WELLS + ASSOCIATES

MEMORANDUM

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Manassas, VA 20109
703-365-9262
WellsandAssociates.com

TO: Kelly O'Brien
Town of Vienna

FROM: William F. Johnson, P.E.
A. William Steinhilber

RE: 100/102/112 Maple Avenue East - Parking Assessment

DATE: September 10, 2018
Revised March 1, 2019
Revised March 22, 2019

INTRODUCTION

This memorandum presents the results of a parking assessment in support of a proposed assisted living mixed-use development located in the Town of Vienna, Virginia. The Property is identified as 2018 Tax Map: 38-4 ((2)) 125A and is located in the northeast quadrant of the Maple Avenue (Route 123) and Center Street intersection. The site's location is shown on Figure 1. The Property is zoned C-2 (General Commercial) and is currently developed with two partially vacant office buildings totaling approximately 10,980 gross square feet (GSF). The Applicant proposes to rezone the site to the Maple Avenue Commercial (MAC) District, raze the existing use and redevelop with an assisted living facility consisting of up to 83 units (or 103 beds) along with approximately 5,700 GSF of ground floor retail uses. A reduction of the Applicant's development layout is provided on Figure 2. Vehicular access to the site is provided along Center Street.

The Town of Vienna's Zoning Ordinance does not have a parking requirement specific to an assisted living land use. Therefore, this report provides the analysis and justification associated with the subject development's proposed parking supply to serve both the assisted living and retail components of the site. The following sections detail the parking assessment. Sources of data for this assessment include, but are not limited to, the files and library of Wells + Associates, Sunrise Senior Living, Town of Vienna, and the Institute of Transportation Engineers (ITE).

TOWN OF VIENNA PARKING REQUIREMENTS

Article 16 of the Vienna Zoning Ordinance (the "Ordinance") establishes parking requirements for various land uses by providing parking rates per unit of land use (i.e., per residential dwelling unit, per 1,000 GFA of retail uses, etc.). According to the Ordinance, all required parking spaces shall be made available to and provided for the use of the occupant or occupants and, if applicable, patrons

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Figure 1

Site Location

100-102 Maple Avenue

Town of Vienna, Virginia

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GROUND FLOOR PLAN
3/32"=1'-0"

Figure 2

Site Layout

100-102 Maple Avenue

Town of Vienna

ACB

RUST | ORLING ARCHITECTURE

1215 CAMERON STREET
ALEXANDRIA, VA
22314

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admin@rustorling.com
www.rustorling.com

SUNRISE OF VIENNA
100 -102 Maple Avenue East
Vienna, Virginia

18012

REVISIONS

DATE	DESCRIPTION

BAR SUBMISSION PLAN
02.21.19

ARCHITECTURAL SITE PLAN/ GROUND FLOOR PLAN

SHEET NO.

A1.1

or customers of such uses. A copy of the relevant Ordinance text is provided herein as Attachment 1.

Article 16, Section 18-130 of the Ordinance outlines the parking requirements for "Commercial Building" (i.e., retail) uses as follows:

> "1 space per 200 square feet of floor area on all floors"

Based on a strict application of the Zoning Ordinance, 29 parking spaces would be required to accommodate the parking demand associated with the proposed retail uses. This calculation is summarized in Table 1.

As stated previously, the Town does not have a parking requirement in the Ordinance specific to an assisted living use. Therefore, this assessment provides the analysis and justification of the proposed parking supply to demonstrate the supply is adequate for the proposed development, as outlined in the following sections.

PROPOSED PARKING SUPPLY

As depicted on the submitted development plan for the proposed development, the Applicant intends to provide 4 surface spaces and 56 garage parking spaces (inclusive of 4 tandem spaces) for a total of 60 spaces to serve the site.

The MAC zoning designation includes an incentive to provide structured parking in that each space within a parking structure can be counted as 1.25 spaces toward the parking supply. Therefore, the effective parking supply for the site is calculated as follows:

Garage Parking Provided:	56 Spaces (X1.25)	70 Spaces
Off-Street Surface Parking Provided:		4 Spaces
Effective Parking Supply:		74 Spaces

In general, the at-grade/surface parking supply is envisioned to be used by patrons of the on-site retail uses. The garage parking would be primarily used by the employees, residents, and visitors of the assisted living component. However, retail users would be permitted to use the spaces in the garage.

Table 1
100/102/1112 Maple Avenue East
Parking Summary

Land Use	Size	Unit	Ordinance Requirement Rate	Amount
Commercial (Retail)	5,700	GSF	1 space per 200 square feet of floor area on all floors	29
Assisted Living	83	Units	No Assisted Living Rate in Ordinance; Requirement based on 0.40 space per unit	34
TOTAL				**63**

ITE PARKING GENERATION

Overview. ITE's (Institute of Transportation Engineers) *Parking Generation,* 5th Edition, is an informational report based on the research and experiences of transportation engineering and planning professionals. Parking demand data are provided for 121 land uses. The data for each land use are subcategorized by setting (i.e., urban/suburban, city core, etc.) The majority of data is reflective of isolated suburban sites with free parking and little transit services. Some sites however have sufficient data points to distinguish potentially different parking demand characteristics.

Assisted Living Uses. ITE classifies the proposed development as "Assisted Living" (Land Use Code 254) in the *Parking Generation* manual. There are 39 study sites for this land use. The manual states that the Average Peak Period Parking Demand ratio was calculated to be 0.40 spaces per dwelling unit. The "85th Percentile" demand ratio was calculated at 0.53 spaces per dwelling unit. As shown in Table 2, these ratios, when applied to the proposed 83 units, would equate to a parking demand of 33 spaces at the average demand and 44 spaces at the 85th Percentile demand.

ASSISTED LIVING PARKING DEMAND COUNTS

Wells + Associates has conducted parking demand counts at six (6) assisted living communities owned and operated by Sunrise Senior Living: two communities located in Fairfax County (Springfield and Oakton), one community located in Alexandria, one community located in Falls Church, one community located in Washington, DC, and one other community located in Chevy Chase, Maryland. The counts for the Fairfax County facilities were conducted on Thursday, January 29, 2015 and the counts for the Alexandria and Washington DC communities were conducted on Wednesday, April 26, 2017 and Thursday, April 27, 2017. Counts of the Falls Church and Maryland sites were conducted on January 31, 2019 (Thursday), February 1, 2019 (Friday), and February 3, 2019 (Sunday). Copies of the count data are provided in Attachment 2. The locations of the six sites are depicted graphically on Figure 3 and the analysis of the parking counts is summarized in Table 3.

As shown in Table 3, generally the peak parking demand across the studied sites occurred on a weekday. The maximum weekday vehicle demand ratios for the six assisted living communities ranged from 0.27 to 0.49 spaces per unit. The average peak demand for the six evaluated sites across the measured days is calculated at 0.40 spaces per unit, consistent with the average demand rate published in the ITE *Parking Generation* manual. Based on the data summarized on Table 3, the average weekend peak parking demand would be 0.32 spaces per unit. Therefore, the parking supply for the subject site should be based on the higher demand of 0.40 spaces per unit. Applying a rate of 0.40 spaces per unit to the 83 units proposed at the subject site yields a peak parking

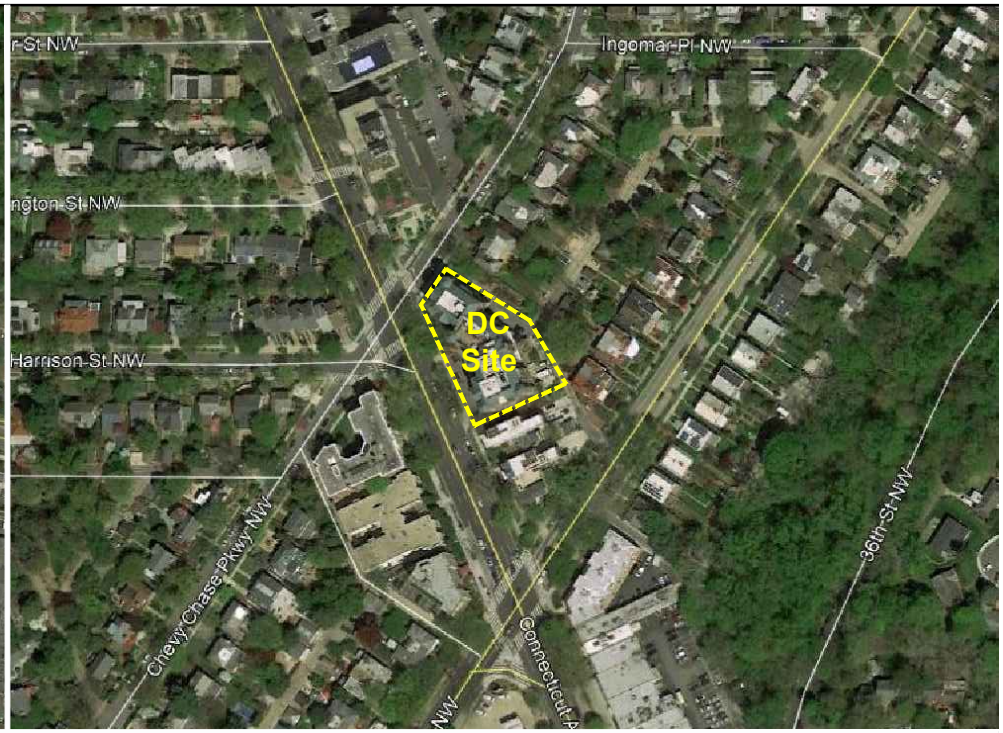
Table 2
100/102/112 Maple Avenue East
ITE Parking Generation Analysis

Land Use	Size	Unit	Peak Demand Rate per ITE Rate		Amount
ITE Parking Generation, 4th Edition Demand Rates (1)					
Note: ITE Land Use "Assisted Living" (Code 254)					
Average Peak Period Parking Demand					
Assisted Living	83	Units	0.40	per Unit	34
85th Percentile Peak Period Parking Demand					
Assisted Living	83	Units	0.53	per Unit	44

Notes:
(1) Rates provided in the Institute of Transportation Engineers (ITE) Parking Generation, 5th Edition.

