



# Memorandum

TO: Mr. Dennis W. Langley  
Weese Langley Weese Architects

FROM: Stephen B. Corcoran, P.E., PTOE  
Director of Traffic Engineering

DATE: July 3, 2017

RE: Campana Parking Study  
Batavia, Illinois

Eriksson Engineering Associates, Ltd. (EEA) conducted a parking study for the redevelopment of the Campana Factory building in Batavia, Illinois. It is located on the northwest corner of the IL 31 (Batavia Avenue) and Fabyan Parkway. This memorandum presents a description of the proposed development and its parking needs.

The Campana Factory building is a multi-story commercial building originally built for the production of hand lotion in 1936. Currently, it has sixteen commercial tenants occupying 73,177 square feet of the 133,000 square foot building. The proposed redevelopment plan will reduce the amount of commercial space and create 80 mixed income housing units in the building. Additional parking will be provided. The parking demand was analyzed separately for the apartment and commercial components of the development.

## APARTMENT PARKING

### Batavia Zoning Requirements

The City of Batavia Zoning Code for multi-family housing requires one parking space per studio unit, 1.5 spaces per one bedroom unit, and 2.25 spaces for units with two or more bedrooms. This parking requirement applies to any apartment within the City without regard to the size of the project, type of residents, or location.

The residential portion of the project will consist of 36 one-bedroom, 38 two-bedroom, and 6 three-bedroom apartments for a total of 80 units which requires 153 spaces per the zoning code. The average required parking ratio is 1.91 spaces per unit for the development.

One hundred and eleven parking spaces are proposed to serve the residential needs of the development or 1.39 parking spaces per unit. A residential parking variation of 42 spaces (27%) would be required (153 required - 111 proposed spaces).

### National Apartment Data

National data on apartment parking was obtained from the Institute of Transportation Engineers (ITE) Parking Generation, 4<sup>th</sup> Edition manual. Surveys showed a peak demand of 1.23 parking spaces per apartment or a total of 99 spaces for the proposed residential. This data is based on a typical apartment complex and does not reflect the lower demand experienced at the affordable housing component of the mixed income housing complex. The proposed parking supply exceeds the ITE parking demand estimate.

### Local Apartment Data

Local data on apartment parking demand was obtained from several sources. **Table 1** summarizes the vehicle ownership in the City of Batavia for renter occupied housing units from the US Census Data. Rental units in Batavia have an average vehicle ownership of 1.29 vehicles per unit with 14.6% of the units with no vehicle and 6.0% with three or more vehicles.

**Table 1**  
**Vehicle Ownership - Rental Units**  
**Batavia, Illinois**

Vehicles Available	Renter Occupied Units
<b>Total Units</b>	<b>2,214</b>
0	324
1	1115
2	641
3	74
4	53
5	7
<b>Average</b>	<b>1.29 veh./unit</b>

Source: 2011-2015 American Community Survey 5-Year Estimates

Parking surveys were conducted at seven luxury apartment complexes in the Northwest Suburbs of Chicago. For each property, the occupancy levels for the complex and the number of occupied spaces in the restricted underground or parking garage structures was obtained. The average surveyed demand per apartment was 1.39 vehicles per unit. A detailed copy of the parking study is attached.

**Residential Summary**

The 111 residential spaces for the 80 residential units provides a ratio of 1.39 parking spaces per unit which exceeds the parking demand from national and census data sources and matches the luxury apartment surveys (see **Table 2**). The proposed parking plan shows 88 parking stalls for residents on the east side of the building, including 8 accessible spaces and 23 resident restricted spaces on the west side of the building. The proposed plan provides adequate parking for the residential units.

**Table 2**  
**Apartment Parking Ratios**

Source	Parking Ratio
Batavia Zoning Code	1.91 sp/unit
<b>Proposed Plan</b>	<b>1.39 sp/unit</b>
NW Luxury Data	1.39 sp/unit
Batavia Census Data	1.29 sp/unit
ITE Data	1.23 sp/unit

**COMMERCIAL PARKING**

The Campana Factory currently has 16 tenants occupying a total of 73,177 square feet in the building with a variety of uses. When the apartment units are developed, six tenants will remain using 34,937 square feet for a 52% reduction in the existing commercial space.

**Table 3  
 Campana Commercial Tenant Occupancy**

Existing Tenants	Size	Future Tenants	Size
123 Mattress LLC	17,500	123 Mattress LLC	14,706
610 Home	1,380	Innovative Sports Medicine	3,091
All Dressed Up	10,375	Proforce Training LLC	3,303
Club Fusion, Inc.	12,932	Club Fusion, Inc.	12,932
Design Essentials	2,246	AT&T	405
Du-Call Miller Plastics	4,058	T-Mobile	500
Hemming & Sylvester	2,205	<b>Total Square Footage</b>	<b>34,937</b>
Hooper Corporation	Outside		
Impastato, David	5,074		
Innovative Sports Medicine	3,091		
Mainframe Software Management, Inc.	6,750		
Proforce Training LLC	3,303		
St Charles Rowing Club	1,080		
Jennifer Valenti	2,278		
AT&T	405		
T-Mobile	500		
<b>Total Square Footage</b>	<b>73,177</b>		

