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2023-11-03
Project: (220571)

Linda Ford
M5V Developments
501 Queen Street West,
Toronto, Ontario, M5V 2B4

RE: 8885 LUNDY'S LANE, NIAGARA FALLS
PARKING DEMAND BRIEF

The City has requested a parking demand brief be completed to justify the reduction of 5 commercial parking spaces. The Applicant initially sought to have the City waive this requirement due to the minimal reduction. However, the request was declined by the City, which has asked for a parking demand brief to be provided.

As a result, Paradigm Transportation Solutions Limited (Paradigm) was retained to conduct a parking demand brief for a mixed-use development located at 8885 Lundy's Lane in Niagara Falls, Ontario.

Development Description

The proposed development is located on a 0.95-hectare parcel of land within the northeast corner of Lundy's Lane and Garner Road. The preliminary concept plan indicates that the development will comprise 184 residential units and 1,459.5 square metres (15,709 square feet) of commercial space. The residential unit count comprises 71 single-bedroom units and 113 two-bedroom units, providing 297 bedrooms.

The Development proposes to supply 283 parking spaces, 92 surface spaces, and 191 underground spaces.

Zoning Requirements

Zoning By-Law 79-200

The parking rates outlined in Zoning By-Law 79-200 stipulate the following with respect to the uses proposed:

- 1.40 parking spaces per dwelling unit.
- 1.00 parking space for 25 square metres of GFA for retail uses.

Table 1A summarizes the site-specific parking standard calculations. Applying these rates to the proposed uses results in a total required parking supply of 315, whereas the site plan shows a parking supply of 283.

TABLE 1A: SITE-SPECIFIC ZONING REQUIREMENTS

Use	Units	GFA	City of Niagara Falls By-Law 79-200	
		m^2	Parking Rate	Parking Spaces Required
Residential	184	-	1.40 space per dwelling unit	257
Retail	-	1,460	1.0 spaces per 25 m^2 GFA	58
			Total Parking Required	**315**

Modified Residential Requirements

Given that the site directly abuts an arterial road with transit service, Transportation Staff have stated that a reduced residential requirement of 1.25 parking spaces per unit can be supported. As a result, parking requirements with the modified residential requirements have also been calculated, which assumes the following:

- 1.25 parking spaces per dwelling unit.
- 1.00 parking space for 25 square metres of GFA for retail uses.

Table 1B summarizes the modified parking standard calculations. Applying these rates to the proposed uses results in a total required parking supply of 288, whereas the site plan shows a parking supply of 283.

TABLE 1B: ZONING REQUIREMENTS (MODIFIED)

Use	Units	GFA	City of Niagara Falls By-Law 79-200 (Modified)	
		m^2	Parking Rate	Parking Spaces Required
Residential	184	-	1.25 space per dwelling unit	230
Retail	-	1,460	1.0 spaces per 25 m^2 GFA	58
			Total Parking Required	**288**

Secondary Source Data (ITE)

Numerous industry associations and institutions are dedicated to surveying and reviewing parking requirements related to various land uses. These associations, such as the Institute of Transportation Engineers (ITE), collect, review and disseminate information related to parking demand, supply, and appropriate design standards. This data helps establish a typical range of requirements. The parking generation manual[1] is a comparative starting point to determine baseline assumptions.

The consensus of Parking Consultants Council members has also stated that multifamily residential parking ratios are more accurate when stated in terms of spaces per bedroom than spaces per unit and are more statistically reliable than a ratio per dwelling unit. Therefore, the parking demand basis has focused on the ratio of parking spaces per bedroom[2].

This study includes ITE peak period parking demand rates as guidelines to benchmark how the proposed supply compares to industry standards based on collected data at various proxy sites. The following ITE Land Use Code (LUC) was reviewed:

- **LUC 221 (Multifamily Housing, Mid-Rise)** Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways. The average weekday peak parking demand ratio is 0.75 spaces per bedroom during the weekday and 0.77 spaces per bedroom on a Saturday.
- **LUC 820 (Shopping Centre)** is an integrated group of commercial establishments planned, developed, owned, and managed as a unit. A shopping center's composition is related to its market area in terms of size, location, and type of store. A shopping center also provides on-site parking facilities to serve its parking demands. The average weekday peak parking demand ratio is 1.95 spaces per 1,000 square feet during the weekday and 2.91 spaces per 1,000 square feet during a Saturday.