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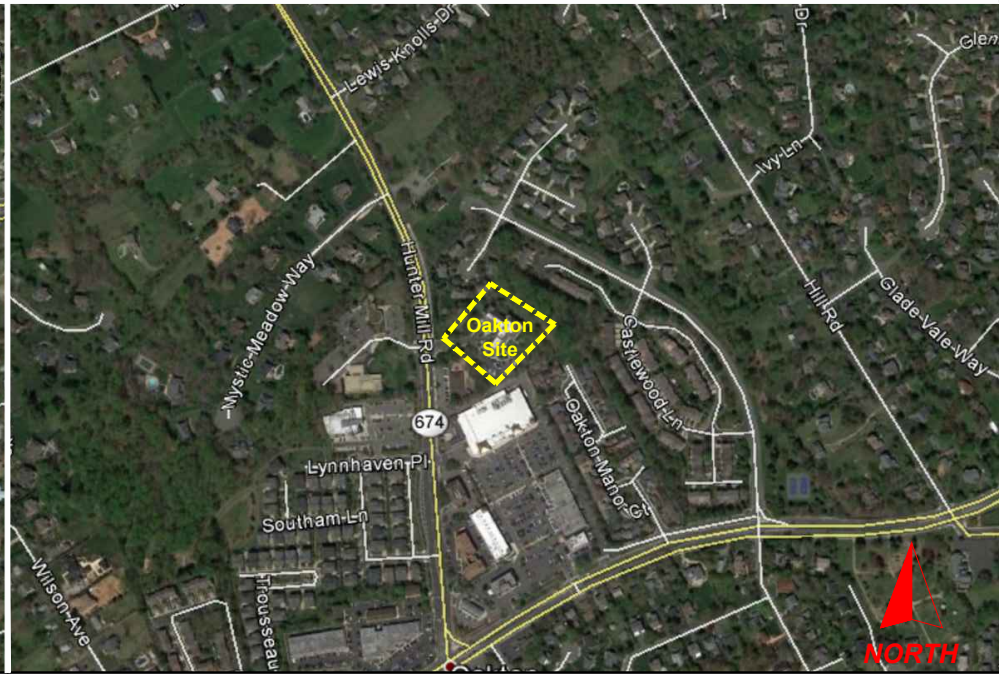


Figure 3A

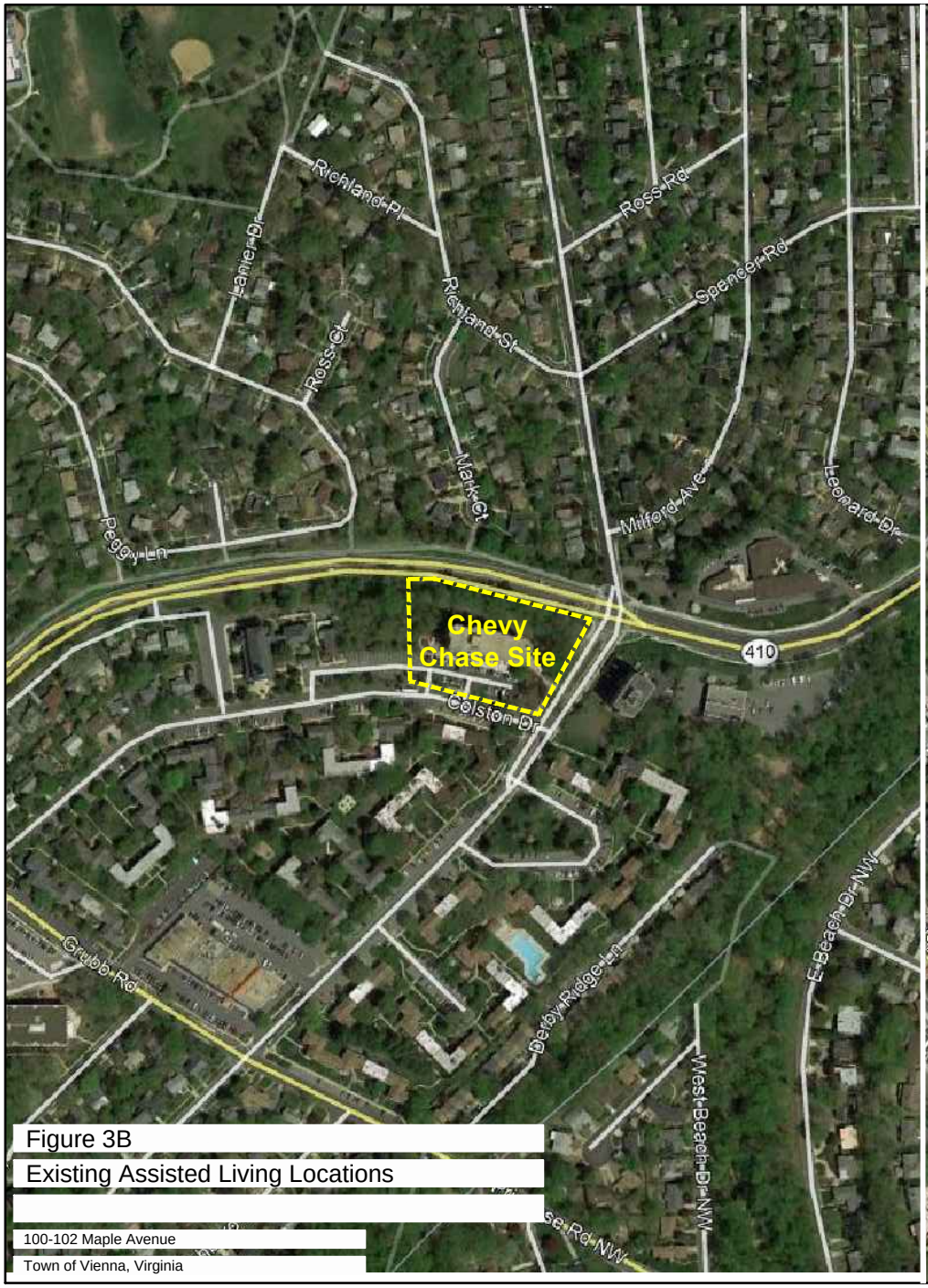
Existing Assisted Living Locations

100-102 Maple Avenue

Town of Vienna, Virginia

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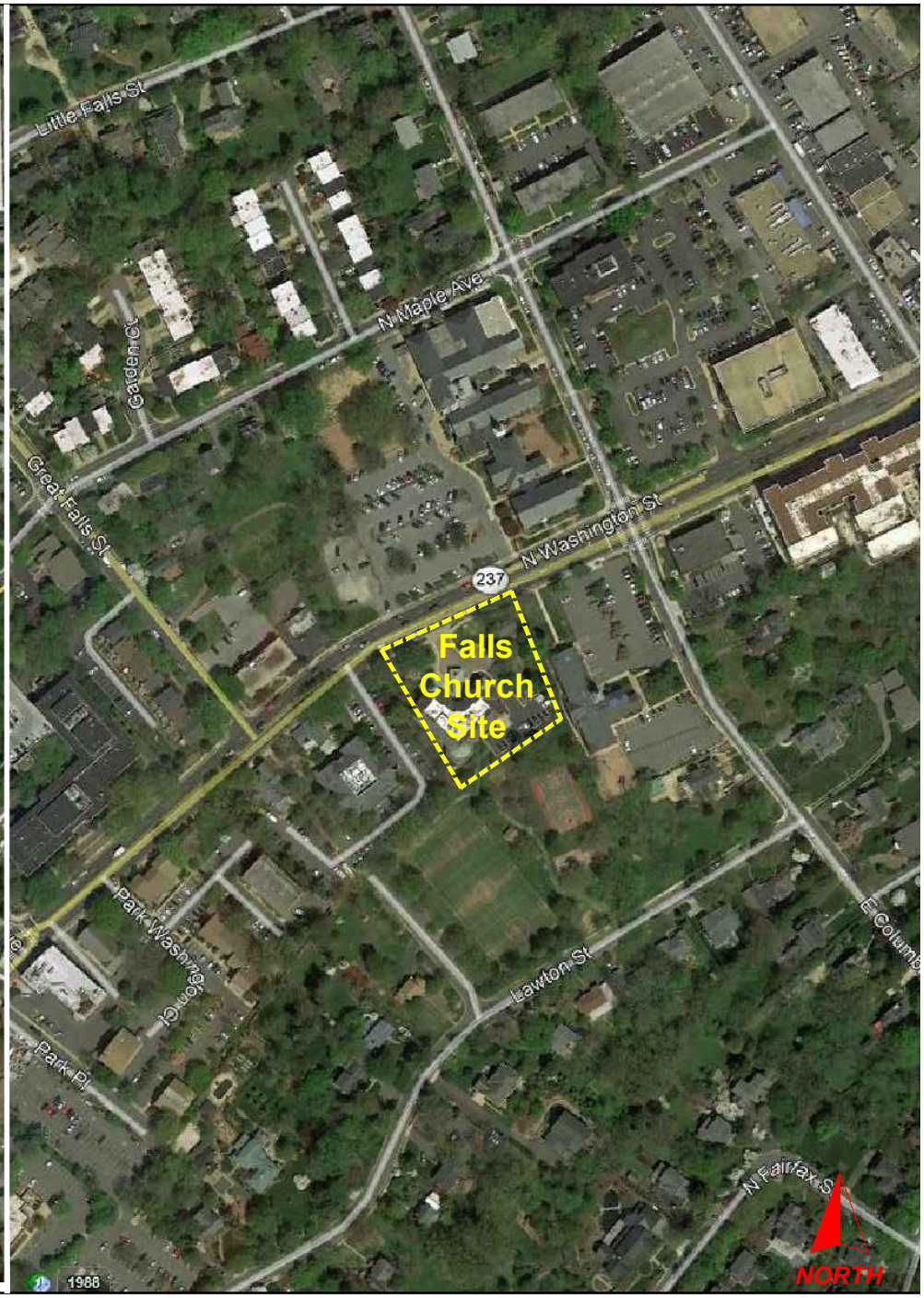


Figure 3B

Existing Assisted Living Locations

100-102 Maple Avenue

Town of Vienna, Virginia

ACB

Table 3A
100/102/112 Maple Avenue East
Weekday Parking Occupancy Count Summary [1]

	2863 Hunter Mill Rd. (Oakton) Units: 75 Total Spaces Available: 37 Count Date: 1/29/15			6541 Franconia Rd. (Springfield) Units: 79 Total Spaces Available: 36 Count Date: 1/29/15			5111 Connecticut Ave. NW (Washington DC) Units: 100 Total Spaces Available: 28 Count Date: 4/26/17			3520 Duke St. (Alexandria) Units: 76 Total Spaces Available: 37 Count Date: 4/26/17			2201 Colston Dr. (Chevy Chase) Units: 98 Total Spaces Available: 42 Count Date: 1/31/19			330 N. Washington St. (Falls Church) Units: 53 Total Spaces Available: 19 Count Date: 1/31/19		
Time	Vehicles	% Occupied	Spaces/Unit	Vehicles	% Occupied	Spaces/Unit	Vehicles	% Occupied	Spaces/Unit	Vehicles	% Occupied	Spaces/Unit	Vehicles	% Occupied	Spaces/Unit	Vehicles	% Occupied	Spaces/Unit
6:00 AM	9	24.3%	0.12	6	16.7%	0.08							10	23.8%	0.10	7	36.8%	0.13
7:00 AM	17	45.9%	0.23	14	38.9%	0.18							17	40.5%	0.17	10	52.6%	0.19
8:00 AM	25	67.6%	0.33	18	50.0%	0.23	17	60.7%	0.17	17	45.9%	0.22	21	50.0%	0.21	13	68.4%	0.25
9:00 AM	28	75.7%	0.37	18	50.0%	0.23	20	71.4%	0.20	24	64.9%	0.32	16	38.1%	0.16	13	68.4%	0.25
10:00 AM	31	83.8%	0.41	31	86.1%	0.39	22	78.6%	0.22	28	75.7%	0.37	20	47.6%	0.20	15	78.9%	0.28
11:00 AM	37	100.0%	0.49	36	100.0%	0.46	25	89.3%	0.25	32	86.5%	0.42	23	54.8%	0.23	15	78.9%	0.28
12:00 PM	36	97.3%	0.48	27	75.0%	0.34	25	89.3%	0.25	33	89.2%	0.43	22	52.4%	0.22	13	68.4%	0.25
1:00 PM	37	100.0%	0.49	26	72.2%	0.33	26	92.9%	0.26	34	91.9%	0.45	21	50.0%	0.21	12	63.2%	0.23
2:00 PM	36	97.3%	0.48	35	97.2%	0.44	27	96.4%	0.27	34	91.9%	0.45	26	61.9%	0.27	15	78.9%	0.28
3:00 PM	37	100.0%	0.49	32	88.9%	0.41	27	96.4%	0.27	36	97.3%	0.47	33	78.6%	0.34	19	100.0%	0.36
4:00 PM	26	70.3%	0.35	24	66.7%	0.30	23	82.1%	0.23	32	86.5%	0.42	28	66.7%	0.29	12	63.2%	0.23
5:00 PM	22	59.5%	0.29	19	52.8%	0.24							19	45.2%	0.19	8	42.1%	0.15
6:00 PM	19	51.4%	0.25	20	55.6%	0.25							15	35.7%	0.15	8	42.1%	0.15
7:00 PM	17	45.9%	0.23	15	41.7%	0.19							12	28.6%	0.12	7	36.8%	0.13

