# CITY OF BEACON <br> One Municipal Plaza - Courtroom <br> BEACON, NEW YORK 12508 <br> Phone (845) 838-5002 Fax (845) 838-5026 

The Zoning Board of Appeals will meet on Tuesday, August 20, 2019 in the Municipal Center Courtroom. A training work session will take place at 7:00 p.m. and the regular meeting will begin immediately thereafter, but not later than at 7:30 PM.

1. 2. Continue review of application submitted by 23-28 Creek Drive, LLC, 23-28 Creek Drive, Tax Grid No. 30-6054-37-037625-00, Fishkill Creek Development (FCD) Zoning District, to construct a mixed use development with eight apartments and 20,000 sq. ft. of commercial space which requires relief from the following:
1) Section 223-26(F) to provide 93 parking spaces (113 parking spaces required)
2) Section 223-4.14(C) for apartment size of 2,750 sq. ft . for two of the units (2,000 sq. ft. maximum permitted)
3) Section 223-1.14(F) for a four story building (three stories maximum permitted)
4) Section 223-1.14(F) for a building height of 53 ft .-4 in. (40 ft. maximum permitted)
2. Application submitted by 184 Main, LLC, 184 Main Street, Tax Grid No. 30-5954-27-811956-00, CMS Zoning District, for relief from Section 223-41.18(E)(4) to add a second story on the building with a 10 ft . rear yard setback ( 25 ft . required)
3. Application submitted by James Schumm, 27 Monell Place, Tax Grid No. 30-5955-04-635190-00, for relief from Section 223-17(C) to construct a bedroom addition with 14.5 ft . side yard setback ( 20 ft . required)
4. Miscellaneous Business

Consider request for one (1) year extension of $1 / 17 / 2018$ area variances - Edgewater

Taylor M. Palmer
tpalmer@cuddyfeder.com
July 29, 2019
VIA EMAIL AND
HAND DELIVERY
Hon. Robert Lanier
and Members of the Zoning Board of Appeals
City of Beacon
1 Municipal Plaza
Beacon, New York 12508

Re: Application for Area Variances - Mixed-Use Development - Supplemental Submission Premises: 23-28 Creek Drive, Beacon, New York (Tax ID: 6054-37-037625)

Dear Chairman Lanier and Members of the Zoning Board of Appeals:
On behalf of 23-28 Creek Drive, LLC (the "Applicant"), we respectfully submit this letter in furtherance of the above-referenced Application. This letter also provides information in response to comments the Applicant received from the public and from this Board and its consultants at the initial Public Hearing session held on Tuesday, July $16^{\text {th }}$ (the "ZBA Public Hearing").

## RESPONSES TO PUBLIC COMMENTS \& ZONING BOARD MEMBER COMMENTS:

## A. Public Comments in Support of the Project:

The Applicant has received tremendous support for the mixed-uses and the public benefits proposed for the Premises. As this Board is aware, the Applicant has received more than thirty (30) letters of support and approval recommendation, which includes support from owners of parcels that are adjacent to and abutting the Property, and others from throughout the surrounding neighborhood and in the community. ${ }^{1}$ In addition to the above supportive comments and the Applicant's responses to public comments at the ZBA Public Hearing, the following provides additional details regarding the Applicant's Parking \& Traffic Study in further support of the Applicant's request for a parking variance.

## B. Parking \& Traffic Study:

As was discussed at the ZBA Public Hearing, as part of the Coordinated SEQRA review conducted by the Planning Board as Lead Agency, the Applicant retained the services of Maser Consulting,

[^0] Secretary on July 16, 2019 and July 17, 2019 by e-mail to be incorporated as part of the official record of proceedings. We understand that additional letters of support are forthcoming, copies of which will be provided to the ZBA Secretary for the record as well.

July 29, 2019
Page -2-
P.A., in order to review the traffic and parking impacts of the Project. Enclosed as Exhibit A, please find a copy of the Parking and Traffic Impact Study prepared by Maser Consulting P.A., dated March 25, 2019 (the "PTIS"), ${ }^{2}$ which confirms that "... the 93 proposed parking spaces will sufficiently meet the parking needs of the development." See PTIS at page $5 .{ }^{3}$

As detailed in the Applicant's June 25, 2019 submission, the Applicant proposes to provide 93 total parking spaces on the Premises, including 80 spaces for the proposed $20,000 \mathrm{sq} . \mathrm{ft}$. commercial space and thirteen (13) spaces for the eight (8) apartment units. As more fully discussed at the ZBA Public Hearing and was discussed with the Planning Board's Traffic Consultant during the SEQRA review, it is respectfully submitted that 93 parking spaces will overpark the Premises. Indeed, the PTIS provides that "... in comparison to the nearby CMS District and Linkage District[s] the City Code would only require 48 and 58 spaces respectively, which is a reasonable comparison due to the Project's proximity to Main Street and these districts." See PTIS at page 4. At the same time, the complimentary land uses also allow for shared parking on the Premises, and the property is also adjacent to the City's new large public off-street parking area located northeast of Churchill Street and south of the Hudson Valley Brewery building.

Provided the above, following a four (4) month SEQR Public Hearing, the Planning Board adopted a Negative Declaration on July 9, 2019, and determined that the entire action, including the requested variances, will have no potential significant adverse environmental impacts. See Exhibit B - Negative Declaration. 4 As noted at the ZBA Public Hearing, the Planning Board also issued an Advisory Opinion dated July 11, 2019, which provides in relevant part that:
"The Fishkill Creek Development zone relies on general parking standards, while the
${ }^{2}$ Note: The enclosed PTIS updated the Applicant's original PTIS dated July 26, 2018 in order to reflect the increased commercial space and the reduction in the total number of residential apartment units that are included in the Project before this board.
${ }^{3}$ Note: Also enclosed in Exhibit A (Tabs 2 \& 3) are copies of the Traffic Consultant's response to comments from the Planning Board's Traffic Consultant during the SEQR review (Tab 2), as well as a copy of the signage plan requested by the Planning Board (Tab 3) for additional reference.
${ }^{4}$ Note: The Negative Declaration adopted by the Planning Board on July 9, 2019 also determines that the building design will not have a significant adverse environmental impact on aesthetic resources, providing in relevant part that:

The Proposed Action will not result in the obstruction, elimination or significant screening of one or more official designated scenic views. The Proposed Action will be visible from Fishkill Creek but the aesthetics of the site will be far improved from the existing condition of the DPW facility. Further, public viewing of Fishkill Creek from the Site will be enhanced by providing a Greenway Trail segment and a public park at the south end of the site.
similar mixed use Linkage and CMS zoning districts would require far fewer spaces, and in this case the commercial space is the main factor in the parking requirement. A shared parking situation will exist because some of the employees will live and work on site, and the commercial operation will take not be operating when some residents are at home. Lastly fewer parking spaces would cut down on the amount of impervious surfaces and add more accessible greenspace. After careful consideration, members unanimously supported and send a positive recommendation with regard to the parking variance."

## See Exhibit C. 5

Notwithstanding the above, in response to comments from this Board at the ZBA Public Hearing, the Applicant also prepared the enclosed plan entitled "Additional Parking Diagram", which shows a parking-compliant layout for the off-street parking area. See Exhibit D. As shown on the enclosed Parking Diagram, given site constraints and the parking requirements for the proposed expanded commercial use, the additional off-street parking would be continued south along the site into the proposed greenspace. As noted on the enclosed Parking Diagram, some of the impacts of the additional parking area would include a reduction in the landscaped buffer for the Greenway Trail and a significant reduction in greenspace, as well as the need for additional stormwater management and additional retaining walls. As identified herein, and more fully considered during the SEQRA review, the PTIS confirms that shared parking and zoning requirements for similarly situated zoning districts require significantly less parking for the commercial use on the Premises. Accordingly, it is respectfully submitted that the parking shown on the enclosed Parking Diagram would result in more impacts than what is proposed by the Applicant, and that the Project's proposed plan provides more than sufficient parking for the mixed-uses proposed for the Premises.

As detailed above, is respectfully submitted that the proposed access to the Premises allows for safe and efficient flow of both vehicles and pedestrians through the site and that the Project is sufficiently parked for the complimentary uses.

## COMPLIANCE WITH THE STATE ENVIRONMENTAL QUALITY REVIEW ACt:

The Proposed Action is a Unlisted Action under SEQR, and has undergone Coordinated Review with the Planning Board acting as lead agency. A Full Environmental Assessment Form was

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## +FEDER <br> LLP

July 29, 2019
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submitted to this Board as well as the Planning Board at the beginning of the application process. The Planning Board, at its meeting on July 9, 2019, issued a Negative Declaration and findings that the proposed Project will not have any potentially significant adverse impacts upon the environment. This concludes the SEQR review process for the Project.

## SUMMARY:

For all the foregoing reasons, the Applicant respectfully submits that, under the test provided by the law, the issuance of the area variances is justified. The Applicant respectfully submits that there is no harm to the community that weighs against the benefit to the Applicant, and that the proposed variances are the minimum area variances that meet the Applicant's needs and at the same time fully protects the character of the neighborhood and the health, safety and welfare of the community. Further, the adoption the of instant area variances would not, of course, end the City's review. Indeed the Applicant must also appear again for continued review and additional Public Hearings before the City Council regarding the Concept Plan, as well as at the Planning Board for continued Site Plan Review and a Site Plan Public Hearing.

In further support of this Application, we respectfully submit seven (7) sets of the instant letter and the following documentation: ${ }^{6}$

Exhibit A: Parking and Traffic Impact Study;
Tab 1: Parking and Traffic Impact Study prepared by Maser Consulting P.A., dated March 25, 2019;
Tab 2: Maser Consulting P.A. Response to Planning Board Traffic Consultant Comments dated April 30, 2019; and
Tab 3: Traffic Signage Plan.
Exhibit B: SEQR Negative Declaration Adopted by Planning Board on July 9, 2019;
Exhibit C: Planning Board Referral Letters to ZBA and City Council, dated July 11, 2019; and
Exhibit D: Additional Parking Plan entitled "Additional Parking Diagram", prepared by Aryeh Siegel, Architect, dated July 22, 2019.

[^2]July 29, 2019
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Should the ZBA or City Staff have any questions or comments with regard to the foregoing, please do not hesitate to contact me. Thank you for your attention to and consideration of this matter. We look forward to appearing before this Board on August $20^{\text {th }}$ for the continued Public Hearing regarding this Application.

Very truly yours,

Paylor M. Palmer
Enclosures;
cc: Drew Victoria Gamils Esq., Attorney to the Zoning Board of Appeals Dave Buckley, Building Inspector
Aryeh J. Siegel, Architect
Michael A. Bodendorf, P.E., Hudson Land Design
Maser Consulting. P.A.
23-28 Creek Drive, LLC

Exhibit A
$1$

Engineers
400 Columbus Avenue
Planners
Valhalla, NY 10595
Surveyors

March 26, 2019
VIA E-MAIL

Mr. Rodney Weber<br>Weber Projects III, LLC<br>11 Creek Drive, Suite 102A<br>Beacon, NY 12508

Re: $\quad 23-28$ Creek Drive LLC
23-28 Creek Drive (Former City DPW Property)
City of Beacon, Dutchess County, New York
MC Project No. 14000477B
Dear Mr. Weber:
This report has been prepared to evaluate the potential traffic impacts associated with the proposed 23-28 Creek Drive development as revised, which is planned to be developed on property located on the south side of Churchill Street west of Creek Drive and east of the Fishkill Creek in the City of Beacon, New York, which was formerly occupied by the City of Beacon Department of Public Works. The revised proposal for the site consists of a live/work environment with a total of 8 apartment units and approximately 20,000 square feet of office/commercial space that will accommodate a maximum of 80 employees. The proposed project will be incorporated into the previously approved and occupied 7 Creek Drive (aka Churchill Street Apartments) and 11 Creek Drive (aka Factory Lofts) developments. It should be noted that the 7 Creek Drive development is now planned to have 10 fewer apartment units than what was previously approved.

This report provides a full analysis of the traffic impacts associated with the full development proposed for the site and addresses specific comments from the City of Beacon Planning Board and its consultants. As shown on Figure No. 1, access to the development is proposed via the driveway connection to Churchill Street constructed as part of the 7 Creek Drive project aligning opposite the driveway to the municipal parking lot on the north side of Churchill Street. Under future conditions, Creek Drive will provide emergency access to all three properties.

