 50% - 75%
- 75% - 85%
- 85% - 95%
- More than 95%

Peak Period

Peak off-street: 90%
(Weekday 9AM)

Peak on-street: 83%
(Weekday 9AM)

Total peak: 86%
(Weekday 12PM)

NORTH

Appendix C: Modeling Tools

Modeling tools—UrbanSim and Travel Model One—are used to help address two of the Project's Policy Questions. Because the use of these tools to address the impact of parking policies is a new innovation, their use is explained below, along with discussion on how further development of the land use and travel models would allow for further parking policy simulation.

Bay Area UrbanSim

UrbanSim is the Metropolitan Transportation Commission's (MTC's) regional land use model in the San Francisco Bay Area. The model is used to analyze how planning policies affect the location choices of households, businesses, and real estate developers over the long term (e.g. 20 to 30 years). Typical analyses include assessing changes in development patterns due to proposed changes in policies such as zoning or urban limit lines; assessing the spatial and economic results of housing subsidies or fees; and assessing shifts in development patterns due to transportation investments. The system simultaneously examines the impacts of both land use and transportation policies and investments in an integrated and consistent manner.

A simple change in parking policy such as reduction or elimination of minimum parking requirements per unit is applied in UrbanSim by lowering the costs associated with building a typical residential project, and placing a value on parking spaces as an independent attribute of each residential unit. Future year simulations are then used to assess the degree to which this policy shifts the location of development. In this research, we analyze the impact of reducing or eliminating parking requirements compared with typical parking requirements on how much development occurs inside vs. outside of areas within one half mile of high quality transit, commonly referred to as a Transit Priority Area, or TPA. According to California SB 375, a TPA is an area within a ½-mile of high quality transit; a rail stop or a bus corridor that provides or will provide at least 15-minute frequency service during peak hours by the year 2035.

Results of this research can be used to help local and regional governments to better understand land use implications of parking policies. It can also help develop effective policies that provide residents with more choices in how they live and meet their travel needs, and that support implementation of the development patterns envisioned in the San Francisco Bay Area's regional plan, Plan Bay Area. This plan emphasizes additional development in the larger cities and along transit corridors in part to address housing and GHG emission goals. In the long run potential future policy changes around the reduction of parking requirements are expected to benefit residents who desire housing with less parking, through reduced costs for housing.

Travel Model One

Travel Model One is the name given to the Metropolitan Transportation Commission's (MTC's) regional travel demand model. The model is used for a wide array of analyses, generally done in the context of long range (i.e., 20 to 30 years) planning. Typical analyses include the following: assessing the performance of proposed transportation infrastructure projects; assessing the likely air quality and greenhouse gas impacts of long-range land use and transportation plans; and, assessing the likely impact of myriad transport-related policies, including roadway pricing and expanded transit service.

Travel Model One explicitly represents the impact of parking prices and parking subsidies on location

and mode choice decisions. This allows analysts to assess the regional impacts of policies that increase (or decrease) parking prices, such as mandated reductions in supply, or expose more (or fewer) travelers to parking prices through changes in employer-provided subsidy regulations.

The regional nature of the tool leaves it ill-suited to inform policy debates about smaller-scale or more-nuanced parking policies that are often effective at changing behavior. For example, the travel model "exposes" travelers to the cost of parking, but not the difficulty in obtaining parking. It may be that many users would gladly pay more for a reserved (or likely available) spot. Further, the model's representations of space and land use are fairly coarse, leaving it unable to comment on the ability of proximate businesses to share parking or to differentiate between different types of businesses.

Scenarios

Described above is a general framework to take assumptions specified by building type and density and apply them to all proposed developments in the region. The set described here are an initial set the results of which will be provided as part of this project, but an additional outcome of this project is to create a tool that is generally usable in future UrbanSim policy applications in the Bay Area and therefore the complete set of possible scenarios need not be analyzed at this time. A clear outcome of this project is that a specific file of well-defined assumptions will be used which enables easy configuration of parking requirements by MTC modeling staff.