Notes:
(1) Unit quantity provided by Sunrise Senior Living

Table 3B
100/102/112 Maple Avenue East
Weekend Parking Occupancy Count Summary [1]

	5111 Connecticut Ave. NW (Washington DC)			3520 Duke St. (Alexandria)			2201 Colston Dr. (Chevy Chase)			330 N. Washington St. (Falls Church)		
	Units: 100			Units: 76			Units: 98			Units: 53		
	Total Spaces Available: 28			Total Spaces Available: 37			Total Spaces Available: 42			Total Spaces Available: 19		
	Count Date: 4/27/17			Count Date: 4/27/17			Count Date: 2/3/19			Count Date: 2/3/19		
Time	Vehicles	% Occupied	Spaces/Unit	Vehicles	% Occupied	Spaces/Unit	Vehicles	% Occupied	Spaces/Unit	Vehicles	% Occupied	Spaces/Unit
6:00 AM							6	14.3%	0.06	5	26.3%	0.09
7:00 AM							11	26.2%	0.11	10	52.6%	0.19
8:00 AM	13	46.4%	0.13	21	56.8%	0.28	11	26.2%	0.11	12	63.2%	0.23
9:00 AM	18	64.3%	0.18	22	59.5%	0.29	13	31.0%	0.13	14	73.7%	0.26
10:00 AM	22	78.6%	0.22	25	67.6%	0.33	16	38.1%	0.16	14	73.7%	0.26
11:00 AM	22	78.6%	0.22	30	81.1%	0.39	19	45.2%	0.19	16	84.2%	0.30
12:00 PM	22	78.6%	0.22	32	86.5%	0.42	18	42.9%	0.18	12	63.2%	0.23
1:00 PM	22	78.6%	0.22	33	89.2%	0.43	22	52.4%	0.22	12	63.2%	0.23
2:00 PM	25	89.3%	0.25	33	89.2%	0.43	18	42.9%	0.18	17	89.5%	0.32
3:00 PM	22	78.6%	0.22	36	97.3%	0.47	21	50.0%	0.21	12	63.2%	0.23
4:00 PM	22	78.6%	0.22	32	86.5%	0.42	21	50.0%	0.21	10	52.6%	0.19
5:00 PM							21	50.0%	0.21	11	57.9%	0.21
6:00 PM							16	38.1%	0.16	11	57.9%	0.21
7:00 PM							13	31.0%	0.13	7	36.8%	0.13

demand of 33 spaces. It should be noted that the Chevy Chase location has not yet reached full occupancy. However, Sunrise staff have indicated that on-site staffing levels are likely at their peak and would not change significantly.

As further shown in Table 3, the parking demand counts indicate that demand varies across the course of a typical weekday. For the Fairfax County (Oakton and Springfield) sites, the highest demand occurred from 10:00 AM to 3:00 PM, which is consistent with ITE hourly demand data. Beyond those hours, the parking demand was less than 80% of the parking supply. Before 8:00 AM and after 6:00 PM, the parking demand had fallen to 50% of the total parking supply. Therefore, the peak parking demand that the proposed assisted living use would experience would likely occur in the midday (outside typical commuter peak periods). In no event did the peak demand of each site occur during the observed weekend (Saturday or Sunday) days.

Transit/Other Mode Experience at Existing Sunrise Facilities. Sunrise conducted an informal survey of its employees at several of its existing facilities to better understand current commute travel behavior. Based on information supplied by on-site managers, each surveyed site experiences a portion of its staff taking some mode other than driving alone to complete their commutes. Approximately 40% of the employees at the Falls Church location use public transportation or carpool; approximately 90% of employees at the Chevy Chase locations use public transportation. Although not included in the observed parking demand counts, according to Sunrise the Rockville Maryland location experiences 70% transit usage among its employees.

The lowest observed parking demand was experienced at the Washington, DC location (5111 Connecticut Avenue NW), indicating a high level of transit/other mode usage. Although the Connecticut Avenue facility is located in Washington, DC, the site shares characteristics comparable to the proposed Vienna location. The Connecticut Avenue facility is located beyond ¾ mile from the nearest Metrorail station and is served by two Metrobus routes, as shown on Figure 4. Furthermore, the facility is not located in a dense urban neighborhood and is surrounded by single-family residential units. In considering these comparable factors, including this site in the survey of existing Sunrise facilities is appropriate. However, the average observed peak parking rate of 0.40 spaces per unit is considerably higher than the observed parking demand at this location.

PROJECTED PEAK PARKING DEMAND

Shared Parking Analysis. The Urban Land Institute (ULI) publication Shared Parking, 2nd edition has established a model and methodology for determining parking demand for various types of mixed-use development. This methodology is especially useful in cases such as the 100/102/112 Maple Avenue East, where a single parking space may be used for either the assisted living or the retail components of the proposed development. Because each land use within a development may experience a peak parking demand at different times of day relative to the other land uses on-site, the actual peak parking demand of the subject development may be less than if the peak parking

demand of each land use was considered separately. For example, a sit-down restaurant tends to experience peak parking demand during the evening hours, while shopping center and office uses experience peak demand just after the noon hour. Based on the data collected at the existing Sunrise facilities, the proposed assisted living use is projected to experience its peak demand at 3:00 PM.

ULI provides base parking rates and hourly parking accumulations for individual land uses for the purpose of establishing a base peak parking demand. For purposes of this study, the weekday baseline parking demand associated with the retail component is identified by ULI as 2.9 spaces per 1,000 SF (for customers) and 0.70 spaces per 1,000 SF (for employees), resulting in a blended peak demand rate of 3.6 spaces per 1,000 SF. The resulting calculated peak demand for the proposed 5,700 SF retail component is 21 spaces. Based on the background data and analyses provided in the preceding sections, a parking demand of 33 spaces is projected for the assisted living component.

The ULI model applies various hourly adjustment factors to the parking demands of each land use. Those hourly adjustments and the resulting parking demand calculation is provided in Table 4. As shown, the calculated peak parking demand for the proposed mixed-use development is 52 spaces. which is fewer than the number of parking spaces proposed to be provided (absent the incentive factor associated with structured parking).

Projected Parking Demand. As described previously, the peak parking demand calculated for the site is 52 spaces. The total parking supply of the site (excluding the supply bonus associated with providing structured parking in a MAC designated site) is 60 spaces. Therefore, the parking supply provided on the site is sufficient to accommodate the peak parking demand associated with the proposed retail and assisted living uses, with additional capacity available to accommodate occasional “spikes” in demand.

TRANSIT SERVICE AND ALTERNATIVE MODES

The subject site is served by several bus routes that operate along Maple Avenue. A bus shelter is located immediately adjacent to the site which accommodates the following bus routes:

- Fairfax Connector 461: Flint Hill-Vienna
- Fairfax Connector 463: Maple Avenue-Vienna

These routes connect the site to other points in Vienna as well as the Vienna Metrorail station and locations in Tysons. Copies of these bus route timetables are provided for reference in Attachment 3. Therefore, the site will be well served by bus transit allowing multimodal options for travel to/from the development thereby reducing parking demand. As described above, experience from current Sunrise Senior Living communities in the Washington DC metro area have shown high

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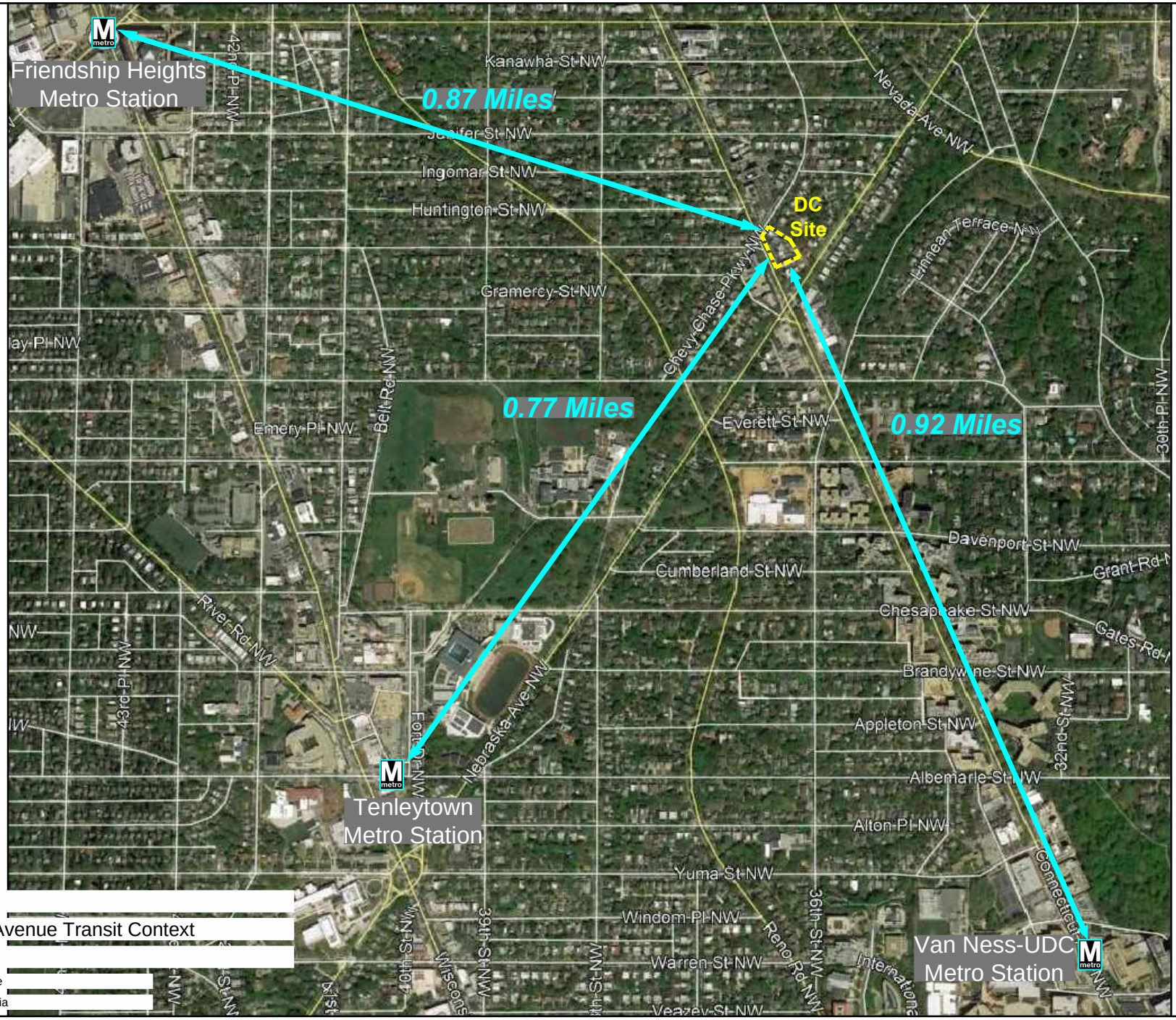


