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**TOWN OF NEWBURGH
PLANNING BOARD
TECHNICAL REVIEW COMMENTS**

PROJECT: READY COFFEE
PROJECT NO.: 19-26
PROJECT LOCATION: SECTION 76, BLOCK 4, LOT 3
REVIEW DATE: 30 JANUARY 2020
MEETING DATE: 6 FEBRUARY 2020
PROJECT REPRESENTATIVE: LOTHROP ASSOCIATES, LLP.

1. The plans submitted identify the following variances required at the site for the amended site plan.
 - 1) North Plank Road: Side yard- 9 feet provided where 15 feet is required. Minimum rear yard -7 feet provided where 30 feet is required.
 - 2) Gardnertown Road: Side yard-7 feet provided where 15 is required. Minimum side yard both- 19 feet provided where 30 is required. Minimum rear yard- 9 feet provided where 30 feet is required.
 - 3) Grimm Road: Minimum front yard- 7 feet is provided where 60 is required. Minimum side yard- 9 feet is provided where 15 feet is required. Maximum impervious surface coverage- 211,409 square feet is permitted where 234,427 is proposed.
 - 4) The maximum number of parking spaces required is 301 spaces. Revised striping of the parking lot will identify 274 spaces and require a variance.
2. The Planning Board has discussed the need for sidewalks along the property frontage on the State Highway. The Applicants representative are requested to address this.
3. Further review of the project will be undertaken once detailed engineering plans including grading, utilities and site development details are submitted.
4. City of Newburgh Flow Acceptance letter is required.
5. Orange County Planning referral will be required.
6. Highway Superintendent review of access drive should be received.

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Respectfully submitted,

***McGoey, Hauser and Edsall
Consulting Engineers, D.P.C.***

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January 24, 2020

Hon. John Ewasutyn, Chairman
Town of Newburgh Planning Board
308 Gardnertown Road
Newburgh, NY 12550

Re: Ready Coffee (19-26) – Amended Site Plan: Supplemental Sketch plan submission

Dear Chairman Ewasutyn:

At the initial appearance for sketch review on December 19, 2019, a fundamental zoning issue was raised as to the permissibility of the proposed use in the zoning district. This issue has now been resolved and the Code Compliance Officer has determined that the proposed use is permitted in the district. There were several issues outstanding after the December 19th meeting, including the number and nature of area variances required for pre-existing nonconformities and responses to Town consultant comments from McGoey Hauser and Creighton Manning.

Accordingly, this is a supplemental sketch plan resubmission to address the issues left open at the December 19, 2019 meeting. This submission includes the following:

1. Plans revised to correct the location of the Ready Coffee building, revise the handicapped parking, add a crosswalk connecting our property to the McDonald's, add an internal crosswalk in the parking area, add the menu board, and show the additional green space that has been created.
2. A summary of the area variances we believe are required for pre-existing conditions. The applicant has modified the proposed location of the Ready Coffee building to avoid the need for a side setback for the new building.
3. The AKRF traffic analysis of the proposed location. Their study included trip generation data gathered at the Ready Coffee location which is fully operational in the Town of Poughkeepsie. The AKRF study shows that current parking utilization in the Newburgh center peaks at 38%, but is generally under 30% on the weekend and 20% during the week. AKRF's conclusion is that the proposed Ready Coffee site plan has been designed to minimize the impact to the existing shopping center circulation pattern, and that the project is not expected to generate significant impacts along the adjacent roadway network or create a parking shortfall at the existing shopping center.

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4. Response to Town consultant comments is provided below

**MCGOEY, HAUSER AND EDSALL, CONSULTING ENGINEERS COMMENT MEMO
DATED DECEMBER 13, 2019:**

1. **Comment:** Code Compliance Office comments regarding the placement of a fast food restaurant/ drive-thru within a shopping center use should be received.

Response: This issue was discussed at a meeting at Town Hall on January 16, 2020 with the Town Attorney and Mr. Gerry Canfield. We have been informed by the Town Attorney, Mark Taylor, that the Code Compliance Office has determined that Ready Coffee is not a "fast food" restaurant and that the use as proposed, including the accessory drive-thru, is permitted in the B District, subject to meeting applicable site plan criteria and the standards of 185-42.

2. **Comment:** The existing shopping center has numerous Bulk Table deficiencies in its existing condition including minimum side yard 9' where 15' is required. Minimum rear yard 7' where 30' is required. Maximum impervious surface lot coverage 238,665 sq. ft. where 211,049 sq. ft. is allowed.