A Design Year of 2022 has been utilized in completing the traffic analysis in order to evaluate future traffic conditions associated with this proposed development.

Mr. Rodney Weber MC Project No. 14000477B

March 26, 2019

1. Existing and Future Traffic Conditions Without the Project (Figures No. 2 through 9)

Manual traffic counts were collected by representatives of Maser Consulting, P.A. on Wednesday March 1 and Thursday March 2, 2017 for the AM and PM Peak Hours to determine the existing traffic volume conditions at the intersections of East Main Street at Churchill Street and Churchill Street at Creek Drive. These traffic counts were then compared to traffic volume data from the previous traffic studies conducted by our office for the 7 Creek Drive project. The resulting Year 2017 Existing Traffic Volumes are shown on Figures No. 2 and 3 for the Weekday Peak AM Hour and Weekday Peak PM Hour, respectively. The following provides a description of the study area roadways.

Main Street is a City street that consists of one lane in each direction. The roadway intersects with both Tioronda Avenue and Churchill Street at two unsignalized "T" shaped intersections separated by approximately 75 ft . Sidewalks and on-street parking are provided on both sides of the roadway. In the vicinity of the Tioronda Avenue and Churchill Street intersections Main Street has a sharp horizontal curve where parking is not permitted on the east side of the roadway.

Churchill Street is a City street that consists of one lane in each direction and traverses in a northwest/southeast direction between unsignalized intersections with Main Street and Spring Valley Road. The roadway also has an unsignalized intersection with Creek Drive that is located approximately 150 ft . southeast of the Main Street intersection. Immediately west of the Creek Drive intersection there is also an exempt railroad crossing of Churchill Street. There is a sidewalk on the south side of Churchill Street beginning at Spring Valley Road and continuing for a distance of approximately 265 ft terminating in the area of the 7 Creek Drive site.

Creek Drive is an existing roadway that begins at its unsignalized intersection with Churchill Street. The roadway runs in a southwesterly direction from this intersection to the access of the former City of Beacon Department of Public Works Property where the roadway terminates. The roadway width varies between 18 ft . and 24 ft . This roadway will remain to be utilized as an emergency access only to the 7 Creek Drive, 11 Creek Drive and the proposed 23-28 Creek Drive developments.

In order to assess future traffic conditions both with and without the project, the existing traffic volumes were projected to a 2022 Design Year using a background growth factor of $4.0 \%$ per year to account for any additional traffic generated by projects in the area. The 2022 Projected Traffic Volumes are shown on Figures No. 4 and 5. In addition, traffic for the 11 Creek Drive and 7 Creek Drive projects were also accounted for as well as traffic for other proposed or approved projects along Main Street. Traffic associated with these

Mr. Rodney Weber
MC Project No. 14000477B
March 26, 2019
other nearby developments are summarized on the Figures No. 6 and 7. The Other Development Traffic Volumes were combined with the 2022 Projected Traffic Volumes in order to obtain the future 2022 No-Build Traffic Volumes, which are shown on Figures No. 8 and 9 for each of the peak hours.
2. Future Traffic Conditions with Proposed Project (Figures No. 10 through 15, Tables 1 and 2)

Estimates of the amount of traffic to be generated by the proposed development were made based on data provided by the Institute of Transportation Engineers (ITE) in their publication entitled Trip Generation, $10^{\text {th }}$ Edition dated 2017. These estimates, which are based on ITE Land Use Category 220 - Multifamily Low-Rise Residential and Land Use Category 710 - General Office Building are summarized in Table No. 1. Note that the trip generation estimates for the office use have been based on the 80 employees proposed for the office use. The estimates indicate that the 23-28 Creek Drive development can be expected to generate approximately 45 total trips ( 35 entering/10 exiting) during the AM Peak Hour and approximately 51 total trips (13 entering/38 exiting) during the PM Peak Hour.

As previously indicated, the 7 Creek Drive project will have 10 fewer apartments than previously planned and approved. The 8 apartments proposed as part of the revised 23-28 Creek Drive project will replace these 10 previously approved apartments, generally resulting in similar trip generation to the previously approved 7 Creek Drive development. As a result, only the office/commercial space traffic generation will be new to the site and the roadway system. However, for the purpose of the capacity analysis, this reduction in the number of apartments in the 7 Creek Drive development has not been considered and therefore provides a somewhat conservative analysis.

It should also be noted that there is potential for employees of the proposed office use to also live at the site in the proposed apartments, which would result in lower total trip generation for the site. However, no "internal-trip" credit has been taken to account for this in the analysis contained here-in resulting in a somewhat conservative analysis of future conditions with the proposed development.

The estimated site generated traffic volumes were applied to the roadway network based on the Arrival and Departure distributions identified on Figures No. 10 and 11. The resulting Site Generated Traffic Volumes, summarized on Figures No. 12 and 13, were added to the No-Build Traffic Volumes to obtain the 2022 Build Traffic Volumes shown on Figures No. 14 and 15 for each of the peak hours.

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MC Project No. 14000477B
March 26, 2019

Capacity analyses were conducted utilizing the Existing, No-Build and Build Traffic Volumes to determine the existing and future operating conditions in the vicinity of the site. The results of these analyses are shown in Table No. 2, which indicates that the site generated traffic can be accommodated on the area roadways without significant impacts to operating conditions at the study area intersections.

## 3. On-site Circulation and Parking

Access to the proposed 23-28 Creek Drive development will be provided from Churchill Street via the existing driveway connection constructed for the 7 Creek Drive and 11 Creek Drive developments located opposite the Churchill Street municipal parking lot. This will result in all traffic to and from the 23-28 Creek Drive development traveling through the existing parking areas for the $7 \& 11$ Creek Drive sites in order to access the proposed development. The access roadway through the sites will be a minimum of 25 ft . wide and will sufficiently accommodate all traffic entering and exiting all three sites. Furthermore, this access roadway will be a low speed roadway that will allow for safe and efficient flow of both vehicles and pedestrians through the site. It should also be noted that prior approvals for the $7 \& 11$ Creek Drive developments required that only a single point of access be provided to these properties via Churchill Street with Creek Drive providing emergency access only because of Creek Drive's proximity to the railroad crossing, the hill approaching Main Street and the Main Street/Churchill Street intersection. Furthermore, it is not unusual to serve a mixed-use project, such as is proposed, with a single entrance and exit.

Based on the City Code a total of 113 parking spaces are required for the proposed uses. However, based on the expected uses the proposed 23-28 Creek Drive development will provide a total of 93 parking spaces separate from those parking spaces already present at the $7 \& 11$ Creek Drive developments. The parking proposed for the site is based on providing one parking space per employee and/or visitor (assuming all drive) of the office use for a total of 80 spaces plus an additional 13 parking spaces for the residential apartments as required by the City Code. It is also noted that in comparison to the nearby CMS District and Linkage District the City Code would only require 48 and 58 spaces respectively, which is a reasonable comparison due to the Project's proximity to Main Street and these districts. Furthermore, it is also anticipated that some of the employees of the office use will also live in the apartments at the site which would further reduce the parking demand. Likewise, the residential and office land uses are complimentary land uses that allow for shared parking between the uses since the peak parking demand for office use will typically occur between the hours of 9:00 AM and 5:00 PM when the

Mr. Rodney Weber
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residential uses have lower parking utilization. Based on this, we believe the 93 proposed parking spaces will sufficiently meet the parking needs of the development.
4. Recommendations

Our observations of existing roadway conditions in the vicinity of the site as well as our analysis of existing and future traffic volumes indicate several potential area improvements. Some of these improvements were also recommended as part of the 7 Creek Drive project but have yet to be completed. These include the following.

- Restripe the existing faded double yellow centerline for the length of Churchill Street
- Install an "Intersection Ahead" sign on the westbound Churchill Street approach in advance of Creek Road.
- Restripe the existing faded crosswalk crossing Churchill Street at the Main Street intersection.

5. Other Considerations

In addition to the above recommendations, and not specific to this development, based on observed traffic volumes and operating conditions, other potential future improvements have been identified. The potential exists to create an all-way stop intersection at the intersection of Main Street \& Tioronda Avenue since the existing peak hour traffic volumes indicate that the intersection currently meets the requirements provided in the Manual for Uniform Traffic Control Devices (MUTCD). This would be the logical location for an allway stop intersection since it is the current location of the pedestrian crosswalk crossing Main Street. A new sidewalk bump out, which would require the elimination of 1 to 2 parking spaces, would have to be constructed on the north side of Main Street in order to provide a place to post the new stop sign in the westbound direction and could be used as a landing for a second crosswalk on this westbound intersection approach.

In addition, it should be noted that although right turns are prohibited from Churchill Street onto Main Street, this movement is regularly made by motorists. Based on a review of the intersection there may be some opportunity to modify the northern curb line on Churchill Street in order to formally permit this movement, however the availability of Right-of-Way would have to be determined if such a modification was considered. If the No Right Turn restriction is to remain it should be better enforced with additional signage and pavement markings.

Regardless of the above recommendations for potential future improvements in the vicinity of the Project, the site generated traffic resulting from the 8 newly proposed apartment units and 20,000 square feet of office/commercial space can be accommodated on the area roadways without significant impacts to operating conditions in the vicinity of the site. The minor signing and striping improvements identified in Item 3 above should be completed prior to completion of this development.

Very truly yours,


Philip J. Grealy, Ph.D., P.E.
Principal Associate/Department Manager


Richard G. D'Andrea, P.E., PTOE Project Engineer

PJG/rgd
Enclosures
cc:
R:\Projects\2014\14000477B_13 Creek Drive\Reports\Traffic\Word\190326JFM_Weber_Ltr Rpt.docx

Traffic Impact Study
23-28 Creek Drive

## 23-28 CREEK DRIVE

## APPENDIX A

FIGURES
















Traffic Impact Study
23-28 Creek Drive

## 23-28 CREEK DRIVE

APPENDIX B

TABLE NO. 1
HOURLY TRIP GENERATION RATES (HIGR) AND ANTICIPATED SIE GENERATED TRAFTC VOLUMES

| 23-28 CREEK DRIVE | ENTRY |  | EXIT |  |
| :---: | :---: | :---: | :---: | :---: |
| BEACON, NY | HTGR* | VOLUME | HTGR* | VOLUME |
| APARTMENT <br> (8 DWELLING UNITS) <br> PEAK AM HOUR <br> PEAK PM HOUR |  |  |  |  |
| COMMERCIAL OFFICE <br> (80 EMPLOYEES) <br> PEAK AM HOUR <br> PEAK PM HOUR | 0.13 | 1 | 0.38 | 3 |
| TOTAL | 0.43 | 4 | 0.25 | 2 |
| PEAK AM HOUR |  |  |  |  |
| PEAK PM HOUR |  |  |  |  |

NOTES:

1)     * HTGR-HOURLY TRIP GENERATION RATES EXPRESSED IN TERMS OF TRIPS PER DWELLING UNIT FOR LAND USE - 220 APARTMENT AND EXPRESSED IN TERA OF TRIPS PER EMPLOYEE FOR LAND USE - 710 GENERAL OFFICE BUILDING BASED ON THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) PUBLICATION ENTITLED "TRIP GENERATION", 10TH EDITION, 2017

TABLE NO. 2
LEVEL OF SERVICE SUMMARY TABLE


NOTES:

[^3]
## 23-28 CREEK DRIVE

APPENDIX C

## LEVEL OF SERVICE STANDARDS

## LEVEL OF SERVICE STANDARDS

## LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity ( $\mathrm{v} / \mathrm{c}$ ) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operations with a control delay of $10 \mathrm{~s} / \mathrm{veh}$ or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and $35 \mathrm{~s} / \mathrm{veh}$ and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.

LOS D describes operations with control delay between 35 and $55 \mathrm{~s} / \mathrm{veh}$ and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.

Traffic Impact Study
23-28 Creek Drive
consulting p. A.

LOS E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.

LOS F describes operations with control delay exceeding $80 \mathrm{~s} / \mathrm{veh}$ or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than $80 \mathrm{~s} / \mathrm{veh}$ when the volume-to-capacity ratio exceeds 1.0 . This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of $80 \mathrm{~s} / \mathrm{veh}$ represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 19-8 from the Highway Capacity Manual, $6^{\text {th }}$ Edition published by the Transportation Research Board.

