MEMORANDUM

PARKING MANAGEMENT RECOMMENDATIONS

DATE:	March 27, 2014
TO:	Chief Michael Calhoun
ORGANIZATION:	Carmel-by-the-Sea Police Department
ADDRESS:	Southeast Corner of Junipero Street and 4th Avenue
CITY/STATE:	Carmel-by-the-Sea
CC:	
HARD COPY TO FOLLOW:	No
FROM:	Turoff, Steffen
PROJECT NAME:	Carmel-by-the-Sea Steps for Improved Parking Management
PROJECT NUMBER:	33-1781.00
SUBJECT:	Memorandum

Based on the findings of the 2013 Parking Study presented to a joint meeting of Carmel-by-the-Sea's City Council and Planning Commission on November 4, 2013, Walker Parking Consultants and City staff were directed to identify effective parking management measures for Downtown Carmel that together would result in a plan that improved the availability of (on-street) parking spaces for visitors, with an overall emphasis of improving the visitor experience in the City. Findings from the 2013 study suggested that the most efficient way to improve parking space availability for visitors was to address the significant number of long-term (primarily business owner and employee) drivers who regularly park in these visitor spaces. To identify the appropriate measures to take to improve parking space availability, the following goals were identified:

1. Discourage long-term parking in the highest demand locations;
2. Provide reasonable flexibility for visitor parking keeping the customer service experience in mind; and
3. Implement policies to encourage long-term parking in lower demand areas; and bring underutilized privately owned parking spaces into the public system.

As part of the overall strategy for creating a parking management plan, Walker identified two types of policy measures that can help achieve the broader policy goal. They can be divided simply between "push" and "pull" efforts applied to long-term parkers parked in spaces designated for visitors. "Push" policies are focused directly on the behavior of drivers parked in the on-street spaces. They include time restrictions on parkers, pricing on-street parking spaces, and related measures used to enforce compliance of these policies and restrictions. "Pull" policies are essentially policies put in place in locations away from the on-street spaces, which encourage or incentivize long-term parkers to not park in the coveted visitor spaces, or not park at all, but instead use other means to access the downtown. "Pull" policies may take

the form of incentives to park in certain locations, such as relaxed or eliminated time limits and inexpensive or free parking.

Almost by definition "push" policies are punitive in nature while "pull" policies are incentives to change behavior. "Pull" policies attempt to make what initially may be an inconvenient choice into a more attractive choice. "Push" policies therefore address the issue at the source whereas "pull" policies arguably work in a more indirect fashion.

Because "push" policies are more targeted, they are nearly always more effective than "pull" policies though they require more effort to implement. "Pull" policies are generally easier or more attractive to implement than "push" policies, primarily because they rely on incentives rather than punishment of drivers who do not follow the desired policies.

The most effective policies to improve parking system performance combine "push" and "pull" policies. In some cases, the implementation of both "push" and "pull" policies are not only desirable, but necessary; in order to achieve the desired parking management goals.

City staff and council have requested that Walker present a continuum of parking management solutions, which range from the easiest/quickest/cheapest to the hardest/longest/most expensive. In order to understand the range of parking policy alternatives available, and their effectiveness, it is helpful to consider the alternatives in the context of a "push" and "pull" strategy.

NUMBER OF ADDITIONAL, AVAILABLE SPACES SOUGHT

Based on the expressed goals of the Parking Management Plan, it is helpful to quantify the approximate number of spaces needed to improve parking availability for visitors. We note that some communities have attempted to identify this number by surveying the number of employees in downtown businesses. However we have seen that such surveys can have less than productive results. We do not seek to quantify the number of total employees working in the downtown area nor do we seek to quantify the number of employees working at a given time. Rather we seek to identify the number of parked vehicles whose relocation would demonstrably improve the availability of parking spaces for visitors.

Relocating long-term vehicles is a tool. Our goal is to make spaces available for visitors; not simply relocate vehicles parked in the long term. The following tables, which come from the 2013 study, reflect parking adequacy on a street-by-street basis. We therefore note that we are not necessarily "targeting" all employee parkers with our policies. Our primary goal is to eliminate the parking deficits shown in the table below.

Table 2 shows a total parking deficit of 63 two-hour parking spaces during the peak, but using Table 3 shows greater detail, and a total parking deficit of 83 parking spaces at peak. To the extent we can relocate at least 83 long-term parkers from the commercial center of Carmel, we will have improved parking availability for visitors.

Table 1: Observed Aggregate Parking Deficits in Downtown Carmel

STREET	FROM	TO	SUPPLY ADEQUACY (DEFICIT)						
			2 hr	30 min	10 min	Loading	Other	Regular	Total
Torres St.	3rd Avenue	Ocean	0	0	0	0	0	0	0
Junipero Ave.	3rd Avenue	8th Avenue	0	4	0	2	10	(7)	9
Mission St.	3rd Avenue	8th Avenue	(7)	1	2	0	1	0	(3)
San Carlos St.	3rd Avenue	10th Avenue	(10)	3	0	5	0	(3)	(5)
Dolores St.	3rd Avenue	8th Avenue	(12)	6	0	1	0	(1)	(6)
Lincoln St.	4th Avenue	8th Avenue	(8)	(1)	0	1	0	(1)	(9)
Monte Verde	4th Avenue	8th Avenue	0	(1)	0	1	0	(4)	(4)
Casanova St.	4th Avenue	8th Avenue	0	0	0	0	0	10	10
Third Avenue	Torres	Mission	0	0	0	0	0	2	2
Fourth Avenue	Torres	Lincoln	(2)	(1)	0	0	0	(1)	(4)
Fifth Avenue	Torres	Monte Verde	(1)	0	6	0	(1)	(2)	2
Sixth Avenue	Torres	Monte Verde	(6)	(1)	0	1	0	0	(6)
Ocean	Junipero	Casanova	(8)	4	0	1	0	(2)	(5)
Seventh Avenue	Junipero	Casanova	(5)	2	0	0	0	2	(1)
Eighth Avenue	Junipero	Casanova	(4)	0	(1)	0	0	0	(5)
		Totals	(63)	16	7	12	10	(7)	(25)

