City of Orange – Old Towne

Parking Technology Implementation Plan

Prepared by Dixon Resources Unlimited

for the City of Orange

DIXON
RESOURCES UNLIMITED

City of Orange

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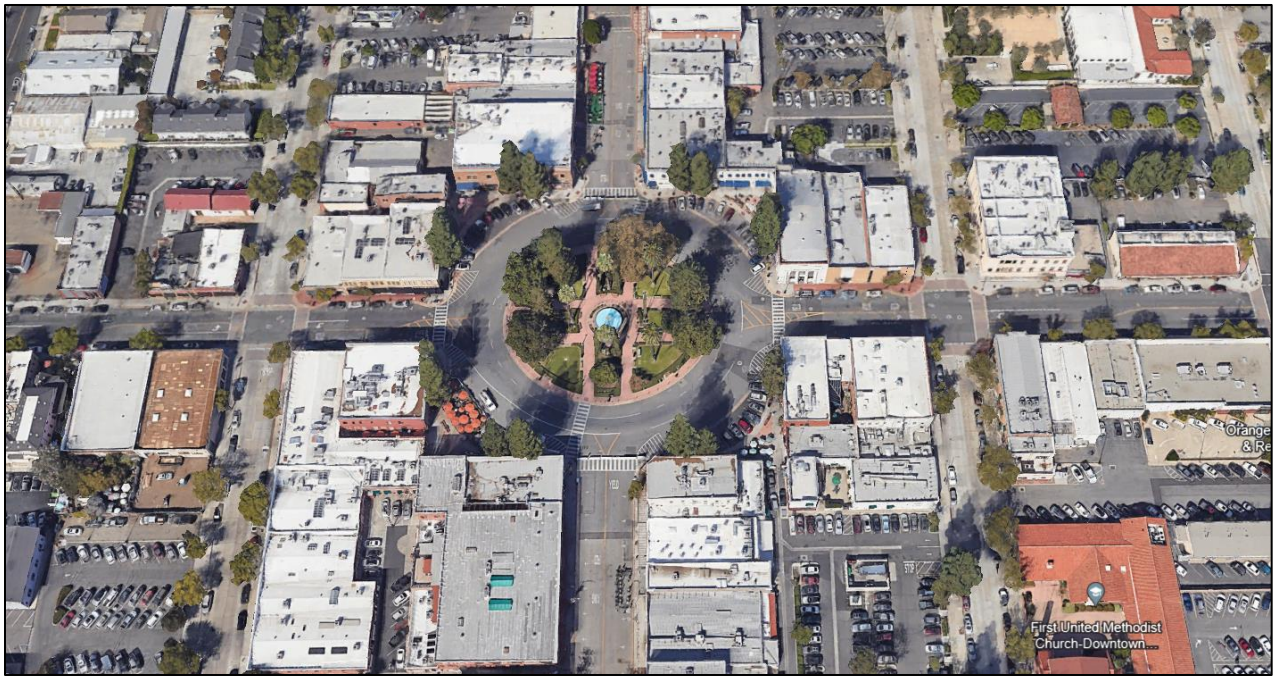
City of Orange – Old Towne

Parking Technology Implementation Plan

Executive Summary

This Parking Technology Implementation Plan ("PTIP") provides a detailed set of recommendations with the goal of improving the parking experience and supporting economic development by implementing paid parking, smart technologies, and other parking management strategies in the Old Towne commercial core of the City of Orange ("City"). The PTIP is a summary which incorporates interviews, site visits, document reviews, financial analysis, current technologies, and comparable city reviews that occurred in November 2023 through May 2024. As outlined in the scope of work, the City requested that Dixon Resources Unlimited ("DIXON") examine existing parking conditions in Old Towne, facilitate stakeholder engagement with the business community, coordinate vendor technology demonstrations, produce financial modeling scenarios, and prepare this PTIP with the goal to provide the City with a roadmap towards an improved program through, among other strategies, paid parking management and technological integrations.

Figure 1 - Old Towne Orange – Plaza Park



Stakeholder Feedback, Field Observations and Data Analysis

During two public meetings on Thursday, January 11, and Wednesday, March 13, the DIXON team met with downtown businesses and city staff to identify parking challenges and opportunities in Old Towne Orange. Feedback from business owners and employees highlighted three important needs:

1) There is not enough available parking in the "commercial core", generally within the Downtown Plaza District boundaries defined in the Orange Municipal Code by Maple Avenue to the north, Almond Avenue to the south, Lemon Street to the west and Grand Street to the east;
2) There is a lack of active parking enforcement in the commercial core, contributing to a lack of turnover for businesses and customers; and
3) There is a lack of useful parking information, informing drivers where to find available parking in the commercial core.

Analysis of available parking data and field visits validated the aforementioned concerns. Parking occupancy and inventory data showed that, while overall Old Towne parking supply exceeds demand, that demand is imbalanced, which causes congestion in the commercial core. In general, long-term parking demand is often taking up valuable store-front spaces while periphery lots such as the Old Towne West parking structure, are extremely underutilized and are often considerably less than half full during "peak" periods. This indicates there is a significant opportunity to more efficiently manage and effectively utilize the existing parking infrastructure.

Vendor Demonstrations

Demos were conducted with paid parking and sensor technology vendors in January, February, and May of 2024 to get a better understanding of how paid parking and real-time parking availability could improve the parking experience for customers, businesses, and residents in Orange. Paid parking options, including digital pay station and mobile applications, were presented by multiple vendors, and camera sensor technology options were provided that could feed real-time parking availability onto mounted digital signage and/or parking applications.

Financial Modeling Scenarios

Several financial modeling scenarios were analyzed, each of which details potential revenues generated by implementing a mix of paid on and off-street parking. Included in the scenarios are different hourly rates, potential costs to the City between capital and ongoing operational expenses, and anticipated parking occupancy and compliance of paid customers. The resulting projections indicated that, while revenue potential can be highly sensitive to changes in said parameters, e.g. pricing, compliance, enforcement, and hours of operation, conservative assumptions are

expected to result in a viable paid parking program - one that can achieve parking management/economic development goals in a revenue-positive manner.

Recommendations

Based on the background provided and the contents of this report, a number of immediate and near-term improvements are developed/identified that fall into four general categories:

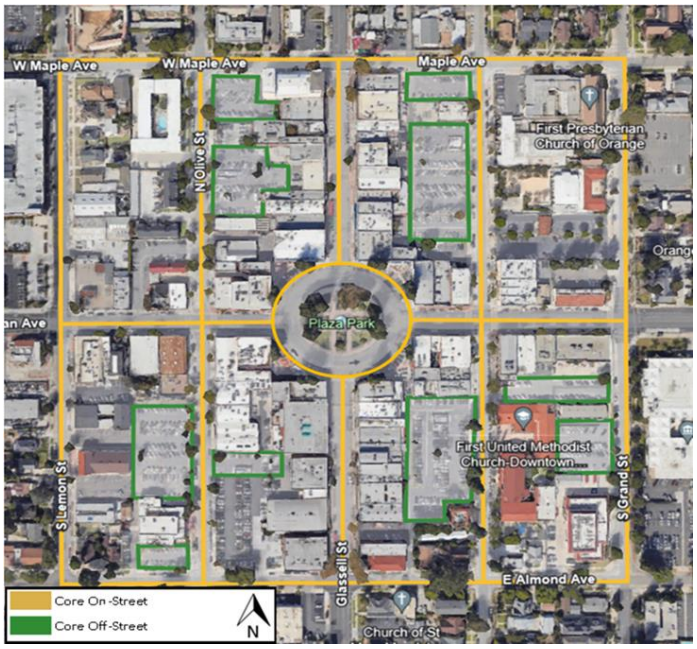
- **Paid Parking Implementation**
- **Enforcement Enhancements**
- **Wayfinding and Parking Guidance Implementation, and**
- **Curb-and-Off-Street Management**

Specifically, for immediate consideration is a 10-step plan described below that is critical to Old Towne parking management and economic development:

1. Implement Paid Parking from 9am-6pm 7 days a week in the commercial core area shown below.

Paid parking, including both on-street parking spaces and off-street lots within the commercial core, is expected to generate (net) approximately $900K in year 1 and $1.2M annually thereafter.

Figure 2 - Recommended Paid Parking Footprint



2. Establish parking rates of $ 2.00 per hour for on-street parking around Plaza Square where Chapman and Glassell intersect, $1.50 per hour for on-street parking in the remaining footprint, and $1.25 per hour for off-street parking

These rates are appropriate based on rate studies of comparable downtowns in Southern California. All lots would be similarly priced.

3. Issue an RFP for paid parking infrastructure, to design and procure pay stations and a mobile payment (pay via app or text) system
Respondents would design the architecture and propose detailed smart parking solutions for the city's consideration.

4. Enforce through License Plate Recognition
License Plate Recognition (LPR) camera systems can instantaneously verify whether parking sessions have been paid as parking control officers patrol the area, significantly increasing enforcement efficiency and efficacy.

5. Procure an Automated Parking Guidance System on Commercial Core Lots
Real-time parking availability displayed at the entrances to each parking lot (and through phone applications) will improve parking availability, as less drivers will be circling lots and blocks unaware if there is parking availability. This proposed improvement should be explored after paid parking is implemented.

6. Update static wayfinding signage as needed
Revisit placement and messaging of static signs to complement automated parking guidance system

7. Specific to each lot, implement a mix of time-limited, visitor, and employee parking options in the Main Library, Senior Center, and Civic Center lots
Once paid parking is implemented in the commercial core, parking will need to be preserved for visitors and employees in peripheral off-street locations.

8. Expand Downtown Permit Parking Area A to protect residential perimeter from commercial parking spillover
The City already has a robust neighborhood permit parking program with streamlined opt-in criteria for areas inherently susceptible to commercial parking intrusion. Adjusting the boundaries of eligible residential areas to include the entire Old Towne perimeter would provide all residential areas with a mechanism to combat intrusion.

9. Work with merchants to identify and install short-term parking zones

10. Approve municipal code updates as needed, including setting parking rates and, if desired, a no-reparking ordinance

Modern Parking Management Concepts

Parking Management and Economic Development

Many cities in California are implementing paid parking as a management tool to improve the parking experience for residents, visitors, and businesses. Paid parking and active enforcement can have a positive impact on local economies in several ways, including:

1. **Increased Consumer Spending**

When customers can easily access businesses, they are more likely to spend money in the area by frequenting multiple locations. Utilizing the "park once" concept, a downtown visitor pays for parking and within two hours, can go to a restaurant, visit antique stores, and grab a coffee to go. This can lead to job creation, increased tax revenue, and overall economic growth in a commercial core. Numerous case studies have detailed the economic benefits of paid parking, why it is good for turnover, and examples are included in **Appendix D** of this report.

2. **Parking Reservoirs for Small Businesses**

Off-street parking locations within close proximity to downtown businesses can be especially helpful for small businesses that may not have dedicated parking spaces or available on-street parking. Parking turnover created by paid parking management is even more critical in such situations. Small businesses are essential to a commercial core's viability, and downtowns offering a diverse mix of service, retail, restaurant, cultural, institutional, and entertainment uses will not thrive if paid parking management is not implemented.

3. **Reduced Traffic Congestion**

Smart parking solutions including time-limited paid parking, LPR enforcement, and real-time parking availability/wayfinding encourage turnover, making it easier to find parking spaces while reducing traffic congestion. Without smart parking solutions, many downtowns would suffer from lack of customer turnover, inability to locate available parking on arrival, and enforcement inefficiency, creating frustrations for those circling blocks looking for parking spaces, and negatively impacting profitability of businesses.

4. **Additional Revenue for the City's Parking Program**

Revenues from paid parking can be used to finance city mobility and parking improvements, such as street repairs, sidewalk improvements, trash and graffiti removal, micro-mobility funding, bicycle/pedestrian infrastructure and safety enhancements including lighting. Many cities utilize parking revenues to sustain and enhance their parking programs, expanding paid parking management if needed as the commercial core grows.

Parking System Components

For all recommendations to become implemented, multiple parking components will have to integrate and communicate with each other so that the customer experience will be convenient, accessible, and easy to follow. The following components, discussed throughout this PTIP, will allow the City to efficiently manage the parking program:

1. Pay Stations

Pay stations are a preferred payment option versus single space parking meters throughout many cities as one pay station can manage up to 15 parking spaces per block. One pay station can also manage one off-street parking lot. Allowing for card, coin, or contactless payment, parking payments are instantly validated and automatically transmitted to parking enforcement. The recommended configuration is a pay-by-plate system as the vehicle's license plate number is used to verify that parking fees have been paid on-street or at an off-street lot/garage.

2. Mobile Payment

In conjunction with physical pay stations is the implementation of mobile payment, which allows the user to pay for a parking session using their mobile phone. The user can utilize a stored credit card to pay for their session or can text a number to start a paid session. Zone numbers are assigned to each paid parking area for enforcement purposes, and the active paid parking sessions are tracked and verified by a license plate number.

3. Mobile Applications

In addition to text-to-pay options, the user can also download a mobile application and create an account on a mobile application to pay online. Once the mobile application is downloaded, the user can open their mobile device every time they start a paid parking session. This is convenient for repeat visitors to the commercial core areas and is efficient compared to physically paying at a pay station. The mobile application should also provide an opportunity to integrate with and provide micro-transit shuttle information including routes, stops, and anticipated wait times, and ideally, should allow the user to hail rides. It should also be able to integrate with and display real-time parking availability at off-street locations as part of the wayfinding system.

4. License Plate Recognition (LPR) System and Enforcement

License Plate Recognition systems automate the manual processes otherwise required for time limit and paid parking enforcement. The LPR system will interface with the City's paid parking management solutions to automatically detect a vehicle is associated with a valid parking session. For instance, instead of manually chalking a vehicle in a time-limited zone, LPR will be used to enforce the length of stay by digitally

"chalking" the vehicle using the vehicle's license plate number. An LPR system will be leveraged for multiple purposes simultaneously, including verifying paid parking status, abandoned vehicle abatement, scofflaw detection, wanted vehicle detection, and enforcement of residential parking permit zones.

5. Wayfinding, Automated Parking Guidance, and Real-Time Availability

Automated Parking Guidance systems convey parking availability in real time to the user. Utilizing camera-based sensor technology, real-time parking availability is fed into an application or to digital signage at various locations. In addition to digital signage located at off-street parking locations, real-time parking wayfinding signage can also be installed along the major thoroughfares with directional arrows and available parking counts, directing drivers where to find available parking. This solution should be explored at a later phase after paid parking is implemented.

6. Cameras

Cameras serve multiple purposes in paid parking management. For wayfinding, the real-time dynamic signage interfaces with cameras mounted to existing light poles in the surface lots that can detect when and where vehicles are parked on each lot and can convey real-time information at the entrance of the lot. The goal is to mitigate cars circling through the commercial core causing congestion, and instead strategically placed dynamic signage integrated with cameras will direct vehicles in an efficient manner. Cameras also aid in parking compliance as LPR hardware relies on cameras mounted on the parking enforcement vehicles, which capture whether a paid parking session has occurred or not by scanning the plate. In conjunction with real-time parking guidance, this solution should be explored, after paid parking is implemented.

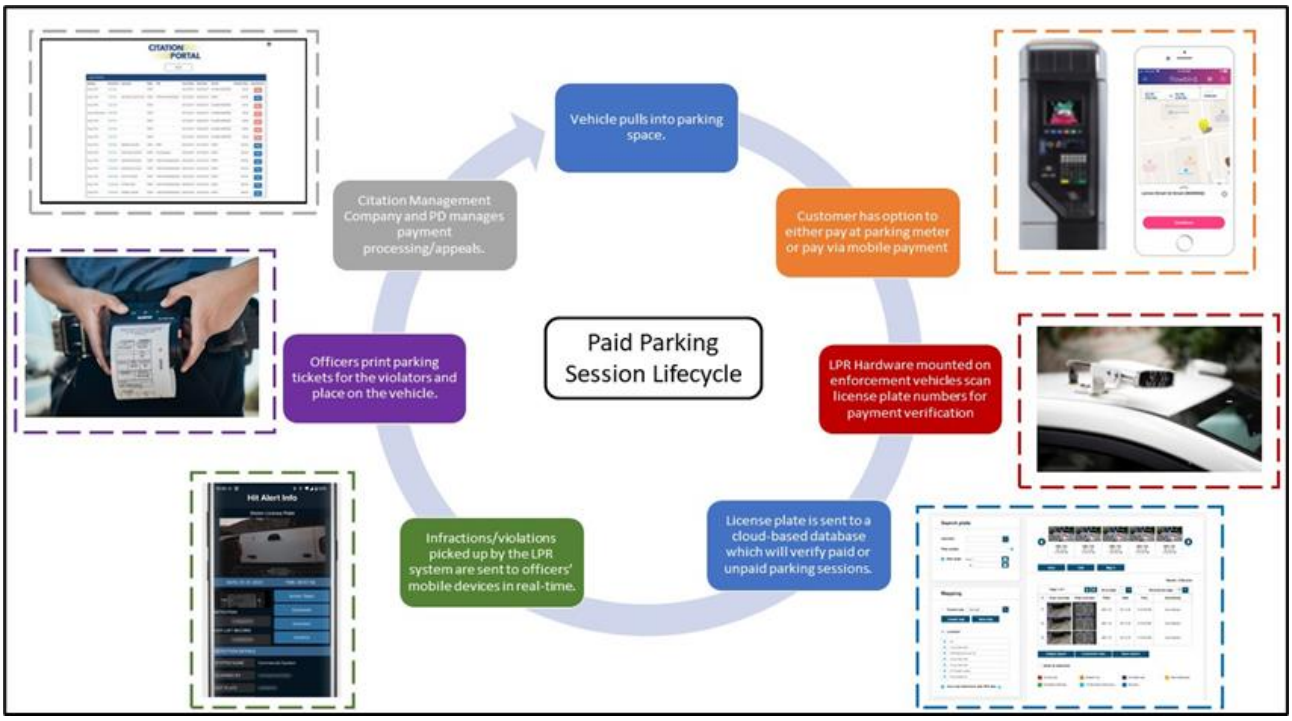
Paid Parking Process

Between physical pay stations, mobile payment options, enforcement, and citation processing, there are multiple components that require close coordination for a parking program to be managed effectively. Due a limited number of vendors for paid parking, enforcement, and citation management, integrations are generally seamless between all components, and parking programs throughout California are partnering with multiple vendors to manage parking operations. ***Figure 3*** outlines the components and process once a paid parking session or parking violation begins, starting with the following steps:

1. The customer finds their preferred location and pulls into the parking space.
2. The customer has the option to either physically pay at the pay station (meter) or through mobile payment via an app or text to pay.
3. The customer has the option to extend their parking session via a text message update or push notification on their phone.

4. LPR units mounted on parking officer's vehicle capture license plate information with the use of cameras.
5. License plates are verified through a virtual dashboard system and identifies whether customers have paid for their parking session.
6. Citations are then sent from the virtual dashboard system to officers' devices in real time.
7. Officers then issue warnings or citations via a mobile printing device which provides information related to the violation, including time of day, location, issuing officer's name, violation type and next steps.
8. The citation process is managed by either a citation management company or the police department for payment and appeals.

Figure 3 - Paid Parking Component Lifecycle



Recommendation #1 - Paid Parking Implementation

As part of the scope of work, numerous documents and studies were reviewed. This PTIP follows recent parking utilization data, which in-part analyzed existing parking supply and demand through parking utilization/turnover surveys. Surveys were conducted in October 2021 to determine existing parking supply and demand in Old Towne, analyzing approximately 1000 on-street parking spaces and 1,700 off-street parking spaces in public parking lots. As shown in ***Figure 4***, the survey area was

defined by Palm Avenue to the north, Palmyra Avenue to the south, Cypress Street to the west, and Center Street to the east.

