CITY OF BIRMINGHAM ADVISORY PARKING COMMITTEE CITY COMMISSION ROOM 151 MARTIN ST., BIRMINGHAM, MI

(248) 530-1850 REGULAR MEETING AGENDA WEDNESDAY, AUGUST 17, 2016, 7:30 A.M

- 1. Recognition of Guests
- 2. Approval of Minutes, Meeting of July 20, 2016
- 3. Smart Meter Review
 - a. Test on Martin St.
 - b. Parking by Zone
- 4. Traffic Control Upgrades Phase 2
- 5. Rooftop Valet Parking Phase 2
- 6. Evening Only Monthly Permit Update
- 7. Construction Update
- 8. Monthly Financial Reports
- 9. Meeting Open for Matters Not on the Agenda
- 10. Information Only:

Miscellaneous Letters and Articles

11. Next Regularly Scheduled Meeting: September 21, 2016



Park St. Parking Structure

Persons with disabilities that may require assistance for effective participation in this public meeting should contact the City Clerk's Office at the number (248) 530-1880, or (248) 644-5115 (for the hearing impaired) at least one day before the meeting to request help in mobility, visual, hearing, or other assistance.

Las personas con incapacidad que requieren algún tipo de ayuda para la participación en esta sesión pública deben ponerse en contacto con la oficina del escribano de la ciudad en el número (248) 530-1800 o al (248) 644-5115 (para las personas con incapacidad auditiva) por lo menos un dia antes de la reunión para solicitar ayuda a la movilidad, visual, auditiva, o de otras asistencias. (Title VI of the Civil Rights Act of 1964).

City of Birmingham

ADVISORY PARKING COMMITTEE

REGULAR MEETING

Birmingham City Hall Commission Room 151 Martin, Birmingham, Michigan Wednesday, July 20, 2016

MINUTES

These are the minutes for the Advisory Parking Committee ("APC") regular meeting held on Wednesday, July 20, 2016. The meeting was called to order at 7:30 a.m. by Chairman Lex Kuhne.

Present:	Chairman Lex Kuhne Gayle Champagne Anne Honhart Steven Kalczynski Lisa Krueger Judith Paskewicz Vice-Chairperson Susan Peabody Al Vaitas (left at 9 a.m.)
Absent:	None
BSD:	Richard Astrein John Heiney
SP+ Parking:	Catherine Burch Sara Burton Jason O'Dell
In-House Valet	Steve Ferich
Administration:	Paul O'Meara, City Engineer Carole Salutes, Recording Secretary

RECOGNITION OF GUESTS (none)

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MINUTES OF REGULAR MEETING OF JUNE 15, 2016

Motion by Ms. Peabody Seconded by Ms. Honhart to approve the Minutes of the APC Meeting of June 15, 2016 as presented.

Motion carried, 8-0.

VOICE VOTE:

Yeas: Peabody, Honhart, Champagne, Kalczynski, Krueger, Kuhne, Paskewicz, Vaitas Nays: None Absent: None

PARKING STRUCTURE RATE CHANGES UPDATE

Mr. O'Meara recalled the City Commission approved the majority of the recommended rate and policy changes made by the APC at their meeting of June 6. The Parking System has increased monthly permit fees during the summer of 2014 and 2015, and had pursued another increase in 2016 to continue an incremental increase of monthly rates. The Commission did not approve the proposed monthly fee increase because they felt the increase is not aggressive enough. Now that the daily rate is \$10 maximum per day, a monthly permit has become a bigger discount for those that work in town.

With the daily rate there was the provision that if a customer left after 10 p.m. the price dropped down to \$5 with the idea that demand is low at that time of day. Commissioners thought that seemed inconsistent and that the price should stay the same all night long. The Commission also asked whether residents should be given a different rate than the rest of the public. However, the city attorney has advised that would not hold up well in court because the residents are not paying any taxes toward the parking system. Lastly, the Commissioners thought that the City should not sell any more permits right now because of how full the garages are. For the present time, a count will be kept on Evening Only permit sales and reported back to the Commission at a later date.

Mr. O'Dell said SP+ has determined that about 100 people are only using their monthly permit after 4 p.m.

Mr. O'Meara explained that using data assembled from several other cities, the average price per month by these various cities ranges from \$145 to \$20. Averaging the monthly permit fees that were suggested for 2016 in the same way, the average cost of a permit in Birmingham would be rounded off to \$58.

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Compared to the other cities this number seems low. However, staff continues to recommend a slow upward increase for the monthly permits so that the parking policies do not generate too much negativity toward the City.

Mr. Astrein thought the lesser rate for Chester should still be considered. He is not interested in increasing the rates because the usage has gone from traditional retail to the office workers who are probably at the high end of the pay scale. Offering a group rate was discussed, but it would benefit the office workers. Mr. O'Dell noted the Commission doesn't want to do that. He added the rate increase has changed where people choose to park - out of the garages and onto the street.

In the table below, Proposed Plan A is the plan recommended by the APC, but rejected by the City Commission as providing rates that are too low. Two additional rate schedules are provided for consideration:

Parking	Prior to	Effective	Effective	Proposed	Proposed	Proposed
Facility	08-01-14	08-01-14	07-01-15	Plan A	Plan B	Plan C
Pierce St.	\$55	\$60	\$65	\$70	\$75	\$80
Park St.	\$45	\$50	\$60	\$70	\$75	\$80
Peabody	\$45	\$55	\$65	\$70	\$75	\$80
N. Old						
Woodward	\$45	\$50	\$55	\$70	\$75	\$80
Chester	\$30	\$40	\$45	\$50	\$55	\$60
Lot 6 - Regular	\$50	\$55	\$65	\$70	\$75	\$80
Permit						
Lot 6 - Economy Permit	\$30	\$35	\$45	\$50	\$55	\$60
Ann St. Permit	\$40	\$40	\$50	\$50	\$55	\$60
S. Old Woodward Permit	\$40	\$40	\$25	\$25	\$25	\$25

The APC is asked to review the new suggested plans, and determine if it is appropriate to recommend a higher monthly rate schedule for the City Commission to consider.

Mr. O'Dell stated that one of the things the City Commission keyed in on was the amount of time it took a daily parker to get to the monthly rate. With the old rates it took 14 days and when the monthly rate was increased that went down to

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seven days. The Commissioners thought there was too big an impact on the daily rate and not enough impact on the monthly rates.

There were no comments from the public at 8:10 a.m.

Mr. O'Dell advised there are presently about 2,500 people waiting for permits all over the City. Consensus was to wait and see how everything develops without actually making a move. Mr. Astrein was in favor of going back to the City Commission with Plan A.

Motion by Dr. Vaitas

Seconded by Ms. Champagne that the APC recommends that the City Commission authorize an increase in the monthly parking permit rate schedule, defined above as proposed Plan A.

There were no comments from the public at 8:20 a.m.

Motion carried, 8-0.

VOICE VOTE: Yeas: Vaitas, Champagne, Honhart, Kalczynski, Krueger, Kuhne, Paskewicz, Peabody Nays: None Absent: None

Ms. Peabody summarized the difference between someone waiting for a permit is that they are paying \$200/month at \$10/day and permits will cost \$70.

ROOFTOP VALET PARKING - PHASE 2

Mr. O'Meara reported the rooftop valet operation at the N. Old Woodward Ave. Structure is now over a month old, and is considered a success. Staff continues to watch the operation for usage, and is considering canceling the operation for all Mondays as a way to reduce costs, due to lack of demand.

Phase 2

The valet operation has been successful in its goal of eliminating closures at the N. Old Woodward Ave. Structure due to lack of capacity. With that in mind, extreme demand at the Park St. Structure remains to be addressed. Relative to the feasibility of operating rooftop valet, the Park St. Structure was scored low due to its roof configuration. SP+ is predicting that making a rooftop valet program a success at Park St. will require longer hours and more people. The difference in cost is significant. It adds up to about \$180,000 yearly as opposed

to \$50,000 at North Old Woodward. Mr. O'Meara has asked SP+ to look closer at the Park St. Structure because that is where the demand is.

Mr. O'Dell affirmed that when it snows they would lose spaces on the roof because the snow is stored there.

A. Rooftop Valet at Pierce St.

Per SP+, the Pierce St. Structure was considered the second best option for the entire system. The roof configuration is similar to N. Old Woodward Ave., only larger. The drawback with Pierce St. is that it cannot be implemented immediately because the garage only filled seven days last month. More cars need to be encouraged to use this structure on a regular basis in order for the valet assist to make sense. Possible solutions are to increase the monthly permits at Pierce St. and to decrease the daily rate at Pierce St. As described in the memo, creating policy or price incentives to move vehicles into this structure can cause other problems.

B. Rooftop Valet at Park St.

SP+ staff has maintained that the rooftop configuration at Park St. is not conducive to a valet operation. City staff agrees that the cost as suggested is prohibitive. However, the idea is being given a second look because the operation is most needed at this location. Staff is currently reviewing options to reduce the cost at Park St.

On a related matter, Mr. Heiney reported that the valet service in the street is now operating in a self-supporting mode. It will continue throughout the rest of the year, if possible. The BSD goal is to keep valet service on the street through this year and into construction season next year.

EVENING ONLY MONTHLY PERMIT UPDATE

Following are counts for how many evening monthly passes have been sold per structure and the surrendered regular permits of the permits sold:

Evening permits sold as of 07/14/16

- Pierce: 12
- Peabody: 0
- Park: 1
- Chester: 1
- N. Old Woodward: 3

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Number of surrendered normal permits passes • Pierce: 2 •N. Old Woodward: 2

AD HOC PARKING DEVELOPMENT COMMITTEE UPDATE

The main committee is looking at putting together an RFQ to developers to see if there would be any interest in participating with the City and bringing a new financial element into the package. The sub-committee that was formed to talk about creating an assessment district has put together a package where the majority of the assessment would be based on the size of the existing building, and to a lesser extent, how close it is to the structure.

CONSTRUCTION UPDATE

Mr. O'Meara reported they have bid out painting of the Park St. Structure structural steel. Only two bidders were interested in the job and the prices were much higher than expected. So they will re-bid that in December. Since the painting is not happening, they are bidding out replacement of the lights with LEDs.

MONTHLY FINANCIAL REPORTS

Mr. O'Dell said they are busy.

MEETING OPEN FOR MATTERS NOT ON THE AGENDA

Mr. Ferich commented In-House Valet's biggest concern is for next summer's construction. Mr. O'Meara indicated the construction plan is not ready. The chairman said he will find a domain name and it can provide information.

It was discussed there is a back-up at Chester because many more people are leaving at the same time. Mr. O'Dell said when customers use the proximity card it must be within 6 inches of the reader.

NEXT REGULARLY SCHEDULED MEETING

August 17, 2016

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ADJOURNMENT

No further business being evident, the chairman adjourned the meeting at 9:08 a.m.

Respectfully submitted,

Paul O'Meara City Engineer

City of I	Birmingham	MEMORANDUM
DATE:	August 11, 2016	Engineering Dept.
TO:	Advisory Parking Committee	
FROM:	Paul T. O'Meara, City Engineer	
SUBJECT:	New Parking Meters Review	

SINGLE SPACE PARKING METERS

At the June, 2016 Advisory Parking Committee (APC) meeting, a review of new parking meter technologies was discussed with members of the Police Dept. After extensive review of both multi-space pay stations and individual space meters, the APC recommended an on-street test of the IPC and Duncan Liberty meters for the spaces on Martin St. in front of City Hall. The City Commission subsequently approved this idea, and the test was implemented on August 1.

The test has been shortened to a 30 day period. It is hoped that the results of the test can be collected by early September, and a final decision approved by the City Commission prior to the end of the month. That way, if appropriate, the City can proceed with the installation of the approximately 65 disabled reserved parking spaces planned throughout the CBD. (Three reserved spaces for the disabled are now in place on Hamilton Ave. to meet the requirements of the ADA.) This work involves painting the pavement, so it will need to be done in October if it is to happen this year.

Survey boxes have been set up at City Hall. If desired, the APC can take time as a group to meet outside City Hall to take a closer look at the meters now on the street. Both meter companies anxious to win our favor, and have asked for the opportunity to speak to you at this meeting. They have been asked to keep their planned comments to five minutes, and expect up to five minutes for questions. IPC will appear first, followed by Duncan. No decision is expected by the APC today, but rather, this is meant to be an opportunity to be updated.

MULTI-SPACE PARKING METERS

At the time the single space test area was approved by the City Commission, Commissioner Nickita commented that while this test is a good idea, he personally asked that we not rule out multi-space parking meters at this time. He indicated that Detroit has moved to a "zoned" parking concept involving multi-space meters and license plate recognition. He personally thinks it works well, and it is being well received by the public there. To that end, the Police Dept. is doing further research on this topic, particularly the system being used in Detroit. They will provide a verbal report at the meeting as well.

The materials assembled for our June meeting are attached for reference only.



Contact: Police Chief Mark Clemence City of Birmingham (248) 530-1875

For Immediate Release

Public Feedback Sought in Smart Parking Meter Trial in Birmingham

BIRMINGHAM, MI, August 1, 2016 – Starting August 1, 2016, Martin Street in front of City Hall will be a test area for two different brands of "smart" parking meters the City is evaluating. "Smart" meters will temporarily replace existing electronic meters on the north and south sides of Martin Street between Pierce and Henrietta.

The new "smart" meters will allow citizens to pay by credit card directly at the meter (MasterCard, Visa, American Express, and Discover), utilize ParkMobile, or pay the traditional way with coins. The trial will feature (16) CivicSmart Liberty meters on the south side of Martin Street and (15) IPS M5 meters on the north side.

The project was initiated as part of the Old Woodward Avenue reconstruction project planned for the spring of 2017.

Public input will be one of several considerations analyzed when the City moves forward on what parking system is the best choice for the City. Surveys will be available for users to fill out and deposit in nearby survey boxes or can be dropped off at City Hall to provide feedback on ease of use for each type of meter. While visiting the downtown area, users who park on Martin Street are encouraged to take a moment to provide feedback on these new "smart" meters. Your feedback is also encouraged by emailing our social media team at: socialmedia@bhamgov.org

CivicSmart Liberty South Side of Martin St. IPS M5 Meter North Side of Martin St.





City of Birmingham – A Walkable Community. Visit the city's web site at <u>www.bhamgov.org</u>.

City of I	Birmingham	MEMORANDUM
DATE:	June 10, 2016	Engineering Dept.
TO:	Advisory Parking Committee	
FROM:	Paul T. O'Meara, City Engineer	
SUBJECT:	New Parking Meter Technologies	

1

As you may know, the City plans to reconstruct Old Woodward Ave. next year between Willits St. and Brown St. Key City staff have been meeting on a regular basis to explore ways in which this signature project can be as innovative and well thought out as possible. One area that was raised was to explore the advisability of switching to a multi-space parking meter system, like some other cities have done. Birmingham employed a multi-space system in 2007 with some meters installed on N. Old Woodward Ave. That system met with poor results, and was subsequently replaced with the more traditional meters.

As a result of these discussions, we asked our Police Dept. (who oversees the parking meter maintenance area) as well as SP+ (our parking structure operations contractor) to give us their perspectives on this question. Their reports are attached. The report from SP+ focused only on multi-space meters, since that was the direction they thought the City wanted.

The Police Dept. looked at the matter both from what is available in multi-space meters, and what is available with individual "smart" meters. Prices that are supplied are based on a conversion of the entire downtown area. Likely, if and when a decision is made to switch to a different parking meter concept, the City will want to try the Old Woodward project area first, and then move forward with other areas at a later date. When reviewing the prices, please consider that the Old Woodward Ave. project area would result in the installation of 133 parking meters, or about 10.6% of our entire parking meter stock.

Both SP+ and members of the Police Dept. will be present on Wednesday to help discuss this issue. We welcome input from the members of the Advisory Parking Committee so that a final recommendation can be prepared in the coming months.

City of I	Birmingham	MEMORANDUM
		Police Department
DATE:	June 10, 2016	
TO:	Mark Clemence, Chief of Police	
FROM:	Ellen DeView, Staff & Services Coordinator	
SUBJECT:	Credit Card Parking Meters	

PROJECT SCOPE:

Per your direction that I research parking meter technologies, I had meetings and discussions with industry leading multi-space pay station and smart parking meter vendors (IPS Group, Mackay Meters, CivicSmart, and Traffic & Safety Systems). Also, I spoke with representatives from several area communities (Rochester, Royal Oak, Ferndale, Grand Rapids, Detroit, East Lansing, and Ann Arbor) regarding their experiences with various parking equipment. Based upon this study, I recommend that should it be decided that new a parking meter payment system is warranted, the best solution for the police department is single space smart parking meters (with optional sensors) as opposed to multi-space pay stations. This report will summarize my research.

CURRENT PARKING METER SYSTEM:

Our current system for curbed and surface lot parking includes 1,238 mechanical (coin only) single space parking meters. 13 additional new parking meter spaces for the proposed ADA handicap meter project would result in a new total of 1,251 meter spaces.

Parkmobile is currently available at all parking meters in the City. The growth of Parkmobile continues, with the following revenue increases noted:

Fiscal year 2014-15 revenues up 59.09% (\$40,693 increase) as compared to 2013-14. Fiscal year 2015-16 revenue projections up 36.58% (\$40,170 increase) compared to 2014-15.

PARKING METER REVENUE SUMMARY:

REVENUE TYPE	2014-15 ACTUAL	2015-16 YTD AS OF 4/28/16	2015-16 YEAR END PROJECTION
PARKMOBILE	109,800	122,970	149,970
LOT 6	48,820	44,710	55,250
LOT 7	62,680	45,150	54,180
LOT 9	4,010	2,620	3,140
CURB METERS *	1,126,850	855,860	1,027,030
TOTAL **	1,352,160	1,071,310	1,289,570

* Curb meter revenues are projected to decrease by approximately 4.5% in 2015-16 due to construction on North Old Woodward and Maple Roads, and also due to continued increase in Parkmobile usage in lieu of coin payments.

** Note: revenues from Lot 6 permits, valet parking meter bags, and contractor / vendor parking meter bags are not included in this revenue summary.

Of the existing 1,238 parking meters, 840 spaces currently have a rate of \$1.00 per hour, and 398 spots at \$.50 per hour.