The modeling process will include a baseline "no project" simulation to compare scenario results to. The second scenario will reduce parking requirements by half within Transit Priority Areas (TPAs). For the third scenario, parking requirements will be reduced to zero. TPAs are used as the basic geography for reduction of parking requirements, as a reasonable assumption is that parking requirements cannot be reduced without meeting transportation demand with some other mode, most likely transit and non-motorized modes in the dense built environments around transit hubs.

Output Method

UrbanSim natively creates parcel-level results, so counts of residential units and non-residential square feet are available at the parcel level throughout the bay area. However, this level of detail is difficult to interpret and also subject to stochastic noise in the simulation, so aggregations will be performed up to a number of geographies and the results can be mapped.

As an initial set of indicators, a map of residential units and non-residential square feet is provided by TAZ in the Bay Area. In addition, data summaries as tables are provided for the same measures inside and outside of TPAs for the three scenarios. The table summary statistics are to understand the order of magnitude of the effect as forecast by UrbanSim, and to answer the project's Policy Question: *What would be the impact of reduced parking requirements on distribution and types of new development in different areas of the region?*

Additional Assumptions

A number of minor changes to the UrbanSim model were required in order to implement the desired scenarios, the most important of which are listed here:

- A better accounting of the space within a building that is devoted to parking and what is left as usable space was required.

The developer model in UrbanSim was generally residential or non-residential focused and so kept an accounting of residential units (for residential) and job spaces (for non-residential). In

many cases, buildings may switch uses and a full accounting of the net residential units and job spaces for all buildings was required. For instance, a building may change from non- residential to residential and may result in a net loss in job spaces even though the new building is residential.

- Assuming that parking yields no revenue is inaccurate. Since we have trouble finding data with which to estimate the true amount that different household types are willing to pay for parking, this is currently assumption based using a ratio of the predicted purchase price.

  As an example, if a unit is 1000 square feet and yields a price of $1000 per square foot, the price of the interior space of the unit is one million dollars. There is now a ratio of that price to the price for parking, which is currently set to 0.32, so in the case of $1000 per square foot paid for interior space, if there is a parking requirement of one space per unit, that space is assumed to cost $320 per square foot and deck parking is assumed to use 300 square feet per space, resulting in a total cost of $96,000 for the parking space or $1,096,000 combined. Without making this sort of assumption, the model would overestimate the impact of changing the parking requirements on the built environment in the region as the parking space would have a cost but no associated revenue.

- A small calibration factor was adjusted in order to equate non-residential rents, which were obtained in 2009, and residential prices, which were obtained in 2012. Additionally, zone-base aggregations of rents and prices are used rather than local street aggregations, as “median” aggregations, which are not currently available in the UrbanSim accessibility framework. This problem will be addressed more systematically in the upcoming RTP.

- For reference, parking requirements are set in a configuration file and are trivial to change. Simply modify the parking assumptions and rerun the simulations As the link above is to a private code repository, a screenshot of the relevant part of the configuration file is pasted below which shows how to adjust the parking requirements. Simply change the numbers in the appropriate location in the configuration file and rerun the simulation to test other input assumptions

Appendix D: UrbanSim Methodology and Assumptions

UrbanSim Assumptions

Parking Requirement Assumptions

Parking requirements are defined in a simple CSV format that will combine UrbanSim's basic building types with residential densities (given as Dwelling Units per Acre, DUA) and non-residential densities (given as Floor Area Ratios, FARs). Parking requirements are per unit for residential uses and per 1000 square feet for non-residential uses.

In words, the building type is either residential, industrial, office, or retail. Maximum densities are given in dwelling units per acre for residential and floor area ratio for non-residential. Minimum parking requirements are the actual, built parking assigned to the land use and thus the model will build no more than the required parking.