Figure 4 - Old Towne Parking Utilization Survey Map

The data demonstrated that there were two general themes related to parking utilization:

1. In the commercial core areas surrounding Orange Plaza, the on-street and off-street parking areas were consistently over-parked, as occupancy (calculated by dividing the number of parking spaces in an area by the number of spaces occupied) regularly exceeded 90% in surrounding blocks and parking lots.
2. Surface lots and the parking structure on the periphery of Old Towne were considerably under-parked, at or below 50% occupancy, highlighted in light green.

The contrast between the overparked commercial core versus the under-parked periphery illustrates a highly inefficient use of public parking as the industry measure for target occupancy is 85%. Agencies throughout California are implementing paid parking with the goal of establishing an overall peak parking occupancy rate of 85%. This metric, first introduced by Donald Shoup, a research professor in the Department of Urban Planning at UCLA, guarantees that one out of every seven parking spaces is available during peak periods and limits the number of vehicles unsuccessfully circulating busy parking areas. At 85%, there are enough vacant parking spaces to minimize congestion from drivers searching for spaces as available parking is

geographically distributed throughout a wider footprint. The target ratio of 85% will also serve the local businesses and foster economic development as the availability of parking supply will align with parking demand, allowing for easy, convenient, and accessible parking for the customer base.

Although the surveys were conducted in 2021, existing conditions of both on-street and off-street parking occupancy continued to follow the same pattern, captured during four site visits between December 2023 and March 2024. As shown in ***Figure 5***, the following pictures were taken on Wednesday, December 13, 2023, between the hours of 10:00am to 12:00pm, which was the first of four site visits.

Figure 5 - On-site Utilization Photographs

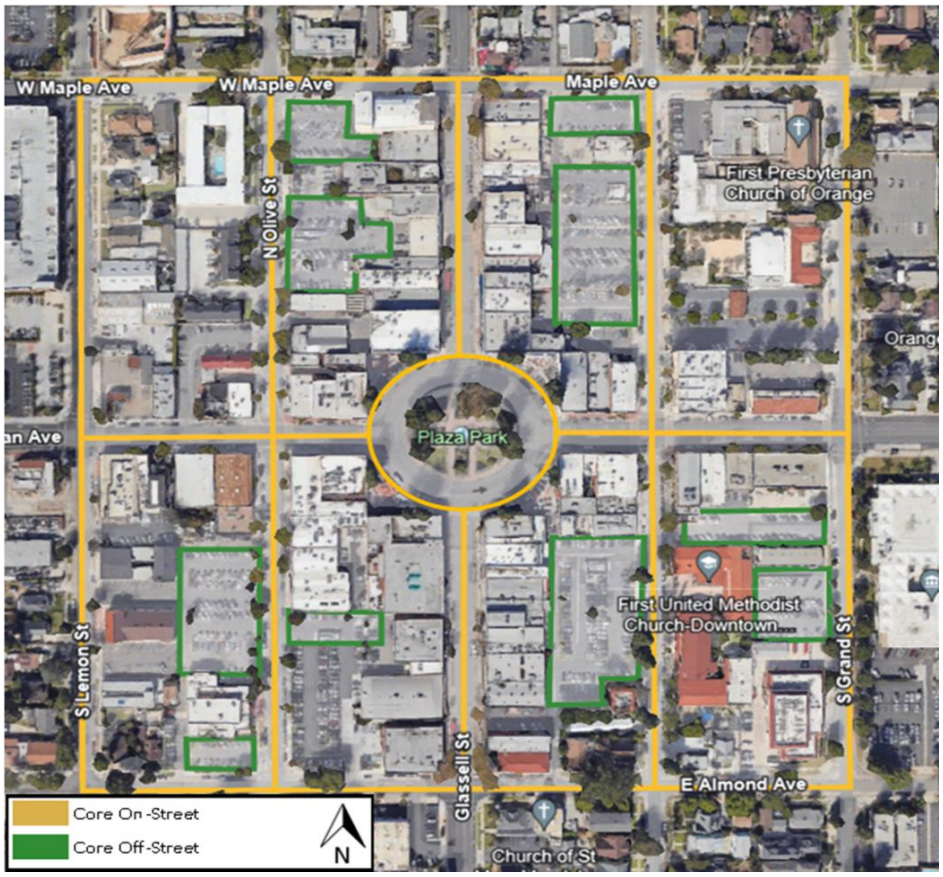
The site visits confirmed that on-street and off-street parking in the commercial core are still highly utilized, over 90% in Old Towne. Coupled with the absence of active parking enforcement described later in this report, the lack of turnover is severely impacting businesses and their customers' ability to obtain convenient and accessible parking.

Based on occupancy data collected in 2021 and again in 2024, the City should move forward with a paid parking management solution in the commercial core of Old Towne. The paid parking recommendation should also include off-street parking lots within the commercial core area. The following steps outline the process for implementation:

1. *Incorporate paid parking and define parking zones based on financial modeling (immediate)*

Based on occupancy data, the recommended footprint of the proposed paid parking zone should be bounded by Maple Avenue to the north, Almond Avenue to the south, Lemon Street to the west, and Grand Street to the east, as shown in ***Figure 6***. In the commercial core, parking occupancy is consistently over 90% with little turnover.

Figure 6 – Recommended Paid Parking Footprint in Commercial Core



Utilizing this footprint, staff was presented with various financial modeling scenarios which considered the following inputs:

- Hourly rates (Ranging from $1.00 to $2.00 per hour)
- Total number of On-street spaces
- Total number of Off-street spaces
- Operational days per year (355, excluding City holidays)
- Hours of operation (Standard of 9:00am to 6:00pm)
- Occupancy (number of parked vehicles vs total supply)
- Compliance (percentage of customers who paid for parking)
- Projected operational expenses, including staffing, and credit card fees
- Projected capital expenses for parking technology

Additional scenarios are included in the appendix of this Plan **which include an expanded footprint** and incorporates extensions of Glassell, W. Maple, Almond, E, Chapman, and Cypress from W. Almond to W. Maple. Although not recommended at this time, the scenarios modeled in the expanded footprint illustrate potential revenue generation if paid parking were to extend outside of the core commercial area. If parking availability in the commercial core becomes constrained due to increased demand and development, the City should investigate expansion of the program. As shown in ***Figure 7***, the expanded area also includes the parking structure and three additional off-street lots in addition to on-street expansion:

Figure 7 - Expanded Paid Parking Footprint

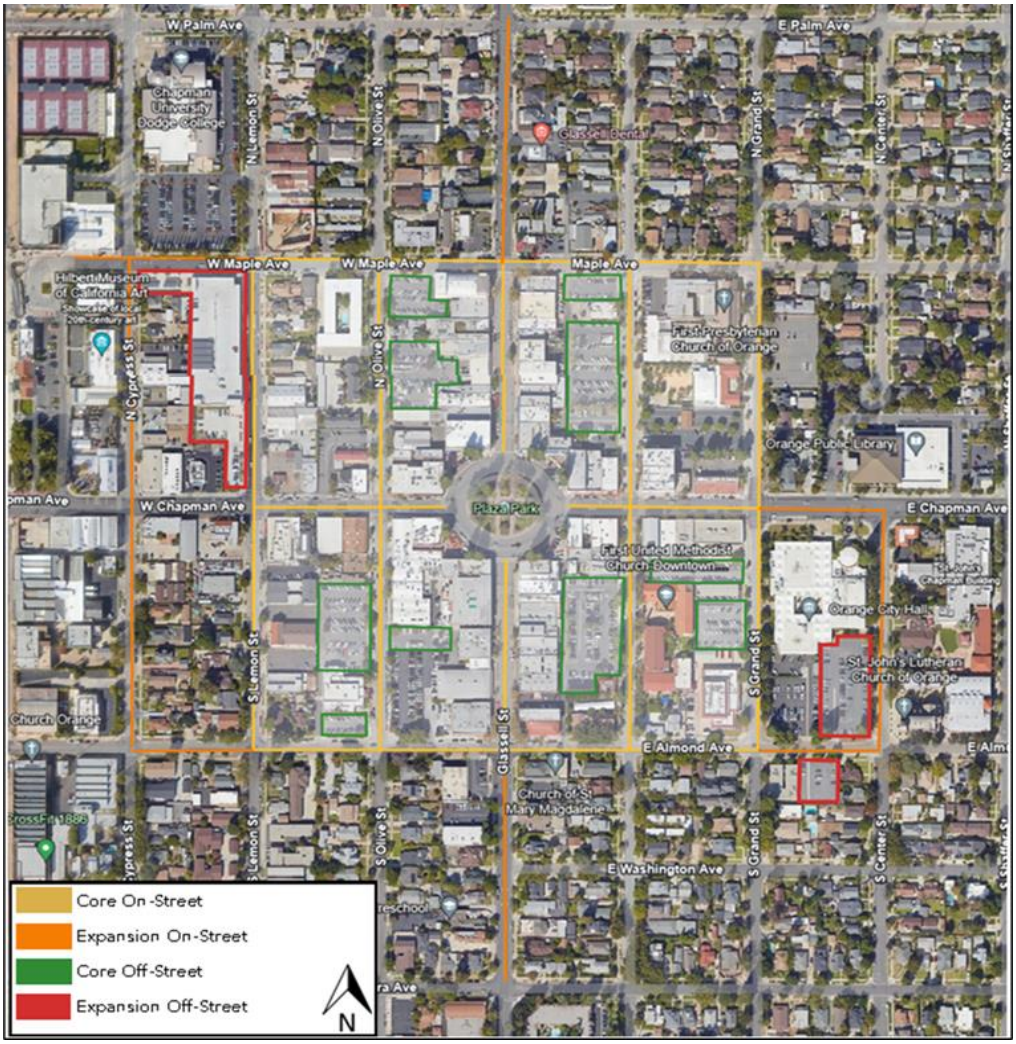


Table 1 includes seven financial modeling scenarios, four of which are in the initial core area and three of which are the expanded zone. The expanded zone is included to give an estimate of revenue potential, if the City were to explore paid parking outside of the commercial core. Highlighted are the annual net projected revenues captured for each

scenario after year one and after year five in ascending order, and the **recommended scenario #3** is highlighted:

Table 1 - Financial Modeling Scenario of Potential Parking Revenues*

Paid Parking Scenarios 1-7	Year 1 Net Revenues	Cumulative Net Revenues After Year 5
1. Commercial Core Only - $1.50 On-Street / Off-Street Free	$342,038.00	$2,706,190.00
2. Commercial Core Only - $1.25 On-Street / $1.00 Off-Street	$635,746.00	$4,350,730.00
3. Commercial Core Only - $1.50 On-Street / $1.25 Off-Street	$889,739.00	$5,620,695.00
4. Commercial Core Only - $2.00 On-Street / $1.50 Off-Street	$1,260,986.00	$7,476,930.00
5. Expanded Zone - $1.25 On-Street / $1.00 Off-Street	$1,581,905.00	$9,249,523.00
6. Expanded Zone - $1.50 On-Street / $1.25 Off-Street	$2,104,851.75	$11,864,259.00
7. Expanded Zone - $2.00 On-Street / $1.50 Off-Street	$2,797,939.00	$15,329,696.00

*Financial modeling scenarios only incorporate paid parking revenue. Citation revenue is not included.

After reviewing various scenarios, the ***recommended scenario*** shown in further detail in ***Table 2***, prices on-street parking at $1.50/hour and off-street parking at $1.25/hour. This provides a reasonable forecast of anticipated revenues and expenditures in the commercial core. The model is also based on a conservative approach of 66% occupancy and compliance, meaning 66% of vehicles occupied parking spaces, and of the occupied parking spaces, 66% actually paid for parking.

Table 2 – Revenue Projections for Recommended Scenario – Commercial Core

On/Off-Street Revenue Model			
On-Street at $1.50/hour and Off-Street at $1.25/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	$513,938	$375,801	$889,739
Annual Revenue - Year 2	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	$606,938	$575,801	$1,182,739
Annual Revenue - Year 3	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	$606,938	$575,801	$1,182,739
Annual Revenue - Year 4	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	$606,938	$575,801	$1,182,739
Annual Revenue - Year 5	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	$606,938	$575,801	$1,182,739
Cumulative Revenue Years 1-5	$3,517,628	$3,418,466	$6,936,094
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	$2,941,688	$2,679,006	$5,620,694

The two columns, On-Street and Off-Street detail gross annual revenues, minus expenditures, which projects net revenues over a five-year period. Equipment and

operating costs in year one versus year two are significantly reduced as capital and set-up costs are only applicable in year one. After year one, net revenues (highlighted) are projected at around $1.2 million combining both on-street and off-street revenues. Operating costs also consider management of the parking program which can either be managed by City staff, likely adding one FTE Parking Manager to the Public Works Department, or management can be contracted out to a parking management company which would yield considerable savings. One FTE Parking Manager can cost the city over $150,000 per year while a contractor would cost the City around $100,000 per year.

2. Establish initial hourly parking rates (immediate)

To establish initial parking rates, a comparable rate study was conducted by examining paid on-street and off-street hourly rates in cities throughout Orange County and Los Angeles County. As shown in ***Table 3***, four inland cities and four coastal cities were identified, all within a 40-mile radius from the City of Orange.

Table 3- Comparable City Parking Rates

City	On-Street Rate	Off-Street Rate
Santa Ana	$1.00 - $2.00 per hour	$1.50 per hour
Anaheim (City Hall area)	Free	$3.00 - $4.00 per hour
Huntington Beach	$2.25 - $4.00 per hour	$2.00 - $4.00 per hour
Newport Beach	$1.00 - $2.00 per hour	$2.30 - $4.65 per hour
Laguna Beach	$1.00 - $2.00 per hour	$2.75 - $4.95 per hour
San Clemente	$1.00 - $2.00 per hour	$1.50 per hour
Pasadena	$0.75 - $1.25 per hour	$1.00 first two hours $2.00 per hour after
Glendale	$1.50 - $2.00 per hour	$1.50 per hour

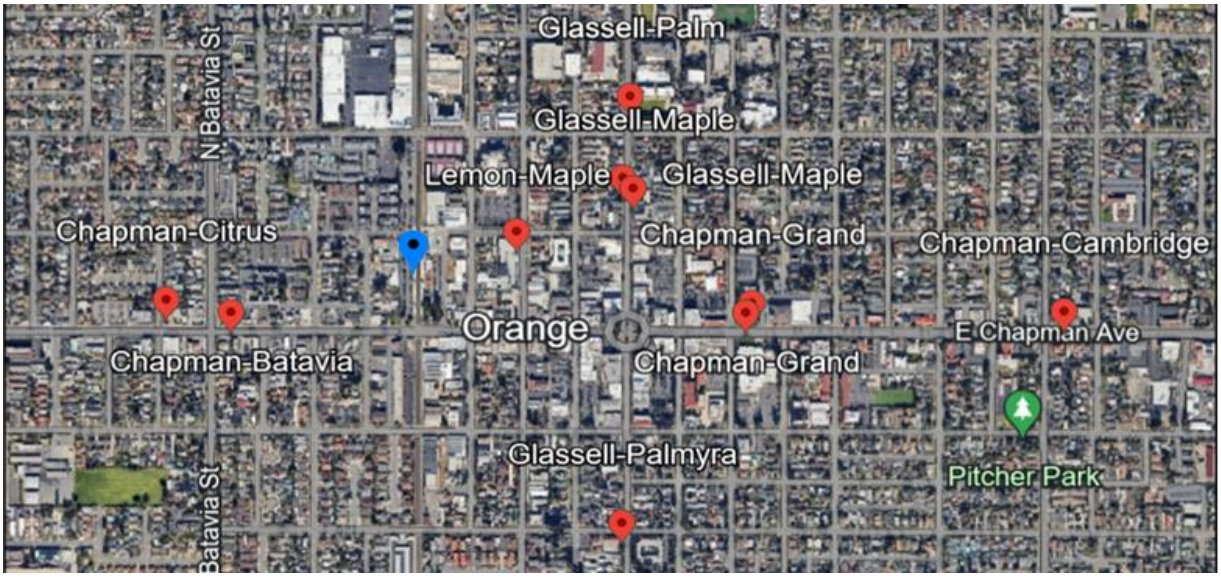
The most comparable city within the study area is neighboring Santa Ana, which currently prices on-street parking between $1.00 to $2.00 per hour, and off-street parking at $1.50 per hour, after two-hours of free parking. Based on the proximity of Santa Ana to the City of Orange, comparative rates are proposed for both on-street and off-street locations. As shown in ***Table 4***, for on-street locations surrounding Plaza Square where Glassell and Champan intersect, an initial paid parking rate of $2.00/hour is recommended, for on-street locations outside of Plaza Square, an initial paid parking rate of $1.50'hour is recommended, and for off-street locations within the commercial core an initial parking rate of $1.25/hour is recommended. The reason for the higher on-street rate is that curb parking is the most convenient and is generally higher in demand than off-street locations that are not directly adjacent to businesses. To implement paid parking, the City would be required to schedule a public hearing at Council to update Title 10 – Vehicles and Traffic of the Municipal Code. Once vetted and updated, the City could start the process for paid parking management.

Table 4 - Proposed Parking Rates

Zone	Rate	Maximum Time Limit
On-Street Parking Around Plaza Square	$2.00 per hour	2-hours
On-Street Parking Outside of Plaza Square	$1.50 per hour	2-hours
Nine (9) Off-Street Commercial Core Lots	$1.25 per hour	4-hours

As the initial footprint of the proposed paid parking zone is confined to eight square blocks around Plaza Park, the City should monitor and continually evaluate parking utilization, to determine if the footprint should be adjusted. The City should also continue to monitor future development and impacts on parking supply especially after the State of California ended parking mandates on January 1, 2023. The signing of Assembly Bill 2097 imposed that California cities no longer can require minimum parking requirements on new developments within a half-mile of public transit.

Figure 8 - City of Orange Transit Stops



As shown in ***Figure 8***, public transit which includes bus stops, highlighted with red pins in the map, outlines a broad footprint where parking supply could be impacted. Also included is the Orange Transit Center, highlighted with a blue pin. As certain developers now may have the opportunity to completely exclude on-site parking throughout the commercial core and periphery of Orange, spillover effects due to the lack of available parking will require a managed solution comprised of paid and time-limited parking. Additional solutions include the expansion of residential parking permit programs, implementation of MicroTransit, shared parking agreements, and increased bicycle and pedestrian infrastructure.

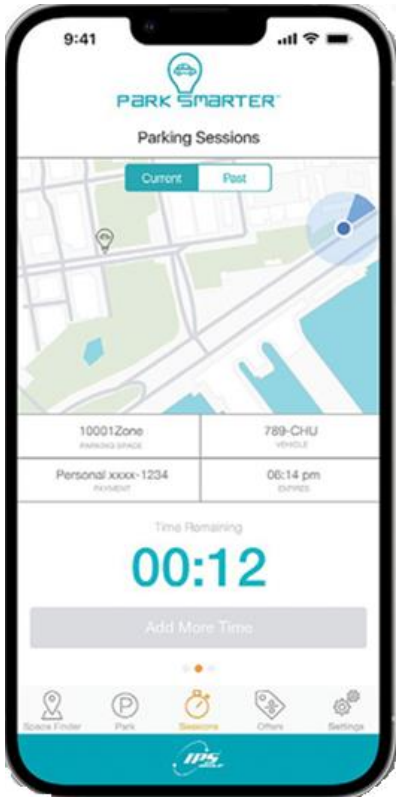
3. Procure pay station and mobile parking solutions via an RFP process (immediate)

City staff were presented with vendor demonstrations for paid parking options which included pay station and mobile payment solutions. Ideally, the City should procure multi-space pay stations, capable of managing an entire block of paid parking instead of single space meters, which only manage one space per meter. In conjunction with pay stations, the City should implement a Pay-by-Plate configuration due to the efficiency and flexibility that plate-based systems offer. With a pay-by-plate configuration, the driver parks, purchases parking session time at the pay station, and enters their license plate number at the pay station to record payment. With this solution, drivers do not need to return to their vehicle to display receipts. Instead, the license plate number is used to verify payment status.