Table 2 outlines parking rates from ITE. The ITE parking rates stipulate that 273 spaces are required, whereas the site provides 283.

The residential requirements are similar to Niagara Falls modified requirements; however, the retail parking requirements are significantly lower, which require 45 parking spaces compared to 58 identified by the zoning requirements.

[1] ITE Parking Generation 5th Edition, Washington DC, 2019.
[2] Urban Land Institute, Shared Parking, Third Edition, 2020.

TABLE 2: ITE REQUIREMENTS

Use	Bedrooms	GFA	Source	ITE Parking Requirements (Weekday)	
		ft^2		Parking Rate	Parking Spaces Required
Residential	297	-	ITE (LUC 221)	0.75 spaces per bedroom	222
Retail	-	15,709	ITE (LUC 820)	1.95 spaces per 1,000 ft^2 GFA	30
				Total Parking Required	**252**

Use	Bedrooms	GFA	Source	ITE Parking Requirements (Weekend)	
		ft^2		Parking Rate	Parking Spaces Required
Residential	297	-	ITE (LUC 221)	0.77 spaces per bedroom	228
Retail	-	15,709	ITE (LUC 820)	2.91 spaces per 1,000 ft^2 GFA	45
				Total Parking Required	**273**

Rationale for Less Parking (Shared)

Mixed-use developments, such as the proposed project, allow sharing of parking spaces between various project uses with different parking demand periods. Shared parking, therefore, reduces the total number of parking spaces required compared to what the same uses would require in stand-alone developments. It is a primary benefit in mixed-use development contexts of moderate-to-high density. It is a cornerstone of smart growth policies, and shared parking offers many benefits to the surrounding community, including more efficient use of land resources and fewer vehicle trips.

Mixed-use Development creates opportunities for shared parking because of the staggered demand peaks associated with different uses. Each land use generates unique levels and parking demand patterns, varying by time and day of the week. Parking supplies at mixed-use locations accommodate these demand fluctuations more efficiently than segregated supplies by accommodating peaking uses with spaces left vacant by other uses, thereby substantially reducing the overall number of parking spaces needed by a project. The proposed residential visitors and retail uses would exhibit peak parking demands at different times of the day; therefore, this mix of uses supports the concept of shared parking.

Visitor Demand

For the residential parking requirement, the City's zoning and ITE requirements provide for a combined parking rate that reflects both residential and visitor demand. However, residential and visitor demands need to be separated to assess the merits of a shared parking analysis adequately.

To determine an appropriate visitor demand likely to be generated, Paradigm has completed residential visitor proxy demand surveys at a site in the Town of Fort Erie and two sites in the City of Hamilton.

- 340 Prospect Point Road North, Fort Erie – A 51-unit townhouse development with on-site parking. On-street parking occupancy was also observed. This proxy site is limited to on-demand transit service only provided by the Town of Fort Erie. The Pickup and Dropoff vary in time depending on how busy the service is.
- 261 Skinner Road, Hamiton – A 23-unit stacked townhouse development with on-site parking. On-street parking occupancy was also observed. Of importance to note is the on-street parking along 261 Skinner Road provides short-term parking to all area residents and not the specific developments surveyed. As a result, only the observed spaces to/from the surveyed sites were included in the utilization rates.
- 215 Dundas Street East, Hamilton – A 58-unit townhouse development with on-site parking. Only the site's visitor parking area has been surveyed, as on-street parking is prohibited along Dundas Street East.

The survey data reflects an average visitor parking demand of 0.12 spaces per unit. **Appendix A** includes the proxy. It is recognized that this data is not based within the Niagara Falls community; however, it provides a general benchmark regarding visitor parking demand being generated at a residential development.

