City of Dunedin, Florida

Peer Review & Parking Analysis
Draft Report

November 7, 2017

ATL17152.00

Dunedin, FL

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November 7, 2017

Mr. Robert C. Ironsmith
Housing & Development Director
City of Dunedin
737 Louden Avenue
Dunedin, FL 34698

RE: Peer Review & Parking Analysis – Downtown Dunedin
Draft Report
Dunedin, Florida

Dear Bob:

Thank you for allowing us to work with the City!

Our scope of work includes reviewing the previous parking study, meeting with members of the community in a public workshop and providing our input on ways to improve the overall parking system, should the City decide to continue with paid parking.

We hope you find the information found within this updated draft report helpful. We look forward to discussing it with you and the appropriate stakeholders at your convenience. Again, thank you for allowing TimHaahs to work with the City on this important project.

Very truly yours,

Vicky Gagliano, MBA, LEED AP, CPP
Director of Parking Studies

Michael D. Martindill
Principal

TABLE OF CONTENTS

TABLES AND FIGURES

Introduction

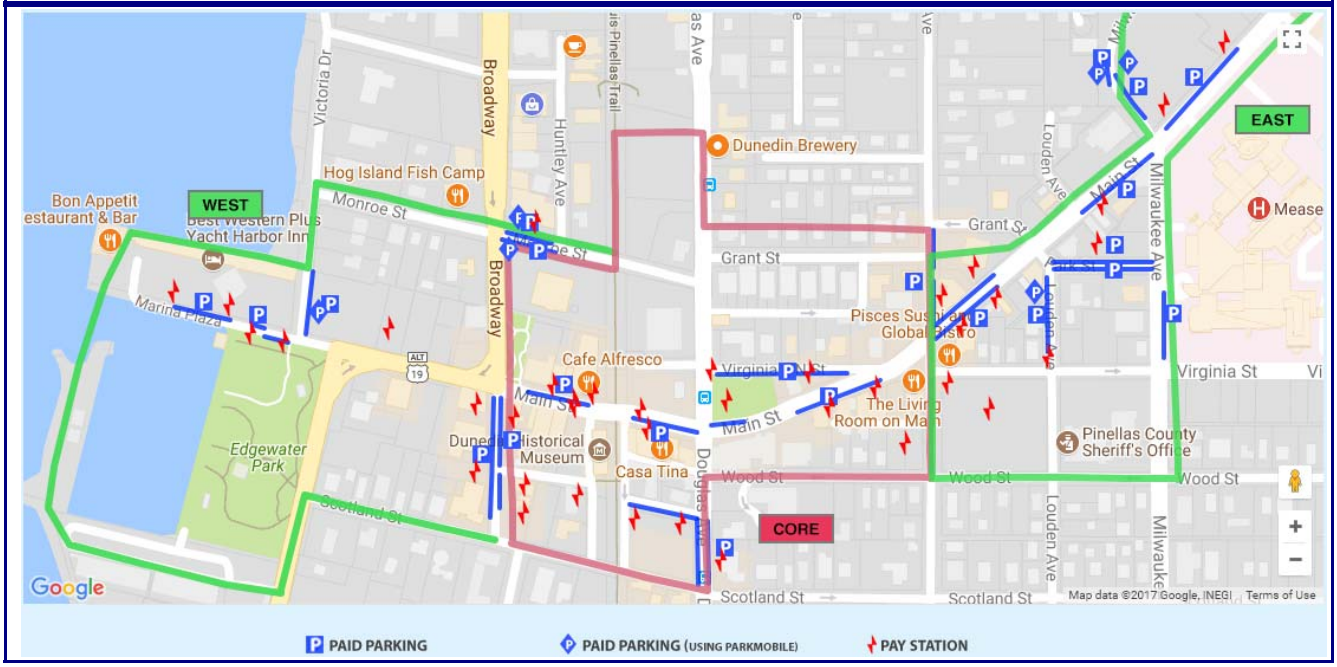
Timothy Haahs and Associates, Inc. (TimHaahs) was retained by the City of Dunedin (the City) to perform a peer review of the previous parking studies and provide our own recommendations. We were also retained to conduct two public focus group meetings in order to obtain feedback regarding the parking system, which components are currently favored, which are not, and potential recommendations to improve the system.

The Community Redevelopment Agency (CRA) has been discussing parking issues for over 10 years and the City Commission directed the implementation of a paid downtown parking component at their meeting on September 17, 2015 with the timeline for implementation on October 1, 2016.