Figure 10 - Pay by Plate Pay Station

The use of License Plate Recognition for parking enforcement (explained later in the PTIP) will automatically notify a parking enforcement officer when a vehicle is not tied to an active parking session. Another benefit of the pay-by-plate approach is that the pay station, illustrated in ***Figure 9***, will be able to monitor the length of stay since each parking session is associated with a unique license plate number. The City should offer a mobile payment feature for customer convenience. A mobile payment solution allows drivers to pay for a parking session using their mobile phone. They can either text a number to pay, or they can simply create an account on a mobile application shown in ***Figure 10*** to pay online. Zone numbers are assigned to each paid parking area for enforcement purposes, and the active

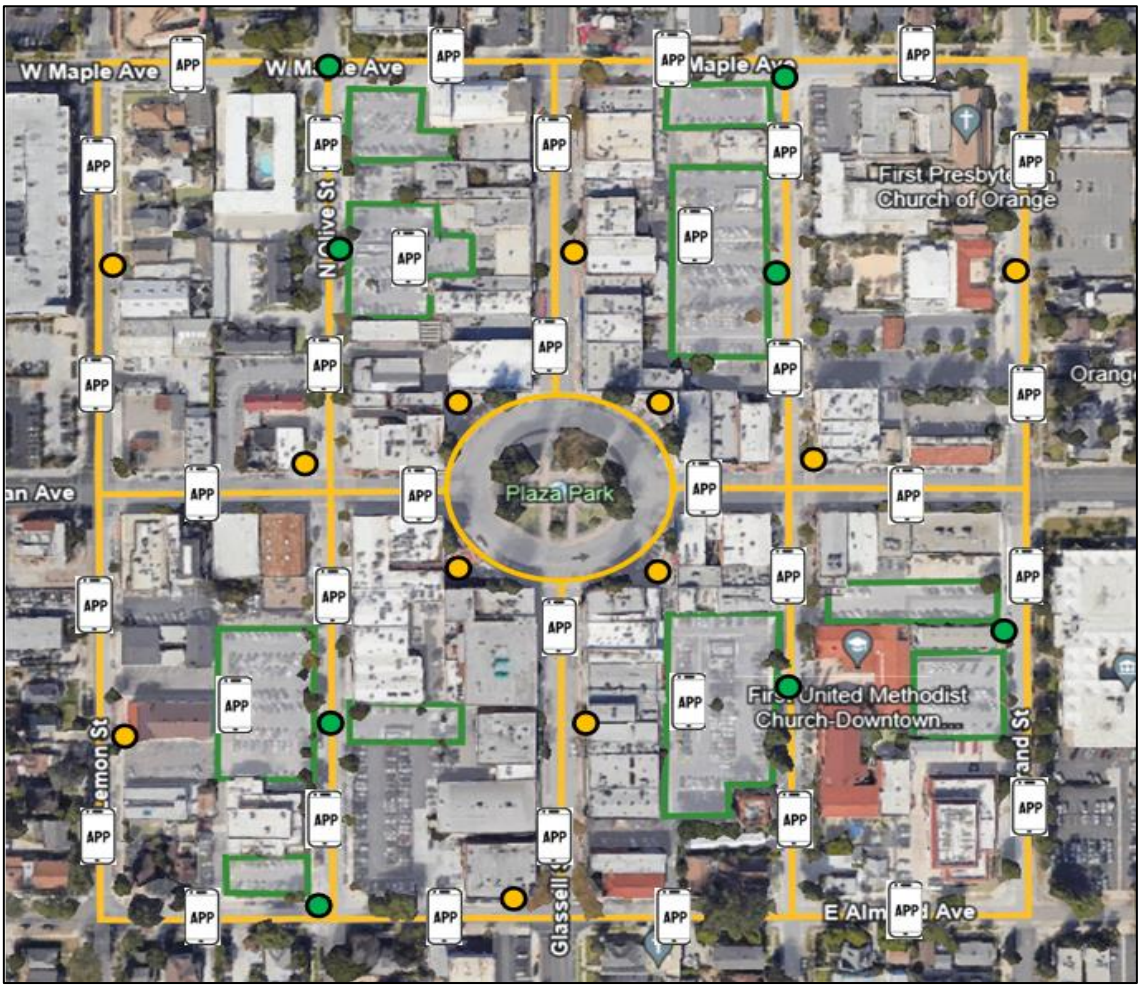
Figure 9 - Mobile Application



paid parking sessions are tracked and verified by a license plate number. A mobile payment solution can be provided by a vendor with little investment to the City. Instead, the vendor is mostly funded by the convenience fees charged to the user. The vendor would also provide decals for the meters and static signage and would be responsible for education and outreach. As the City may provide micro-mobility shuttle transportation in 2025, a mobile payment application could also incorporate shuttle information including stop locations and lead times for pick-up and drop-off.

As both pay station and mobile payment options will be available for paid parking sessions, the City will be able to offset the number of pay stations with mobile payment signage. This will dramatically reduce costs, as upfront capital investment of pay stations will be significantly reduced as mobile payment signage will supplement physical pay stations. ***Figure 11*** highlights the various elements of paid parking; on-street pay stations (yellow circles), off-street pay stations (green circles), and mobile payment signage (phone icons), illustrates how a mix of pay stations and signage can be distributed throughout the commercial core:

Figure 11 - Pay station and Mobile Signage Locations



4. **Establish a timeline for implementation once vendors are identified, selected, and agreements are in place (near-term)**

Typically, pay station deployment takes anywhere between three to four months from a notification to proceed while mobile payment deployment takes anywhere between two to three months to once a go-live date is confirmed. The reason that pay stations take longer to deploy is because of the capital investment and physical equipment, which require delivery, installation, and physical testing. Detailed implementation schedules are attached at the end of the report in ***Appendix B***.

Recommendation #2 – Enforcement Enhancements

Enforcement duties are currently the responsibility of the Police Department which is in the process of soliciting parking enforcement vendors to manage various parking regulations throughout the City. The parking enforcement vendor's responsibilities could be expanded to include active and regular enforcement of any parking restrictions and paid parking in Old Towne. This would include increasing resource and service levels, and optimizing enforcement capability through LPR cameras, similar to that shown in ***Figure 12,*** and deploying plate-based parking management.

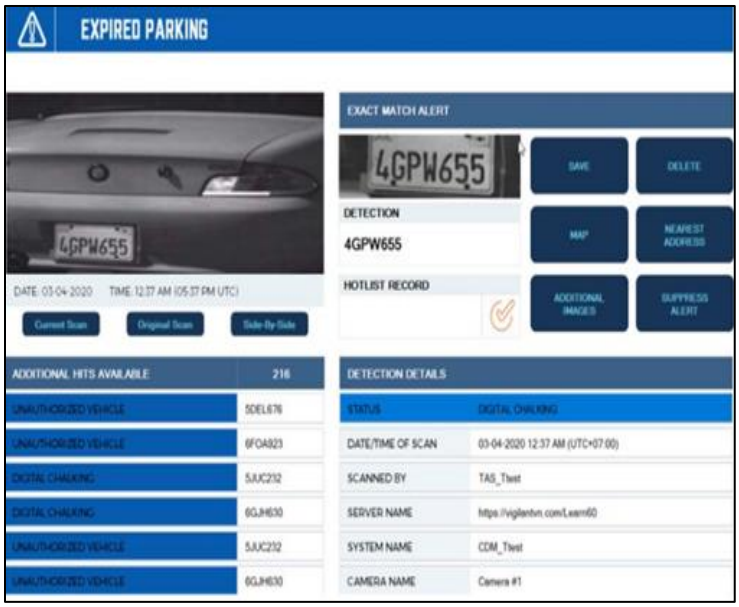
Figure 12 - LPR Camera

1. ***Set a requirement that the selected enforcement vendor will utilize LPR equipment for enforcement (immediate)***

The parking enforcement provider should be equipped with a vehicle mounted LPR system in order to streamline parking compliance operations. In addition to vehicle mounted equipment, the City's enforcement provider should also utilize handheld mobile LPR to provide enforcement officers with the added flexibility of monitoring on foot. If the City is limited on the number of contracted vehicles for parking enforcement, mobile LPR is an effective supplementary tool to vehicle mounted LPR.

As a parking compliance tool, LPR can enhance operational efficiency by automating the manual processes otherwise required for time limit and paid parking enforcement. An example of a LPR system, shown in ***Figure 13***, can interface with the City's future paid parking and citation management systems (Data Ticket) to automatically detect whether a vehicle is associated with a valid parking session. For instance, instead of manually chalking a vehicle in a time-limited zone, LPR will be used to enforce the length of stay by digitally "chalking" the vehicle using the vehicle's license plate number. An LPR system will be leveraged for multiple purposes simultaneously, including verifying paid parking status, verifying time limited parking on the periphery of Old Towne, abandoned vehicle abatement, scofflaw detection, wanted vehicle detection, and enforcement of permit zones.

Figure 13 - LPR Dashboard in Vehicle



As the parking program expands, the City's long-term goal should ultimately equip all enforcement vehicles with LPR to optimize operations. This will enhance efficiency and coverage. This will especially be important for the areas in between the proposed paid parking zone and the residential permit districts where spillover effects can occur. Frequent coverage is important for encouraging compliance with parking policies, and a high rate of compliance will enable the City to evaluate the true impact of parking policies.

2. *Leverage ongoing data collection to determine the potential of rate adjustments, expanded paid parking footprints, and other data driven decisions (near and ongoing)*

The other significant benefit of the mobile LPR technology is the ability to collect ongoing parking occupancy and utilization data, eliminating the need for traditional, cost prohibitive parking studies. Using LPR as a data collection tool will maximize the City's investment in technology. This will provide the City a wealth of information since data will be collected during regular compliance patrols, and the system can be used to conduct targeted studies as needed. The data collected by the LPR system will enable the City to make data-driven decisions based upon the ongoing monitoring of program effectiveness. As the parking program expands and new technology is implemented, the City should continually evaluate the effectiveness of policies. Rather than reacting to perceptions, parking management strategies are most effective when changes are made incrementally based on data.

Figure 14 – Sample Data Collection/Occupancy Rates

Street	Inventory	Thursday				Saturday				
		9AM	12PM	3PM	6PM	9AM	12PM	3PM	6PM	9PM
E MAIN ST (E MAIN ST ROUNDABOUT - MISSION PLAZA DR)	6	66.7%	33.3%	83.3%	50.0%	50.0%	83.3%	33.3%	16.7%	33.3%
E MAIN ST (MISSION PLAZA DR - E MAIN ST ROUNDABOUT)	12	58.3%	83.3%	75.0%	66.7%	8.3%	100.0%	91.7%	100.0%	8.3%
E MAIN ST (N FIR ST - S ASH ST)	15	40.0%	80.0%	73.3%	100.0%	33.3%	86.7%	80.0%	86.7%	86.7%
E MAIN ST (S ASH ST - N FIR ST)	10	30.0%	100.0%	70.0%	100.0%	30.0%	100.0%	80.0%	100.0%	100.0%
E SANTA CLARA ST (FIGUEROA ST - JUNIPERO ST)	23	91.3%	69.6%	34.8%	87.0%	69.6%	100.0%	100.0%	91.3%	78.3%

With an LPR system systematically collecting data, over time an occupancy history for each block will be captured. Analytics on the data will allow staff to accurately document utilization, shown in ***Figure 14***, and will help guide decisions related to parking rates, operating times, time limits, permit programs, and enforcement. Ongoing evaluation will be essential to ensuring the program can be adapted to best fit the needs of Orange.

Recommendation #3 – Wayfinding / Parking Guidance

Figure 15 -Wayfinding Signage

In addition to paid parking and improved enforcement, the business community has expressed the need for real-time parking availability in the off-street parking locations. Currently, the wayfinding system in Old Towne is difficult to navigate due to the lack of size and quantity of signage, as shown in ***Figure 15***. Although not an immediate need, the City has expressed interest in installing a real-time parking system for existing lots, like the dynamic signage that is in the Lemon Parking Structure. Being mindful of the value of preservation in the City, the aesthetic of real-time signage in the commercial core should have a differing look than the modern parking structure signage. Any upgraded signs, whether dynamic or static, should retain the historical character of Orange, as currently seen throughout the commercial core and beyond. ***Figure 16*** is an existing wayfinding sign that was installed in Santa Monica which displays real-time parking availability while keeping with the aesthetic character of the community. In terms of implementation

Figure 16 - Signage in Santa Monica

timelines for wayfinding once the RFP is submitted, vendors will determine timelines, costs, and scoping elements during the proposal process.

Figure 17 - Real Time Parking Dashboard

As outlined in the scope, staff were presented with vendor demonstrations for camera-based sensor technology which provides real-time parking availability that could be fed into an application or to digital signage at various locations. The information is also fed through a dashboard that the City can monitor and manage in real time, and an example is shown in ***Figure 17***. The signage interfaces with the cameras mounted to existing light poles in the surface lots that can detect when and where vehicles are parked on each lot and can convey real-time information at the entrance of the lot. This would help direct vehicles to available parking and will help mitigate congestion on surrounding streets if occupancy in a particular lot is at or near capacity. Combined with prominent, strategically placed static and directional signage, many cities utilize this complementary approach to improve how parking is conveyed to the public.

1. *Procure an Automated Parking Guidance System on the surface lots in the paid parking area (mid-to-long-term)*

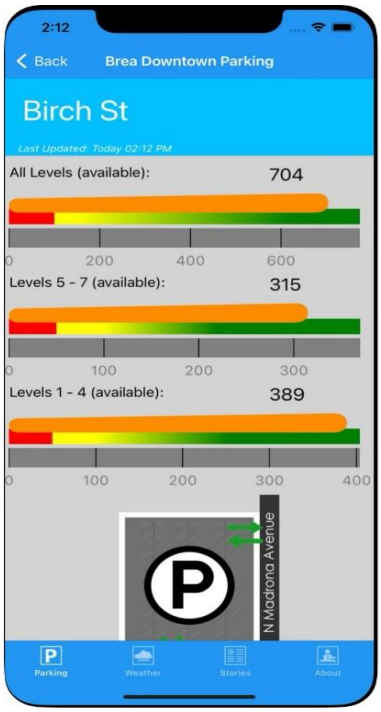
Figure 18 - Digital and Static Sign

Currently, there is no way to inform drivers when surface lots are full which has the potential to create congestion in the commercial core. As shown in ***Figure 18***, real time parking availability displayed at the entrances to each parking lot would improve parking availability, as less drivers would be circling lots and blocks without confirming whether occupancy is completely full. In addition to installing at each parking lot, the City should invest in real-time parking signage along the major thoroughfares with directional arrows, directing drivers where to find available parking. Key locations should include signs along Chapman and Glassell, particularly around Plaza Park, the center of the commercial core. Understanding that the City has a historical aesthetic and preservation of the public

space is important, many sign fabrication shops work with parking technology vendors to incorporate digital information into signage designed and catered towards a specific city brand. This is implemented by cities in many historical districts throughout the United States and California.

A growing number of parking vendors are offering mobile application capabilities, utilizing web applications that can feed from open-source data platforms. By using an existing smart phone, real-time data can be integrated with several different parking applications. To stay competitive in today's market, most parking technology vendors recognize that an open platform is necessary, so there are many options to consider when procuring real-time parking availability. As shown in ***Figure 19***, the City of Brea currently offers a parking app to direct users to available off-street parking structures and provides up-to-date parking availability. This solution benefits many repeat-visitors to the commercial core of Brea and would do the same for visitors to Orange by allowing users to plan ahead when visiting Old Towne. The combination of an application and physical real-time signage will provide a comprehensive solution for customers and employees. The implementation of real-time signage should follow the implementation of paid parking and LPR enforcement. The City could leverage paid parking revenues to help fund the real time signage and ongoing maintenance of the system.

Figure 19 - City of Brea App



2. Once a vendor is identified and agreements are in place, establish a timeline for implementation with the selected vendor (mid-to-long-term)

Typically, real-time signage deployment takes anywhere between three to four months to once both parties confirm a go-live date. Both the City and the vendor will work together to determine signage locations, signage design, fabrication, marketing and installation. An implementation schedule is included in Appendix B.

3. Update static wayfinding signage as needed (immediate and near term)

A unified parking brand provides an improvement to the overall customer experience. The direction of the signage needs to be clear and easy to understand. The wayfinding signage located throughout the City should focus on directing visitors to the parking lots located throughout the commercial core and especially the free lots on the periphery which have been historically underutilized. Signage should be placed strategically to direct drivers to the lots in a manner that does not contribute to the congestion around the commercial core. The City should conduct an audit of existing wayfinding signage and update accordingly. Wayfinding signage should be consistent

throughout the City, easy to read, in good condition (replace if fading or peeling) and should be installed with one to two signs per block face. Static signage can be implemented well ahead of dynamic, real-time signage.

Recommendation #4 – Curb/Off-Street Management

If not managed correctly, the introduction of paid parking can have unforeseen consequences resulting in spillover effects into other neighborhoods. To ensure proper management of a paid parking program, the following recommendations will help mitigate spillover effects in the City.

1. ***Ensure that time limits are implemented and enforced in peripheral streets and lots outside of commercial core (immediate)***

Time-limited parking should be introduced on streets between the paid parking areas and residential parking permit areas. For example, Cypress Street is just outside the proposed paid parking zone and is completely unregulated, outside of street sweeping restrictions on Wednesdays from 3:00am to 6:00am. The City should implement time limited parking either for two or four hours during paid parking enforcement hours. Regular enforcement of time limited (unpaid) streets and lots should also be implemented. The City should implement the free time-limited parking zones prior to the installation of paid parking.

2. ***Establish a no re-parking regulation (immediate)***

Executed through a municipal code update, this solution would prohibit cars from re-parking on the same block once their time has expired. For example, if a car has reached the two-hour limit on a particular two-hour timed block, the driver would have to move to another block face or lot to start a new parking session. The vehicle may not return within the initial block face or parking lot for two hours, following the expiration of the initial period. This is an effective parking turnover tool used by many cities in California.

3. ***Ensure adequate short-term zones in the commercial core (immediate)***

To accommodate short-term parking, the City should consider installing 1-2 short-term parking spaces per block. Short-term parking spaces should be located adjacent to service or quick-stop locations including coffee shops or fast-food restaurants. Short-term spaces should be monitored by parking enforcement for time limit violations.

