



1200 N. 28th Street

Parking Study Addendum
SUP for 15 Multi-family Dwellings
Baker Development Resources
October 22, 2019



1200 N. 28th Street

Parking Shed and Existing On-Street Parking Capacity:

The parking shed was evaluated according to the Zoning Ordinance, Sec. 30-710.3:1, relating to dimension of parking spaces and Chapter 27 Traffic and Vehicles, Sec 27-197, relating to the prohibition on on-street parking in certain specified areas.

Parking Space Dimensions:

End Stall: 17.5'

Captive Stall: 22'

Overall Total: 98 spaces



1200 N. 28th Street

Period 1: Wednesday 9/11/2019, 7:30 P.M.

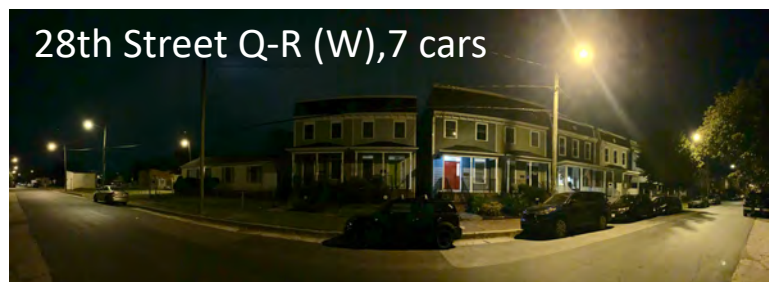
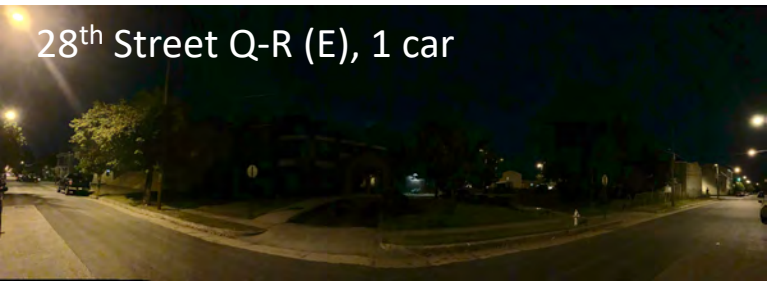
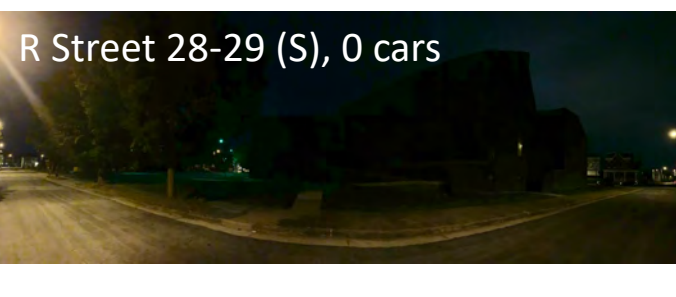
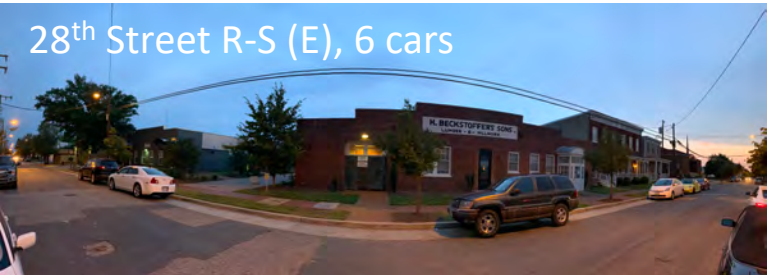
Day	Time	Block	Cars Parked	Legal Spaces	Spaces Available	% occupied
9/11/19	19:30	28th St R-S (W)	4	10	6	40.00%
9/11/19	19:30	28th St R-S (E)	6	10	4	60.00%
9/11/19	19:30	R St 27-28 (N)	1	12	11	8.33%
9/11/19	19:30	R St 27-28 (S)	0	10	10	0.00%
9/11/19	19:30	27th St Q-R (W)	4	13	9	30.77%
9/11/19	19:30	27th St Q-R (E)	3	15	12	20.00%
9/11/19	19:30	R St 26-27 (N)	0	10	10	0.00%
9/11/19	19:30	R St 26-27 (S)	0	10	10	0.00%
9/11/19	19:30	27th St R-S (W)	8	14	6	57.14%
9/11/19	19:30	27th St R-S (E)	14	14	0	100.00%
9/11/19	19:30	S St 27-28 (N)	3	11	8	27.27%
9/11/19	19:30	S St 27-28 (S)	0	6	6	0.00%
9/11/19	19:30	28th St S-T (W)	6	12	6	50.00%
9/11/19	19:30	28th St S-T (E)	8	14	6	57.14%
9/11/19	19:30	S St 28-29 (N)	0	8	8	0.00%
9/11/19	19:30	S St 28-29 (S)	0	7	7	0.00%
9/11/19	19:30	29th St R-S (W)	1	16	15	6.25%
9/11/19	19:30	29th St R-S (E)	2	14	12	14.29%
9/11/19	19:30	R St 28-29 (N)	3	7	4	42.86%
9/11/19	19:30	R St 28-29 (S)	0	10	10	0.00%
9/11/19	19:30	28th St Q-R (W)	7	13	6	53.85%
9/11/19	19:30	28th St Q-R (E)	1	12	11	8.33%
9/11/19	19:30	Q St 27-28 (N)	1	13	12	7.69%
9/11/19	19:30	Q ST 27-28 (S)	0	11	11	0.00%
		Total	72	272	200	26.47%