The Urban Land Institute's Shared Parking methodology (ULI)[3] aims to provide parking consultants, planners, engineers, developers, and agencies with tools to quantify better and understand how shared parking can be successful. The Shared Parking Manual states that 0.10 spaces per unit typically represents visitor parking at a residential site during weekdays and 0.15 spaces per unit on weekends. **Appendix B** contains the excerpt from ULI.

Based on the above and to remain conservative with the shared parking analysis, it is assumed that visitor parking requirements equate to 0.15 spaces per unit.

Baseline Rates

The first step in the shared parking analysis is to determine the appropriate parking ratios. Zoning By-law requirements are typically used to apply the shared parking analysis; however, as the City staff have identified modified rates as part of extensive studies completed for other mid-rise buildings, applying the current zoning by-law rates would not represent existing and future demand created by the proposed Development.

Instead, the City's modified parking requirements, as documented in **Table 1B**, have been utilized to capture the local context. Additionally, as the rates for residential parking do not require a specific rate for visitors, the parking rate of 1.25 spaces per unit has been further refined to reflect 1.10 residential parking spaces and 0.15 visitor parking spaces. Retail parking will be reflective of 1 space per 25 square metres of GFA.

[3] Shared Parking 3rd Edition, Urban Land Institute

Captive Market

In the shared parking analysis, the term "captive market" reflects the adjustment of parking needs and vehicle trip generation rates due to the interaction among uses in an area. "Captive market" is borrowed from market researchers to describe people already present in the immediate vicinity at certain times of the day. Traditionally, the non-captive adjustment is used to fine-tune the parking needs of persons already counted as being parked for the day. For example, a resident who visits the retail portion of the building to purchase an item only generates a parking demand for one space instead of two.

Paradigm typically uses the inverse or non-captive ratio in designing a shared-use analysis, which is the percentage of parkers not already counted as parked. However, a noncaptive factor was not applied to remain conservative with the shared parking analysis.

Time of Day Rates

The next step in the shared parking analysis accounts for how parking demand can be expected to vary by time of day, from 6 AM through 12 AM on a weekday and weekends. The time-of-day parking demand distributions, as contained in the ULI Shared Parking Manual, representing the percent of peak hour demand throughout the day, were applied to the parking ratios for each land use to determine the number of spaces required over each hour. Since parking for the retail and residential visitor supply can be shared, the project's peak demand for parking is the sum of the usage for all uses at the busiest hour.

The analysis shows that retail parking demand is at 5% of its peak parking demand at 7 AM on weekdays and reaches its peak parking demand at noon. In contrast, residential visitor parking peaks at night and drops to 20% of peak demand in the middle of the day on weekdays and weekends. In addition, to remain conservative with the approach, it is assumed that the residential spaces would be reserved at all times of day and, thus, have been removed from the shared parking pool.

Assuming full sharing of the parking supply between visitor parking spaces and retail, the peak parking demand would be 276 parking spaces during the weekday and 270 spaces during the weekend. The calculations indicate that the shared parking demand would be sufficient to meet the proposed supply of 283 parking spaces.

Table 3 outlines the peak shared parking requirement for weekdays and weekends. **Appendix C** contains the shared parking analysis.

TABLE 3A: WEEKDAY SHARED PARKING DEMAND

Land Use	Unadjusted Demand	Peak Adjustment 7:00 PM	Non-Captive	Shared Parking Demand
Resident	202	100%	100%	202
Visitor	28	100%	100%	28
Retail	58	80%	100%	46
Total	**230**	**-**	**-**	**276**

TABLE 3B: WEEKEND SHARED PARKING DEMAND

Land Use	Unadjusted Demand	Peak Adjustment 7:00 PM	Non-Captive	Shared Parking Demand
Resident	202	100%	100%	202
Visitor	28	100%	100%	28
Retail	58	70%	100%	40
Total	**230**	**-**	**-**	**270**

Conclusions

The proposed development provides a total parking supply of 283 spaces, whereas the City's Zoning requirements stipulate a total supply of 315. Given that the site directly abuts an arterial road with transit service, City Staff have stated that a parking rate of 1.25 spaces per unit can be supported for the residential component. Under the modified residential requirements, the parking requirement for the overall site would be 288 spaces.