**Batavia Zoning Requirement**

The City of Batavia Zoning Code commercial parking requirements vary from 1 parking space per 500 square feet for furniture stores to 1 parking space per 150 square feet for indoor recreation spaces. **Table 4** shows the commercial parking requirements of the zoning code totaling 148 spaces. A parking variance of 53 spaces (36%) is required for the commercial uses (148 required – 95 provided)

**Table 4  
 Commercial Parking Requirement**

Tenants	Size	Parking requirement	Spaces
123 Mattress LLC	14,706	Retail-Furniture - 1 sp per 500 sq. ft.	29.4
Innovative Sports Medicine	3,091	Medical Clinic - 1 sp per 200 sq. ft.	15.5
Proforce Training LLC	3,303	Instructional Services - 1 sp per 200 sq. ft.	16.5
Club Fusion, Inc.	12,932	Recreation Indoors - 1 sp per 150 sq. ft.	86.2
AT&T	405	Wireless Communication Facilities – None Required	0.0
T-Mobile	500		0.0
<b>Total Square Footage</b>	<b>34,937</b>	<b>Total Spaces Required</b>	<b>147.6</b>

**National Data**

National parking data for commercial parking was obtained from the Institute of Transportation Engineers (ITE) Parking Generation, 4<sup>th</sup> Edition manual and is summarized in **Table 5**. Overall, the ITE parking data is less than the zoning requirements for all uses (55% of code). However, the parking estimate for the Club Fusion, Inc. is overstated because they only provide volleyball training services to participants and do not hold games or tournaments at this location. The AT&T and T-Mobile equipment rooms do not require any parking. The ITE parking calculations are less than the 95 spaces provided for the commercial uses.

**Table 5  
 Commercial Parking Requirement – ITE Data**

Tenants	Size	Parking Requirement	Spaces
123 Mattress LLC	14,706	LUC 890 <sup>(1)</sup> – 1.04 sp per 1,000 sq. ft.	15.3
Innovative Sports Medicine	3,091	LUC 720 – 3.2 sp per 1,000 sq. ft.	9.9
Proforce Training LLC	3,303	LUC 720 – 3.2 sp per 1,000 sq. ft.	10.6
Club Fusion, Inc.	12,932	LUC 493 – 3.55 sp per 1,000 sq. ft.	45.9
AT&T	405	-	0
T-Mobile	500	-	0
<b>Total Square Footage</b>	<b>34,937</b>	<b>Total Parking</b>	<b>81.7</b>

(1) ITE Land Use Code 890 – Furniture Store; 720 – Medical Office; 493 – Athletic Club

**Commercial Parking**

There are 38 marked parking spaces serving the existing 73,177 square feet of commercial space. With the redevelopment, the commercial parking will increase to 95 commercial spaces (+150%) while serving a reduced 34,937 square feet of commercial space.

**Benefits of Providing Less Parking**

Construction of unnecessary impervious surfaces increases the impacts of storm water runoff on the storm sewer system and the surrounding land. Paved surfaces can also result in water pollution and areas dedicated for detention ponds. Heat islands, or areas of artificially raised temperatures, also are exacerbated by unnecessary pavement. Consuming land for parking reduces the land available for green space/landscaping. Land preserved as part of the green infrastructure allows storm water to percolate into the soil, provides wildlife habitat, provides air quality and noise reduction benefits, and is aesthetically desirable.

**Land Bank Parking**

The development plan includes a phased land bank parking plan to provide up to 302 parking spaces to meet the City code requirements in the event that additional parking is needed. Initially, 206 spaces will be built (111 residential and 95 commercial) and 96 spaces land banked. These 96 parking spaces will not be built to preserve landscaping and minimize storm water runoff unless there is a demonstrated need for the additional parking.

## Conclusion

The redevelopment of the Campana Factory building into a mixed-use residential/commercial building will provide a total of 142 parking spaces to adequately serve the development. The preceding study reached the following conclusions:

1. The Batavia Zoning Code requires 301 parking spaces (153 residential and 148 commercial).
2. A parking variance of 95 spaces (32%) is needed for the proposed site plan (301 required-206 provided). A land bank parking plan has been developed to meet the code requirement if needed.
3. Parking demand and local vehicle ownership data shows that 1.39 parking spaces per unit will adequately serve the proposed residents.
4. Commercial space on site will be reduced by 52% to 34,937 square feet while increasing the parking spaces by 150% to 95 spaces.

**Memorandum To:** Gary Wendt  
The Argent Group

**From:** Stephen B. Corcoran, P.E., PTOE

**Date:** December 18, 2011

**Subject:** Apartment Parking Demand  
Arlington Downs  
Arlington Heights, Illinois

This memorandum summarizes the research on parking demand at apartment complexes in conjunction with the three proposed residential towers in the Arlington Downs project. Arlington Downs is a mixed use development containing apartments, hotels, a water park, retail, and restaurant uses. For the apartment buildings, a parking ratio of 1.45 spaces is proposed as part of the PUD. The purpose of this study is to determine if this is the appropriate parking ratio for the apartments.