Exhibit 19-8

|  | LOS by Volume-to-Capacity Ratio |  |
| :---: | :---: | :---: |
| Control Delay (s/veh) | v/.0 | F |
| $\leq 10$ | A | F |
| $>10-20$ | B | F |
| $>20-35$ | C | F |
| $>35-55$ | D | F |
| $>55-80$ | E | F |
| 80 | F | l |

For approach-based and intersection wide assessments, LOS is defined solely by control delay.

## LEVEL OF SERVICE CRITERIA

FOR TWO-WAY STOP-CONTROLLED (TWSC) UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 20-2 from the Highway Capacity Manual, $6^{\text {th }}$ Edition published by the Transportation Research Board.

## Exhibit 20-2

| Control Delay (s/veh) | LOS by Volume-to-Capacity Ratio |  |
| :---: | :---: | :---: |
| $\mathbf{v} / \mathbf{c} \leq \mathbf{1 . 0}$ | $\mathbf{v} / \mathbf{c}>\mathbf{1 . 0}$ |  |
| $0-10$ | A | F |
| $>10-15$ | B | F |
| $>15-25$ | C | F |
| $>25-35$ | D | F |
| $>35-50$ | E | F |
| $>50$ | F | F |

The LOS criteria apply to each lane on a given approach and to each approach on the minor street.
LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 20-2 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0 , regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

## LEVEL OF SERVICE CRITERIA

## FOR ALL-WAY STOP-CONTROLLED (AWSC) UNSIGNALIZED INTERSECTIONS

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 21-8. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 21-8 from the Highway Capacity Manual, $6^{\text {th }}$ Edition published by the Transportation Research Board.

## Exhibit 21-8

|  | LOS by Volume-to-Capacity Ratio |  |
| :---: | :---: | :---: |
| Control Delay (s/veh) | $\mathbf{v} \mathbf{c} \leq \mathbf{1 . 0}$ | $\mathbf{v} / \mathbf{c}>\mathbf{1 . 0}$ |
| $0-10$ | A | F |
| $>10-15$ | B | F |
| $>15-25$ | C | F |
| $>25-35$ | D | F |
| $>35-50$ | E | F |
| $>50$ | F | F |

For approaches and intersection wide assessment, LOS is defined solely by control delay.

Traffic Impact Study
23-28 Creek Drive

## 23-28 CREEK DRIVE

## APPENDIX D

## CAPACITY ANALYSIS

|  | $\rightarrow$ | 2 | $\cdots$ |  | 3 | $\rho$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NEL | NER |
| Lane Configurations | ¢ |  |  | $\uparrow$ | Y |  |
| Volume (vph) | 105 | 20 | 22 | 159 | 10 | 66 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (tt) | 12 | 12 | 12 | 12 | 13 | 12 |
| Grade (\%) | 0\% |  |  | 0\% | 4\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fit | 0.979 |  |  |  | 0.883 |  |
| Flt Protected |  |  |  | 0.994 | 0.993 |  |
| Satd. Flow (prot) | 1436 | 0 | 0 | 1458 | 1303 | 0 |
| Flt Permitted |  |  |  | 0.994 | 0.993 |  |
| Satd. Flow (perm) | 1436 | 0 | 0 | 1458 | 1303 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (tt) | 458 |  |  | 77 | 419 |  |
| Travel Time (s) | 10.4 |  |  | 1.8 | 9.5 |  |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Parking (\#/hr) | 5 |  |  | 5 | 5 |  |
| Adj. Flow (vph) | 122 | 23 | 26 | 185 | 12 | 77 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 145 | 0 | 0 | 211 | 89 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(t) | 0 |  |  | 0 | 13 |  |
| Link Offset(ft) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(tt) | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.35 | 1.14 | 1.14 | 1.35 | 1.33 | 1.17 |
| Turning Speed (mph) |  | 9 | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: CBD |  |  |  |  |  |  |

Control Type: Unsignalized


| Approach | EB | WB | NE |
| :--- | :---: | :---: | :---: |
| HCM Control Delay, s | 0 | 0.9 | 9.8 |
| HCM LOS |  |  | A |



|  | $\rightarrow$ | $\geqslant$ | 7 | $\downarrow$ | 4 | $p$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\uparrow$ | \% |  |
| Volume (vph) | 151 | 20 | 13 | 143 | 38 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) | 0\% |  |  | 0\% | 7\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fit | 0.984 |  |  |  | 0.972 |  |
| Flt Protected |  |  |  | 0.996 | 0.962 |  |
| Satd. Flow (prot) | 1650 | 0 | 0 | 1670 | 1513 | 0 |
| Flt Permitted |  |  |  | 0.996 | 0.962 |  |
| Satd. Flow (perm) | 1650 | 0 | 0 | 1670 | 1513 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (tt) | 77 |  |  | 535 | 147 |  |
| Travel Time (s) | 1.8 |  |  | 12.2 | 3.3 |  |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Adj. Flow (vph) | 180 | 24 | 15 | 170 | 45 | 12 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 204 | 0 | 0 | 185 | 57 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(tt) | 0 |  |  | 0 | 12 |  |
| Link Offset(ft) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(ft) | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.14 | 1.14 | 1.14 | 1.14 | 1.20 | 1.20 |
| Turning Speed (mph) |  | 9 | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |

## Intersection Summary

Area Type: CBD
Control Type: Unsignalized

2: Churchill Street \& Main Street


| Approach | EB | WB | NB |
| :--- | :---: | :---: | :---: |
| HCM Control Delay, s | 0 | 0.6 | 12.1 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | :--- |
| Capacity (veh/h) | 562 | - | -1368 | - |  |
| HCM Lane V/C Ratio | 0.102 | - | -0.011 | - |  |
| HCM Control Delay (s) | 12.1 | - | - | 7.7 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th \%tile Q(veh) | 0.3 | - | - | 0 | - |


|  | 4 | $\dagger$ | $\dagger$ | $\downarrow$ | 4 | ¢ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | SBT | SBR | NEL | NER |
| Lane Configurations |  | $\uparrow$ | $\hat{\beta}$ |  | Y |  |
| Volume (vph) | 1 | 48 | 29 | 4 | 1 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | 3\% | -5\% |  | 0\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  |  | 0.983 |  | 0.932 |  |
| Flt Protected |  | 0.999 |  |  | 0.976 |  |
| Satd. Flow (prot) | 0 | 1833 | 1877 | 0 | 1694 | 0 |
| Flt Permitted |  | 0.999 |  |  | 0.976 |  |
| Satd. Flow (perm) | 0 | 1833 | 1877 | 0 | 1694 | 0 |
| Link Speed (mph) |  | 30 | 30 |  | 30 |  |
| Link Distance (ft) |  | 82 | 147 |  | 244 |  |
| Travel Time (s) |  | 1.9 | 3.3 |  | 5.5 |  |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 1 | 58 | 35 | 5 | 1 | 1 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 59 | 40 | 0 | 2 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(tt) |  | 0 | 0 |  | 12 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(tt) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.02 | 1.02 | 0.97 | 0.97 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |

## Intersection Summary

Area Type: Other
Control Type: Unsignalized

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{\text { Intersection }}{\text { Int Delay, s/veh }} 0.3$ |  |  |  |  |  |  |
| Movement | NBL | NBT | SBT | SBR | NEL | NER |
| Vol, veh/h | 1 | 48 | 29 | 4 | 1 | 1 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 3 | -5 | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mumt Flow | 1 | 58 | 35 | 5 | 1 | 1 |


| Major/Minor | Major1 | Major2 |  |  |  |  |
| :--- | ---: | :--- | ---: | :--- | ---: | :--- |
| Conflicting Flow All | 40 | 0 | - | 0 | 97 | 37 |
| Stage 1 | - | - | - | - | 37 | - |
| Stage 2 | - | - | - | - | 60 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1570 | - | - | - | 902 | 1035 |
| $\quad$ Stage 1 | - | - | - | - | 985 | - |
| $\quad$ Stage 2 | - | - | - | - | 963 | - |
| Platoon blocked, \% |  | - | - | - | 901 | 1035 |
| Mov Cap-1 Maneuver | 1570 | - | - | - | 901 | - |
| Mov Cap-2 Maneuver | - | - | - | - | 985 | - |
| Stage 1 | - | - | - | - | 962 | - |
| Stage 2 | - | - |  |  |  |  |


| Approach | NB | SB | NE |
| :--- | :--- | :---: | :---: |
| HCM Control Delay, s | 0.1 | 0 | 8.7 |
| HCM LOS |  |  | A |


| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 963 | 1570 | - | - | - |
| HCM Lane V/C Ratio | 0.003 | 0.001 | - | - | - |
| HCM Control Delay (s) | 8.7 | 7.3 | 0 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th \%tile Q(veh) | 0 | 0 | - | - | - |


|  | 4 | $\uparrow$ | 「 | $\checkmark$ | $\downarrow$ | $\downarrow$ | 4 | $\nearrow$ | $\uparrow$ | $!$ | $\checkmark$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  | ¢ |  |  | ¢ |  |  | * |  |  | * |  |
| Volume (vph) | 0 | 48 | 2 | 2 | 29 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | -3\% |  |  | 3\% |  |  | 0\% |  |  | 0\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  | 0.995 |  |  |  |  |  |  |  |  | 0.932 |  |
| FIt Protected |  |  |  |  | 0.997 |  |  |  |  |  | 0.976 |  |
| Satd. Flow (prot) | 0 | 1881 | 0 | 0 | 1829 | 0 | 0 | 1863 | 0 | 0 | 1694 | 0 |
| Flt Permitted |  |  |  |  | 0.997 |  |  |  |  |  | 0.976 |  |
| Satd. Flow (perm) | 0 | 1881 | 0 | 0 | 1829 | 0 | 0 | 1863 | 0 | 0 | 1694 | 0 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (tt) |  | 233 |  |  | 82 |  |  | 214 |  |  | 133 |  |
| Travel Time (s) |  | 5.3 |  |  | 1.9 |  |  | 4.9 |  |  | 3.0 |  |
| Peak Hour Factor | 0.83 | 0.83 | 0.92 | 0.92 | 0.83 | 0.83 | 0.83 | 0.92 | 0.83 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 58 | 2 | 2 | 35 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 60 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(tt) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 0.98 | 0.98 | 0.98 | 1.02 | 1.02 | 1.02 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Sign Control |  | Free |  |  | Free |  |  | Stop |  |  | Stop |  |

## Intersection Summary

Area Type: Other

Control Type: Unsignalized

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 0.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Vol, veh/h | 0 | 48 | 2 | 2 | 29 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | . | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - |  |
| Veh in Median Storage, \# | - | 0 |  | - | 0 | - |  | 0 |  | - | 0 |  |
| Grade, \% |  | -3 | - | - | 3 | - |  | 0 | - | - | 0 |  |
| Peak Hour Factor | 83 | 83 | 92 | 92 | 83 | 83 | 83 | 92 | 83 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mumt Flow | 0 | 58 | 2 | , | 35 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |


| Major/Minor | Major1 |  | Major2 |  |  | Minor2 |  |  | Minor1 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 35 | 0 | 0 | 60 | 0 | 0 | 99 | 99 | 35 | 98 | 98 | 59 |
| Stage 1 | - | - | - | - | - | - | 39 | 39 | - | 59 | 59 |  |
| Stage 2 |  | - | - |  | - |  | 60 | 60 |  | 39 | 39 |  |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |  | 6.12 | 5.52 |  | 6.12 | 5.52 |  |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 |  | 6.12 | 5.52 |  |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1576 | - | - | 1544 | - | - | 883 | 791 | 1038 | 884 | 792 | 1007 |
| Stage 1 | . | - | - | . | - |  | 976 | 862 |  | 953 | 846 |  |
| Stage 2 | - | - | - | - | - | - | 951 | 845 |  | 976 | 862 |  |
| Platoon blocked, \% |  | - | - |  | - | - |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 1576 | - | - | 1544 | - | - | 880 | 790 | 1038 | 883 | 791 | 1007 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 880 | 790 | - | 883 | 791 |  |
| Stage 1 | - | - | - | - | - | - | 976 | 861 | - | 953 | 846 |  |
| Stage 2 | - |  | - | - | - | - | 949 | 845 | - | 975 | 861 |  |


| Approach | NB | SB | NE | SW |
| :--- | :---: | :---: | :---: | :---: |
| HCM Control Delay, s | 0 | 0.4 | 0 | 8.8 |
| HCM LOS |  | A | A |  |


| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | NBR | SBL | SBT | SBRSWLn1 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | - | 1576 | - | -1544 | - | -941 |  |
| HCM Lane V/C Ratio | - | - | - | -0.001 | - | -0.005 |  |
| HCM Control Delay (s) | 0 | 0 | - | - | 7.3 | 0 | - |
| HCM Lane LOS | A | A | - | - | A | A | - |
| HCM 95th \%tile Q(veh) | - | 0 | - | - | 0 | - | - |
| H |  |  |  |  |  |  |  |


|  | $\rightarrow$ | 2 | $\cdots$ |  |  | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NEL | NER |
| Lane Configurations | $\hat{\beta}$ |  |  | $\uparrow$ | \% |  |
| Traffic Volume (vph) | 128 | 24 | 30 | 213 | 12 | 85 |
| Future Volume (vph) | 128 | 24 | 30 | 213 | 12 | 85 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width ( ft ) | 12 | 12 | 12 | 12 | 13 | 12 |
| Grade (\%) | 0\% |  |  | 0\% | 4\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fit | 0.979 |  |  |  | 0.882 |  |
| Flt Protected |  |  |  | 0.994 | 0.994 |  |
| Satd. Flow (prot) | 1436 | 0 | 0 | 1458 | 1302 | 0 |
| Flt Permitted |  |  |  | 0.994 | 0.994 |  |
| Satd. Flow (perm) | 1436 | 0 | 0 | 1458 | 1302 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (tt) | 458 |  |  | 77 | 419 |  |
| Travel Time (s) | 10.4 |  |  | 1.8 | 9.5 |  |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Parking (\#/hr) | 5 |  |  | 5 | 5 |  |
| Adj. Flow (vph) | 149 | 28 | 35 | 248 | 14 | 99 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 177 |  | 0 | 283 | 113 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(t) | 0 |  |  | 0 | 13 |  |
| Link Offset(tt) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(tt) | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.35 | 1.14 | 1.14 | 1.35 | 1.33 | 1.17 |
| Turning Speed (mph) |  | - | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: CBD |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 40.0\% ICU Level of Service A |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2.5 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NEL | NER |
| Lane Configurations | $\uparrow$ |  |  | - | r |  |
| Traffic Vol, veh/h | 128 | 24 | 30 | 213 | 12 | 85 |
| Future Vol, veh/h | 128 | 24 | 30 | 213 | 12 | 85 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 4 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 149 | 28 | 35 | 248 | 14 | 99 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 177 | 0 | 481 | 163 |
| Stage 1 | - | - | - | - | 163 | - |
| Stage 2 | - | - | - | - | 318 | - |
| Critical Hdwy | - | - | 4.12 | - | 7.22 | 6.62 |
| Critical Hdwy Stg 1 | - | - | - | - | 6.22 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 6.22 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1399 | - | 489 | 866 |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 687 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1399 | - | 475 | 866 |
| Mov Cap-2 Maneuver | - | - | - | - | 475 | - |
| Stage 1 | - | - | - | - | 811 | - |
| Stage 2 | - | - | - | - | 687 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NE |  |
| HCM Control Delay, s | 0 |  | 0.9 |  | 10.3 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NELn1 | 1 EBT | EBR | R WBL | WBT |
| Capacity (veh/h) |  | 786 | - | - | 1399 | - |
| HCM Lane V/C Ratio |  | 0.143 | - | - | 0.025 | - |
| HCM Control Delay (s) |  | 10.3 | - | - | 7.6 | 0 |
| HCM Lane LOS |  | B | - | - | A | A |
| HCM 95th \%tile Q(veh) |  | 0.5 | - | - | 0.1 | - |


|  | $\rightarrow$ | 7 | 1 |  | 4 | $p$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\hat{\beta}$ |  |  | $\uparrow$ | \% |  |
| Traffic Volume (vph) | 184 | 29 | 18 | 174 | 70 | 12 |
| Future Volume (vph) | 184 | 29 | 18 | 174 | 70 | 12 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) | 0\% |  |  | 0\% | 7\% |  |
| Lane Utill. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fit | 0.981 |  |  |  | 0.981 |  |
| Flt Protected |  |  |  | 0.995 | 0.959 |  |
| Satd. Flow (prot) | 1645 | 0 | 0 | 1668 | 1522 | 0 |
| Flt Permitted |  |  |  | 0.995 | 0.959 |  |
| Satd. Flow (perm) | 1645 | 0 | 0 | 1668 | 1522 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (ft) | 77 |  |  | 535 | 147 |  |
| Travel Time (s) | 1.8 |  |  | 12.2 | 3.3 |  |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Adj. Flow (vph) | 219 | 35 | 21 | 207 | 83 | 14 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 254 | 0 | 0 | 228 | 97 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(t) | 0 |  |  | 0 | 12 |  |
| Link Offset(ft) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(tt) | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.14 | 1.14 | 1.14 | 1.14 | 1.20 | 1.20 |
| Turning Speed (mph) |  | 9 | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |

## Intersection Summary

Area Type: CBD
Control Type: Unsignalized
Intersection Capacity Utilization 38.6\% ICU Level of Service A
Analysis Period (min) 15



|  | 4 | $\dagger$ | $\downarrow$ | $\downarrow$ | 4 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | SBT | SBR | NEL | NER |
| Lane Configurations |  | $\uparrow$ | $\hat{\beta}$ |  | \% |  |
| Traffic Volume (vph) | 1 | 82 | 42 | 5 | 1 | 1 |
| Future Volume (vph) | 1 | 82 | 42 | 5 | 1 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | 3\% | -5\% |  | 0\% |  |
| Lane Utill. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fit |  |  | 0.986 |  | 0.932 |  |
| Flt Protected |  |  |  |  | 0.976 |  |
| Satd. Flow (prot) | 0 | 1835 | 1883 | 0 | 1694 | 0 |
| Flt Permitted |  |  |  |  | 0.976 |  |
| Satd. Flow (perm) | 0 | 1835 | 1883 | 0 | 1694 | 0 |
| Link Speed (mph) |  | 30 | 30 |  | 30 |  |
| Link Distance (t) |  | 82 | 147 |  | 244 |  |
| Travel Time (s) |  | 1.9 | 3.3 |  | 5.5 |  |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 1 | 99 | 51 | 6 | 1 | 1 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 100 | 57 | 0 | 2 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(t) |  | 0 | 0 |  | 12 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(tt) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.02 | 1.02 | 0.97 | 0.97 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |

## Intersection Summary

```
Area Type: Other
```

Control Type: Unsignalized
Intersection Capacity Utilization 15.1\% ICU Level of Service A
Analysis Period (min) 15



|  | H | 4 |  |  | $\dagger$ | $\downarrow$ | 4 | 7 | - |  | $\lambda$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  | * |  |  | \& |  |  | \& |  |  | ¢ |  |
| Traffic Volume (vph) | 1 | 59 | 2 | 2 | 36 | 6 | 23 | 0 | 4 | 2 | 0 | 2 |
| Future Volume (vph) | 1 | 59 | 2 | 2 | 36 | 6 | 23 | 0 | 4 | 2 | 0 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | -3\% |  |  | 3\% |  |  | 0\% |  |  | 0\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  | 0.996 |  |  | 0.982 |  |  | 0.980 |  |  | 0.932 |  |
| Flt Protected |  | 0.999 |  |  | 0.998 |  |  | 0.959 |  |  | 0.976 |  |
| Satd. Flow (prot) | 0 | 1881 | 0 | 0 | 1798 | 0 | 0 | 1751 | 0 | 0 | 1694 | 0 |
| Flt Permitted |  | 0.999 |  |  | 0.998 |  |  | 0.959 |  |  | 0.976 |  |
| Satd. Flow (perm) | 0 | 1881 | 0 | 0 | 1798 | 0 | 0 | 1751 | 0 | 0 | 1694 | 0 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 233 |  |  | 82 |  |  | 214 |  |  | 159 |  |
| Travel Time (s) |  | 5.3 |  |  | 1.9 |  |  | 4.9 |  |  | 3.6 |  |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 1 | 71 | 2 | 2 | 43 | 7 | 28 | 0 | 5 | 2 | 0 | 2 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 74 | 0 | 0 | 52 | 0 | 0 | 33 | 0 | 0 | 4 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 0.98 | 0.98 | 0.98 | 1.02 | 1.02 | 1.02 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Sign Control |  | Free |  |  | Free |  |  | Stop |  |  | Stop |  |

## Intersection Summary

```
Area Type:
Other
```

Control Type: Unsignalized
Intersection Capacity Utilization 13.6\%
ICU Level of Service A
Analysis Period (min) 15



|  | $\rightarrow$ | 2 |  |  | 3 | $\rho$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NEL | NER |
| Lane Configurations | $\hat{\dagger}$ |  |  | $\uparrow$ | M |  |
| Traffic Volume (vph) | 140 | 24 | 32 | 220 | 12 | 90 |
| Future Volume (vph) | 140 | 24 | 32 | 220 | 12 | 90 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 13 | 12 |
| Grade (\%) | 0\% |  |  | 0\% | 4\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.980 |  |  |  | 0.881 |  |
| Flt Protected |  |  |  | 0.994 | 0.994 |  |
| Satd. Flow (prot) | 1438 | 0 | 0 | 1458 | 1301 | 0 |
| Flt Permitted |  |  |  | 0.994 | 0.994 |  |
| Satd. Flow (perm) | 1438 | 0 | 0 | 1458 | 1301 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (ft) | 458 |  |  | 77 | 419 |  |
| Travel Time (s) | 10.4 |  |  | 1.8 | 9.5 |  |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Parking (\#/hr) | 5 |  |  | 5 | 5 |  |
| Adj. Flow (vph) | 163 | 28 | 37 | 256 | 14 | 105 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 191 | 0 | 0 | 293 | 119 | 0 |
| Enter Blocked Intersection No |  | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 |  |  | 0 | 13 |  |
| Link Offset(ft) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(ft) | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.35 | 1.14 | 1.14 | 1.35 | 1.33 | 1.17 |
| Turning Speed (mph) |  | 9 | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |

```
Intersection Summary
Area Type: CBD
Control Type: Unsignalized
```



| Major/Minor Major1 |  | Major2 | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All 0 | 0 | - 191 | 0507 | 177 |
| Stage 1 | - - | - - | - 177 | - |
| Stage 2 | - - | - - | - 330 | - |
| Critical Hdwy | - - | 4.12 | - 7.22 | 6.62 |
| Critical Hdwy Stg 1 | - - | - - | 6.22 | - |
| Critical Hdwy Stg 2 | - - | - | - 6.22 | - |
| Follow-up Hdwy | - | -2.218 | -3.518 | . 318 |
| Pot Cap-1 Maneuver |  | - 1383 | 469 | 849 |
| Stage 1 | - - | - - | - 821 | - |
| Stage 2 | - - | - - | - 677 | - |
| Platoon blocked, \% | - - |  | - |  |
| Mov Cap-1 Maneuver | - | - 1383 | - 454 | 849 |
| Mov Cap-2 Maneuver | - - | - - | - 454 | - |
| Stage 1 | - - | - - | - 796 |  |
| Stage 2 | - - | - - | - 677 | - |
|  |  |  |  |  |
| Approach EB |  | WB | NE |  |
| HCM Control Delay, s 0 |  | 1 | 10.5 |  |
| HCM LOS |  |  | B |  |
|  |  |  |  |  |
| Minor Lane/Major MvmNELn1 EBT EBR WBL WBT |  |  |  |  |
| Capacity (veh/h) | 770 | - | - 1383 | - |
| HCM Lane V/C Ratio | 0.154 | - | -0.027 | - |
| HCM Control Delay (s) | 10.5 | 仡 | - 7.7 | 0 |
| HCM Lane LOS | B | 㖪 | A | A |
| HCM 95th \%tile Q(veh) | 0.5 | , | - 0.1 | - |