A review of Institute of Transportation Engineers (ITE) parking data has been reviewed as a comparison to the City's requirements. The proposed development would likely generate a peak parking demand of 273 spaces based on the ITE data. The residential requirements are similar to the modified residential requirements; however, the retail parking requirements are significantly lower, requiring 45 parking spaces compared to 58 under the zoning requirements.

Additionally, mixed-use developments, such as the proposed project, allow sharing of parking spaces between various project uses with different parking demand periods. Each land use generates unique levels and parking demand patterns, varying by time and day of the week. Parking supplies at mixed-use locations accommodate these demand fluctuations more efficiently than segregated supplies by accommodating peaking uses with spaces left vacant by other uses, thereby substantially reducing the overall number of parking spaces needed by a project.

The shared parking analysis started with a baseline demand of 288 spaces. The City's zoning requirements provide a combined parking rate for the residential parking requirement that reflects both residential and visitor demand. However, residential and visitor demands need to be separated to assess the merits of a shared parking analysis adequately.

To determine an appropriate visitor demand likely to be generated, Paradigm has proxy demand surveys completed at various residential sites that reflect an average visitor demand of 0.12 spaces per unit. The Urban Land Institute's Shared Parking methodology (ULI) also states that 0.10 spaces per unit typically represents visitor parking at a residential site during weekdays and 0.15 spaces per unit on weekends. Based on the following and to remain conservative with the shared parking analysis, a visitor parking requirement of 0.15 spaces per unit has been assumed.

The shared parking analysis shows that retail parking demand is at 5% of its peak parking demand at 7 AM on weekdays and reaches its peak parking demand at noon. In contrast, residential visitor parking peaks at night and drops to 20% of peak demand in the middle of the day on weekdays and weekends. In addition, to remain conservative with the approach, it is assumed that the residential spaces would be reserved at all times of day and, thus, have been removed for the shared parking pool. After adjusting for shared parking, the peak demand is approximately 276 spaces, and the proposed supply of 283 spaces is sufficient to accommodate the projected demand.

Recommendations

The recommendation of this Parking Study Demand Brief is as follows:

- The requested reduction in the required parking supply for the subject Development should be approved.

If you have any questions or comments, please contact the undersigned.

Yours truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED

Adam J. Makarewicz
Dipl.T., C.E.T. MITE
Senior Project Manager

Appendix A

VISITOR PARKING SURVEYS

Time Ending	261 Skinner Road, Hamilton (23 Units)					
	Friday August 19, 2022			Saturday August 20, 2022		
	Site	Street	Total	Site	Street	Total
7:00 PM	1	1	2	1	1	2
7:15 PM	0	1	1	1	1	2
7:30 PM	0	1	1	0	1	1
7:45 PM	0	1	1	0	2	2
8:00 PM	0	2	2	0	2	2
8:15 PM	0	2	2	0	2	2
8:30 PM	0	2	2	1	2	3
8:45 PM	0	2	2	0	2	2
9:00 PM	0	2	2	1	2	3
9:15 PM	0	2	2	2	1	3
9:30 PM	0	2	2	1	1	2
9:45 PM	0	2	2	1	2	3
10:00 PM	0	2	2	1	1	2
10:15 PM	0	2	2	1	1	2
10:30 PM	0	2	2	1	1	2
10:45 PM	0	1	1	0	1	1
11:00 PM	0	1	1	0	1	1
11:15 PM	0	1	1	0	1	1
11:30 PM	0	1	1	0	1	1
11:45 PM	0	1	1	0	0	0
12:00 AM	0	1	1	0	0	0
12:15 AM	0	1	1	0	0	0
MAX	**1**	**2**	**2**	**2**	**2**	**3**
Visitor Rate	**0.04**	**0.09**	**0.09**	**0.09**	**0.09**	**0.13**