A Note on Pro Formas and UrbanSim

UrbanSim is a regional real estate forecasting framework that has several components integral to its modeling calculations. *Transition Models* process assumptions about household and employment growth over the time period; *Hedonic Models* are used to estimate and simulate price changes; *Location Choice Models* are used to simulate a continuation of recent trends in neighborhood and building preferences by households and businesses; and the *Developer Model* is used to capture real estate development at a parcel level scale while respecting parcel-level density and use limits on each parcel in the region.

The most relevant model to this project – and the only model that requires modification of no project assumptions for the scenarios – is the Developer Model. The Developer Model currently used by UrbanSim takes simulated prices from the hedonic models and current demand for floor space, and runs a "pencil out" pro forma for every parcel in the region. The pencil out pro forma is a standard tool to calculate the financial viability of a potential development project and is ubiquitous in practice by real estate developers. Although full pro formas have been used by UrbanSim in the past, pencil out models are now "state of the practice." This is due to the transparency of inputs and outputs and match of level of detail to the availability of data and specificity of forecasts. In other words, because is not possible to create parcel-level development predictions with 100% accuracy, it can be difficult to forecast the parcel-level impacts of changes in parking requirements with 100% accuracy. In the expert opinion of the modelers on the team, the proposal described here matches the specificity of assumptions with the level of precision feasible in the simulated forecasts.

Prior to incorporating parking requirement data for the VPP Parking Project, the pencil out pro forma in UrbanSim already fully supported parking requirements in its implementation. As units and non-residential floor space are tested, parking requirements are accounted for both in terms of the space they consume on the site, the cost they require to construct, and the type of parking that can be built, including surface, deck, and underground parking. It should be acknowledged that certain configurations are not considered, such as half surface and half structure parking, a configuration that is not common, but is occasionally constructed. Thus parking requirements are already available in

the existing Developer Model, but they are currently set to regional defaults and have not been modified to test for scenario-specific impacts of these requirements on regional land use, which is the purpose of this project.

To run the specified scenarios, parking requirements will be read from the simple configuration file described above and will be passed as assumptions into pro forma computations used to forecast real estate development.

Appendix E: Regional Parking Analyses by MTC

Year	Title	Description
2012	MTC Smart Parking for Smart Growth workshop	Workshop for local planners and policy makers to help educate jurisdictions about recent California legislature (AB904, Skinner) and research on "smart" parking policies for transit-rich areas.
2012	MTC Parking Structure Technical Report	Research to better analyze needs and evaluation process of parking structures near transit.
2012	Parking Stakeholders Survey, MTC's Smart Parking Technical Assistance Program	Research conducted including surveys and interviews with stakeholders related to their experience with parking standards.
2012	Survey of Bay Area Cities' Parking Requirements, MTC's Smart Parking Technical Assistance Program	Analysis and survey of the parking requirements within 52 cities throughout the Bay Area providing baseline information on existing requirement policies.
2012	New Partners for Smart Growth: Putting Parking in its Place for Smart Growth	A 3-hour expert-panel event presenting an array of smart parking policies at the New Partners for Smart Growth Conference.
2012	Parking Code Guidance: Case Studies and Model Provisions, MTC's Smart Parking Technical Assistance Program	Provides key issues and offers parking code guidance to help local jurisdictions consider and enact parking policies.
2011	Parking 201: Economic Assessment of Structured Parking at Transit Stations	An economic analysis of case study parking structures at transit stations and the ridership impacts of parking near BART stations.
2011	Parking fundamentals (101) Training: Fundamentals of Parking Reform	Training session for local planners and staff to learn about parking best practices, common issues, and outreach.
2010	Regional Parking Strategies for Climate Protection	Provides expert recommendations for immediate and longer term regional parking policies for the Bay Area, with information about potential timing, criteria for selecting particular policies, expected effectiveness, and approaches to addressing implementation issues.
2007	MTC's Parking Demand Model	An MS Access database that allows jurisdictions to input information about land use conditions to produce an estimated parking demand figure.
2007	MTC's Toolbox/Handbook	A toolbox of parking best practices and strategies for supporting TOD in the Bay Area.