Response: We have identified what we believe to be any existing deficiencies on the enclosed plans, and we request that the Planning Board affirm this list of required area variances at the February 6th meeting, to allow us to proceed to the ZBA for the required variances. We have removed some of the existing impervious coverage by adding additional green space.

- 3 **Comment:** The front yard set-back from Gardnertown Road and Grimm Road should be 60'.

Response: We have adjusted the bulk table on the plan and adjusted the location of the proposed building to meet the 60' setback from both Gardnertown & North Plank road.

4. **Comment:** Ken Wersted's analysis of the existing parking should be received. It appears the parking calculations are taking credit for leased storage area and only employee parking for the proposed fast food coffee shop.

Response: Comment noted. The credit used for the leased storage area is in section 185-3 Definitions and it reads as follows.

GROSS LEASABLE FLOOR AREA

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Gross leasable floor area is defined for purposes of calculating parking requirements as the total area of a space rented or leased by a tenant exclusive of any common area, whether covered or uncovered. In a mall or other large building, common area, utility or general storage space is not included in parking calculations, but leased storage area by a tenant shall be included up to 50% of such storage area.

The off-street parking requirements for a restaurant are based on seating, as the proposed use has no seating, the required parking is based upon the number of employees that should be in the building at any given time.

5. **Comment:** Site development details will be required on future submissions including water, sewer, drainage, landscaping, sidewalk, curb, and dumpster enclosure. Topography in the vicinity of the proposed development should be provided in order to address grading and drainage concerns.

Response: Comment noted. Hudson Land Design has been retained and detailed plans will be forthcoming.

6. **Comment:** The reference survey map should be identified on the plans as to the surveyor and date of survey. Boundary information is critical to determine set-back requirements.

Response: We added the surveyor's information on the plan.

CREIGHTON MANNING COMMENT LETTER DATED DECEMBER 13, 2020:

1. **Comment:** We understand that traffic studies are underway and will be submitted when complete.

Response: AKRF has completed their study and it is being submitted for your review.

2. **Comment:** The site plans should be dated and the scale of Sheet A002 appears to be 1"=50', not 1"=500'.

Response: The plans have been revised to reflect the correct scales.

3. **Comment:** The site plan says 271 spaces will be provided in the plaza, post construction. We counted 274 spaces, the difference possibly being the three spaces in front of Ready Coffee.

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Response: We have corrected the plan to show the 274 spaces.

4. **Comment:** The parking requirements on Sheet A001 denote a 76,426 SF Gross Leasable Floor Area (GLA), but the calculation for the shopping center is 1 space per 225 SF at 65,528 SF of GLA. Further, the summary of the parking notes 301 spaces required, 302 total existing spaces, and 271 total provided. Some additional explanation of the parking calculations is necessary. Findings from the traffic and parking studies may also help determine the adequacy of the proposal.

Response: The off-street parking requirements for a restaurant are based on seating, as the proposed use has no seating, we added in the number of employees that could be in the building at any given time.

The definition for Gross Leasable Floor Area defines the area to be used for parking calculations as the total area of a space rented or leased by a tenant exclusive of any common area, whether covered or uncovered. In a mall or other large building, common area, utility or general storage space is not included in parking calculations, but leased storage area by a tenant shall be included up to 50% of such storage area.

Based on our calculations there could be a total of 302 potential parking spaces. When we add the proposed coffee shop in, we eliminate 28 parking spaces, for a new total of 274 spaces.

5. **Comment:** Is a sidewalk proposed along Gardnertown Road to Route 32? The sidewalk should continue to a ramp and landing at the corner of this property to receive a crosswalk from the new sidewalk constructed by McDonalds.

Response: Yes, we are proposing a sidewalk along Gardnertown road and there will be a ramp and landing at the intersection of North Plank Road. The ramp & landing will face McDonald's property and a painted crosswalk will be installed.

6. **Comment:** The Board should discuss where the applicant or plaza owner should continue a sidewalk along the property frontage (175 feet) to the main plaza driveway.

Response: Discussions with the plaza owner are ongoing. All parties are concerned with the liability of a sidewalk that goes to nowhere. We believe that the appropriate termination of the sidewalk is at the main entrance to the property.

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7. **Comment:** With only one general and two handicap spaces near the building, any park and walk up service to the patio window will need to cross the drive aisles and the drive-through lane. Is sidewalk depicted along the drive-through lane?

Response: Agreed. A cross-walk is now shown on the plans.

8. **Comment:** With one general and two handicap parking spaces, is the driveway to Gardnertown Road necessary?

Response: The Gardnertown Road driveway should be retained because of its function as a convenient exit for delivery vehicles. We also note that the plan has been revised to show 2 general spaces and 1 handicapped space.