## Intersection Summary

Area Type: CBD
Control Type: Unsignalized


| Major/Minor Major1 |  | Major2 | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0275 | 0526 | 247 |
| Stage 1 |  | - - | - 247 | - |
| Stage 2 |  | - - | - 279 | - |
| Critical Hdwy |  | 4.12 | - 7.82 | 6.92 |
| Critical Hdwy Stg 1 |  | - - | - 6.82 | - |
| Critical Hdwy Stg 2 |  | - - | - 6.82 | - |
| Follow-up Hdwy |  | -2.218 | -3.5183 | .318 |
| Pot Cap-1 Maneuver |  | - 1288 | - 417 | 755 |
| Stage 1 |  | - - | - 721 | - |
| Stage 2 |  | - - | - 689 | - |
| Platoon blocked, \% |  | - | - |  |
| Mov Cap-1 Maneuver |  | - 1288 | - 404 | 755 |
| Mov Cap-2 Maneuver |  | - - | - 404 | - |
| Stage 1 |  | - - | - 698 |  |
| Stage 2 |  | - - | - 689 | - |
|  |  |  |  |  |
| Approach EB |  | WB | NB |  |
| HCM Control Delay, s 0 |  | 1.2 | 16.1 |  |
| HCM LOS |  |  | C |  |
|  |  |  |  |  |
| Minor Lane/Major MvmNBLn1 EBT EBR WBL WBT |  |  |  |  |
| Capacity (veh/h) | 431 | 1 | - 1288 | - |
| HCM Lane V/C Ratio | 0.249 | 9 | -0.028 | - |
| HCM Control Delay (s) | 16.1 |  | - 7.9 | 0 |
| HCM Lane LOS | C | C | A | A |
| HCM 95th \%tile Q(veh) | 1 | 1 | - 0.1 | - |


|  | 4 |  |  | $\downarrow$ | 4 | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | SBT | SBR | NEL | NER |
| Lane Configurations |  | $\uparrow$ | $\uparrow$ |  | * |  |
| Traffic Volume (vph) | 1 | 90 | 72 | 5 | 1 | 1 |
| Future Volume (vph) | 1 | 90 | 72 | 5 | 1 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | 3\% | -5\% |  | 0\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  |  | 0.991 |  | 0.932 |  |
| Flt Protected |  |  |  |  | 0.976 |  |
| Satd. Flow (prot) | 0 | 1835 | 1892 | 0 | 1694 | 0 |
| Flt Permitted |  |  |  |  | 0.976 |  |
| Satd. Flow (perm) | 0 | 1835 | 1892 | 0 | 1694 | 0 |
| Link Speed (mph) |  | 30 | 30 |  | 30 |  |
| Link Distance (ft) |  | 82 | 147 |  | 244 |  |
| Travel Time (s) |  | 1.9 | 3.3 |  | 5.5 |  |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 1 | 108 | 87 | 6 | 1 | 1 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 109 | 93 | 0 | 2 | 0 |
| Enter Blocked Intersection | N No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) |  | 0 | 0 |  | 12 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.02 | 1.02 | 0.97 | 0.97 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |

## Intersection Summary

```
Area Type: Other
Control Type: Unsignalized
```

| Intersection |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :--- |


| Major/Minor Major1 |  | ajor2 |  | inor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All 93 | 0 | - | 0 | 200 | 90 |
| Stage 1 | - | - | - | 90 | - |
| Stage 2 | - | - | - | 110 | - |
| Critical Hdwy 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy 2.218 | - | - |  | .5183 | .318 |
| Pot Cap-1 Maneuv ¢501 $^{\text {a }}$ | - | - | - | 789 | 968 |
| Stage 1 | - | - | - | 934 | - |
| Stage 2 | - | - | - | 915 | - |
| Platoon blocked, \% | - | - | - |  |  |
| Mov Cap-1 Maneulision | - | - | - | 788 | 968 |
| Mov Cap-2 Maneuver - | - | - | - | 788 | - |
| Stage 1 |  |  | - | 933 |  |
| Stage 2 | - | - | - | 915 | - |
|  |  |  |  |  |  |
| Approach NB |  | SB |  | NE |  |
| HCM Control Delay, 8. 1 |  | 0 |  | 9.2 |  |
| HCM LOS |  |  |  | A |  |
|  |  |  |  |  |  |
| Minor Lane/Major MvmNELn1 NBL NBT SBT SBR |  |  |  |  |  |
| Capacity (veh/h) | 8691501 |  | - | - | - |
| HCM Lane V/C Ratio | 0.0030 .001 |  | - | - | - |
| HCM Control Delay (s) | 9.2 | 7.4 | 0 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th \%tile Q(veh) | 0 | 0 | - | - |  |


|  | 4 | 4 | $\star$ | $\checkmark$ | $\dagger$ | ل | 4 | $\nearrow$ | $\downarrow$ | $\frac{1}{7}$ | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  | ¢ |  |  | $\dagger$ |  |  | \$ |  |  | * |  |
| Traffic Volume (vph) | 6 | 59 | 2 | 2 | 36 | 36 | 32 | 0 | 6 | 2 | 0 | 2 |
| Future Volume (vph) | 6 | 59 | 2 | 2 | 36 | 36 | 32 | 0 | 6 | 2 | 0 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | -3\% |  |  | 3\% |  |  | 0\% |  |  | 0\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  | 0.997 |  |  | 0.934 |  |  | 0.979 |  |  | 0.932 |  |
| Flt Protected |  | 0.996 |  |  | 0.999 |  |  | 0.959 |  |  | 0.976 |  |
| Satd. Flow (prot) | 0 | 1877 | 0 | 0 | 1712 | 0 | 0 | 1749 | 0 | 0 | 1694 | 0 |
| Flt Permitted |  | 0.996 |  |  | 0.999 |  |  | 0.959 |  |  | 0.976 |  |
| Satd. Flow (perm) | 0 | 1877 | 0 | 0 | 1712 | 0 | 0 | 1749 | 0 | 0 | 1694 | 0 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 233 |  |  | 82 |  |  | 214 |  |  | 159 |  |
| Travel Time (s) |  | 5.3 |  |  | 1.9 |  |  | 4.9 |  |  | 3.6 |  |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 7 | 71 | 2 | 2 | 43 | 43 | 39 | 0 | 7 | 2 | 0 | 2 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 80 | 0 | 0 | 88 | 0 | 0 | 46 | 0 | 0 | 4 | 0 |
| Enter Blocked Intersection No |  | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor Turning Speed (mph) | 0.98 | 0.98 | 0.98 | 1.02 | 1.02 | 1.02 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
|  | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 | Stop 9 |  |
| Turning Speed (mph) |  | Free |  |  | Free |  |  | Stop |  |  |  |  |

## Intersection Summary

Area Type: Other
Control Type: Unsignalized



|  | $\rightarrow$ | 2 | $\cdots$ |  |  | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NEL | NER |
| Lane Configurations | $\uparrow$ |  |  | $\uparrow$ | M |  |
| Volume (vph) | 162 | 22 | 47 | 198 | 31 | 90 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (tt) | 12 | 12 | 12 | 12 | 13 | 12 |
| Grade (\%) | 0\% |  |  | 0\% | 4\% |  |
| Lane Utill. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.984 |  |  |  | 0.899 |  |
| Flt Protected |  |  |  | 0.991 | 0.987 |  |
| Satd. Flow (prot) | 1443 | 0 | 0 | 1454 | 1318 | 0 |
| Flt Permitted |  |  |  | 0.991 | 0.987 |  |
| Satd. Flow (perm) | 1443 | 0 | 0 | 1454 | 1318 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (ft) | 458 |  |  | 77 | 419 |  |
| Travel Time (s) | 10.4 |  |  | 1.8 | 9.5 |  |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Parking (\#/hr) | 5 |  |  | 5 | 5 |  |
| Adj. Flow (vph) | 191 | 26 | 55 | 233 | 36 | 106 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 217 | 0 | 0 | 288 | 142 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(t) | 0 |  |  | 0 | 13 |  |
| Link Offset(ft) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(tt) | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.35 | 1.14 | 1.14 | 1.35 | 1.33 | 1.17 |
| Turning Speed (mph) |  | 9 | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: CBD |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 43.5\%Analysis Period (min) 15 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 3.3 |  |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NEL | NER |
| Vol, veh/h | 162 | 22 | 47 | 198 | 31 | 90 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 4 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 191 | 26 | 55 | 233 | 36 | 106 |
| Major/Minor | Major1 |  | Major2 |  | Minor1 |  |
| Conflicting Flow All | 0 | 0 | 216 | 0 | 548 | 204 |
| Stage 1 | - | - | - | - | 204 | - |
| Stage 2 | - | - | - | - | 344 | - |
| Critical Hdwy | - | - | 4.12 | - | 7.22 | 6.62 |
| Critical Hdwy Stg 1 | - | - | - | - | 6.22 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 6.22 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1354 | - | 440 | 818 |
| Stage 1 | - | - | - | - | 793 | - |
| Stage 2 | - | - | - | - | 665 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1354 | - | 419 | 818 |
| Mov Cap-2 Maneuver | - | - | - | - | 419 | - |
| Stage 1 | - | - | - | - | 793 | - |
| Stage 2 | - | - | - | - | 634 | - |


| Approach | EB | WB | NE |
| :--- | :---: | :---: | :---: |
| HCM Control Delay, s | 0 | 1.5 | 12 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | NELn1 | EBT | EBR WBL | WBT |
| :--- | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 658 | - | -1354 | - |
| HCM Lane V/C Ratio | 0.216 | - | -0.041 | - |
| HCM Control Delay (s) | 12 | - | -7.8 | 0 |
| HCM Lane LOS | B | - | - | A |
| HCM 95 A | \%tile Q(veh) | 0.8 | - | - |
| H. | 0.1 | - |  |  |



## Intersection Summary

Area Type: CBD
Control Type: Unsignalized
Intersection Capacity Utilization 36.3\% ICU Level of Service A
Analysis Period (min) 15


| Approach | EB | WB | NB |
| :--- | :---: | :---: | :---: |
| HCM Control Delay, s | 0 | 0.6 | 14.7 |
| HCM LOS |  | $B$ |  |


|  | Minor Lane/Major Mvmt | NBLn1 | EBT | EBR |
| :--- | ---: | ---: | ---: | :---: |
| WBL | WBT |  |  |  |
| Capacity (veh/h) | 441 | - | -1272 | - |
| HCM Lane V/C Ratio | 0.159 | - | -0.014 | - |
| HCM Control Delay (s) | 14.7 | - | - | 7.9 |
| HCM Lane LOS | B | - | - | A |
| HCM | A5th \%tile Q(veh) | 0.6 | - | - |
| H | 0 | - |  |  |



| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 0.2 |  |  |  |  |  |  |
| Movement | NBL | NBT | SBT | SBR | NEL | NER |
| Vol, veh/h | 1 | 61 | 76 | 1 | 2 | 0 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 3 | -5 | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 75 | 94 | 1 | 2 | 0 |
| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| Conflicting Flow All | 95 | 0 | - | 0 | 172 | 94 |
| Stage 1 | - | - | - | - | 94 | - |
| Stage 2 | - | - | - | - | 78 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1499 | - | - | - | 818 | 963 |
| Stage 1 | - | - | - | - | 930 | - |
| Stage 2 | - | - | - | - | 945 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1499 | - | - | - | 817 | 963 |
| Mov Cap-2 Maneuver | - | - | - | - | 817 | - |
| Stage 1 | - | - | - | - | 930 | - |
| Stage 2 | - | - | - | - | 944 | - |


| Approach | NB | SB | NE |
| :--- | :---: | :---: | :---: |
| HCM Control Delay, s | 0.1 | 0 | 9.4 |
| HCM LOS |  |  | A |


| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 817 | 1499 | - | - | - |
| HCM Lane V/C Ratio | 0.003 | 0.001 | - | - | - |
| HCM Control Delay (s) | 9.4 | 7.4 | 0 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th \%tile Q(veh) | 0 | 0 | - | - | - |


