LAWRENCEVILLE PARKING STUDY 2015 UPDATE City of Pittsburgh, Pennsylvania



Prepared for:
THE LAWRENCEVILLE CORPORATION
Pittsburgh, Pennsylvania

Prepared by:
TRANS ASSOCIATES ENGINEERING CONSULTANTS, INC.
Pittsburgh, Pennsylvania

November 30, 2015



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Mr. Matthew Galluzzo
Executive Director
The Lawrenceville Corporation
The Ice House Studios
100 43rd Street, Suite 106
Pittsburgh, PA 15201

Subject: Lawrenceville Parking Study Update 2015

City of Pittsburgh, Allegheny County, Pennsylvania

Dear Mr. Galluzzo:

Trans Associates (TA) has completed the requested parking analysis for the selected study areas in the Lawrenceville section of the City of Pittsburgh. This letter has been prepared to document the data collection, analysis, and results of the study. This study serves as an update to the <u>Lawrenceville Parking Study</u>, prepared by Trans Associates and dated September 17, 2012.

Purpose of Report and Study Objectives

This report provides the results of the parking analyses performed for the selected study areas of the Lawrenceville section of the City of Pittsburgh. The parking study focused on current conditions within the Lawrenceville section of the City of Pittsburgh, centralized around the Butler Street corridor. More specifically, the study area is bounded by 33rd Street to the west, 47th Street to the east, Smallman / Willow / Hatfield / and Plummer Streets to the north, and Denny/Davison Streets to the south as shown in Figure 1.

The study objectives were to identify the current parking conditions within this selected study area with a goal of identifying both current parking utilization and identification of potential parking opportunities / improvements to optimize the parking conditions. These objectives were accomplished through performance of the following tasks:

- Collection and review of available data on potential future developments provided by the Lawrenceville Corporation;
- General observations on a street-by-street basis to update the current parking conditions documented in the 2012 <u>Lawrenceville Parking Study</u>;
- Observation of location and number of existing bike racks within the study area;
- Performance of hourly observations to estimate the number of spaces that are used/not used in the study area as observed on a typical Friday (August 14) from 6:00 PM to 11:00 PM:
- Performance of hourly observations to estimate of the numbers of spaces that are used/not used in the study area as observed on Saturday, August 15 from 6:00 PM to 11:00 PM.
 This day was specifically chosen by the Lawrenceville Corporation since it included a large



event within the study area. On this day, the 2015 RANT (Rock All Night Tour) which included, live music (street and indoor), food vendors (street and indoor), art performances, and more, occurred from 12:00 PM to 2:00 AM;

- Identification of locations of various types of land uses (i.e. residential, retail, restaurant, etc.) that generate significant parking demand;
- Calculation of the present parking surplus or deficit in the area;
- Calculation of the estimated increase in parking demand in the area based on future planned development activity in the area as provided by The Lawrenceville Corporation;
- Preparation of graphic illustrations of current and potential future parking locations, including potential usage designations.

Existing Parking Inventory

Trans Associates performed a field reconnaissance of the study area to update the existing on-street parking supply within the study area which was documented in the 2012 Lawrenceville Parking Study. Trans Associates estimated the existing legal parking capacity within the study area (based on City of Pittsburgh Urban Zoning Code standards). In addition to the on-street parking, the public metered parking lot (Pittsburgh Parking Authority operated) located on Butler Street between 42nd and 43rd Streets was also included in the study. The results of the parking inventory are presented in Figure 1. In addition, the parking control (metered, residential permit parking, unrestricted, loading zone, restricted, etc.) has also been identified and listed on Figure 1.

The most notable change in parking is along Butler Street, which has transitioned from single space parking meters to multi-space parking meters. Effectively, the multi-space parking allows for parking to occur at a slightly higher density than standard on-street parking space dimensions would typically permit. This may permit an additional parking space or two per block as compared to the previous single space parking meter system. However, the multi-space parking style has also negatively encouraged the practice of parking immediately adjacent to intersections or crosswalks where parking is not permitted by City Code.

Furthermore, a number of illegally parked vehicles and/or vehicles that are parked at a higher density than standard on-street parking space dimensions would typically permit were observed throughout the study area. This practice is typical within dense urban areas since the parking supply is limited.

Existing Bicycle Rack Locations

Trans Associates performed a field reconnaissance of the study area to update the existing bicycle rack inventory within the study area, particularly along Butler Street. As presented in Figure 2, there were at least 60 bicycle racks counted within the study area. In addition, two Healthy Ride bicycle



rental stations (stations #1018 and #1019) have been placed on 37th and 42nd Streets at Butler Street.