Figure 4
Connecticut Avenue Transit Context

100-102 Maple Avenue
Town of Vienna, Virginia

Table 4
100/102/112 Maple Avenue East
Shared Parking Analysis

Base Data:

	Rate	Max Parking Demand
	2.9 spaces/1000 SF (customer) [1]	
Retail (5,700 SF)	0.7 spaces/1000 SF (employee)	21
Assisted Living (83 Units)	0.4 spaces/Unit	33

Hourly Accumulations:

	Retail		Assisted Living		Total
	%Hourly [1]	Demand	%Hourly [2]	Demand	Demand
6:00 AM	1%	1	26%	9	10
7:00 AM	5%	1	48%	16	17
8:00 AM	15%	3	64%	21	24
9:00 AM	35%	7	62%	20	27
10:00 AM	65%	14	80%	26	40
11:00 AM	85%	18	92%	30	48
12:00 PM	95%	20	81%	27	47
1:00 PM	100%	21	79%	26	47
2:00 PM	95%	20	93%	31	**51**
3:00 PM	90%	19	100%	33	**52**
4:00 PM	90%	19	74%	24	43
5:00 PM	95%	20	56%	18	38
6:00 PM	95%	20	51%	17	37
7:00 PM	95%	20	42%	14	34

Notes:
(1) Based on Urban Land Institute (ULI) Shared Parking, 2nd Edition - weekend demand.
(2) Based on observed parking counts at area assisted living facilities.

degrees of public transit usage by employees of those sites located proximate to convenient transit service.

The application of Transportation Demand Management (TDM) strategies to reduce auto-oriented trips, marketed primarily for the employees/staff of assisted living facility, would take advantage of available transit options and further reduce overall parking demand. Although the parking analyses provided herein demonstrate the proposed parking supply will be adequate to accommodate the projected peak parking demand, the implementation of TDM strategies is recommended.

PARKING MANAGEMENT

As stated previously and shown in the Applicant's plan, the site's parking supply will include four (4) tandem spaces. Sunrise Senior Living currently operates assisted living communities that include tandem parking, including the Sunrise of Friendship Heights, Maryland. The tandem spaces in those communities are utilized by full time staff and the management of those spaces are coordinated with employee schedules overseen by the community executive directors.

Since the parking demand calculated in this report reflects the forecasted "typical" conditions that would be expected at the subject site, the Applicant should consider parking management strategies in order to accommodate potential increases in demand during planned or special events. These strategies may include providing valet service during special events to make more efficient use of the parking supply.

CONCLUSIONS

Based on the documentation provided herein, the following can be concluded:

1. Under a strict application of the Zoning Ordinance, a total of 29 parking spaces would be required to accommodate the proposed new retail uses. The Town's Ordinance does not have a required parking rate specific to an assisted living use.

2. The Applicant is proposing a parking supply of 60 surface and garage spaces (inclusive of 4 tandem spaces) to accommodate the site. When applying the incentive factor associated with providing parking within a structure, the effective total parking supply is 74 spaces (inclusive of 4 tandem spaces).

3. Based on ITE's 5th Edition, *Parking Generation*, the average peak parking demand and 85th Percentile peak parking demand ratios are 0.40 and 0.53 spaces per unit, respectively, yielding a forecasted parking demand of between 33 and 44 spaces for the subject site.

4. The effective parking supply of 74 spaces supports the Town's parking requirement for the proposed retail uses (29 spaces) and the calculated ITE 85th Percentile peak parking demand for the assisted living use (44 spaces).

5. Parking occupancy counts conducted at six (6) assisted living facilities in Fairfax County, City of Alexandria, Falls Church, and Chevy Chase, Maryland and Washington DC support an average peak parking ratio of 0.40 spaces per unit, yielding a forecasted peak parking demand of 33 spaces for the subject assisted living use. This result is consistent with that when applying the ITE average peak parking demand rate.

6. Information provided by Sunrise indicates that a significant portion of its employees at its current locations use transit or some other mode of transportation (other than driving alone) to travel to those locations.

7. Based on a shared parking analysis consistent with the ULI *Shared Parking* methodology, the total peak parking demand associated with the site's retail and assisted living components is calculated at 52 spaces. The total proposed parking supply (exclusive of incentive factors) supports this projected parking demand with additional capacity available.

8. Although the parking supply proposed with the development can support the projected parking demand, the implementation of Transportation Demand Management (TDM) strategies, marketed toward the employees of the retail and assisted living facility, is recommended to take advantage of multimodal travel options and reduce overall site parking demand.

9. Consistent with other existing facilities under the Applicant's ownership, the Applicant should consider parking management strategies, including valet service, to accommodate potential increases in parking demand during planned special events.

Attachments: a/s

WELLS + ASSOCIATES

MEMORANDUM

Attachment 1

Zoning Ordinance Excerpts

ARTICLE 16. - OFF-STREET PARKING AND LOADING AREAS[4]

Sec. 18-127. - Plot plan for parking area required.

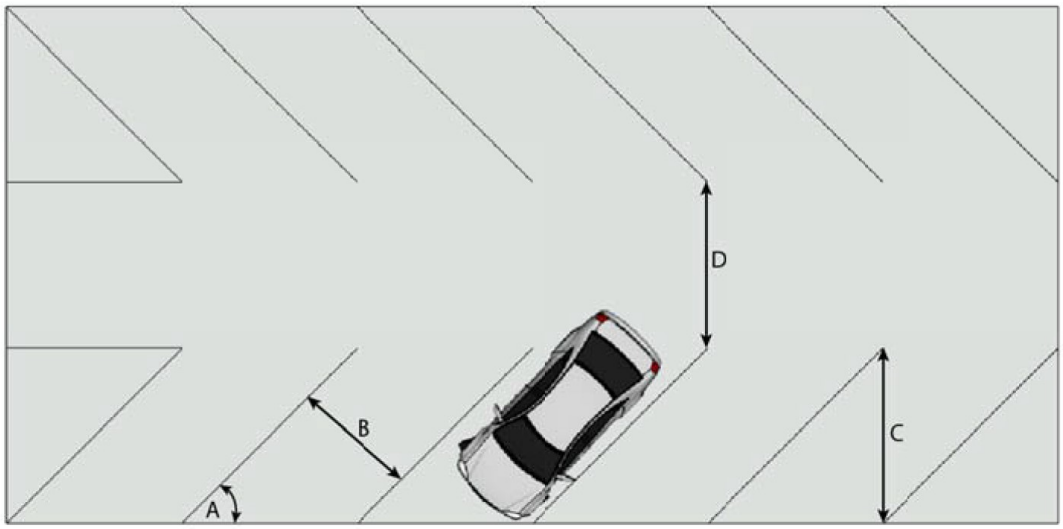
No application for a building permit, use permit, or occupancy permit for a commercial or an industrial building or use in any commercial transitional or industrial zone shall be approved, unless there is included with the plan for such building, improvement or use, a plot plan showing the required open space designated as an automobile parking compound for off-street parking purposes in accordance with section 18-130 together with the exact location and detail drawings of any ornamental masonry wall which may be required by other sections of this chapter; and no use permit or occupancy permit shall be issued unless the required facilities, and ornamental masonry wall, if required, have been provided in accordance with those shown on the approved plan.

(Ord. of 5-22-2017)

Sec. 18-128. - Dimensions of off-street parking spaces and aisles.

All off-street parking spaces and adjacent aisles provided in compliance with the requirements of this article for non-single family detached residential lots shall at least conform to the following minimum dimensions:

A. Parking Angle (degrees)	B. Stall Width (in feet)	C. Stall Length (in feet)	D. Aisle Width, One-way/Two-way (in feet)
0 (parallel)	8	22	16/22
45	9	19	16/20
60	9	20	18/20
90	9	18	23/23



A - Parking Angle B - Stall Width C - Stall Length D - Aisle Width

(Ord. of 5-22-2017)

Sec. 18-128.1. - Compact parking spaces.

For purposes of computation under this chapter, one compact automobile parking space shall be eight feet wide by 16 feet long.

(Ord. of 5-22-2017)

Sec. 18-129. - Space allocation for parking.

All garage or other space allocated for the parking of vehicles within buildings or in basements or open space on the roofs of buildings, shall be considered part of the required off-street parking requirements.

(Ord. of 5-22-2017)

Sec. 18-130. - Requirements.

Required off-street parking space or spaces are to be made available to and provided for the use of the occupant or occupants and, if applicable, patrons or customers of such uses. At the determination of the zoning administrator, adequate parking space to park vehicles belonging to and which are a part of the business activity within a building shall be provided and such space(s) shall be in addition to space requirements required by this chapter.

Off-street parking space(s) shall be provided as follows:

Use	Minimum Required Off-street Parking Spaces	Notes/Additional Requirements
Detached single-family dwellings	Each detached single-family residential dwelling unit constructed subsequent to the effective date of the ordinance from which this section is derived shall provide on the same lot, not less than 2 parking spaces. Acceptable off-street parking shall consist of driveways and garages or carports.	1 additional space for every bedroom over 3 bedrooms. Maximum requirement of 4 spaces. See Note 1
Boardinghouse, guest house or tourist home	1 permanently constructed and maintained space per guest room	
Professional and real estate offices in RM-2 or T zones	1 space per 200 square feet of area devoted to such use	

Clubs or comparable ones	1 space per 300 square feet of gross floor area in any building used for such purpose	
School auditoriums (public and private), general auditorium and similar places of assembly	1 space per 4 seats in such facility or structure	
Churches or other places of worship	1 space per 6 seats provided in the main sanctuary	
Hospitals and welfare institutions	1 space per 800 square feet of gross floor area of the building	
Commercial building (except as provided for in other uses listed)	1 space per 200 square feet of floor area on all floors	Floor area does not include stairs and elevators
Bowling alleys	3 spaces per alley	
Theaters	2 spaces per 5 seats	
Indoor skating arenas	1 space per 100 square feet	
Industrial buildings	1 space per 3 employees on maximum shift	

Hotels and motels	1 space per rental room	
Furniture stores	1 space per 500 square feet of floor area plus 1 space per employee on maximum shift	
Restaurants	1 space per 4 seats	
Minute car wash stations	Space for 30 cars waiting for service	
Townhouses and two-family dwelling	2 spaces per dwelling unit	Plus 1 space per 5 dwelling units for visitor parking. See Note 1
Multiple family residential dwelling units (excluding townhouses), efficiency units	1 space per dwelling unit	See Note 1
Multiple family residential dwelling units (excluding townhouses), one bedroom	1.5 spaces per dwelling unit	See Note 1
Multiple family residential dwelling units (excluding townhouses), two or more bedrooms	2 spaces per dwelling unit	See Note 1