26.47% of the available on-street parking spaces were utilized.

A surplus of **200 on-street parking spaces were available (73.53%)** in the parking shed.

1200 N. 28th Street

Period 1: Wednesday 9/11/2019, 7:30 P.M.



Frontages from intersection of R Street and N. 28th Street.
(See photographic appendix for all frontages).

1200 N. 28th Street

Period 2: Monday 9/16/2019, 7:00 A.M.

Day	Time	Block	Cars Parked	Legal Spaces	Spaces Available	% occupied
9/16/19	7:00	28th St R-S (W)	3	10	7	30.00%
9/16/19	7:00	28th St R-S (E)	7	10	3	70.00%
9/16/19	7:00	R St 27-28 (N)	0	12	12	0.00%
9/16/19	7:00	R St 27-28 (S)	1	10	9	10.00%
9/16/19	7:00	27th St Q-R (W)	4	13	9	30.77%
9/16/19	7:00	27th St Q-R (E)	7	15	8	46.67%
9/16/19	7:00	R St 26-27 (N)	0	10	10	0.00%
9/16/19	7:00	R St 26-27 (S)	0	10	10	0.00%
9/16/19	7:00	27th St R-S (W)	8	14	6	57.14%
9/16/19	7:00	27th St R-S (E)	12	14	2	85.71%
9/16/19	7:00	S St 27-28 (N)	0	11	11	0.00%
9/16/19	7:00	S St 27-28 (S)	0	6	6	0.00%
9/16/19	7:00	28th St S-T (W)	11	12	1	91.67%
9/16/19	7:00	28th St S-T (E)	9	14	5	64.29%
9/16/19	7:00	S St 28-29 (N)	0	8	8	0.00%
9/16/19	7:00	S St 28-29 (S)	0	7	7	0.00%
9/16/19	7:00	29th St R-S (W)	1	16	15	6.25%
9/16/19	7:00	29th St R-S (E)	5	14	9	35.71%
9/16/19	7:00	R St 28-29 (N)	5	7	2	71.43%
9/16/19	7:00	R St 28-29 (S)	0	10	10	0.00%
9/16/19	7:00	28th St Q-R (W)	9	13	4	69.23%
9/16/19	7:00	28th St Q-R (E)	1	12	11	8.33%
9/16/19	7:00	Q St 27-28 (N)	4	13	9	30.77%
9/16/19	7:00	Q ST 27-28 (S)	0	11	11	0.00%
		Total	87	272	185	31.99%

31.99% of the available on-street parking spaces were utilized.

A surplus of **185 on-street parking spaces were available (68.01%)** in the parking shed.

1200 N. 28th Street

Period 2: Monday 9/16/2019, 7:00 A.M.



Frontages from intersection of R Street and N. 28th Street.
(See photographic appendix for all frontages).

1200 N. 28th Street

Period 3: Monday 9/16/2019, 8:00 P.M.