Study Area

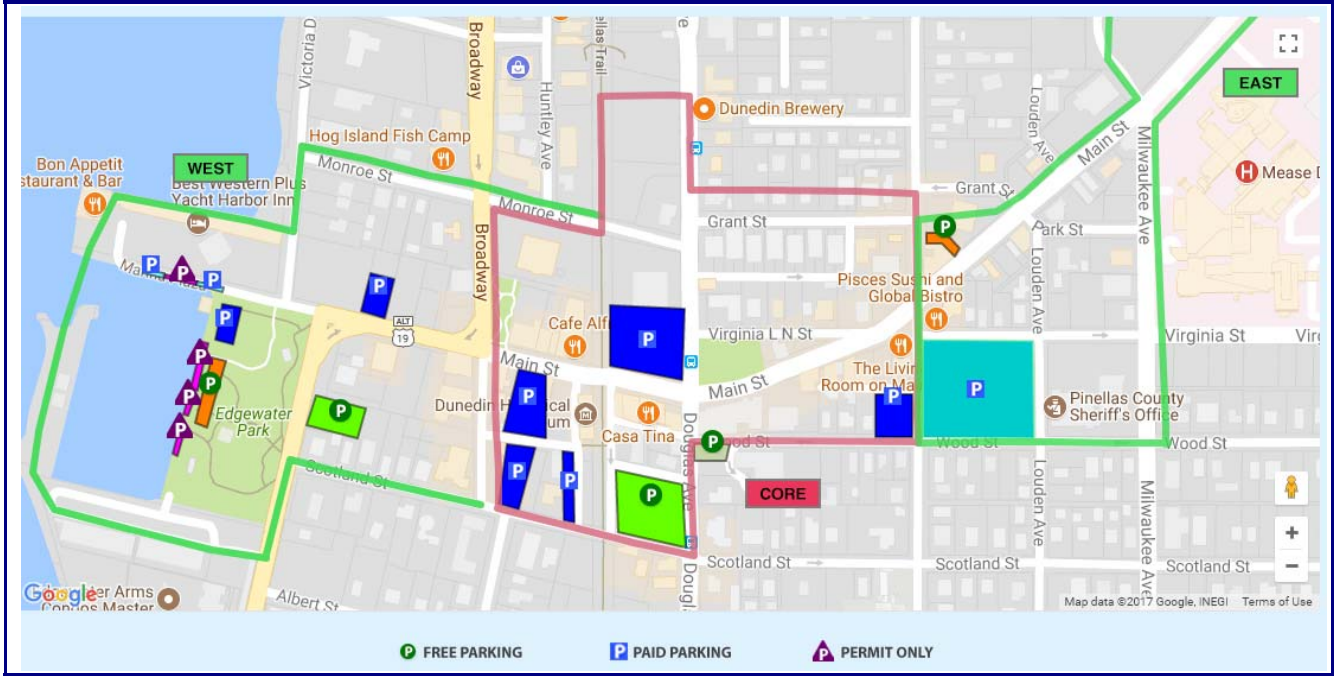
Dunedin is located along on the western coast of central Florida with direct waterway access to the Gulf of Mexico. The study area is bordered by the Gulf of Mexico to the west, Skinner Street to the north, Orange Avenue to the east, and Scotland Street to the south. Maps depicting the on- and off-street parking areas within the three zones (west, core, and east) are shown in the figures on the following page.

Figure 1: Downtown Study Area Map – On-Street Parking Areas



Source: Google Maps and ParkDunedin.com

Figure 2: Downtown Study Area Map – Off-Street Parking Lots



Source: Google Maps and ParkDunedin.com

Summary of Downtown Parking Conditions

According to the Walker Feasibility Analysis for Downtown Paid Parking report dated June 18, 2015 (Walker report) there were 561 off-street parking spaces and 260 on-street parking spaces located within the study area for a total of 821 public parking spaces. During the time of that study and still today, over half of the off-street parking inventory is located on privately owned property and is leased by the City. Those locations are considered "At Risk" parking as the City does not have the ability to secure those locations beyond the term of the lease agreement. Furthermore, we understand that many of those leases include a provision whereas the property owner may terminate the lease with the City with as little as a 90-day written notice.

While the loss of a small lot may not appear significant, in a system with fewer than 1,000 parking spaces, it can significantly impact the City's ability to meet the public parking demand. During the 2015 study, Walker estimated that only 255 of the 561 off-street parking spaces (or 45%) were actually owned and controlled by the City. When combined with the on-street parking supply, the City owned public parking supply was 63% leaving 37% of the total parking supply at risk. The above calculations excluded the overflow parking supply located at the Gateway Lot.

The data collected by Walker included multiple days and hours for collection. The overall peak demand used in their study indicated a peak hour demand at 9pm on a weekend day. While overall study area metrics are important (as they allow for an understanding on the true need), specific occupancy data is also critical as it allows the manager of the parking system to better distribute demand through the implementation of various time limits, parking rates, and restrictions.

For example, during an observation performed by Walker in December 2014 on a Saturday afternoon, the peak hour parking occupancy was approximately 65% throughout the study area. However, many of the on-street spaces located along Main Street, Virginia Street, Broadway Avenue, and Milwaukee Avenue were nearly or completely full. Low occupancy in less proximate areas essentially created the perception that there was not a parking issue while parking in the most desired locations was extremely congested.

When the on-street parking reaches or exceeds 85% full, a motorist will develop a perception of a parking shortage as they may be required to circle the block multiple times in order to find an on-street space within a short distance of their destination. Aside from creating user frustration, the circling of vehicles within the downtown area causes traffic congestion, increased pedestrian-vehicular conflicts, and increased carbon emissions – none of which are beneficial. On the following page is the "Heat Map" for the parking conditions during the Saturday afternoon which depict the areas with high utilization (red) and the areas with surplus capacity (green and yellow).