ADVANTAGES OF MULTI-SPACE / SMART METER TECHNOLOGY:

With smart meter technology, parking mechanism faults are instantly reported via management system support software – jammed meters and dead batteries can be repaired or replaced instantly resulting in less downtime per meter space providing potential for increased revenues due to fewer broken meters. Units run on solar power and are easily programmed for rate and time limit changes. Internet based meter management for repairs, audits, space monitoring, maintenance logs, inventory, etc. is greatly enhanced over administration of traditional parking meter mechanisms such as our existing system. Vendors promise great revenue increases as motorists tend to purchase maximum allowed time via credit card vs. depositing nickels, dimes, and quarters into parking meters. This credit card driven revenue enhancement would be somewhat negated in Birmingham as 1/3 of our meters have time limits of one hour or less.

CIVICSMART (FORMERLY DUNCAN PARKING TECHNOLOGIES)

Based upon the discussions and research conducted, the CivicSmart / Duncan Liberty single-space offers several advantages including Parkmobile and BS&A compatibility. The meter has a large high resolution LCD display and color coded payment buttons for convenience and overall ease of use. The Liberty is ADA compliant. Jeff Rock, Vice President for CivicSmart, Inc. provided information regarding the CivicSmart / Duncan Liberty single-space credit card meter as the best option for Birmingham. This device would retrofit into our existing housings and provide for coin, credit, debit, and pay by phone including Parkmobile transactions. The Liberty meters connect wirelessly to the included Parking Enterprise Management System (PEMS) for maintenance and reporting. Liberty is available only as a single space meter.

<u>CIVICSMART LIBERTY COSTS:</u> Costs associated with these meters are as follows:

CAPITAL OUTLAY: \$395 x 1,251 single space = \$494,145 INITIAL INVESTMENT

ANNUAL FEES (MAINTENANCE): includes CivicSmart PEMS management system and credit card processing*

\$5.50 per meter per month x 1,251 meters = \$6,880.50 per month = \$82,566 per year x 5 = \$412,830

* (additional gateway costs for credit card transactions charged by City's credit card processing company are not included in this monthly charge. An additional \$.06 per credit card transaction fee charged is charged by CivicSmart).

ANNUAL FEES (WARRANTY YEARS 2-4): YEAR 2 = \$37.50 PER METER (1,251) = \$49,912.50 YEARS 3-5 = \$45.00 PER METER PER YEAR = \$168,885.00 4 YEAR WARRANTY TOTAL = \$218,797.50 5 YEAR TOTAL COST = \$1,125,772.50 (plus costs for credit card transaction charges)

MULTI-SPACE METERS - TRAFFIC AND SAFETY (LUKE II)

I met with Tom Neff of Traffic and Safety Control Systems, Inc. regarding the LUKE II multi-space pay stations. Tom provided a list of 19 LUKE II customers in the State of Michigan including cities, universities, parks, and private lots. Only four of those cities listed (Ann Arbor, Lansing, Flint, Pontiac) use LUKE II for on street parking, the majority use the multi-space machines in surface lots and at boat docks.

There is a cost of \$8,500 per unit for the LUKE II stations (price includes installation), and monthly fees totaling \$10.00 per unit per month for Parkmobile and Duncan Autocite parking enforcement handheld computer interfaces. Mr. Neff estimates a quantity of 153 LUKE II stations would be needed to service the entire city. The preliminary capital outlay cost estimate for this system is \$1.3 million for pay stations plus additional expenses for signage and wayfinding information for all metered areas throughout the city. Additional costs associated with this solution are \$65.00 per station per month which includes machine to machine (M2M) modem digital connection via wireless carrier and also covers fees for real time credit card processing, maintenance alerts, cash in machine data, and maintenance status using the Digital Iris management system. There are no per transaction fees charged by Traffic and Safety associated with this solution, but credit card processing fees charged by the banking institution would still apply. The Luke II machines are ADA compliant.

While this platform has the highest front end and maintenance costs, benefits include fewer number of units to collect and repair compared to single space meters. Additionally, the solar/cellular designed pay stations are easily movable to alternate locations as there are no cables or power cords required. Drawbacks include downtime when unit(s) are out of order – resulting in revenue losses and frustrated motorists and parkers having to wait in line to use a multi-space meter shared by several spaces in a block. Also, repairs of single space smart meters are completed in a much more rapid fashion – no motherboards or other critical parts located at an out of state manufacturer's location – resulting in potentially lessened downtime.

LUKE II MULTI-SPACE COSTS: Costs associated with these meters are as follows:

CAPITAL OUTLAY: \$8,500 x 153 multi-space = \$1,300,500 INITIAL INVESTMENT

ANNUAL FEES (MAINTENANCE): includes Digital Iris management system, cellular connectivity fees and real time credit card processing with no per transaction fees*

\$65.00 per pay station per month \$65.00 x 153 = \$9,945 per month = \$119,340 per year X 5 = \$596,700

* (additional gateway costs for credit card transactions charged by City's credit card merchant processing company fees are not included in this monthly charge.

ANNUAL FEES (WARRANTY YEARS 2-4): \$1,160 PER PAY STATION PER YEAR \$1,160 X 153 = \$177,480 X 4 YEARS 4 YEAR WARRANTY TOTAL = \$709,920

5 YEAR TOTAL COST = \$2,607,120 (plus costs for credit card merchant processing charges)

SMART PARKING METER COST ESTIMATES:

VENDOR	# METERS	PRICE PER	PURCHASE PRICE	ANNUAL MAINT	5 YR MAINT COST	4 YR EXT WARR	TOTAL 5 YR COST
SINGLE SPACE:							
IPS GROUP	1,251	\$495	\$619,245	\$86,319	\$431,595	\$250,200	\$1,301,040
MACKAY - SINGLE	219	\$550	\$120,450				
MACKAY - DOUBLE	516	\$750	\$387,000				
MACKAY ***	735	SEE ABOVE	\$507,450	\$70,560	\$352,800	\$147,000	\$1,007,250
CIVICSMART	1,251	\$395	494,145	82,566	412,830	\$218,797.50	\$1,125,773
MULTI SPACE (LUKE):							
TRAFFIC & SAFETY	153	\$8,500	\$1,300,500	\$119,340	\$596,700	\$709,920	\$2,607,120

NOTE:

PLUS CREDIT CARD TRANSACTION AND CREDIT CARD MERCHANT PROCESSING FEES

* PLUS CREDIT CARD MERCHANT PROCESSING FEES (NO INDIVIDUAL CREDIT CARD TRANSACTION FEES)

*** MACKAY SMART METERS ARE NOT PARKMOBILE COMPATIBLE

It should be noted that the above estimates for IPS M5, MacKay MKBEACON, or CivicSmart Liberty single space parking meters do not include the purchase of spare mechanisms. Acquisition of spares (5-10% of total spaces) would also be recommended at time of purchase.

REPORT SUMMARY: This City's history with experimental parking projects has included reverse angle parking on North Old Woodward, the Parkeon pay and display multi-space debacle on South Old Woodward and Pierce Streets in 2005, and the subsequent Duncan multi-space kiosk installations on North Old Woodward which also met with public loathing. Other cities that experienced negative results with multi-space meters include: Los Angeles, Berkeley (CA), Denver, Evanston, Sacramento, San Francisco, Santa Monica, Atlanta, and the District of Columbia. All of these communities now have single space credit card meters.

Single unit credit card meters are conveniently located for parkers, incorporate easier and cheaper repairs, offer streamlined enforcement tools, and are cheaper to purchase and operate. If one unit is out of service, revenues and enforcement for the adjacent spaces are not affected.

Transitioning from single-space meters to multi-space kiosks would also include significant loss of traffic control flexibility. Currently when very large areas or even single parking meter spaces need to be reserved for valet operations, special events, and construction projects meter bags are a convenient and effective way to prevent vehicles from parking at select spots. With multi-spaces kiosks, reserving spaces would require the use of barricades or traffic cones which are easily moved by parkers not authorized for those locations.

Duncan Parking Technologies (now CivicSmart), once a leader in the multi-space parking business has ceased all sales of multi-space parking solutions due to failures and public preference of single space solutions for on street parking. Single space meters have frequently proven to be more suitable and convenient than multi-space kiosks.

Throughout my many discussions with competing parking equipment vendors, various problems associated with multi-space meters were repeatedly expressed by numerous dealers. Multi-space kiosk drawbacks include:

- Motorists have to walk too far to pay for parking (a particular problem in winter months or during inclement weather)
- Combined with the inherent laziness of most parkers, wayfinding signage and kiosk directions increase motorist frustrations
- If one kiosk is out of service all spaces in the area remain unpaid or motorists must walk even further to pay for parking
- Sometimes the closest kiosk is across the street, prompting the motorist to cross the road to pay
- Repairs are more expensive than single space meters
- ADA / handicap parking compliancy issues
- Enforcement activity is more complicated
- Motorists frequently forget correct or enter wrong parking space number or license plate number – not conveniently corrected if kiosk is a far distance away
- Complex multi-space meters are not as user friendly and easy to operate as single space meters
- Units cost several thousand dollars each
- Maintenance fees, warranty costs, monthly phone connectivity expenses, and charges for interfaces to other databases (Parkmobile and Autocite enforcement) are pricey
- Single space meter modem monthly fees have reduced significantly in costs to warrant consideration of this type of technology

Should the Advisory Parking Committee and City Commission decide to make changes to our existing on street parking payment options, CivicSmart Duncan Liberty single space credit card meters may be the preferred solution for the police department. Benefits to our existing coin only / Parkmobile credit card payment would include availability of real time data reflecting usage, meter repair/collection status, remote management, and automated rate and time limit adjustments. A combination of new CivicSmart meters and new handheld computers would provide parking enforcement assistants real time information regarding status of expired meters throughout the city. New handhelds could be used to monitor and manage enforcement activity thereby increasing efficiency of parking enforcement operations. As the police department is now at full staff for parking enforcement assistants, greater enforcement activity is planned. A greater presence and increased enforcement in the metered areas of the business district should prompt additional revenues as motorists will be more motivated to pay for parking.

The costs associated with the purchase, maintenance, and warranty for this equipment could be offset by parking meter rate increases recently introduced as a topic for discussion. Based upon an evaluation of our current parking meter rates, Jeff Rock from CivicSmart projected a return on investment (ROI) with credit cards amounting to a revenue increase of \$340,000 per year. Should the rates at the current \$0.50 per hour meters increase to \$1.00 per hour, Mr. Rock projects additional revenue enhancements of \$150,000 per year for a total ROI of \$490,000.00.

An additional opportunity for the city to generate meter revenue increases would be to install pole mounted vehicle sensors in conjunction with new smart meters. Wireless vehicle detection sensors provide real-time data with over 99% accuracy to allow cities to detect vehicle occupancy in a specific space or area. This provides for heightened efficiency and productivity of metered parking operations. Also, the sensors provide reset options for metered spaces after a vehicle moves from its designated space – increasing revenues as unused time cannot be transferred to the next vehicle using the space. (Vehicle A pulls out of space, sensor resets meter to zero minutes, Vehicle B cannot use prior vehicle's unused time including grace period and must pay for parking). Vehicle sensors also prevent meter feeding – no extension of time limits past maximum are authorized. Also, sensors can integrate with wayfinding mobile phone apps used by motorists to find desired parking spaces. Cost for 1,251 vehicle

sensors at \$290 each totals an initial investment of \$362,790. CivicSmart charges a \$3.00 monthly fee per vehicle sensor for an annual total of \$44,316.

Whatever solution is deemed best for the City of Birmingham, these critical factors must be considered – ease of use for the public, system integration with Parkmobile and BS&A financial software, and compatibility with the handheld computers used by parking enforcement assistants. The 2016-17 fiscal year budget includes funding for the replacement of the existing Duncan Autocite handhelds. These projects must be jointly evaluated so that all aspects of the parking system are mutually compatible and cost effective for the City.





Memorandum

To: Paul O'Meara

From: Catherine Burch; Jay O'Dell

Date: May 13, 2016

Subject: On-Street Multi-Space Parking Meters

It is understood that due to the upcoming street construction on Old Woodward Avenue in Birmingham, Michigan, city officials are contemplating the advantages of implementing an on-street multi-space parking meter program. To assist in this discussion and decision making process, SP+ has compiled the following information on the best practices in the parking industry; the successes of neighboring communities using multi-space parking meters and the advantages of adopting this type of technology using a pay-by-plate method.

Multi-space meters have been on the market for decades. It was in Europe that this technology first gained prominence with a Pay & Display solution (displaying a paid credential on dashboard). North America started seeing this technology appear about 20 years ago and it progressed quickly to include pay-by-space (space number is the credential) and pay-by-plate (license plate is the credential).

Across the nation, the current trend for municipalities that faced the need to replace outdated parking meters is for most to opt for the multi-space meter option. Once city officials weigh the pros and cons of a single space meter vs a multi-space meter, they understand that multi-space meters provide a greater level of operational efficiency and adaptability, making them the stronger choice over the single space alternatives.

Over the last two decades the parking industry has experienced an enormous increase in the level of technology that is used to process and track parking transactions. This technology has not only changed the way people park and pay in parking lots & garages (off-street parking) but also how people park and pay at parking meters on the street (on-street parking).

The multi-space meter has brought three key technologies to on-street parking: computers, solar power, and wireless communication. This allows customers to pay by credit card, municipalities to set complex rate structures, and the meters to communicate wirelessly via a central management system, providing remarkable audit control and maintenance capability.

There are numerous examples of neighboring communities in the Detroit metropolitan area; across the state of Michigan and throughout the United States of municipalities adopting a multi-space meter parking program for on-street parking. Some of the most

recent local examples are in the City of Detroit and the City of Ann Arbor. Each of these cities has fully embraced the multi-space option and has moved to replace most single space meters in their central business districts.

After installing 25 solar-powered pay stations in downtown Ann Arbor in 2009 the city found the multi-space meter concept so popular, that the DDA voted in early 2010 to install another 150 machines over three years. This year, the city has allocated another one million dollars in their 2016-2017 budget to increase the number of machines to cover nearly 90 percent of the entire Ann Arbor metered system. The following was reported in the The Ann Arbor News on March 17th 2016: *...in addition to allowing downtown visitors to pay for parking by phone or credit card, the e-park stations offer*

another potential future benefit. "These machines also interconnect. and in discussions with some of the folks associated with Mcity, they let us know that at least a couple of the car companies are currently looking at ways they may one day use e-park information as part of a car's onboard navigational system," said Downtown Development Authority Executive Director Susan Pollay. "So, not only would your car give you directions, but one day it may also give you directions to an available/open parking space."





After many years of dealing with a struggling and inadequate on-street parking system, which included both single space and multispace meter options, the City of Detroit rolled out the ParkDetroit program in the summer of 2015. This change included 500 multi space meters replacing over 3,000 single spaced meters. These machines replaced almost all of the cities out dated single & multi space meters and has been widely accepted and embraced by parking patrons and businesses. During an interview with Crains in July of 2015, Detroit COO Gary Brown said: "For decades. residents and visitors have all been frustrated by our parking system, and our hard-working parking enforcement officers have usually gotten all the blame, But those days are over, because in the coming weeks,

the city of Detroit will be home to the most comprehensive and customer-friendly parking meter system in the entire country."

To give you an example of how wide-spread the implementation of multi-space meters is locally and across the country here is a partial list of other municipalities that are currently using a multi-space meter option on-street:

City of Pontiac , MI	City of New Westminster, BC
City of Lansing , MI	City of Richmond, BC
City of E. Lansing , MI	City of White Rock, BC
City of Ferndale , MI	City of Ventura, CA
City of Grosse Point , MI	City of Santa Monica, CA
Traverse City , MI	City of Riverside, CA
City of Petoskey , MI	City of Glendale, CA
City of Grand Haven, MI	City of Newport Beach, CA
Village of Empire, MI	City of Long Beach, CA
City of Ludington, MI	City of Sausalito, CA
City of Flint , MI	City of Miami Beach, FL
City of Cedar Rapids, IA	City of Tampa, FL
LexPark (Lexington, KY)	Village of Port Chester, NY
City of New Orleans, LA	City of White Plains, NY
City of Duluth, MN	City of Harrisburg, PA
City of Missoula, MT	City of Houston, TX
City of Charlotte, NC	City of Lake Geneva, WI
City of Asbury Park, NJ	City of Milwaukee, WI
City of Richmond, VA	City of Wisconsin Dells, WI

It is clear that the current trend for municipalities is to opt for a multi-space meter program and the reason for that lies in the fact that cities across the country are investing in the technology of the 21st century. Since the first parking meter was installed in Oklahoma City in 1935, the way people drive; park; communicate and purchase services has changed remarkably. The multi-space meter is a reflection of that change and municipalities that want to provide cutting-edge technology, designed to make parking easier are opting for the multi-space option. There are numerous reasons that support this trend, including:

- Multi-space meters give customers more ways to pay. Multi-space meters can accept coins, bills, credit and debit cards, smart cards & cellphone payments.
- Multi-space meters are reliable & extremely vandal-resistant. In the unlikely event the machine does malfunction, an alarm is automatically sent wirelessly, which advises of the condition, downtime is minimized. In the meantime, customers can simply pay via another form of payment (coin/bill/card, etc.), or they can walk to the next multi-space meter to pay, so there is no loss of revenue.
- Multi-space meters count and report revenue as it's deposited into the machine. This means you know if any money is missing. The reports are real-time and online. An alarm is sent and a report generated advising that the door is open, a

collection is in process, how much was collected, etc.

- Multi-space pay meters provide remarkably accurate and detailed financial reports and statistics.
- Multi-space meters are environmentally friendly solar-powered, with no need to dig up streets or run power lines.
- Multi-space meters improve the streetscape there will be far fewer of them on each street since one multi-space meter can manage a full block.
- Multi-space meters maintain the following standards: PCI compliant; UL/CSA approved & ADA compliant.

Once the decision is made to implement a multi-space meter parking program, the city needs to determine which method they wish to use: pay & display (display credential on dash); a pay-by-space (space number is the credential) or pay-by-plate (license plate is the credential). SP+ recommends that the City of Birmingham adopt a pay-by-plate method.

With the pay & display method the customer is inconvenienced with the need to return to their vehicle to display the credential. This is cumbersome and can be a strain during inclement weather; for mothers with children and for the elderly and handicapped. Additionally, the enforcement for this method is restricted to visual recognition of the credential displayed.

With the pay-by-space method the customer is asked to remember their space number; which can lead to confusion. Also, all parking spaces need to be marked with a visible number. In northern climates where marking a space on the cement is not a viable option, space numbers need to be placed on some type of pole. This leads to streetscape "pollution" and is an added expense and maintenance issue.