Day	Time	Block	Cars Parked	Legal Spaces	Spaces Available	% occupied
9/16/19	20:00	28th St R-S (W)	8	10	2	80.00%
9/16/19	20:00	28th St R-S (E)	10	10	0	100.00%
9/16/19	20:00	R St 27-28 (N)	1	12	11	8.33%
9/16/19	20:00	R St 27-28 (S)	1	10	9	10.00%
9/16/19	20:00	27th St Q-R (W)	7	13	6	53.85%
9/16/19	20:00	27th St Q-R (E)	4	15	11	26.67%
9/16/19	20:00	R St 26-27 (N)	0	10	10	0.00%
9/16/19	20:00	R St 26-27 (S)	0	10	10	0.00%
9/16/19	20:00	27th St R-S (W)	8	14	6	57.14%
9/16/19	20:00	27th St R-S (E)	11	14	3	78.57%
9/16/19	20:00	S St 27-28 (N)	2	11	9	18.18%
9/16/19	20:00	S St 27-28 (S)	0	6	6	0.00%
9/16/19	20:00	28th St S-T (W)	9	12	3	75.00%
9/16/19	20:00	28th St S-T (E)	12	14	2	85.71%
9/16/19	20:00	S St 28-29 (N)	0	8	8	0.00%
9/16/19	20:00	S St 28-29 (S)	0	7	7	0.00%
9/16/19	20:00	29th St R-S (W)	1	16	15	6.25%
9/16/19	20:00	29th St R-S (E)	3	14	11	21.43%
9/16/19	20:00	R St 28-29 (N)	5	7	2	71.43%
9/16/19	20:00	R St 28-29 (S)	1	10	9	10.00%
9/16/19	20:00	28th St Q-R (W)	9	13	4	69.23%
9/16/19	20:00	28th St Q-R (E)	2	12	10	16.67%
9/16/19	20:00	Q St 27-28 (N)	2	13	11	15.38%
9/16/19	20:00	Q ST 27-28 (S)	0	11	11	0.00%
		Total	96	272	176	35.29%

35.29% of the available on-street parking spaces were utilized.

A surplus of **176 on-street parking spaces (64.71%)** were available in the parking shed.

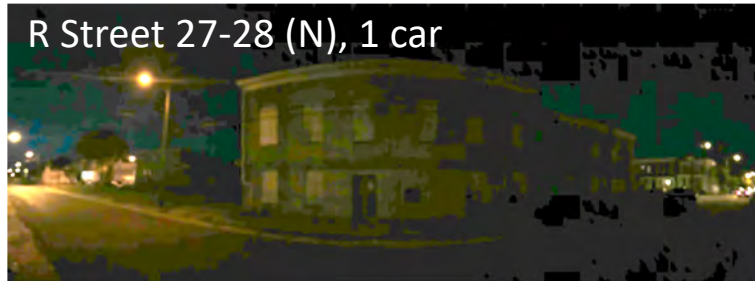
1200 N. 28th Street

Period 3: Monday 9/16/2019, 8:00 P.M.

28th Street R-S (E), 10 cars



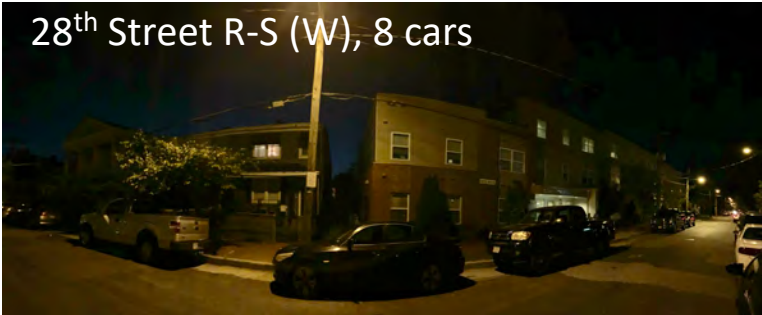
R Street 27-28 (N), 1 car



R Street 28-29 (N), 5 cars



28th Street R-S (W), 8 cars



R Street 27-28 (S), 1 car



R Street 28-29 (S), 1 car



28th Street Q-R (E), 2 cars



28th Street Q-R (W), 9 cars



Frontages from intersection of R Street and N. 28th Street.
(See photographic appendix for all frontages).

1200 N. 28th Street

Period 4: Tuesday 9/17/2019, 7:45 P.M.