Amusement enterprises or video arcades	1 space per 2 mechanical or electronic amusement devices in addition to required parking for primary use of building	One parking space for each two mechanical or electronic amusement devices and one secure and conveniently located bicycle rack capable of storing at least five bicycles for each three mechanical or electronic amusement devices
Child care centers, nursery schools and day care	1 space per room used for care facility plus 1 space per 500 gross floor area of building	
Civic and quasi-public uses	1 space per 300 square feet of gross floor area in any building used for such purpose	See Note 2
Banks	1 space per 200 square feet of floor area plus sufficient space for 10 stacking spaces for first drive-through window and 5 spaces for each additional window	See Note 2

Restaurant, with drive-through window	1 space per 4 seats and 10 stacking spaces per drive-through	5 stacking spaces need to be made available for the ordering station. See Note 2
Vehicle drive-through services	1 space per 200 square feet of total floor area plus sufficient area for 10 stacking spaces for the first bay and 5 stacking spaces for each additional bay	The bay area may be included in such calculations at rate of one bay to one parking space. All drive-through stacking aisles shall be designed so as not to impede pedestrian or vehicular circulation on the site or in any abutting right-of-way. See Note 2
Swimming pool	1 space per 6 persons legally allowed in pool at one time plus 1 space per employee on maximum shift	
Tennis club	2 spaces per court plus 1 space per employee on maximum shift	

Outdoor regulation playing fields	25 spaces per regulation playing field	Baseball, softball, football or soccer fields consistently used for regulation games of pre-teen to adult leagues

Outdoor playing field complexes (three or more regulation playing fields in one location)	75% of required number of spaces for outdoor regulation playing fields	Shared parking facilities: Recreational and athletic facilities may jointly use the parking spaces of neighboring establishments and properties when each of the following conditions is satisfied: a. Such parking spaces are located not more than 400 feet in distance therefrom; b. The aforesaid establishments and properties are not normally open, used, or operated during the peak demand for parking by such recreational and athletic facilities; and c. In the case of privately owned parking facilities, written permission for use of such parking spaces is first obtained from the owners of each of the affected properties, and copies of all such agreements are filled with the office of zoning

		administrator for the Town.
Community recreation centers	1 space per 4 seats in auditoriums and assembly rooms (1 seat per 15 square feet of gross floor area), 1 space per 4 recreation participants in game rooms and gymnasiums (1 participant per 30 square feet of gross floor area), 1 space per 200 square feet of permanent office space	

Note 1: For the purposes of constructing future additions, alteration, extensions, renovations and restorations, no single-family detached, townhouse, two-family, or multiple-family residential structure in existence on the effective date of the ordinance from which this original section is derived shall be deemed to be nonconforming due to lack of compliance herewith.

Note 2: For civic and quasi-public uses, banks, restaurants with drive-through window, and vehicle drive-through services, no such structure in existence on the effective date of the ordinance from which the original sections were derived shall be deemed to be nonconforming due to lack of compliance herewith.

(Ord. of 5-22-2017)

Sec. 18-130.1. - Accessible parking spaces.

Accessible parking spaces shall be provided in off-street parking facilities as required by the

most recent American Disabilities Act (ADA) Standards for Accessible Design.

(Ord. of 5-22-2017)

Sec. 18-131. - Location of parking facilities.

There shall be no parking between the building setback line and the street line within the C-1, C-1A, C-2, and C-M zoning districts, and as set forth in section 18-101 for the CMP zoning district; nor within five feet of the side yard property lines within the RM-2, RTH, C-1, C-1A, C-2 and C-M zoning districts. All automobile parking areas for commercial and industrial uses shall be located on the site or conveniently near, and in no case more than 400 feet from the principal building or use to which such parking facilities are appurtenant. Any off-site parking will require a Town approved and recorded agreement with the property owner. This off-site parking agreement(s) shall include an illustration of off-site parking spaces.

(Ord. of 5-22-2017)

Sec. 18-132. - Loading space.

Every hospital, institution, commercial or industrial building hereafter erected shall provide indoor or outdoor space for the loading and unloading of goods and materials. Such space shall be at least 25 feet in depth; such space, if located within a building, shall be at least 15 feet in height; such space also shall have a width of at least 15 feet for every 50 feet or fraction thereof of building width.

(Ord. of 5-22-2017)

Sec. 18-133. - Loading space in rear yard.

A loading space may occupy a required rear yard or any part thereof.

(Ord. of 5-22-2017)

Sec. 18-134. - Improvements applicable to parking areas and loading spaces.

All private or public parking areas and loading spaces constructed, excluding regular maintenance, after the effective date of the original ordinance from which this section is derived shall be developed as follows:

A. All parking areas in the single-family residential zoning districts shall be constructed of permanent materials, with an asphalt, concrete, or grid paver surface, meeting the specifications of the Town. Ingress and egress to a public street shall be provided by means of a driveway meeting these same specifications and maintaining a width of not less than 12 nor more than 25 feet at the street right-of-way line.

B. All parking areas in the townhouse, two-family, multiple-family residential, commercial and industrial zoning districts shall be constructed of permanent materials, with an asphalt or concrete surface, meeting the specifications of the Town. Ingress and egress to a public street shall be provided by means of entrances and exits meeting these same specifications and maintaining a width of not less than 25 feet nor more than 35 feet at street right-of-way line. All parking areas shall also be provided with bumper guards as deemed necessary by the director of public works in order to protect a building from vehicular bumpers, or a public sidewalk from overhanging bumpers, to prevent vehicles from rolling down embankments or onto adjacent property, or to provide protection against other hazards peculiar to the topography or site development of a particular parcel of ground. Curb stops may be substituted for bumper guards where their use is considered adequate by the director of public works.

C. Whenever any such private or public parking lot abuts or adjoins any public street, a landscaping strip at least five feet in width, continuous except for entrances and exits, shall be provided immediately inside the line separating such parking lot from the adjoining street.

D. Per sections 18-256 and 18-257, any request for modifications of the requirements applicable to parking areas and loading spaces listed under subsections 18-134.B, and 18-134.C must be approved by council, after receiving recommendation from the planning commission.

(Ord. of 5-22-2017)

Sec. 18-135. - Additional improvements required.

Where off-street parking areas adjoin a lot in a detached residential zone, said parking areas shall be screened in accordance with the provisions of section 18-172. Any lights used to illuminate said parking areas shall not exceed ten feet in height above grade and shall be so arranged and hooded as to confine all direct light rays entirely within the boundary lines of the parking areas.

(Ord. of 5-22-2017)

Sec. 18-136. - Additional protective conditions.

Additional protective conditions may be required in connection with off-street parking adjacent to residential zones, when, in the judgment of the Town council, such are deemed necessary for the protection, convenience, and quiet of surrounding residential properties.

(Ord. of 5-22-2017)

Sec. 18-137. - Non-availability of parking area.

At any time that a required parking area shall cease to be available for such use, except as a result of government action, the occupancy or use permit for the principal use to which such parking area is appurtenant shall be revoked and declared null and void, until such time as other acceptable off-street parking space is provided.

(Ord. of 5-22-2017)

Sec. 18-137.1. - Transitional parking.

In addition to other provisions of article 16 of this chapter, the following requirements shall apply without modification to all land used for transitional parking pursuant to section 18-13, and shall, in addition to special conditions imposed by the board of zoning appeals, be deemed to constitute conditions of any use permit granted for any such transitional parking lot:

(a) No commercial enterprise, sales, repair, work or servicing of any kind shall be conducted or permitted on any part of any transitional parking lot.

(b) No fee shall be charged for parking thereon and all parking thereon shall be restricted to the employees and patrons of the commercial establishment or establishments for which the transitional parking use permit was granted.

(c) No signs of any kind except those necessary for orderly parking and traffic movement shall be erected.

(d) The paved parking area shall be interrupted with landscape planting. For every 3,000 square feet of pavement there shall be 180 square feet of internal landscape planting of trees and shrubs.

(e) All such transitional parking lots shall be screened from all adjacent property in any residential zone and from that portion of the lot between the front or side yard setback line and any street by a brick wall or other ornamental masonry wall of equally acceptable aesthetic quality which does not require painting, erected to a height of at least six feet above grade, located at and running parallel to the boundary of any such transitional parking lot.

(f) All transitional parking lots shall be cleaned of trash, garbage, and debris at least once each week throughout the year. All grass located in or on such lots shall be mowed at least once each week between May 1 and November 15 of each year and all trimmings removed from paved surfaces. All shrubs shall be kept neatly trimmed. Dead trees and shrubs and deteriorated pavement and masonry shall be replaced as required by the director of public works of the Town.

(g) There shall be no repairing, painting, reconstruction or refurbishing of any vehicle, other equipment or materials, nor any dismounting or installation of equipment on any vehicle other than equipment or materials, parked or located on any transitional parking lot.

(h) No vehicle exceeding three-quarters ton load-carrying capability, and no buses, shall be parked overnight on any transitional parking lot.

(i) The owners, operators, lessees, occupants, tenants, persons having care or custody of or using, managing or having control of, and fiduciaries holding title to, or having the care, custody, control or management of the land used for any transitional parking lot, or the commercial properties or operations for the benefit of which such transitional parking lot use permit is granted, shall jointly and severally be responsible for maintaining and operating such transitional parking lot in accordance with the provisions of this article.

(j) Artificial lighting shall conform to the provisions relating thereto contained in section 18-69. When filing an application for any transitional parking lot use permit, the applicant shall submit a site plan showing all details of layout

planting, screening, walls, storm drainage, lighting and other relevant features as required by the director of public works of the Town. Conditions, in addition to those required by this section necessary for the protection, maintenance of value and quiet enjoyment of surrounding residential properties, and the peaceful, undisturbed use of said surrounding property by its occupants, may be imposed, and the use permit made subject thereto by the board of zoning appeals of the Town. Upon the failure of any person enumerated in subsection (i) of this section to operate or maintain any transitional parking lot in compliance with the conditions and specifications set forth in this section, the director of public works of the Town shall after ten days written notice to such person of failure to comply, cause such parking lot to be brought into conformance with such conditions and specifications and bill the owner of the land for the cost thereof. If such bill not be paid within 30 days of its mailing to the person enumerated in subsection (i) of this section, it shall be added to the Town real estate tax on the land and constitute a lien on such land to the same extent as the real estate tax is a lien.