Source: *Walker Parking Consultants, 2013.*

Table 2: Number of Spaces Needed to Alleviate Parking Space Deficit at Peak

STREET	FROM	TO	SUPPLY ADEQUACY (DEFICIT)						
			2 hr	30 min	10 min	Loading	Other	Regular	Total
Torres St.	3rd Avenue	Ocean							
Junipero Ave.	3rd Avenue	8th Avenue							
Mission St.	3rd Avenue	8th Avenue	(7)						(3)
San Carlos St.	3rd Avenue	10th Avenue	(10)					(3)	(5)
Dolores St.	3rd Avenue	8th Avenue	(12)					(1)	(6)
Lincoln St.	4th Avenue	8th Avenue	(8)	(1)				(1)	(9)
Monte Verde	4th Avenue	8th Avenue		(1)				(4)	(4)
Casanova St.	4th Avenue	8th Avenue							
Third Avenue	Torres	Mission							
Fourth Avenue	Torres	Lincoln	(2)	(1)				(1)	(4)
Fifth Avenue	Torres	Monte Verde	(1)				(1)	(2)	
Sixth Avenue	Torres	Monte Verde	(6)	(1)					(6)
Ocean	Junipero	Casanova	(8)					(2)	(5)
Seventh Avenue	Junipero	Casanova	(5)						(1)
Eighth Avenue	Junipero	Casanova	(4)		(1)				(5)
		Totals	-63	-4	-1	0	-1	-14	-83

Source: *Walker Parking Consultants, 2013.*

POTENTIAL UNDERUTILIZED PARKING SPACES

The number of underutilized parking spaces that could be available for employee parkers will vary significantly by day and hour. For example, the Thursday Farmer's Market at the Sunset Lot in particular will limit parking availability on that day. While we therefore suggest a conservative estimate of the number of parking spaces available for employee parking, we also suggest that much of the time, the number of available spaces will be greater than our conservative projection indicates.

Figure 1 on the following page shows the location of parking spaces that could be used to accommodate employee, business owner, and other long-term parkers who currently park in visitor spaces in the commercial core. Table 3 shows the number of parking spaces that could be available, by location, for this purpose. We note that a significant number of these spaces are located in the Sunset Center's "North" lot, parking availability in which may be skewed due to weekday data collection occurring on a Farmer's Market day, when many of the parking spaces may not be available for parking. We point out, however, that even if we were to remove, very conservatively, all of the Sunset North Lot spaces from the possible long-term parking pool, we are still likely to have 100+ underutilized parking spaces for long-term parkers.

Table 4 shows the number of available parking spaces observed, by time of day, along Junipero Street. However, based on the recommendations we put forth later in this memorandum, Table 5 answers the relevant question for our purposes: how many underutilized time restricted spaces along Junipero Street could be used by long-term parkers if the time restrictions were removed? The data in the table suggests that the answer is a minimum of 13 parking spaces.

The larger question is whether underutilized parking spaces exist and can be used to park long-term parkers in the commercial core. Although a relatively small percentage of available spaces exist given the total supply of spaces in the commercial core, the answer is "yes." Based on this finding, we present recommendations to move this strategy forward.
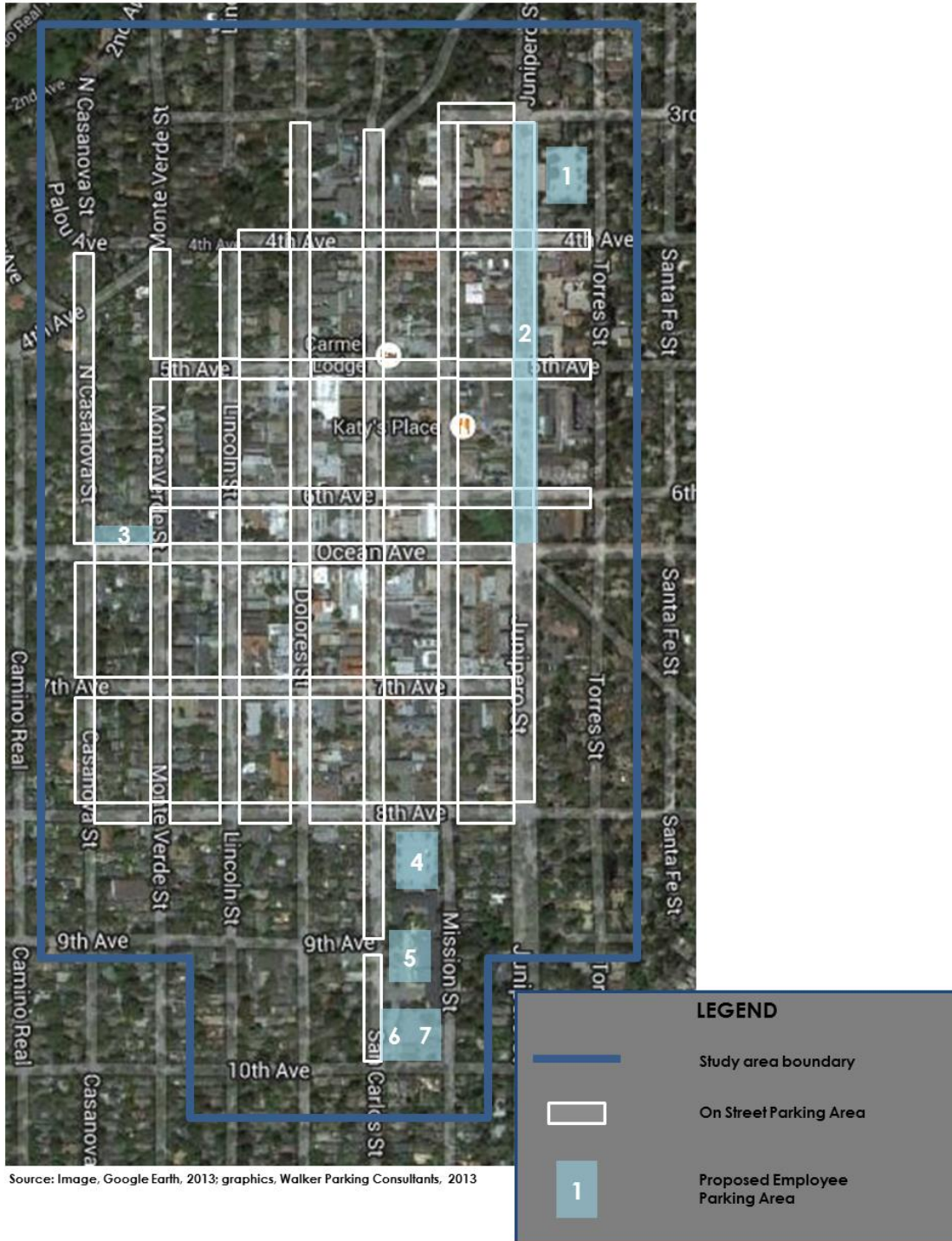
Figure 1: Selected Possible Locations for Long-term Parking

Source: Image, Google Earth, 2013; graphics, Walker Parking Consultants, 2013

LEGEND

Study area boundary

On Street Parking Area

Proposed Employee Parking Area

Table 3: Observed Availability of Parking Spaces in Proposed Employee Parking Areas by Time of Day

Area	Area Description	Inventory*	Thursday, July 11, 2013			Saturday, July 13, 2013		
			11 AM	2 PM	5 PM	11 AM	2 PM	5 PM
1	Vista Lobos Lot	60	40	35	28	38	17	39
2	Junipero (On Street)	168	33	17	43	31	21	20
3	Ocean (On Street)	27	5	7	6	1	1	4
4	Sunset Center (North) Market‡	120	98	89	53	108	11	47
5	Sunset Center (San Carlos / Middle) Lot	31	11	2	1	5	23	13
6	Sunset Center (Southwest) Lot	20	4	3	-	2	15	8
7	Sunset Center (Southeast) Lot	33	7	6	-	7	19	23
	Totals	459	198	159	131	192	107	154

* Figures exclude loading spaces, motorcycle spaces, and spaces reserved for police use.
‡ Farmers' Market in progress during 11 AM and 2 PM counts on Thursday, July 11, 2013.