4. **Develop a program for employee parking solutions (mid-term)**

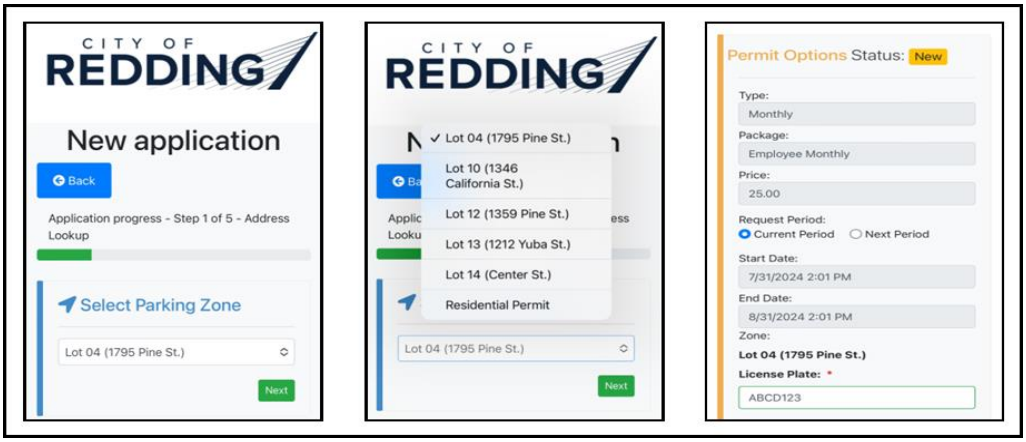
Although not an immediate action, the City should investigate an Employee Parking Permit Program subject to cap amounts so that the availability of visitor and customer

parking will be preserved. The employee program still will allow employees of the commercial core to obtain parking permits in designated employee permit parking zones, and a portion of off-street parking can be allocated for employees of the commercial core. The City should provide incentives such as low permit rates and free transportation from the peripheral lots to work via the upcoming MicroTransit Service provider FRAN. To establish an employee permit program, the following actions should be considered:

- The City will have to execute a municipal code update to address permit parking polices for businesses and the opportunity for virtual permits.
- If an employee parking program is approved, the City should determine permit rates based upon stakeholder feedback and demand.
- To encourage employee participation, price permits lower than the cost for daily parking to encourage compliance and ensure that permit holders have an affordable and convenient option.
- Encourage business owners to fund employee parking permits as the permit parking program will lead to more customer parking and revenues for the businesses in the commercial core.
- Utilize revenues from the permit program to fund the ongoing management of the program.

Once the City receives input from the business community and the employee permit program is approved, the City should place a limit on the number of employee permits allocated per off-street lot. Once the program is live and employees can purchase

Figure 20 – City of Redding Employee Permit Portal



permits, a menu of off-street locations can be provided, and once a particular lot has reached its limit, that lot will be removed from the permit portal. ***Figure 20*** shows the City of Redding's current permit portal, where employees create an account, log in, and choose which off-street location to park. When the City reaches a limit on a lot, that

option is removed from the menu. This allows the City to distribute employee parking passes and not overburden certain lots.

5. Coordinate micro-mobility to align with paid parking and employee parking options (near-term)

Figure 21 - FRAN Micro-Transit Shuttle

A partnership with the Orange Chamber of Commerce and Anaheim Transportation Network has secured funding for ten Micro-Transit shuttles and 50% of the initial 18 months of operations. The City should work collectively with both entities to strategically develop the service parameters to benefit visitors, commuters, and employees. Stop locations and routes should be conveniently located, but should also span out to peripheral lots, where employees and long-term visitors would park once, and utilize Micro-Transit to their desired destination. As operational funding would need ongoing financial support, parking revenues could help offset long term costs of the program. The service would also be an incentive to buy into the Employee Parking Program, where permit holders would have access to free rides to and from peripheral lots. If feasible, the City should also look to expand service hours on weekends to allow for transportation for restaurant and bar employees during late night hours.

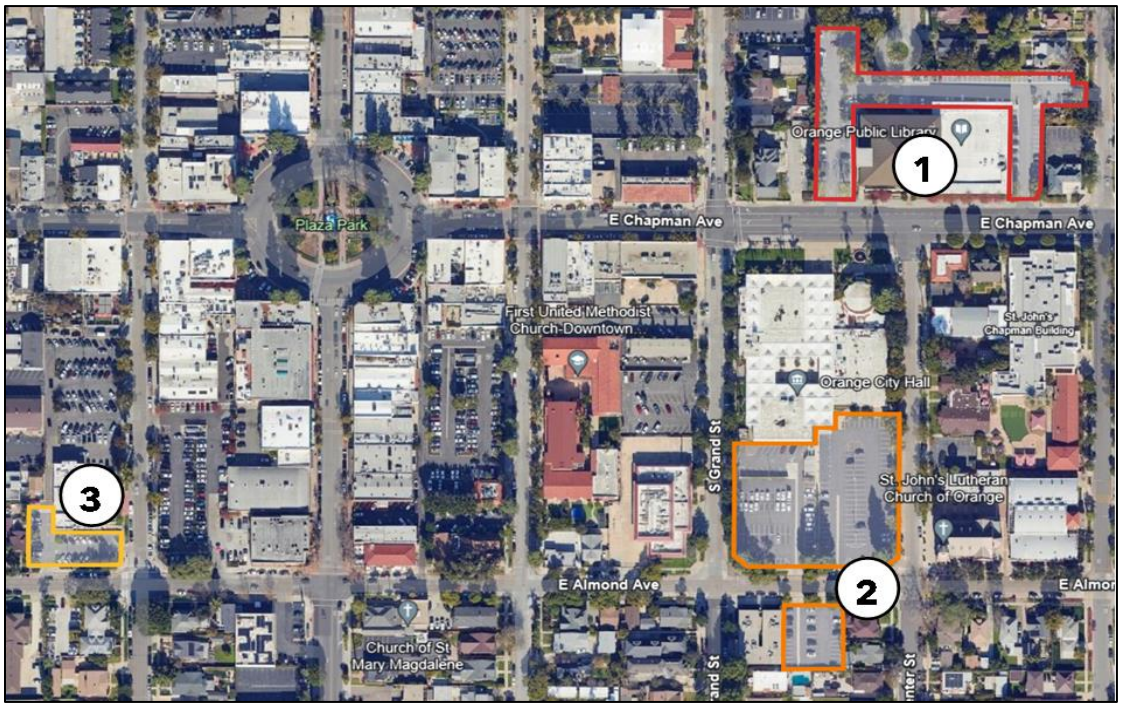
6. Incorporate additional lots into the City's parking management system (mid-to-long-term).

Figure 22 – Lot 15 and Lemon Parking Structure

City Lot 15 borders the Orange transit line and generally has parking availability throughout the week except for special event days. The **Lemon Parking Structure**, like lot 15, also has parking availability, with weekday utilization generally below 50%. As the City continues to develop and grow, both lots should be incorporated into paid parking management, if parking utilization is over the 85% threshold. Both lots would provide an opportunity for employee and long-term parking options, and could be an Important transportation hub, featuring a mix of automobiles, public transit, and Micro-Mobility options.

The City's Library (1), Civic Center (2), and Senior Center (3) lots are more off-street locations that would require parking management once paid parking is implemented in the commercial core. The availability of parking for employees and visitors at all three civic assets could be impacted by visitors and non-city employees searching for free parking.

Figure 23 – Library, Civic Center, and Senior Center Lots



1. **Library Lot** –The library lot (1) is the third largest off-street parking asset in the City's study area with approximately 154 spaces. Of the 154 spaces in the library lot, 144 are completely unrestricted, meaning that vehicles can park throughout the day. Currently, there is plenty of parking availability in the lot, however that could change once paid parking is implemented in the commercial core. To protect on-site use for both library visitors and employees, **the City could incorporate time-limited parking with a mix of 1-hour short-term and 4-**

hour visitor parking, which would be easily enforced through LPR. By comparison, many cities throughout California offer as little as 1 to 3 hours of parking for library visitors. If at any point, the library lot is consistently over 85% utilization, the City should consider any or all of the following strategies:

a) Tie into the City's existing permit management system and offer virtual permits. For employees, users would log into the City's permit management dashboard, create an account, and log their license plate number as their permit number. The license plates would then be verified by LPR used by Parking Enforcement Officers. The permits would also be renewed on an annual basis. For volunteers and visitors, a kiosk (iPad or computer) could be set up at the entrance, and a library administrator or volunteer/visitor could enter their license plate number and establish a maximum time limit at the kiosk which will be verified by LPR.
b) Add the lot into the paid parking program which will likely improve parking availability.

2. **Civic Center** –The Civic Center lots are multi-use lots which are utilized by employees, visitors, volunteers, and the public. Of the 99 existing spaces in the Civic Center lots, 77 are completely unrestricted, with the remaining spaces accounting for a mix of 2-hour, ADA, electric vehicle, and reserved parking. Currently, there is enough parking availability in the lots, however that could change once paid parking is implemented in the commercial core. To protect on-site parking for employees, volunteers, and visitors, **the City could incorporate time-limited parking with a maximum of 4-hours and tie into the City's permit management for employee parking**, which would be easily enforced through LPR. If at any point, the Civic Center lots are consistently over 85% utilization, the City should consider a combination or all of the following strategies:
   a) For volunteers and visitors anticipating parking for longer than four hours, a kiosk (iPad or computer) could be set up at the entrance, and an administrator or volunteer/visitor could enter the license plate number and at the kiosk which will be verified by LPR.
   b) Actively enforce both lots between the hours of 5-6pm to discourage long-term parking, particularly on City Council and other public meeting nights, to make parking readily available to attendees.
   c) Add the lot into the paid parking program which will improve availability.

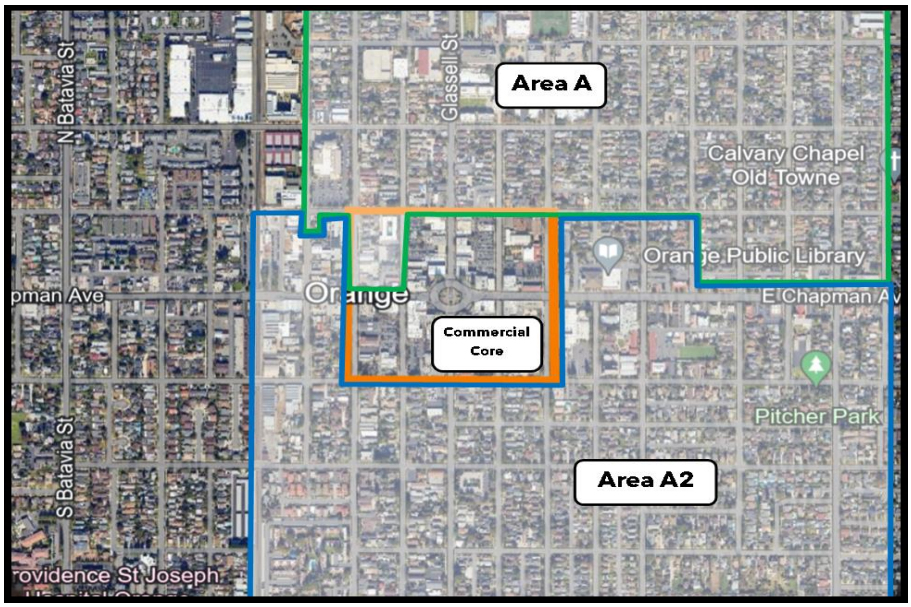
3. **Senior Center Lot** – The Senior Center, open Monday through Friday between 8:00am to 4:00pm has limited on-site parking that visitors and employees use during the week. To protect on-site parking for both visitors and employees, the City should choose between the following strategies:

a) Employees and visitors should use physical permits that could be placed on the vehicle's dashboard, printed by Senior Center staff, and could be updated daily so that permits cannot be duplicated and be fraudulently used. A day of the week could be tied to a particular permit color, and the date, day of week, and time limit would be printed on the permit, which could be verified by Parking Enforcement Officers.
b) The Senior Center can also tie into the City's existing permit management system and offer virtual permits to employees and visitors. For visitors, a kiosk (iPad or computer) could be set up at the entrance and a staff member or volunteer can enter the license plate number.

7. Expand Downtown Permit Parking Area (Area "A") to cover all residential streets in the area that are susceptible to commercial parking displacement (near term).

Area A, The Downtown Permit Parking Area of the City's Neighborhood Permit Parking Program was established in 1987 to combat commercial and university parking intrusion onto the surrounding residential streets. The boundaries of Area A were established with the idea that entire residential blocks contained within can opt-in (if streamlined criteria are met) when parking demand exceeds their threshold of tolerance. The boundary or Area "A" is shown in ***Figure 24***. While the current boundaries are sufficient based on existing land use and parking conditions, their expansion (to envelop the paid parking area) should be considered.

Figure 24 - Potential Permit Parking Program Expansion - Area A2



Summary of Recommendations

This report provides several immediate and near-term Old Towne parking strategies. While a few these strategies can be individually considered to either address focused parking concerns or affect incremental change, they are most effective when deployed in combination and centered around smart parking technologies.

Moreover, given the continued transformation of Old Towne, existing parking concerns expressed by local merchants, anticipated economic expansion, and recent state legislation, paid parking is expected to be the single most effective strategy for addressing the City's current and future needs. Therefore, it is the foundation of the 11-step plan identified in the Executive Summary.

Many of the smart parking technologies associated with license plate reader-based enforcement, electronic wayfinding, and application-based information and payment systems can be funded through a paid parking program and can be cost effectively designed to complement paid parking infrastructure. Paid parking programs can be periodically reassessed to adjust parking rates and boundaries as future needs change.

Recommendations

Section	Recommendations
Paid Parking Implementation	1. The City should utilize financial modeling to forecast paid parking revenues and expenditures and define parking zones based on data 2. The City should establish initial hourly parking rates. 3. The City should procure paid parking solutions via an RFP process. 4. Once vendors are identified and agreements are in place, the City should set a timeline for implementation with the selected vendors.
Enforcement	1. The Police Department should require that the selected enforcement vendor will have LPR equipment for enforcement. 2. In addition to enforcement the City should leverage ongoing data collection which will lead to rate adjustments, expanded paid parking footprints, and other data driven decisions.
Wayfinding and Parking Guidance	1. The City should prioritize the installation of an Automated Parking Guidance System on the surface lots in the paid parking area.

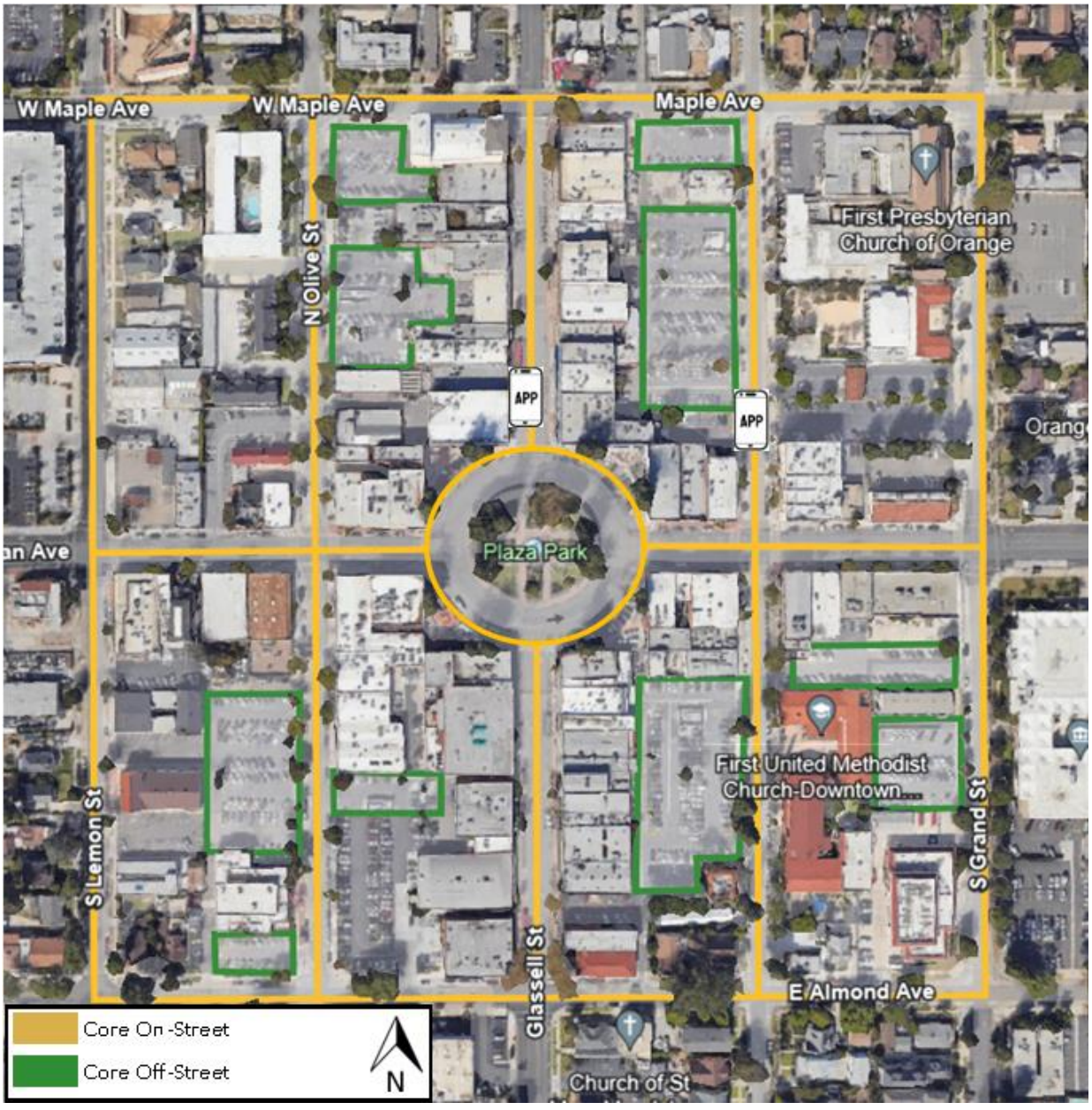
Section	Recommendations
	2. Once a vendor is identified and agreements are in place, the City should set a timeline for implementation with the selected vendors. 3. The City should update static wayfinding signage as needed.
Curb Space/Off-Street Management	1. Ensure that time limits are implemented and enforced in peripheral streets and lots outside of the commercial core. 2. Establish a no re-parking regulation via a municipal code update. *3.* Ensure adequate short-term zones in the commercial core. 4. Develop an Employee Parking Permit Program that allows employees in the commercial core to obtain parking permits in designated employee permit parking zones. 5. Coordinate micro-mobility to align with paid parking and employee parking options. 6. Incorporate additional peripheral lots into the City's parking management system. 7. Expand Downtown Permit Parking Area (Area "A").

Appendix A

Financial Modeling Scenarios

Various financial modeling scenarios were produced with a range of hourly rates within the $1.00 - $2.00 per hour, and at 66% occupancy and compliance. Meaning that vehicles would be parked in paid spaces 66% of the time and of those who were parked, 66% paid for parking. The first set of scenarios incorporate the commercial core area bound by Maple Avenue to the north, Almond Avenue to the south, Lemon Street to the west, and Grand Avenue to the east (See ***Figure 20***).