The number of bicycle racks within the study area has doubled since the 2012 Parking Study was performed. This continued investment in bicycle amenities continues to provide alternatives to motorized vehicles and will ultimately decrease the demand for vehicle parking in the area. However, the growth in businesses and residences in Lawrenceville continues to attract more visitors from neighboring communities which rely on vehicular travel. Therefore, the provision of bicycle parking alone will not solve the present parking issues.

Observed Active Evening Attractions

Since the previous Parking Study was completed (2012), a significant increase parking demand for Lawrenceville is evident. This is a result of a substantial increase in new residences, newly occupied residences, and new businesses within the study area.

While the previous parking study identified active attractions within the study area which appeared to generate a large parking demand, this updated study has observed a consistent active business presence stretching the entire length of Butler Street. Therefore, the parking demand can no longer be attributed to a few locations; rather the demand extends throughout the study area.

Existing Peak Parking Accumulation Observations

TA performed parking accumulation observations for the selected study area on both Friday, August 14th and Saturday, August 15th (RANT event - Rock All Night Tour) from 6:00 to 11:00 P.M. The parking accumulation observations were summarized by hour and estimated based on a percent occupied per block basis (both sides of street). The results of the parking accumulation observations are summarized in Figures 3 through 12.

As compared to the 2012 parking study, parking utilization was notably higher at 90% occupancy or more for nearly the entire study area from 6:00 to 11:00 PM on both days. This is as a result of the aforementioned consistent active business presence along the entire length of Butler Street and the increased number of residents living in the area.

The results of the parking accumulation observations led to the determination of where parking is typically available during the peak evenings. As presented in Figure 13, parking is typically available in the following areas:

- Smallman Street;
- Penn Avenue (near Doughboy Square);
- 33rd Street; and
- 34th Street.



It is apparent that these parking locations are available because of their distance to the Butler Street corridor as well as their lower density residential components. While these parking areas are available, they are not necessarily attractive or useful for the businesses within the study area. This leads to further increased parking density (in excess of the legal capacity), illegal parking, and parking spillover into residential areas near the active businesses.

Existing Hospitality Developments - Unmet Off-Street Parking Demand

Data for existing hospitality developments within the study area has been provided by the Lawrenceville Corporation and summarized in Table 1. It should be noted that this list does not include 100% of businesses in the area. This information included the number of seats for each business, and the number of off-street (private) parking spaces provided.

In order to determine the unmet off-street parking demand for existing businesses, TA estimated the expected parking demand generated by each development. Typically, new businesses would be expected to provide parking on-site. The following assumptions were made in order to estimate the parking demands:

- The parking demand includes only businesses that are open after 6:00 PM;
- Businesses were assumed to be 90% occupied (conservative estimate); and
- Modal splits were determined from PGHSNAP (version 2.0) data available from the City of Pittsburgh. For analysis purposes, the average modal split of Lower Lawrenceville and Central Lawrenceville was utilized. As shown in Table 1, approximately 33% of trips within the study area are made by an alternative mode of transportation (i.e. transit, walk, bicycle);

For analysis purposes, the parking demand was divided into four (4) parking zones as follows:

- Zone A 34th to 37th Street;
- Zone B 37th to 40th Street;
- Zone C 40th to 45th Street; and
- Zone D 45th to 47th Street.

As shown in Table 1 and Figure 14, the following unmet off-street parking demands were calculated for each zone:

- Zone A 103 unmet off-street parking space demand
- Zone B 179 unmet off-street parking space demand
- Zone C 537 unmet off-street parking space demand
- Zone D 0 unmet off-street parking space demand
- Total 819 unmet off-street parking space demand



From these calculations as well as the parking observations performed for this study, it is evident that there is a significant demand for parking within the study area that is not being met through off-street parking. Most notably, the highest demand for parking occurs in Zones B and C (37th to 45th Streets).

When taking into consideration the availability of on-street metered/unrestricted parking along Butler Street and the PPA parking lot (190 spaces assuming 90% of spaces are available and 10% are occupied), the study area still has a calculated unmet parking demand of 629 spaces.

The lack of available public parking in the area causes parking spillover into the residential areas and thus reduces the amount of parking available to residents. This is further confirmed by the parking observations which show that nearly all streets in the study area are at 90% or higher occupancy.

Future Developments Parking Requirements

Data for the future planned developments within the study area has been provided by the Lawrenceville Corporation and summarized in Table 2. This information included the location of the developments, number of residential units, commercial square footage, and the number of parking spaces to be provided.