Time Ending	215 Dudas Street (58 Units)	
	Friday August 19, 2022	Saturday August 20, 2022
	Site	Site
7:00 PM	5	8
7:15 PM	5	8
7:30 PM	5	8
7:45 PM	5	8
8:00 PM	6	8
8:15 PM	6	8
8:30 PM	6	7
8:45 PM	5	7
9:00 PM	5	7
9:15 PM	5	7
9:30 PM	4	7
9:45 PM	4	7
10:00 PM	4	6
10:15 PM	4	6
10:30 PM	3	5
10:45 PM	3	5
11:00 PM	3	5
11:15 PM	3	4
11:30 PM	3	4
11:45 PM	3	4
12:00 AM	3	4
12:15 AM	3	4
MAX	**6**	**8**
Visitor Rate	**0.10**	**0.14**

Ontario Traffic Inc - Parking Counts

Location: 340 Prospect Point Road N, Fort Erie

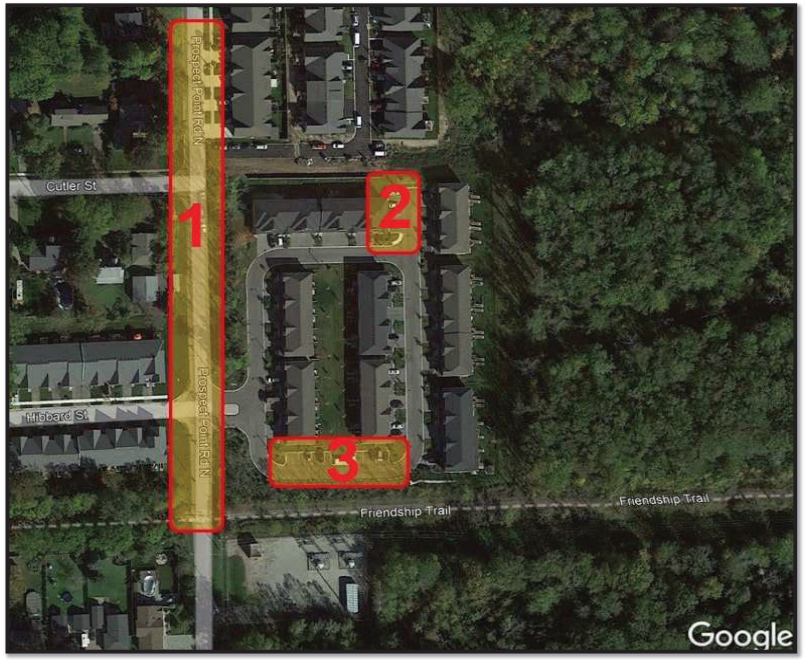
Time			Friday, June 10, 2022 Parking Area 1	2	3	Saturday, June 11, 2022 Parking Area 1	2	3
17:00	to	17:20	0	0	0	0	3	1
17:20	to	17:40	0	0	0	0	3	2
17:40	to	18:00	0	1	1	0	3	1
18:00	to	18:20	0	1	1	0	3	1
18:20	to	18:40	0	1	2	0	3	1
18:40	to	19:00	0	1	2	0	3	2
19:00	to	19:20	0	1	2	0	3	2
19:20	to	19:40	0	1	2	0	3	2
19:40	to	20:00	0	1	2	0	3	2
20:00	to	20:20	0	1	2	0	3	2
20:20	to	20:40	0	1	2	0	3	2
20:40	to	21:00	0	1	2	0	3	2
21:00	to	21:20	0	0	2	0	3	2
21:20	to	21:40	0	1	2	0	3	2
21:40	to	22:00	0	1	1	0	3	2
22:00	to	22:20	0	1	1	0	3	3
22:20	to	22:40	0	1	2	0	3	2
22:40	to	23:00	0	1	2	0	3	2
Available Spaces =				7	13		7	13

Parking Space Count	20
Total Unit Count	51

Total Demand

Friday	Saturday
0	4
0	5
2	4
2	4
3	4
3	5
3	5
3	5
3	5
3	5
3	5
2	5
3	5
2	5
2	6
3	5
3	5

Peak Parking Utilization	15%	30%
Visitor Parking Demand	0.06	0.12



Appendix B

ULI DATA

FIGURE 2-2 (continued)