### **Zoning Code Requirements**

The requirement for apartments outside Downtown Arlington Heights is two parking spaces per apartment based on the Village Zoning Code.

### **National Parking Data**

Data on parking demand for similar land-uses was obtained from the Institute of Transportation Engineers (ITE) Parking Generation, 4<sup>th</sup> Edition manual and the Urban Land Institute's Shared Parking, 2<sup>nd</sup> Edition report. The ITE data for was based on surveys of 21 suburban sites with an average peak parking demand of 1.23 vehicles per apartment. The ULI report uses 1.65 spaces per apartment.

### **US Census Data**

The US Census data for Arlington Heights was reviewed to determine the auto ownership of residents in rental housing units. The census data is based upon 7,167 renter-occupied housing units (apartments, condominiums, town homes, senior housing, and single-family homes) in Arlington Heights owning between 0 to 5 or more vehicles per unit. For all those households, the average auto ownership was 1.3 vehicles per unit. The data was refined further to eliminate rental households with no vehicles (typically senior occupied housing or near Downtown) and multiple vehicles (3 or more vehicles which typically are at single-family homes). The adjusted average ownership was 1.34 vehicles per rental unit.

**Apartment Parking Surveys**

Parking surveys were conducted at seven area apartment complexes that were included in the market study for Arlington Downs. The locations surveyed were:

Avalon of Arlington Heights: This apartment building is located in downtown Arlington Heights and provides parking in an adjacent municipal garage. This garage is also used by retailers during the day.

Central Park East: This complex contains two apartment towers on Central Road in Arlington Heights. Parking is provided by a combination of underground parking beneath the towers and surface parking.

The Pointe: Located on Rand Road by Route 53, this development provides a combination surface parking and at-grade stand alone garages. It is also in Arlington Heights.

The Wheatland's: Located along Deerfield Parkway in Buffalo Grove, this development provides a combination surface parking and at-grade stand alone garages.

Versailles on the Lake: This complex contains 12 apartment towers with parking beneath the buildings and on the surface. It is located in Schaumburg.

Field Pointe: Parking is provided by surface lots and three parking structures. Each parking structure has a restricted lower level and an open upper level. There are 12 towers and it is located in Schaumburg.

Woodland Creek: Located in Wheeling, it has six apartment towers and a combination of surface parking and parking beneath the building.

**Table 1** summarizes the number and type of units in each complex which was provided by the market study consultant.

**Table 1  
Apartment Parking Survey Locations and Size**

<b>Property</b>	<b>City</b>	<b>Studios</b>	<b>1-Beds</b>	<b>2-Beds</b>	<b>Total Apartments</b>
Avalon of Arlington Heights	Arlington Heights	28	229	152	409
Central Park East	Arlington Heights	0	96	108	204
The Pointe	Arlington Heights	0	248	64	312
The Wheatland's	Buffalo Grove	0	120	232	352
Versailles on the Lakes	Schaumburg	0	288	330	618
Field Pointe	Schaumburg	0	228	96	324
Woodland Creek	Wheeling	0	368	272	640
					<b>2,859</b>

For each property, the marketing consultant obtained the occupancy levels for each complex and the number of occupied spaces in the restricted underground or parking garage structures where access was not available. Also, the Village of Arlington Heights provided the number of residential permits issued in the municipal parking garage for residents of the Avalon apartments.

Parking surveys were conducted in the early morning that counted the number of parked cars in the surface lots. These results were combined with the data of the vehicles parked in the garages to determine the total parking demand. This was then compared with the number of occupied units to determine the parking demand per apartment. **Table 2** summarizes the results for each complex.

**Table 2**  
**Apartment Parking Survey Results**

Property	Total Units	Occupancy Rate	Occupied Units	Occupied Surface Spaces	Occupied Garage Spaces	Total Vehicles	Demand Per Apartment
Avalon of Arlington Heights	409	95%	389	0	416	416	1.07
Central Park East	204	95%	194	124	127	251	1.30
The Pointe	312	95%	296	349	60	409	1.38
The Wheatland's	352	95%	334	324	168	492	1.47
Versailles on the Lakes	618	89%	550	369	354	723	1.31
Field Pointe	324	90%	291	363	228	591	2.03
Woodland Creek	640	93%	595	397	400	797	1.34
	<b>2,859</b>		<b>2,649</b>			<b>3,679</b>	<b>1.39</b>

The average demand per apartment was 1.39 spaces per unit. If the high (Field Pointe) and the low (Avalon) data points are removed, the ratio would be 1.36 spaces.

## CONCLUSION

Based on the parking survey for apartment complexes, the following conclusions were made:

- The current Zoning Code parking requirements of two spaces per apartment exceeds the ITE, ULI, US Census, and local parking survey data.
- The proposed parking ratio of 1.45 parking spaces per apartment is adequate to serve the Arlington Downs development.