With the pay-by-plate method customers are asked to note their license plate (most take a cell phone picture for future reference) and enter it into the pay station when paying. While this method does require a heightened level of interaction by the parking patron, the benefits clearly outweigh that concern. It allows patrons to get on their journey more quickly, not having to return to their vehicle to display their credential. Also, it allows for extending their time through a mobile app (ParkMobile) or at any pay station, eliminating the need to return to their original parking meter.

For the manager of the system, the pay-by-plate method provides a vast number of benefits and opportunities for enforcement and data collection. The enforcement system can work with wireless handheld devices and license plate-recognition camera technology (LPR) to verify compliance.

Once a license plate has been entered into the parking system, it becomes a form of identification or barcode to which vehicle activity can be tied during the enforcement process. Parking enforcement officers (PEO) drive patrol vehicles equipped with LPR cameras to scan the plates of parked vehicles at up to 50 scans per minute. Plate

information is passed to a database checking for validity of the parking session, scofflaws, etc.

Should a parking session expire, an alert in real-time is sent to the PEO, who can serve a citation on the spot or use GPS coordinates to dispatch to the nearest officer on foot. The scanned plate, like a barcode, provides instantaneous access to vehicle information independent of visual checks or keystrokes required using the old parking system.

Further, through credit card information and vehicle license plate information, it now becomes possible to provide statistical data to better monitor and manage the utilization of a parking system, as well as better serve merchants and citizens.

Finally, pay-by-plate also enables cities to easily incorporate the latest virtual permit technology and payment options, including pay-by-phone (ParkMobile), where permits and payments are also tied to the vehicle plate number and enforced through a central, real-time database instead of visually looking at a printed receipt or permit.

It will be important for the City of Birmingham to consider that the type of equipment that is selected should be adaptable to future technologies. With payment security changes related to EMV, it is unclear if a single-space meter will be able to provide what's needed to employ the technology that will be required to process credit card payments.

In conclusion, while single space meters have a long history and are still in use in many cities, multi-space meters are proving their worth and are being adopted by many large and small municipalities across the nation. One of the key reasons for this grow is that multi-space meters bring together the features and technology that provide a positive experience for the parking patron and the parking manager, while also delivering a platform that is well suited to the ever growing cloud-based technologies such as pay-by-cellphone and parking reservations.

There are many types of Multi-space meters on the market. For the purposes of this review, SP+ has obtained and enclosed information on three of the leaders in the field: Digital T2 Systems; Cale and Parkeon. The cost of these machines varies between \$7,600 - \$9,300. The City of Birmingham should expect to install one multi-space for approximately 8-10 spaces in a parallel parking environment and 15-20 spaces in an angled parking environment. Annual and monthly costs related to warranties; licensing and communication will also need to be considered and will differ from each manufacturer.

Each of these machines enjoys a level of popularity and is currently in use across the country. SP+ has a great deal of experience with Digital T2 Systems and the Luke II machine and it is our opinion that this machine out performs the others; however each of the machines quoted is reliable and time tested.

We look forward to discussing our recommendations with you and the Advisory Parking Committee in more detail. Please let us know if you have questions or concerns









City of	Birmingham	MEMORANDUM
DATE:	August 11, 2016	Engineering Dept.
TO:	Advisory Parking Committee	
FROM:	Paul T. O'Meara, City Engineer	
SUBJECT:	Traffic Control Equipment Upgrade	- Phase 2

1

After many months of study, the City and SP+ local office worked together to prepare a request for bids for new traffic control equipment at all five parking structures. The existing equipment is nearing the end of its life cycle, and has cost extra money in repairs the past few years to keep it going. The new package that was bid provided for a change in direction in the following ways:

- 1. For monthly permits, the system uses an AVI (Automatic Vehicle Identification) system. When it was installed in 2000, it was felt that this would help speed up processing of monthly permits. Drivers would simply attach an electronic card to their windshield, which is read by a reader mounted over the driving lanes. The system has been improved since then, but it is still prone to problems. The AVI system takes longer to find and read the card's signal, which makes drivers want to move the card around inside their car, which makes matters worse. Plus, the cost of operating the AVI system is significant. The new system would go back to what was used in the 1990's, which is to have the driver hold an electronic card within six inches of a laser beam reader.
- 2. To avoid the cost of cash handling, it was decided that the system would be made more efficient if all payments are electronic in nature. With new technology available, handling of credit or debit payments, as well as payments by Parkmobile was required of the new system. The new system also must offer a parking system issued debit card for those that do not want to pay by these other methods.
- 3. To avoid the cost of ticket handling, it was decided that we should see how a complete credit card in/credit card out system would work. The system goes through thousands of tickets each year, which adds up to a substantial amount of money. With the idea that society is getting less cash oriented, we thought we may be able to move in that direction.

Knowing that some of the above may prove difficult to implement with the public, the bid was issued with a request for two sets of prices in two phases. The first phase to implement would be a cashless, ticketless system at the Chester St. Structure only. This location was chosen because it has the least amount of daily traffic. It was felt that testing this system at Chester St. for about six months would be wise before a commitment is made to make all these changes at the other locations. The Phase 2 part of the bid covered the other four structures, with prices for both cashless and ticketless, as well as the traditional system offering both cash payment, and tickets for tracking.

The City Commission agreed with this approach, and awarded the recommended bidder the Phase I part of the contract at the Chester St. Structure. It took longer than anticipated, but the equipment was installed and began operating in April of this year. We are generally happy with the vendor's performance, and the quality of the equipment.

The public's reaction to the changes has been generally favorable, but a sizable majority is not happy with the changes. The biggest objection appears to be the removal of the ticket machine for tracking customers. The majority of customers arriving at the structure are anticipating a machine that provides them with a ticket. Instead, they are required to open their purse or wallet and produce a credit or debit card. There has been a lot of negative comment about this approach.

Now that we have finished Phase 1, it appears that the most frequent complaint has to do with not having tickets, and having to use a credit card number even when there is no charge. A hybrid approach is recommended. The entrance machine could be modified so that a ticket dispenser is provided. It would be provided as an option. For those that are used to using the credit card as an identifier, that could be used as well. Those regularly using the structure may find this more convenient than having to keep track of a ticket during each visit. (By making it optional, the use of tickets could be cut substantially.) The customer would still have to pay with the same payment options, so a credit/debit or Parkmobile option would have to be used if there is a charge. However, for the large number of people entering and exiting for free, they would be free of the problem of having to produce their credit card number.

Attached is the fee schedule that was received when bids were opened on this project. We paid \$195,000 for the current upgrade that is now finished at the Chester St. Structure. As shown on the attached report prepared at the time of the contract award, if the City elects to go cashless and ticketless at the remaining four structures, the cost would be \$501,000. If we offered cash and tickets in the payment, the four structures will cost \$825,000. We believe offering a hybrid for the other four structures as described above will be somewhere between these two numbers.

If the APC agrees with this approach, we will request the vendor Harvey Electronics, to provide a cost estimate to modify their bid for the remaining four structures so that we can move forward with converting the other four. A suggested resolution is provided below.

SUGGESTED RESOLUTION:

To concur with staff that offering tickets but not a cash payment option may be the preferable approach for the conversion of the remaining four parking structure traffic control equipment, and to direct staff to obtain a quote from Harvey Electronics for this work, to be reviewed at the next Advisory Parking Committee regular meeting.

City of	f B irr	ningham
		A Walkable Community

MEMORANDUM

Engineering Dept.

DATE: August 31, 2015

TO: Joseph Valentine, City Manager

FROM: Paul T. O'Meara, City Engineer

SUBJECT: Parking Structure Traffic Control Equipment Contract #15-15(PK)

As you know, the maintenance and operation of the City's five parking structures is contracted to SP+ (until recently known as Central Parking). In addition to handling staffing, maintenance, and collections, SP+ is also responsible to ensure that all of the traffic control equipment at structure entrances and exits operates properly. The following is a brief summary of the equipment operation for daily traffic in our structures:

PRIOR TO 1997:

Like other controlled parking operations, Birmingham controlled traffic by the use of relatively simple equipment such as ticket spitters and gates at the entrances, and a cashier at the exit. All payments were in cash.

<u> 1997 – 2008:</u>

In late 1996, the parking system implemented the rate structure still being used predominantly today, wherein the first two hours of a visit are free, and then the charge is \$1 per hour up to \$5. During committee discussion that led up to this change, there was an emphasis on implementing changes to make it a faster transaction for the customer. Exit verifiers were installed at all exits to allow customers to exit at any lane if they knew they had been there less than 2 hours, whether a cashier was present or not. These helped reduce wait times during exiting. Those that had to pay still had to use an attended cashier lane.

<u>2008 – 2012:</u>

With the increasing reliability and prevalence of cash payment machines, the City took the step of removing all cashiering at the Park St., Peabody St., and Chester St. Structures. The effort helped reduce labor costs substantially, as less SP+ staff had to be on hand at each parking structure. Cashiers were left at Pierce St. and N. Old Woodward Ave., as it was felt at the time that these locations would have a more difficult time being converted.

The complexity of the machines, and the value of the machines, increased significantly at this time. Payment machines built so that customers would walk up and pay before going to their car were placed in multiple locations to encourage transactions to occur before arriving to the

exit lane. However, if the customer did not pay in advance, the option of paying in the exit lane was always made available (usually with credit or debit card only – cash handling tends to slow down the operation).

2012 - PRESENT:

The transition to operating without cashiers went smoother than anticipated. In 2012, the remaining two cashier booths were taken out, and replaced with payment machines (cash, credit, or debit) under shelters in the exit lanes. These transitions went smoothly as well.

When the major transition to payment machines occurred in 2008, Birmingham was one of the first municipalities to operate a parking facility in this way in Michigan. While risks were involved, we felt that the relative sophistication of Birmingham clientele were ready for the change. Overall, the move has been a positive one, with a major savings resulting. The main drawback, as time goes on, is the reliability of the payment machines, particularly those that handle cash. The first cash machines are now over six years old, and some of them have caused ongoing problems for the operation and for customers when they are not functioning.

The machines were purchased through Traffic & Safety Control Systems, Inc., who is the sole local distributor for Amano/McGann equipment. Historically, parking operators in the Detroit area had two choices for equipment purchases and maintenance. Other than Traffic & Safety, another firm marketed and serviced Federal APD equipment. However, by the mid-2000's, Amano/McGann equipment was considered superior. It's product line was being modernized and invested in, and by this time, there was really no other choice but to work with Traffic & Safety. Having a monopoly in the local market was reflected in prices. At this time, a walk up cash payment machine cost over \$70,000 each. With its many moving parts, these machines have been particularly vulnerable to ongoing maintenance problems.

During the 2008 upgrade, most of the existing equipment (gates, ticket spitters, exit verifiers) was either left in service or modified to operate with the new equipment. These efforts helped keep costs down. However, some of the equipment in service is now over 15 years old, and is becoming unreliable. While SP+ employs a full time maintenance person that focuses on repairing and maintaining the equipment, as its complexity has increased, the need for help from the experts at Traffic & Safety has increased. In fiscal year 2013/14 approximately \$119,000 was spent in equipment maintenance. In fiscal year 2014/15, over \$98,000 was paid to just Traffic & Safety to help repair equipment or replace parts. SP+ started talking with our office about the need for a complete system overhaul. The benefits of an overhaul at this time come from a few different angles:

- 1. Now that the local recession is over, other international firms have taken an interest in the Detroit market. While Amano/McGann equipment has been modernized recently, other equipment manufacturers are also now able to market and maintain their equipment in this area. Not only does this give Birmingham the opportunity to select other products, but it introduces true competition that was not there in the past, resulting in potentially major savings.
- 2. As with most things involving electronics, capabilities and choices are providing new and exciting features that were not available in the past. Customers can now set up accounts in Parkmobile, Google Wallet, and Apple Pay. These choices and features lead

us to believe that it may be time to eliminate cash from the system, as discussed further below.

INFORMAL BID

Acknowledging the ongoing maintenance problems with our current equipment, I directed SP+ to learn more about the current market, both what could be purchased, and what the costs would be. They felt that the only serious vendors that could compete in this market would be Amano/McGann, marketed and serviced by our traditional vendor Traffic & Safety, and Skidata, marketed and serviced by a relatively new company called Harvey Electronics.

- Amano/McGann has within the last year introduced a new and improved line of parking control equipment. It offers several new features that were not available in the past. The Opus System from Amano McGann is currently being rolled out nationwide. However, very few locations are fully utilizing the new product. Because it is so new, the current lack of installations has not allowed SP+ to properly gauge the new features offered by the new equipment line.
- 2. Skidata, while new to the Detroit market, has been manufactured and installed in thousands of locations worldwide. In the United States, they have focused more on the larger markets of Los Angeles, Chicago, and New York. Now that they are established, they are moving into new areas such as Detroit.

SP+ put together a list of needs for both firms, and asked for proposals. Results were submitted, and reviewed with the Advisory Parking Committee (APC) in May. The report put together for the APC at that time is attached. While the Skidata package was higher priced, SP+ noted that installing a system at Chester St. that did not offer a cash payment option would make the cost differential minor. Labor and long term maintenance costs would also be reduced if a cashless option was implemented. After reviewing the issue, the APC recommended that the Chester St. Structure be upgraded to new Skidata cashless equipment first, as a pilot, before proceeding with ordering equipment elsewhere.

While we were preparing to move this idea forward to the City Commission, Traffic & Safety heard that we were preparing to purchase equipment from their competitor. They then submitted a revised quote where prices were cut further, and an unheard of five year warranty would be offered. At this point, the informal nature of these discussions became a concern for our office. Rather than proceeding, I asked SP+ to go back and prepare a formal bid package that both lists everything that is really needed for the system, to ensure that all vendors (including anyone else that may be interested) would be pricing the same level of equipment. That is, the amount of money involved in this demanded that a fair open bid process be run so that a true cost comparison can be obtained.

With assistance from our office, SP+ put together a bid package known as Contract #15-15(PK).

After reviewing the issue with the APC, staff was confident that running a cashless pilot at the Chester St. Structure is the direction that the City should go. Bidders were asked to give a price to install a cashless system at Chester St. soon after award (again as a pilot). A six month testing period would then be run to see how the new equipment works. (Chester St. was

selected as the pilot because the number of daily transactions is lower, and if there are problems with customers needing help, office staff is located at the entrance and exit area.) Bidders were then asked to provide a price for two options, to be installed about six months later. The two options would be to install a cash system at the remaining four structures, or a cashless system at the remaining four structures. Labor costs during the five years after installation was also to be calculated as a part of the bid.

Bids were due on August 14. Bid results are attached. Based on price, Amano/McGann is the lowest total cost for both options. If the City decides to go with cash payments in the remaining four structures, the Amano/McGann price difference is significant. However, if no cash payments are accepted system wide, the price difference between the three becomes smaller.

Staff feels that operating the system without cash is the direction the City should proceed. We feel confident that most customers have some form of electronic payment option available when they visit Birmingham. For those few that do not, the system will be able to offer a prepaid debit card of its own for those that visit regularly. The Advisory Parking Committee also endorsed this approach. However, should the public reaction at Chester St. be too negative, the City will have the option to install cash machines at some or all of the other structures. Not offering cash not only reduces equipment purchase costs, it results in the following other operational benefits:

- 1. Labor: Several hours per day are used each day today collecting and handling cash from various points within the system. It is estimated that \$36,000.00 in labor costs can be saved each year.
- 2. Tickets: The parking system issues 1.3 million tickets to customers each year. Current equipment uses mag-stripe tickets that result in costs in the area of \$15,260.00 to stock every ticket spitter. Newer generation cash machines will issue bar coded tickets, but the special paper that they must be printed on also results in similar costs. When no cash option is provided, tickets are no longer necessary. Customers are identified upon entry, inserting their card or displaying their mobile payment device. They are asked to display the same payment method upon exit, so no other form of parker identification is required.
- 3. By removing both ticket handling and cash handling from the system, the complexity of the payment machines is significantly reduced. By simplifying the machines, it is expected that maintenance costs will drop and reliability will go up. (Many of the reliability problems currently being contended with have to do with moving parts.)

Finally, it is important to note that about 67% of all current paying customers (measured as amount of dollars collected) are selecting a credit/debit payment option over cash. This number is increasing each year. Once these other new payment options become available, we expect that cash would become even less desired (if we continued to offer a cash payment option).

Once the decision to move to a cashless platform is made, the cost difference between the three companies is relatively minor. Equipment features and long term reliability must be considered. SP+ has assembled several reasons why they feel that Skidata is the best choice (attached). While the Amano/McGann equipment also has several positive elements, it is new

to the market, and has not been time tested in the field. Finally, Tiba equipment is not as robust as Skidata. It is sold primarily in Israel (where it is made), and the United States. While it could meet our needs, it does not have its own barrier gates, nor the additional features (building access, digital videos), sophisticated look, and track record of the Skidata equipment, and is about the same cost as Skidata, it is not being recommended.

At the time the current budget request was prepared (nine months ago), we envisioned slowly transitioning the system to new equipment, focusing on one parking structure each year for five years. The budget requested \$250,000 each year for five years, starting in 2015-16. After learning more about what would make the most sense, and the importance of operating a central updated system that works cohesively at all five structures, we now know that it is important that we proceed with a more timely conversion. At this time, an equipment replacement overhaul at the Chester St. Structure is recommended, using the Skidata equipment, at a price of \$195,000. Funds for this work is budgeted. Once the equipment is installed and operating, the test period will begin to see how the new system works. We plan to summarize the findings of the test period in about six months with both the Advisory Parking Committee and the City Commission. At that time, a recommendation to purchase equipment at the remaining four parking structures will be forwarded.

SUGGESTED RESOLUTION:

To accept the recommendation of the Advisory Parking Committee to purchase new traffic control equipment at the Chester St. Parking Structure without cash payment being available, and to award Contract #15-15(PK), Parking Structure Traffic Control Equipment, to Skidata, approving the purchase of cashless payment equipment for the Chester Street Parking Structure in the amount of \$195,000, charged to account #585-538.001-971.0100 (phase 1 of the contract). And further, to ask the Advisory Parking Committee to review the cashless system and return to the City Commission with a recommendation on whether to continue with the cashless system at the remaining parking structures, prior to awarding the remaining phase 2 of the contract.