	Weekday (parking spaces/unit land use)		Weekend (parking spaces/unit land use)		Peak ratio	Units	Source
Land use	Visitors	Employees	Visitors	Employees			
Hotel–business	1.00	0.15	1.00	0.15	1.15	key	2,3
Hotel–leisure	1.00	0.15	1.00	0.15	1.15	key	2,3
Restaurant/lounge	6.67	1.20	7.67	1.33	9.00	ksf GLA	2,3
Meeting/banquet (0–20 sq ft/key)	scaled from 0 to 30	scaled from 0 to 2.0	scaled from 0 to 20	scaled from 0 to 2.0	scaled from 0 to 32	ksf GLA	2,3
Meeting/banquet (20–50 sq ft/key)	scaled from 30 to 20	scaled from 2 to 1.5	scaled from 20 to 10	scaled from 2 to 1.5	scaled from 32 to 21.5	ksf GLA	2,3
Meeting/banquet (50–100 sq ft/key)	scaled from 20 to 10	scaled from 1.5 to 1.0	scaled from 10 to 5.5	scaled from 1.5 to 1.0	scaled from 21.5 to 11.1	ksf GLA	2,3
Convention (100–200 sq ft/key)	scaled from 10 to 5.5	scaled from 1 to 0.5	5.50	scaled from 1 to 0.5	scaled from 11.1 to 6	ksf GLA	2,3
Convention (>200 sq ft/key)	use convention center but adjust for captive on site						2,3
Residential							
Studio efficiency	0.10	0.85	0.15	0.85	1.00	unit	2,3
1 bedroom	0.10	0.90	0.15	0.90	1.05	unit	2,3
2 bedrooms	0.10	1.65	0.15	1.65	1.80	unit	2,3
3+ bedrooms	0.10	2.50	0.15	2.50	2.65	unit	2,3
Senior housing	0.55	0.30	0.42	0.30	0.85	unit	2,3
Office <25,000 sq ft	0.30	3.50	0.03	0.35	3.80	ksf GFA	3
Office 25,000–100,000 sq ft	sliding scale between <25,000 and 100,000				scaled from 3.8 to 3.4	ksf GFA	3
Office = 100,000 sq ft	0.25	3.15	0.03	0.32	3.40	ksf GFA	3
Office 100,000–500,000 sq ft	sliding scale between 100,000 and 200,000				scaled from 3.4 to 2.8	ksf GFA	3
Office >500,000 sq ft	0.20	2.60	0.02	0.26	2.80	ksf GFA	3
Open plan/ high-density office	0.25	5.75	0.03	0.58	6.00	ksf GFA	2
Medical/dental office	3.00	1.60	0.00	0.00	4.60	ksf GFA	2,3
Bank (drive-in branch)	3.50	2.50	3.00	1.75	6.00	ksft GFA	2,3
Arena	0.27	0.03	0.30	0.03	0.33	seat	2
Pro football stadium	0.30	0.01	0.30	0.01	0.31	seat	2
Pro baseball stadium	0.31	0.01	0.34	0.01	0.35	seat	2

Sources:

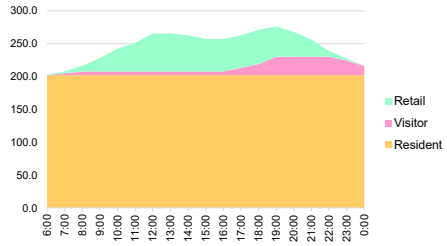
1. *Parking Requirements for Shopping Centers*, 2nd ed. (Washington, DC: ULI, 1999).
2. Developed by Team Members from a combination of sources.
3. *Parking Generation*, 5th ed. (Washington, DC: Institute of Transportation Engineers, 2019).

Note: New land uses and changes to second edition titles shown in **bold.** Changes or new ratios are highlighted in blue.