Additionally, it is important to call out the impact restaurant use has on a downtown area. Dining contributes to a large amount of success in a downtown environment as it generates the largest amount of pedestrian activity which then feeds into and contributes to the success of other businesses such as retail. However, the parking demand associated with a 1,000 square foot restaurant is also significantly greater than for general retail or office use and will require the use of more parking spaces to support those customers. Based on the day and time of the peak hour parking demand, we believe the restaurant presence in downtown is the direct contributor.

Figure 3: 2015 Walker Heat Map – Noon December 2014 Conditions

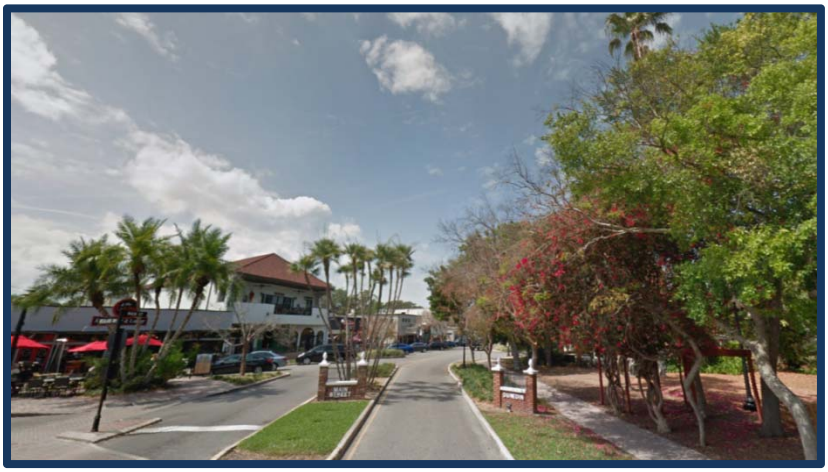
Source: 2015 Walker Feasibility Analysis for Downtown Paid Parking

The Walker report quantified the current parking adequacy (for 2015) as a surplus of 45 spaces but noted that those vacant spaces were located in less convenience parking areas. The Walker report also estimated a 290-space parking shortage should the City lose the currently leased at-risk parking areas and quantified a need for an additional 322 parking spaces (290-space shortage plus 10% effective supply cushion) to address the current gap that would be created with the loss of at-risk parking areas.

Walker's report went further to recommend a few additional spaces that would accommodate some of the new demand associated with future developments. The report listed general information three anticipated projects: Casco Viejo project (completed), Victoria Place (completed), and Gateway (TBD), resulting in their recommendation of adding 350 to 400 new parking spaces. Finally, Walker also mentioned the likelihood of development at the Douglas Avenue site (Keller Lot), Baptist Lot, Ocean Optics Lot, and Station Square Lot.

Since the time of that study, the Gateway project stalled while the Douglas Avenue site is now under construction and will include a 195-space public parking garage. The other 3 sites are still operating as surface parking lots that and are prime locations for future development.

We do not recommend charging the highest rates for parking at the future Douglas Street Garage. Parking rates at off-street lots and garages should always be lower than the on-street rates to encourage higher turnover. Unless a garage is within closer proximity to the core area of activity, the rate should be lower than the rates for the off-street lots as there is a public perception that parking garages are less safe and experience more crime than an open surface parking lot. We do recommend reducing the proposed monthly permit rate for the Douglas Garage and designating it as a free or economy parking area for downtown employees, merchants, trail users and trolley riders, and visitors/customers.



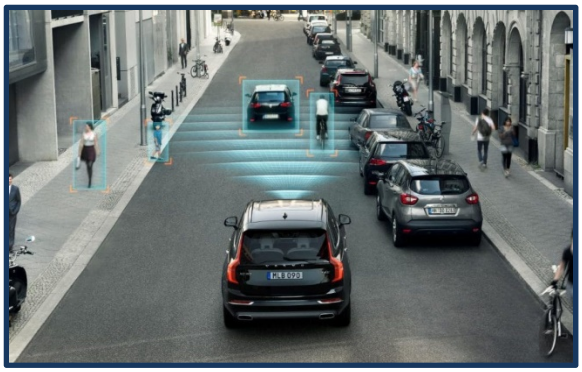
Given the number of significant changes to the management of parking over the past year, the upcoming addition of 195 parking spaces at the Douglas Avenue site, the uncertainty of the timeline for other developments, and the rapid changes in technology regarding mobility, we would not advocate investing and building any additional parking areas at this time. Instead we would recommend using more conservative solutions such as more public/private partnerships where the city would lease private parking areas that are underutilized during certain days and hours (i.e. bank parking is ideal for evening and weekend shared use – while places of worship are ideal for weekday and evening shared use). It may be possible for the City to enter into an agreement where in exchange for limited use of those parking facilities, the City will pay, manage, and perform trash pickup as necessary – creating a win-win for both parties – and increasing public parking areas at a much lower cost than structured parking.