Appendix F: Expert Testimony

Expert Panelist – Meea Kang

Meea Kang is the President/Co-Founder of Domas Development. She has extensive experience with residential parking as a developer and as a policy advocate. Meea Kang discusses the following related to unbundling:

> As a statewide developer of affordable housing in infill areas around transit for families, the workforce, special needs, seniors and mixed-use projects, I can tell you we are at a pinnacle of lack of affordability of housing in California. It seems as though we in California, and almost everywhere in the U.S., actually care more about free parking for cars than housing for people. I have never met a plan I have not had to change because there is not flexibility in the parking standards. We think in a "one size fits all" mentality. Zoning plans are additive. If we want walkable communities that prioritize the pedestrian, we need to rethink parking standards. For every single project I have done in California, I have had to reduce the parking requirements because they do not fit and they are so excessive – especially for the infill populations we are building to accommodate. Our codes today also do not recognize the different modes of transportation now available – transit-oriented developments, Uber, Lyft, carsharing, and bicycling. People are moving away from cars and our codes need flexibility to address that fact. Why is it difficult to change? Because the constituents are controlling the dialogue and the NIMBY's do not want new developments, which they believe, will affect their ability to find parking. Therefore, we tell new developers they must fix all of the problems of the past and provide more off-street parking. Why? Because everybody's concern is spillover parking into residential areas.
>
> One of the challenges in the Bay Area is the missing middle – that housing group in between the very affordable housing and the super high-end housing. That leaves the middle to the suburbs (i.e. Tracy, Brentwood, etc). How are we going to start using our existing downtown areas? Eliminate parking requirements because not everyone owns a car anymore. We are seeing a shift in vehicle ownership. San Francisco is now at 0.59 cars per person and Los Angeles has a 0.54 per capita car ownership rate. That is less than a car per each person. Yet we still have cities that require off-street parking requirements that force developers to ask Planning Commissions to reduce the parking requirement.
>
> Due to these experiences, I am working on statewide parking reform through the legislature with AB 744 (Chau). We have failed twice before because jurisdictions want to have local control over their area. Every jurisdiction wants to have their own parking variances to accommodate their populations. However, we need to look at this as a statewide and regional issue and consider that housing affordability is a statewide problem.
>
> AB 744 will look at the following:

- Eliminating minimum parking requirements for 100% affordable housing within a half-mile of transit;
- For inclusionary housing under SB 1818 with a small percentage of affordability and the remainder market rate housing your parking ratio could go down to 0.5 per bedroom; and
- For special needs or senior housing that is 100% affordable, regardless of location, parking requirements could be eliminated.

I build affordable housing statewide and I would like to give you some averages:

- For special needs housing the average median income is $11,600 per individual.
- For a senior housing regular tax credit project, the average income is $21,000/annually.
- For a family of three housing project the average income is $23,000/annually.
- Car ownership averages $10,000/annually.

The demographics we are building homes for would like the option of not having to own a car and use that $10,000 annual cost on other necessities. We need to consider these facts when requiring developers to provide off-street parking.

We need to shift our perspective to create a vision of a sustainable California, as under AB 32 and SB 375 and the great work that MTC and ABAG are doing by projecting a vision of how we can move there. If we eliminate minimum parking requirements, we can start to move that needle. We need to project a vision of how we can move there and start to build more housing for people rather than build more free parking for cars.