Appendix C

SHARED PARKING CALCULATION

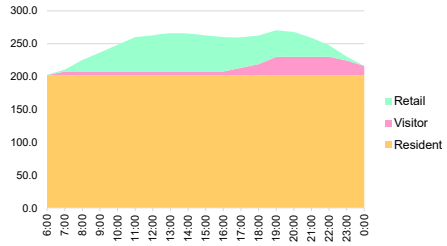
Land Use	Unadjusted Demand	Peak Adjustment 7:00 PM	Non-Captive	Shared Parking Demand
Resident	202.0	100%	100%	202
Visitor	28.0	100%	100%	28
Retail	58.0	80%	100%	46
Total	**230**	**-**	**-**	**276**



Weekday			
Time	Resident	Visitor	Retail
6:00	100%	0%	1%
7:00	100%	10%	5%
8:00	100%	20%	15%
9:00	100%	20%	35%
10:00	100%	20%	60%
11:00	100%	20%	75%
12:00	100%	20%	100%
13:00	100%	20%	100%
14:00	100%	20%	95%
15:00	100%	20%	85%
16:00	100%	20%	85%
17:00	100%	40%	85%
18:00	100%	60%	90%
19:00	100%	100%	80%
20:00	100%	100%	65%
21:00	100%	100%	45%
22:00	100%	100%	15%
23:00	100%	80%	5%
0:00	100%	50%	0%

	202	28.0	58.0	
Time		Shared Parking by Time of Day		
Time	Resident	Visitor	Retail	Total
6:00	202.0	0.0	0.6	202.6
7:00	202.0	2.8	2.9	207.7
8:00	202.0	5.6	8.7	216.3
9:00	202.0	5.6	20.3	227.9
10:00	202.0	5.6	34.8	242.4
11:00	202.0	5.6	43.5	251.1
12:00	202.0	5.6	58.0	265.6
13:00	202.0	5.6	58.0	265.6
14:00	202.0	5.6	55.1	262.7
15:00	202.0	5.6	49.3	256.9
16:00	202.0	5.6	49.3	256.9
17:00	202.0	11.2	49.3	262.5
18:00	202.0	16.8	52.2	271.0
19:00	202.0	28.0	46.4	276.4
20:00	202.0	28.0	37.7	267.7
21:00	202.0	28.0	26.1	256.1
22:00	202.0	28.0	8.7	238.7
23:00	202.0	22.4	2.9	227.3
0:00	202.0	14.0	0.0	216.0
				276.4

Land Use	Unadjusted Demand	Peak Adjustment 7:00 PM	Non-Captive	Shared Parking Demand
Resident	202.0	100%	100%	202
Visitor	28.0	100%	100%	28
Retail	58.0	70%	100%	40
Total	**230**	**-**	**-**	**270**



Weekend			
Time	Resident	Visitor	Retail
6:00	100%	0%	1%
7:00	100%	20%	5%
8:00	100%	20%	30%
9:00	100%	20%	50%
10:00	100%	20%	70%
11:00	100%	20%	90%
12:00	100%	20%	95%
13:00	100%	20%	100%
14:00	100%	20%	100%
15:00	100%	20%	95%
16:00	100%	20%	90%
17:00	100%	40%	80%
18:00	100%	60%	75%
19:00	100%	100%	70%
20:00	100%	100%	65%
21:00	100%	100%	50%
22:00	100%	100%	30%
23:00	100%	80%	10%
0:00	100%	50%	0%

	202	28.0	58.0	
Time		Shared Parking by Time of Day		
Time	Resident	Visitor	Retail	Total
6:00	202.0	0.0	0.6	202.6
7:00	202.0	5.6	2.9	210.5
8:00	202.0	5.6	17.4	225.0
9:00	202.0	5.6	29.0	236.6
10:00	202.0	5.6	40.6	248.2
11:00	202.0	5.6	52.2	259.8
12:00	202.0	5.6	55.1	262.7
13:00	202.0	5.6	58.0	265.6
14:00	202.0	5.6	58.0	265.6
15:00	202.0	5.6	55.1	262.7
16:00	202.0	5.6	52.2	259.8
17:00	202.0	11.2	46.4	259.6
18:00	202.0	16.8	43.5	262.3
19:00	202.0	28.0	40.6	270.6
20:00	202.0	28.0	37.7	267.7
21:00	202.0	28.0	29.0	259.0
22:00	202.0	28.0	17.4	247.4
23:00	202.0	22.4	5.8	230.2
0:00	202.0	14.0	0.0	216.0
				270.6