We understand the City is continuously looking for additional locations to lease public parking and at this time, we believe that strategy minimizes the long-term financial risk to the City as we fully expect parking demand and/or parking revenue to start experiencing negative growth at some time in the future as technology is adopted.

As more public parking areas are needed we would also recommend the consideration of reconfiguring the Baptist Lot (as outlined in the Walker report with one-way angled parking) to potentially increase the total capacity to 275 spaces, and land banking the other City-owned properties. The per space cost to build and maintain surface parking is significantly lower than structured parking AND it provides site that is easily developed in the future if desired.

In order to ensure the existing public parking supply is not cannibalized by future development projects, we recommend continued use of the “Parking Bank” and we recommend implementing a higher fee “per space” to better account for the valuable cost of land, as well as ongoing operational and structural maintenance expenses. While some developers will provide sufficient parking to meet the expected needs, others will intentionally exclude or reduce the number of parking spaces and assume their users will utilize public parking areas surrounding the site. Since structured parking is expensive, using the public parking resources to meet private development needs will increase the Developer’s return on investment.

Future Impact from Changes in Mobility



There are currently two trends in mobility that we believe will impact how parking is managed: Ride-sharing and the concept of autonomous or driverless vehicles.

The first trend, ride-sharing, or services such as Uber and Lyft, has already caused disruption in some parking markets. Some airports and hotels have already experienced a decrease in the number of people choosing to drive and park as ride-sharing is sometimes less expensive and more convenient with door to door service. Ride-sharing is also impacting entertainment districts where alcohol is served as some patrons can enjoy drinking without the need to designate a driver. While Uber and Lyft will continue to thrive and expand into more sub-urban markets, ride-sharing does not impact smaller towns *as much* as it does in dense urban environments. The reasons are two-fold:

1. The cost of parking is not usually high enough in smaller towns to create a cost savings for ride-sharing, and
2. Because of the lower demand for ride-sharing, fewer vehicles are servicing those areas which increase the wait time for passengers.

Even so, ride-sharing is becoming more popular especially among the younger generation and tourists who may not want to rent a vehicle. For small towns such as Dunedin, we anticipate an increase of 3% to 5% in the number of ride-share trips per year. In order to accommodate more users using ride-sharing services, we recommend incorporating additional drop-off and loading zones, which will help alleviate roadway congestion as the number of trips increases in the future.

The second trend, autonomous vehicles, is transitioning from concept to a reality. There is a great deal of uncertainty regarding the timeline, how those vehicles will be used/sold, how these vehicles will be regulated and what the true impact will be on the parking industry. Two of the possible uses that are notable for the parking industry are:

1. The purchase of driverless vehicles by ride-share companies to create a large fleet of on-demand vehicles. This model would potentially allow households to downsize the number of vehicles due to the cost of owning a vehicle is greater than the cost of using the service. As a result, the need for employee parking, for example, could decline as the ride-sharing vehicles would only drop-off and pick-up passengers as needed. (There would be a need to charge and service those vehicles but it would likely be at a low cost location and not in a dense area with valuable land).
2. The wide-spread purchase of driverless vehicles by individuals. In this model, a single autonomous vehicle could be used by multiple household members as it could drop person off at work, return home, and drive a second person to their place of employment or shopping. Unless the cost of parking was minimal, the users would simply have their vehicle go back home to park until they needed to go somewhere else. As in the first model, demand for parking would be reduced as would the rate that a facility owner could demand.

There are many other models and scenarios that could potentially occur with respect to autonomous vehicles. Ultimately, we do not know what that impact will be and to what extent it will affect parking. We do know that autonomous vehicles are being developed and that eventually, parking facility owners will need to adapt.

It is now more critical than ever, for municipalities to maximize the efficiency of the existing parking assets to their fullest potential through smart management and growth. When possible, we advocate land-banking as a means of providing surface parking lots for use today that are easily converted or densified in the future as the demand for parking decreases. When consideration is made to build a parking structure, special considerations should be given to the term of any debt, the ability to meet debt service payments during a decline in demand, and how easily the structure can be converted into another use.

Updated Current and Future Parking Conditions

TimHaahs prepared an updated analysis of the current and expected future parking inventory (effective supply), demand, and parking adequacy (surplus/shortage) from 2017 until 2030.

Current and Estimated Future Parking Inventory

Using the baseline information from the Walker report and information provided by the City, we have prepared the following table which outlines the parking inventory (including the effective supply cushion) through 2030. Please note, we applied an 85% effective supply factor for all on-street and ADA spaces and a 90% factor for all off-street parking spaces to which is consistent with the Walker report. As discussed in the Walker report, it is customary in the parking industry to apply a cushion to the total number of parking spaces within a system. The effective supply (which is equal to the supply less a "cushion") accounts for the movement of vehicles in and out of parking facilities, misparked vehicles, local demographics, and the amount of time motorists spend locating a vacant parking space. New facilities are indicated with GREEN for the first full year they are online and those marked in RED indicate the final year of the current contract. According to City representatives, the City-Owned parking located at the Baptist Lot as well as the parking on and surrounding the Municipal Services building will no longer be available as of 2023.