Source: *Walker Parking Consultants*, 2014.

Table 4: Availability of Parking Spaces in Proposed Parking Area 2, Junipero Street

| Location | From | To | Side | Number of Spaces by Type* | | | | Number of Spaces Available* | | | | | |
| | | | | | | | | Thursday, July 11, 2013 | | | Saturday, July 13, 2013 | | |
				2 hr	≤30 min	Untimed	Total	11 AM	2 PM	5 PM	11 AM	2 PM	5 PM
Area 2 Junipero Street	3rd	4th	East	0	0	10	10	1	0	3	2	1	3
			West	0	3	10	13	2	1	1	1	2	5
	Center Island		East	0	0	12	12	1	0	2	0	1	1
			West	0	0	13	13	1	0	3	0	1	0
	4th	5th	East	8	3	0	11	4	3	5	3	5	4
			West	9	1	0	10	1	0	4	3	3	1
	Center Island		East	0	0	16	16	1	3	3	0	1	0
			West	0	0	16	16	1	1	4	0	1	0
	5th	6th	East	12	0	0	12	5	3	2	4	1	2
			West	10	0	0	10	5	1	0	0	0	-2
	Center Island		East	17	0	0	17	6	2	2	7	2	1
			West	17	0	0	17	4	2	3	9	1	2
	6th	Ocean	East	5	0	0	5	0	0	5	0	1	2
			West	6	0	0	6	1	1	6	2	1	1
			Totals	84	7	77	168	33	17	43	31	21	20

* Figures **exclude** loading spaces, motorcycle spaces, and spaces reserved for police use.

Source: *Walker Parking Consultants*, 2014.

Table 5: Availability of Timed Parking Spaces in Proposed Parking, Area B, Junipero Street

Location	From	To	Side	Total Timed Restricted Spaces*	Number of Time-restricted Spaces Available*					
					Thursday, July 11, 2013			Saturday, July 13, 2013		
					11 AM	2 PM	5 PM	11 AM	2 PM	5 PM
Area 2 Junipero Street	3rd	4th	West	3	0	1	1	1	2	2
	4th	5th	East	11	4	3	5	3	5	4
			West	10	1	0	4	3	3	1
	5th	6th	East	12	5	3	2	4	1	2
			West	10	5	1	0	0	0	(2)
	Center Island		East	17	6	2	2	7	2	1
			West	17	4	2	3	9	1	2
	6th	Ocean	East	5	0	0	5	0	1	2
			West	6	1	1	6	2	1	1
			Totals	91	26	13	28	29	16	13

* Figures **exclude** loading spaces, motorcycle spaces, and spaces reserved for police use.

Source: *Walker Parking Consultants* , 2014.

RECOMMENDATIONS

Based on the discussion above, we present the following recommendations in order of what we project would be ease of implementation. Important among these, or any recommendation regarding parking policies and recommendations is the need for regular monitoring of parking occupancies. A parking system is dynamic in many ways. Planners and economic development specialists have recently been describing municipal parking systems in terms similar to an ecosystem. Policies must be flexible and an open source of information and goals for the system should be in place. The City and stakeholders should have plans in place to measure the effectiveness of the parking program and make necessary changes to better manage parking. For example, we typically recommend monitoring parking occupancies at least once or twice per quarter (in order to take into account seasonal variations in parking patterns).

The purpose of the monitoring is to identify where parking occupancy is either too high (indicating a shortage of available spaces) or too low (indicating underutilized spaces) and make policy adjustments accordingly. Policies should be easy for the public to understand, but also flexible to adjust to the needs of the parking system, a key priority of which is ensuring parking availability. As part of the monitoring process we suggest that City staff implement a score card identifying which programs are initiated and their effectiveness.

In the remainder of this document we discuss a continuum of parking policy "pull" and "push" options in terms of ease of implementation and effectiveness. We summarize our findings in the following table. Details follow in the remainder of the report.

Table 6: Summary of Parking Policy Measures

	Proposed Measure	Purpose	Anticipated Level of Effectiveness	Projected Ease of Imple-mentation	Projected: Total Cost Relative to Effectiveness
1	Free all-day parking in the Sunset Lot to accommodate employee parking.	"Pull" employees out of visitor parking spaces.	Low	High	**Medium**
2	Eliminate time restrictions on Junipero Street north of Fifth Avenue to accommodate employee parking.	"Pull" employees out of visitor parking spaces.	Low	High	**Low**
3	Make agreements for the use of some private spaces for employee use.	"Pull" employees out of visitor parking spaces.	Low	Medium	**Low**
4	Rewards program for employee parkers.	"Pull" employees out of visitor parking spaces.	Low	Low	**Low**
5	Walk/concierge/ambassador service	"Pull" employees out of visitor parking spaces.	Very Low	Low	**Medium**
6	Shuttle service for employees (and visitors)	"Pull" employees out of visitor parking spaces.	Very Low	Low	**Very High**
1 - 6	Combined "Pull" Measures	"Pull" employees out of visitor parking spaces.	Medium	Medium	**Medium**
7	Pilot/Limited Paid Parking Program	"Push" employees from localized visitor parking spaces.	High in locations where implemented	Medium	**Very Low**
8	Downtown-wide Paid Parking	"Push" employees from visitor parking spaces.	Very High	Low to Medium	**Very Low**

Source: Walker Parking Consultants, 2014

1. EXTEND THE ENFORCEMENT OF TIME LIMITS BEYOND THE CURRENT 6:00 PM TO AT LEAST 9:00 PM ("PUSH" POLICY)

By ending the time limit enforcement at 6:00 pm, drivers who park by 4:00 pm may park for an unlimited amount of time for the whole evening. Employees who work day shifts are effectively subject to the time limits, but employees arriving at 2:00 pm or later need only move their car once to be able to park on the street through the evening. We note that the second and third busiest occupancy counts for on-street parking spaces were the 2:00 pm and 5:00 pm occupancy counts performed on Saturday. Extending the hours of enforcement will reduce the incentive for employees to park on the street throughout the afternoon and into the evening.