City of Bi	rmingham Contract a	#15-15(pk) PARCS	s comparison
Cash Option	Amano McGann	Ski Data	Tiba
Chester	\$151,662.00	\$195,000.00	\$193,520.00
Pierce	\$201,118.00	\$271,000.00	\$218,800.00
Park	\$145,046.00	\$200,000.00	\$223,110.00
Peabody	\$126,257.00	\$206,000.00	\$181,920.00
N. Old Woodward	\$96,612.00	\$148,000.00	\$132,495.00
Subtotal	\$720,695.00	\$1,020,000.00	\$949,845.00
Cashless Option	Amano McGann	Ski Data	Tiba
Chester	\$151,662.00	\$195,000.00	\$193,520.00
Pierce	\$169,080.00	\$162,000.00	\$152,760.00
Park	\$129,772.00	\$119,000.00	\$112,760.00
Peabody	\$110,984.00	\$125,000.00	\$106,150.00
N. Old Woodward	\$82,632.00	\$95,000.00	\$108,375.00
Subtotal	\$644,130.00	\$696,000.00	\$673,565.00
Labor	Amano McGann	Ski Data	Tiba
Years 1-2	\$23,400.00	\$23,400.00	Under Warranty
Years 3-5	\$23,400.00	\$23,400.00	\$147,000.00
5 year cost cash (est.)	\$105,300.00	\$1,130,550.00	\$1,096,845.00
5 year cost credit (est.)	\$772,830.00	\$806,550.00	\$1,030,043.00



To: Paul O'Meara City Engineer

From: Joshua Gunn, Jay O'Dell SP+

Date: August 27, 2015

RE: PARCS Recommendation

SP+ is recommending SKIDATA equipment for the new Parking Access Revenue Control Systems. SKIDATA is tried and true in over 100 different countries and have just completed their 10,000th install. Their equipment is installed at many large parking facilities in the United States including Dallas Fort Worth International Airport, the 4th largest airport in the United States. SP+ manages multiple locations using SKIDATA PARCS and can attest to its ease of use and dependability. The following is a summary of the advantages we feel make the extra expense worth the investment, followed by more detailed explanations on pages 2 and 3.

Competitive advantages

- I. Aluminum housings will not rust as our current equipment started to after just 2 years.
- II. Centralized operating system contained on one server making it easier to respond to alerts and manage/monitor all structures.
- III. Balancing peak demand During high ingress/egress all the equipment will help process monthly passes, ticket pulls, payments, gate openings and closings instead of relying fully on the processing power of our main server.
- IV. Alerts Gates breaking, tickets getting low/running out, ticket or credit card jam, reader offline/not functioning - All these issues will alert our staff via an escalating text message and an alert on our operating system.
- V. Upgrades SKIDATA offers many products in their line not limited to but including building entry, License Plate Recognition, storage lockers accessed via cell phones with delivery capabilities.
- VI. Compatible All 3rd party vendors designed specifically to integrate with SKIDATA equipment. Integrates with Parkmobile, Google Wallet, Apple Pay.
- VII. Rechargeable cards For cashless locations people can purchase a rechargeable access card. It can be recharged at any SKIDATA pay machine, and our office.
- VIII. Advertise on tickets and the screens of the pay stations can play short clips great for Day on the Town, Birmingham Ice Show, Village Fair, Holiday Tree Lighting, or sell/loan the air time to local businesses.



Expanded Competitive advantages

II. Centralized operating system

The centralized operating system we currently have is housed on 4 separate servers. To access information we may have to toggle between 3 of the 4 servers to help a single customer.

SKIDATA offers a duel server operating system that contains all operating information on one server while processing credit cards on a dedicated server to maintain PCI compliance. This will allow better, faster service to individuals experiencing problems at the entrance or exit.

III. Balancing peak demand

We currently experience high ingress around 9:00 AM and high egress around 5:00 PM. This high amount of traffic at one time taxes our current operating system which delays gate openings, and payment processing.

SKIDATA equipment works in tandem to balance the work load to all machines. Essentially every unit is an individual computer and the system will use the processing power of every pay station, entry, and exit unit so there is minimal delay during peak times. This will improve entry and exit times, lessen complaints, and provide a better overall parking experience.

IV. Alerts

As described above, there are several problems that can occur that require quick attention by our staff, such as a broken gate. Ticket jams are the most common. Our current alert system is located on one of four servers and must be visually seen by someone in the office if they happen to be on that particular server.

The new alert system will have the ability to send out a text message to our lead maintenance person. After a given amount of time it will escalate to the supervisor if the issue is not corrected. The system will also send an alert that the problem has been fixed and document how much time elapsed to remedy said alarm. The alarms issued include a broken gate, ticket jam, low tickets, out of tickets, ticket jam, motor failure on ticket acceptor, monitor failure, credit acceptor failure,



and door alarms. There are sensors on most pieces of the equipment that can fail which will alert the appropriate people when an error occurs.

<u>V. Upgrades</u> – There are numerous upgrades that SKIDATA can offer. The company started out as a ski lift operating software company which transitioned into building access equipment, large venue crowd control (stadiums/airports), and parking equipment. Features that could be explored in the future would include interconnecting a bike storage room with controlled access to the public, or even rented storage lockers for those wishing to use this feature.

VI. Compatible

SKIDATA is partnered with or makes all the components inside of their equipment as well as their software. To improve interactions with the public when they need help at gates, we specified the Commend intercom system. Commend is tailor made to SKIDATA and comes standard, unlike competitors. Diester Electronic is UHF (monthly card reader) which you will find in SKIDATA equipment. Parkmobile has been a huge success here in Birmingham; customers will now be able to use it to enter the garages as well as the meters. Google Wallet and Apple Pay use near field technology through mobile devices instead of customers pulling tickets.

VII. Rechargeable Cards

These cards will look and act like a monthly pass. It will act in lieu of a ticket upon entering the garage and debit the charge when the customer leaves the garage. Customers/business owners can pre-load these cards with \$10, \$50, \$100 etc. and use it for entry and exit. Many of the large businesses who buy validations may find this attractive. They wouldn't have to daily hand out passes to employees or frequent guests. It may also be an option for those who frequent the downtown area. Customers will be able to recharge their "debit cards" at our office, or any pay station, and possibly online.

VIII Advertisements

The touch screen monitor will allow small videos to be played. This can be helpful to convey events happening downtown, important announcements, etc. We will have the capabilities to limit what time the video is allowed to play so it doesn't interfere with high traffic times. We can also control when the video plays and which machines will play said videos.



Power.Gate

The universal multi-talent among parking columns offers comprehensive possibilities for the ticketing sector with the most modern and diverse ticket technology. Expand your business models; become part of urban solutions.

Power.Gate will support you at its best!

Your Business Card

High-Quality Design

High-class materials and glowing features blend elegantly into all types of architecture.

• Make a Lasting Impression Expert-optimized operational guidance for look and sound provide positive user experiences.

Optimize Your Investment

• Suitable for Every Budget

A customized solution for every application.

• **Protect Your Investment** Future-proof due to flexible options for expansions and installations.

• Save Money on Your Expenditures Smooth investment expansion and renewals thanks to the random miscibility of SKIDATA parking columns.

Save Money and Protect the Environment

Minimize Your Power Usage

Situational energy saving modes and no heating above $-20\ ^{\circ}\text{C}$ (–4 $^{\circ}\text{F})$ stand for a high energy effeiciency.

- Recyclable Materials
- Ressource-efficient due to a high degree of reusability.



Marketing Terminal with Ticketing

• Comprehensive Advertising Opportunities Get your equipment financed.

• Professional Image

A back-glowing, bright and high-resolution display effectively draws attention to logos, images and promo videos.

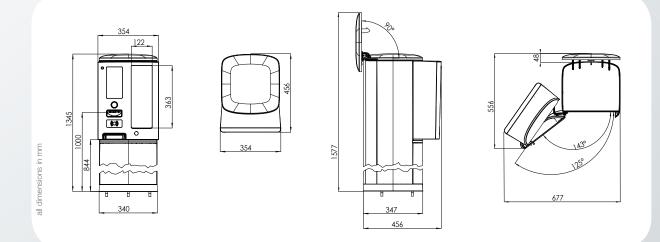
Efficiency Increase with Quality

Optimized Service Planning

Great capacities and intelligent systems reduce your service efforts.

Elaborated Technology

Touch-free RFID and barcode technology guarantee the highest level of reliability and low follow-up costs.



Features

Design/Construction

- Unique design based on aluminum and high-grade synthetics, complemented by optional, stylish light elements
- Modular, easy to maintain construction . Flexible extension options ensure •
- maximum investment protection Weather-proof, thanks to use of durable high-
- grade materials, such as aluminum
 - Ethernet interface for efficient system integration
- Large installation space for add-on modules (e.g., PIN pad, credit card reader, etc.)

Operation

.

Intuitive user interaction helps to ensure very high processing rates

Green Efficiency

- Optimised for low power consumption; no heating required down to -20 °C (-4 °F)
- Materials provide high degree of re-usability •

Options

Design/Construction

- LED light bar serves as a stylish, illuminated eye-catcher
- Available in custom colors

Ticket Processing

- Coder Unlimited ensures flexible ticket processing
- Coder Basic enables cross-wise bar code ticket processing and punch-hole validation

- RFID module for reading and encoding 13 MHz Keycards
- Double ticket intake (up to 2×7000 tickets) with automatic data carrier management
- Large ticket collecting box (holds approx. 3000 tickets)
- Ticket separation ensures smooth, highly reliable ticket processing

Communication

- Analog intercom
- Integrated digital intercom (Ethernet)
- Display
- Bright high-resolution graphics display ensures good readability under any light conditions; supports clear, vivid display of commercials and videos (with automatic brightness adjustment); 800 × 480 pixels
- Outdoor capable touch screen for additional Parking Column control functions (can be operated while wearing protective gloves)
- Sophisticated display modes support various applications and design options
- Illuminated control elements
- Visual and acoustic feedback provides additional user support

Accessories

- Locking system with mechanical or electronic locks, supports configurable access permissions
- Various contact and interface extensions to suit a wide range of requirements
- Heater for extremely low ambient temperatures

Technical Specifications	
Dimensions	354 mm × 1345 mm × 456 mm (B × H × T)
Weight	30 kg (without adapter base)
Operating voltage	100-240 V ±10 % / 50-60 Hz
Coding units	Coder Unlimited or Coder Basic
Operating temperature	–20 °C (–4 °F) to + 50 °C (122 °F) under sun exposure
Operating temperature with additional heater	–30 °C (–22 °F) to +50 °C (122 °F) under sun exposure (mandatory with Coder)
Operating temperature with additional heater big	–40 °C (–40 °F) to +50 °C (122 °F) under sun exposure
Max. ambient humidity	90 % (non-condensing)
Support stand color	Brushed, anodized aluminum
Cover color	RAL 7037 Dusty Grey (varnished plastic)
Pedestal base color	RAL 7043 Traffic Grey (powder-coated aluminum die cast)
Panel color	RAL 7021 Black Grey (varnished plastic)
Declarations / Certifications	CE, FCC, IC, _c NRTL _{us}
Degree of protection based on IEC 60529	IP43

SKIDATA AG • Untersbergstraße 40 • A-5083 Grödig/Salzburg [t] +43 6246 888-0 • [f] +43 6246 888-7 • [e] info@skidata.com [w] www.skidata.com • Version 1.1 • 19.02.2014

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Credit.Cash

The **cashless** option among SKIDATA pay-on-foot machines provides full cashless payment support **for your customers** – **it's easy, quick and secure**. Credit.Cash lets you present your business with a **modern design** while benefitting from **highly reliable technology** and **low maintenance costs**.

Credit.Cash – Your benefits

- Cashless payment Patrons can pay conveniently by credit card – no need for complicated cash management.
- Smart looks Present your business in a modern design based on your company colors.
- Safe investment Maximizing benefits at minimum risk.

Your business card

- **Demonstrating presence** Credit.Cash's modern design matches both contemporary and traditional architecture while giving your business proper exposure.
- Individual style Accentuate your unique corporate presence with your logo and company colors.

Eliminating risks

- Intelligent key management Operator.Services 'Webkey' brings full transparency to your key management.
- Refined technology Internationally proven technology guarantees high reliability and availability.
- No initial cash required Easily cut costs and risks.

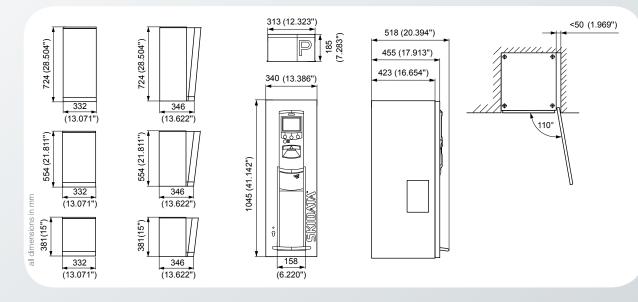
Utilizing potential

- Modern ticketing
 Take advantage of Print@Home, RFID, magstripe and
 barcode technologies.
 Dispaced arouth
- Planned growth
 Easy-to-install extension options support new
 business models and numerous co-operation
 options.

Paying cashless

- Cashless payment made easy, fast and secure No need to handle cash – and accounting gets easier, too!
- Make the cost efficiency work for you! Increase your presence through several cost-efficient pay-on-foot machines





Features

Design/Structure

- Compact, modern design
- Basic unit powder coated steel enclosure and design elements made from polycarbonate
- Expansion bays for add-on components, such as pin pad, credit card terminal, and fiscal printer
- Analog intercom station, alarm function, call button and 3 soft keys, buffer memory (ensures proper transaction management in case of power failure)
- Heater, cooling fan, and power supply
- Issuing of up to 3000 receipts
- Control unit, complete with hard disk

Operation

- TFT 14.5 cm (5.7") color display, break-proof monitor screen
- Ergonomically arranged user interaction controls
- User guidance with graphic color display and illuminated pictograms
- Users can switch on-screen language at any time
- Extremely easy to operate by staff

Options

Design/Structure

- Illumination attachment (integrated "Parking" sign, space for custom logo or other symbols)
- Pedestal (optionally with or without front door panel)
- Pedestal "elevated" (optionally with or without front door panel)
- Wall-mount console
- Coder/ticket technology
- Coder Unlimited (supported data carrier formats depend on modules selected)
- Coder Basic (for cross-wise barcode and validation via hole punch)
- RFID Module (for reading and writing/coding of keycards)
- Print@Home Scanner

Technical Specification	ons
Dimensions	340 mm x 1045 mm x 455 mm / 13.39" x 41.14" x 17.91" (w x h x d) – without pedestal
Height with Pedestal "elevated"	1769 mm / 69.65"
Power supply	230 V AC / 50 Hz; 120 V AC / 60 Hz
Power consumption	600 W (with heater on)
Temperature range during operation	–25 °C to +50 °C (–13 °F to +122 °F) ambient temperature; unit not directly exposed to sunlight
Color of enclosure and illumination attachment	RAL 9007 (gray aluminum)
Color of plastic front-panel elements	RAL 7043 (traffic gray B)
Color of front panel	RAL 9007 (gray aluminum), RAL 7021 (black-gray)
Color of pedestal	RAL 7021 (black-gray)
Ticket slot	Pantone 114 U (yellow)
Supported data carrier formats	SKIDATA barcoded, magstripe, keycard ISO/ISO RFID
Declarations / Certifications	CE, $_{\rm c}{\rm UL}_{\rm us}$ (only 120 V-option), FCC, ADA (in combination with pedestal APM STD BASE item code: 946010700)

SKIDATA, Inc. • One Harvard Way, Suite 5, Hillsborough • NJ 08844

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City of T	Birmingham	MEMORANDUM
DATE:	August 11, 2016	Engineering Dept.
TO:	Advisory Parking Committee	
FROM:	Paul T. O'Meara, City Engineer	
SUBJECT:	Valet Assist Options – Phase 2	

PARKING LOT #6

After the last meeting, SP+ Parking reviewed the feasibility of operating a valet assist program at Parking Lot #6. The goal would be to take control of all traffic in the lot so that cars can be parked in aisles as well as parking spaces. Unfortunately, the lot serves as a vehicle access to several adjacent businesses, as private alleys and/or parking areas extend off the lot at both its north and south ends. Further, there are several trash dumpsters stored in the lot, serviced by different trash hauling companies. Assuming that these dumpsters in the aggregate are serviced several if not all business days, an aisle would have to be left open for trash pickup as well.

Leaving access aisles to all these various areas means that the total amount of extra cars that could be parked is estimated at 15. It is not practical to incur such an expense, as well as disrupt the normal use of the lot, for such little gain. Staff does not recommend proceeding with a recommendation here.

PARK ST. STRUCTURE

At the last meeting of the Advisory Parking Committee (APC), it was noted that the valet assist option has worked well on the roof of the N. Old Woodward Ave. Parking Structure. With demand remaining strong at both N. Old Woodward Ave. and Park St., there is a desire to consider supplying this service to Park St. as well.

As discussed last month, the second best option for operating a valet service is the roof level of the Pierce St. Structure. However, the demand is not as strong at that structure. Attempting to move people there through artificial means creates other problems, and cannot be done without costing the system an undetermined amount of money. Rather than moving in that direction, we asked SP+ to look closer at their estimate for the Park St. Structure, and determine if the valet hours could be reduced to help reduce their initial cost estimate of about \$180,000.

Based on the demand that has been seen over the past several months, SP+ is estimating that a five day per week operation is needed for the 7 busiest months of the year, while a three day per week schedule could be followed the rest of the year. The estimated costs are detailed in the attached letter from SP+. The modified work schedule brings the cost down to about \$120,000 per year, which is more manageable. Having a valet operation here would provide space for about 50 more vehicles (similar to the rooftop at N. Old Woodward Ave.).

The valet assist at the N. Old Woodward Ave. rooftop location is estimated to cost about \$52,000. We believe this actual number will go down, as we are currently operating at a 3 day per week schedule as the demand is lower this time of year, which was not initially contemplated. The higher cost at Park St., you may recall, is the result of the reduced lane widths on the outside wings of the building. More control of the roof is required to make this work, meaning that the staff has to work earlier in the morning, and wait longer into the afternoon to service all drivers as they leave for the day. An additional driver is suggested as well to handle the additional traffic.

City-wide, demand has dropped significantly during the vacation months of July and August. However, we assume it will go up again in early September. With that in mind, it is suggested that the rooftop valet assist option for the Park St. Structure be implemented as amended at an estimated cost of \$120,000 per year. Similar to the current operation, demand will be watched, and hours will be cut if the demand does not warrant their use. A suggested recommendation follows for the Park St. Structure.