In order to determine the unmet parking demand for the future planned developments, TA calculated the City of Pittsburgh minimum parking requirement for each development. Additionally, a reduction in the number of off-street parking spaces for providing bicycle parking was assumed for each development. The Zoning Code indicates that the reduction in the number of off-street parking spaces shall be reduced by no more than thirty (30) percent of the total required spaces. However, no reduction in the required number of disabled parking spaces is permitted.

If a development is planned to provide parking that meets or exceeds the City of Pittsburgh Zoning Code minimum parking requirement, it was assumed to be self-sufficient. The excess parking was assumed to be necessary for that specific development and would not be available to the general public or shared with other businesses.

As shown in Table 2 and Figure 15, the following parking demands were calculated for each zone:

- Zone A 45 parking space demand
- Zone B 10 parking space demand
- Zone C 19 parking space demand
- Zone D 16 parking space demand
- Total 90 parking space demand
- Total Existing and Planned Developments 909 (819 + 90) parking demand



Existing and Planned Future Developments - Parking Requirements

When taking into consideration the availability of on-street metered/unrestricted parking along Butler Street and the PPA parking lot (190 spaces assuming 90% of spaces are available), and the existing unmet off-street parking demand (819 spaces), the study area still is projected to have a total unmet parking demand of 719 spaces. Most notably, the highest demand for parking continues to be in Zones B and C (37th to 45th Streets) as shown in Figure 16.

The lack of available public parking in the area is expected to cause increased parking spillover into the residential areas.

Preferred Parking Locations

Patrons prefer to park as close to the front door of their destination as possible. Therefore, the actual parking supply is limited to that which is available within an acceptable walking distance. Based on the observations performed, it is apparent that the entire length of Butler Street has active businesses that create a demand for parking. Therefore, it was assumed that the ideal parking locations are as follows:

- Preferred Parking Location
 - Within 500 feet of Butler Street (north and south of Butler Street).
- Secondary Parking Location
 - Within 1,000 feet of Butler Street (north and south of Butler Street).

Assuming a walking speed of 3 feet per second, these distances translate into approximately 3 minutes and 6 minutes, respectively. These preferred parking locations have been presented graphically in Figure 17. For future planning purposes, providing parking within these locations would provide the most benefit to the area.

LoLa Study Parking Recommendations

As detailed in the 2012 Lawrenceville Parking Study, the LoLa Plan was researched. The Studio for Spatial Practice prepared the LoLA Plan in 2009 for the Urban Redevelopment Authority of Pittsburgh. This plan was prepared as a follow up to the Lawrenceville Community Plan and the Penn Avenue Corridor Plan and focuses on the Butler Street corridor of Lower Lawrenceville. Results of this plan included short-term and long-term goals/improvements for the area based on the following six themes: development, public safety, greening, marketing and identity, parking, and movement.

Focusing on the parking aspect of LoLa Plan, it was determined that there are a number of parking opportunities within the area, however, there are also times when parking is deficient and additional parking is needed. This situation will only be further exacerbated when the business district expands and becomes denser. Therefore, additional parking options will be required to sustain the area.



Locations identified in the LoLa Plan as possible future off-street parking areas are presented graphically in Figure 18 and include the following:

- Surface parking lot located north of Butler Street/Mulberry Way between 33rd Street and Haskell Way;
- Surface parking lot located south of Butler Street/Spring Way east of 34th Street;
- Surface parking lot located north of Butler Street/Mulberry Way between 35th Street and 36th Street;
- Parking deck to be built on the existing St. Augustine Plaza Parking Lot located south of Butler Street between 35th Street and 36th Street;
- Shared parking agreement with the Our Lady of Angles Parking Lot located south of Butler Street between 37th Street and Ater Way; and
- Surface parking lot to be constructed with the redevelopment of the Arsenal Terminal and the Smallman Street extension located north of Butler Street between 39th Street and 40th Street.

In addition to the off-street parking locations, it was recommended that additional on-street metered parking be considered along Butler Street west of 40th Street. Trans Associates agrees with this concept because this area currently does not have on-street metered parking. Metered parking could provide a benefit to the businesses along Butler Street by controlling parking with duration limits, defined parking spaces, and increased parking turnover.

Additional Parking Opportunity Areas and Recommendations

Building upon the LoLa Plan, Trans Associates identified additional off-street parking opportunities within the study area in the 2012 Parking Study and made additional recommendations. These recommendations continue to be relevant for the Lawrenceville area and should be explored further.