9. **Comment:** Show and/or describe how/where deliveries will take place.

Response: Delivery trucks will enter the property thru the main entrance and park in front of the proposed building and then exit thru Gardnertown road. This design facilitates the circulation for the delivery trucks.

10. **Comment:** Garbage truck access looks adequate.

Response: Comment acknowledged.

11. **Comment:** There are some existing handicap spaces in the parking field off the NW corner of Rite Aid. Other handicap spaces in the plaza and the overall parking count should be verified.

Response: We are rearranging the parking layout and moved some of the existing handicapped spaces to provide safer access for them.

12. **Comment:** Is there a menu board proposed in the drive through lane. If so, please depict it.

Response: There is a menu board and we have shown it on the site plan.

13. **Comment:** It's not clear if some of the parking spaces shown on the plan are proposed or existing. The middle field indicates a hatched spot where the light pole is in the photo below, but the site plan shows the pole aligned with the center of four spaces. Will these spaces be restriped? The plan line weight doesn't indicate what is proposed and what is existing. Please clarify

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Response: The proposal is to restripe the proposed development area (northwest section of the property) as part of the Ready Coffee project. The striping shown of the remaining property is for implementation at the time the remainder of the lot is restriped. We have revised the plan to make this clearer.

CONCLUSION:

We look forward to discussing this supplemental submission for sketch at the February 6, 2019 meeting, and to discussing any comments on our updated plans and additional traffic report. We also request that the Board agree on the list of area variances required and refer the application to the Zoning Board of Appeals. We recognize that we will have to separately file applications with the ZBA for the required area variances. We also request that, pursuant to section 185-57 (B) (2), and in keeping with uniform practice with other applications, that the Planning Board issue a favorable report (usually referred to as "conceptual" approval in the minutes) regarding the application, and authorize the Applicant to proceed with a detailed Site Plan submission.

Thank you for your courtesy.

Very truly yours,

A handwritten signature in black ink, appearing to read 'J. Van Tuyl', written in a cursive style.

Jennifer L. Van Tuyl

cc: Dominic Cordisco, Esq.
Michael Berta, AIA

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Memorandum

To: Project Team
From: Anthony Russo, Alex Auld
Date: December 16, 2019
Re: Draft Ready Coffee Traffic Impact and Circulation Study – Newburgh, NY
cc: Marissa Tarallo, P.E., PTOE

This memorandum summarizes the findings of the Traffic Impact Study (TIS) for the proposed Ready Coffee development, located in the shopping center at 59 North Plank Road (NYS Route 32) in the Town of Newburgh, NY. The study includes trip generation, a survey of an existing Ready Coffee located at the 9 Mall shopping center on US Route 9 in the Town of Poughkeepsie, NY, and data for the existing shopping center. This information was used to conduct a detailed traffic analysis using Synchro 10 software at three key intersections in the immediate vicinity of the proposed development along NYS Route 32 and Gardnertown Road. The TIS includes existing and future traffic operating conditions (level of service and average delay), as well as parking utilization and queue studies.

A. PROJECT DESCRIPTION

The proposed 550 SF Ready Coffee development repurposes an underutilized, partially unstriped portion of the existing shopping center, adjacent to NYS Route 32 to the north and Gardnertown Road to the west (see attached site plan). The proposed development is a specialty beverage drive-thru with the option for walk up service. Unlike many comparable uses in the area, the proposed development does not offer made-to-order food (sandwiches, bagels, etc.) and offers no indoor seating.

SITE ACCESS AND CIRCULATION

The proposed development will be accessible using the existing shopping center driveways including the primary driveway along NYS Route 32 with access to and from NYS Route 32, and two secondary driveways which will be modified as part of the proposed development and will provide access to Gardnertown Road.

Presently, where the existing shopping center abuts Gardnertown Road there exists one access point defined by the edge of the lot to the west and an existing light pole at the edge of a small at grade landscaped area to the east. From the edge of the landscaped area to the intersection of NYS Route 32 there exists an approximate 100 foot access point without the presence of curbing and providing poor channelization for vehicles entering and exiting the driveway leaving the opportunity for unrestricted vehicular movements and vehicle collisions.

The proposed development would include two full access curb cuts with raised curbing and landscaping along Gardnertown Road to establish a clear circulation pattern for the existing shopping center as well as the proposed development. A queuing lane for drive-through customers, as well as a separated two-way drive aisle would be located on the south side of the proposed development away from Gardnertown Road to prevent queuing vehicles from creating congestion in the shopping center or on the adjacent roadways. The location of the project site in a corner of the parking lot area also minimizes the impact to existing or future patrons of the shopping center and contains the patrons of the proposed development to a small underutilized area of the shopping center.