Figure 20 - Paid Parking Footprint - Core



Scenario 1 – Commercial Core On-Street at $1.50 per hour and free Off-Street:

On/Off-Street Revenue Model			
On-Street at $1.50/hour and Free Off-Street	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$703,526	$0	$703,526
Equipment & Operating Cost - Year 1	$211,488	$150,000	$361,488
Net Gain/Loss	$492,038	-$150,000	$342,038
Annual Revenue - Year 2	$703,526	$0	$703,526
Equipment & Operating Cost - Year 2	$97,488	$15,000	$112,488
Net Gain/Loss	$606,038	-$15,000	$591,038
Annual Revenue - Year 3	$703,526	$0	$703,526
Equipment & Operating Cost - Year 3	$97,488	$15,000	$112,488
Net Gain/Loss	$606,038	-$15,000	$591,038
Annual Revenue - Year 4	$703,526	$0	$703,526
Equipment & Operating Cost - Year 4	$97,488	$15,000	$112,488
Net Gain/Loss	$606,038	-$15,000	$591,038
Annual Revenue - Year 5	$703,526	$0	$703,526
Equipment & Operating Cost - Year 5	$97,488	$15,000	$112,488
Net Gain/Loss	$606,038	-$15,000	$591,038
Cumulative Revenue Years 1-5	$3,517,628	$0	$3,517,628
Equipment & Operating Cost - Year 5	$601,440	$210,000	$811,440
Net Gain/Loss	$2,916,188	-$210,000	$2,706,188

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$123,988	$11,988	$11,988	$11,988	$11,988	$171,940
Mobile Application	$2,500	$500	$500	$500	$500	$4,500
Credit Card Fees	$30,000	$30,000	$30,000	$30,000	$30,000	$150,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
.5 Contract Parking Manager	$55,000	$55,000	$55,000	$55,000	$55,000	$275,000
Total	**$361,488**	**$112,488**	**$112,488**	**$112,488**	**$112,488**	**$811,440**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$703,526	$703,526	$703,526	$703,526	$703,526	$3,517,630
Expenses	$361,488	$112,488	$112,488	$112,488	$112,488	$811,440
Total	**$342,038**	**$591,038**	**$591,038**	**$591,038**	**$591,038**	**$2,706,190**

Scenario 2 – Commercial Core On-Street at $1.25 per hour and Off-Street at $1.00 per hour:

On/Off-Street Revenue Model			
On-Street at $1.25/hour and Off-Street at $1.00/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$586,271	$546,955	$1,133,226
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	$396,683	$239,063	$635,746
Annual Revenue - Year 2	$586,271	$546,955	$1,133,226
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	$489,683	$439,063	$928,746
Annual Revenue - Year 3	$586,271	$546,955	$1,133,226
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	$489,683	$439,063	$928,746
Annual Revenue - Year 4	$586,271	$546,955	$1,133,226
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	$489,683	$439,063	$928,746
Annual Revenue - Year 5	$586,271	$546,955	$1,133,226
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	$489,683	$439,063	$928,746
Cumulative Revenue Years 1-5	$2,931,357	$2,734,773	$5,666,130
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	$2,355,417	$1,995,313	$4,350,730

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$246,400
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 Contract Parking Manager	$110,000	$110,000	$110,000	$110,000	$110,000	$550,000
Total	**$497,480**	**$204,480**	**$204,480**	**$204,480**	**$204,480**	**$1,315,400**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$1,133,226	$1,133,226	$1,133,226	$1,133,226	$1,133,226	$5,666,130
Expenses	$497,480	$204,480	$204,480	$204,480	$204,480	$1,315,400
Total	**$635,746**	**$928,746**	**$928,746**	**$928,746**	**$928,746**	**$4,350,730**

Scenario 3 – Commercial Core On-Street at $1.50 per hour and Off-Street at $1.25 per hour

On/Off-Street Revenue Model			
On-Street at $1.50/hour and Off-Street at $1.25/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	$513,938	$375,801	$889,739
Annual Revenue - Year 2	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	$606,938	$575,801	$1,182,739
Annual Revenue - Year 3	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	$606,938	$575,801	$1,182,739
Annual Revenue - Year 4	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	$606,938	$575,801	$1,182,739
Annual Revenue - Year 5	$703,526	$683,693	$1,387,219
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	$606,938	$575,801	$1,182,739
Cumulative Revenue Years 1-5	$3,517,628	$3,418,466	$6,936,094
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	$2,941,688	$2,679,006	$5,620,694

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$246,400
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 Contract Parking Manager	$110,000	$110,000	$110,000	$110,000	$110,000	$550,000
Total	**$497,480**	**$204,480**	**$204,480**	**$204,480**	**$204,480**	**$1,315,400**
City of Orange - Parking Management Plan Revenue Estimates 2024						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$1,387,219	$1,387,219	$1,387,219	$1,387,219	$1,387,219	$6,936,095
Expenses	$497,480	$204,480	$204,480	$204,480	$204,480	$1,315,400
Total	**$889,739**	**$1,182,739**	**$1,182,739**	**$1,182,739**	**$1,182,739**	**$5,620,695**

Scenario 4 – Commercial Core On-Street at $2.00 per hour and Off-Street at $1.50 per hour

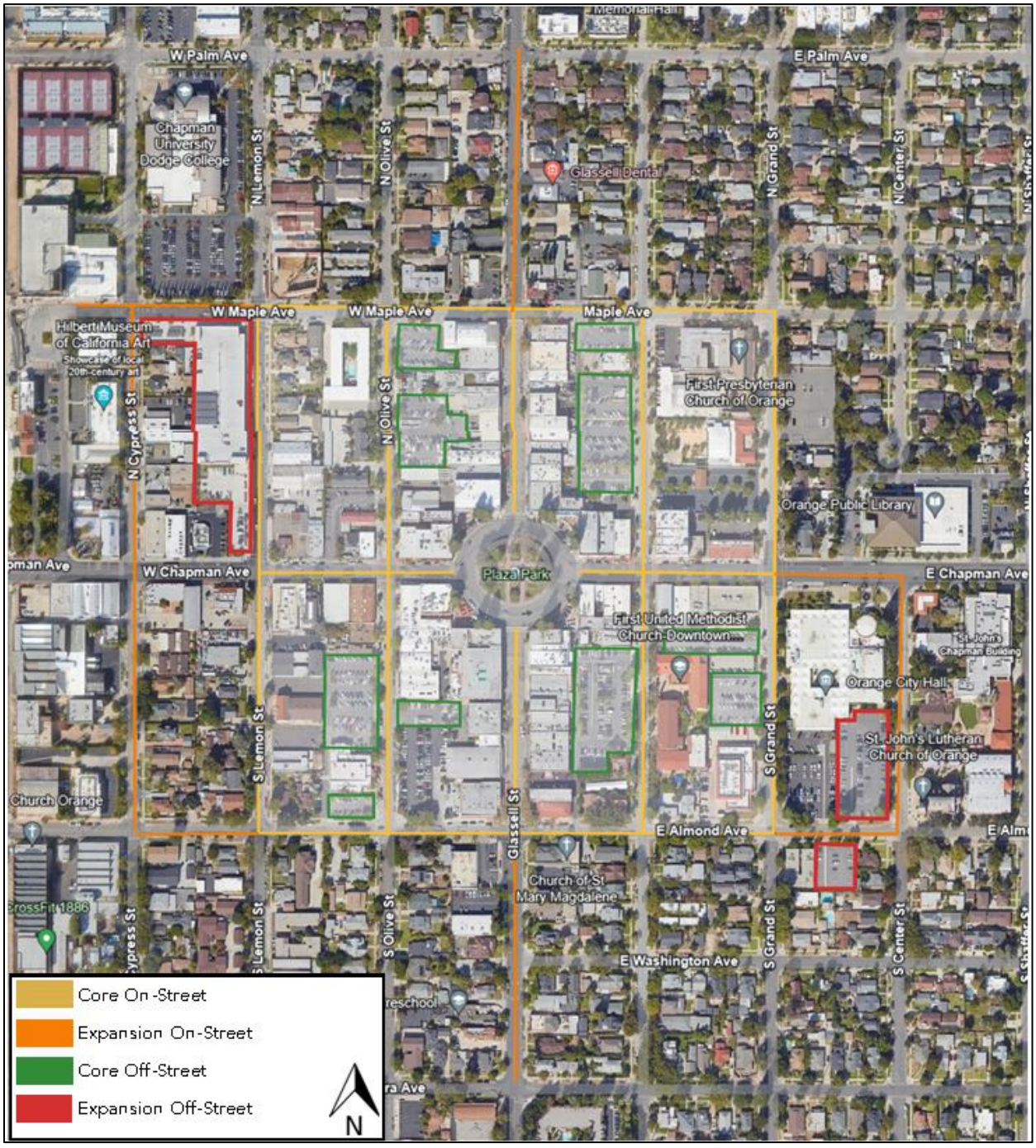
On/Off-Street Revenue Model			
On-Street at $2.00/hour and Off-Street at $1.50/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$938,034	$820,432	$1,758,466
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	$748,446	$512,540	$1,260,986
Annual Revenue - Year 2	$938,034	$820,432	$1,758,466
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	$841,446	$712,540	$1,553,986
Annual Revenue - Year 3	$938,034	$820,432	$1,758,466
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	$841,446	$712,540	$1,553,986
Annual Revenue - Year 4	$938,034	$820,432	$1,758,466
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	$841,446	$712,540	$1,553,986
Annual Revenue - Year 5	$938,034	$820,432	$1,758,466
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	$841,446	$712,540	$1,553,986
Cumulative Revenue Years 1-5	$4,690,171	$4,102,160	$8,792,330
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	$4,114,231	$3,362,700	$7,476,930

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$246,400
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 Contract Parking Manager	$110,000	$110,000	$110,000	$110,000	$110,000	$550,000
Total	**$497,480**	**$204,480**	**$204,480**	**$204,480**	**$204,480**	**$1,315,400**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$1,758,466	$1,758,466	$1,758,466	$1,758,466	$1,758,466	$8,792,330
Expenses	$497,480	$204,480	$204,480	$204,480	$204,480	$1,315,400
Total	**$1,260,986**	**$1,553,986**	**$1,553,986**	**$1,553,986**	**$1,553,986**	**$7,476,930**

The second set of scenarios expands beyond the eight-block core commercial area and includes extensions of Glassell, W. Maple, Almond, E, Chapman, and includes Cypress from W. Almond to W. Maple. The expanded area includes the parking structure and two additional off-street lots and only includes on-street segments that have mostly commercial uses (See ***Figure 21***). Residential blocks that are primarily residential are excluded from any financial modeling as paid parking is not recommended adjacent to residential uses.

Figure 21 - Expanded Paid Parking Model



Scenario 5 - On-Street at $1.25 per hour and Off-Street at $1.00 per hour (expanded footprint)

On/Off-Street Revenue Model (Expanded Zone)			
On-Street at $1.25/hour and Off-Street at $1.00/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$850,702	$1,411,226	$2,261,929
Equipment & Operating Cost - Year 1	$280,860	$399,164	$680,024
Net Gain/Loss	$569,842	$1,012,062	$1,581,905
Annual Revenue - Year 2	$850,702	$1,411,226	$2,261,929
Equipment & Operating Cost - Year 2	$166,860	$178,164	$345,024
Net Gain/Loss	$683,842	$1,233,062	$1,916,905
Annual Revenue - Year 3	$850,702	$1,411,226	$2,261,929
Equipment & Operating Cost - Year 3	$166,860	$178,164	$345,024
Net Gain/Loss	$683,842	$1,233,062	$1,916,905
Annual Revenue - Year 4	$850,702	$1,411,226	$2,261,929
Equipment & Operating Cost - Year 4	$166,860	$178,164	$345,024
Net Gain/Loss	$683,842	$1,233,062	$1,916,905
Annual Revenue - Year 5	$850,702	$1,411,226	$2,261,929
Equipment & Operating Cost - Year 5	$166,860	$178,164	$345,024
Net Gain/Loss	$683,842	$1,233,062	$1,916,905
Cumulative Revenue Years 1-5	$4,253,511	$7,056,132	$11,309,643
Equipment & Operating Cost - Year 5	$948,300	$1,111,820	$2,060,120
Net Gain/Loss	$3,305,211	$5,944,312	$9,249,523

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025 - With FTEs						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 FTE	$275,000	$283,250	$291,748	$300,500	$309,515	$1,460,012
Total	**$755,024**	**$428,274**	**$436,772**	**$445,524**	**$454,539**	**$2,520,132**

City of Orange - Parking Management Plan Cost Estimates 2025 - With Contracted Parking Managers						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 Contract Parking Managers	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
Total	**$680,024**	**$345,024**	**$345,024**	**$345,024**	**$345,024**	**$2,060,120**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$2,261,929	$2,261,929	$2,261,929	$2,261,929	$2,261,929	$11,309,643
Expenses	$680,024	$345,024	$345,024	$345,024	$345,024	$2,060,120
Total	**$1,581,905**	**$1,916,905**	**$1,916,905**	**$1,916,905**	**$1,916,905**	**$9,249,523**

Scenario 6 – On-Street at $1.50 per hour and Off-Street at $1.25 per hour (expanded footprint)

On/Off-Street Revenue Model (Expanded Zone)			
On-Street at $1.50/hour and Off-Street at $1.25/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$1,020,843	$1,764,033	$2,784,876
Equipment & Operating Cost - Year 1	$280,860	$399,164	$680,024
Net Gain/Loss	$739,983	$1,364,869	$2,104,852
Annual Revenue - Year 2	$1,020,843	$1,764,033	$2,784,876
Equipment & Operating Cost - Year 2	$166,860	$178,164	$345,024
Net Gain/Loss	$853,983	$1,585,869	$2,439,852
Annual Revenue - Year 3	$1,020,843	$1,764,033	$2,784,876
Equipment & Operating Cost - Year 3	$166,860	$178,164	$345,024
Net Gain/Loss	$853,983	$1,585,869	$2,439,852
Annual Revenue - Year 4	$1,020,843	$1,764,033	$2,784,876
Equipment & Operating Cost - Year 4	$166,860	$178,164	$345,024
Net Gain/Loss	$853,983	$1,585,869	$2,439,852
Annual Revenue - Year 5	$1,020,843	$1,764,033	$2,784,876
Equipment & Operating Cost - Year 5	$166,860	$178,164	$345,024
Net Gain/Loss	$853,983	$1,585,869	$2,439,852
Cumulative Revenue Years 1-5	$5,104,214	$8,820,165	$13,924,379
Equipment & Operating Cost - Year 5	$948,300	$1,111,820	$2,060,120
Net Gain/Loss	$4,155,914	$7,708,345	$11,864,259

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025 - With FTEs						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 FTE	$275,000	$283,250	$291,748	$300,500	$309,515	$1,460,012
Total	**$755,024**	**$428,274**	**$436,772**	**$445,524**	**$454,539**	**$2,520,132**

City of Orange - Parking Management Plan Cost Estimates 2025 - With Contracted Parking Managers						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 Contract Parking Managers	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
Total	**$680,024**	**$345,024**	**$345,024**	**$345,024**	**$345,024**	**$2,060,120**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$2,784,876	$2,784,876	$2,784,876	$2,784,876	$2,784,876	$13,924,379
Expenses	$680,024	$345,024	$345,024	$345,024	$345,024	$2,060,120
Total	**$2,104,852**	**$2,439,852**	**$2,439,852**	**$2,439,852**	**$2,439,852**	**$11,864,259**

Scenario 7 - On-Street at $2.00 per hour and Off-Street at $1.50 per hour (expanded footprint)

On/Off-Street Revenue Model (Expanded Zone)			
On-Street at $2.00/hour and Off-Street at $1.50/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$1,361,124	$2,116,840	$3,477,963
Equipment & Operating Cost - Year 1	$280,860	$399,164	$680,024
Net Gain/Loss	$1,080,264	$1,717,676	$2,797,939
Annual Revenue - Year 2	$1,361,124	$2,116,840	$3,477,963
Equipment & Operating Cost - Year 2	$166,860	$178,164	$345,024
Net Gain/Loss	$1,194,264	$1,938,676	$3,132,939
Annual Revenue - Year 3	$1,361,124	$2,116,840	$3,477,963
Equipment & Operating Cost - Year 3	$166,860	$178,164	$345,024
Net Gain/Loss	$1,194,264	$1,938,676	$3,132,939
Annual Revenue - Year 4	$1,361,124	$2,116,840	$3,477,963
Equipment & Operating Cost - Year 4	$166,860	$178,164	$345,024
Net Gain/Loss	$1,194,264	$1,938,676	$3,132,939
Annual Revenue - Year 5	$1,361,124	$2,116,840	$3,477,963
Equipment & Operating Cost - Year 5	$166,860	$178,164	$345,024
Net Gain/Loss	$1,194,264	$1,938,676	$3,132,939
Cumulative Revenue Years 1-5	$6,805,618	$10,584,198	$17,389,816
Equipment & Operating Cost - Year 5	$948,300	$1,111,820	$2,060,120
Net Gain/Loss	$5,857,318	$9,472,378	$15,329,696

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025 - With FTEs						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 FTE	$275,000	$283,250	$291,748	$300,500	$309,515	$1,460,012
Total	**$755,024**	**$428,274**	**$436,772**	**$445,524**	**$454,539**	**$2,520,132**

City of Orange - Parking Management Plan Cost Estimates 2025 - With Contracted Parking Managers						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 Contract Parking Managers	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
Total	**$680,024**	**$345,024**	**$345,024**	**$345,024**	**$345,024**	**$2,060,120**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$3,477,963	$3,477,963	$3,477,963	$3,477,963	$3,477,963	$17,389,816
Expenses	$680,024	$345,024	$345,024	$345,024	$345,024	$2,060,120
Total	**$2,797,939**	**$3,132,939**	**$3,132,939**	**$3,132,939**	**$3,132,939**	**$15,329,696**

Appendix B

Sample Implementation Schedules

Pay Stations

Task	Party	Target Timeline
Notice to Proceed (NTP)	City/Vendor	Day 1
Define/Map Meter/Sign Locations	City/Vendor	30 Calendar Days
Complete Meter Configurations	City/Vendor	30 Calendar Days
Complete Credit Card Processing	City/Vendor	30 Calendar Days
Meter Program Configuration Approved	City	30 Calendar Days
Meter Location Site Preparations	City/Vendor	30 Calendar Days
Initial Public Outreach	City/Vendor	1-90 Calendar Days
Pay Station Delivery	Vendor	75 Calendar Days
Pay Station/Signage Installation	Vendor	90 Calendar Days
On-Site Training of City Staff	City/Vendor	Once Installed
Continued Public Outreach	City/Vendor	During Installation
Post-Installation Follow-up Meeting	City/Vendor	Post Installation
Implementation Complete		**90–120 Days**

Mobile Payment

Task	Party	Target Timeline
Notice to Proceed (NTP)	City/Vendor	Day 1
Define/Map Mobile Locations	City/Vendor	30 Calendar Days
Setup Merchant Account	City/Vendor	30 Calendar Days
Engage Parking Enforcement	Vendor	30 Calendar Days
Define Signage Locations	Vendor	30 Calendar Days
Establish Marketing Plan	City/Vendor	30 Calendar Days
Test Transactions (Merchant)	City/Vendor	45 Calendar Days
Test Transactions (Enforcement)	City/Vendor	45 Calendar Days
Signage Installation	Vendor	45 Calendar Days
Go Live	City/Vendor	45 Calendar Days
Continued Public Outreach	City/Vendor	During Installation
Post-Implementation Follow-up Meeting	City/Vendor	Post Installation
Implementation Complete		**60–75 Days**

Wayfinding/Automated Parking Guidance System (Real-time parking availability)

Task	Party	Target Timeline
Notice to Proceed (NTP)	City/Vendor	Day 1
Define/Map Signage Locations	City/Vendor	30 Calendar Days
Approve Design	City/Vendor	30 Calendar Days
Fabricate Signage	Vendor	60 Calendar Days
Establish Marketing Plan	City/Vendor	60 Calendar Days
Signage Installation	Vendor	90 Calendar Days
Go Live	City/Vendor	90 Calendar Days
Continued Public Outreach	City/Vendor	During Installation
Implementation Complete		**90–120 Days**

License Plate Recognition and Enforcement

Task	Party	Target Timeline
Notice to Proceed (NTP)	City/Vendor	Day 1
Coordination with Orange PD	City/Vendor	15 Calendar Days
Installation of LPR Equipment	City/Vendor	30 Calendar Days
Installation of LPR Dashboard	Vendor	45 Calendar Days
Integrations with Paid Parking	City/Vendor	60 Calendar Days
Establish Community Outreach	Vendor	60 Calendar Days
Go Live	City/Vendor	90 Calendar Days
Continued Public Outreach	City/Vendor	During Installation
Implementation Complete		**60-90 Days**