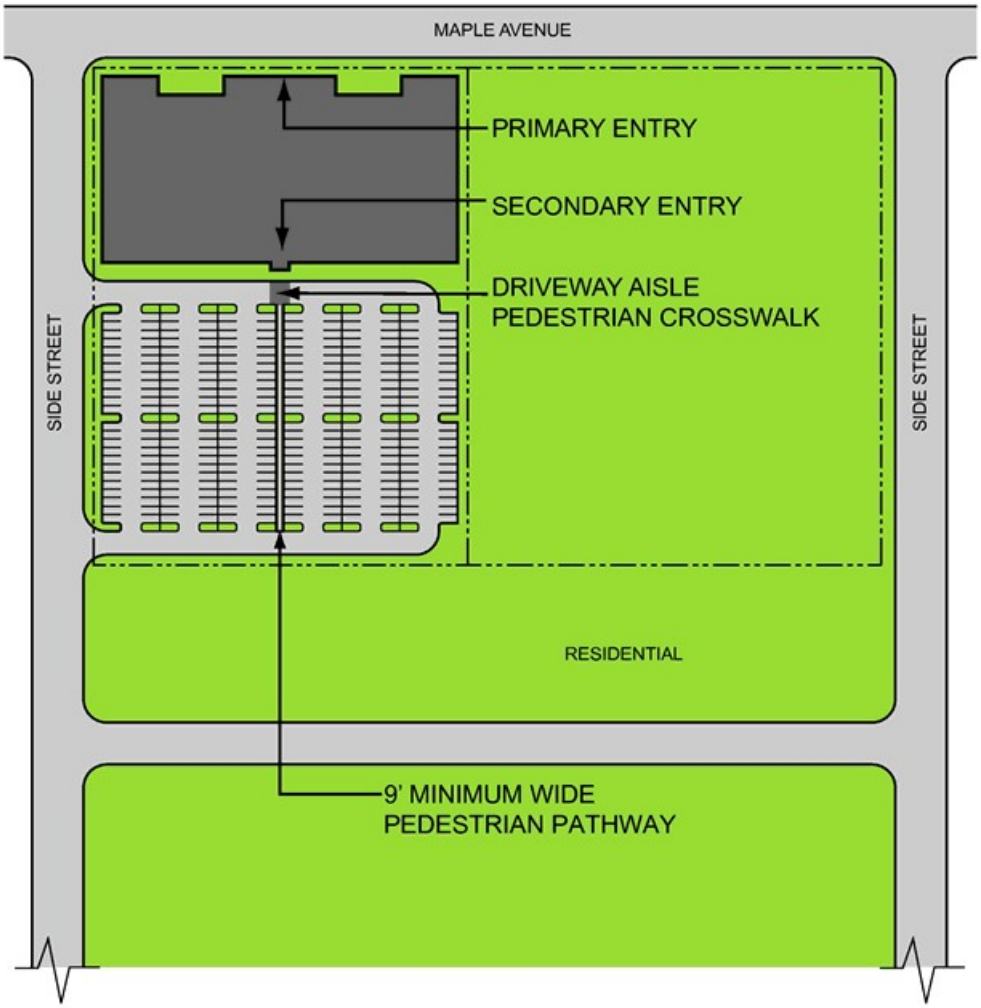
(k) All such parking lots shall display thereon signs approved in design by the director of public works in such number and at such locations as designated by the director of public works restricting the use of such parking lots to lawful parking of vehicles by patrons of the adjoining commercial establishments and prohibit trespassing, disorderly conduct and all unlawful acts on and uses of such parking lots.

(Ord. of 5-22-2017)

Sec. 18-95.10. - Off-street parking and loading requirements.

Off-street parking and loading requirements shall be in accordance with the standards in article 16 of this chapter, except that the following standards shall also apply. In the event of a conflict between the standards in article 16 and the standards in this section, the standards in this section shall govern.

A. *Minimum requirements:*
    1. Uses in the MAC Zone shall provide off-street parking spaces in accordance with section 18-130 of this chapter.
    2. As an incentive for the provision of parking structures, off-street parking spaces provided within a parking structure shall be credited towards the minimum parking requirements at a rate of 1.25 times the actual number of spaces located within the parking structure.
    3. In no case shall any combined parking reduction, including those through incentives as permitted in article 13.1, exceed 48 percent of the required parking for a development.
B. *Parking location:* Off-street surface parking lots shall not be located between Maple Avenue and a building.
C. *Pedestrian pathways:* One fully-separated, improved pedestrian pathway (see Figure 18-95.10.1, Pedestrian Pathways) shall be provided for every 200 surface parking spaces. However, no pedestrian pathway is required for surface parking lots with less than 200 spaces. Pedestrian pathways shall be designed that:



18-95.10.1 PEDESTRIAN PATHWAYS

1. Include, to the maximum extent practicable, a pathway aligned with and perpendicular to the secondary entrance into the building served by the parking lot;
2. Are paved with asphalt, cement, brick, pavers, or other comparable material including permeable options;
3. Maintain a minimum width of nine feet;
4. Are of contrasting color or materials when crossing drive aisles;
5. Connect to all existing or planned adjacent transit facilities;
6. Meet all applicable ADA requirements;
7. Are positively drained; and
8. Provide safe and efficient pedestrian access to the use they serve.

D.

Alternative parking plan: The Town Council may approve an alternative parking plan for development that proposes alternatives to providing the minimum number of off-street parking spaces required in accordance with this subsection. Nothing in this subsection shall limit the utilization of one or more of the following off-street parking alternatives by a single use. When required, a parking demand study shall be performed by a licensed professional engineer.

1. *Shared parking:*
    a. Those requesting to use shared parking as a means of satisfying the off-street parking standards must submit a parking demand study as part of an alternative parking plan that justifies the feasibility of shared parking. The parking demand study shall include information on the size and type of the proposed development, the composition of tenants, the anticipated rate of parking turnover, and the anticipated peak parking and traffic loads for all uses that will be sharing off-street parking spaces.
    b. Two or more uses sharing parking spaces shall have staggered peak usage times.
    c. The maximum reduction in the number of parking spaces required for all uses sharing the parking area shall be 35 percent.
    d. Shared parking spaces shall be located within 1,250 feet of the primary entrance of all uses served.
    e. Shared parking spaces shall not be separated from the use they serve by a major arterial or collector street, unless the shared parking area or parking structure is served by an improved pedestrian crossing or a parking shuttle.
    f. Adequate and safe pedestrian access shall be provided from and to the shared parking areas.
    g. When determined necessary due to distance, indirect locations, or visual barriers, directional signage that complies with the standards of this chapter shall be provided to direct the public to the shared parking spaces.
    h.

The alternative parking plan shall be enforced through written agreement among all owners of record. An attested copy of the agreement between the owners of record must be recorded prior to occupancy. A shared parking agreement may be revoked only if all required off-street parking spaces are provided. A shared parking agreement shall remain in effect until one or more of the uses subject to the agreement changes.

2. *Off-site parking for nonresidential uses:* Off-street parking for nonresidential uses may be located on another parcel of land, if there are practical difficulties in locating the parking area on-site, or the public safety or convenience is better served by off-site parking. Off-site parking for nonresidential uses shall comply with the following standards:
    a. It shall be located within 1,250 feet from the use it is intended to serve.
    b. A pedestrian way that complies with applicable ADA requirements shall be provided from the off-site parking area to the use it serves.
    c. The alternative parking plan shall be enforced through written agreement among all owners of record. An attested copy of the agreement between the owners of record must be recorded prior to occupancy. An off-site parking agreement may be revoked only if all required off-street parking spaces are provided. An off-site parking agreement shall remain in effect until one or more of the uses subject to the agreement changes.
3. *Deferred parking:* The construction of up to 30 percent of the required number of parking spaces may be deferred if:
    a. It is demonstrated through a parking demand study that because of the location, nature, or mix of uses, the number of parking spaces actually needed to serve the development is less than the minimum required.
    b. A reserve parking plan identifies: (a) the amount of off-street parking being deferred, and (b) the location of the area to be reserved for future parking, if future parking is needed.
    c.

The applicant provides assurance that a parking demand study evaluating the adequacy of the existing parking spaces in meeting the parking demand will be submitted to the Town between 12 and 24 months after occupancy of the development. If the study indicates that the existing parking is adequate, then construction of the remaining number of required parking spaces shall not be required. If the study indicates a need for additional parking, it shall be provided consistent with the reserve parking plan and the standards of this chapter.

d. Areas reserved for future parking shall be brought to the finished grade, landscaped with an appropriate ground cover, and not be used for buildings, storage, loading, or other purposes requiring buildings or permanent structures.

e. Deferred parking shall not be combined with any other parking reductions.

4. *Alternative materials:* The use of pervious or semi-pervious parking area surfacing materials—including, but not limited to, "grass-crete," "turfstone," porous concrete, or recycled materials such as rubber, used asphalt, brick, block, and concrete—may be approved by the zoning administrator for the required vehicular surface area on a site, provided such areas are properly maintained. Where possible, such materials should be used in areas proximate to and in combination with on-site stormwater control devices or tree protection measures.

E. *Transportation demand management:* A transportation demand management (TDM) plan may be used as a means of reducing the minimum number of off-street parking spaces required for nonresidential or mixed-use development, in accordance with the following standards:

1. *Required TDM plan:* Approval of a TDM plan may result in an up to 20 percent reduction in the minimum number of required parking spaces if the TDM plan includes facts or projections (e.g., type of development, proximity to transit and/or other multi-modal systems, anticipated number of employees or patrons, and minimum parking requirements),

indicates the types of transportation demand management activities that will be instituted to reduce single-occupant vehicle use and reduce traffic congestion.

2. *Transportation demand management activities:* The TDM plan must provide a minimum of three of the following transportation demand management activities in order to qualify for a reduction in required minimum off-street parking:
    a. Establish a development-specific website that provides multi-modal transportation information such as real-time travel/traffic information, bus routes, bus schedules and maps and alternative commute log (bicycle, pedestrian, carpool, and vanpool).
    b. Disclose in writing to all employees transportation information and educational materials.
    c. Coordinate the formation of, but not limited to, carpooling, vanpooling, ridesharing, guaranteed ride home, teleworking, or shuttle service programs.
    d. Create a preferential parking management plan that specifically marks spaces for each registered carpool and/or vanpool vehicle, located near building entrances or in other preferential locations.
    e. Institute and maintain off-peak work schedules, allowing employees to arrive and depart at times other than the peak commute period. The peak morning commute period is defined as 7:00 a.m. and 9:00 a.m., the peak mid-day commute is defined as 11:30 a.m. to 1:30 p.m., and the peak evening commute period is defined as 5:00 p.m. and 7:00 p.m.
    f. Establish an office location within the development, staffed by the transportation coordinator that makes transportation and ride-sharing information available to employees, residents, and nonresidents.
    g. Alternative transportation demand management activities may be approved by the zoning administrator as a means of complying with the parking reduction incentive provisions of this subsection.
3. *Transportation program manager/coordinator:*
    a. The applicant must appoint and maintain a program coordinator to

oversee transportation demand management activities.

b. The program coordinator must be a licensed professional or have a specialty certification in TDM.

c. The program coordinator must be appointed prior to issuance of a certificate of occupancy for the buildings to be served by the transportation demand management program.

4. *TDM annual report:* The program coordinator shall provide a report annually to the department of planning and zoning that details the implementation strategies for the approved TDM plan. The report may include the following:

a. A description of the transportation management activities efforts;

b. A list of current tenants and number of employees for each tenant;

c. A parking-reduction analysis based on employee or resident use of ridership programs or alternative transportation options;

d. Changes to the TDM plan to increase ridership; and

e. Employee transportation survey.

5. *Enforcement:* In the event that the program coordinator fails to submit a report to the department of planning and zoning within 60 days of the annual report deadline, or the applicant no longer implements the program, the TDM plan shall be considered terminated and the required off-street parking spaces must be provided.

F. *Bicycle parking:* Residential development with ten or more dwelling units and nonresidential development with 5,000 or more square feet of gross floor area shall provide individual or shared bicycle parking facilities in accordance with the following standards. Nonresidential uses of up to 20,000 square feet in size may share bicycle parking facilities in accordance with this section.