QUEUES

As a specialty beverage drive-thru facility, the proposed Ready Coffee will require queuing space for vehicles waiting to be served. The amount of queuing space necessary for any drive-thru facility service outlet is determined not just by how many cars are served, but equally, by how quickly each car is served (processing time). For this study, drive-thru queuing information from the Ready Coffee location on US Route 9 in the Town of Poughkeepsie for the weekday AM and PM, and Saturday peak periods was utilized in order to assess the necessary queuing space for the proposed development. During the observed peak periods a maximum queue of eight vehicles was observed with the maximum queue occurring during the Saturday peak period (see **Attachment A**).

As a notable number of trips for a specialty beverage drive-thru facility are pass-by trips¹, NYSDOT historic traffic volume data was compared along both the US 9 corridor adjacent to the existing Poughkeepsie location and the NYS Route 32 corridor adjacent to the proposed development, to determine the potential queuing space needed for the proposed development. As the Average Annual Daily Traffic (AADT) along US 9 (39,769 AADT) is more than twice the AADT along NYS Route 32 in the vicinity of the project site (13,744 AADT) the proposed dedicated queuing space for up to five vehicles is sufficient for the proposed development.

TRIP GENERATION

The estimated number of trips generated by the proposed development site was calculated based on trip generation rates provided by the *Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition)*. Trips generated by the proposed development were subdivided into new and pass-by trips. The ITE Trip Generation Manual surveyed similar facilities and found approximately 80 to 95 percent of trips were pass-by trips not new traffic added to the roadway network. In addition, the survey of the Poughkeepsie location identified an average of approximately 53 percent pass-by trips. Conservatively, 25 percent of the project generated trips were assumed to be pass-by, consistent with NYSDOT guidance. **Table 3** presents a summary of the ITE trip generation rates

The ITE Trip Generation rates were also compared to the trip generation survey data conducted at the existing Poughkeepsie location (see **Attachment A**) with the peak hour vehicle trip counts of 82, 32, and 78 trips for the weekday AM and PM, and Saturday peak hours, respectively. The ITE Trip Generation rates resulted in higher trips as compared to the survey data during the weekday AM and weekday PM peak hours, and less trips than the survey data during the Saturday peak hour. To provide for a conservative analysis, the ITE Trip Generation rates were used for the weekday AM and weekday PM peak hours and the survey data from the Poughkeepsie study was used for the Saturday peak hour.

As shown in **Table 4**, the total trips generated by the proposed development was analyzed to be 189 trips (94 in and 95 out) during the weekday AM peak hour, 59 trips (29 in and 30 out) during the weekday PM peak hour, and 78 trips (38 in and 40 out) during the Saturday peak hour.

¹ Pass-by trips are considered vehicles that stop at a destination while driving by it on the way elsewhere.

Table 3
ITE Trip Generation Rates

Building Component	Development Size		Peak Hour		ITE Data					Total	
					ITE Land Use		Independent Variable	ITE Rate	Directional Distribution (%)		Trips
					#	Name					
Drive-Through Coffee Shop	550	SF	AM	In	938	Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	1,000 SF Gross Floor Area	344.4	50	94	189
				Out					50	95	
			PM	In	938	Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	1,000 SF Gross Floor Area	106.7	50	29	59
				Out					50	30	
			SAT	In	937	Coffee/Donut Shop with Drive-Through Window	1,000 SF Gross Floor Area	87.70	50	24	48
				Out					50	24	

Table 4
Trip Generation

Peak Hour		ITE Rates	Proposed Development Total Trips	Pass-by Trips (25%)	New Trips1 (75%)
AM	In	172	94	23	71
	Out	172	95	24	71
	Total	344	189	47	142
PM	In	53	29	7	22
	Out	54	30	8	22
	Total	107	59	15	44
SAT	In	See Note (2)	38	10	28
	Out	See Note (2)	40	10	30
	Total	See Note (2)	78	20	58

Note:
 (1) Utilizing the average pass-by rate from the Poughkeepsie survey of approximately 53 percent, the number of new trips would be approximately 88, 28, and 37 during the weekday AM, PM and Saturday peak hours, respectively.
 (2) Based on survey data conducted at the existing Poughkeepsie Ready Coffee location in September, 2019.

TRIP ASSIGNMENT

For the purpose of estimating the likely distribution of project generated trips to and from the proposed development, a directional distribution of vehicle trips was created for each peak hour utilizing the existing travel patterns in the study area. The trip distribution patterns, presented in Table 5, represent the most logical approach and departure paths to and from the project site.