Table 1: Current and Estimated Future Parking Inventory

INVENTORY	2015 WPC INVENTORY	2015 WPC EFF. SUPPLY	PARKING INVENTORY (EFFECTIVE SUPPLY/WITH CUSHION APPLIED) 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ON-STREET TOTAL	**260**	**221**	**230**	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**
WPC Report	260	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221
Monroe Street			9	9	9	9	9	9	9	9	9	9	9	9	9	9
Douglas Street				20	20	20	20	20	20	20	20	20	20	20	20	20
OFF-STREET TOTAL	**561**	**363**	**557**	**672**	**686**	**686**	**686**	**653**	**339**	**339**	**339**	**339**	**339**	**339**	**339**	**339**
City-Owned Lots	**255**	**169**	**163**	**163**	**163**	**163**	**163**	**163**	**163**	**163**	**163**	**163**	**163**	**163**	**163**	**163**
Marina	69	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
Museum/Trail	37	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Scotland/Honey	31	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Monroe Street	25	22	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Wood Street Lot	26	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
City-Owned Properties	**255**	**229**	**212**	**212**	**300**	**300**	**300**	**300**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Baptist Lot	67	60	212	212	212	212	212	212								
Municipal Svcs.					88	88	88	88								
City-Leased	**306**	**194**	**182**	**297**	**224**	**224**	**224**	**191**	**176**	**176**	**176**	**176**	**176**	**176**	**176**	**176**
715 Edgewater	29	26	29	29												
Station Square	64	57	60													
Ocean Optics	40	36	36	36												
Church Lot	73	66	15	15	15	15	15	15								
Laundry Mat Lot	10	9	9	9												
Justice Lot	0	0	33	33	33	33	33									
Douglas Garage (not at-risk)				176	176	176	176	176	176	176	176	176	176	176	176	176
TOTAL DOWNTOWN (Excl. 100% At-Risk)			**787**	**922**	**936**	**936**	**936**	**903**	**588**	**588**	**588**	**588**	**588**	**588**	**588**	**588**
TOTAL DOWNTOWN (Incl. 100% At-Risk)			**787**	**983**	**1,070**	**1,070**	**1,070**	**1,070**	**1,070**	**1,070**	**1,070**	**1,070**	**1,070**	**1,070**	**1,070**	**1,070**
TOTAL DOWNTOWN (Excl. 50% At-Risk)			**787**	**952**	**1,003**	**1,003**	**1,003**	**987**	**829**	**829**	**829**	**829**	**829**	**829**	**829**	**829**
TOTAL DOWNTOWN (Excl. 100% At-Risk)			**787**	**922**	**936**	**936**	**936**	**903**	**588**	**588**	**588**	**588**	**588**	**588**	**588**	**588**

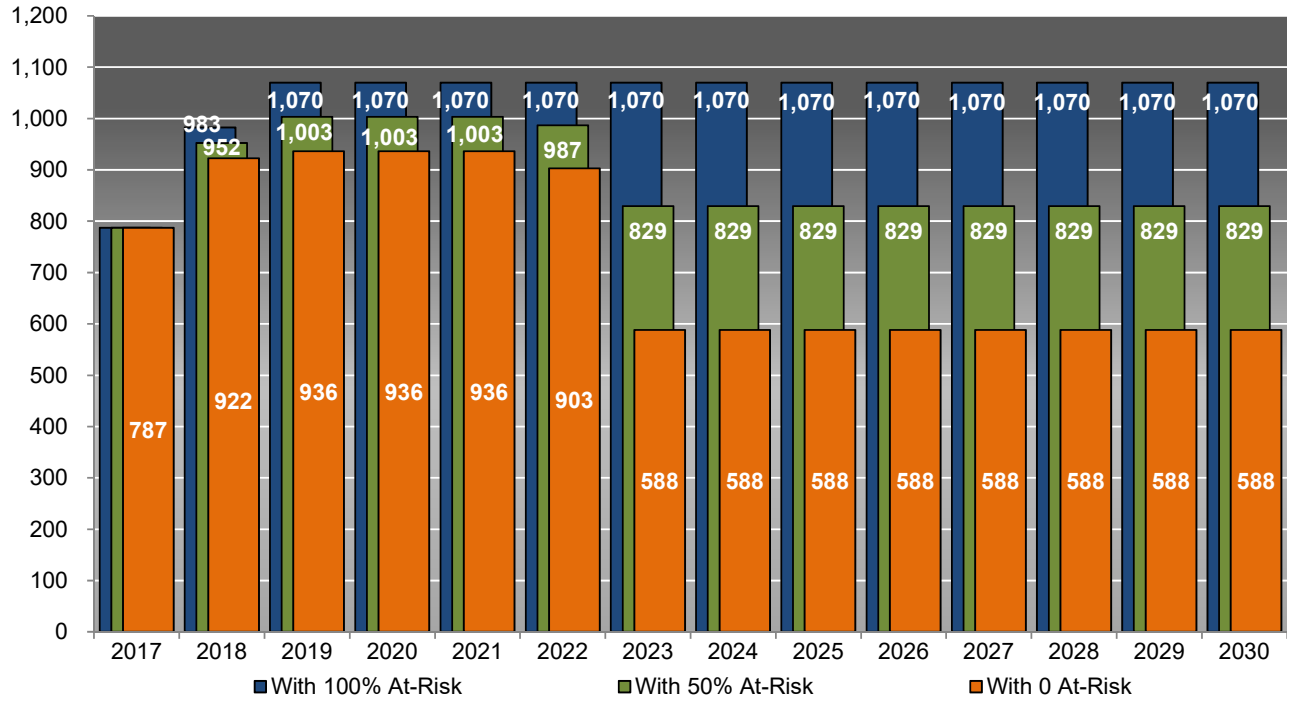
Source: 2015 Walker Feasibility Analysis for Downtown Paid Parking, City of Dunedin, Timothy Haahs & Associates, 2017