|  | 4 | $\dagger$ | $\stackrel{1}{ }$ | $\checkmark$ | $\downarrow$ | $\downarrow$ | 4 | $\nearrow$ | 7 | \% | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  | $\uparrow$ |  |  | $\dagger$ |  |  | \$ |  |  | $\dagger$ |  |
| Volume (vph) | 0 | 61 | 2 | 2 | 76 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | -3\% |  |  | 3\% |  |  | 0\% |  |  | 0\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  | 0.996 |  |  |  |  |  |  |  |  | 0.932 |  |
| Flt Protected |  |  |  |  | 0.999 |  |  |  |  |  | 0.976 |  |
| Satd. Flow (prot) | 0 | 1883 | 0 | 0 | 1833 | 0 | 0 | 1863 | 0 | 0 | 1694 | 0 |
| Flt Permitted |  |  |  |  | 0.999 |  |  |  |  |  | 0.976 |  |
| Satd. Flow (perm) | 0 | 1883 | 0 | 0 | 1833 | 0 | 0 | 1863 | 0 | 0 | 1694 | 0 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (tt) |  | 233 |  |  | 82 |  |  | 214 |  |  | 120 |  |
| Travel Time (s) |  | 5.3 |  |  | 1.9 |  |  | 4.9 |  |  | 2.7 |  |
| Peak Hour Factor | 0.81 | 0.81 | 0.92 | 0.92 | 0.81 | 0.81 | 0.81 | 0.92 | 0.81 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 75 | 2 | 2 | 94 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 77 | 0 | 0 | 96 | 0 | 0 | 0 | 0 | 0 | , | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(tt) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 0.98 | 0.98 | 0.98 | 1.02 | 1.02 | 1.02 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Sign Control |  | Free |  |  | Free |  |  | Stop |  |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 15.6\%Analysis Period (min) 15 |  |  |  | ICU Level of Service A |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 0.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Vol, veh/h | 0 | 61 | 2 | 2 | 76 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - |  | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - |  |  |
| Veh in Median Storage, \# |  | 0 |  | - | 0 | - |  | 0 |  | - | 0 |  |
| Grade, \% |  | -3 | - | - | 3 | - |  | 0 | - | - | 0 |  |
| Peak Hour Factor | 81 | 81 | 92 | 92 | 81 | 81 | 81 | 92 | 81 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mumt Flow | 0 | 75 | 2 | , | 94 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |


| Major/Minor | Major1 |  | Major2 |  |  | Minor2 |  |  | Minor1 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 94 | 0 | 0 | 77 | 0 | 0 | 175 | 175 | 94 | 174 | 174 | 76 |
| Stage 1 | - | - | - | - | - | - | 98 | 98 | - | 76 | 76 |  |
| Stage 2 | - | - | - | - | - | - | 77 | 77 | - | 98 | 98 |  |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 |  |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 |  |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1500 | - | - | 1522 | - | - | 788 | 718 | 963 | 789 | 719 | 985 |
| Stage 1 | - | - | - |  | - | - | 908 | 814 |  | 933 | 832 |  |
| Stage 2 | - | - | - | - | - | - | 932 | 831 | - | 908 | 814 |  |
| Platoon blocked, \% |  | - | - |  | - | - |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 1500 | - | - | 1522 | - | - | 786 | 717 | 963 | 788 | 718 | 985 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 786 | 717 | - | 788 | 718 |  |
| Stage 1 | - |  | - | - | - | - | 908 | 813 |  | 933 | 832 |  |
| Stage 2 | - | - | - | - | - | - | 930 | 831 | - | 907 | 813 |  |


| Approach | NB | SB | NE | SW |
| :--- | :---: | :---: | :---: | :---: |
| HCM Control Delay, s | 0 | 0.2 | 0 | 9.1 |
| HCM LOS |  | A | A |  |


| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | NBR | SBL | SBT | SBRSWLn1 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | - | 1500 | - | -1522 | - | -876 |  |
| HCM Lane V/C Ratio | - | - | - | -0.001 | - | -0.005 |  |
| HCM Control Delay (s) | 0 | 0 | - | - | 7.4 | 0 | - |
| HCM Lane LOS | A | A | - | - | A | A | - |
| HCM 95th \%tile Q(veh) | - | 0 | - | - | 0 | - | - |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.8 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NEL | NER |
| Lane Configurations | 个 |  |  | - | r |  |
| Traffic Vol, veh/h | 206 | 26 | 59 | 267 | 37 | 122 |
| Future Vol, veh/h | 206 | 26 | 59 | 267 | 37 | 122 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 4 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 242 | 31 | 69 | 314 | 44 | 144 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 273 | 0 | 710 | 258 |
| Stage 1 | - | - | - | - | 258 | - |
| Stage 2 | - | - | - | - | 452 | - |
| Critical Hdwy | - | - | 4.12 | - | 7.22 | 6.62 |
| Critical Hdwy Stg 1 | - | - | - | - | 6.22 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 6.22 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1290 | - | 342 | 759 |
| Stage 1 | - | - | - | - | 741 | - |
| Stage 2 | - | - | - | - | 580 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1290 | - | 320 | 759 |
| Mov Cap-2 Maneuver | - | - | - | - | 320 | - |
| Stage 1 | - | - | - | - | 693 | - |
| Stage 2 | - | - | - | - | 580 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NE |  |
| HCM Control Delay, s | 0 |  | 1.4 |  | 14.3 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NELn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 575 | - | - | 1290 | - |
| HCM Lane V/C Ratio |  | 0.325 | - |  | 0.054 | - |
| HCM Control Delay (s) |  | 14.3 | - | - | 7.9 | 0 |
| HCM Lane LOS |  | B | - | - | A | A |
| HCM 95th \%tile Q(veh) |  | 1.4 | - | - | 0.2 | - |



## Intersection Summary

```
Area Type: CBD
```

Control Type: Unsignalized
Intersection Capacity Utilization 51.6\% ICU Level of Service A
Analysis Period (min) 15



|  | $\cdots$ |  | $\frac{1}{1}$ | $\downarrow$ | 4 | A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | SBT | SBR | NEL | NER |
| Lane Configurations |  | $\uparrow$ | $\uparrow$ |  | * |  |
| Traffic Volume (vph) | 1 | 92 | 122 | 1 | 2 | 0 |
| Future Volume (vph) | 1 | 92 | 122 | 1 | 2 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | 3\% | -5\% |  | 0\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  |  | 0.999 |  |  |  |
| Flt Protected |  |  |  |  | 0.950 |  |
| Satd. Flow (prot) | 0 | 1835 | 1907 | 0 | 1770 | 0 |
| Flt Permitted |  |  |  |  | 0.950 |  |
| Satd. Flow (perm) | 0 | 1835 | 1907 | 0 | 1770 | 0 |
| Link Speed (mph) |  | 30 | 30 |  | 30 |  |
| Link Distance (ft) |  | 82 | 147 |  | 244 |  |
| Travel Time (s) |  | 1.9 | 3.3 |  | 5.5 |  |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Adj. Flow (vph) | 1 | 114 | 151 | 1 | 2 | 0 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 115 | 152 | 0 | 2 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) |  | 0 | 0 |  | 12 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.02 | 1.02 | 0.97 | 0.97 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |

## Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 16.5\% ICU Level of Service A
Analysis Period (min) 15



|  | 4 | $\uparrow$ | 「 | $\cdots$ | $\downarrow$ | $\downarrow$ | 4 | $\nearrow$ | $\neg$ | 1 | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  | \$ |  |  | ¢ |  |  | \$ |  |  | \$ |  |
| Traffic Volume (vph) | 5 | 77 | 2 | 2 | 93 | 29 | 15 | 0 | 3 | 2 | 0 | 2 |
| Future Volume (vph) | 5 | 77 | 2 | 2 | 93 | 29 | 15 | 0 | 3 | 2 | 0 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | -3\% |  |  | 3\% |  |  | 0\% |  |  | 0\% |  |
| Lane Utill. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fit |  | 0.997 |  |  | 0.968 |  |  | 0.977 |  |  | 0.932 |  |
| Flt Protected |  | 0.997 |  |  | 0.999 |  |  | 0.960 |  |  | 0.976 |  |
| Satd. Flow (prot) | 0 | 1879 | 0 | 0 | 1774 | 0 | 0 | 1747 | 0 | 0 | 1694 | 0 |
| Flt Permitted |  | 0.997 |  |  | 0.999 |  |  | 0.960 |  |  | 0.976 |  |
| Satd. Flow (perm) | 0 | 1879 | 0 | 0 | 1774 | 0 | 0 | 1747 | 0 | 0 | 1694 | 0 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 233 |  |  | 82 |  |  | 214 |  |  | 165 |  |
| Travel Time (s) |  | 5.3 |  |  | 1.9 |  |  | 4.9 |  |  | 3.8 |  |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Adj. Flow (vph) | 6 | 95 | 2 | 2 | 115 | 36 | 19 | 0 | 4 | 2 | 0 | 2 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 103 | 0 | 0 | 153 | 0 | 0 | 23 | 0 | 0 | 4 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(tt) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 0.98 | 0.98 | 0.98 | 1.02 | 1.02 | 1.02 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Sign Control |  | Free |  |  | Free |  |  | Stop |  |  | Stop |  |

## Intersection Summary

```
Area Type:
Other
```

Control Type: Unsignalized
Intersection Capacity Utilization 17.3\%
ICU Level of Service A
Analysis Period (min) 15



|  | $\rightarrow$ | 2 | $\cdots$ |  | * | $\rho$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NEL | NER |
| Lane Configurations | $\uparrow$ |  |  | $\uparrow$ | M |  |
| Traffic Volume (vph) | 211 | 26 | 65 | 293 | 37 | 124 |
| Future Volume (vph) | 211 | 26 | 65 | 293 | 37 | 124 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 13 | 12 |
| Grade (\%) | 0\% |  |  | 0\% | 4\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.985 |  |  |  | 0.896 |  |
| Flt Protected |  |  |  | 0.991 | 0.989 |  |
| Satd. Flow (prot) | 1445 | 0 | 0 | 1454 | 1316 | 0 |
| Flt Permitted |  |  |  | 0.991 | 0.989 |  |
| Satd. Flow (perm) | 1445 | 0 | 0 | 1454 | 1316 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (ft) | 458 |  |  | 77 | 419 |  |
| Travel Time (s) | 10.4 |  |  | 1.8 | 9.5 |  |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Parking (\#/hr) | 5 |  |  | 5 | 5 |  |
| Adj. Flow (vph) | 245 | 30 | 76 | 341 | 43 | 144 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 275 | 0 | 0 | 417 | 187 | 0 |
| Enter Blocked Intersection No |  | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 |  |  | 0 | 13 |  |
| Link Offset(ft) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(ft) | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.35 | 1.14 | 1.14 | 1.35 | 1.33 | 1.17 |
|  | Turning Speed (mph) | 9 | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |

```
Intersection Summary
Area Type: CBD
Control Type: Unsignalized
```



| Major/Minor Major1 |  | Major2 | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All 0 | 0 | D 275 | 0753 | 260 |
| Stage 1 |  | - - | - 260 | - |
| Stage 2 |  | - - | - 493 | - |
| Critical Hdwy | - | - 4.12 | - 7.22 | 6.62 |
| Critical Hdwy Stg 1 | - | - - | - 6.22 | - |
| Critical Hdwy Stg 2 |  | - - | - 6.22 | - |
| Follow-up Hdwy |  | -2.218 | -3.5183 | . 318 |
| Pot Cap-1 Maneuver |  | - 1288 | - 319 | 756 |
| Stage 1 |  | - - | - 739 | - |
| Stage 2 |  | - - | - 550 | - |
| Platoon blocked, \% |  | - | - |  |
| Mov Cap-1 Maneuver |  | - 1288 | - 296 | 756 |
| Mov Cap-2 Maneuver | - | - - | - 296 | - |
| Stage 1 |  | - - | - 685 |  |
| Stage 2 |  | - - | - 550 | - |
|  |  |  |  |  |
| Approach EB |  | WB | NE |  |
| HCM Control Delay, s 0 |  | 1.4 | 14.7 |  |
| HCM LOS |  |  | B |  |
|  |  |  |  |  |
| Minor Lane/Major MvmNELn1 EBT EBR WBL WBT |  |  |  |  |
| Capacity (veh/h) | 557 | - | - 1288 | - |
| HCM Lane V/C Ratio | 0.336 |  | -0.059 | - |
| HCM Control Delay (s) | 14.7 |  | 8 | 0 |
| HCM Lane LOS | B | B | A | A |
| HCM 95th \%tile Q(veh) | 1.5 | 5 | - 0.2 | - |