Table 5
Trip Distribution Patterns

From	Percent Distribution		
	AM (In/Out)	PM (In/Out)	Saturday (In/Out)
NYS Route 32, Gardnertown Road			
East (NYS Route 32)	35% / 55%	70% / 55%	55% / 55%
West (NYS Route 32)	60% / 45%	25% / 45%	40% / 45%
South (Gardnertown Road)	5% / 0%	5% / 0%	5% / 0%
Total	100% / 100%	100% / 100%	100% / 100%
Shopping Center Driveways			
NYS Route 32 (Main) Entrance	95% / 60%	95% / 70%	95% / 70%
Gardnertown Road North Entrance	2.5% / 20%	2.5% / 15%	2.5% / 15%
Gardnertown Road South Entrance	2.5% / 20%	2.5% / 15%	2.5% / 15%
Total	100% / 100%	100% / 100%	100% / 100%

B. TRAFFIC ANALYSIS

Traffic operating conditions at each unsignalized study area intersection were analyzed by applying the Highway Capacity Manual 6th Edition (HCM 6) methodology included in Synchro 10 traffic analysis software to compute delays, v/c ratios, and LOS.

2019 EXISTING CONDITIONS

To assess the traffic impacts associated with the proposed development sites, a study area was identified that considered key intersections that might be affected by the project generated trips. A total of three locations were identified for analysis:

1. NYS Route 32 (North Plank Road) and the Shopping Center Main Driveway
2. Gardnertown Road and Shopping Center Northern Driveway
3. Gardnertown Road and Shopping Center Southern Driveway/McDonald's Driveway

Existing traffic conditions at the study intersections were established based on traffic counts conducted on Thursday, November 7, 2019 and Saturday, November 16, 2019. Field inventories of roadway geometry and intersection traffic control devices were also conducted to provide the appropriate inputs to the operational analyses.

Based on a review of all the traffic count data, the peak hours for the study area were determined to be 7:00 AM to 8:00 AM, 4:00 PM to 5:00 PM, and 11:15 PM to 12:15 PM for the Weekday AM, Weekday PM and Saturday peak hours, respectively.

Table 6 presents the intersection analysis results under existing conditions. During peak hours, LOS D operations are generally considered to be acceptable operating conditions for signalized and unsignalized intersections. In addition, it is not uncommon during peak hours for minor unsignalized driveways along State roadways to experience LOS E or F conditions. As shown in Table 6, all study area intersection lane groups operate at LOS C or better under 2019 Existing Conditions.

Table 6
2019 Existing Conditions Level of Service Analysis

Intersection	Weekday AM				Weekday PM				Saturday			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
NYS Route 32 and Shopping Center Main Driveway												
WB	L	0.01	8.3	A	L	0.03	7.9	A	L	0.03	8.2	A
NB	LR	0.08	13.1	B	LR	0.10	14.5	B	LR	0.20	17.0	C
Gardnertown Road and Shopping Center Northern Driveway												
NB	LR	0.08	13.1	B	LR	0.10	14.5	B	LR	0.20	17.0	C
Gardnertown Road and Shopping Center Southern Driveway/McDonald's Driveway												
EB	LT	0.00	8.9	A	LT	0.01	9.1	A	LT	0.00	9.0	A
WB	TR	0.00	8.6	A	TR	0.00	8.7	A	TR	0.00	8.7	A

2019 NO BUILD CONDITIONS

The Future without the Proposed Project, or "No Build," traffic condition is an interim scenario that establishes a future baseline condition without the Proposed Project. No Build traffic conditions were ascertained by increasing the 2019 Existing Conditions traffic volumes by 0.5 percent per year, as per the 2010-2035 NYMTC Regional Transportation Plan, from 2019 (existing year) to 2020 (build year) for background growth.

Table 7 presents a comparison of 2019 Existing and 2020 No Build LOS conditions for the study area intersections for the Weekday AM, PM and Saturday peak hours.

2019 BUILD CONDITIONS

The Project-generated vehicle trips described in **Section A** above, were added to the No Build traffic volumes in order to estimate the Build traffic volumes. **Table 8** presents a comparison of 2020 No Build and 2020 Build LOS conditions for the study area intersections for the Weekday AM, PM and Saturday peak hours.

The addition of the project generated traffic did not result in any significant adverse impacts that would require mitigation.