In order to quantify the potential future impact of the loss of at-risk parking, we quantified the parking inventory assuming the City would retain use of 100% of all at-risk spaces, the City would retain use of 50% of all at-risk spaces, and finally, the City would lose all of the at-risk spaces located on private property at the end of the current contract. Based on our analysis, the delta in 2030 between 100% retainage and 100% loss

is 482 spaces. With the loss of all at-risk parking facilities (182 spaces), the loss of the two City-owned properties (300 spaces), and the addition of the Douglas Garage and adjacent on-street spaces (196 spaces), the overall parking supply will decrease by 199 spaces from 2017 to 2030. While we understand the probability of future development on all of the at-risk sites, we would also anticipate that a portion of those parking facilities would remain available to the City (for at least a few years beyond the current contract). Additionally, the City can also potentially delay removing the parking located on the two City-owned properties if needed. It is our experience that many development plans become delayed due to the extended planning process as well as the time needed to obtain financing.

The figure below graphically depicts the estimated future parking inventory assuming the City retains 100% of the at-risk parking locations, 50% of the at-risk parking locations and the two noted City-owned properties, and 0% of the at-risk parking locations and the two noted City-Owned properties.

Figure 4: Estimated Future Parking Inventory (Effective Supply)



Source: 2015 Walker Feasibility Analysis for Downtown Paid Parking, City of Dunedin, Timothy Haahs & Associates, 2017

We have intentionally omitted the Overflow parking areas from the above analysis as the 734 Virginia Street Lot essentially replaced the overflow parking that was available at the Gateway Lot, those facilities are not used on a daily basis, and while event parking is important, the City would not build additional parking just to meet the demand during special events.

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Current and Estimated Future Parking Demand

Using the parking occupancy data from the Walker report, we established the 2015 weekday daytime, weekday evening, weekend daytime, and weekend evening parking demand for downtown. Since the parking demand varied significantly between the peak hour from a weekend evening (681 vehicles) and the peak hour from a weekday daytime (411 vehicles), we thought that it was important to look at the various time periods separately.

Table 2: Baseline Parking Demand (2015 Parking Conditions)

PARKING DEMAND	2015 WPC REPORT	BASELINE PEAK HOUR DEMAND (2015 CONDITIONS)														
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Weekend Evening (Overall Peak)	**681**	**681**	**681**	**681**	**681**	**681**	**681**	**681**	**681**	**681**	**681**	**681**	**681**	**681**	**681**	**681**
Weekend Daytime	539	539	539	539	539	539	539	539	539	539	539	539	539	539	539	539
Weekday Evening	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494
Weekday Daytime	411	411	411	411	411	411	411	411	411	411	411	411	411	411	411	411

Source: Timothy Haahs & Associates, 2017

According to census data compiled from 2010 to 2017, the historical population growth has been an average of 0.66% per year. Additionally, the projected future population growth from 2017 until 2022 is approximately 0.74% per year. We have applied the above population growth increase percentages to the parking demand from 2015 through 2022. From 2022 through 2030, we have applied a more conservative growth rate of 0.50% per year to account for the gradual decline in growth as the City reaches its maximum capacity.

Table 3: Estimated Cumulative Impact from Population Growth

PARKING DEMAND	2015 WPC REPORT	ESTIMATED CUMULATIVE IMPACT ON DEMAND FROM POPULATION GROWTH														
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Weekend Evening (Overall Peak)	**681**	**4**	**9**	**14**	**19**	**24**	**30**	**35**	**39**	**42**	**46**	**49**	**53**	**57**	**60**	**64**
Weekend Daytime	539	4	7	11	15	19	23	28	30	33	36	39	42	45	48	51
Weekday Evening	494	3	7	10	14	18	22	25	28	31	33	36	38	41	44	46
Weekday Daytime	411	3	5	9	12	15	18	21	23	25	28	30	32	34	36	39

Source: Timothy Haahs & Associates, 2017

Understanding the trends and technological impacts on mobility, for 2017 through 2025 we assumed a 2% annual reduction in trips during the weekday and weekend evening peak hours and a 1% annual reduction in the total number of trips during the weekday and weekend daytime peak hours. In order to reflect the impact of ride sharing and autonomous vehicles, from 2026 through 2030 we applied a 4% annual reduction for all evening trips and a 2% annual reduction for all daytime trips. Please note, the above assumptions may vary significantly based on how quickly the shift in mobility occurs. The above information is based on our interpretation of the current news made available by the various automobile manufacturers and autonomous industry.