The continued investment in bicycle amenities continues to provide alternatives to motorized vehicles and will ultimately decrease the demand for vehicle parking in the area. However, the growth in businesses and residences in Lawrenceville continues to attract more visitors from neighboring communities which relay on vehicular travel. Therefore, the provision of bicycle parking alone will not solve the present parking issues. The lack of available public vehicular parking in the area causes parking spillover into the residential areas and thus reduces the amount of parking available to residents. In order to resolve this issue, additional public vehicular parking must be created.

Since there is a consistent active business presence stretching the entire length of Butler Street, ideally parking should be provided in multiple locations and not just in a single large parking structure. If structured parking is preferred, smaller 200 - 300 space sized facilities located along the corridor would help to reduce the impact of vehicles within the central Butler Street region.



Parking opportunity areas have been previously identified in the 2012 Parking Study based on their proximity to Butler Street, as shown in Figure 18. These locations continue to be practical parking locations and should be explored further.

- Catalyst Building parking lot shared parking agreement or exclusive public parking opportunity;
- Holy Family Church parking lot shared parking agreement opportunity (this opportunity is dependent upon the details of the future planned Holy Family development);
- Expansion of the exiting PNC Bank parking lot including a possible deck parking system;
- Potential redevelopment of used car sales lot for public surface parking;
- Surface parking lot shared parking agreement opportunity for the Busy Beaver store located on 47th Street;
- Surface parking lot shared parking agreement opportunity for the Teamster Temple Building;
- Parking opportunity at future Shoppes at Doughboy; and
- Parking opportunity at future URA Parking.

Parking lots that are outside of the identified preferred parking areas, such as the Teamster Temple Building parking lot or locations closer to the river, could serve as potential shuttle parking lots. A privately or publicly funded shuttle service at locations outside of the core Butler Street area could provide a number of benefits such as additional parking, convenient door to door transit that is sheltered from inclement weather, and reduced traffic congestion within the Butler Street core by intercepting parkers prior to entering the area. This system can also support increased valet parking within the study area.

Additionally, as future multi-modal transportation modes become available, such as the Allegheny Green River Boulevard, new on-street transit routes, new commuter rail line routes, parking demand within the Butler Street corridor may be reduced by encouraging visitors/residents to park outside of Lawrenceville or even forgo vehicular transportation altogether. However, until these multi-modal opportunities become available, Lawrenceville should invest in increasing the public off-street parking supply as soon as possible.

Furthermore, new businesses/residences within the area should provide off-street parking that meets the minimum City of Pittsburgh Zoning Code requirements and/or invest in new shared use public off-street parking (public parking garage, etc.). Funding sources for new parking should be explored including public/private partnerships, grants, bonds, or even parking revenue collection (selected hours) from on-street meters.

Additionally, the practice of permitting businesses to open and operate within an existing building/storefront without providing sufficient parking simply because the previous use is



grandfathered in with a zero (0) parking requirement needs to end. This practice has had a major contributing role with the current parking deficit crises facing Lawrenceville.

This completes Trans Associated parking evaluation for the selected Butler Street corridor study area in the Lawrenceville section of the City of Pittsburgh. If you have any questions, please do not hesitate to contact me.

Yours truly,

Cynthia A. Jampole, P.E.

Principal

CAJ:CAD:cg

Enclosure

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TABLE 1 EXISTING EVENING PARKING DEMAND (AFTER 6 PM) Lawrenceville Parking Study Update 2015 City of Pittsburgh, Allegheny County, Pennsylvania

Hospitality Business Data (As Provided by Client)	Zone A	Zone B	Zone C	Zone D		
(Does not inlcude 100% of Businesses)	34th to 37th Street	37th to 40th Street	40th Street to 45th Street	45th Street to 47th Street		
Total Occupancy - Number of Seats	431	633	1,934	8		
Number of Seats of Businesses Open after 6 PM	374	633	1,883	0		
Assume 90% Occupancy	337	570	1,695	0		
Percent Arrive by Alternative Mode (PGHSnap - 33%)	111	111 188		0		
Percent Arrive by Motor Vehicle (PGHSnap (67%)	226	382	1,136	0		
Number of Motor Vehicles (Assume Auto Occupancy of 2.0 persons per car)	113	191	568	0		
Estimated Vehicular Parking demand (Number of Vehicles)	113	191	568	0		
Parking Provided Exclusively for Businesses	10	12	31	0		
Unmet Parking Demand	103	179	537	0		
Total Unmet Parking Demand, Zones A-D	819					
Butler Street On-Street Parking Inventory (Estimated)	77	21	55	36		
Assume 90% Spaces Available	69	19	50	32		
Off-Street PPA Parking Lot Inventory	0	0	22	0		
Assume 90% Spaces Available	0	0	20	0		
Total Butler Street Parking Inventory (90% of supply)	69	19	70	32		
Total Unmet Parking Demand with On-Street Parking	34	160	467	(32)		
Total Unmet Parking Demand, Zones A-D	629					