The additional cost to the City of implementing this policy includes changing the existing signage infrastructure, which could likely be done using stickers rather than full replacement of signs. The cost also includes changes in the hours parking officers would be enforcing, however we note that additional hours would likely result additional citation revenue as well, which could offset the cost of the additional hours of enforcement.

Needed for implementation:

- New signage. Implementation of this measure need not require the replacement of the existing metal signage apparatus, which could be costly and time consuming. Official stickers could be placed over the existing "9:00 am to 6:00 pm" notation to indicate the hours of enforcement as necessary.

- Labor. Parking enforcement officers ("PEOs") would be required to work later into the evening to enforce this policy. Additional PEO hours would be required. While some cities that have implemented this policy simply started enforcement later in the morning, so as not to increase the number of hours worked by enforcement staff, after review of the data, we caution that such a policy in Carmel could allow employees who arrive early in the morning to park legally until noon or beyond, impacting the availability of parking spaces during the lunch time peak.

- Ordinance. In some cities, the hours of enforcement may be regulated by ordinance. This does not appear to be the case in Carmel, per the City's Municipal Code 10.32.060 Limited Time Parking, however, should be confirmed by City staff.

2. PROVIDE MORE CONVENIENT AND ATTRACTIVE PARKING OPTIONS FOR EMPLOYEES ("PULL" POLICY)

We want a significant portion of the business owners and employees who currently park in visitor (two hour) spaces to park away from the commercial core in order to make more on-street parking spaces near businesses available to visitors.

In order to encourage long-term parkers to park in these peripheral locations we need to undertake measures that make these locations more attractive and to some extent counteract the inconvenience that comes with parking in these locations. These include:

- Eliminating parking fees;
- Reducing or eliminating time restrictions;
- Providing improved safety and convenience for walking/traveling to and from the parking locations;
- Providing rewards for employees who follow the desired policies.

We note that it is not necessary that we move every long-term parker out of the commercial core area. Our goal is to make one to two, two-hour parking spaces available on each block face in the commercial core.

In order to achieve this goal, we propose the following measures:

A. *ELIMINATE THE FEE FOR PAID PARKING IN THE SUNSET CENTER LOT AND ALLOW FREE, ALL-DAY PARKING.*

The policy to charge for parking in the Sunset Center lot was an incomplete implementation of the policy recommendations made in the study that Walker performed in 2000; it was not intended to be implemented in isolation. Paid parking in the Sunset Center was recommended *assuming the implementation of paid parking* on the street. However, without the "push" of paid parking on the street, charging for parking in the Sunset Center became its own "push." Combined with the relatively inconvenient location in relation to most Downtown businesses, the current policy represents not one, but two reasons for people not to park in the lot. We want to remove the disincentives and instead provide incentives (for employees) to park in this location.

Implementing paid parking in the Sunset Center lot while on-street parking remains free violates an important rule of parking management: off-street parking should generally be priced less and have fewer restrictions than on-street parking. With the possible exception of event parking in some instances, we suggest that the price of parking – and the restrictions – for parking in the Sunset Center should be less than those for parking on-street in the commercial core of the City.

Eliminating paid parking in the Sunset lot is meant to address these issues and attract more employee parkers. The policy may attract more visitor parkers as well, who would be willing to park farther away and walk a greater distance for the added convenience of not being subject to time restrictions. Such visitor parkers currently must pay for the inconvenience of walking a greater distance to shops and businesses. For free parking, it is almost certain that some visitor parkers will be willing to park at this location. We project that most or all of these parkers will be pulled from visitor spaces closer to the commercial core.

Needed for Implementation:

- Removal of the existing pay station.
- Signage. Removal of or significant change to existing "pay-to-park" signage and notice of additional restrictions, such as a 24-hour time limit for parking.
- Public outreach to inform employees of the new policy. In addition to announcing the change on the City's website and through local media, we recommend coordination with the City's Chamber of Commerce to inform employees of the change in policy.

B. *LEASE A LIMITED NUMBER OF UNDERUTILIZED PRIVATE PARKING SPACES FOR EMPLOYEE PARKING*

The 2013 parking study focused on publicly owned parking spaces but the availability of parking spaces in some privately owned facilities was quantified and a significant number of available spaces was identified in such facilities. These are parking spaces that are not being used at the same time that visitor spaces are unavailable. To the extent it is possible, agreeable to both parties, and that the City utilizing these spaces for long-term parkers should make more spaces available for visitors, a financial arrangement between the City and the owners of off-street parking spaces would provide the incentive for owners of off-street parking spaces to participate in such a program.

Funding for the monthly leasing of parking spaces could come from revenue generated by the parking system. We point out that the amortized construction, soft and operating costs for a structured parking space in Northern California can easily exceed $250 per month, not including land costs. The City should not hesitate spending a reasonable amount per space to more efficiently use the private parking spaces in the commercial core area; doing so is far more cost effective than building additional parking and is a more efficient use of Carmel-by-the-Sea's limited space as well.

In some cases, designated employee parkers could be provided with access, and peripheral spaces inside the facility could be designated for employee parking. For select spaces in un-gated facilities, monthly parking could be provided to a limited number of employees, whose license plates would be registered with the City's Parking Enforcement operation. Off-street spaces could be allocated through a lottery to employees who sign up. The cost of leasing these spaces would be covered by the City. We note that in some instances an adjustment to the City's zoning regulations regarding minimum parking requirements could be required to ensure that the use of private parking spaces did not violate the City code.

Needed for Implementation:

- Public outreach to property owners and then to potential (employer or employee) parkers about the existence of the new program;
- Agreement. An agreement between off-street parking owners and the City to make parking spaces available (sample attached);

- Funding. Funding source identified to compensate the owners of off-street parking for the use of their parking spaces.
- Allocation of spaces. From the pool of employee parking identified, a determination of which employees will be allowed to use the off-street parking spaces. Determination could come from a lottery system or employers could be charged (partial) payment for use of the spaces if competition for these spaces was significant enough to merit fees.
- Signage. Unless specified or required in an agreement with parking owners, signage would not be necessary for implementation of this policy. Parkers permitted to park in (designated) spaces would be identified using registered license plates.

C. ELIMINATE TIME LIMITS IN DESIGNATED ON-STREET SPACES TO ALLOW FOR ALL-DAY PARKING BY EMPLOYEES

On-street parking spaces located away from the commercial core, and which experience lower demand for parking, can be used to park long-term parkers much like spaces in the Sunset Center or Vista Lobos surface lots. Employees who otherwise might occupy short-term parking spaces in the commercial core could park in these spaces. The parking spaces that we have identified for this purpose include parking spaces currently designated as 2-hour spaces along Junipero Street, between Third Street and Ocean Avenue, and spaces along Ocean Avenue between Monte Verde and Casanova Streets. We recommend 10-hour time limits to ensure that residents, hotel guests (who may have the option of on-site parking) or other long-term parkers do not use the spaces for long-term vehicle storage.