Table 4: Estimated Cumulative Impact from Mobility Shift

PARKING DEMAND	ANNUAL REDUCTION	ESTIMATED CUMULATIVE IMPACT ON DEMAND FROM MOBILITY SHIFT														
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Weekend Evening (Overall Peak)	**2%**	**(14)**	**(27)**	**(40)**	**(53)**	**(65)**	**(78)**	**(90)**	**(102)**	**(113)**	**(125)**	**(147)**	**(168)**	**(189)**	**(208)**	**(227)**
Weekend Daytime	1%	(5)	(11)	(16)	(21)	(26)	(32)	(37)	(42)	(47)	(52)	(61)	(71)	(80)	(89)	(98)
Weekday Evening	2%	(10)	(20)	(29)	(38)	(47)	(56)	(65)	(74)	(82)	(90)	(107)	(122)	(137)	(151)	(165)
Weekday Daytime	1%	(4)	(8)	(12)	(16)	(20)	(24)	(28)	(32)	(36)	(39)	(47)	(54)	(61)	(68)	(75)

Source: Timothy Haahs & Associates, 2017

The following list of development projects were provided by the City:

Table 5: Future Development Projects

Development Projects

Name	Project	Date
Artisan Apt Homes	65 apts 195 space garage 11,700 sq ft Retail	2018
Rusty Lyons	3,000 sq ft Bay Restaurant	2017-2018
Courtyard on Main Street	18 Condominiums 16,000sq ft commercial	2018-2020
Gramercy	66 Townhomes	2017-2019
Highland Townhomes	13 Townhomes	2017-2019
Gateway	34,000 Office 381 Parking spaces 10,000 sq ft Retail 20,000 sq ft Grocery 12 Townhomes 80 Appartments	2019-2022
City Hall 542 Main Street	5,300 approx	2021
Dunedin Station Square	.7 acres	2020
City 500 Wood Street	1.7 acres	2022
City Milwakee	1.5 acres	2022

Source: City of Dunedin

Using the program information listed above, the updated parking information provided by the City, and using our shared parking model, we estimated the parking impact during the weekday daytime and evening as well as during the weekend daytime and evening hours. Based on the absence of program data for the last four development projects, we have assumed those developments would be self-sufficient and therefore produce a net zero impact on the parking conditions. The following table summarizes the net impact of the above six projects:

Table 6: Estimated Net Impact and Cumulative Impact from Development

		ESTIMATED NET IMPACT				
NEW DEVELOPMENT PROJECTS	SPACES	Weekend Evening	Weekend Daytime	Weekday Evening	Weekday Daytime	Timeline
Artisan Apt Homes	122	0	0	0	0	2018
Rusty Lyons	20	23	4	16	7	2017/18
Courtyard on Main Street	49	27	40	44	25	2018/20
Gramercy	66	0	0	0	0	2017/19
Highland Townhomes	26	0	0	0	0	2017/19
Gateway	381	0	0	0	0	2019/22

		ESTIMATED CUMULATIVE IMPACT ON DEMAND FROM DEVELOPMENT													
PARKING DEMAND	TIME	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Weekend Evening (Overall Peak)	**9PM**		**0**	**23**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**
Weekend Daytime	12PM		0	4	44	44	44	44	44	44	44	44	44	44	44	44
Weekday Evening	8PM		0	16	60	60	60	60	60	60	60	60	60	60	60	60
Weekday Daytime	12PM		0	7	32	32	32	32	32	32	32	32	32	32	32	32

Source: City of Dunedin, Timothy Haahs & Associates, 2017

For the purpose of this evaluation, we did not reflect any projected surplus of parking for the above developments. It should be noted that if a surplus of parking does exist, those spaces may become available to the general public.

In order to quantify the future parking demand, we used the 2015 baseline peak-hour demand (for weekday and weekend daytime and evening hours), the cumulative impact from population growth, mobility shift, and development. The following table summarizes the estimated future parking demand for Downtown Dunedin. One item of importance is the significant difference between the weekday and weekend parking conditions which will be discussed in more detail in the next section of this report.