Table 7
2019 Existing Conditions and 2020 No Action Condition Level of Service Analysis

Intersection	Weekday AM						Weekday PM						Saturday						
	2019 Existing			2020 No Action			2019 Existing			2020 No Action			2019 Existing			2020 No Action			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Delay (sec)	v/c Ratio	Lane Group	v/c Ratio	Delay (sec)	LOS	Delay (sec)	v/c Ratio	Lane Group	v/c Ratio	Delay (sec)	LOS	Delay (sec)	v/c Ratio	
WB NB	L	0.01	8.3	A	0.01	8.3	L	0.03	7.9	A	0.03	7.9	L	0.03	8.2	A	0.03	8.2	A
	LR	0.08	13.1	B	0.08	13.1	LR	0.10	14.5	B	0.10	14.5	LR	0.20	17.0	C	0.20	17.0	C
WB	R	0.00	8.5	A	0.00	8.5	R	0.00	8.6	A	0.00	8.6	R	0.00	8.6	A	0.00	8.6	A
	TR	0.00	8.6	A	0.00	8.6	TR	0.00	8.7	A	0.00	8.7	TR	0.00	8.7	A	0.00	8.7	A
Gardner Road and Shopping Center Northern Driveway																			
Gardner Road and Shopping Center Southern Driveway/McDonald's Driveway																			
EB WB	LT	0.00	8.9	A	0.00	8.9	L	0.01	9.1	A	0.01	9.1	L	0.00	9.0	A	0.00	9.0	A
	TR	0.00	8.6	A	0.00	8.6	LR	0.00	8.7	A	0.00	8.7	LR	0.00	8.7	A	0.00	8.7	A

Table 8
2020 No Action Condition and With Action Condition Level of Service Analysis

Intersection	Weekday AM						Weekday PM						Saturday						
	2020 No Action			2020 With Action			2020 No Action			2020 With Action			2020 No Action			2020 With Action			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Delay (sec)	v/c Ratio	Lane Group	v/c Ratio	Delay (sec)	LOS	Delay (sec)	v/c Ratio	Lane Group	v/c Ratio	Delay (sec)	LOS	Delay (sec)	v/c Ratio	
WB NB	L	0.01	8.3	A	0.04	8.6	L	0.03	7.9	A	0.04	8.0	L	0.03	8.2	A	0.05	8.3	A
	LR	0.08	13.1	B	0.31	16.9	LR	0.10	14.5	B	0.15	15.9	LR	0.20	17.0	C	0.28	18.7	C
WB	R	0.00	8.5	A	0.02	8.7	R	0.00	8.6	A	0.00	8.7	R	0.00	8.6	A	0.01	8.6	A
	TR	0.00	8.6	A	0.02	8.6	LR	0.00	8.7	A	0.00	8.7	LR	0.00	8.7	A	0.01	8.7	A
Gardner Road and Shopping Center Northern Driveway																			
Gardner Road and Shopping Center Southern Driveway/McDonald's Driveway																			
EB WB	LT	0.00	8.9	A	0.00	9.0	L	0.01	9.1	A	0.01	9.1	L	0.00	9.0	A	0.00	9.0	A
	TR	0.00	8.6	A	0.02	8.6	LR	0.00	8.7	A	0.00	8.7	LR	0.00	8.7	A	0.01	8.7	A

C. PARKING UTILIZATION

The proposed project would redevelop a section of the existing shopping center parking lot which is currently underutilized. Based on the existing and proposed site plans provided, the proposed development would result in a net loss of 19 parking spaces. In order to determine whether sufficient parking would remain for the existing and possible future uses at the shopping center, a parking survey was conducted.

DATA COLLECTION METHODOLOGY

The parking survey was conducted by counting the number of vacant parking spaces, every half hour, from 7:00AM to 10:00PM for one typical weekday (Thursday, November 7, 2019) and one Saturday (November 16, 2019). The capacity of the parking facilities were based on observations.

PARKING SURVEY

The number of occupied parking spaces was divided by the parking capacity to calculate the percent of parking spaces utilized. A parking facility is generally considered full by users if it has 85 to 90 percent occupancy² depending on the parking and site layout. **Tables 9 and 10** present the parking utilization for the entire parking lot for the weekday and Saturday, respectively.

As shown in **Tables 9 and 10**, typical weekday parking utilization for the parking lot is 20 percent or less, and for Saturday is generally below 30 percent. In the underutilized area where the proposed development would be located, between 2 to 6 vehicles were observed to be parked during the weekday and between 2 to 7 vehicles were observed to be parked during the Saturday.

In addition, it should be noted that the parking utilization across the lot varies according to the adjacent uses. The underutilized area of the parking lot where the proposed project is located has the lowest utilization as it is not proximate to the majority of retail shops and is therefore not a convenient parking location for patrons. Furthermore, as the proposed development does not include indoor seating and is intended to primarily serve drive-through customers with three employees, the project is not expected to increase parking demand at the shopping center.[]

Based on the typical parking utilization and the attached proposed snow removal plan, it is not anticipated that snow removal will adversely impact parking during the winter months with the proposed development.