## Intersection Summary

Area Type: CBD
Control Type: Unsignalized


| Major/Minor Major1 |  | Major2 | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All 0 | 0 | - 398 | 0711 | 339 |
| Stage 1 | - - | - - | - 339 | - |
| Stage 2 | - - | - - | - 372 | - |
| Critical Hdwy | - - | 4.12 | - 7.82 | 6.92 |
| Critical Hdwy Stg 1 | - - | - - | - 6.82 | - |
| Critical Hdwy Stg 2 | - - | - | - 6.82 | - |
| Follow-up Hdwy | - | -2.218 | -3.5183 | . 318 |
| Pot Cap-1 Maneuver |  | - 1161 | 303 | 658 |
| Stage 1 | - - | - - | - 632 | - |
| Stage 2 | - - | - - | - 603 | - |
| Platoon blocked, \% | - - |  | - |  |
| Mov Cap-1 Maneuver | - | - 1161 | - 290 | 658 |
| Mov Cap-2 Maneuver | - - | - - | - 290 | - |
| Stage 1 | - - | - - | - 604 |  |
| Stage 2 | - - | - - | 603 | - |
|  |  |  |  |  |
| Approach EB |  | WB | NB |  |
| HCM Control Delay, s 0 |  | 1.1 | 28.2 |  |
| HCM LOS |  |  | D |  |
|  |  |  |  |  |
| Minor Lane/Major MvmNBLn1 EBT EBR WBL WBT |  |  |  |  |
| Capacity (veh/h) | 299 | - | - 1161 | - |
| HCM Lane V/C Ratio | 0.494 | - | -0.037 | - |
| HCM Control Delay (s) | 28.2 | - | - 8.2 | 0 |
| HCM Lane LOS | D | - | A | A |
| HCM 95th \%tile Q(veh) | 2.6 | - | - 0.1 | - |


|  | $\cdots$ |  | $\dagger$ | $\pm$ |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | SBT | SBR | NEL | NER |
| Lane Configurations |  | $\uparrow$ | 个 |  | * |  |
| Traffic Volume (vph) | 1 | 125 | 133 | 1 | 2 | 0 |
| Future Volume (vph) | 1 | 125 | 133 | 1 | 2 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | 3\% | -5\% |  | 0\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  |  | 0.999 |  |  |  |
| Flt Protected |  |  |  |  | 0.950 |  |
| Satd. Flow (prot) | 0 | 1835 | 1907 | 0 | 1770 | 0 |
| Flt Permitted |  |  |  |  | 0.950 |  |
| Satd. Flow (perm) | 0 | 1835 | 1907 | 0 | 1770 | 0 |
| Link Speed (mph) |  | 30 | 30 |  | 30 |  |
| Link Distance (ft) |  | 82 | 147 |  | 244 |  |
| Travel Time (s) |  | 1.9 | 3.3 |  | 5.5 |  |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 1 | 151 | 160 | 1 | 2 | 0 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 152 | 161 | 0 | 2 | 0 |
| Enter Blocked Intersectio | N No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) |  | 0 | 0 |  | 12 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.02 | 1.02 | 0.97 | 0.97 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |

## Intersection Summary

```
Area Type: Other
Control Type: Unsignalized
```

| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :--- |


| Major/Minor Major1 |  | ajor2 |  | inor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All 161 | 0 | - | 0 | 314 | 161 |
| Stage 1 | - | - | - | 161 | - |
| Stage 2 | - | - | - | 153 | - |
| Critical Hdwy 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.42 | - |
| Follow-up Hdwy 2.218 | - | - |  | .5183 | . 318 |
| Pot Cap-1 Maneuvđ118 | - | - | - | 679 | 884 |
| Stage 1 | - | - | - | 868 | - |
| Stage 2 | - | - | - | 875 | - |
| Platoon blocked, \% | - | - | - |  |  |
| Mov Cap-1 Maneuvidr 8 | - | - | - | 678 | 884 |
| Mov Cap-2 Maneuver - | - | - | - | 678 | - |
| Stage 1 | - |  | - | 867 |  |
| Stage 2 | - | - | - | 875 | - |
|  |  |  |  |  |  |
| Approach NB |  | SB |  | NE |  |
| HCM Control Delay, 8. 1 |  | 0 |  | 10.3 |  |
| HCM LOS |  |  |  | B |  |
|  |  |  |  |  |  |
| Minor Lane/Major MvmNELn1 NBL NBT SBT SBR |  |  |  |  |  |
| Capacity (veh/h) | 6781418 |  | - | - | - |
| HCM Lane V/C Ratio | 0.0040 .001 |  | - | - | - |
| HCM Control Delay (s) | 10.3 | 7.5 | 0 | - |  |
| HCM Lane LOS | B | A | A | - | - |
| HCM 95th \%tile Q(veh) | 0 | 0 | - | - |  |


|  | 4 | 4 | F | $\checkmark$ | $\dagger$ | $\downarrow$ | 4 | $\nearrow$ | $\downarrow$ | $\frac{1}{*}$ | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  | \$ |  |  | $\dagger$ |  |  | \$ |  |  | * |  |
| Traffic Volume (vph) | 7 | 77 | 2 | 2 | 93 | 40 | 47 | 0 | 9 | 2 | 0 | 2 |
| Future Volume (vph) | 7 | 77 | 2 | 2 | 93 | 40 | 47 | 0 | 9 | 2 | 0 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (\%) |  | -3\% |  |  | 3\% |  |  | 0\% |  |  | 0\% |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  | 0.997 |  |  | 0.960 |  |  | 0.978 |  |  | 0.932 |  |
| Flt Protected |  | 0.996 |  |  | 0.999 |  |  | 0.960 |  |  | 0.976 |  |
| Satd. Flow (prot) | 0 | 1877 | 0 | 0 | 1760 | 0 | 0 | 1749 | 0 | 0 | 1694 | 0 |
| Flt Permitted |  | 0.996 |  |  | 0.999 |  |  | 0.960 |  |  | 0.976 |  |
| Satd. Flow (perm) | 0 | 1877 | 0 | 0 | 1760 | 0 | 0 | 1749 | 0 | 0 | 1694 | 0 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 233 |  |  | 82 |  |  | 214 |  |  | 159 |  |
| Travel Time (s) |  | 5.3 |  |  | 1.9 |  |  | 4.9 |  |  | 3.6 |  |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 8 | 93 | 2 | 2 | 112 | 48 | 57 | 0 | 11 | 2 | 0 | 2 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 103 | 0 | 0 | 162 | 0 | 0 | 68 | 0 | 0 | 4 | 0 |
| Enter Blocked Intersection No |  | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 0.98 | 0.98 | 0.98 | 1.02 | 1.02 | 1.02 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph)Sign Control | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
|  | Sign Control | Free |  |  | Free |  |  | Stop |  |  |  |  |

## Intersection Summary

Area Type: Other
Control Type: Unsignalized



## $2$

April 30, 2019

## VIA E-MAIL

Mr. John Gunn, Chairman
City of Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508
Re: $\quad 23-28$ Creek Drive LLC
City of Beacon, New York
MC Project No. 14000477B
Dear Mr. Gunn:
We have received the comments on the Traffic Impact Study for the 23-28 Creek Drive development as presented by Creighton Manning in their April 4, 2019 letter to the Planning Board. The following provides specific responses to each of the comments presented in that letter.

Site Plan

1. CM recommends that the applicant consider adding crosswalks and ramps at the internal intersection between 7-11 Creek Drive and 23-28 Creek Drive to enhance pedestrian connectivity between buildings, as shown below:

Response: Comment noted. A crosswalk and sidewalk curb ramps will be added on the west side of the intersection. A crosswalk on the east side would lead to the proposed trash enclosure for 23-28 Creek Drive and therefore does not seem to be an appropriate location for a crosswalk. See exhibits in Item No. 2 below for proposed location of this crosswalk.
2. CM recommends additional traffic control signs, markings, and/or other physical features to reduce the likelihood that Creek Drive is used for non-emergency access. Consideration should be given to both ends of Creek Drive so that the intended purpose of the road is clear to arriving and departing traffic, especially visitors who will not gain a sense of familiarity with the property. CM notes that Google Maps directs inbound traffic to 23 Creek Drive onto Creek Drive from Churchill Street, which is not the intended circulation. Maser should assess and provide specific recommendations.

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MC Project No. 14000477B

Response: "Do Not Enter" signs should be placed at the Creek Drive intersection with Churchill Street as well as the emergency access intersection with Creek Drive to designate to drivers that Creek Drive is not open to regular traffic. These signs could also be supplemented with "Authorized Vehicles Only" signs (MUTCD NO. R5-11). If desired by the City, further enforcement of the nature of this access could be implemented such as the installation of bollards or a gate that would be accessible by emergency vehicles only but would still permit pedestrian flow. The proposed signing is shown in the below exhibits.


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MC Project No. 14000477B

3. CM recommends that the applicant consider providing a bicycle rack and/or an interior bicycle storage area to accommodate future tenants who choose not to drive.

Response: This will be considered as part of the Site plan approval process.
Traffic Impact Letter Report

1. Maser's report relies on data that was collected in March 2017 and compared to older data collected by the firm. CM recommends that Maser provide this comparison and clarify whether an adjustment was made.

Response: The older data collected by our office in the vicinity of the Site was collected during March 2014 as part of our Traffic Studies conducted for the 7 \& 11 Creek Drive projects. This data was compared to the 2017 data utilizing the intersection of Main Street and Churchill Street for comparison. A comparison of the total intersection volume from the 2014 to the 2017 traffic counts is provided in the table below.

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MC Project No. 14000477B

| Main Street at Churchill Street |  |  |
| :---: | :---: | :---: |
| 2014 vs 2014 Traffic Volume Comparison |  |  |
|  | AM Peak Hour | PM Peak Hour |
| 2014 Traffic Counts | 365 | 471 |
| 2017 Traffic Counts | 276 | 472 |
| Report Volumes | 375 | 519 |

As shown in the table above the AM Peak Hour traffic volumes were found to be nearly 100 vehicles higher in 2014 as compared to 2017, while during the PM Peak Hour the 2014 and 2017 traffic counts are nearly identical when looking at the total intersection volume. However, for both peak hours, the highest observed individual turning movement traffic volumes were utilized for in the study in order to provide a somewhat conservative analysis. This resulted in a total intersection volume of 375 vehicles for the AM Peak Hour and a total intersection volume of 519 vehicles for the PM Peak Hour being utilized in the study. These volumes were then balanced to the other study area intersections.
2. Due to the extent of development in Beacon over the past two years, performing new traffic counts to establish 2019 conditions would be the typical approach. Maser addressed this by "growing" the 2017 data at a rate of $4 \%$ annually and factoring the site-generated traffic associated with the 7 Creek Drive, 11 Creek Drive projects, which are now occupied, plus others along Main Street. CM agrees with this methodology. We request trip generation data for all development projects considered so we can confirm the adequacy of the 2022 No-Build Traffic Volumes. A tabular breakdown by project, peak-hour trips, and source would suffice.

Response: As indicated in the Traffic Impact Study and the comment above the 2017 Existing Traffic Volumes were projected to the 2022 Design year utilizing a growth rate of 4\% per year. In addition, traffic associated with the 7 Creek Drive, 11 Creek Drive and Beacon Theater Apartments projects were also added to the study area intersections to account for these other projects in the area of the site. A summary of the traffic associated with these Other Developments is provided below.

Mr. John Gunn, Chairman
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April 12, 2019
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| Other Development Traffic Volume Summary |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Project | Time <br> Period | Project Generated Traffic |  | Sourumes | Source

These Other Development Traffic Volumes together with the background traffic growth result in a total growth of approximately 30\% from the 2017 Existing Traffic Volumes to the 2022 No-Build Traffic Volumes at the intersection of Main Street and Churchill Street.
3. CM has reviewed Maser's site-generated trip generation calculations for the proposed development, and we find them acceptable.

Response: Comment Noted. No response required.
4. CM has reviewed Maser's arrival and departure distributions for site-generated traffic. Due to the right-turn restriction on Churchill Street at Main Street, $85 \%$ of the departure volume is assigned to the left-turn movement, which includes $35 \%$ that originated from north and east along Main Street. What route is this traffic expected to use to return to its origin?

Response: It is expected that the $35 \%$ of site generated traffic that arrives from and destined to the north would make a left turn onto Main Street and then a right turn onto Route 52 (Fishkill Avenue) to return back to the north when departing the site.

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5. The report states that the main site access driveway on Churchill Street for 7 Creek Drive and 11 Creek Drive will also serve the proposed development at 23-28 Creek Drive. The mix of uses (i.e., residential and office/commercial) means that people will be coming and going simultaneously. Based on the volume levels presented by Maser, we are not concerned from a volume and capacity perspective. However, we believe that traffic calming measures should be considered and implemented to protect the residential nature of the northerly half of the site from the office/commercial component. Maser should assess and provide specific recommendations.