SUGGESTED RECOMMENDATION:

Due to high demand experienced at the Park St. Structure, the Advisory Parking Committee recommends that the City Commission authorize SP+ Parking to operate a rooftop valet assist program at the Park St. Parking Structure at an estimated cost of \$120,000 per year.



August 10, 2016

Paul O'Meara City Engineer City of Birmingham 151 Martin Street Birmingham, MI 48009

RE: Park Street Structure Valet Assist

Dear Paul,

After reviewing the usage for the Park Street Structure from the previous months, I have estimated the expenses below that would take to operate the <u>entire</u> roof of the garage with a valet assist program. As a reminder using the entire roof would gain an **additional 50 spaces** for the garage.

Based on my review, we could operate the entire roof for approximately 5 of the slowest months at 3 days a week. The operation would run Tuesday-Thursday 9am-6pm, staffing three valet drivers.

For the remaining 7 months we would operate 5 days a week. The operation would run Monday-Friday 9am-6pm, staffing three valet drivers.

Park Street Structure Tuesday-Thursday 9a-6pm (5 months) Payroll: \$26,010.72 Operating Expenses: \$11,325.00 Total Estimated Costs: \$37,335.72

Park Street Structure Monday-Friday 9a-6pm (7 months) Payroll: \$60,691.68 Operating Expenses: \$22,650.00 Total Estimated Costs: \$83,341.68

Park Street Structure Annual Expenses Payroll: \$86,021.44 Operating Expenses: \$33,975.00 Total Estimated Costs: \$119,996.44

Please let me know if you have any questions.

Sarah Burton Senior Facility Manager



180 Chester Street Birmingham, MI 48009

p. 248-540-9690 f. 248-647-1682 www.spplus.com



INNOVATION IN OPERATION"

N. Old Woodward Garage

Valet Counts

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Malaka kasad	2
					Valet closed	
3	4	5	6	7	8	9
5	Valet closed	Garage not filled.	Garage not filled.	Garage not filled.	Garage not filled.	J
10	11	12	13	14	15	16
	Garage not filled.					
17	18	19	20	21	22	23
	Garage not filled.	7 cars	10 cars	Garage not filled.	Valet closed	
24	25	26	27	28	29	30
	Valet closed	Garage not filled.	Garage not filled.	Garage not filled.	Valet closed	
31		Notes:				

N. Old Woodward Garage

Valet Counts

AUGUST 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
	Valet closed	Garage not filled.	Garage not filled.	Garage not filled.	Valet closed	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
		Notes:		1		

+ integrity + technology + innovation + initiative + knowledge + creativity



Analysis for Proposed Valet Parking Services and Valet Assisted Parking Services

City of Birmingham Parking Facilities Birmingham, Michigan



Submitted to:

Paul O'Meara City Engineer



April 13, 2016

INNOVATION IN OPERATION®



April 13, 2016

180 Chester Street Birmingham, MI 48009

p. 248-540-9690 f. 248-647-1682 www.spplus.com



Mr. Paul O'Meara City Engineer 151 Martin Street Birmingham, Michigan 48009

Dear Paul:

As requested, **SP+** has investigated the possibility of utilizing valet services at the various City parking structures. We feel there are several viable options available to provide this service. These options include a mix of valet assist and full valet service in certain areas of several structures. Detailed below you will see our findings and estimates on the cost of each option. **SP+** will provide any of these options at cost as part of our current management agreement at the City's request.

Please note that the only structure we do not recommend implementing valet service in any capacity, is the Peabody structure. Due to the layout of this structure, not enough spaces will be gained to justify the additional expenses required by a valet operation.

+ Option 1: N. Old Woodward Structure

The N. Old Woodward structure is currently filling almost daily. With its two way lanes and design, it is an ideal candidate for valet assist. We recommend using a team of two attendants to implement valet assist as a beta test for public acceptance of the program. The attendants will begin stacking vehicles on the roof when the structure is filled by self-parkers. We anticipate that with this method an **additional 50 vehicles** can be parked during peak hours, between 9:00 am and 2:00 pm.

Annual Expenses

Payroll	\$40,695
Operating Expenses	\$11,325
Estimated Total Costs	\$52,020

+ Option 2: Pierce Street Structure

If the beta test at N. Old Woodward is a success, the Pierce Street structure should be the next structure considered for a valet assist operation. However, the structure currently has 50 or more empty spaces on most weekdays. It typically will only fill when an event is taking place at the Townsend Hotel or during large City events such as art fairs or Dream Cruise. The open spaces must be filled in order to utilize a valet assist in a manner that will gain parking spaces

for the City on a consistent basis. Additional monthly parkers should be brought in from the waiting list to fill the empty spaces and increase average weekday occupancy.

We recommend using a team of three attendants to provide a valet assist. Attendants will begin stacking vehicles on the roof when the structure is filled by self-parkers. We anticipate that with this method an **additional 75 vehicles** can be parked during peak hours, between 9:00am and 2:00 am.

Annual Expenses

Payroll	\$61,042
Operating Expenses	<u>\$16,488</u>
Estimated Total Costs	\$77,530.

+ Option 3: Chester Street Structure

Much like the Pierce Street structure, the size and wide drive lanes make the Chester Street structure a good option for valet assist. We anticipate an **additional 75 vehicles** can be parked during peak hours in this structure with a three man valet team. Also similar to Pierce Street, there are often 20-30 spaces available each day in this structure that should be filled from the waiting list for the program to be effective.

Annual Expenses

Payroll	\$61,042
Operating Expenses	\$16,488
Estimated Total Costs	\$77,530

+ Option 4: N. Old Woodward Surface Lot

The surface lot at N. Old Woodward gives us a prime opportunity for a full valet operation. We anticipate that an <u>additional 133 spaces</u> can be created by "stacking" vehicles on the surface lot, using a four attendant team. This will leave only the small section on the south part of the lot and the 30 minute spaces behind the church available for self-parkers. A full valet operation will also require longer hours, at this time we believe 8:00 am to 6:00 pm to be sufficient.

Annual Expenses

Payroll	\$130,482
Operating Expenses	\$51,132
Estimated Total Costs	\$181,614

+ Option 5: Park Street Structure

Our last option is to implement a full valet operation at the Park Street structure. This is not as desirable as the other options due to the layout of the roof. The outside lanes around the structure allow for only one lane of traffic so we would have to utilize the center area of the roof

to gain additional spaces. In order to do this properly, we would need to restrict roof access to valet vehicles only. By making the roof valet only, we would have to staff the operation for the full business day of 9:00 am to 6:00 pm. The expanded hours make the **additional 50 spaces** we could gain the most expensive option when considering the cost per space.

Annual Expenses

Payroll	\$130,482
Operating Expenses	<u>\$51,132</u>
Estimated Total Costs	\$181,614

It should also be noted that there will be some startup costs involved for each of these options. These costs will include \$500 for signage and \$500 for a valet podium for each location that the City chooses to implement a valet service.

Attached you will find a pro forma expense sheet for each option. Please keep in mind that these are estimates and the final costs will vary based on hours of operation, volume and public acceptance of each program.

Due to the fact that it is difficult to know how implementing a valet assist or full valet option in the City parking structures will be received by the public, **SP+** recommends that the valet options be introduced in an analytical manner. Once the beta test at N. Old Woodward is fully functioning, we will have a better understanding of whether this parking option will be embraced by the public and a better idea of the amount of true capacity that can be added to the parking system. At that point, we can analyze the data and information and plan our next steps.

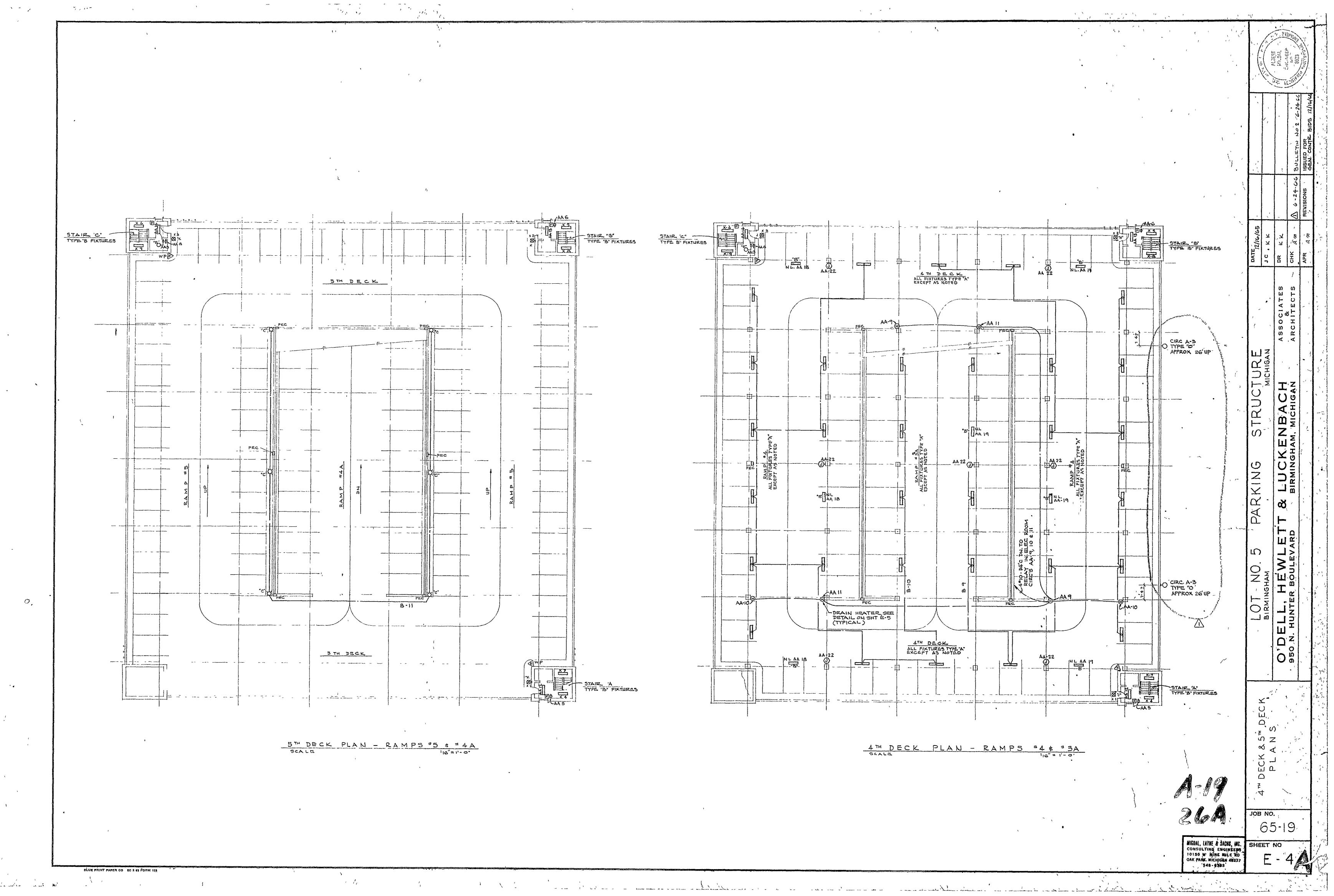
Please feel free to reach out to us if you have any questions. We will also be happy to meet with you to discuss all of these options in greater detail.

Sincerely,

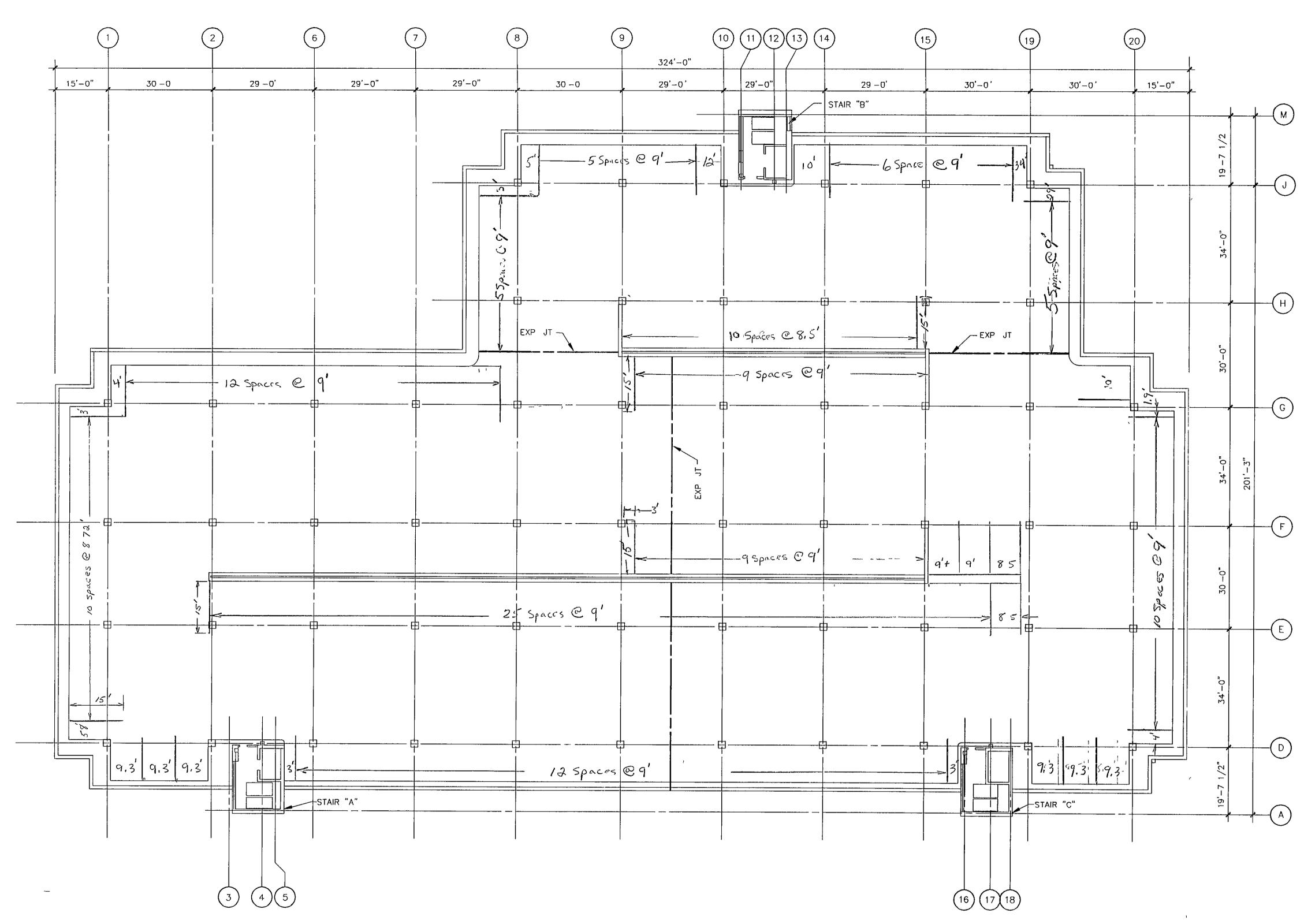
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Jay O'Dell Senior Manager

Enclosures



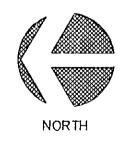
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FIFTH SUPPORTED TIER PLAN - PIERCE STREET SCALE 1/16'' = 1'-0''

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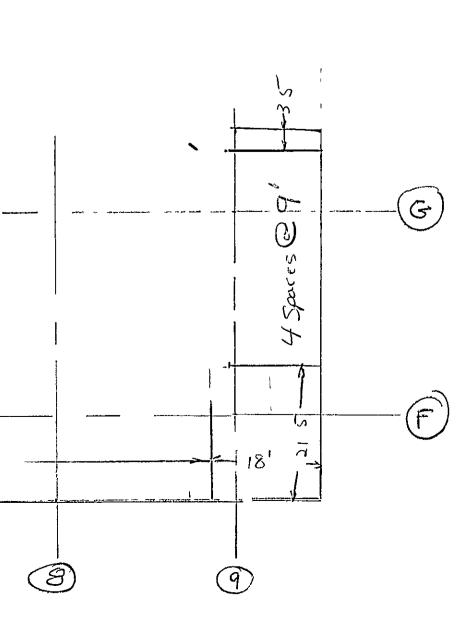