Table 5, earlier in the report, demonstrated the availability of these spaces.

Needed for Implementation:

- New signage. Implementation of this measure need not require the replacement of the existing metal signage apparatus, which could be costly and time consuming. Official stickers could be placed over the existing two-hour time limit to a twelve-hour time limit.
- Public outreach to inform employees of the new policy. In addition to announcing the change on the City's website and through local media, we recommend coordination with the City's Chamber of Commerce to inform employees of the change in policy.

D. DEVELOP A WALK SERVICE, AMBASSADOR/CONCIERGE SERVICE OR SHUTTLE SERVICE FOR EMPLOYEES AND OTHERS WHO PARK IN PERIPHERAL LOCATIONS

The walking distance between peripheral parking locations and businesses in the center of the commercial district is a deterrent to employees parking in peripheral locations. Perceived safety issues are a deterrent as well, particularly for employees – and some visitors – who may need to return to their cars after dark. Providing a service that addresses these concerns should increase employees' willingness to park away from the commercial area.

Such services could include security or walking escort services, similar to those found on college campuses for students who study late at the library. An ambassador program can be

similar to a walk service. We note that uniformed ambassadors could also help direct visitors and answer questions. Further, we point out that extending the hours of time limit enforcement in the downtown area, as recommended elsewhere in this report, would result in more parking enforcement officers on the street in the evening. An ambassador position could potentially cover multiple responsibilities and accomplish the goal with regard to reducing employees' safety concerns associated with walking to peripheral parking locations in the evening.

A shuttle service would alleviate safety concerns as well as reduce walking time and effort to peripheral parking spaces, particularly those that require an uphill walk to reach, such as Vista Lobos. Although routing changes would occur to address employees' needs, it is not uncommon to experience low ridership if adjustments are not made; people's willingness to ride shuttles is often estimated higher than what actually occurs.

There are potentially other creative solutions. For example, pedicab service is increasingly popular in a number of cities and can serve visitors, residents and employees.

We recognize that there are costs associated with providing these services that, for multiple reasons, would not be passed on to all groups of parkers but instead should be covered by (we recommend revenue generated from parking in) the City. Fees generated from parking services would be a logical source of funding for these services as they should effectively increase the supply of available parking spaces in Downtown Carmel-by-the-Sea.

Needed for Implementation:

An initial or pilot walk service or ambassador program could begin using existing parking enforcement staff, equipment and uniforms. Based on the specific nature of a program to serve Downtown Carmel employees, procedures using cell phone service would be needed to coordinate the walk service and match employees to walk service personnel along with a data base of employees and schedules, if regularly scheduled escorts were required.

A shuttle service would likely be significantly more expensive than a walk or security service per person served. In our experience, shuttle costs typically run about $80.00 per hour. Service could likely be facilitated by Monterey/Salinas Valley Transit.

E. REWARD EMPLOYEES WHO PARK IN DESIGNATED AREAS

If we cannot price or restrict long-term parkers from parking in visitor spaces, the second best thing we can do is incentivize them to park in those locations where we prefer that they park.

The demand for employee parking in popular commercial districts is typically managed by applying a price to visitor parking spaces that is higher, on an incremental basis, than the price of employee parking spaces. The result is a price of parking that is acceptable for a visitor, who parks for just part of the day, and on an infrequent basis but a price that is *un*acceptable

for a long-term parker, at least on a regular basis, as the long-term parker would be subject to the price over many hours and on a daily or frequent basis.

While time limits can make long-term employee parking in visitor spaces inconvenient for employees (and visitors), as discussed in the 2013 parking study, effective enforcement can be extremely challenging, even for the best enforcement operation, determined long-term parkers can thwart the system.

In just a few cities where on-street parking is not priced, rewards have been offered to employees to park in the desired location. The policy is therefore a "pull" rather than a push measure.

The City of Glenwood Springs, Colorado is a hot springs, dining and outdoor destination in the Rocky Mountains. The town has implemented such a program, primarily to deal with parking issues during a downtown construction project. The City characterizes the program as a success. The Downtown Parking Perks program is presented to local employees on its website, shown in the figure below.

We suggest that the rewards could be proportional to the potential level of inconvenience of the location or the availability of underutilized parking spaces; for example the reward for parking in the Vista Lobos Lot could be greater than that offered for parking in the Sunset Center lots.

Figure 2: Sample Employee Rewards Website (Glenwood Springs, CO)
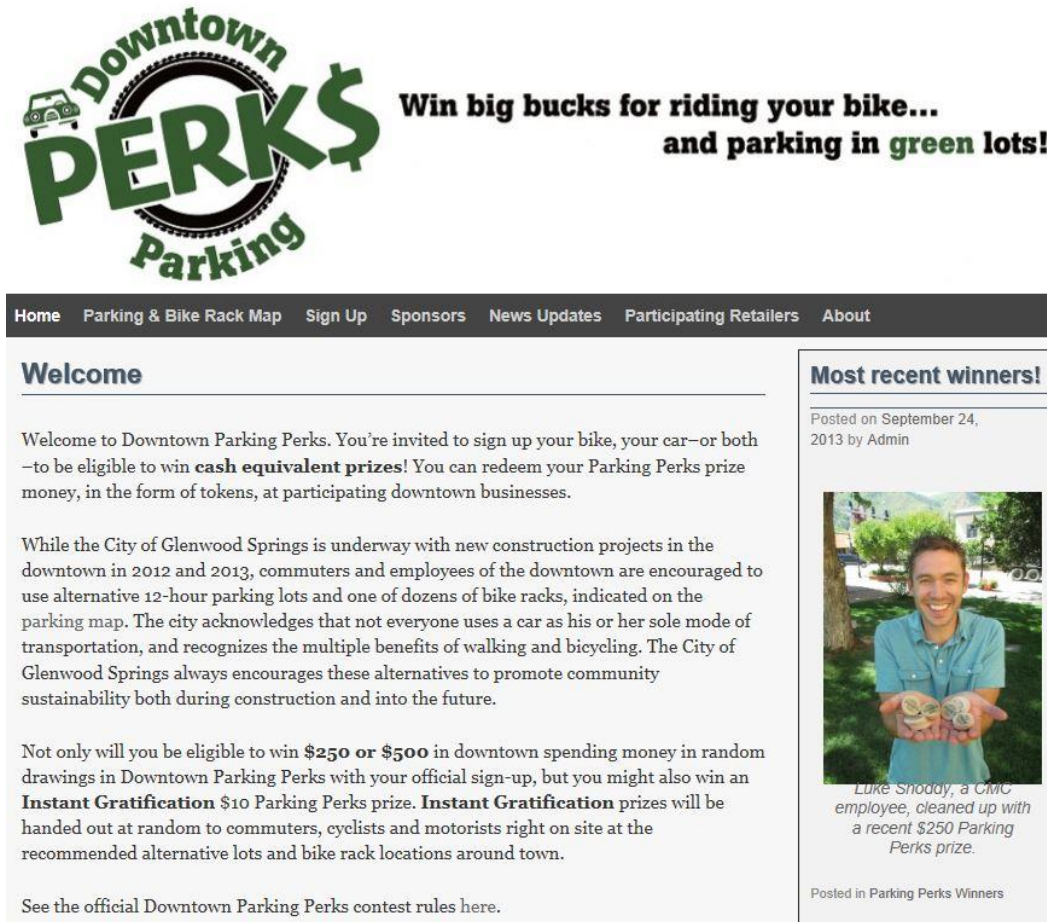
Source: http://downtownparkingperks.com/, *March 19, 2014*