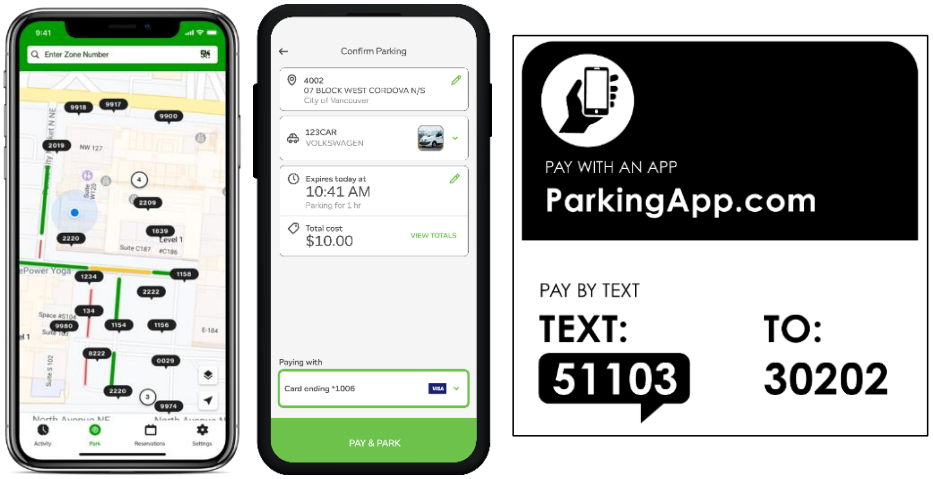
Appendix C

Parking Component Matrix

Pay Stations

	Pay Station Solutions
	
Capabilites	One pay station can managing an entire block of paid parking and can take credit card, coin, cash or mobile payment. With a pay-by-plate license plate configuration, the driver parks, purchases parking session time at the pay station, and enters their license plate number at the pay station to record payment. The paystation also integrates with mobile payment so the user can extend their parking session via text to pay or through a mobile payment app.
Vendors	Flowbird, IPS Group, T2, McKay Meters
Appriximate Costs to City	$7,000-$10,000 per pay station, plus credit card fees
Operating Costs	$700-$1000 per pay station per year, which includes software, support
Pros	1.Paid parking stat s can be monitored through LPR 2.Statistically there is an increase in mobile payment usage due to integrations 3.Significantly reduces collection time and frequency compared to single meter 4.Payment flexibility including coins, cash, card, and contactless 5.Reduced maintenance compared to single meters 6.Does not allow users to "piggyback" on remaining time from previous parker 7.Improved streetscape – less equipment
Cons	1. Installation of multiple signs directing parkers where to pay

Mobile Payment Solutions

Mobile Payment Solutions	
	
Capabilites	A mobile payment solution allows drivers to pay for a parking session using their mobile phone. They can either text a number to pay, or they can create an account on a mobile application to pay online. Zone numbers are assigned to each paid parking area for enforcement purposes, and the active paid parking sessions are tracked and verified by a license plate number.
Vendors	PayByPhone, ParkMobile, Passport, Flowbird, IPS Group
Appriximate Costs to City	$1,500 - $3,000 setup fee, plus credit card fees
Operating Costs	Costs are generally absorbed by the customer through convenience fees
Pros	1.Users of parking apps can find spots without circling the block 2. Easy to pay using stored credit card on an app or by using mobile pay 3. User can add time remotely to their session before it expires. Some apps even al 4. Capability to allow users to reserve parking in advance. 5. Interfaces easily with parking enforcement for compliance 6. Cost savings to the City as there is no hardware and costs are absorbed by the user 7. Mobile apps can also provide parking availability, and transit information allowing the user to "park once" and nagivate through the city
Cons	1. A small portion of users do not have access to smartphones so equity is a concern 2. QR Codes displayed on signs have the poential to be succeptable to

LPR Enforcement Solutions

LPR Enforcement Solutions	
	 
Capabilites	The License Plate Recognition system automatically detects whether a vehicle is associated with a valid parking session through the use of a camera mounted on an enforcement vehicle or through a mobile device. LPR can digitally verify the vehicle using the vehicle's license plate number verifying paid parking status, and can verify time limited parking zones and residential parking permit zones.
Vendors	Motorola, Genetec, Aims, Passport
Appriximate Costs to City	$40,000-$50,000 per vehicle, depending on the number of cameras
Operating Costs	$7,000-$10,000 per year which includes software, hosting, support
Pros	1. Highly efficient as enforcement officers capture violations while driving 2. Enforces all types of payment solutions including multi-space and mobile paymen 3. In addition to paid parking zones, LPR can enforce time-limited, residential permit parking zones and can register scofflaw violations 4. Can provide cities with on-going data collection to help with parking management
Cons	1. Up front costs

Wayfinding and Parking Guidance Solutions

Wayfinding and Parking Guidance Solutions	
	 
Capabilites	Camera-based sensor technology provides real-time parking availability that feeds into dynamic digital signage and into an application The signage interfaces with cameras mounted to existing light poles in the surface lots that can detect when and where vehicles are parked on each lot and can conveyinformation at the entrance of the lot. Digital signage can also be installed along the major thoroughfares with directional arrows to guide vehicles to various lots.
Vendors	EnSight Technologies, Spot Genius, Nedap, Cleverciti
Appriximate Costs to City	$10,000 - $15,000 per lot, $10,000 to $20,000 for digital signage along thoroughfare
Operating Costs	$15,000 per year which includes software, hosting, support
Pros	1. Provides real-time parking availability so vehicles can find parking efficiently 2. Parking information can be fed to signs on each corresponding lot, into wayfinding directional signage throughout a city, and into an app on a smartphone.
Cons	1. Up front costs

Appendix D

Case Studies and Literature of Economic Benefits of Paid Parking

From A Guide for Activists by the Parking Reform Network
(https://parkingreform.org/playbook/pbd/#intro)

Austin, Texas - West Campus

To promote density, Austin relaxed parking requirements for new developments. The strategy worked and new apartments brought more college students and their cars. However, this created a parking headache for the adjacent neighborhood. Rather than renting spaces from the apartment building, students now parked in the free on-street spots. Neighbors urged the city to take action as the free parking spots became long term student car storage. With a $43,000 grant from the EPA, the city piloted a PBD from 2006-2011. The 96 meters **produced $163,000 in the first year,** $40,000 of which was spent on sidewalk and curb enhancements, crosswalks, benches, transit shelters and the addition of bicycle infrastructure including two-way bike lanes.

In 2011, after a rigorous public debate, the city passed an ordinance allowing neighborhood associations to apply for PBD. In 2012, the city established the West University PBD, expanding the previous PBD and adding 254 meters. 51% of dedicated to promoting alternative transportation and reducing vehicle miles traveled. The PBD generated $150,000 in its first full year, while **the area saw a 10% growth in sales tax revenue.** Residents have chosen to invest approximately $1 million in parking revenue on sidewalk improvements on 25th street within the West Campus PBD.

The city also passed an ordinance creating the Parking and Transportation Management District Program (PTMD) in 2014. Austin's PTMDs function similarly to its PBD but are more widely applicable. PMTDs broaden revenue spending requirements to include recreational spaces and allow business owners, in addition to residential groups, to request their implementation. The East Austin PTMD manages nighttime parking with meter enforcement beginning at 6:00 PM and has funded 150 feet of sidewalk to fill gaps. The Colorado River Area PTMD and the Mueller PTMD charge for parking around the Colorado River Trail and Mueller Lake Park, respectively, funding the upkeep of the popular recreational spaces.

Pittsburgh, Pennsylvania - South Side Flats

A densely populated neighborhood with a bustling nightlife scene, South Side Flats was experiencing quality of life problems in 2017. The weekend influx of restaurant and bar patrons necessitated more trash pickup and street cleaning than previously allocated for the area. Increased popularity as a nighttime destination brought increases in public disturbances and crime. The search for parking sent visitors into residential areas, where they bothered neighbors and were targeted for crime. Vehicle

break-ins were the most common, but there were also muggings and, in some cases, shootings.

The city needed to find a way to stabilize the neighborhood. Described as "a public safety plan disguised as a public transportation plan" by City Council President Bruce Kraus,* the city implemented a PBD pilot in March of 2017. The pilot included:

- Weekend, nighttime meter enforcement of the district's 688 on-street spaces
- An extension of residential permit parking (RPP) hours
- A complimentary weekend shuttle to free nearby parking lots
- A safety lane comprised of 35 parking spots to increase emergency vehicle access on the weekend

The net revenue the city collects from meters after 6:00 PM is reinvested in the neighborhood though the Department of Public Safety. In the first 8 months, the PBD generated $134,000 and now regularly produces around $210,000 per year. The city has spent the revenue adding lighting and signage, restriping the street, creating a new residential permit program, paying for dedicated nighttime police patrols and parking enforcement, buying a street sweeper to keep garbage out of the nearby river, and implementing a rideshare pickup/dropoff area.

As part of a wider movement to increase safety in the area, the PBD has helped separate the uses of neighborhood space. The stricter RPP enforcement funnels visitors into the metered spots, discouraging parking that necessitates wandering through the neighborhood late at night. Since the PBD began, there has been a 20% increase in rideshare usage and a 37% decrease in criminal activity. The parking occupancy nears 100% during peak demand, suggesting that the parking could be even better managed with higher pricing.

Pasadena, California - Old Pasadena

Old Pasadena had been the commercial center of Pasadena from the city's founding in 1874. The Great Depression and suburban sprawl drove businesses from the area and it fell into decline in the '50s. Attempts to revive the shopping district by emphasizing its unique, historic character in the late '80's and early '90s had failed and vacant stores and buildings were falling into disrepair. The businesses that remained had employees parked in front of them, causing customers to park further away. With employees moving their cars every 2 hours, the best parking was constantly occupied.

The city thought that charging for parking could help address these issues and promised to reinvest all net revenue back into the metered district to appease business owners' concerns. They passed an ordinance to install meters in 1993 and since then they have consistently produced $1-1.8 million per year in revenue after operating expenses. The city kickstarted the renovation process by taking out a $5 million dollar

loan for the "Old Pasadena Streetscape and Alleyways Project." This money, financed by future parking revenue, funded street furniture, trees and tree grates, decorative lighting, and alley restoration.

From 1993-1998, property tax revenue tripled and sales tax revenues quadrupled. Douglas Kolozsvari and Donald Shoup call this process the virtuous cycle: As meter revenue pays for public improvements, the public improvements attract more visitors who pay for curb parking, and more meter revenue is then available to pay for more public improvements. The PBD continues to fund events, street maintenance (more visitors necessitate more maintenance, a problem that PBDs create and solve) marketing, and police foot patrols. Another nearby shopping district, Plaza Pasadena, did not see comparable increases and was demolished in 2001. The former premier shopping district of Pasadena requested a PBD similar to Old Pasadena's, which has now become the South Lake Parking Place parking meter zone established in 2007. The Civic Center also has a meter district and Pasadena's Parking Manager Jon Hamblen believes that a new PBD will be implemented in the Playhouse District in the coming years.

Columbus, Ohio - Short North Neighborhood

Columbus overhauled its citywide parking policy in 2019 with a new strategic parking plan. The previous plan had been fractured and the city hoped to simplify the parking system moving forward. From this plan, the Short North PBD was born in January 2019 as a means to provide mobility options to employees in the mixed-use arts district between downtown and Ohio State University. The new plan implemented residential permit parking and meters throughout the district, which limited employees' parking options. After their first attempt at an employee shuttle failed, the city continued to work with employers and employees to find a way to use its PBD funds that effectively addressed the district's needs. They spent meter revenue to give employees discounted transit fares and car, ride and bike share memberships. They also established an employee permit program for both on and off-street parking, giving businesses an opportunity to purchase up to 10 permits at a progressive rate.

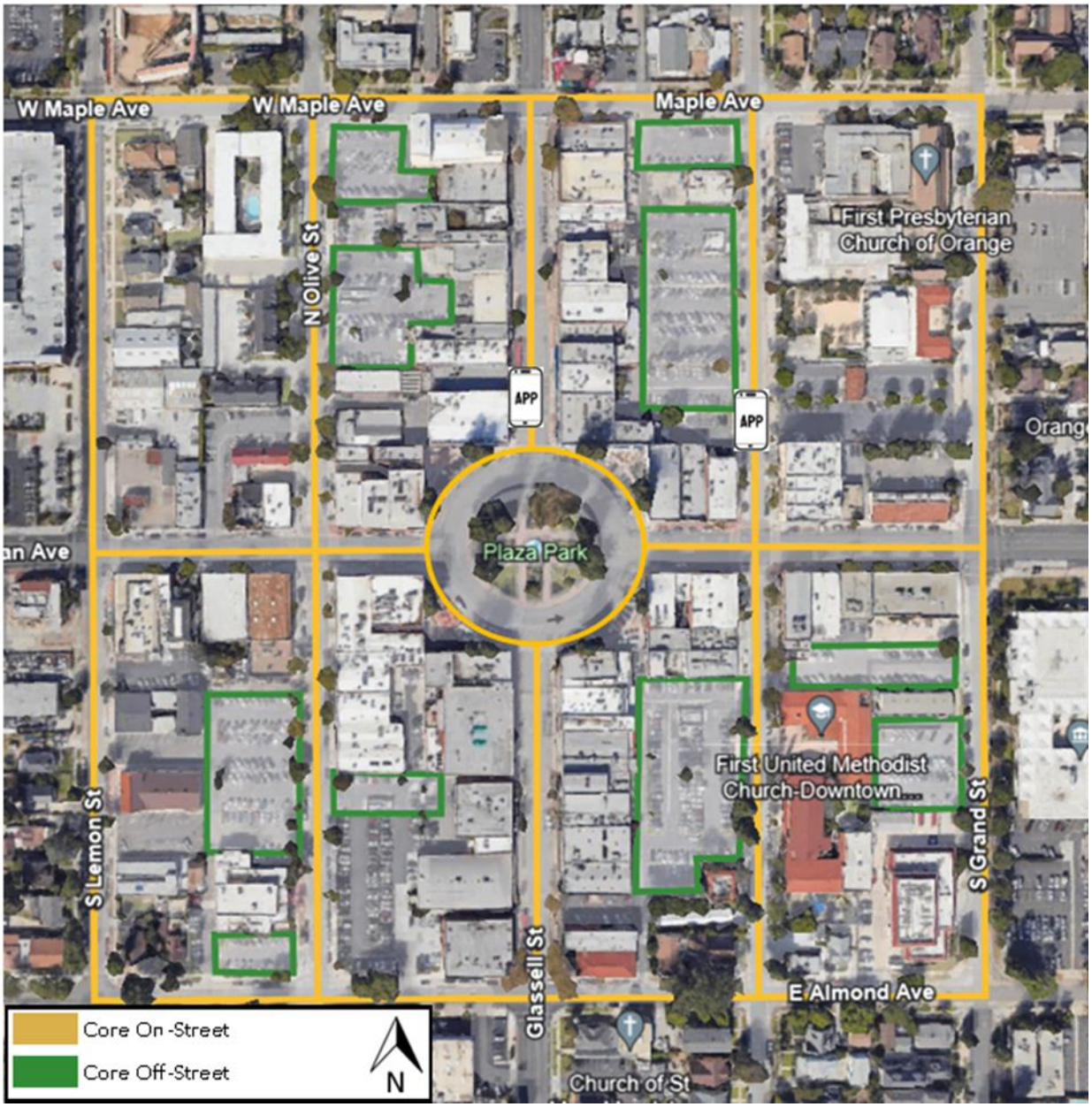
The meter revenue funds projects to enhance parking management and alternative transportation options that are proposed annually by a committee community member and approved by the city. In 2019, the first full year of operations, the meters generated $2.64 million in gross revenue, $535,000 of which went to the PBD after operating expenses. The district spent $225,000 on a contract with the Short North Alliance, the local business improvement district (BID), to provide the PBD services. These took the form of off-street parking discounts, parking validation codes for businesses, a communications campaign to educate the public on the parking changes, and an employee mobility fund. The remaining revenue was carried over to 2020, where it became an unexpectedly crucial revenue stream. As the COVID-19 virus kept people

at home, parking revenue decreased significantly. The Division of Parking Services drew upon the parking benefit district revenue generated in 2019 to fund its essential expenses and maintain the program without having to take a loan or make cutbacks.

Appendix E

Additional Financial Modeling Scenarios

The following scenarios were explored with a range of hourly rates between the $1.00 - $2.00 per hour range, at 25% occupancy and 25% compliance rates in the commercial core:



Scenario 8 – Commercial Core On-Street at $1.50 per hour and free Off-Street:

Occupancy rates of 25% and compliance rates of 25%

On/Off-Street Revenue Model			
On-Street at $1.50/hour and Free Off-Street	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$100,942	$0	$100,942
Equipment & Operating Cost - Year 1	$211,488	$150,000	$361,488
Net Gain/Loss	-$110,546	-$150,000	-$260,546
Annual Revenue - Year 2	$100,942	$0	$100,942
Equipment & Operating Cost - Year 2	$97,488	$15,000	$112,488
Net Gain/Loss	$3,454	-$15,000	-$11,546
Annual Revenue - Year 3	$100,942	$0	$100,942
Equipment & Operating Cost - Year 3	$97,488	$15,000	$112,488
Net Gain/Loss	$3,454	-$15,000	-$11,546
Annual Revenue - Year 4	$100,942	$0	$100,942
Equipment & Operating Cost - Year 4	$97,488	$15,000	$112,488
Net Gain/Loss	$3,454	-$15,000	-$11,546
Annual Revenue - Year 5	$100,942	$0	$100,942
Equipment & Operating Cost - Year 5	$97,488	$15,000	$112,488
Net Gain/Loss	$3,454	-$15,000	-$11,546
Cumulative Revenue Years 1-5	$504,710	$0	$504,710
Equipment & Operating Cost - Year 5	$601,440	$210,000	$811,440
Net Gain/Loss	-$96,730	-$210,000	-$306,730

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$227,920
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$240,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 FTE	$150,000	$154,500	$159,135	$163,909	$168,826	$796,370
Total	**$537,480**	**$248,980**	**$253,615**	**$258,389**	**$263,306**	**$1,483,290**

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$123,988	$11,988	$11,988	$11,988	$11,988	$171,940
Mobile Application	$2,500	$500	$500	$500	$500	$4,500
Credit Card Fees	$30,000	$30,000	$30,000	$30,000	$30,000	$150,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
.5 Contract Parking Manager	$55,000	$55,000	$55,000	$55,000	$55,000	$275,000
Total	**$361,488**	**$112,488**	**$112,488**	**$112,488**	**$112,488**	**$811,440**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$100,942	$100,942	$100,942	$100,942	$100,942	$504,710
Expenses	$361,488	$112,488	$112,488	$112,488	$112,488	$811,440
Total	**-$260,546**	**-$11,546**	**-$11,546**	**-$11,546**	**-$11,546**	**-$306,730**

Scenario 9 – Commercial Core On-Street at $1.25 per hour and Off-Street at $1.00 per hour:

Occupancy rates of 25% and compliance rates of 25%

On/Off-Street Revenue Model			
On-Street at $1.25/hour and Off-Street at $1.00/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$84,118	$78,477	$162,596
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	-$105,470	-$229,415	-$334,884
Annual Revenue - Year 2	$84,118	$78,477	$162,596
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	-$12,470	-$29,415	-$41,884
Annual Revenue - Year 3	$84,118	$78,477	$162,596
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	-$12,470	-$29,415	-$41,884
Annual Revenue - Year 4	$84,118	$78,477	$162,596
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	-$12,470	-$29,415	-$41,884
Annual Revenue - Year 5	$84,118	$78,477	$162,596
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	-$12,470	-$29,415	-$41,884
Cumulative Revenue Years 1-5	$420,592	$392,386	$812,978
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	-$155,348	-$347,074	-$502,422