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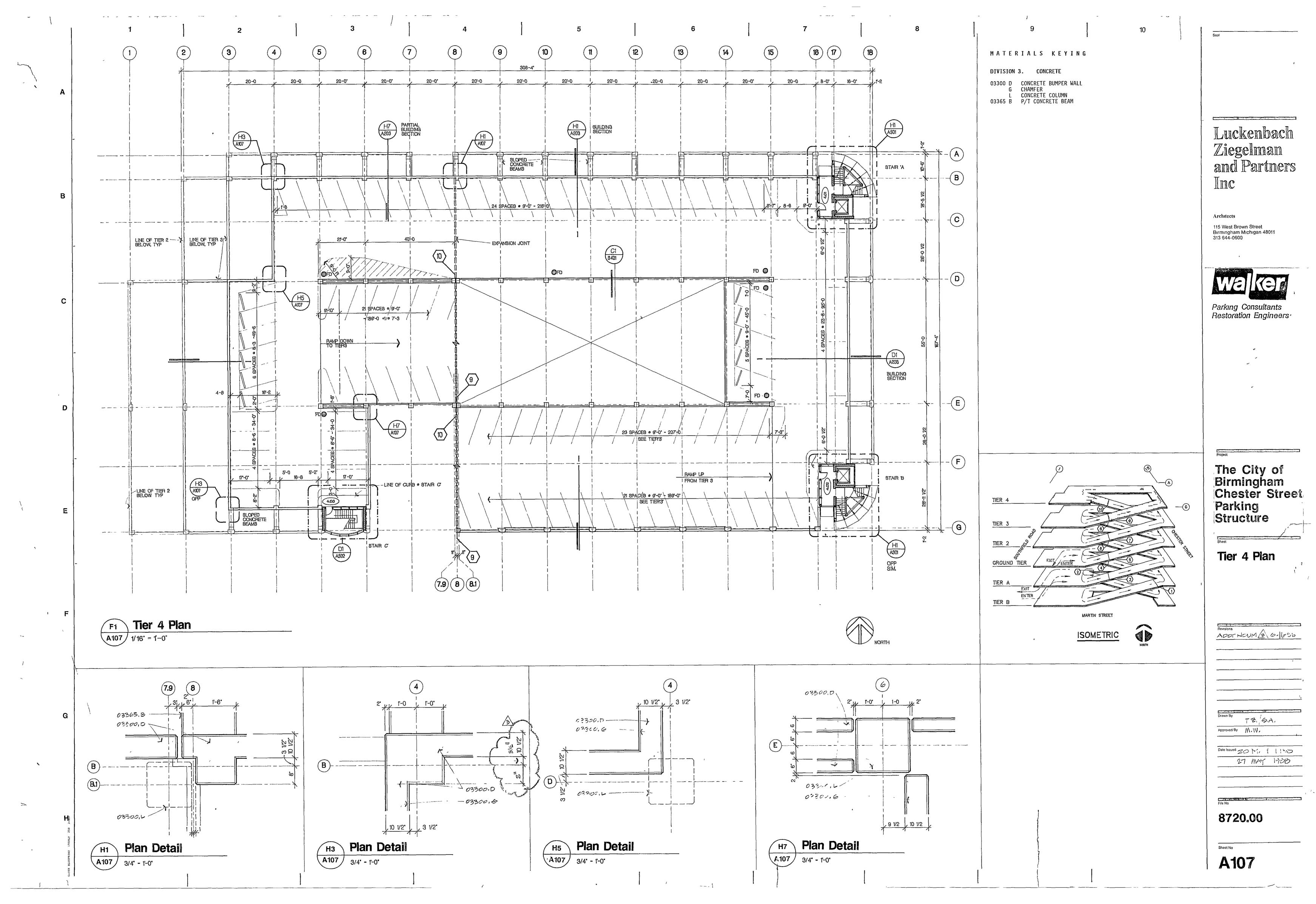
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REVISION / RELEASE	FOR OWNER S USE		
MARK DATE	05-28-92		
SHEET THIRD SUPPORTED TIER PLAN - PIERCE STREET	CITY OF BIRMINGHAM	PARKING STRUCTURES	BIRMINGHAM, MICHIGAN
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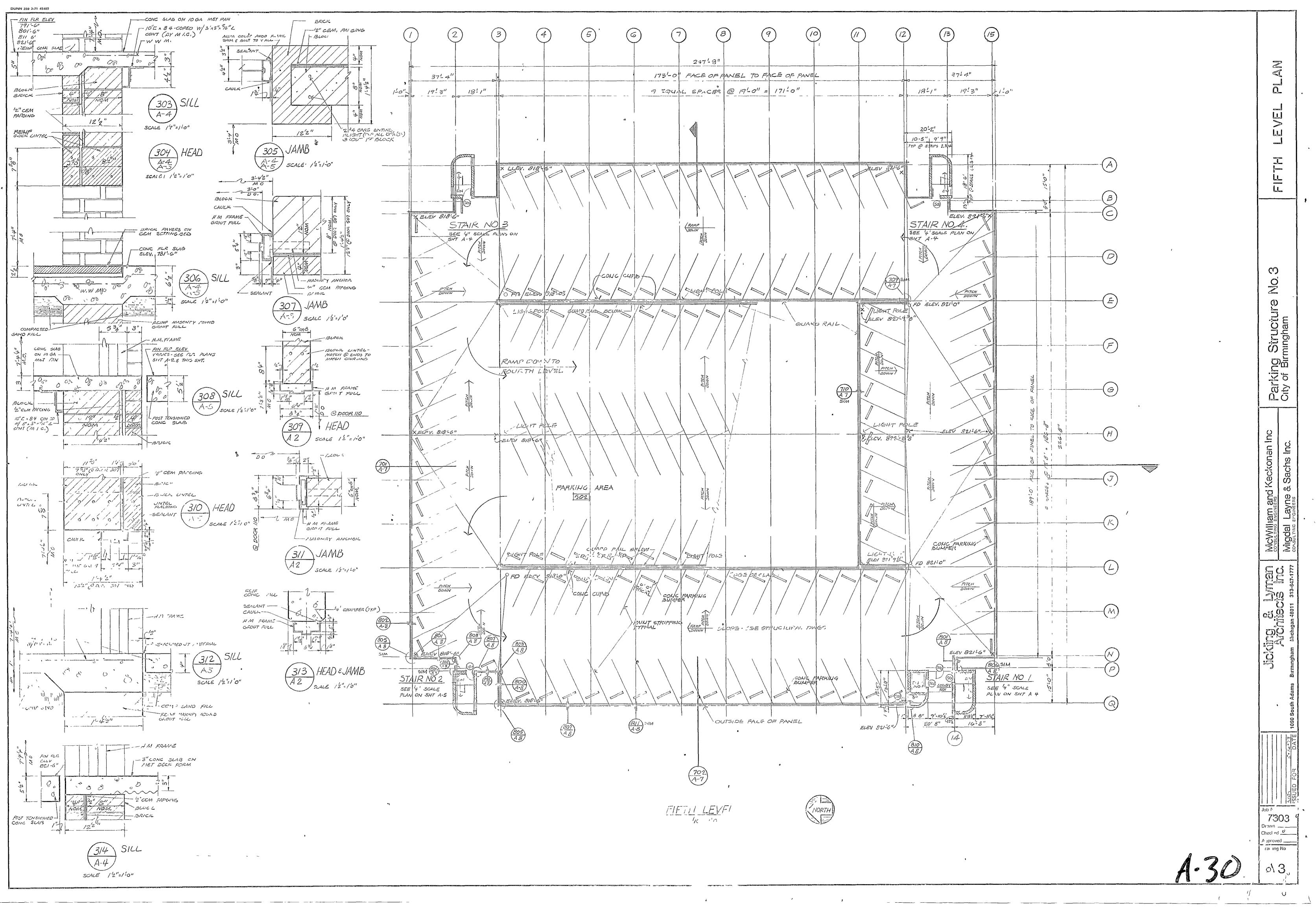
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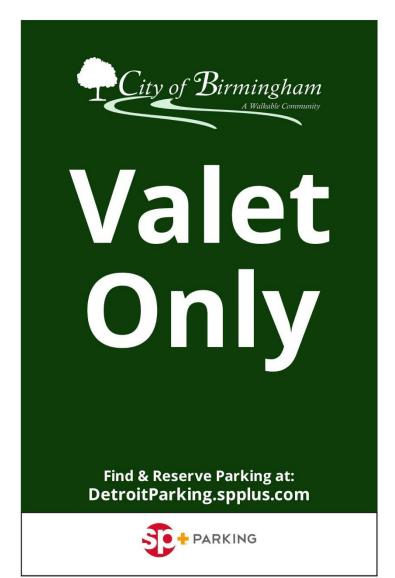
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City of	Birmingham	MEMORANDUM
DATE:	August 11, 2016	Engineering Dept.
TO:	Advisory Parking Committee	
FROM:	Paul T. O'Meara, City Engineer	
SUBJECT:	Evening Only Monthly Permit Sales	

The following reports how many evening monthly permits have been sold since the program began, through August 10, 2016:

Pierce St.	24
Peabody St.	0
Park St.	2
N. Old Woodward Ave.	7
Chester St.	2

Regular monthly permits voluntarily given up, through August 10:

Pierce St.	2
Peabody St.	0
Park St.	0
N. Old Woodward Ave.	2
Chester St.	0

MONTHLY PARKING PERMIT REPORT

For the month of: July 2016 Date Compiled: August 9, 2016

	Pierce	Park	Peabody	N.Old Wood	Chester	Lot #6/\$195	Lot #6/\$135	South Side	Lot B	35001 Woodward	Total
1. Total Spaces	706	811	437	745	880	174	79	8	40	40	3920
2. Daily Spaces	370	348	224	359	425	N/A	N/A	N/A	N/A	N/A	1726
3. Monthly Spaces	336	463	213	386	560	174	79	8	30	40	2289
4. Monthly Permits Authorized	550	813	400	900	1140	150	40	8	30	31	4062
5. Permits - end of previous month	550	813	400	900	1140	150	40	8	10	21	4032
6. Permits - end of month	548	811	400	898	1140	150	40	8	30	31	4056
7. Permits - available at end of month	2	2	0	2	0	0	0	0	0	0	6
8. Permits issued in month includes permits effective 1st of month	0	0	0	0	0	0	0	0	0	31	31
9. Permits given up in month	2	2	0	2	0	0	0	0	0	0	6
10. Net Change	-2	-2	0	-2	0	0	0	0	0	31	25
11. On List - end of month*	721	661	763	770	358	0	0	0	0	0	3273
12. Added to list in month	12	21	11	28	26	0	0	0	0	0	98
13. Withdrawn from list in month (w/o permit)	0	15	0	8	0	0	0	0	0	0	23
14. Average # of weeks on list for permits issued in month	162	122	208	118	82	0	0	0	0	0	N/A
15. Transient parker occupied	382	324	201	250	N/A*	N/A	N/A	N/A	N/A	N/A	1157
16. Monthly parker occupied	269	482	218	465	N/A*	N/A	N/A	N/A	N/A	N/A	1434
17. Total parker occupied	651	806	419	715	N/A*	N/A	N/A	N/A	N/A	N/A	2591
18. Total spaces available at 1pm on Wednesday 7/20/16	55	5	18	30	N/A	N/A	N/A	N/A	N/A	N/A	108
19. "All Day" parkers paying 5 hrs. or more A:Weekday average. B:Maximum day	207 506	103 205	78 149	73 137	N/A* N/A*	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	461 997
20. Utilization by long term parkers	41%	50%	52%	53%	N/A*	N/A	N/A	N/A	N/A	N/A	46%

(1) Lot #6 does not have gate control, therefore no transient count available
 (2) (Permits/Oversell Factor + Weekday Avg.) / Total Spaces
 *Chester counts unavailable due to loop and reporting issues.
 **Hourly detail not available due to hardware failure

City of Birmingham Parking Structures-Combined Income Statement Fiscal Year Comparison

Fiscal 15-16 Month Ended Month Ended Month Ended Month Ended Month Ended Month ending Month Ended Month Ended Month Ended Month Ending Month Ended Month Ended Total Fiscal 15-16 REVENUES: 31-Jul-15 31-Aug-15 30-Sep-15 31-Oct-15 30-Nov-15 31-Dec-15 31-Jan-16 28-Feb-16 31-Mar-16 30-Apr-16 31-Mav-16 30-Jun-16 \$ 166,606,50 \$ 147,126,00 \$ 179,102,00 \$ 187,122,00 \$ 188,547,00 \$ 194,025,50 \$ 203,712,00 \$ 144,017,50 \$ 261,896,00 \$ 203,346,00 \$ 2 247 355 00 Revenues - Monthly parking 180 760 50 \$ 191 094 00 \$ Revenues - Cash Parking \$ 114,551.18 \$ 127,772.81 \$ 95,214.63 \$ 122,443.57 \$ 114,026.45 \$ 134,420.60 \$ 103,502.80 \$ 127,198.65 \$ 131,139.54 \$ 128,384.31 \$ 140,389.49 \$ 147,232.93 s 1,486,276.96 Revenues - Card Deposits \$ 150.00 \$ 300.00 \$ 97.50 \$ 240.00 \$ 662.50 \$ 702.50 \$ 1,080.00 \$ 80.00 \$ 1,800.00 \$ 3,265.00 \$ 585.00 \$ 2,040.00 11,002.50 Revenue - Lot #6 702.50 \$ 14,025.00 \$ 22,145.00 19,325.00 \$ 15,995.00 \$ 100.00 \$ 6,635.00 \$ 30,000.50 \$ 847.50 \$ 8,072.50 27,032.50 144,880.50 Total Income \$ 282,010.18 \$ 289,223.81 \$ 296,559.13 \$ 309,805.57 \$ 322,560.95 \$ 345,143.60 \$ 308,394.80 \$ 277,931.15 \$ 424,836.04 \$ 335,842.81 \$ 329,807.49 \$ 367,399.43 3,889,514.96 EXPENSES: Salaries and Wages \$ 76,636.38 \$ 55,653.88 \$ 56,461.14 \$ 52,848.24 \$ 56,308.86 \$ 76,263.50 \$ 55,467.25 \$ 53,507.11 \$ 54,716.64 \$ 53,101.43 \$ 58,142.92 \$ 59,260.95 708,368.30 s Payroll Taxes 7,345.93 \$ 5,153.13 \$ 5,226.52 \$ 4,897.62 \$ 5,259.87 \$ 7,224.51 \$ 7,039.01 \$ 6,600.08 \$ 6,468.16 \$ 5,516.50 \$ 5,709.24 \$ 5,826.10 72,266.67 s s Workmens Comp Insurance 2,868.74 \$ 2,084.62 \$ 2,114.79 \$ 1,979.76 2,109.17 2,857.21 \$ 2,116.60 \$ 2,124.24 \$ 2,223.79 \$ 2,108.73 \$ 2,308.43 2,352.75 27,248.83 \$ S S s s Group Insurance 27,349.14 \$ 21,560.78 24,352.61 17,690.29 19,861.35 \$ 17,904.25 \$ 18,126.55 \$ 28,909.55 23,516.38 \$ 20,870.99 24,458.94 19,800.87 264,401.70 \$ \$ \$ s \$ \$ s 574.34 4.961.38 Uniforms 329.71 752.41 (65.14) \$ 2.523.24 \$ 163.11 384.30 299.41 S -\$ 8.388.64 \$ 9,027.81 \$ 9,027.81 105,234.85 Insurance \$ 8.388.64 \$ 8.888.64 \$ 8.388.64 \$ 8.397.59 \$ 8.388.64 \$ 9.027.81 \$ 9.027.81 \$ 9.146.01 \$ 9.136.81 \$ s 1.087.74 \$ 1.943.72 \$ 18,108,98 Utilities \$ 2.499.98 \$ 793.56 \$ 1.322.64 \$ 2.280.91 \$ 1.787.05 \$ 1.810.20 \$ 1.815.95 \$ 1.301.61 \$ 525.30 940.32 ¢ 4 004 14 93 665 01 Maintenance \$ 17 587 85 \$ 6.266.63 \$ 14 443 94 \$ 581514 \$ 3.167.40 \$ 6 190 39 \$ 6 328 66 \$ 3 084 48 \$ 6.641.63 \$ 11.903.93 \$ 8 230 82 \$ Parking Tags/Tickets 587.35 2 223 23 3 187 13 1 521 98 \$ 21,609.46 \$ S 44.20 \$ \$ 2,650.00 \$ 7,490.66 \$ 434.97 \$ 3.469.94 ¢. 4.162.36 \$ 3.988.97 \$ 1 363 07 S Proffesional Services s 3.988.97 \$ 3.988.97 \$ 4,021.72 \$ 4.044.97 \$ 4,363.97 \$ 4,383.72 \$ 4.363.97 \$ 4.567.57 \$ 4.363.97 50.603.13 Office Supplies \$ 577.20 \$ 692.43 \$ 367.07 \$ 70.55 \$ 673.31 \$ 324.91 \$ 82.22 \$ 104.63 \$ 489.56 \$ 983.75 \$ 633.97 \$ 1.097.08 6.096.68 Card Refund Operating Cost - Vehicles \$ 542.83 \$ 527.25 \$ 462.13 \$ 517.67 \$ 515.04 \$ 167.77 \$ 541.66 \$ 331.81 \$ 514.69 \$ 486.64 \$ 562.23 \$ 707.10 5,876.82 Pass Cards Employee Appreciation \$ 97.56 \$ 300.00 61.46 \$ 129.48 \$ 29.35 s 150.00 767.85 Credit Card Fees s 4,560.16 \$ 6,307.49 \$ 5,870.85 \$ 8,629.80 \$ 7,774.68 \$ 7,479.29 \$ 8,893.87 \$ 7,729.56 \$ 7,062.62 \$ 8,160.94 \$ 8,076.09 \$ 8,645.20 89,190.55 311.98 \$ 1,627.34 \$ 400.68 405.72 \$ 400.67 \$ 449.90 \$ 712.04 473.22 \$ 491.82 \$ 446.77 \$ 421.87 6,557.20 Bank Service Charges \$ 415.19 \$ \$ \$ 160.13 \$ 157.31 967.02 \$ 278.43 \$ 234.23 \$ 289.07 519.38 \$ 290.42 \$ 227.32 3,777.79 Miscellaneous Expense \$ 175.89 \$ 225.76 252.83 \$ Management Fee Charge 3,875.00 \$ 3,875.00 \$ 3,875.00 \$ 3,875.00 \$ 3,875.00 \$ 3,875.00 \$ 3,875.00 \$ 3,875.00 \$ 3,875.00 \$ 3,875.00 \$ 3,875.00 \$ 3,875.00 46,500.00 s S Total Expenses \$ 159,029.48 \$ 117,236.43 \$ 128,471.07 \$ 114,563.55 \$ 115,510.80 \$ 141,388.48 \$ 121,146.89 \$ 130,041.42 \$ 121,956.03 \$ 123,295.02 \$ 130,733.86 \$ 121,862.17 1,525,235.20 S Profit \$ 122,980.70 \$ 171,987.38 \$ 168,088.06 \$ 195,242.02 \$ 207,050.15 \$ 203,755.12 \$ 187,247.91 \$ 147,889.73 \$ 302,880.01 \$ 212,547.79 \$ 199,073.63 \$ 245,537.26 \$ 2,364,279.76