We note that the Glenwood Springs program encourages bicycle commuting as much as it does parking in designated employee locations. We do not focus on this policy in the case of Carmel, but acknowledge that a policy which encouraged more commuting by bicycle would be helpful and desirable in mitigating parking issues. However, compared to Glenwood Springs, it may be less realistic for Carmel-by-the-Sea given the limited street access to the Village and the types of employees who work in the area.

We envision implementing such a program in Carmel as part of the larger parking enforcement operation and technology. Employees would register their vehicles' license plate numbers into a City data base. Parking enforcement officers would periodically scan the license plates of vehicles parked in the locations in which employee parking was encouraged. These locations would likely include those already discussed including the Vista Lobos Lot, Sunset Center, potentially some privately owned parking spaces, and some on-street parking spaces along Junipero Street. License plate numbers would be compared with those in the

City's employee parker data base. License plate numbers found to match the employee license plate data base listings would be eligible for selection in a random drawing for rewards, other prizes, or potentially cash or cash equivalents.

Needed for implementation:

- Program establishment and administration. Staff time would be required to establish and administer the program on an ongoing basis, including public information and outreach, determination and allocation of rewards on a regular basis, monitoring of employee parking areas, and potentially maintenance of a related web-page, such as that highlighted in the figure above.
- Funding for the administration of the program as well as employee rewards which, in the case of the example, was contributed in part by participating local businesses.
- Database of employee parkers.
- Public outreach to inform employees of the new program. In addition to announcing the change on the City's website and through local media, we recommend coordination with the City's Chamber of Commerce to inform employees.

3.   PAID ON-STREET PARKING ("PUSH" POLICY)

The 2013 Parking Study recommended the implementation of paid on-street parking to increase parking space availability for visitors looking for parking spaces and potentially increase the flexibility of the current time limits, if the City chose to extend or eliminate these and use paid, hourly parking to encourage the turnover of spaces.

An additional rationale for paid, on-street parking is to generate revenue to fund additional improvements to the parking system. City staff reports that the Sunset Center lot generated approximately $165,000 in the last fiscal year, which should be recovered elsewhere if paid parking is eliminated in the Sunset Center Lot. We strongly recommend to the City that, if it seeks to generate revenue from parking, that revenue is generated using the most impacted parking spaces so as to use parking pricing to better manage its parking spaces, and not spaces that experience lower demand than on-street parking spaces. A preliminary analysis, assuming $1.50 per hour for on-street parking, extended hours of enforcement and an *average* occupancy rate of 80% suggests that 40 - 50 paid, on-street spaces (approximately 3 block faces) could recoup lost revenue from the Sunset Lot.[1]

RECOMMENDATION FOR ENFORCEMENT TECHNOLOGY

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[1] We note that other recommendations made to incentivize employees not to park in visitor spaces would also require funding, but we have suggested that, given the effective increase in the number of parking spaces that should result, fees generated by the parking system could be seen as a possible revenue source to fund some of these policy recommendations.

The recommended policies and goals are meaningless without an implementable means by which to put these measures into place. When it comes to parking technology, policies and management, good execution is far more important than brilliant ideas. As noted earlier in this report, parking technology and smart phone capability have made great strides in recent years. Yet there is still a large amount of technology available that for a variety of reasons, may not act as anticipated or needed. There are still limitations to the technology and one must always weigh the capabilities with what at times are significant costs.

An example of this technology – and its limitations - is the occupancy sensor that can be installed inconspicuously in each on-street space. The technology allows a city to determine, and track in real time, when a parking space is occupied and the number of available spaces in any given location. However integration with revenue control systems, such as PbC (PbC) or meter technology is still challenging. Integration with in-car RFID transponders of the type used today for California's EZ Pass toll bridges and toll roads has not occurred on a practical level as has been recommended for use by some local stakeholders. Further, these sensors average $200 per space for purchase and installation along with an additional $15 per month per space for monitoring. They are replaced every 3 years when the batteries fail. And there have been battery and accuracy issues. Accuracy may fall between 75% and 90% although in some instances we have witnessed lower accuracy reading. To date, most cities simply cannot afford them.

Effective implementation of the policy recommendations that we put forth in this section assumes the implementation of the appropriate technology. Parking access and revenue control technology has improved significantly over the past five years and continues to advance. The City is now able to put in place some policies that previously were desirable but not implementable. Walker typically does not recommend specific technology solutions. However, to our knowledge there is currently only one proven technology solution that is capable of putting into action the policies that we will recommend for on-street parking (enforcement). We describe this solution below:

RECOMMENDED NEW SYSTEM

Based on extensive discussions with City staff and related input from City Council and Planning Commission, the recommended parking technology and policies ideally should be able to satisfy the need to distinguish between the following parking user groups:

- Visitors. We wish to encourage reasonable turnover to ensure that the most convenient parking spaces are available for visitors;
- Long-term parkers, who may abuse short-term parking policies;
- Employee/business owner parkers, for the purpose of rewarding those who park in designated long-term locations; and
- Residents of the City and nearby areas, who may receive some form of preferred parking status compared to general visitors; and
- Residents, to manage and facilitate the use of residential parking permits.

As noted earlier, to the extent possible we also wish to meet the following objectives:

- Improved parking for visitors and customers of Downtown businesses;
- Flexibility for visitors to stay as long as they want;
- A focus on habitual offenders not visitors;
- "Carrots and Sticks" for frequent users;
- Maintenance or reduction of visual impact;
- Reduction or elimination of employee movement of vehicles for the purpose of avoiding citations while not making short-term spaces available for visitors; and
- Financial neutrality.