D. CONCLUSIONS

Based on the results of the traffic impact study and the queuing and parking assessments, the proposed project is not expected to generate significant impacts along the adjacent roadway network or create a parking shortfall at the existing shopping center. The site has been designed to minimize the impact to the shopping center circulation pattern and contain waiting vehicles in an appropriately sized queuing area. In addition, as there are no existing adjacent sidewalks surrounding the proposed project, queuing is not expected to result in conflicts or obstructions of adjacent sidewalks. The redesign of the driveways along Gardnertown Road would also improve vehicular safety by channelizing traffic at these locations. Therefore the proposed project is not expected to negatively impact traffic operations within the shopping center and the adjacent roadway network.

² Litman, Todd. *Parking Management Best Practices*. APA, 2006.

Table 9
Shopping Center Existing Weekday Parking Utilization

Thursday, November 7, 2019			
Time	No. of Parked Cars	No. of Available Spaces ¹	Parking Utilization (%) ²
7:00 AM	20	211	9%
7:30 AM	21	210	9%
8:00 AM	27	204	12%
8:30 AM	31	200	13%
9:00 AM	30	201	13%
9:30 AM	35	196	15%
10:00 AM	31	200	13%
10:30 AM	37	194	16%
11:00 AM	39	192	17%
11:30 AM	41	190	18%
12:00 PM	42	189	18%
12:30 PM	37	194	16%
1:00 PM	41	190	18%
1:30 PM	42	189	18%
2:00 PM	40	191	17%
2:30 PM	43	188	19%
3:00 PM	39	192	17%
3:30 PM	44	187	19%
4:00 PM	41	190	18%
4:30 PM	40	191	17%
5:00 PM	47	184	20%
5:30 PM	46	185	20%
6:00 PM	30	201	13%
6:30 PM	30	201	13%
7:00 PM	36	195	16%
7:30 PM	37	194	16%
8:00 PM	35	196	15%
8:30 PM	40	191	17%
9:00 PM	30	201	13%
9:30 PM	31	200	13%
10:00 PM	32	199	14%

Notes:
Bold = Indicates parking utilization greater than or equal to 85 percent.
 (1) Based on a parking capacity of 231 spaces for the entire parking lot.
 (2) Number of parked vehicles divided by the parking capacity.

Table 10
Shopping Center Existing Saturday Parking Utilization

Saturday, November 16, 2019			
Time	No. of Parked Cars	No. of Available Spaces ¹	Parking Utilization (%) ²
7:00 AM	19	212	8%
7:30 AM	20	211	9%
8:00 AM	21	210	9%
8:30 AM	25	206	11%
9:00 AM	34	197	15%
9:30 AM	50	181	22%
10:00 AM	49	182	21%
10:30 AM	52	179	23%
11:00 AM	51	180	22%
11:30 AM	42	189	18%
12:00 PM	57	174	25%
12:30 PM	87	144	38%
1:00 PM	60	171	26%
1:30 PM	56	175	24%
2:00 PM	64	167	28%
2:30 PM	55	176	24%
3:00 PM	54	177	23%
3:30 PM	49	182	21%
4:00 PM	50	181	22%
4:30 PM	48	183	21%
5:00 PM	62	169	27%
5:30 PM	51	180	22%
6:00 PM	35	196	15%
6:30 PM	36	195	16%
7:00 PM	30	201	13%
7:30 PM	30	201	13%
8:00 PM	40	191	17%
8:30 PM	27	204	12%
9:00 PM	31	200	13%
9:30 PM	29	202	13%
10:00 PM	34	197	15%

Notes:
Bold = Indicates parking utilization greater than or equal to 85 percent.
 (1) Based on a parking capacity of 231 spaces for the entire parking lot.
 (2) Number of parked vehicles divided by the parking capacity.



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Memorandum

To: Jed Bonnem and Stephens Dunne
From: Anthony Russo, Marissa Tarallo, P.E., PTOE, Alex Auld
Date: October 14, 2019
Re: Parkway Coffee Trip Generation and Site Circulation Study

This memorandum summarizes the trip generation and site circulation characteristics of the Parkway Coffee (doing business as “Ready Coffee”) located on U.S. Route 9 in the Town of Poughkeepsie. The findings are based on data collected in September, 2019 while school was in session for peak periods on a typical weekday and Saturday.