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$227,920
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$240,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 FTE	$150,000	$154,500	$159,135	$163,909	$168,826	$796,370
Total	**$537,480**	**$248,980**	**$253,615**	**$258,389**	**$263,306**	**$1,483,290**

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$246,400
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 Contract Parking Manager	$110,000	$110,000	$110,000	$110,000	$110,000	$550,000
Total	**$497,480**	**$204,480**	**$204,480**	**$204,480**	**$204,480**	**$1,315,400**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$162,596	$162,596	$162,596	$162,596	$162,596	$812,978
Expenses	$497,480	$204,480	$204,480	$204,480	$204,480	$1,315,400
Total	**-$334,884**	**-$41,885**	**-$41,885**	**-$41,885**	**-$41,885**	**-$502,422**

Scenario 10 – Commercial Core On-Street at $1.50 per hour and Off-Street at $1.25 per hour:

Occupancy rates of 25% and compliance rates of 25%

On/Off-Street Revenue Model			
On-Street at $1.50/hour and Off-Street at $1.25/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$100,942	$98,096	$199,039
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	-$88,646	-$209,796	-$298,441
Annual Revenue - Year 2	$100,942	$98,096	$199,039
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	$4,354	-$9,796	-$5,441
Annual Revenue - Year 3	$100,942	$98,096	$199,039
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	$4,354	-$9,796	-$5,441
Annual Revenue - Year 4	$100,942	$98,096	$199,039
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	$4,354	-$9,796	-$5,441
Annual Revenue - Year 5	$100,942	$98,096	$199,039
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	$4,354	-$9,796	-$5,441
Cumulative Revenue Years 1-5	$504,710	$490,482	$995,193
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	-$71,230	-$248,978	-$320,207

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$227,920
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$240,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 FTE	$150,000	$154,500	$159,135	$163,909	$168,826	$796,370
Total	**$537,480**	**$248,980**	**$253,615**	**$258,389**	**$263,306**	**$1,483,290**

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$246,400
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 Contract Parking Manager	$110,000	$110,000	$110,000	$110,000	$110,000	$550,000
Total	**$497,480**	**$204,480**	**$204,480**	**$204,480**	**$204,480**	**$1,315,400**
City of Orange - Revenue Estimates $1.50 On-Street / $1.25 Off-Street						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$199,039	$199,039	$199,039	$199,039	$199,038	$995,193
Expenses	$497,480	$204,480	$204,480	$204,480	$204,480	$1,315,400
Total	**-$298,441**	**-$5,441**	**-$5,441**	**-$5,441**	**-$5,442**	**-$320,207**

Scenario 11 – Commercial Core On-Street at $2.00 per hour and Off-Street at $1.50 per hour:

Occupancy rates of 25% and compliance rates of 25%

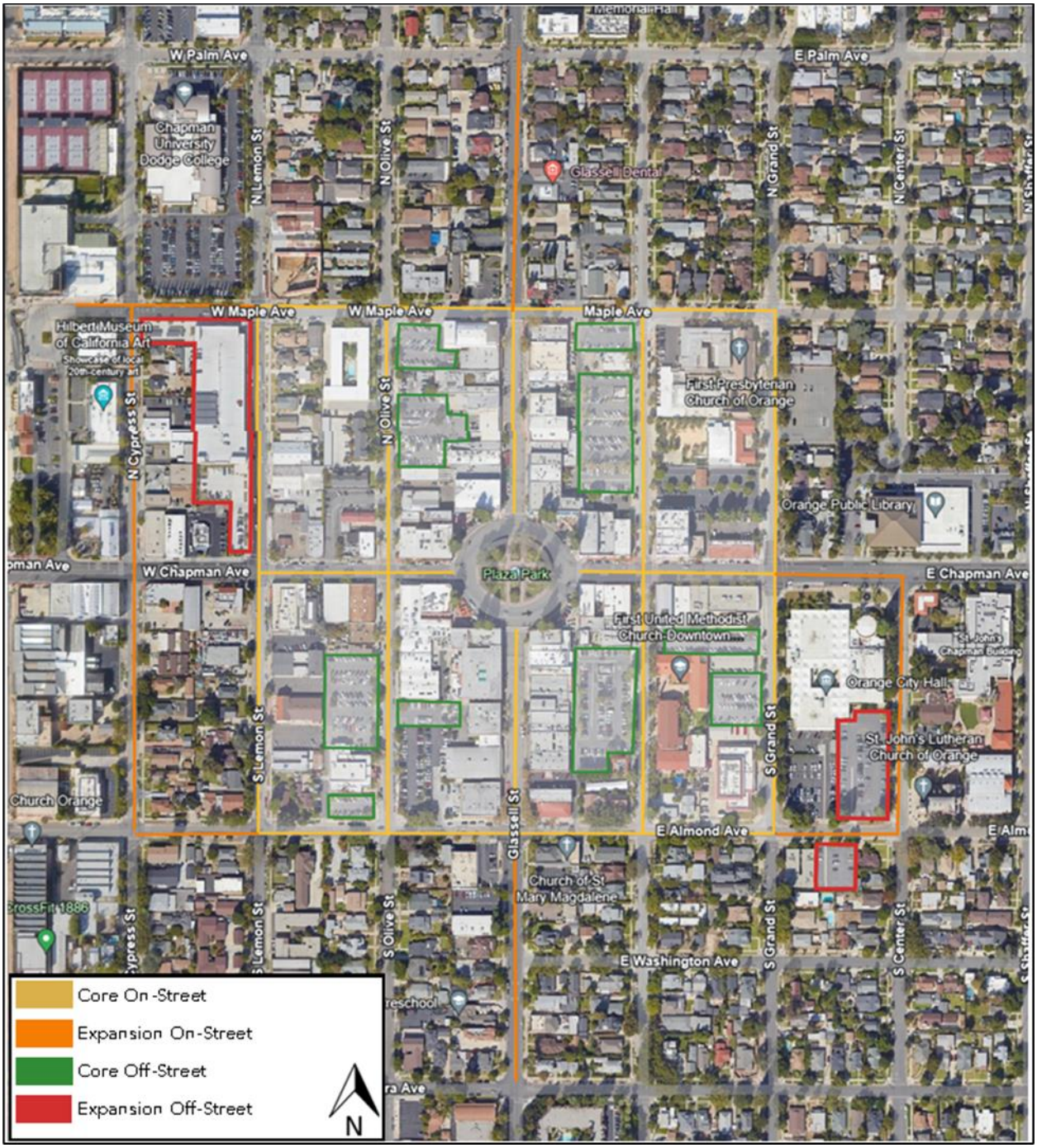
On/Off-Street Revenue Model			
On-Street at $2.00/hour and Off-Street at $1.50/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$134,589	$117,716	$252,305
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	-$54,999	-$190,176	-$245,175
Annual Revenue - Year 2	$134,589	$117,716	$252,305
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	$38,001	$9,824	$47,825
Annual Revenue - Year 3	$134,589	$117,716	$252,305
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	$38,001	$9,824	$47,825
Annual Revenue - Year 4	$134,589	$117,716	$252,305
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	$38,001	$9,824	$47,825
Annual Revenue - Year 5	$134,589	$117,716	$252,305
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	$38,001	$9,824	$47,825
Cumulative Revenue Years 1-5	$672,947	$588,579	$1,261,526
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	$97,007	-$150,881	-$53,874

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$227,920
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$240,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 FTE	$150,000	$154,500	$159,135	$163,909	$168,826	$796,370
Total	**$537,480**	**$248,980**	**$253,615**	**$258,389**	**$263,306**	**$1,483,290**

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$246,400
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 Contract Parking Manager	$110,000	$110,000	$110,000	$110,000	$110,000	$550,000
Total	**$497,480**	**$204,480**	**$204,480**	**$204,480**	**$204,480**	**$1,315,400**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$252,305	$252,305	$252,305	$252,305	$252,305	$1,261,526
Expenses	$497,480	$204,480	$204,480	$204,480	$204,480	$1,315,400
Total	**-$245,175**	**$47,825**	**$47,825**	**$47,825**	**$47,825**	**-$53,874**

The following scenarios were explored with a range of hourly rates between the $1.00 - $2.00 per hour range, at 25% occupancy and 25% compliance rates in the expanded footprint:



Scenario 12 – On-Street at $1.25 per hour and Off-Street at $1.00 per hour (expanded footprint)

Occupancy rates of 25% and compliance rates of 25%

On/Off-Street Revenue Model (Expanded Zone)			
On-Street at $1.25/hour and Off-Street at $1.00/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$122,059	$202,483	$324,542
Equipment & Operating Cost - Year 1	$280,860	$399,164	$680,024
Net Gain/Loss	-$158,801	-$196,681	-$355,482
Annual Revenue - Year 2	$122,059	$202,483	$324,542
Equipment & Operating Cost - Year 2	$166,860	$178,164	$345,024
Net Gain/Loss	-$44,801	$24,319	-$20,482
Annual Revenue - Year 3	$122,059	$202,483	$324,542
Equipment & Operating Cost - Year 3	$166,860	$178,164	$345,024
Net Gain/Loss	-$44,801	$24,319	-$20,482
Annual Revenue - Year 4	$122,059	$202,483	$324,542
Equipment & Operating Cost - Year 4	$166,860	$178,164	$345,024
Net Gain/Loss	-$44,801	$24,319	-$20,482
Annual Revenue - Year 5	$122,059	$202,483	$324,542
Equipment & Operating Cost - Year 5	$166,860	$178,164	$345,024
Net Gain/Loss	-$44,801	$24,319	-$20,482
Cumulative Revenue Years 1-5	$610,295	$1,012,416	$1,622,711
Equipment & Operating Cost - Year 5	$948,300	$1,111,820	$2,060,120
Net Gain/Loss	-$338,005	-$99,404	-$437,409

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025 - With FTEs						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 FTE	$275,000	$283,250	$291,748	$300,500	$309,515	$1,460,012
Total	**$755,024**	**$428,274**	**$436,772**	**$445,524**	**$454,539**	**$2,520,132**

City of Orange - Parking Management Plan Cost Estimates 2025 - With Contracted Parking Managers						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 Contract Parking Managers	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
Total	**$680,024**	**$345,024**	**$345,024**	**$345,024**	**$345,024**	**$2,060,120**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$324,542	$324,542	$324,542	$324,542	$324,542	$1,622,711
Expenses	$680,024	$345,024	$345,024	$345,024	$345,024	$2,060,120
Total	**-$355,482**	**-$20,482**	**-$20,482**	**-$20,482**	**-$20,482**	**-$437,409**

Scenario 13 – On-Street at $1.50 per hour and Off-Street at $1.25 per hour (expanded footprint)

Occupancy rates of 25% and compliance rates of 25%

On/Off-Street Revenue Model (Expanded Zone)			
On-Street at $1.50/hour and Off-Street at $1.25/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$146,471	$253,104	$399,575
Equipment & Operating Cost - Year 1	$280,860	$399,164	$680,024
Net Gain/Loss	-$134,389	-$146,060	-$280,449
Annual Revenue - Year 2	$146,471	$253,104	$399,575
Equipment & Operating Cost - Year 2	$166,860	$178,164	$345,024
Net Gain/Loss	-$20,389	$74,940	$54,551
Annual Revenue - Year 3	$146,471	$253,104	$399,575
Equipment & Operating Cost - Year 3	$166,860	$178,164	$345,024
Net Gain/Loss	-$20,389	$74,940	$54,551
Annual Revenue - Year 4	$146,471	$253,104	$399,575
Equipment & Operating Cost - Year 4	$166,860	$178,164	$345,024
Net Gain/Loss	-$20,389	$74,940	$54,551
Annual Revenue - Year 5	$146,471	$253,104	$399,575
Equipment & Operating Cost - Year 5	$166,860	$178,164	$345,024
Net Gain/Loss	-$20,389	$74,940	$54,551
Cumulative Revenue Years 1-5	$732,354	$1,265,520	$1,997,873
Equipment & Operating Cost - Year 5	$948,300	$1,111,820	$2,060,120
Net Gain/Loss	-$215,946	$153,700	-$62,247

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025 - With FTEs						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 FTE	$275,000	$283,250	$291,748	$300,500	$309,515	$1,460,012
Total	**$755,024**	**$428,274**	**$436,772**	**$445,524**	**$454,539**	**$2,520,132**

City of Orange - Parking Management Plan Cost Estimates 2025 - With Contracted Parking Managers						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 Contract Parking Managers	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
Total	**$680,024**	**$345,024**	**$345,024**	**$345,024**	**$345,024**	**$2,060,120**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$399,575	$399,575	$399,575	$399,575	$399,575	$1,997,873
Expenses	$680,024	$345,024	$345,024	$345,024	$345,024	$2,060,120
Total	**-$280,449**	**$54,551**	**$54,551**	**$54,551**	**$54,551**	**-$62,247**

Scenario 14 – On-Street at $2.00 per hour and Off-Street at $1.50 per hour (expanded footprint)

Occupancy rates of 25% and compliance rates of 25%

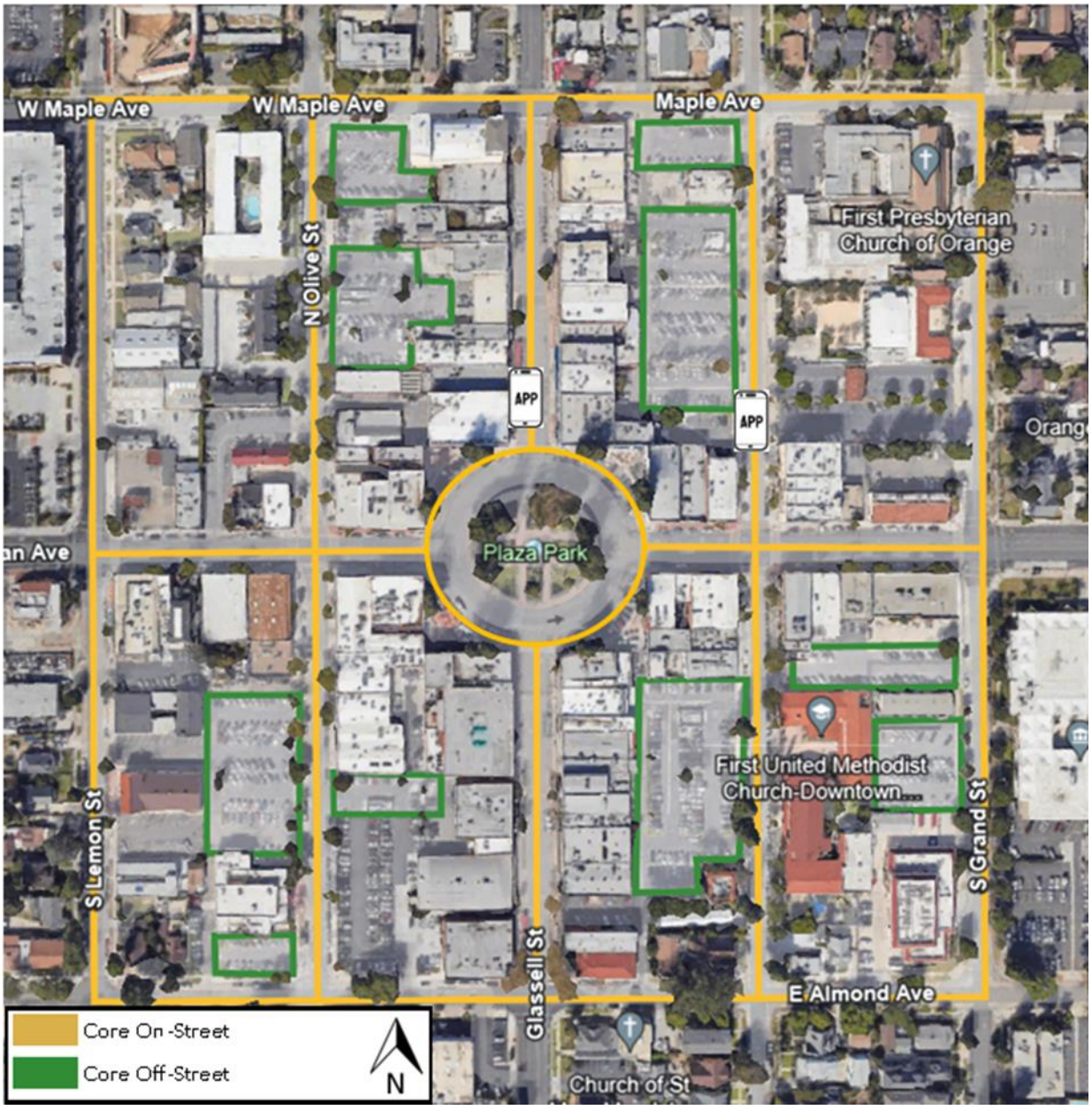
On/Off-Street Revenue Model (Expanded Zone)			
On-Street at $2.00/hour and Off-Street at $1.50/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$195,294	$303,725	$499,019
Equipment & Operating Cost - Year 1	$280,860	$399,164	$680,024
Net Gain/Loss	-$85,566	-$95,439	-$181,005
Annual Revenue - Year 2	$195,294	$303,725	$499,019
Equipment & Operating Cost - Year 2	$166,860	$178,164	$345,024
Net Gain/Loss	$28,434	$125,561	$153,995
Annual Revenue - Year 3	$195,294	$303,725	$499,019
Equipment & Operating Cost - Year 3	$166,860	$178,164	$345,024
Net Gain/Loss	$28,434	$125,561	$153,995
Annual Revenue - Year 4	$195,294	$303,725	$499,019
Equipment & Operating Cost - Year 4	$166,860	$178,164	$345,024
Net Gain/Loss	$28,434	$125,561	$153,995
Annual Revenue - Year 5	$195,294	$303,725	$499,019
Equipment & Operating Cost - Year 5	$166,860	$178,164	$345,024
Net Gain/Loss	$28,434	$125,561	$153,995
Cumulative Revenue Years 1-5	$976,472	$1,518,623	$2,495,095
Equipment & Operating Cost - Year 5	$948,300	$1,111,820	$2,060,120
Net Gain/Loss	$28,172	$406,803	$434,975

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025 - With FTEs						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 FTE	$275,000	$283,250	$291,748	$300,500	$309,515	$1,460,012
Total	**$755,024**	**$428,274**	**$436,772**	**$445,524**	**$454,539**	**$2,520,132**

City of Orange - Parking Management Plan Cost Estimates 2025 - With Contracted Parking Managers						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 Contract Parking Managers	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
Total	**$680,024**	**$345,024**	**$345,024**	**$345,024**	**$345,024**	**$2,060,120**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$499,019	$499,019	$499,019	$499,019	$499,019	$2,495,095
Expenses	$680,024	$345,024	$345,024	$345,024	$345,024	$2,060,120
Total	**-$181,005**	**$153,995**	**$153,995**	**$153,995**	**$153,995**	**$434,975**

The following scenarios were explored with a range of hourly rates between the $1.00 - $2.00 per hour range, at 50% occupancy and 50% compliance rates in the commercial core:



Scenario 15 – Commercial Core On-Street at $1.50 per hour and free Off-Street:

Occupancy rates of 50% and compliance rates of 50%

On/Off-Street Revenue Model			
On-Street at $1.50/hour and Free Off-Street	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$403,768	$0	$403,768
Equipment & Operating Cost - Year 1	$211,488	$150,000	$361,488
Net Gain/Loss	$192,280	-$150,000	$42,280
Annual Revenue - Year 2	$403,768	$0	$403,768
Equipment & Operating Cost - Year 2	$97,488	$15,000	$112,488
Net Gain/Loss	$306,280	-$15,000	$291,280
Annual Revenue - Year 3	$403,768	$0	$403,768
Equipment & Operating Cost - Year 3	$97,488	$15,000	$112,488
Net Gain/Loss	$306,280	-$15,000	$291,280
Annual Revenue - Year 4	$403,768	$0	$403,768
Equipment & Operating Cost - Year 4	$97,488	$15,000	$112,488
Net Gain/Loss	$306,280	-$15,000	$291,280
Annual Revenue - Year 5	$403,768	$0	$403,768
Equipment & Operating Cost - Year 5	$97,488	$15,000	$112,488
Net Gain/Loss	$306,280	-$15,000	$291,280
Cumulative Revenue Years 1-5	$2,018,841	$0	$2,018,841
Equipment & Operating Cost - Year 5	$601,440	$210,000	$811,440
Net Gain/Loss	$1,417,401	-$210,000	$1,207,401

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$227,920
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$240,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 FTE	$150,000	$154,500	$159,135	$163,909	$168,826	$796,370
Total	**$537,480**	**$248,980**	**$253,615**	**$258,389**	**$263,306**	**$1,483,290**

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$123,988	$11,988	$11,988	$11,988	$11,988	$171,940
Mobile Application	$2,500	$500	$500	$500	$500	$4,500
Credit Card Fees	$30,000	$30,000	$30,000	$30,000	$30,000	$150,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
.5 Contract Parking Manager	$55,000	$55,000	$55,000	$55,000	$55,000	$275,000
Total	**$361,488**	**$112,488**	**$112,488**	**$112,488**	**$112,488**	**$811,440**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$403,768	$403,768	$403,768	$403,768	$403,768	$2,018,841
Expenses	$361,488	$112,488	$112,488	$112,488	$112,488	$811,440
Total	**$42,280**	**$291,280**	**$291,280**	**$291,280**	**$291,280**	**$1,207,401**

Scenario 16 – Commercial Core On-Street at $1.25 per hour and Off-Street at $1.00 per hour:

Occupancy rates of 50% and compliance rates of 50%

On/Off-Street Revenue Model			
On-Street at $1.25/hour and Off-Street at $1.00/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$336,473	$313,909	$650,382
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	$146,885	$6,017	$152,902
Annual Revenue - Year 2	$336,473	$313,909	$650,382
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	$239,885	$206,017	$445,902
Annual Revenue - Year 3	$336,473	$313,909	$650,382
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	$239,885	$206,017	$445,902
Annual Revenue - Year 4	$336,473	$313,909	$650,382
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	$239,885	$206,017	$445,902
Annual Revenue - Year 5	$336,473	$313,909	$650,382
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	$239,885	$206,017	$445,902
Cumulative Revenue Years 1-5	$1,682,367	$1,569,544	$3,251,911
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	$1,106,427	$830,084	$1,936,511

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$227,920
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$240,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 FTE	$150,000	$154,500	$159,135	$163,909	$168,826	$796,370
Total	**$537,480**	**$248,980**	**$253,615**	**$258,389**	**$263,306**	**$1,483,290**

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$246,400
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 Contract Parking Manager	$110,000	$110,000	$110,000	$110,000	$110,000	$550,000
Total	**$497,480**	**$204,480**	**$204,480**	**$204,480**	**$204,480**	**$1,315,400**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$650,382	$650,382	$650,382	$650,382	$650,382	$3,251,911
Expenses	$497,480	$204,480	$204,480	$204,480	$204,480	$1,315,400
Total	**$152,902**	**$445,902**	**$445,902**	**$445,902**	**$445,902**	**$1,936,511**

Scenario 17 – Commercial Core On-Street at $1.50 per hour and Off-Street at $1.25 per hour:

Occupancy rates of 50% and compliance rates of 50%

On/Off-Street Revenue Model			
On-Street at $1.50/hour and Off-Street at $1.25/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$403,768	$392,386	$796,154
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	$214,180	$84,494	$298,674
Annual Revenue - Year 2	$403,768	$392,386	$796,154
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	$307,180	$284,494	$591,674
Annual Revenue - Year 3	$403,768	$392,386	$796,154
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	$307,180	$284,494	$591,674
Annual Revenue - Year 4	$403,768	$392,386	$796,154
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	$307,180	$284,494	$591,674
Annual Revenue - Year 5	$403,768	$392,386	$796,154
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	$307,180	$284,494	$591,674
Cumulative Revenue Years 1-5	$2,018,841	$1,961,930	$3,980,770
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	$1,442,901	$1,222,470	$2,665,370

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$227,920
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$240,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 FTE	$150,000	$154,500	$159,135	$163,909	$168,826	$796,370
Total	**$537,480**	**$248,980**	**$253,615**	**$258,389**	**$263,306**	**$1,483,290**

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$246,400
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 Contract Parking Manager	$110,000	$110,000	$110,000	$110,000	$110,000	$550,000
Total	**$497,480**	**$204,480**	**$204,480**	**$204,480**	**$204,480**	**$1,315,400**
City of Orange - Revenue Estimates $1.50 On-Street / $1.25 Off-Street						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$796,154	$796,154	$796,154	$796,154	$796,154	$3,980,770
Expenses	$497,480	$204,480	$204,480	$204,480	$204,480	$1,315,400
Total	**$298,674**	**$591,674**	**$591,674**	**$591,674**	**$591,674**	**$2,665,370**

Scenario 18 – Commercial Core On-Street at $2.00 per hour and Off-Street at $1.50 per hour:

Occupancy rates of 50% and compliance rates of 50%

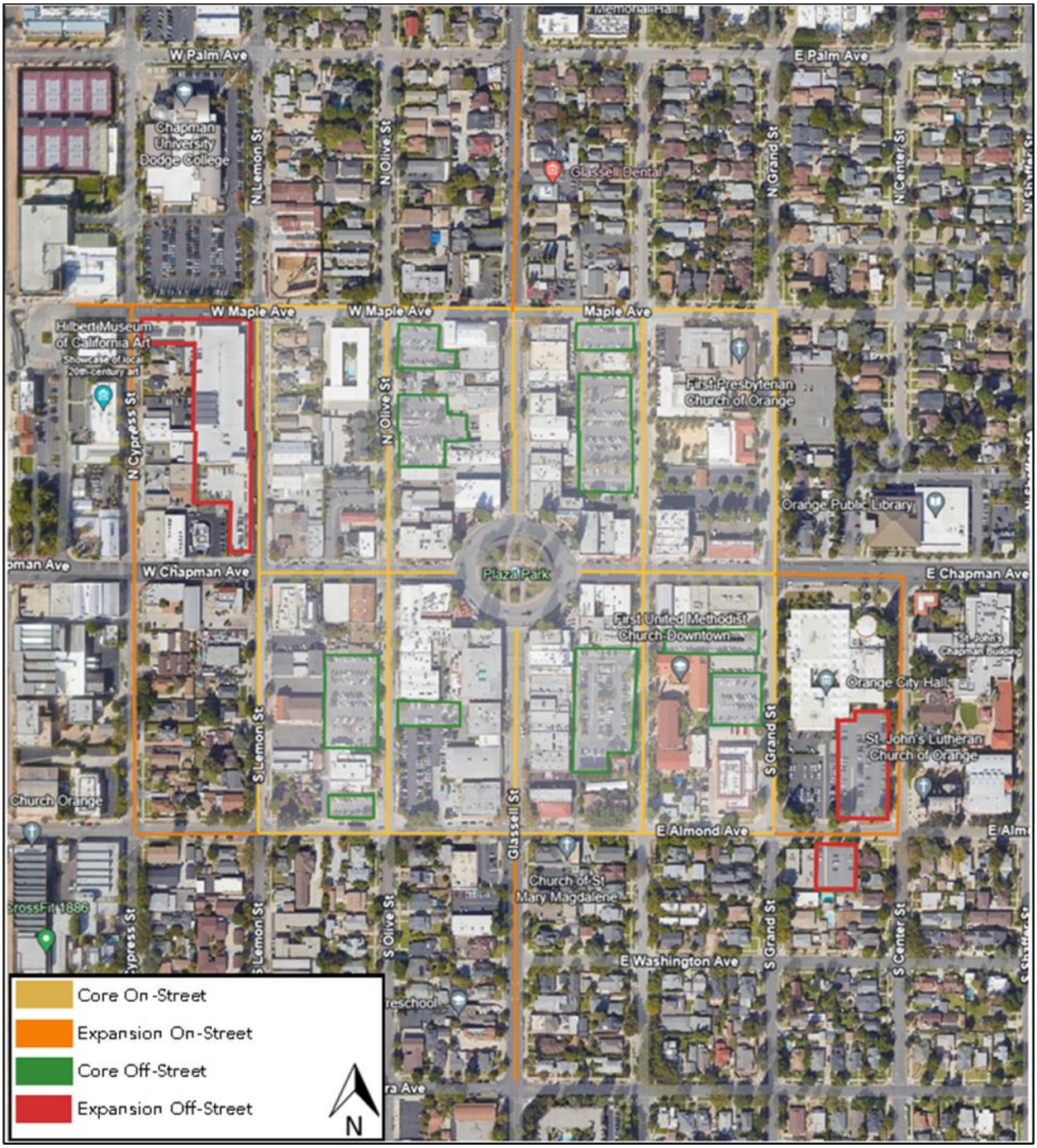
On/Off-Street Revenue Model			
On-Street at $2.00/hour and Off-Street at $1.50/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$538,358	$470,863	$1,009,221
Equipment & Operating Cost - Year 1	$189,588	$307,892	$497,480
Net Gain/Loss	$348,770	$162,971	$511,741
Annual Revenue - Year 2	$538,358	$470,863	$1,009,221
Equipment & Operating Cost - Year 2	$96,588	$107,892	$204,480
Net Gain/Loss	$441,770	$362,971	$804,741
Annual Revenue - Year 3	$538,358	$470,863	$1,009,221
Equipment & Operating Cost - Year 3	$96,588	$107,892	$204,480
Net Gain/Loss	$441,770	$362,971	$804,741
Annual Revenue - Year 4	$538,358	$470,863	$1,009,221
Equipment & Operating Cost - Year 4	$96,588	$107,892	$204,480
Net Gain/Loss	$441,770	$362,971	$804,741
Annual Revenue - Year 5	$538,358	$470,863	$1,009,221
Equipment & Operating Cost - Year 5	$96,588	$107,892	$204,480
Net Gain/Loss	$441,770	$362,971	$804,741
Cumulative Revenue Years 1-5	$2,691,788	$2,354,316	$5,046,103
Equipment & Operating Cost - Year 5	$575,940	$739,460	$1,315,400
Net Gain/Loss	$2,115,848	$1,614,856	$3,730,703

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$227,920
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$240,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 FTE	$150,000	$154,500	$159,135	$163,909	$168,826	$796,370
Total	**$537,480**	**$248,980**	**$253,615**	**$258,389**	**$263,306**	**$1,483,290**

City of Orange - Parking Management Plan Cost Estimates 2025						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$172,480	$18,480	$18,480	$18,480	$18,480	$246,400
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$60,000	$60,000	$60,000	$60,000	$60,000	$300,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
1 Contract Parking Manager	$110,000	$110,000	$110,000	$110,000	$110,000	$550,000
Total	**$497,480**	**$204,480**	**$204,480**	**$204,480**	**$204,480**	**$1,315,400**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$1,009,221	$1,009,221	$1,009,221	$1,009,221	$1,009,221	$5,046,103
Expenses	$497,480	$204,480	$204,480	$204,480	$204,480	$1,315,400
Total	**$511,741**	**$804,741**	**$804,741**	**$804,741**	**$804,741**	**$3,730,703**

The following scenarios were explored with a range of hourly rates between the $1.00 - $2.00 per hour range, at 50% occupancy and 50% compliance rates in the expanded footprint:



Scenario 19 – On-Street at $1.25 per hour and Off-Street at $1.00 per hour (expanded footprint)

Occupancy rates of 50% and compliance rates of 50%

On/Off-Street Revenue Model (Expanded Zone)			
On-Street at $1.25/hour and Off-Street at $1.00/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$488,236	$809,933	$1,298,168
Equipment & Operating Cost - Year 1	$280,860	$399,164	$680,024
Net Gain/Loss	$207,376	$410,769	$618,144
Annual Revenue - Year 2	$488,236	$809,933	$1,298,168
Equipment & Operating Cost - Year 2	$166,860	$178,164	$345,024
Net Gain/Loss	$321,376	$631,769	$953,144
Annual Revenue - Year 3	$488,236	$809,933	$1,298,168
Equipment & Operating Cost - Year 3	$166,860	$178,164	$345,024
Net Gain/Loss	$321,376	$631,769	$953,144
Annual Revenue - Year 4	$488,236	$809,933	$1,298,168
Equipment & Operating Cost - Year 4	$166,860	$178,164	$345,024
Net Gain/Loss	$321,376	$631,769	$953,144
Annual Revenue - Year 5	$488,236	$809,933	$1,298,168
Equipment & Operating Cost - Year 5	$166,860	$178,164	$345,024
Net Gain/Loss	$321,376	$631,769	$953,144
Cumulative Revenue Years 1-5	$2,441,180	$4,049,663	$6,490,842
Equipment & Operating Cost - Year 5	$948,300	$1,111,820	$2,060,120
Net Gain/Loss	$1,492,880	$2,937,843	$4,430,722

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025 - With FTEs						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 FTE	$275,000	$283,250	$291,748	$300,500	$309,515	$1,460,012
Total	**$755,024**	**$428,274**	**$436,772**	**$445,524**	**$454,539**	**$2,520,132**

City of Orange - Parking Management Plan Cost Estimates 2025 - With Contracted Parking Managers						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 Contract Parking Managers	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
Total	**$680,024**	**$345,024**	**$345,024**	**$345,024**	**$345,024**	**$2,060,120**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$1,298,168	$1,298,168	$1,298,168	$1,298,168	$1,298,168	$6,490,842
Expenses	$680,024	$345,024	$345,024	$345,024	$345,024	$2,060,120
Total	**$618,144**	**$953,144**	**$953,144**	**$953,144**	**$953,144**	**$4,430,722**

Scenario 20 – On-Street at $1.50 per hour and Off-Street at $1.25 per hour (expanded footprint)

Occupancy rates of 50% and compliance rates of 50%

On/Off-Street Revenue Model (Expanded Zone)			
On-Street at $1.50/hour and Off-Street at $1.25/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$585,883	$1,012,416	$1,598,299
Equipment & Operating Cost - Year 1	$280,860	$399,164	$680,024
Net Gain/Loss	$305,023	$613,252	$918,275
Annual Revenue - Year 2	$585,883	$1,012,416	$1,598,299
Equipment & Operating Cost - Year 2	$166,860	$178,164	$345,024
Net Gain/Loss	$419,023	$834,252	$1,253,275
Annual Revenue - Year 3	$585,883	$1,012,416	$1,598,299
Equipment & Operating Cost - Year 3	$166,860	$178,164	$345,024
Net Gain/Loss	$419,023	$834,252	$1,253,275
Annual Revenue - Year 4	$585,883	$1,012,416	$1,598,299
Equipment & Operating Cost - Year 4	$166,860	$178,164	$345,024
Net Gain/Loss	$419,023	$834,252	$1,253,275
Annual Revenue - Year 5	$585,883	$1,012,416	$1,598,299
Equipment & Operating Cost - Year 5	$166,860	$178,164	$345,024
Net Gain/Loss	$419,023	$834,252	$1,253,275
Cumulative Revenue Years 1-5	$2,929,416	$5,062,078	$7,991,494
Equipment & Operating Cost - Year 5	$948,300	$1,111,820	$2,060,120
Net Gain/Loss	$1,981,116	$3,950,258	$5,931,374

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025 - With FTEs						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 FTE	$275,000	$283,250	$291,748	$300,500	$309,515	$1,460,012
Total	**$755,024**	**$428,274**	**$436,772**	**$445,524**	**$454,539**	**$2,520,132**

City of Orange - Parking Management Plan Cost Estimates 2025 - With Contracted Parking Managers						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 Contract Parking Managers	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
Total	**$680,024**	**$345,024**	**$345,024**	**$345,024**	**$345,024**	**$2,060,120**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$1,598,299	$1,598,299	$1,598,299	$1,598,299	$1,598,299	$7,991,494
Expenses	$680,024	$345,024	$345,024	$345,024	$345,024	$2,060,120
Total	**$918,275**	**$1,253,275**	**$1,253,275**	**$1,253,275**	**$1,253,275**	**$5,931,374**

Scenario 21– On-Street at $2.00 per hour and Off-Street at $1.50 per hour (expanded footprint)

Occupancy rates of 50% and compliance rates of 50%

On/Off-Street Revenue Model (Expanded Zone)			
On-Street at $2.00/hour and Off-Street at $1.50/hour	**On-Street**	**Off-Street**	**Combined**
Annual Revenue - Year 1	$781,178	$1,214,899	$1,996,076
Equipment & Operating Cost - Year 1	$280,860	$399,164	$680,024
Net Gain/Loss	$500,318	$815,735	$1,316,052
Annual Revenue - Year 2	$781,178	$1,214,899	$1,996,076
Equipment & Operating Cost - Year 2	$166,860	$178,164	$345,024
Net Gain/Loss	$614,318	$1,036,735	$1,651,052
Annual Revenue - Year 3	$781,178	$1,214,899	$1,996,076
Equipment & Operating Cost - Year 3	$166,860	$178,164	$345,024
Net Gain/Loss	$614,318	$1,036,735	$1,651,052
Annual Revenue - Year 4	$781,178	$1,214,899	$1,996,076
Equipment & Operating Cost - Year 4	$166,860	$178,164	$345,024
Net Gain/Loss	$614,318	$1,036,735	$1,651,052
Annual Revenue - Year 5	$781,178	$1,214,899	$1,996,076
Equipment & Operating Cost - Year 5	$166,860	$178,164	$345,024
Net Gain/Loss	$614,318	$1,036,735	$1,651,052
Cumulative Revenue Years 1-5	$3,905,888	$6,074,494	$9,980,381
Equipment & Operating Cost - Year 5	$948,300	$1,111,820	$2,060,120
Net Gain/Loss	$2,957,588	$4,962,674	$7,920,261

Parking System Costs and Net Revenues Years 1-5:

City of Orange - Parking Management Plan Cost Estimates 2025 - With FTEs						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 FTE	$275,000	$283,250	$291,748	$300,500	$309,515	$1,460,012
Total	**$755,024**	**$428,274**	**$436,772**	**$445,524**	**$454,539**	**$2,520,132**

City of Orange - Parking Management Plan Cost Estimates 2025 - With Contracted Parking Managers						
Compoment	Year 1 Cost	Year 2 Cost	Year 3 Cost	Year 4 Cost	Year 5 Cost	Years 1-5
Pay Station System	$220,024	$24,024	$24,024	$24,024	$24,024	$316,120
Mobile Application	$5,000	$1,000	$1,000	$1,000	$1,000	$9,000
Credit Card Fees	$105,000	$105,000	$105,000	$105,000	$105,000	$525,000
Dynamic Signage	$150,000	$15,000	$15,000	$15,000	$15,000	$210,000
2 Contract Parking Managers	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
Total	**$680,024**	**$345,024**	**$345,024**	**$345,024**	**$345,024**	**$2,060,120**
City of Orange - Parking Management Plan Revenue Estimates 2025						
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Years 1-5
Annual Revenue	$1,996,076	$1,996,076	$1,996,076	$1,996,076	$1,996,076	$9,980,381
Expenses	$680,024	$345,024	$345,024	$345,024	$345,024	$2,060,120
Total	**$1,316,052**	**$1,651,052**	**$1,651,052**	**$1,651,052**	**$1,651,052**	**$7,920,261**