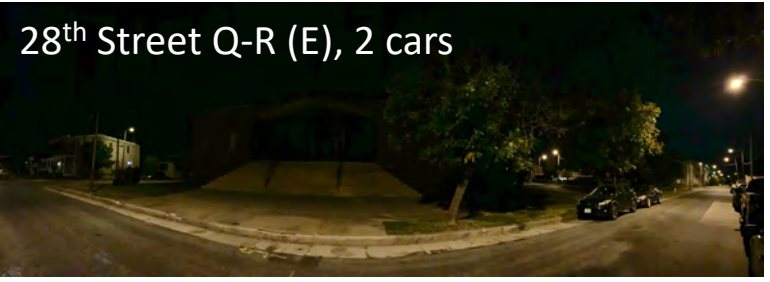
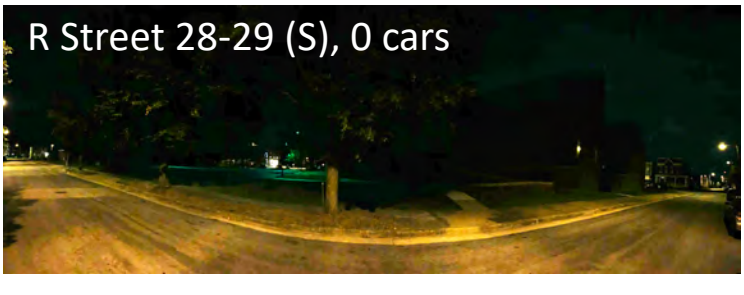
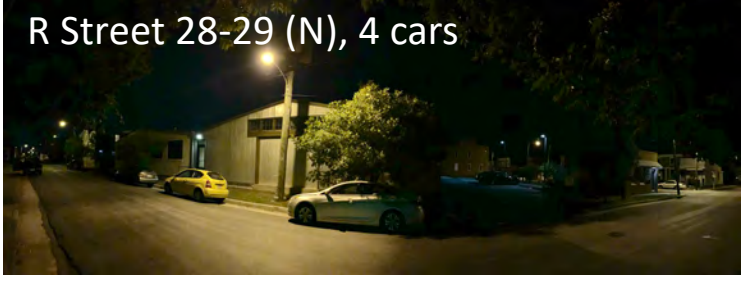
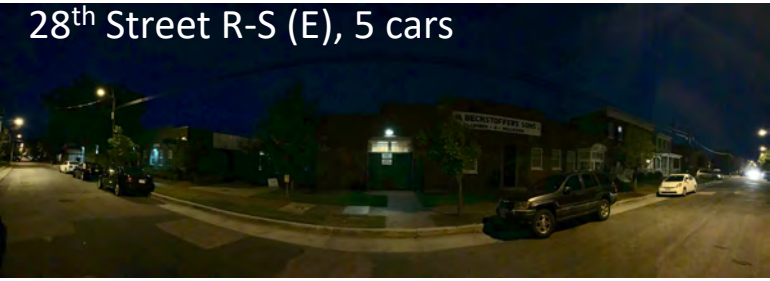
Day	Time	Block	Cars Parked	Legal Spaces	Spaces Available	% occupied
9/17/19	19:45	28th St R-S (W)	2	10	8	20.00%
9/17/19	19:45	28th St R-S (E)	5	10	5	50.00%
9/17/19	19:45	R St 27-28 (N)	1	12	11	8.33%
9/17/19	19:45	R St 27-28 (S)	0	10	10	0.00%
9/17/19	19:45	27th St Q-R (W)	7	13	6	53.85%
9/17/19	19:45	27th St Q-R (E)	5	15	10	33.33%
9/17/19	19:45	R St 26-27 (N)	0	10	10	0.00%
9/17/19	19:45	R St 26-27 (S)	0	10	10	0.00%
9/17/19	19:45	27th St R-S (W)	8	14	6	57.14%
9/17/19	19:45	27th St R-S (E)	12	14	2	85.71%
9/17/19	19:45	S St 27-28 (N)	2	11	9	18.18%
9/17/19	19:45	S St 27-28 (S)	0	6	6	0.00%
9/17/19	19:45	28th St S-T (W)	5	12	7	41.67%
9/17/19	19:45	28th St S-T (E)	10	14	4	71.43%
9/17/19	19:45	S St 28-29 (N)	0	8	8	0.00%
9/17/19	19:45	S St 28-29 (S)	0	7	7	0.00%
9/17/19	19:45	29th St R-S (W)	1	16	15	6.25%
9/17/19	19:45	29th St R-S (E)	3	14	11	21.43%
9/17/19	19:45	R St 28-29 (N)	4	7	3	57.14%
9/17/19	19:45	R St 28-29 (S)	0	10	10	0.00%
9/17/19	19:45	28th St Q-R (W)	7	13	6	53.85%
9/17/19	19:45	28th St Q-R (E)	2	12	10	16.67%
9/17/19	19:45	Q St 27-28 (N)	3	13	10	23.08%
9/17/19	19:45	Q ST 27-28 (S)	0	11	11	0.00%
		Total	77	272	195	28.31%

28.31% of the available on-street parking spaces were utilized.

A surplus of **195 on-street parking spaces (71.69%)** were available in the parking shed.

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Period 4: Tuesday 9/17/2019, 7:45 P.M.