⁽¹⁾ This data was provided by the Lawrenceville Corporation and does not include every hospitatlity business within the area (information may not have been available).

Source: Data provided by: The Lawrenceville Corporation. Analysis by: Trans Associates.

⁽²⁾ According to the City of Pittsburgh PGHSNAP data for the Central Lawrenceville neighborhood (40th Street to 51st Street), bicycle trips account for up to 1.5%, walking trips account for up to 7.7%, and transit trips account for up to 17.4% of the projected site generated trips. This reduction results in a total trip reduction of 26.6% of trips. According to the City of Pittsburgh PGHSNAP data for the Lower Lawrenceville neighborhood (33rd Street to 40th Street), bicycle trips account for up to 7.5%, walking trips account for up to 13.7%, and transit trips account for up to 18.2% of the projected site generated trips. This reduction results in a total trip reduction of 39.4% of trips. Since the study area includes both of these City neighborhoods, the average modal split trip reduction of 33% was assumed ((26.6%+39.4%)/2).

TABLE 2

LAWRENCEVILLE FUTURE PLANNED DEVELOPMENTS PARKING REQUIREMENTS

Lawrenceville Parking Study Update 2015 City of Pittsburgh, Allegheny County, Pennsylvania

Name of Project	Project Address (or Intersection)	Project Description	Number of Residential Units	Commercial Square Footage	Parking to be Provided (if known)	City of Pittsburgh Minimum Parking Requirement	City of Pittsburgh Maximum Parking Reduction with Bicycle Parking (30% of parking required)	City of Pittsburgh Minimum Parking Requirement with Bicycle Parking Reduction		Unmet Parking Demand (Assuming No Shared Parking Between Developments)	Notes
Zone A (34th to 37th Street)											
SUBTOTAL, ZONE A		154	40,866	215	238	72	166	49	-45		
Zone B (37th to 40th Street)											
SUBTOTAL, ZONE B 44			44	10,800	700	814	238	576	-10	-10	
Zone C (40th to 45th Street)											
SUBTOTAL, ZONE C 257			257	50,000	232	278	81	197	-19	-19	
Zone D (45th to 47th Street)											
SUBTOTAL, ZONE D		19	8,000	33	64	20	44	-16	-16		
TOTAL		474	109,666	1,180	1394	411	983	4	-90		

Note: If the parking to be provided was not provided for a development, it was assumed to be zero for analysis purposes.

Source: Data provided by: The Lawrenceville Corporation. Analysis by: Trans Associates.

TABLE 3 PARKING DEMAND/REQUIREMENTS WITH EXISTING & FUTURE PLANNED DEVELOPMENTS Lawrenceville Parking Study Update 2015

City of Pittsburgh, Allegheny County, Pennsylvania

Hospitality Business Data (As Provided by Client)	Zone A	Zone B	Zone C	Zone D	
(Does not inloude 100% of Businesses)	34th to 37th Street	37th to 40th Street	40th Street to 45th Street	45th Street to 47th Street	
Existing Unmet Off-Street Parking Demand (Table 1)	103	179	537	0	
Future Unmet Off-Street Parking Demand (Table 2)	45 10		19	16	
Total Unmet Off-Street Parking Demand	148 189 556		556	16	
Total Unmet Parking Demand	909				
Butler Street On-Street Parking Inventory (Estimated)	77	21	55	36	
Assume 90% Spaces Available	69	19	50	32	
Off-Street PPA Parking Lot Inventory	0	0	22	0	
Assume 90% Spaces Available	0	0	20	0	
Total Butler Street Parking Inventory (90% of supply)	69	19	70	32	
Total Unmet Parking Demand	79	170	486	(16)	
Total Unmet Parking Demand, Zones A-D	719				

⁽¹⁾ This data was provided by the Lawrenceville Corporation and does not include every hospitatlity business within the area (information may not have been available).

Source: Data provided by: The Lawrenceville Corporation. Analysis by: Trans Associates.



