REVENUES:			nth Ended	Month	Ended Aug-16	Month En 30-Sep		Month Ended 31-Oct-16		Ended Nov-16	Month ending 31-Dec-16		onth Ended 31-Jan-17		Ended	Month E 31-Ma		Month Ending 30-Apr-17		onth Ended 31-May-17		th Ended)-Jun-17	F	Total scal 16-17
REVENUES.	Revenues - Monthly parking		198,382.46	517	Aug-10	30-00p	10	51-000-10	50	1404-10	31-000-10		51-5an-17	20	100-17	01-1416	<u>u - 17</u>	30-Api-17		51-Way-17	5	J-5011-17	s	198,382.46
	Revenues - Cash Parking		177.881.25																				ŝ	177.881.25
	Revenues - Card Fees	ŝ	1,565.00																				ŝ	1,565.00
	Revenue - Lot #6	ŝ	170.00																				ŝ	170.00
	Total Income	\$	377.998.71	\$	-	\$	-	s -	S	-	\$ -	\$		\$		S	-	\$-	\$		\$	-	\$	377,998.71
																-								
EXPENSES:																								
	Salaries and Wages	\$	84,022.83																				\$	84,022.83
	Payroll Taxes	\$	8,234.74																				\$	8,234.74
	Workmens Comp Insurance	\$	3,333.51																				\$	3,333.51
	Group Insurance	\$	19,801.89																				\$	19,801.89
	Uniforms	\$	188.06																				\$	188.06
	Insurance	\$	9,136.81																				\$	9,136.81
	Utilities	\$	812.26																				\$	812.26
	Maintenance	\$	10,861.72																				\$	10,861.72
	Parking Tags/Tickets	\$	5,219.33																				\$	5,219.33
	Proffesional Services	\$	4,363.97																				\$	4,363.97
	Office Supplies	\$	722.75																				\$	722.75
	Card Refund																						\$	-
	Operating Cost - Vehicles	\$	660.74																				\$	660.74
	Pass Cards																						\$	-
	Employee Appreciation	\$	159.78																				\$	159.78
	Credit Card Fees	\$	8,919.15																				\$	8,919.15
	Bank Service Charges	\$	411.74																				\$	411.74
	Miscellaneous Expense	\$	246.65																				\$	246.65
	Management Fee Charge	\$	3,875.00																				\$	3,875.00
	Total Expenses	\$	160,970.93	\$	-	\$	-	\$-	\$	-	\$-	\$	-	\$	-	\$	-	\$-	\$	-	\$	-	\$	160,970.93
	Profit	<u>د</u>	217,027.78	¢		s		\$ -	S		s -	\$		\$		s	-	s -	\$		s	-	s	217,027.78
	FIGH	ų	211,021.10	Ψ		Ψ	-	Ψ -	ų		Ψ -	φ	-	Ψ		Ŷ	-	Ψ	φ		Ŷ		Ş	217,027.70

CITY OF BIRMINGHAM - Combined Income Statement For Periods Indicated

REVENUES: Revenues - Monthly parking Revenues - Cash Parking Revenues - Card Fees Revenue - Lot #6 TOTAL INCOME	Month Ended July 31, 2016 198,382.46 177,881.25 1,565.00 170.00 377,998.71	1 Month Ending July 31, 2016 198,382.46 177,881.25 1,565.00 170.00 377,998.71	Month Ended July 31, 2015 166,606.50 114,551.18 150.00 702.50 282,010.18	1 Month Ending July 31, 2015 166,606.50 114,551.18 150.00 702.50 282,010.18
EXPENSES:				
Salaries and Wages	84.022.83	84,022.83	76,636.38	76,636.38
Payroll Taxes	8,234.74	8,234.74	7,345.93	7,345.93
Workmens Comp Insurance	3,333.51	3,333.51	2.868.74	2,868.74
Group Insurance	19,801.89	19.801.89	27,349.14	27,349.14
Uniforms	188.06	188.06		
Insurance	9,136.81	9,136.81	8,388.64	8,388.64
Utilities	812.26	812.26	2,499.98	2,499.98
Maintenance	10,861.72	10,861.72	17,587.85	17,587.85
Parking Tags/Tickets	5,219.33	5,219.33	2,223.23	2,223.23
Accounting Fees	4,363.97	4,363.97	3,988.97	3,988.97
Office Supplies	722.75	722.75	577.20	577.20
Card Refund		-		-
Operating Cost - Vehicles	660.74	660.74	542.83	542.83
Pass Cards		-		-
Employee Appreciation	159.78	159.78	97.56	97.56
Credit Card Fees	8,919.15	8,919.15	4,560.16	4,560.16
Bank Service Charges	411.74	411.74	311.98	311.98
Miscellaneous Expense	246.65	246.65	175.89	175.89
Management Fee Charge	3,875.00	3,875.00	3,875.00	3,875.00
TOTAL EXPENSES	160,970.93	160,970.93	159,029.48	159,029.48
OPERATING PROFIT	217,027.78	217,027.78	122,980.70	122,980.70

CITY OF BIRMINGHAM PIERCE DECK Income Statement For Periods Indicated

		Month Ended	1 Month Ending	Month Ended	1 Month Ending
REVENUES:		July 31, 2016	July 31, 2016	July 31, 2015	July 31, 2015
Revenues - Monthly park		32,669.50	32,669.50	28,808.00	28,808.00
Revenues - Cash Parking		67,023.50	67,023.50	40,767.38	40,767.38
Revenues - Card Fees		480.00	480.00	150.00	150.00
	TOTAL INCOME	100,173.00	100,173.00	69,725.38	69,725.38
EXPENSES:					
Salaries and Wages		14,470.67	14,470.67	14,207.34	14,207.34
Payroll Taxes		1,376.65	1,376.65	1,358.26	1,358.26
Workmens Comp Insurar	nce	574.26	574.26	531.90	531.90
Group Insurance		4,110.49	4,110.49	9,871.87	9,871.87
Uniforms			-		-
Insurance		1,740.58	1,740.58	1,616.74	1,616.74
Utilities		188.06	188.06	391.68	391.68
Maintenance		3,464.03	3,464.03	3,019.16	3,019.16
Parking Tags/Tickets		1,671.06	1,671.06	1,259.33	1,259.33
Accounting Fees		865.37	865.37	790.37	790.37
Office Supplies		144.55	144.55	117.11	117.11
Card Refunds			-		-
Operating Cost - Vehicles	s	132.15	132.15	113.90	113.90
Pass Cards			-		-
Employee Appreciation		31.96	31.96	19.51	19.51
Credit Card Fees		3,360.63	3,360.63	1,547.66	1,547.66
Bank service charges		129.18	129.18	95.58	95.58
Miscellaneous Expenses		11.29	11.29	11.08	11.08
Management Fee Charge		775.00	775.00	775.00	775.00
	TOTAL EXPENSES	33,045.93	33,045.93	35,726.49	35,726.49
	OPERATING PROFIT	67,127.07	67,127.07	33,998.89	33,998.8

CITY OF BIRMINGHAM PEABODY DECK Income Statement For Periods Indicated

		Month Ended	1 Month Ending	Month Ended	1 Month Ending
REVENUES:		July 31, 2016	July 31, 2016	July 31, 2015	July 31, 2015
Revenues - Monthly parking		30,872.96	30,872.96	15,255.00	15,255.00
Revenues - Cash Parking		29,640.40	29,640.40	17,198.05	17,198.05
Revenues - Card Fees			-		-
ΤΟΤΑ	L INCOME	60,513.36	60,513.36	32,453.05	32,453.05
EXPENSES:					
Salaries and Wages		14,519.04	14,519.04	13,877.28	13,877.28
Payroll Taxes		1,381.21	1,381.21	1,327.18	1,327.18
Workmens Comp Insurance		576.18	576.18	519.57	519.57
Group Insurance		4,110.49	4,110.49	4,280.77	4,280.77
Uniforms		,	-		-
Insurance		1,436.26	1,436.26	1,227.97	1,227.97
Utilities		188.07	188.07	517.91	517.91
Maintenance		1,971.53	1,971.53	4,153.27	4,153.27
Parking Tags/Tickets			-	963.90	963.90
Accounting Fees		775.19	775.19	700.19	700.19
Office Supplies		144.55	144.55	117.09	117.09
Card Refund			-		-
Employee Appreciation		31.96	31.96	19.51	19.51
Operating Cost - Vehicles		132.15	132.15	113.90	113.90
Pass Cards			-		-
Credit Card Fees		1486.20	1,486.20	661.61	661.61
Bank service charges		82.01	82.01	45.69	45.69
Miscellaneous Expense		11.33	11.33	10.83	10.83
Management Fee Charge		775.00	775.00	775.00	775.00
TOTAI	EXPENSES	27,621.17	27,621.17	29,311.67	29,311.67
OPERA	TING PROFIT	32,892.19	32,892.19	3,141.38	3,141.38

CITY OF BIRMINGHAM PARK DECK Income Statement For Periods Indicated

REVENUES:		n Ended 1, 2016	1 Month Ending July 31, 2016	Month Ended July 31, 2015	1 Month Ending July 31, 2015
Revenues - Monthly parking	,	44,380.00	44,380.00	40,630.00	40,630.00
Revenues - Cash Parking		38,886.70	38,886.70	25,897.25	25,897.25
Revenues - Card Fees		105.00	105.00	-30.00	(30.00)
TOTAL	INCOME	83,371.70	83,371.70	66,497.25	66,497.25
EXPENSES:					
Salaries and Wages		17,198.08	17,198.08	14,247.51	14,247.51
Payroll Taxes		1,732.68	1,732.68	1,362.42	1,362.42
Workmens Comp Insurance		682.29	682.29	533.40	533.40
Group Insurance		3,213.89	3,213.89	3,874.12	3,874.12
Uniforms		188.06	188.06		-
Insurance		1,987.62	1,987.62	1,849.08	1,849.08
Utilities			-	391.68	391.68
Maintenance		1,971.57	1,971.57	1,648.11	1,648.11
Parking Tags/Tickets		1,310.81	1,310.81		-
Accounting Fees		881.28	881.28	806.28	806.28
Office Supplies		144.55	144.55	117.09	117.09
Card Refund			-		-
Operating Cost - Vehicles		132.15	132.15	113.90	113.90
Pass Cards			-		-
Employee Appreciation		31.96	31.96	19.52	19.52
Credit Card Fees		1,949.82	1,949.82	1,036.43	1,036.43
Bank service charges		90.28	90.28	52.75	52.75
Miscellaneous Expenses		13.42	13.42	11.12	11.12
Management Fee Charge		775.00	775.00	775.00	775.00
TOTAL E	XPENSES	32,303.46	32,303.46	26,838.41	26,838.41
OPERAT	ING PROFIT	51,068.24	51,068.24	39,658.84	39,658.84

CITY OF BIRMINGHAM CHESTER DECK Income Statement For Periods Indicated

REVENUES: Revenues - Monthly parking Revenues - Cash Parking Revenues - Card Fees	Month Ended July 31, 2016 53,440.00 13,606.00 800.00	1 Month Ending July 31, 2016 53,440.00 13,606.00 800.00	Month Ended July 31, 2015 41,129.50 10,328.25 30.00	1 Month Ending July 31, 2015 41,129.50 10,328.25 30.00
TOTAL INCOME	67,846.00	67,846.00	51,487.75	51,487.75
EXPENSES:				
Salaries and Wages	18,800.28	18,800.28	17,339.29	17,339.29
Payroll Taxes	1.772.43	1.772.43	1.682.68	1,682.68
Workmens Comp Insurance	745.75	745.75	648.92	648.92
Group Insurance	4,512.00	4,512.00	5,687.54	5,687.54
Uniforms	,	-	,	- -
Insurance	2,137.00	2,137.00	1,988.80	1,988.80
Utilities	248.07	248.07	625.55	625.55
Maintenance	1,483.07	1,483.07	7,371.84	7,371.84
Parking Tags/Tickets	632.81	632.81		-
Accounting Fees	950.24	950.24	875.24	875.24
Office Supplies	144.55	144.55	108.84	108.84
Card Refund		-		-
Operating Cost - Vehicles	132.14	132.14	87.23	87.23
Pass Cards		-		-
Employee Appreciation	31.95	31.95	19.51	19.51
Credit Card Fees	682.22	682.22	487.75	487.75
Bank Service Charges	12.76	12.76	49.38	49.38
Misc Expense	14.67	14.67	13.53	13.53
Management Fee Charge	775.00	775.00	775.00	775.00
TOTAL EXPENSES	33,074.94	33,074.94	37,761.10	37,761.10
OPERATING PROFIT	34,771.06	34,771.06	13,726.65	13,726.65

CITY OF BIRMINGHAM N. WOODWARD DECK Income Statement For Periods Indicated

REVENUES:	Month Ended July 31, 2016	1 Month Ending July 31, 2016	Month Ended July 31, 2015	1 Month Ending July 31, 2015
Revenues - Monthly parking	37,020.00	37,020.00	40,784.00	40,784.00
Revenues - Cash Parking	28,724.65	28,724.65	20,360.25	20,360.25
Revenues - Card Fees	180.00	180.00		-
TOTAL INCOME	65,924.65	65,924.65	61,144.25	61,144.25
EXPENSES:				
Salaries and Wages	19,034.76	19,034.76	16,964.96	16,964.96
Payroll Taxes	1,971.77	1,971.77	1,615.39	1,615.39
Workmens Comp Insurance	755.03	755.03	634.95	634.95
Group Insurance	3,855.02	3,855.02	3,634.84	3,634.84
Uniforms		-		-
Insurance	1,835.35	1,835.35	1,706.05	1,706.05
Utilities	188.06	188.06	573.16	573.16
Maintenance	1,971.52	1,971.52	1,395.47	1,395.47
Parking Tags/Tickets	1,604.65	1,604.65		-
Accounting Fees	891.89	891.89	816.89	816.89
Office Supplies	144.55	144.55	117.07	117.07
Card Refund		-		-
Operating Cost - Vehicles	132.15	132.15	113.90	113.90
Pass Cards		-		-
Employee Appreciation	31.95	31.95	19.51	19.51
Credit Card Fees	1440.28	1,440.28	826.71	826.71
Bank Service Charges	97.51	97.51	68.58	68.58
Miscellaneous Expense	14.85	14.85	13.24	13.24
Management Fee Charge	775.00	775.00	775.00	775.00
TOTAL EXPENSES	34,744.34	34,744.34	29,275.72	29,275.72
OPERATING PROFIT	31,180.31	31,180.31	31,868.53	31,868.53

270-6484

270-0484			CITY OF BIRMINGHAM lot # Income Statement For Periods Indicated	6		
INCOME	Revenues - Monthly Parking Lot	#6 & Southside	Month Ended July 31, 2016 170.00	1 Month Ending July 31, 2016 170.00	Month Ended July 31, 2015 702.50	1 Month Ending July 31, 2015 702.50
EXPENSES	Liability Insurance	FOTAL INCOME	170.00	170.00	702.50	702.50
	Office Supplies (Hanging Tags) Misc.	FOTAL EXPENSES	<u> 181.09</u> <u> 181.09</u>	<u>181.09</u> 181.09	<u>116.09</u> <u>116.09</u>	116.09 116.09

(11.09)

NET PROFIT

(11.09)

586.41

586.41

Birmingham Parking System Transient & Free Parking Analysis Months of July 2015 & July 2016

GARAGE	TOTAL CARS	FREE CARS	СА	SH REVENUE	%FREE
PEABODY	15,754	10,361	\$	17,198.05	66%
PARK	18,081	10,829	\$	25,897.25	60%
CHESTER	6,702	4,070	\$	10,328.25	61%
WOODWARD	13,081	7,691	\$	20,360.25	59%
PIERCE	30,582	17,741	\$	40,767.38	58%
TOTALS	84,200	50,692	\$	114,551.18	60%

July 2015

July 2016

GARAGE	TOTAL CARS	FREE CARS	CA	SH REVENUE	% FREE
PEABODY	18,985	13,458	\$	29,640.40	71%
PARK	18,954	11,861	\$	38,886.70	63%
CHESTER	6,520	4,255	\$	13,606.00	65%
WOODWARD	12,795	8,410	\$	28,724.65	66%
PIERCE	34,366	21,523	\$	67,023.50	63%
TOTALS	91,620	59,507	\$	177,881.25	65%

BREAKDOWN:	TOTAL CARS	+/- %
	FREE CARS	+/- %
	CASH REVENUE	+/- %

Pierce Street Structure

Garage full list

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
5		5	Ŭ	1	0	3
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31		Notes:	Structure did not fill			

Park Street Structure

Garage full list

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13 FULL @ 10:54 AM OPEN @ 3:35 PM	14	15	16
17	18	19	20 FULL @ 1:27 PM OPEN @ 2:49 PM	21	22	23
24	25	26	27	28 FULL @ 10:26 AM OPEN @ 10:55 AM	29	30
31		Notes:	- I	-		

Peabody Street Structure

Garage full list

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26 FULL @ 1:12 PM OPEN @ 2:50 PM	27	28	29	30
31		Notes:		•		

N. Old Woodward Structure

Garage full list

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31		Notes:	Structure did not fill			

Chester Street Structure

Garage full list

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
24	25	20	21	20	25	50
24		Notes:				
31		Notes:	Structure did not fill			



Sometimes the deal for new parking meters can be sweetened with the promise of local revenue for projects. (Photo by Mike Linksvayer via Flickr)

CLEANLINESS • ALLEYS



BY JON GEETING

Parking congestion is a constant source of frustration in many growing urban neighborhoods and downtowns, but the best-known cure — charging a price for curb parking — is about as unpopular as the affliction.

When commercial corridors begin attracting more customers, or neighborhoods see an influx of new infill housing, residents who once had an easy time parking for free or for cheap on the curb increasingly find those spaces occupied by visitors or new residents.

But pro-turnover policies that turn free parking into paid parking, or raise existing parking prices, still tend to be unpopular for two main reasons: People don't like to pay for what they're used to getting for free, and the revenue typically doesn't fund any immediately tangible benefits.

As Alan Durning, director of the sustainability think tank Sightline Institute (http://www.sightline.org/), put it in a 2013 blog post, "parking revenue going to the general fund might as well be going to Mars (http://www.sightline.org/2013/10/04/curb-appeal/). It has virtually no political salience for most voters."

But it turns out that there is another powerful, countervailing force that, if cultivated correctly, can be harnessed to blunt the strength of territorial parking politics: Greed.

Enter the Parking Benefit District

As UCLA professor Donald Shoup explained in his cult parking economics tome "The High Cost of Free Parking," some cities and downtown business associations have discovered that it's much easier, politically speaking, to introduce new parking meters or permits when the impacted areas are allowed to keep some of the revenue generated within the neighborhood to pay for extra public improvements and services.

The prospect of a dedicated, ongoing local revenue stream for neighborhood projects becomes enticing enough to residents and businesses, and they become a countervailing force in support of parking meters.

Those public improvements in turn attract even more visitors, which generates more parking revenue in a virtuous cycle of redevelopment.

In different cities, Parking Benefit Districts (PBDs) come in different shapes and sizes, but what they all have in common is that they fund visible local public improvements in the places where the revenue is raised.

As Pittsburgh looks toward establishing its first PBD, examples from Portland, Austin, and Old Pasadena can provide some context on creative ways cities are building public support for better parking management.

Pittsburgh

Mayor Peduto's administration in Pittsburgh is planning to fund public safety improvements on the city's South Side — a nightlife magnet that endures more than its share of wear and tear — with revenue from extended parking meter hours.

"People come in from all over the region to the South Side on a weekly basis to patronize our businesses, and that kind of traffic has an impact on the neighborhood," says the mayor's deputy chief of staff John Fournier, who's been developing the framework for a parking benefit district for the neighborhood.