Frontages from intersection of R Street and N. 28th Street.
(See photographic appendix for all frontages).

1200 N. 28th Street

Period 5: Tuesday 9/24/2019, 7:10 A.M.

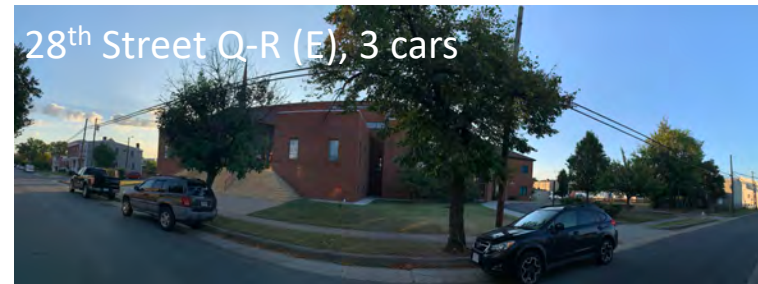
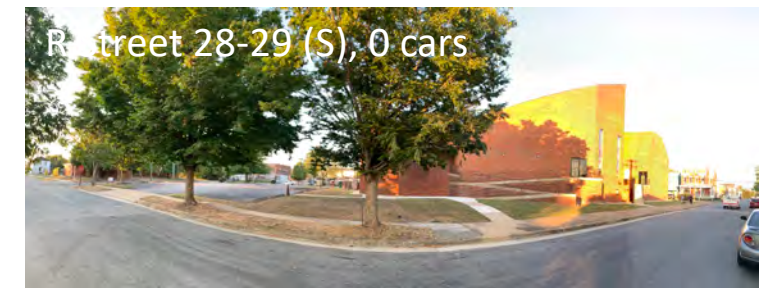
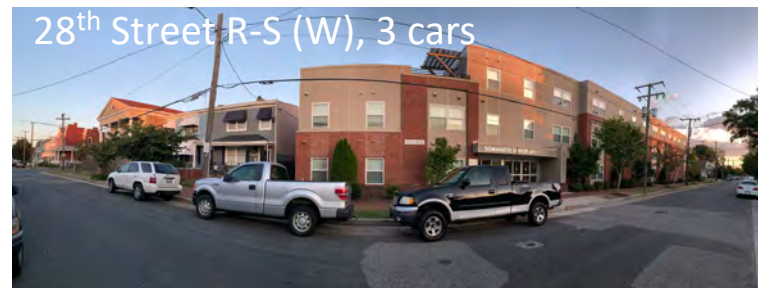
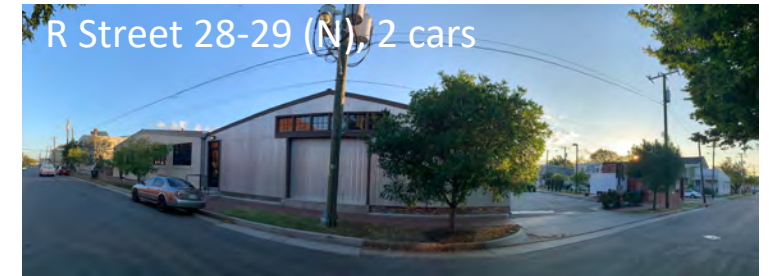
Day	Time	Block	Cars Parked	Legal Spaces	Spaces Available	% occupied
9/24/19	7:10	28th St R-S (W)	3	10	7	30.00%
9/24/19	7:10	28th St R-S (E)	6	10	4	60.00%
9/24/19	7:10	R St 27-28 (N)	0	12	12	0.00%
9/24/19	7:10	R St 27-28 (S)	1	10	9	10.00%
9/24/19	7:10	27th St Q-R (W)	7	13	6	53.85%
9/24/19	7:10	27th St Q-R (E)	6	15	9	40.00%
9/24/19	7:10	R St 26-27 (N)	0	10	10	0.00%
9/24/19	7:10	R St 26-27 (S)	0	10	10	0.00%
9/24/19	7:10	27th St R-S (W)	9	14	5	64.29%
9/24/19	7:10	27th St R-S (E)	10	14	4	71.43%
9/24/19	7:10	S St 27-28 (N)	0	11	11	0.00%
9/24/19	7:10	S St 27-28 (S)	0	6	6	0.00%
9/24/19	7:10	28th St S-T (W)	7	12	5	58.33%
9/24/19	7:10	28th St S-T (E)	9	14	5	64.29%
9/24/19	7:10	S St 28-29 (N)	0	8	8	0.00%
9/24/19	7:10	S St 28-29 (S)	0	7	7	0.00%
9/24/19	7:10	29th St R-S (W)	3	16	13	18.75%
9/24/19	7:10	29th St R-S (E)	9	14	5	64.29%
9/24/19	7:10	R St 28-29 (N)	2	7	5	28.57%
9/24/19	7:10	R St 28-29 (S)	0	10	10	0.00%
9/24/19	7:10	28th St Q-R (W)	3	13	10	23.08%
9/24/19	7:10	28th St Q-R (E)	3	12	9	25.00%
9/24/19	7:10	Q St 27-28 (N)	2	13	11	15.38%
9/24/19	7:10	Q ST 27-28 (S)	0	11	11	0.00%
		Total	80	272	192	29.41%