In order to accomplish these goals, the parking technology must be capable of:

- Discouraging long-term parking in the highest demand locations;
- Providing reasonable flexibility for visitor parking, keeping the customer service experience in mind;
- Implementing policies to encourage long-term parking in lower demand locations; and
- Bringing underutilized privately owned parking spaces into the public system.

Based on our analysis of the challenges of the current parking operation and the identified criteria, we make the following recommendations that together would provide most of the "push" measures to increase the availability of visitor parking spaces. We specifically recommend a system that is flexible and that can manage the recommendations put forth regarding paid parking, the allocation of parking spaces, and time limits. Ultimately we recommend a system of paid parking and enforcement that would include a database of residential parking permits and employee license plate numbers.

AN INTEGRATED SOLUTION

Walker recommends the implementation of a system that would allow for:

- Paid on-street parking in the busiest locations downtown;
- Automated enforcement of paid parking, permits, and time limits;
- PbC payment capabilities; and
- A database of all parkers in the system.

This system was initially proposed in the 2013 Parking Study. Parking restrictions would be enforced via mobile license plate recognition (LPR) with fully integrated permit, multi-space meter, and PbC and mobile LPR software systems. The system described is similar to one recently put in place on several university campuses, including Loyola Marymount University (LMU) in Southern California. We believe that the same system will be useful in meeting the needs outlined by City Council and the Planning Commission Carmel-by-the-Sea.

Walker typically recommends system capabilities and specifications but not systems themselves. However, the T2-based system at LMU is the only one on the market of which we are aware that incorporates all these capabilities. We note that since the time of the 2013 study, T2's capabilities with integrating multi-space meters into its system have improved through the acquisition of multi-space meter technology.[2]

The City currently has a much older version of vehicle-mounted license plate recognition (LPR) system of enforcement. The system we propose uses an updated LPR system with greater capabilities. With virtually all parking enforced via mobile LPR. The T2-based system is a cutting edge solution. Walker has identified only a handful of installations that have fully integrated permit, multi-space meter, and PbC and mobile LPR software systems. LMU contracted Digital Payment Technologies for pay-by-plate multi-space meters, Parkmobile USA for PbCphone payments, and Genetec (AutoVu) for mobile license plate recognition. They contracted with T2 Systems to manage their permit program.

LMU's system 'went live' in the fall of 2012 and while there have been a few glitches, the system is reportedly working fairly well; the challenges reportedly have been occasional and not insurmountable. LMU was an early adapter, and as such expected these "hiccups." The most complex part of the integration is the mobile LPR interfacing successfully with the permit, multi-space meter and PbC software.

Since the implementation of this system, similar systems have been installed at other locations. The college town of State College, Pennsylvania has implemented a similar, comprehensive system. Pittsburgh, Pennsylvania uses a different equipment brand but a multispace meter-enforced system using vehicle mounted LPR systems. Texas Tech University has also had a successful implementation of a similar system to LMU's on its campus.

It is true that PbC will be used more frequently when it is the same people parking on a daily basis. However, increasingly the presence of QR codes or other snapshot mechanisms on signs can make PbC more user friendly to visitors.

ADDRESSING POSSIBLE AESTHETIC CONCERNS OF PAID PARKING

It was expressed to Walker that aesthetic issues were a consideration in the City's decision as to whether or not to implement paid, on-street parking. In order to address these concerns, we note or recommend the following:

- Signage. Signage that indicates time limits and other restrictions for street parking is abundant along downtown streets. We suggest that no new additional signs may be necessary to implement paid parking, but rather a change in the content of some existing signage.

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[2] T2 recently purchased multi-space meter manufacturer Digital Payment Solutions.

- No single space parking meters. We recognize that a parking meter located at every parking space would likely not be acceptable in Downtown Carmel;
- Pay-by-cell (PbC) option for paying for parking. Using PbC exclusively as the method to pay for parking was considered as a recommendation. Although a few cities have adopted PbC as the exclusive method of payment for paid parking in some locations, we recommend a choice of payment methods;
- Pay-by-plate multi-space meters (MSMs). As noted in the 2013 Parking Study, Walker recommends pay-by-plate mode for the City of Carmel-by-the-Sea, as it would require the fewest on-street multi-space meters, and also offers the most efficient enforcement system (driving rather than walking). Such a system is compatible with PbC and parking permits, both of which can be enforced using pay-by-plate methodology.
- Minimization of multi-space meter visual impact. One multi-space meter can regulate as many individual parking spaces as needed, thus dramatically reducing the "visual clutter" that is sometimes associated with single space meters. The limitations on how many spaces a multi-space meter may regulate are based on the acceptable walking distances from a parking space and the number of drivers that are expected to use the multi-space meter at any given time. Both of these demands (close proximity and number of users) can be reduced when visitors have PbC technology available.
- In order to reduce visual impact multi-space meters may be able to be encased in a wood cabinet that is consistent with the design standards of Downtown Carmel. Suggestions have also been made to place multi-space meters in businesses, with signage on the outside of the business indicating the ability to pay for parking inside. These locations would need to be in businesses with operating hours that were consistent with the hours of meter enforcement.

ENFORCEMENT OF ON-STREET SPACES FOR VISITORS

Unlike previous generations of parking meters, today's single- and multi-space meters are computerized, solar powered, and wirelessly networked so that they can process credit card transactions and provide remarkable financial reporting and audit control. They are also self-diagnostic, enabling them to notify staff when maintenance or collection is required. Credit card acceptance reduces costly coin processing, and enables more people to pay (no more searching the car for quarters). Multi-space meters can also accept bills.

Pay-by-plate requires the customer to enter the license plate number into the meter. Enforcement is done with a License Plate Recognition (LPR) system. Enforcement can be done with a vehicle mounted CCTV system that scans the license plates of all parked cars, or with a hand held unit, either scanning or manually entering the license plate.

Pursuant to the 2013 Parking Study, Walker recommends a multi-space, pay-by-plate parking meter system for visitor parking in the busiest areas of the Downtown. This multi-space meter system will interface well with the license plate permit system; using the recommended system,

the entire City could use license plates as a credential to enforce visitor, employee and permit parking. Virtually all parking can be enforced via mobile LPR.

The mobile LPR software can interface with permit and meter software so that all authorized license plates are accounted for. Prior to starting an enforcement session, the mobile LPR software downloads all the payment and permit data so that enforcement has up to the minute payment data. While enforcing, the payment data continues to be updated in real time.

Traditionally employees parking in the Downtown have reasoned that enforcement can't be everywhere, so they may challenge the system by moving their vehicle regularly and/or risking a citation. Mobile LPR enables enforcement to be conducted more frequently, causing long-term parkers to rethink the efficiency of the enforcement. Compliance will likely improve. If it does not, citations will increase.