TRIP GENERATION

Visitation data was collected on Tuesday, September 17, 2019 and Saturday, September 21, 2019 to determine the number of trips generated by Parkway Coffee during the weekday AM (6 AM to 9AM), midday (11 AM to 1 PM) and PM (4 PM to 6PM) peak periods as well as the Saturday (10 AM to 2 PM) peak period. Vehicles in and out of the drive-thru and walk-up orders were collected to determine the site’s trip generation. In addition, patron surveys were conducted during the same periods to determine the breakdown of trips by type including new, diverted¹ and pass-by trips².

Table 1 summarizes the peak hour vehicle trip counts for each peak period surveyed for the drive-thru window. In addition, walk-up customers were observed including three, six and ten walk-up customers observed during the weekday AM, midday and PM peak periods, respectively. Thirty walk-up customers were observed during the Saturday peak period (10AM to 2PM) with 16 peak hour walk-up customers (10AM to 11AM).

Table 1
Peak Hour Drive-Thru Vehicle Counts

Weekday AM (7:45 - 8:45 AM)			Weekday Midday (11:00 AM - 12:00 PM)			Weekday PM (4:00 - 5:00 PM)			Saturday (10:15 - 11:15 AM)		
In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
43	39	82	29	24	53	19	13	32	38	40	78

In general, the peak hour trips shown in **Table 1** are less than those generated using trip generation rates provided by the *Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition)* with the exception of the Saturday peak hour as shown in **Table 2**.

¹ Diverted trips are vehicles rerouting from a roadway within the vicinity of the site to gain direct access to the site.

² Pass-by trips are considered vehicles that stop at a destination while driving by it on the way elsewhere.

Table 2
ITE Trip Generation Rates

Building Component	Development Size		Peak Hour		ITE Data						
					ITE Land Use		Independent Variable	ITE Rate	Directional Distribution (%)	Trips	Total
					#	Name					
Drive-Through Coffee Shop	501	SF	AM	In	938	Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	1,000 SF Gross Floor Area	337.04	50	85	170
				Out					50	85	
			PM	In	938	Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	1,000 SF Gross Floor Area	83.33	50	21	42
				Out					50	21	
			SAT	In	937	Coffee/Donut Shop with Drive-Through Window	1,000 SF Gross Floor Area	87.70	50	22	44
				Out					50	22	

Notes:
Weekday midday trip generation data is not available in the ITE Trip Generation Manual

Trips generated by Parkway Coffee were then subdivided by trip type based on patron surveys conducted during the same data collection periods. The surveys represent nearly all of the trips made to the site during the peak periods, with a capture rate per period ranging from 96 to 100 percent of all patrons. As shown in **Table 3**, approximately 61 to 73 percent of trips to Parkway Coffee are not new trips to traffic added to the roadway network with approximately half of all trips to the site already traveling along the adjacent roadway.

Table 3
Peak Period Trip Type Summary

Trip Type	Weekday AM		Weekday Midday		Weekday PM		Saturday	
	No. of Trips	Percent of Total Trips	No. of Trips	Percent of Total Trips	No. of Trips	Percent of Total Trips	No. of Trips	Percent of Total Trips
Pass-by	40	54.1%	27	56.3%	14	45.2%	67	56.8%
Diverted	15	20.2%	8	16.6%	5	16.1%	16	13.5%
New	19	25.7%	13	27.1%	12	38.7%	35	29.7%
Total	74	100.0%	48	100.0%	31	100.0%	118	100.0%

SITE CIRCULATION AND PARKING

In order to assess on-site operations, drive-thru vehicle queues and processing times were collected during the weekday AM, midday, PM, and Saturday peak periods. **Table 5** provides the range and average processing times as well as the maximum vehicle queue observed during each peak period. Processing times were measured as the time from when a vehicle arrived to the back of the drive-thru queue (or to the drive-thru window if no queues were present) to the time the vehicle exited the drive-thru window. In addition, queues did not extend beyond the site or impede traffic operations/circulation of the shopping center. It should be noted that as patron intercept surveys were conducted in the drive-thru lane at the time of data collection, the maximum queue length and processing time are conservative.

Table 5
Drive-Thru Vehicle Processing Times and Vehicle Queues

Time Period	Minimum (mm:ss)	Maximum (mm:ss)	Average (mm:ss)	Maximum Queue (No. of Vehicles)
Weekday AM	0:22	3:20	1:18	7
Weekday midday	0:21	3:52	1:11	7
Weekday PM	0:31	2:37	1:09	4
Saturday	0:15	4:55	1:05	8

PARKING

As Parkway Coffee provides no indoor seating or made to order food, parking at the site is limited to employees and a few walk-up customers. During data collection, a maximum of four, seven, four and five vehicles were observed parked at the site for the weekday AM, midday, PM and Saturday midday peak periods.