29.41% of the available on-street parking was being utilized.

A surplus of **192 spaces (70.59%) were available** in the parking shed.

1200 N. 28th Street

Period 5: Tuesday 9/24/2019, 7:10 A.M.



Frontages from intersection of R Street and N. 28th Street.
(See photographic appendix for all frontages).

1200 N. 28th Street

Period 6: Sunday 9/29/2019, 11:00 A.M.

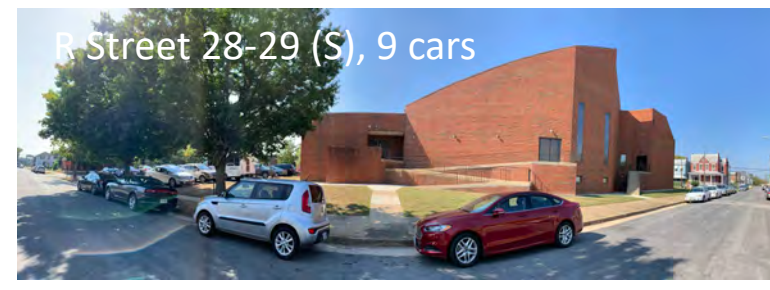
Day	Time	Block	Cars Parked	Legal Spaces	Spaces Available	% occupied
9/29/19	11:00	28th St R-S (W)	2	10	8	20.00%
9/29/19	11:00	28th St R-S (E)	6	10	4	60.00%
9/29/19	11:00	R St 27-28 (N)	3	12	9	25.00%
9/29/19	11:00	R St 27-28 (S)	5	10	5	50.00%
9/29/19	11:00	27th St Q-R (W)	7	13	6	53.85%
9/29/19	11:00	27th St Q-R (E)	6	15	9	40.00%
9/29/19	11:00	R St 26-27 (N)	0	10	10	0.00%
9/29/19	11:00	R St 26-27 (S)	0	10	10	0.00%
9/29/19	11:00	27th St R-S (W)	7	14	7	50.00%
9/29/19	11:00	27th St R-S (E)	9	14	5	64.29%
9/29/19	11:00	S St 27-28 (N)	2	11	9	18.18%
9/29/19	11:00	S St 27-28 (S)	1	6	5	16.67%
9/29/19	11:00	28th St S-T (W)	6	12	6	50.00%
9/29/19	11:00	28th St S-T (E)	7	14	7	50.00%
9/29/19	11:00	S St 28-29 (N)	0	8	8	0.00%
9/29/19	11:00	S St 28-29 (S)	0	7	7	0.00%
9/29/19	11:00	29th St R-S (W)	6	16	10	37.50%
9/29/19	11:00	29th St R-S (E)	7	14	7	50.00%
9/29/19	11:00	R St 28-29 (N)	4	7	3	57.14%
9/29/19	11:00	R St 28-29 (S)	9	10	1	90.00%
9/29/19	11:00	28th St Q-R (W)	11	13	2	84.62%
9/29/19	11:00	28th St Q-R (E)	9	12	3	75.00%
9/29/19	11:00	Q St 27-28 (N)	4	13	9	30.77%
9/29/19	11:00	Q ST 27-28 (S)	0	11	11	0.00%
		Total	111	272	161	40.81%

40.81% of the available on-street parking spaces were utilized.

A surplus of **161 on-street parking spaces (40.81%)** were available in the parking shed.

1200 N. 28th Street

Period 6: Sunday 9/29/2019, 11:00 A.M.



Frontages from intersection of R Street and N. 28th Street.
(See photographic appendix for all frontages).

1200 N. 28th Street

Period 7: Thursday 10/10/2019, 7:00 A.M.