Without much wiggle room in the city's general fund, officials began exploring the idea of extending parking meter hours and dedicating the additional revenue to services in the district — think more cops on the street, pedestrian improvements, wayfinding signage — which presumably would be paid mostly by evening revelers from outside the neighborhood. Think of it as a hyper-local commuter tax.

Fournier explained that a parking benefit district isn't just a revenue-raiser, but smart transportation management as well, since parking demand is still higher than usual on the South Side past 6pm.

"Specific details, like the list of projects to be funded and the boundaries of the district, will be shaped by conversations with the community, Fournier said.

Unlike some other types of Parking Benefit Districts that have direct control over the use of revenue, the funds for Pittsburgh's South Side will stay in a separate account and won't be granted out to third party organizations and non-profits.

Portland

In Portland, Oregon, a stakeholder committee (https://www.portlandoregon.gov/transportation/67483) formed to overhaul the city's parking permit policy unanimously endorsed a framework that would give neighbors an option to keep more revenue in the neighborhood.

If adopted, the new framework would allow neighborhoods to opt in to permit parking, but also set aside some of the proceeds for neighborhood projects, which wouldn't necessarily be restricted to a specific spending priority like public safety and pedestrian improvements as in Pittsburgh.

The committee also recommended that the city sell only a limited number of parking permits in each neighborhood—as many permits as there are on-street spaces, or less. Whether the permits would be distributed by auction or some other process is still up in the air. The committee recommended tying each permit to a specific vehicle or set of vehicles, to prevent a side market in parking permits from developing.

"The recommendation wasn't specific in how much to cap," recalls Sunnyside Neighbors Association president Tony Jordan, who served on the stakeholder committee, "We talked about 80-85 percent, because you want to allow for some employee and visitor parking near commercial corridors."

These kinds of decisions would be made by an Area Parking Committee chosen by neighborhoods who've opted in to permit parking.

Area Parking Committees would also decide on the price of the permits, with the flexibility to add a neighborhood fee onto the base price, to fund neighborhood projects.

Each participating neighborhood would choose from menu of projects like sidewalk repair, lighting, and pedestrian and bike safety improvements not currently on the shortlist for public funding, and dedicate the parking revenue to the local favorites.

As in Pittsburgh, the revenue would remain in an account managed by the city, rather than transferred to third-party groups like business improvement districts, CDCs, or neighborhood civic associations.

"Neighborhood organizations, even if they are official non-profits, aren't usually democratic enough to manage the money," said Jordan, "We get elected by a few dozen people out of a neighborhood of 7,000 or so. The neighborhood associations can bring people together to straw poll projects. Even if it's not completely democratic, that's at least an okay way to decide which small projects get done in a neighborhood."

Austin

Parking Benefit Districts in Austin, Texas are distinct from these other examples in two ways.

First, about half the revenue goes to the city's general fund. After city expenses are covered, 51 percent of the proceeds are set aside for the district, and 49 percent becomes general revenue for the city. The minimum size for a district is 96 spaces, and there's a thorough process for the neighborhood and the city to vet proposed districts.

Second, city law also requires (https://austintexas.gov/sites/default/files/files/Transportation/pbd-ordinance.pdf) that the revenue be used to "promote walking, cycling, and public transit and public transit use within the district." It can also be used in conjunction with other city funds for larger projects.

Austin began experimenting with Parking Benefit Districts in 2011 in response to West Campus neighbors near the University of Texas who reached out to the city seeking relief from students stashing their cars long-term on residential streets.

"They had students parking literally for semesters, and they'd get no turnover because it was all free parking," recalls Steven Grassfield, the city's Parking Enterprise Manager, who helped craft Austin's parking benefit district policy.

After a thorough community outreach and City Council vetting process, the West Campus district went into effect in January of 2012, and has raised on average around \$140,000 annually for neighborhood improvements.

At the time the district was created, West Campus neighbors gave the city five projects they wanted to finance, and the city sets the money aside in a separate fund. Neighbors get a monthly financial statement, and every year they meet with the city to revisit the project list.

"As you know, cities are always changing, so they're allowed to adjust the projects being funded depending on the needs of their area," Grassfield said.

So far, residents have chosen to invest parking revenue in wider 18-foot sidewalks on Rio Grande, a busy commercial street running through the neighborhood, as well as benches, lighting, and street trees.

Old Pasadena

Old Pasadena's Parking Benefit District, called the Parking Meter Zone, is the archetype of the concept, profiled in Donald Shoup's paper "Turning Small Change Into Big Changes." (http://shoup.bol.ucla.edu/SmallChange.pdf)It's a good example of how much more radical these programs can get, depending on the local appetite for them.

Shoup offers some background on what Pasadena's downtown was like prior to the creation of the Parking Meter Zone (PMZ) in 1993.

"Old Pasadena became the city's Skid Row, and by the 1970s much of it was slated for redevelopment. Pasadena's Redevelopment Agency demolished three historic blocks on Colorado Boulevard to make way for Plaza Pasadena, an enclosed mall with ample free parking whose construction the city assisted with \$41 million in public subsidies. New buildings clad in then-fashionable black glass replaced other historic properties. The resulting "Corporate Pasadena" horrified many citizens, so the city reconsidered its plans for the area. The Plan for Old Pasadena, published in 1978, asserted "if the area can be revitalized, building on its special character, it will be unique to the region." In 1983, Old Pasadena was listed in the National Register of Historic Places. However, despite these planning efforts, commercial revival was slow to come, in part because lack of public investment and the parking shortage were intractable obstacles.

For years city planners had been urging elected officials to introduce paid parking in the downtown to create more turnover, but the idea was a political non-starter.

In the late 1980's, the City Manager at the time championed a plan to build a large downtown parking garage to address the parking crunch. It was built, but by the early 90's it had become clear that the garage was a money-loser, costing the city around \$1 million a year.

With curb parking unpriced, motorists had little financial incentive to choose garage parking.

Mayor Rick Cole, now the City Manager in Santa Monica, decided the city could no longer avoid installing paid street parking, but when he broached the topic at a meeting with downtown merchants, they went "absolutely berserk," he recalls.

That is, until he suggested spending the meter revenue in the district.

"I said, what if we took 100 percent of the revenue from the parking meters, but instead of using it to plug our million dollar hole in the budget, we devote it to three things: police foot patrols and horse patrols, daily street sweeping, and monthly steam cleaning of the sidewalks," Cole said.

If there was any money left over, he offered, Old Pasadena could use it to plant trees, fix sidewalks, install lighting and benches, and more. To top it off, business owners would be put in charge of allocating the money. Cole estimated that between parking fines, more garage parking, and additional business activity, the city would close the \$1 million deficit.

A deal was struck, and the city installed parking meters in 1993, creating a committee of business owners within the Old Pasadena BID to allocate the revenue. They floated a \$5 million bond to finance the "Old Pasadena Streetscape and Alleyways Project," and dedicated the meter revenue to repay the debt.

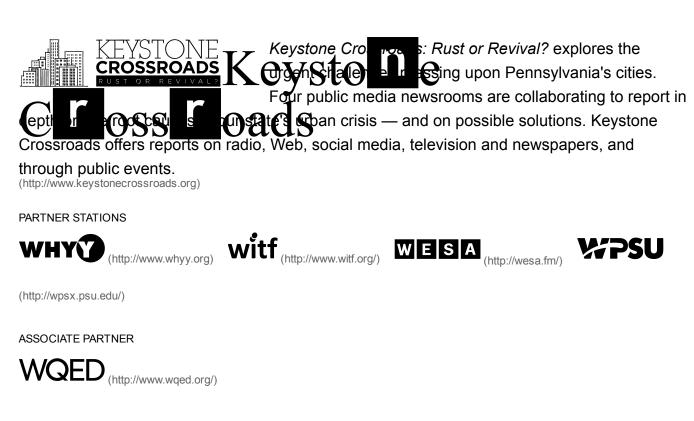
The bond proceeds funded street furniture, trees and tree grates, decorative lighting, and alley restoration. To build support for the meters, the city launched a marketing campaign showcasing the improvements visitors were funding, complete with meter signage reminding motorists "your meter money makes a difference."

"On the parking meters we had a little sticker that explained your money would fund local services," Cole said, "That helped us enormously because everybody who was pissed off about money going to City Hall, we could look them in the face and say 'every nickel you put in these parking meters is going toward making the downtown nicer, cleaner, and safer."

In the five years after the Parking Meter Zone was established, property tax revenue tripled, and sales tax revenues quadrupled over the same period, according to Cole.

"When I stepped down as Mayor," Cole recalled, "I said my three big achievements were getting the city's General Plan through, getting parking meters in Old Pasadena, and not getting recalled for putting parking meters in Old Pasadena."

"...everybody who was pissed off about money going to City Hall, we could look them in the face and say 'every nickel you put in these parking meters is going toward making the downtown nicer, cleaner, and safer.'"



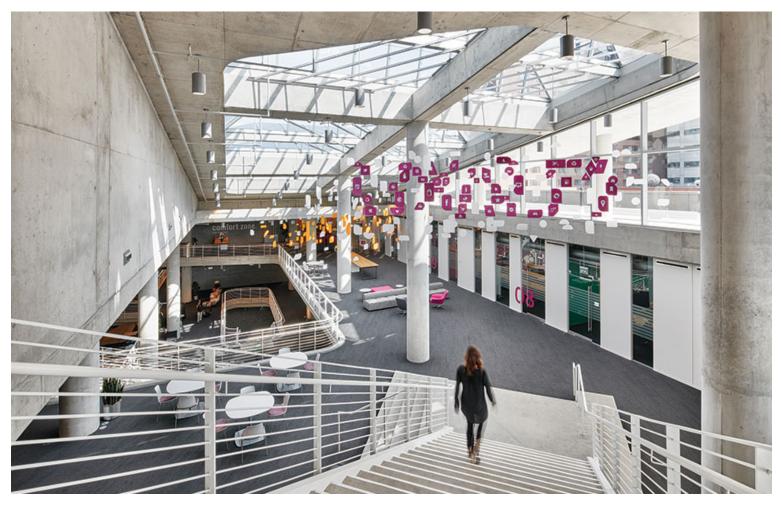
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ARCHITECTURAL R E C O R

Musical Chairs

The office of the future offers many places to sit and work, but no place to call your own.



Gensler's facility for the tech company 84.51° in Cincinnati maximizes circulation spaces.

Photo © Garrett Rowland, courtesy Gensler



August 1, 2016 Jerry Adler

In the 1980s, the owner of *Newsweek*, Katharine Graham, reviewing plans to renovate the headquarters of the magazine, where I worked, questioned the necessity of private offices for the dozens of writers and editors. "I have a city room full of Pulitzer Prize–winners at *The Washington Post*," she is rumored to have said. "Why does everyone here need a private office?"

If asked, I could have explained to Mrs. Graham that my infant son woke me most mornings at 5, and a city room was an extremely uncomfortable place to nap. But her question seems almost quaint today, as designers confront the paradox of the modern office, which has grown increasingly functional in its furnishings and materials, even as it is being pressed into service for uses never imagined by the early efficiency expert Frederick Taylor: as a substitute home for employees whose days seldom end at 5 p.m., as a statement of the organization's environmental and social values, and, of course, as an amenity to attract talent to the company's ranks.

As it has for at least a decade, the struggle to define the office of the future will be played out in the context of the open floor plan, a partitionless space with desks in facing rows or clusters of four, six, or eight. It would be reductive to blame *Dilbert* for the death of the semi-enclosed cubicle, but the name of the comic strip, which came up frequently in interviews for this essay, serves as a convenient shorthand for everything workers, especially young ones, find soul-crushingly oppressive about traditional office design. Some variation of the open plan is the overwhelming choice for organizations with any pretense of hipness —which today is almost all of them, from Brooklyn start-ups to the General Services Administration, whose million-square-foot headquarters in Washington is being renovated (by Shalom Baranes, with Gensler doing interior design) to achieve what Janet Pogue, Gensler's head of global workplace research, describes as "a more open and energetic workspace reflective of GSA's sense of transparency and shared organizational culture."

Energy, transparency, and collaboration are buzzwords associated with the open plan, which gained tremendous prestige because of its connection with successful entrepreneurial organizations from those in Silicon Valley to the New York home of the Bloomberg empire. But its real attraction for many companies is that it can accommodate approximately twice as many workstations in the same space as a cubicle plan. "Over the past 15 years we've seen offices move from 200 square feet per person to 100, on average," says Simon Pole, global design director of the Australia-based Unispace. Marc Campolongo, who consults on New York–area real estate for Staples Business Advantage, says that figure is headed down to 60 feet, and he's not prepared to call a bottom—although in existing buildings, the capacity of elevators, exit stairs, and HVAC may impose one.

Fitting 700 or so office workers into an acre of floor space is premised on the reality that not every desk is occupied at all times; in fact, by various estimates, at any given moment, around half of all office workers won't be at a desk at all. They will be out of the office on business, or working from home—or actually in the office, but not at a desk. The renovated GSA building has 2,200 desks for exactly twice as many employees. Increasingly, companies are leveraging their space to take advantage of the fact that most of what people do at a desk—type on a computer and talk on the phone—can now be done anywhere.

Architects call this "activity-based working," which leads to providing dedicated spaces for a variety of tasks. The old office had desks and meeting rooms; the future will hold a proliferating array of "team project spaces"; "huddle rooms" for on-the-fly meetings; "collaboration rooms" for scheduled conferences; pods and booths for making phone calls; "focus rooms" for quiet concentration; and a variety of alcoves, benches, and café tables that can be used for various work-ish activities.

More and more, architects are seeking productive uses for underutilized spaces such as lobbies, rooftops, and the circulation within and between buildings. At the Steelcase headquarters in Grand Rapids, Michigan, "30 to 40 percent of us have assigned desks," says global director of research communications Chris Congdon; "the rest choose where we want to work on a given day." And Steelcase is a company that *makes* desks. In the past, offices allocated one break room or public-area seat for every 16 employees, but that ratio is being driven to one per four, according to research by Herman Miller presented in June at the NeoCon exposition in Chicago. Among the other findings from a two-year study for the company's "Living Office" concept: circulation and other unallocated space, which as a rule of thumb used to account for 33 percent of floor area, is now averaging up to 47 percent—at which point, says Joseph White, director of workplace strategy design and management, "the facilities planner's head explodes."

Even the definition of a desk as a place where you sit to do work is changing; standing desks are becoming ubiquitous, part of a trend toward "wellness" in the office. Architects who have mastered LEED specs will soon be studying the requirements for "Fitwel" certification by the Center for Active Design—a new program to measure how work environments affect employees' health. The details are still being fleshed out for a launch in 2017, but Lisa Pool of Perkins+Will—which designed its new Minneapolis offices with Fitwel certification in mind—says it will probably measure parameters such as the availability of healthy food, natural light, and a design that encourages or requires workers to use stairs or to walk to printers or supply rooms that are intentionally located at a distance. (The firm's space, 11,000 square feet in the 1972 IDS Center by Philip Johnson, was also designed for minimal environmental impact, using only five nonstructural materials: glass, fiberboard, aspen plywood, carpet, and steel marker board.)

The other challenge designers face is maintaining a minimum standard of privacy. Numerous studies have found, as Jungsoo Kim and Richard de Dear wrote three years ago in the *Journal of Environmental Psychology*, that "open-plan layouts are widely acknowledged to be . . . disruptive due to uncontrollable noise and loss of privacy." Research, as well as everyday experience, has shown that the greatest distraction comes from intelligible conversation within hearing range; the reason any work got done in a newspaper city room was precisely because the sounds of ringing phones, clacking typewriters, and

muttering reporters merged into an undecipherable hubbub. The acoustical engineer is an increasingly important member of the design team, deploying sound-absorbing materials and machines that muffle speech with random white noise or its more effective version, "pink" noise (which is tuned to the frequencies best at muffling human speech) and even "smart" noise (an active system that detects and plays back ambient sound in scrambled form). Pogue boasts that the GSA renovation has shrunk the intelligibility of coworkers' conversations from a radius of 50 feet (in the old building) to 15.

Furniture is also being enlisted in this effort. The high-end office of the future might have Steelcase's Brody WorkLounge Modular Workstations, a recliner with a color-coordinated footstool and lap desk in a wraparound shell that creates what Congdon calls "a cocoon effect, like a first-class airline seat," allowing the user to avoid eye contact with random passersby. The company is rolling out an app that will keep track of how and when they are used, for employees to know if their favorite pod is available. Or it might be furnished with the Herman Miller "Resolve" line, which offsets desks at the 120-degree angle "commonly found in nature" (as the company website notes) to let workers sit across from one another without quite facing. Perhaps they will work in a space defined by "Metaform" blocks, barriers of varying heights that are light enough, at around 18 pounds, for any office worker to pick up and move around (and maybe earn points toward Fitwel certification as a bonus).

So the open-plan office, far from making architecture superfluous, actually represents a new set of challenges and opportunities. "It puts the architect in a more powerful position," says Todd DeGarmo, CEO of Studios Architecture. "No client can tell you the program now. We have to help them imagine what they need."

Anyone can fill a big floor plate with endless rows of desks, but then nobody would want to work there. Much of what DeGarmo is talking about can be seen at Studios' new headquarters for *Time* Inc. on six large floors of Brookfield Place in downtown Manhattan, housing 3,000 employees across 24 brands (or "magazines" as they used to be known). The old Time-Life-Fortune offices were designed to impress visitors with their weighty significance; the new design by Studios' Joshua Rider projects a much more engaging and up-to-date image, with a glass-walled reception area that looks out on the test kitchen and video control room. What were originally 100,000-square-foot trading floors in the 1980s complex now are bisected by "boulevards" for circulation and broken into manageable "neighborhoods" of dozens, not hundreds, of desks. There are lounges and snack stations on every floor, and a large cafeteria but no formal dining room, and even as august a personality as the managing editor of Time occupies a glass-walled 120square-foot interior office that in the old *Time*—or *Newsweek* in my day—would have been considered adequate for a junior researcher.

For the record, Katharine Graham kept the private offices in the 1980s, though they were radically altered in the 21st century. The office of the future will serve many purposes—as a corporate branding statement, multimedia hub, fitness center, think tank, and playroom—but its function as private refuge and status symbol are long gone. Driven by technology, the ruthless economics of globalization, and the delicate balance between the need for squeezing 12-hour days out of employees and keeping them alive and productive, the workplace will no doubt change as much in the next 25 years as it has in the past. Architects—who, after all, inhabit these spaces themselves—are leading the way.

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