PAY-BY-CELL (PBC)

PbC phone is an additional payment option now available, thanks to advances in wireless communication. PbC phone providers will set up a payment programs at no cost to the City, in exchange for user-paid convenience fees (usually 35 cents per transaction). Drivers register with the service provider, placing a credit card on file for payment, which enables them to use their cell phone to pay for parking. Smart phone users can use a mobile app. Cell phone users can call the vendor and enter the appropriate location code and/or their license plate number, and select the parking duration. The PbC vendor deposits the parking fees into the facility's established bank account, keeping the convenience fees.

Enforcement is done by viewing a web-based report of paid transactions provided by the PbC vendor, which can interface with multi-space meter payment reports and in this case, will interface with the mobile LPR software, as the license plate would be used as the identifying credential. PbC data can also be viewed on web-based enforcement handhelds.

RESIDENTIAL PERMITS, EMPLOYEE PARKING, AND PERMIT MANAGEMENT

A residential parking permit program has been in place in the City of Carmel for many years. The system is currently administered manually. Residents submit applications and receive a decal that they display, which allows residents to park twice as long as the posted time within the business district in 30 and 60 minute zones. The permit also allows for an additional one hour in the 2-hour stalls and to park on some streets that may be restricted for residents only.

The recommended system has the capability to store license plates in a data base and, through the LPR function, enforce vehicle privileges and restrictions. Once a resident registers their license plate number, whether on line, using PbC, or at a multi-space meter, a scan of the license plates at any given location will determine whether that vehicle is legally allowed to park in the location or the owner of the vehicle enjoys extended length-of-stay or free parking privileges. If paid, on-street parking is implemented, the possibility of special parking

privileges for parkers coming from adjacent jurisdictions has been discussed in order to encourage the patronizing of Carmel businesses by area residents. The recommended LPR system could store these residents' license plate information as well.

Earlier in the report we recommended the implementation of an incentives program that would identify employees' cars parked in peripheral locations (rather than in visitor spaces) and reward these employees through drawings or cash equivalent prizes. The recommended LPR system would be effective in recording employees' license plate numbers, which they would register.[3]

Walker recommends that Carmel by the Sea consider contracting with a professional permit management provider to set up and maintain its updated residential permit program. These companies specialize in permit management, sales, enforcement, citation management and collections. They will provide software that can accurately track and update multiple addresses and names for each permit holder. The firms also provide enforcement hardware and software to effectively enforce and collect citation revenue. Furthermore, they have experience with interfacing with other technologies such as mobile LPR and other technologies that will enhance the permit program and enable the expansion of transient parking on campus, as discussed below.

OPINION OF COSTS

Multi-space meters typically cost $8,000 to $11,000± per unit depending on the quantity ordered. The permit manager may also negotiate a percentage of permit and/or citation revenue. T2 would not provide specific cost information to Walker; these costs would likely be monthly charges, potentially a portion of permit and citation revenue, and depend on the specific program selected (whether continuing to focus on permits or potentially hourly parking).

Needed for implementation of downtown-wide paid parking program:

A significant advantage of the recommended paid parking system is the ability of the City to contract with one (service) provider for all equipment and services.
- Multi-space meters: $9,000/unit @ 1.5 multispace meters per block face X estimated 80 block faces (20 square blocks) = $1,080,000[4]
- Monthly fees for meters
- Handheld enforcement units:$7,000 X 3 units = $21,000

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[3] At this point we do not recommend registering employee and business owner license plates to exclude their vehicles from downtown parking locations, recognizing that these drivers will at times have a need for short-term parking that should be allowed if they are willing to pay the hourly rate. Additionally, we do not recommend employee-only parking locations. To the extent visitors are willing to park in peripheral locations, they should not be prohibited from doing so.

[4] We recommend 2 multi space meters per block face along the City's longer blocks, but recognize that to reduce cost and visual impact 1 multi space meter per block face could be sufficient.

- Handheld monthly fees: $100/unit
- AutoVu unit installed: $40,000 X 2 = $80,000
- Required annual AutoVu software maintenance (SMA): $400
- Optional hardware maintenance warranty (HMA) $3900. - $6500. per year depending on system
- Paid parking signage: $140/new sign installed.

RECOMMENDATION FOR AN INTERMEDIATE STEP: PAID PARKING PILOT PROGRAM

A pilot program would allow the City to demonstrate the effectiveness of paid parking to visitors, residents and businesses. At the November 4, 2013 presentation to a joint meeting of the Planning Commission and City Council, it was suggested that the parking spaces along the north side of Ocean Avenue adjacent to Devendorf Park would be a helpful place to create a pilot program for paid, on-street parking. The assumption was that the visible location for visitors at the gateway to the downtown was a desirable location but also that the location would not unfairly impact businesses (as there are no businesses on that block). We agree with this suggestion.

Needed for (pilot program) implementation:

- Equipment. Normally it could take two to three months to order, ship and install multi-space meters, however for small pilots some manufacturers have them in stock and could have them up and running in six weeks. The limited pilot program area would not necessarily require the larger enforcement technical apparatus that a downtown-wide program may need. A downtown-wide program would ultimately be enhanced by a mobile LPR system. For a small pilot City enforcement staff could use" handhelds" on foot patrol. While some vendors will "loan" the meters assuming a purchase if they function properly, the City would pay installation and operating costs. In some cases a City may be credited these costs if the equipment is ultimately purchased, depending on quantities. As noted previously, for smaller numbers of equipment, the cost per unit is likely to be $11,000±.
- Signage. Signage notifying parkers of the requirement to pay could replace the current time limit signage.
- Public outreach to inform the public of the pilot program. In addition to announcing the change on the City's website and through local media, we recommend coordination with the City's Chamber of Commerce.
- Ambassadors. During the "roll-out" phase of the program, ambassadors on the street would be useful if not necessary to explain the program to the public. In some cases, the equipment distributor can assist with this.

Below we present four potential gross revenue scenarios for paid parking in the downtown area and the associated assumptions. We note that the projections are order of magnitude in nature and not to be used for financial documentation.

Table 7: Preliminary Potential Gross Revenue Scenarios

Scenario 1	12-hour operation	Scenario 2	9-hour operation	Scenario 3	$1.00/hour	Scenario 4	(Pilot on Ocean Avenue)
1,050	spaces	1,050	spaces	1,050	spaces	**45**	**spaces**
12	**hours of operation daily**	9	**hours of operation daily**	9	**hours of operation daily**	9	**hours of operation daily**
355	days of operation	355	days of operation	355	days of operation	355	days of operation
$1.50	**hourly**	**$1.50**	**hourly**	$ 1.00	**hourly**	$ 1.50	**hourly**
50%	average occupancy	60%	average occupancy	60%	average occupancy	65%	average occupancy
$ 3,354,800		$3,019,300		$ 2,012,850		$ 140,200	

Source: Walker Parking Consultants, 2014