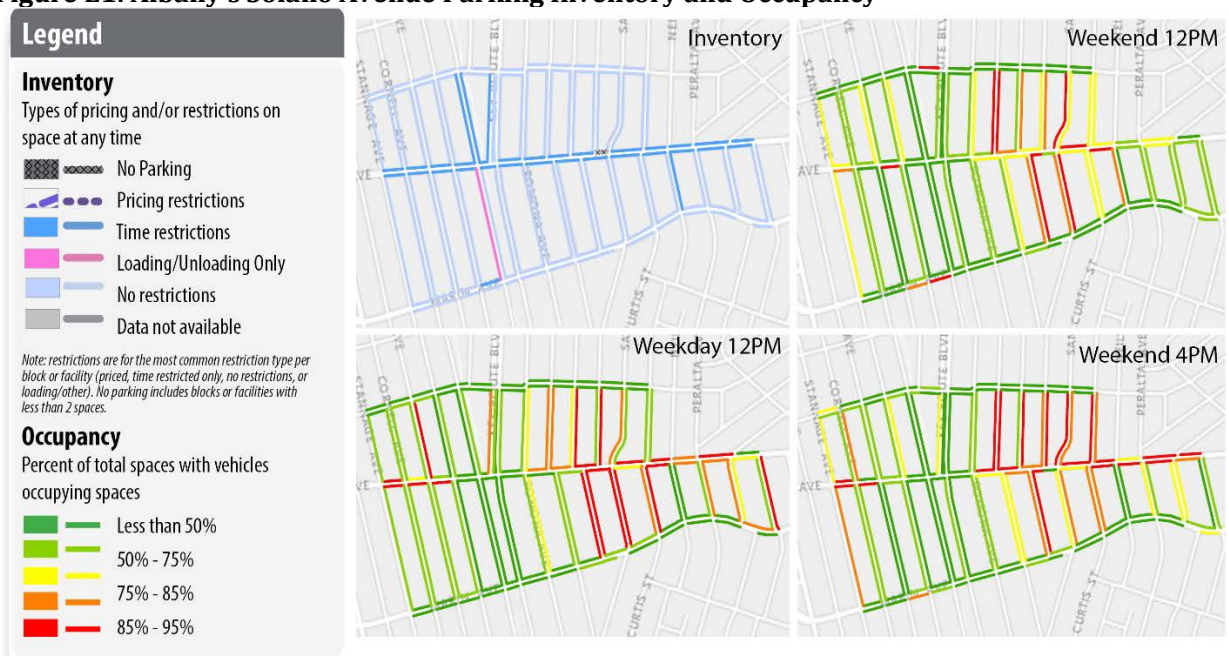
Appendix G: Findings, Examples, and Strategies

1. Very high demand exists within a hot-spot area, but there is available supply elsewhere

Example: Albany's Solano Avenue commercial district has a hot-spot area of very high demand. In areas to the west of this as well as streets to the north and south of this area, there is available occupancy. However, demand on both weekdays and weekends is very high in this hot-spot area. On-street metering could help distribute this demand. Other study areas where this was also observed include: Santa Rosa, Hayward, El Cerrito, Vallejo, Sunnyvale, Millbrae, Gilroy and Emeryville.

Strategies to address this issue include: Implement metering within areas of very high demand; monitor and regulate metering prices so that they help distribute demand; consider variable prices with increased prices on corridor(s) of highest demand; and consider variable prices so that costs are higher for longer lengths of stay.

Figure E1: Albany's Solano Avenue Parking Inventory and Occupancy



2. Demand is high throughout much of an area's on-street parking facilities

Example: The City of Emeryville has very high demand throughout the study area. High demand is, in large contribution, due to residents parking within the public on-street areas. Demand management policies could help manage this issue. Additionally, off-street demand is much lower and there is available supply to accommodate the high on-street demand. Other cities where this issue was observed include: Alameda, Burlingame, and San Jose.

Strategies to address this issue include: Implement or increase pricing and other regulations in areas of highest demand to manage demand; implement wayfinding to direct users to off-street parking if available; enact variable pricing to balance demand; implement transportation demand management approaches to support alternative modes, including information about alternatives and financial incentives.