Day	Time	Block	Cars Parked	Legal Spaces	Spaces Available	% occupied
10/10/19	7:00	28th St R-S (W)	2	10	8	20.00%
10/10/19	7:00	28th St R-S (E)	7	10	3	70.00%
10/10/19	7:00	R St 27-28 (N)	0	12	12	0.00%
10/10/19	7:00	R St 27-28 (S)	4	10	6	40.00%
10/10/19	7:00	27th St Q-R (W)	3	13	10	23.08%
10/10/19	7:00	27th St Q-R (E)	0	15	15	0.00%
10/10/19	7:00	R St 26-27 (N)	0	10	10	0.00%
10/10/19	7:00	R St 26-27 (S)	0	10	10	0.00%
10/10/19	7:00	27th St R-S (W)	8	14	6	57.14%
10/10/19	7:00	27th St R-S (E)	13	14	1	92.86%
10/10/19	7:00	S St 27-28 (N)	1	11	10	9.09%
10/10/19	7:00	S St 27-28 (S)	0	6	6	0.00%
10/10/19	7:00	28th St S-T (W)	8	12	4	66.67%
10/10/19	7:00	28th St S-T (E)	11	14	3	78.57%
10/10/19	7:00	S St 28-29 (N)	0	8	8	0.00%
10/10/19	7:00	S St 28-29 (S)	0	7	7	0.00%
10/10/19	7:00	29th St R-S (W)	4	16	12	25.00%
10/10/19	7:00	29th St R-S (E)	10	14	4	71.43%
10/10/19	7:00	R St 28-29 (N)	3	7	4	42.86%
10/10/19	7:00	R St 28-29 (S)	0	10	10	0.00%
10/10/19	7:00	28th St Q-R (W)	6	13	7	46.15%
10/10/19	7:00	28th St Q-R (E)	3	12	9	25.00%
10/10/19	7:00	Q St 27-28 (N)	3	13	10	23.08%
10/10/19	7:00	Q ST 27-28 (S)	0	11	11	0.00%
		Total	86	272	186	31.62%

31.62% of the available on-street parking spaces were utilized.

A surplus of **186 on-street parking spaces (68.38%)** were available in the parking shed.

1200 N. 28th Street

Period 7: Thursday 10/10/2019, 7:00 A.M.

28th Street R-S (E), 7 cars



R Street 27-28 (N), 0 cars



R Street 28-29 (N), 3 cars



28th Street R-S (W), 2 cars



R Street 27-28 (S), 4 cars



R Street 28-29 (S), 0 cars



28th Street Q-R (E), 6 cars



28th Street Q-R (W), 6 cars



Frontages from intersection of R Street and N. 28th Street.
(See photographic appendix for all frontages).

1200 N. 28th Street

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Cumulative Average
Cars Parked	72	87	96	77	80	111	86	87.0
Spaces Available	200	185	176	195	192	161	186	185.0
% occupied	26%	32%	35%	28%	29%	41%	32%	31.99%

Findings:

The average number of surplus on-street parking spaces available in the parking shed was **185.0 spaces**.

This represents **68.01%** of the on-street parking spaces in the parking shed.

The average number of vehicles parked (on-street parking spaces occupied) in the parking shed was **87.0 cars**, or only **31.99%**.

The development of the Property with 15 Multi-family dwellings will **conservatively require 15 to 20 parking spaces in order to satisfy future parking demand**. The “15” figure comes from the R-63 zoning standard of 1 space per dwelling unit for comparable developments (Ord. No. 2008-2-55 § 2, 3-24-2008). The “20” figure comes from the ITE standards which calculate 19.37 spaces be required based on 0.92 spaces per bedroom, with the project having 21 bedrooms. 19.37 has been rounded up to 20 for the purposes of discussion.

Based on existing conditions, an average of 185.0 and minimum of 161 on-street parking spaces are available within the parking shed during times of higher parking demand.

Adding the future on-street parking demand for the Property at 15 to 20 spaces with the average number of surplus spaces available and spaces occupied, **165-175 spaces would still be available on average** while only **102-107 of the 272 spaces within the parking shed would be occupied on average**.

1200 N. 28th Street

ITE 4th Edition Excerpt:

Land Use: 221 Low/Mid-Rise Apartment

Description

Low/mid-rise apartments are rental dwelling units located within the same building with at least three other dwelling units: for example, quadraplexes and all types of apartment buildings. The study sites in this land use have one, two, three, or four levels. High-rise apartment (Land Use 222) is a related use.

Database Description

The database consisted of a mix of suburban and urban sites. Parking demand rates at the suburban sites differed from those at urban sites and, therefore, the data were analyzed separately.