Table 7: Current and Estimated Future Parking Demand

IMPACT FROM POPULATION GROWTH, MOBILITY REDUCTION, AND DEVELOPMENT	ESTIMATED FUTURE DEMAND													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Weekend Evening (Overall Peak)	**663**	**678**	**697**	**690**	**683**	**676**	**668**	**660**	**652**	**634**	**616**	**599**	**583**	**568**
Weekend Daytime	535	538	577	576	575	574	572	570	568	561	554	548	541	535
Weekday Evening	481	491	530	524	519	514	508	502	497	483	470	458	447	436
Weekday Daytime	408	414	438	438	437	436	434	433	431	426	421	416	411	407

Source: 2015 Walker Feasibility Analysis for Downtown Paid Parking, City of Dunedin, Timothy Haahs & Associates, 2017

Estimated Future Parking Adequacy

Fortunately, while the impact from growth and development increase demand, the opening of the 195 spaces at the Douglas Garage and the impact from changes in mobility essentially offset those increases. However, based on the assumptions previously described, the loss of ALL at-risk parking facilities and the removal of the two City-owned properties noted previously, we anticipate a small parking shortage from 2023 to 2028. Given that the projected parking shortage is only anticipated to occur during the weekend evening hours, the ability to absorb the higher demand using the effective supply cushion, the City's ability to retain or delay the removal of the two City-owned properties, the potential to extend the lease contracts on some of the existing at-risk lots, and the high-cost structured parking, we would not recommend building a structured parking facility at this time.

We recommend regularly monitoring the parking conditions as they will fluctuate as development timelines shift and different modes of transportation are used more frequently. We would also recommend the City evaluate short-term solutions to address the anticipated deficit in 2023. This may include shifting the timeline for the removal of the two City-owned parking areas, extending the contracts at existing City-leased lots, and identifying potential new locations where the City may be able to lease additional parking spaces at least during the weekday evening hours.

Table 8: Estimated Future Parking Adequacy

ESTIMATED FUTURE CONDITIONS	ESTIMATED PARKING ADEQUACY (including At-Risk)													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Weekend Evening (Overall Peak)	**124**	**304**	**373**	**380**	**387**	**394**	**402**	**410**	**418**	**437**	**454**	**471**	**487**	**502**
Weekend Daytime	252	444	493	494	495	496	498	500	502	509	516	522	529	535
Weekday Evening	306	491	540	546	551	556	562	568	573	587	600	612	623	634
Weekday Daytime	379	568	632	632	633	634	636	637	639	644	649	654	659	663

ESTIMATED FUTURE CONDITIONS	ESTIMATED PARKING ADEQUACY (including 50% At-Risk & City-Owned Baptist/Muni. Svcs.)													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Weekend Evening (Overall Peak)	**124**	**274**	**306**	**313**	**320**	**311**	**161**	**169**	**177**	**196**	**213**	**230**	**246**	**261**
Weekend Daytime	252	414	426	427	428	413	257	260	262	268	275	282	288	294
Weekday Evening	306	461	474	479	484	472	321	327	332	346	359	371	383	394
Weekday Daytime	379	538	565	566	566	551	395	396	398	403	408	413	418	423

ESTIMATED FUTURE CONDITIONS	ESTIMATED PARKING ADEQUACY (excluding all At-Risk & City-Owned Baptist/Muni. Svcs)													
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Weekend Evening (Overall Peak)	**124**	**244**	**239**	**246**	**253**	**227**	**(79)**	**(71)**	**(64)**	**(45)**	**(27)**	**(11)**	**5**	**21**
Weekend Daytime	252	384	359	360	361	329	17	19	21	28	34	41	47	53
Weekday Evening	306	431	407	412	417	389	80	86	92	105	118	130	142	153
Weekday Daytime	379	508	498	499	499	467	154	156	157	162	167	172	177	182

Source: 2015 Walker Feasibility Analysis for Downtown Paid Parking, City of Dunedin, Timothy Haahs & Associates, 2017

Adaptive Reuse

Adaptive reuse is the process of taking an old building and reusing it for a purpose other than it was designed. Typically adaptive reuse was targeted towards historic preservation; however, with all of the changes in technology and mobility, driving habits are also evolving. The introduction of autonomous vehicles may eventually lead to a decrease in demand and surplus capacity in some parking facilities. It is critical that parking owners consider the future when planning and building new parking facilities that typically last 30 to 50 years. Additionally, debt service payments on capital infrastructure projects are usually set at a term of 30 years which falls well into the timeframe for the widespread use autonomous vehicles. Any decline in parking revenue may potentially put an owner at risk for not meeting debt obligations.

In order to continue to address the parking needs today and in the near future, some owners are considering building facilities that can be modified into other uses in the future, such as office, retail or residential space. To accommodate for this potential modification, Designers are being asked to study the impact of increased floor to ceiling heights, public assembly loading, applicable code requirements for occupied buildings versus a garage, accommodating HVAC, providing bathrooms, providing building lobbies and so on. Based on what we have been told by general contractors that are studying these modifications, we understand that the premium represents an increase of hard costs of approximately 40%. A 40% premium represents a cost increase of approximately $8,000 to $10,000 per space to a “typical” parking structure.

Some other recommendations to accommodate future adaptive reuse include the use of flat floors when possible, moving the ramps to the outer bays (or use an external ramp that can be later removed), and designing middle ramps that can be removed and converted into an atrium areas.

Other solutions include using precast construction so that an owner may actually be able to disassemble the garage and thus pave the way for a new building to be built in its place. Under this option, the owner would not have to pay for the premium for designing a building for adaptive reuse, especially when the reuse is an unknown at the time of design and project delivery. The benefit of precast construction is that it is possible to actually re-sell the precast structural elements, especially if they are in good condition.

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