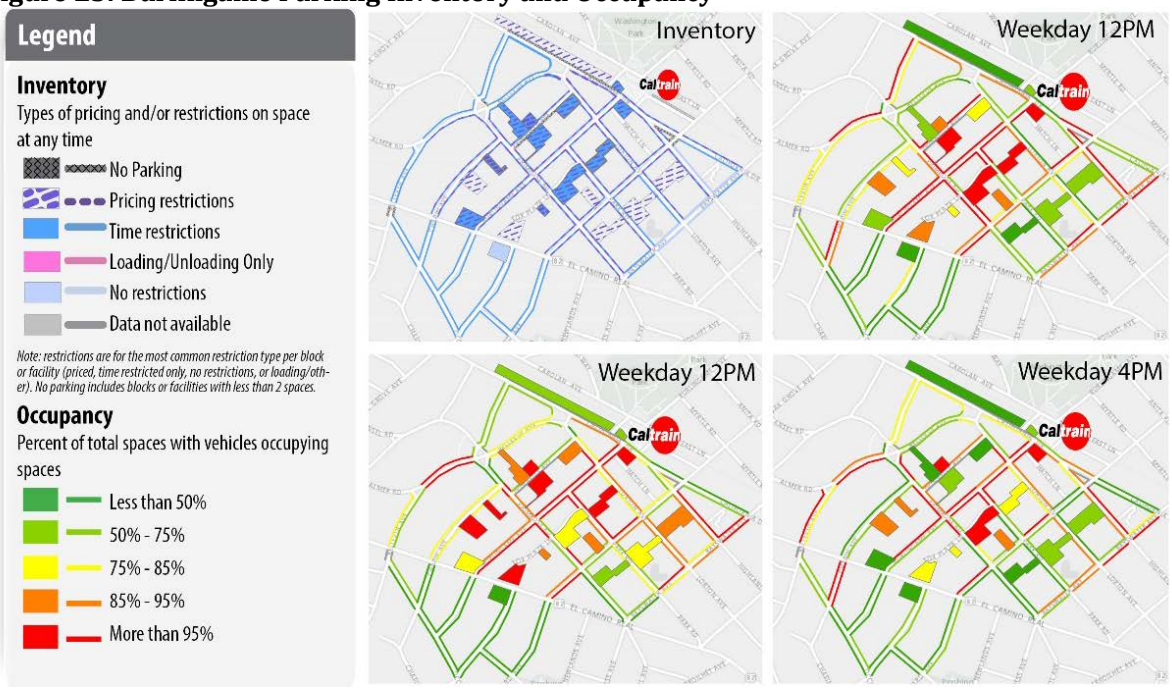
Figure E2: Emeryville Parking Inventory and Occupancy

3. Pricing regulations exist, but prices are set too low

Example: Burlingame, CA has appropriately placed pricing regulations within their downtown area: pricing is located in areas of highest demand. A variable pricing scheme exists in order to encourage short-term parkers. However, very high demand during the midday periods suggests that prices are not set high enough. Increasing prices within highest demanded areas while providing wayfinding to direct parkers to parking facilities that are less used would help mitigate this issue. Other study areas where this issue was observed include: Alameda, South San Francisco, San Jose, Vallejo, Sausalito, and Santa Rosa.

Strategies to address this issue include: Increase fees in areas of highest demand; re-evaluate demand and make sure that restrictions encourage parking in underutilized facilities; and use variable pricing in order to encourage use of the available parking supply. Cities with this issue should also consider transportation demand management approaches to support alternative modes, including information about alternatives and financial incentives.

Figure E3: Burlingame Parking Inventory and Occupancy



4. Regulations exist, but not during periods of highest occupancy

Example: Sausalito, CA has very high peak period occupancy occurring on weekends at 8PM. In some areas, pricing is implemented, but the enforcement period ends before 8PM. The figure below shows parking occupancy during Sausalito's peak demand period. Most areas are occupied above 95%. These areas would benefit from extending pricing restrictions later in the evening (often later than 8PM) and also throughout the weekend (depending on the City). Of the 25 cities analyzed, five would particularly benefit from this approach, including: Millbrae, South San Francisco, Santa Rosa, Sausalito, and San Jose.

Additional strategies to address this issue include: evaluate when parking management is needed and compare these times to current enforcement hours. Extend parking enforcement hours to cover these times.