- Average parking supply ratio: 1.4 parking spaces per dwelling unit (68 study sites). This ratio was the same at both the suburban and urban sites.
- Suburban site data: average size of the dwelling units at suburban study sites was 1.7 bedrooms, and the average parking supply ratio was 0.9 parking spaces per bedroom (three study sites).
- Urban site data: average size of the dwelling units was 1.9 bedrooms with an average parking supply ratio of 1.0 space per bedroom (11 study sites).

Saturday parking demand data were only provided at two suburban sites. One site with 1,236 dwelling units had a parking demand ratio of 1.33 vehicles per dwelling unit based on a single hourly count between 10:00 and 11:00 p.m. The other site with 55 dwelling units had a parking demand ratio of 0.92 vehicles per dwelling unit based on counts between the hours of 12:00 and 5:00 a.m.

Sunday parking demand data were only provided at two urban sites. One site with 15 dwelling units was counted during consecutive hours between 1:00 p.m. and 5:00 a.m. The peak parking demand ratio at this site was 1.00 vehicle per dwelling unit. The peak parking demand occurred between 12:00 and 5:00 a.m. The other site with 438 dwelling units had a parking demand ratio of 1.10 vehicles per dwelling unit based on a single hourly count between 11:00 p.m. and 12:00 a.m.

Four of the urban sites were identified as affordable housing.

Several of the suburban study sites provided data regarding the number of bedrooms in the apartment complex. Although these data represented only a subset of the complete database for this land use, they demonstrated a correlation between number of bedrooms and peak parking demand. Study sites with an average of less than 1.5 bedrooms per dwelling unit in the apartment complex reported peak parking demand at 92 percent of the average peak parking demand for all study sites with bedroom data. Study sites with less than 2.0 but greater than or equal to 1.5 bedrooms per dwelling unit reported peak parking demand at 98 percent of the average. Study sites with an average of 2.0 or greater bedrooms per dwelling unit reported peak parking demand at 13 percent greater than the average.

For the urban study sites, the parking demand data consisted of single or discontinuous hourly counts and therefore a time-of-day distribution was not produced. The following table presents a time-of-day distribution of parking demand at the suburban study sites.

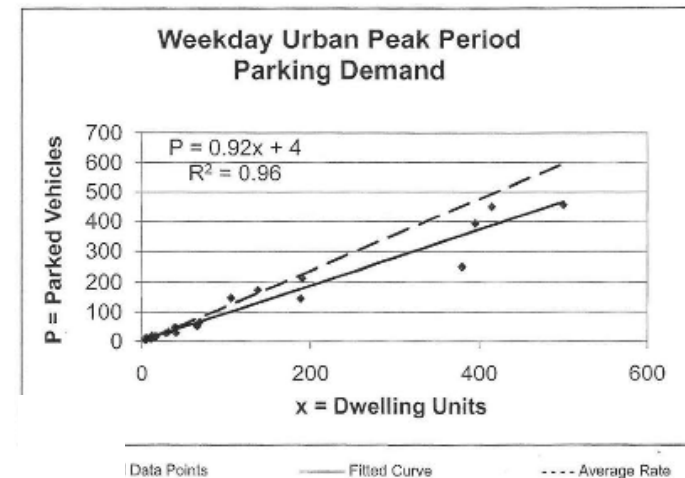
1200 N. 28th Street

Land Use: 221
Low/Mid-Rise Apartment

Average Peak Period Parking Demand vs. Dwelling Units
On a: Weekday
Location: Urban

ITE 4th Edition Excerpt:

Statistic	Peak Period Demand
Peak Period	10:00 p.m.–5:00 a.m.
Number of Study Sites	40
Average Size of Study Sites	70 dwelling units
Average Peak Period Parking Demand	1.20 vehicles per dwelling unit
Standard Deviation	0.42
Coefficient of Variation	35%
95% Confidence Interval	1.07–1.33 vehicles per dwelling unit
Range	0.66–2.50 vehicles per dwelling unit
85th Percentile	1.61 vehicles per dwelling unit
33rd Percentile	0.93 vehicles per dwelling unit



Photographical Appendix

Period 1: Wednesday 9/11/2019, 7:30 P.M.



Photographical Appendix

Period 2: Monday 9/16/2019, 7:00 A.M.



Photographical Appendix

Period 3: Monday 9/16/2019, 8:00 P.M.



Photographical Appendix

Period 4: Tuesday 9/17/2019, 7:45 P.M.



Photographical Appendix

Period 5: Tuesday 9/24/2019, 7:10 A.M.



Photographical Appendix

Period: Sunday 9/29/2019, 11:00 A.M.



Photographical Appendix

Period 7: Thursday 10/10/2019, 7:00 A.M.