1. *General standards:*

a. Bicycle parking facilities shall be conveniently located and publicly accessible, but in no case shall such facilities be located more than 75 feet from the primary building entrance. This standard shall not apply to the long-term bicycle parking spaces in weather-protected

rooms or cages with controlled access for bicycle users required for residential uses or for additional spaces beyond the required spaces for commercial uses.

b. For residential uses, bicycle parking spaces shall be provided at the rate one long-term bicycle parking space per ten residential dwelling units or portion thereof, and one short-term bicycle parking space for 50 residential units or portion thereof.

c. For commercial uses, bicycle parking spaces shall be provided at the rate of one bicycle parking space per 5,000 square feet of nonresidential floor area or portion thereof, and one employee parking space per 25,000 square feet of nonresidential floor area or portion thereof.

d. Bicycle facilities shall include a rack or other device to enable bicycles to be secured.

2. *Shared bicycle parking:* Nonresidential uses up to 20,000 square feet in area may share bicycle parking spaces if:

   a. An improved pedestrian accessway is provided from the bicycle parking facility to the primary building entrance; and

   b. The shared bicycle parking facility and improved pedestrian access is depicted on the site plan.

(Ord. of 10-20-2014 ; Ord. of 1-9-2017)

WELLS + ASSOCIATES

MEMORANDUM

Attachment 2

Existing Assisted Living Parking Occupancy Counts

Parking Occupancy Count

Surveyor: Josip & Zilko

Hours: 6AM-7 PM

Date: 29-Jan

6129

Weather: Clear

Counter: Agan

Lots	2863 Hunter Mill Road						6541 Franconia Road					
		Cars	% occ	units/car				Cars	% occ	units/car		
6:00 AM		9	24.3%	8.333333333				6	16.7%	13.16667		
7:00 AM		17	45.9%	4.411764706				14	38.9%	5.642857		
8:00 AM		25	67.6%	3				18	50.0%	4.388889		
9:00 AM		28	75.7%	2.678571429				18	50.0%	4.388889		
10:00 AM		31	83.8%	2.419354839				31	86.1%	2.548387		
11:00 AM		37	100.0%	2.027027027				36	100.0%	2.194444		
12:00 PM		36	97.3%	2.083333333				27	75.0%	2.925926		
1:00 PM		37	100.0%	2.027027027				26	72.2%	3.038462		
2:00 PM		36	97.3%	2.083333333				35	97.2%	2.257143		
3:00 PM		37	100.0%	2.027027027				32	88.9%	2.46875		
4:00 PM		26	70.3%	2.884615385				24	66.7%	3.291667		
5:00 PM		22	59.5%	3.409090909				19	52.8%	4.157895		
6:00 PM		19	51.4%	3.947368421				20	55.6%	3.95		
7:00 PM		17	45.9%	4.411764706				15	41.7%	5.266667		
Total Spcs.		**37**						**36**				

Sunrise Senior Living

Parking Occupancy Count

#7015

Surveyor: Jose & Dragan

Hours: 8am to 4pm

Date: Apr. 26 & 27, 2017

Weather: Clear

Site	5111 Connecticut Avenue NW, Washington, DC					3520 Duke Street, Alexandria, VA			
Cars	Wednesday	% Occ	Thursday	% Occ		Wednesday	% Occ	Thursday	% Occ
AM									
8:00 AM	17	61%	13	46%		17	46%	21	57%
9:00 AM	20	71%	18	64%		24	65%	22	59%
10:00 AM	22	79%	22	79%		28	76%	25	68%
11:00 AM	25	89%	22	79%		32	86%	30	81%
12:00 PM	25	89%	22	79%		33	89%	32	86%
1:00 PM	26	93%	22	79%		34	92%	33	89%
2:00 PM	27	96%	25	89%		34	92%	33	89%
3:00 PM	27	96%	22	79%		36	97%	36	97%
4:00 PM	23	82%	22	79%		32	86%	32	86%
Supply	28					37			
Units	100					76			
Rate per Unit	0.28		0.26			0.50		0.50	

Parking Occupancy Count

 # 7541

Surveyor: Laura,Muris & Halid

Hours: 6AM TO 7 PM

Date: 31-Jan

Weather: Cold

	2201 Colston Drive Silver Spring	330 N. Washington St. Falls Church
Time:	**Outside**	**Outside**
6:00	10	7
7:00	17	10
8:00	21	13
9:00	16	13
10:00	20	15
11:00	23	15
12:00	22	13
13:00	21	12
14:00	26	15
15:00	33	19
16:00	28	12
17:00	19	8
18:00	15	8
19:00	12	7

Parking Occupancy Count

 # 7541

Surveyor: Laura,Majda & Halid

Hours: 6AM TO 7 PM

Date: 3-Feb

Weather: clear

	2201 Colston Drive Silver Spring	330 N. Washington St. Falls Church
Time:	**Outside**	**Outside**
6:00	6	5
7:00	11	10
8:00	11	12
9:00	13	14
10:00	16	14
11:00	19	16
12:00	18	12
13:00	22	12
14:00	18	17
15:00	21	12
16:00	21	10
17:00	21	11
18:00	16	11
19:00	13	7

WELLS + ASSOCIATES

MEMORANDUM

Attachment 3

Transit Information

Vienna Metro Station (North side)	Chain Bridge Rd & James Madison Dr	Lawyers Rd & Lewis St	Park St & Elmar St	Vienna Metro Station (North side)
Weekday – AM Rush Service				
5:32	5:37	5:43	5:50	5:56
6:02	6:07	6:13	6:20	6:26
6:35	6:42	6:49	6:57	7:04
7:09	7:15	7:22	7:30	7:37
7:34	7:40	7:47	7:55	8:02
7:58	8:04	8:11	8:18	8:25
8:24	8:29	8:37	8:44	8:51
8:49	8:54	9:01	9:08	9:15

Vienna Metro Station (North side)	Chain Bridge Rd & James Madison Dr	Lawyers Rd & Lewis St	Park St & Elmar St	Vienna Metro Station (North side)
Weekday – PM Rush Service				
4:00	4:10	4:16	4:22	4:31
4:30	4:40	4:46	4:52	5:01
4:55	5:04	5:12	5:18	5:26
5:20	5:29	5:37	5:43	5:51
5:45	5:54	6:02	6:08	6:16
6:10	6:19	6:27	6:33	6:41
6:35	6:43	6:50	6:57	7:05
7:00	7:08	7:14	7:21	7:29
7:31	7:39	7:45	7:52	8:00

- **Use exact fare; drivers do not carry change.**
- **Smoking, eating, drinking, and littering are strictly prohibited.**
- **Strollers must be folded.**
- **Use earphones with audio and video devices.**
- **Service animals are permitted on the bus. Other small animals are permitted only if transported in a closed pet carrier.**

All Fairfax Connector buses are wheelchair accessible.

461

Effective March 18, 2017

Flint Hill – Vienna

Vienna Metro Station • Nutley St • Flint Hill Rd • James Madison High School • Park St • Tapawingo Rd

Weekday Rush Hour Service Only

FAIRFAX CONNECTOR

For fares and important information about the bus system, see the brochure:

Fares, Policies & General Information

FAIRFAX CONNECTOR **BusTracker**

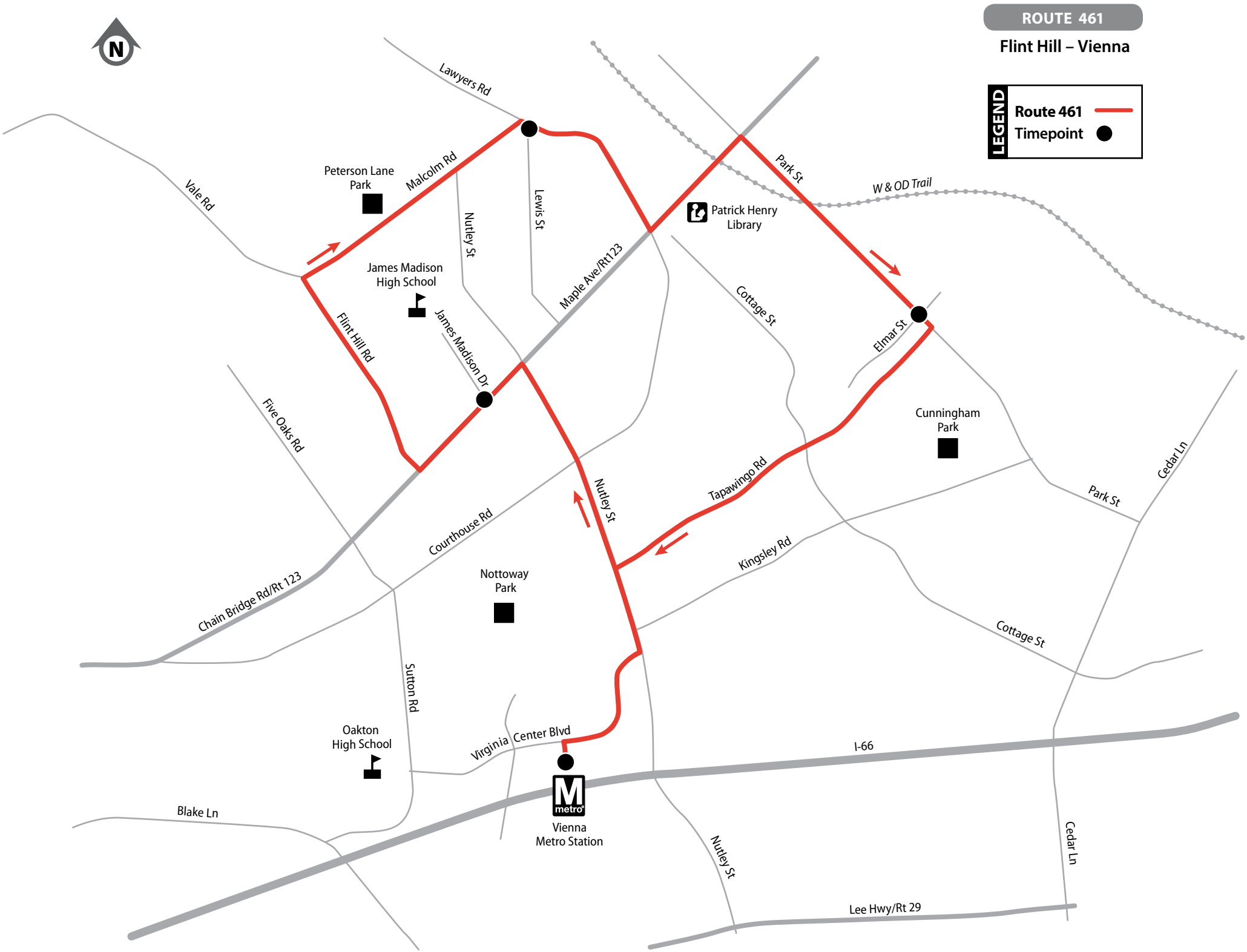
REAL-TIME SERVICE INFORMATION

fairfaxconnector.com

703-339-7200 **TTY 703-339-1608**

@ffxconnector **/fairfaxconnector**

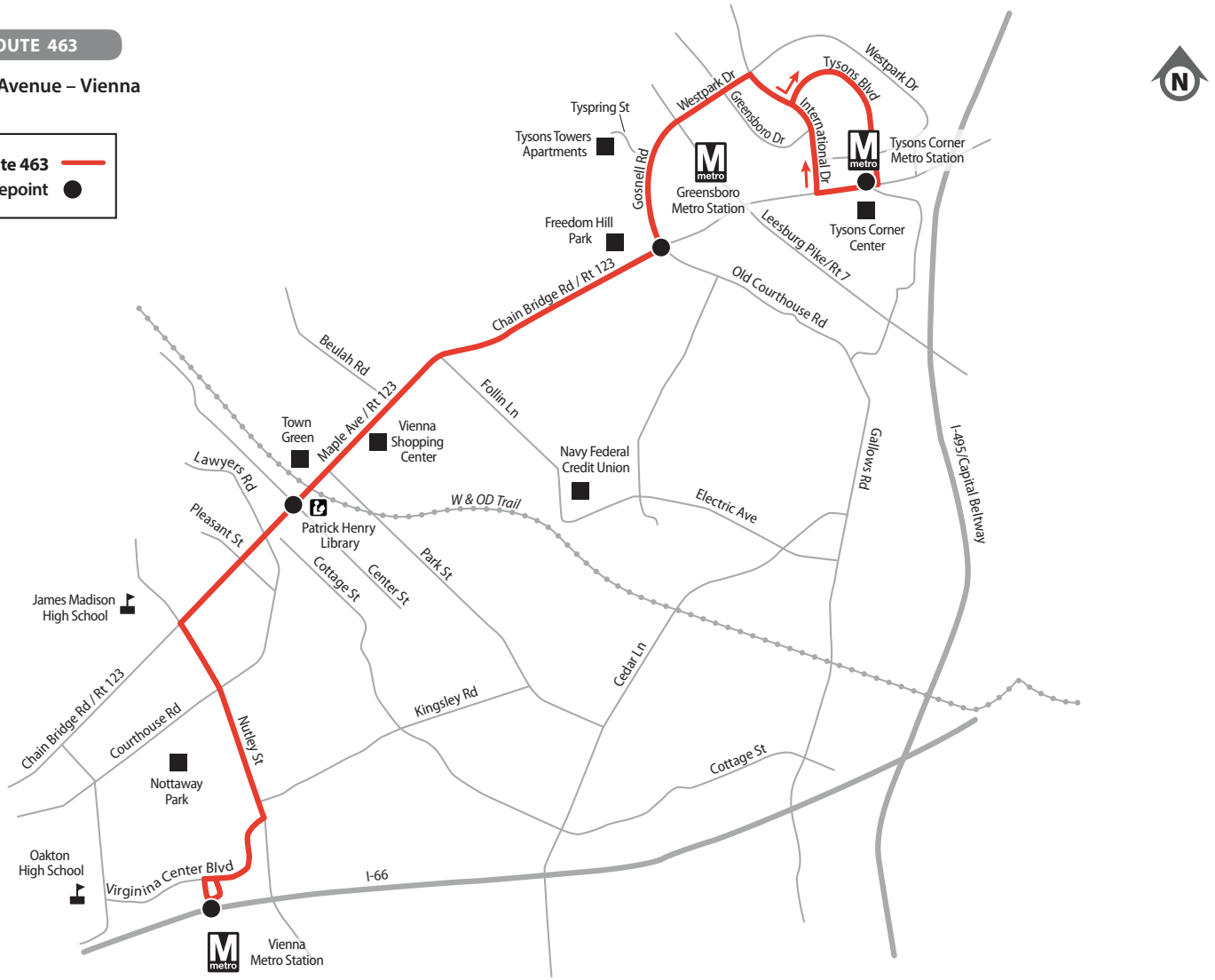
Fairfax County Department of Transportation (FCDOT) ensures nondiscrimination in all programs and activities in accordance with Title VI of the Civil Rights Act of 1964 and the Americans with Disabilities Act (ADA). To request this information in an alternate format, contact FCDOT at 703-877-5600, TTY 711. *461_1217*


ROUTE 461
Flint Hill – Vienna
LEGEND
Route 461
Timepoint
N
Lawyers Rd
Vale Rd
Peterson Lane Park
Malcolm Rd
Nutley St
Lewis St
James Madison High School
James Madison Dr
Flint Hill Rd
Maple Ave/Rt123
Park St
W & OD Trail
Patrick Henry Library
Cottage St
Elmar St
Cunningham Park
Five Oaks Rd
Tapawingo Rd
Park St
Cedar Ln
Courthouse Rd
Nutley St
Kingsley Rd
Chain Bridge Rd/Rt 123
Nottoway Park
Cottage St
Sutton Rd
Oakton High School
Virginia Center Blvd
I-66
Blake Ln
metro
Vienna Metro Station
Nutley St
Cedar Ln
Lee Hwy/Rt 29

ROUTE 463

Maple Avenue – Vienna

LEGEND
Route 463
Timepoint



463

Effective December 2, 2017

Maple Avenue – Vienna

Vienna Metro Station • Nutley St • Maple Ave • Chain Bridge Rd • Gosnell Rd • Tysons Corner Metro Station

Weekday, Saturday & Sunday Service

FAIRFAX CONNECTOR

For fares and important information about the bus system, see the brochure:
Fares, Policies & General Information

FAIRFAX CONNECTOR **BusTracker**
REAL-TIME SERVICE INFORMATION
fairfaxconnector.com

703-339-7200 **TTY 703-339-1608**
@ffxconnector **/fairfaxconnector**

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463 MAPLE AVENUE – VIENNA

Vienna Metro Station (North side)	Maple Ave & Center St	Old Courthouse Rd & Chain Bridge Rd	Tysons Corner Metro Station (North side)
Weekday – AM Northbound Service			
5:05	5:12	5:18	5:26
5:35	5:42	5:48	5:56
6:05	6:14	6:23	6:32
6:35	6:44	6:53	7:02
7:05	7:14	7:23	7:32
7:35	7:44	7:53	8:02
8:05	8:14	8:23	8:32
8:35	8:44	8:53	9:02
9:05	9:14	9:22	9:30
9:35	9:44	9:52	10:00
10:05	10:14	10:22	10:30
10:35	10:44	10:52	11:00
11:05	11:14	11:22	11:30
11:35	11:44	11:52	12:00 PM
Weekday – PM Northbound Service			
12:05	12:14	12:22	12:30
12:35	12:44	12:52	1:00
1:05	1:14	1:22	1:30
1:35	1:44	1:52	2:00
2:05	2:14	2:22	2:30
2:35	2:44	2:52	3:00
3:05	3:15	3:24	3:33
3:35	3:45	3:54	4:03
4:00	4:10	4:19	4:28
4:25	4:35	4:44	4:53
4:50	5:00	5:09	5:18
5:15	5:25	5:34	5:48
5:40	5:50	5:59	6:13
6:05	6:15	6:23	6:29
6:30	6:40	6:48	6:54
7:00	7:10	7:18	7:24
7:30	7:40	7:48	7:54
8:00	8:10	8:18	8:24
8:30	8:40	8:48	8:54
9:05	9:12	9:18	9:25
9:30	9:37	9:43	9:50
10:00	10:07	10:13	10:20
10:30	10:37	10:43	10:50
11:00	11:07	11:13	11:20

Tysons Corner Metro Station (North side)	Chain Bridge Rd & Old Courthouse Rd	Maple Ave & Center St	Vienna Metro Station (North side)
Weekday – AM Southbound Service			
5:45	5:51	5:55	6:00
6:15	6:24	6:30	6:38
6:45	6:54	7:00	7:08
7:15	7:24	7:30	7:38
7:45	7:54	8:00	8:08
8:15	8:24	8:30	8:38
8:45	8:54	9:00	9:08
9:15	9:23	9:30	9:38
9:45	9:53	10:00	10:08
10:15	10:23	10:30	10:38
10:35	10:43	10:50	10:58
11:05	11:13	11:20	11:28
11:35	11:43	11:50	11:58
Weekday – PM Southbound Service			
12:05	12:13	12:20	12:28
12:35	12:43	12:50	12:58
1:05	1:13	1:20	1:28
1:35	1:43	1:50	1:58
2:05	2:13	2:20	2:28
2:35	2:43	2:50	2:58
3:05	3:17	3:29	3:38
3:40	3:52	4:04	4:13
4:10	4:22	4:34	4:48
4:35	4:47	4:59	5:20
5:00	5:12	5:24	5:45
5:25	5:37	5:49	6:10
5:55	6:07	6:19	6:40
6:20	6:29	6:37	6:46
6:45	6:54	7:02	7:11
7:10	7:19	7:27	7:36
7:35	7:44	7:52	8:01
8:00	8:09	8:17	8:26
8:30	8:39	8:47	8:56
9:00	9:07	9:12	9:18
9:30	9:37	9:42	9:48
10:00	10:07	10:12	10:18
10:30	10:37	10:42	10:48
11:00	11:07	11:12	11:18
11:30	11:37	11:42	11:48

Vienna Metro Station (North side)	Maple Ave & Center St	Old Courthouse Rd & Chain Bridge Rd	Tysons Corner Metro Station (North side)
Saturday – AM Northbound Service			
6:00	6:07	6:15	6:26
7:00	7:07	7:15	7:26
8:00	8:07	8:15	8:26
9:00	9:07	9:15	9:26
10:00	10:07	10:15	10:26
11:00	11:07	11:15	11:26
Saturday – PM Northbound Service			
12:00	12:07	12:15	12:26
1:00	1:07	1:15	1:26
2:00	2:07	2:15	2:26
3:00	3:07	3:15	3:26
4:00	4:07	4:15	4:26
5:00	5:07	5:15	5:26
6:00	6:07	6:15	6:26
7:00	7:07	7:15	7:26
8:00	8:07	8:15	8:26
9:00	9:07	9:15	9:26
10:00	10:07	10:15	10:26
11:00	11:07	11:15	11:26
Sunday – AM Northbound Service			
8:00	8:07	8:15	8:26
9:00	9:07	9:15	9:26
10:00	10:07	10:15	10:26
11:00	11:07	11:15	11:26
Sunday – PM Northbound Service			
12:00	12:07	12:15	12:26
1:00	1:07	1:15	1:26
2:00	2:07	2:15	2:26
3:00	3:07	3:15	3:26
4:00	4:07	4:15	4:26
5:00	5:07	5:15	5:26
6:00	6:07	6:15	6:26
7:00	7:07	7:15	7:26
8:00	8:07	8:15	8:26

Tysons Corner Metro Station (North side)	Chain Bridge Rd & Old Courthouse Rd	Maple Ave & Center St	Vienna Metro Station (North side)
Saturday – AM Southbound Service			
6:30	6:40	6:46	6:54
7:30	7:40	7:46	7:54
8:30	8:40	8:46	8:54
9:30	9:40	9:46	9:54
10:30	10:40	10:46	10:54
11:30	11:40	11:46	11:54
Saturday – PM Southbound Service			
12:30	12:40	12:46	12:54
1:30	1:40	1:46	1:54
2:30	2:40	2:46	2:54
3:30	3:40	3:46	3:54
4:30	4:40	4:46	4:54
5:30	5:40	5:46	5:54
6:30	6:40	6:46	6:54
7:30	7:40	7:46	7:54
8:30	8:40	8:46	8:54
9:30	9:40	9:46	9:54
10:30	10:40	10:46	10:54
Sunday – AM Southbound Service			
8:30	8:40	8:46	8:54
9:30	9:40	9:46	9:54
10:30	10:40	10:46	10:54
11:30	11:40	11:46	11:54
Sunday – PM Southbound Service			
12:30	12:40	12:46	12:54
1:30	1:40	1:46	1:54
2:30	2:40	2:46	2:54
3:30	3:40	3:46	3:54
4:30	4:40	4:46	4:54
5:30	5:40	5:46	5:54
6:30	6:40	6:46	6:54
7:30	7:40	7:46	7:54