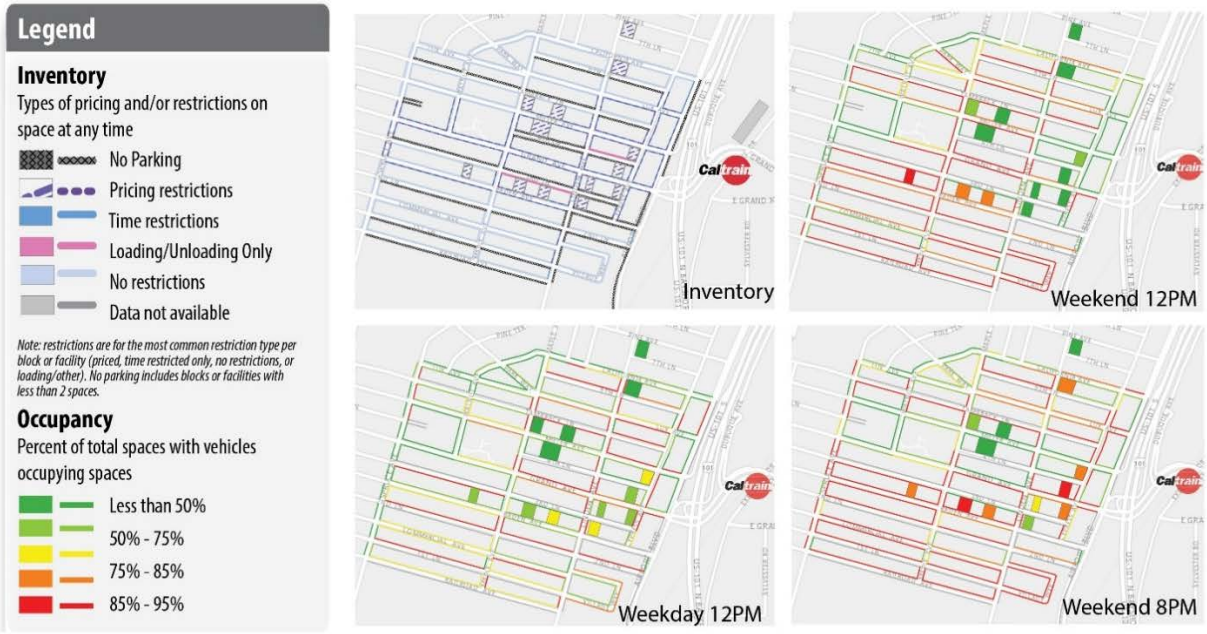
Figure E4: Sausalito Parking Requirements and Peak Period Occupancy (weekend, 8PM).

5. On-street parking is high, but there is available off-street supply

Example: South San Francisco, CA has very high parking occupancy throughout much of its on-street supply, yet there is available off-street parking supply that could be better utilized. Other cities that exhibit these conditions include San Jose, Emeryville, Alameda, and Burlingame. While it is more common for on-street facilities to be more highly utilized, some cities have the opposite problem: off-street parking occupancy is very high and there is available on-street supply (in the periphery) such as Downtown Burlingame, Redwood City and San Mateo.

Strategies to address this issue include: Increase on-street parking pricing and decrease off-street parking pricing; increase wayfinding to off-street facilities. Cities with this issue should also consider transportation demand management approaches to support alternative modes, including information about alternatives and financial incentives.

Figure E5: South San Francisco Inventory and Occupancy



6. Low overall occupancy and a high amount of unused supply

Example: Downtown Dublin, CA has almost 10,000 parking spaces within an area of approximately 3.25 square miles. Almost every parking facility within this study area is less than 50% full at all times of day and all days of the week. Thousands of parking spaces could be repurposed for development and/or housing. As such, the City should limit parking construction for new development. The area is accessible by BART; transit-oriented development could be put in place of large empty parking lots to encourage economic growth.

Strategies to address this issue include: For excess parking supply, cities can eliminate parking requirements for new development to reduce unused supply. Cities can also repurpose/redevelop off-street parking lots and support TOD development in place of any large underutilized parking lots.

Figure E6: Inventory and Occupancy for the City of Dublin, CA