Response: We agree that from a volume and capacity perspective, the volumes generated by the proposed development will not create an issue for the operation of the overall Site. We don't see these additional volumes causing a significant safety concern either, since the nature of the Site will require vehicles destined to the proposed project to travel through the existing parking areas of 7 and 11 Creek Drive, which would tend to slow speeds through this area. However, the Applicant could consider installing 1-2 speed tables and/or raised crosswalks aligning with the existing parking bay islands along the 7 Creek Drive property and/or at the existing crosswalk between the 7 and 11 Creek Drive properties. This can be determined as part of the Final Site plan Approvals.
6. CM understands and agrees with Maser's statement regarding shared parking. Given the site's connectivity with 7 Creek Drive and 11 Creek Drive, will all off- street parking be shared amongst residents and employees? Visitors, deliveries, and service calls associated with the proposed office/commercial use could have the potential to generate a demand for parking in excess of 80 spaces. Maser should explain how these additional vehicles would be accommodated.

Response: As indicated in the study, the commercial space is anticipated to have a maximum of 80 employees and 93 parking spaces are proposed to be provided for the proposed development. During the 9 AM - 5 PM hours when the commercial use parking demand peaks and visitors, deliveries, etc. would be expected, it is anticipated that the use of the residential parking spaces by residents would be low. Therefore, these residential parking spaces could be utilized by the visitors, deliveries, etc. Similarly, during these hours it is anticipated that the 7 and 11 Creek Drive parking areas would also have vacant spaces that could be utilized as part of a typical shared parking condition.

Mr. John Gunn, Chairman MC Project No. 14000477B
7. Maser's report presents two ideas for consideration beyond the application itself. The first has to do with creating an all-way stop-controlled intersection at Main Street and Tioranda Avenue. Preliminarily, CM believes the idea has merit, but we recommend further engineering analysis if the City of Beacon wants to consider it. Specifically, MUTCD Section 2B. 07 should be examined and applied. Additionally, the roadway curve on Main Street should be taken into consideration to ensure that drivers would have an adequate stopping distance prior to the crosswalk since pedestrians would be crossing under the assumption that drivers will be coming to a stop.

Response: Comment noted. If requested by the City, Maser could conduct a further analysis of the Main Street/Tironda Avenue intersection based on the MUTCD Criteria for an all-way stop.

The second idea for consideration pertains to potentially allowing the now-illegal rightturn movement from Churchill Street onto Main Street. CM reviewed the traffic control signs on Churchill Street and we believe illegal right turns repeatedly occur because of the location of the No Right Turn sign, which is approximately 30 feet behind where drivers actually stop or pause before turning. We agree that there could be a benefit to legally permitting the movement. CM recommends that further engineering analysis be conducted if the City of Beacon wants to consider permitting the turn including a review of why the sign was originally installed. In the interim, the City of Beacon has two options, which can be done separately or together, to strengthen the turn prohibition:
a. Consider relocating the No Right Turn sign so that it is closer to Main Street. It may be necessary to trim the mature tree at the intersection corner so the sign is not blocked by foliage.
b. Consider installing an additional No Right Turn sign on the north side of Main Street facing drivers on Churchill Street as they contemplate their turn. CM can assist with the placement of this sign if desired.

Response: Comment noted. Maser agrees with the assessment of these potential modifications to the Churchill Street/Main Street intersection. The Applicant would offer to make these modifications if desired by the City. Note it appears that a "No Right Turn" sign opposite the Churchill Street approach could be placed on the existing lamp post opposite the intersection or on a separate sign post in this vicinity. The height of the sign would have to be such that any parked vehicle on the north side of Main Street would not prohibit the visibility of the sign.

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8. Churchill Street approaching Main Street is controlled by a Yield sign that is set back approximately 30 feet from Main Street. However, since the intersection resembles a traditional " T " shape and does not feature a merging movement, drivers tend to treat the intersection as if it were controlled by a Stop sign. Maser's analysis treats Churchill Street as a stop-controlled approach, which CM agrees with. Given the increase in traffic (vehicles and pedestrians) on Churchill Street over the past several years, the City of Beacon may want to consider replacing the Yield sign with a Stop sign. CM can provide further guidance as needed.

Response: Comment noted. Maser agrees with this assessment of this potential modification to the intersection. The Applicant would offer to make this modification if desired by the City.

If you have any questions regarding the above, please do not hesitate to contact us.
Very truly yours,
MASER CONSULTING P.A.


Richard G. D'Andrea, P.E., PTOE
Principal Associate/Project Manger
RGD/ces

R:\Projects\2014\14000477B_13 Creek Drive\Correspondence\OUT\190430RGD_Gunn R2C Ltr.docx
$3$


Exhibit B

## Full Environmental Assessment Form <br> Part 2 -Identification of Potential Project Impacts

Agency Use Only [If applicable]
Project: 23-28 Crask Drive
Date: July 9, 2019
Part 2 is to be completed by the lead agency. Part 2 is designed to belp the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency and the action is in any Coastal Area, complete the Coastal Assessment Form beforc proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "Yes" to a numbered question, please complete all the questions that follow in that section.
- If you answer "No" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable rnanner considering the scale and context of the project.

1. Impact on Land

Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part I. D.I)
If "Yes", answer questions $a-j$. If "No", move on to Section 2.

|  | Relevant Part I Question(s) | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action may involve construction on land where depth to water table is less than 3 feet. | E2d | (7) | $\square$ |
| b. The proposed action may involve construction on slopes of $15 \%$ or greater. | E2f | - | $\square$ |
| c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface. | E2a | 7 | $\square$ |
| d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material. | D2a | (7) | $\square$ |
| e. The proposed action may involve construction that continues for more than one year or in multiple phases. | Dle | $\square$ | $\square$ |
| f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides). | D2e, D2q | $\square$ | $\square$ |
| g. The proposed action is, or may be, located within a Coastal Erosion hazard area. | Bli | V | $\square$ |
| h. Other impacts: |  | 7 | $\square$ |

## 2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)
If "Yes", answer questions a - c. If "No", move on to Section 3.

|  | Relevant <br> Part I <br> Question(s) | No, or <br> small <br> impact <br> may occur | Moderate <br> to large <br> impact may <br> occur |
| :--- | :---: | :---: | :---: | :---: |
| a. Identify the specific land form(s) attached: | $E 2 \mathrm{~g}$ | $\square$ | 0 |
| b. The proposed action may affect or is adjacent to a geological feature listed as a <br> registered National Natural Landmark. <br> Specific feature: | E3c | 0 | $\square$ |
| c. Other impacts: |  | $\square$ | $\square$ |

## 3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water $\square$ NO $\quad 7$ YES bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)
If "Yes", answer questions $a-1$. If "No", move on to Section 4.

|  | $\begin{gathered} \text { Relevant } \\ \text { Part I } \\ \text { Question(s) } \end{gathered}$ | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action may create a new water body. | D2b, Dith | T | $\square$ |
| b. The proposed action may result in an increase or decrease of over $10 \%$ or more than a 10 acre increase or decrease in the surface area of any body of water. | D2b | 区 | $\square$ |
| c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body. | D2a | 7 | $\square$ |
| d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body. | E2h | 2 | $\square$ |
| e. The proposed action may crcate turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments. | D2a, D2h | 7 | $\square$ |
| f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water. | D2c | V | $\square$ |
| g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s). | D2d | V | $\square$ |
| h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies. | D2e | V | $\square$ |
| i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action. | E2h | (2) | $\square$ |
| j. The proposed action may involve the application of pesticides or herbicides in or around any water body. | D2q, E2h | $\square$ | $\square$ |
| k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities. | D1a, D2d | $\square$ | $\square$ |

## 4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer.
(See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) If "Yes", answer questions $a-h$. If "No", move on to Section 5 .

|  | Relevant Part I Question(s) | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells. | D2c | $\square$ | $\square$ |
| b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. <br> Cite Source: $\qquad$ | D2c | $\square$ | $\square$ |
| c. The proposed action may allow or result in residential uses in areas without water and sewer services. | D1a, D2c | (7) | $\square$ |
| d. The proposed action may include or require wastewater discharged to groundwater, | D2d, E21 | 7 | $\square$ |
| e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated. | D2c, Elf, <br> Elg, Elh | W | $\square$ |
| f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer. | D2p, E2l | V | $\square$ |
| g. The proposed action may involve the commercial application of pesticides within 100 feet of polable drinking water or irrigation sources. | $\begin{aligned} & \text { E2h, D2q, } \\ & \text { E2I, D2c } \end{aligned}$ | 7 | $\square$ |
| h. Other impacts: |  | 团 | $\square$ |


| 5. Impact on Flooding <br> The proposed action may result in development on lands subject to flooding. (Sec Part 1. E.2) <br> If "Yes", answer questions $a-g$. If "No", move on to Section 6. | $\square \mathrm{NO}$ |  |  |
| :---: | :---: | :---: | :---: |
|  | Relevant Part I Question(s) | No, or small impact may occur | Moderate to large impact may occur |
| a. The proposed action may result in development in a designated floodway. | E2i | $\square$ | $\square$ |
| b. The proposed action may result in development within a 100 year floodplain. | E2j | $\square$ | $\square$ |
| c. The proposed action may result in development within a 500 year floodplain. | E2k | $\square$ | $\square$ |
| d. The proposed action may result in, or require, modification of existing drainage patterns. | D2b, D2e | $\square$ | $\square$ |
| e. The proposed action may change flood water flows that contribute to flooding. | $\begin{aligned} & \text { D2b, E2i, } \\ & \text { E2j, E2k } \end{aligned}$ | $\square$ | $\square$ |
| f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade? | Ele | $\square$ | $\square$ |


6. Impacts on Air

The proposed action may include a state regulated air emission source.
(See Part 1. D.2.f., D.2.h. D.2.g)
If "Yes", answer questions $a-f$. If "No", move on to Section 7.


## 7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2.m.q.) $\square$ NO $\square$ YES If "Yes", answer questions $a-j$. If "No", move on to Section 8.

|  | Relevant | No, or <br> small <br> impact <br> Part I <br> Question(s) occur | Moderate <br> impact may <br> occur |
| :--- | :--- | :---: | :---: |
| a. The proposed action may cause reduction in population or loss of individuals of any <br> threatened or endangered species, as listed by New York State or the Federal <br> government, that use the site, or are found on, over, or near the site. | E20 | $\square$ |  |
| b. The proposed action may result in a reduction or degradation of any habitat used by <br> any rare, threatened or endangered species, as listed by New York State or the federal <br> government. | E20 | $\square$ | $\square$ |
| c. The proposed action may cause reduction in population, or loss of individuals, of any <br> species of special concern or conservation need, as listed by New York State or the <br> Federal government, that use the site, or are found on, over, or near the site. | E2p | $\square$ | $\square$ |
| d. The proposed action may result in a reduction or degradation of any habitat used by <br> any species of special concern and conservation need, as listed by New York State or <br> the Federal government. | E2p | $\square$ | $\square$ |

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| e. The proposed action may diminish the capacity of a registered National Natural <br> Landmark to support the biological community it was established to protect. | E3c | $\square$ | $\square$ |
| :--- | :--- | :--- | :---: |
| f. The proposed action may result in the removal of, or ground disturbance in, any <br> portion of a designated significant natural community. <br> Source; | E2n | $\square$ | $\square$ |
| g. The proposed action may substantially interfere with nesting/breeding, foraging, or <br> over-wintering habitat for the predominant species that occupy or use the project site. | E2m | $\square$ | $\square$ |
| h. The proposed action requires the conversion of more than 10 acres of forest, <br> grassland or any other regionally or locally important habitat. <br> Habitat typc \& information source: | Elb | $\square$ | $\square$ |
| i. Proposed action (commercial, industrial or recreational projects, only) involves use of <br> herbicides or pesticides. | D2q | $\square$ | $\square$ |
| j. Other impacts: | $\square$ | $\square$ | $\square$ |

## 8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.)
[.] NO If "Yes", answer questions $a-h$. If "No", move on to Section 9.

|  | Relevant <br> Part I <br> Question(s) | No, or <br> small <br> impact <br> may occur | Moderate <br> to large <br> impact may <br> occur |
| :--- | :---: | :---: | :---: |
| a. The proposed action may impact soil classified within soil group I through 4 of the <br> NYS Land Classification System. | E2c, E3b | $\square$ | $\square$ |
| b. The proposed action may sever, cross or otherwise limit access to agricultural land <br> (includes cropland, hayfields, pasture, vineyard, orchard, etc). | Ela, Elb | $\square$ | $\square$ |
| c. The proposed action may result in the excavation or compaction of the soil profile of <br> active agricultural land. | E3b | $\square$ | $\square$ |
| d. The proposed action may irreversibly convert agricultural land to non-agricultural <br> uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 <br> acres if not within an Agricultural District. | E1b, E3a | $\square$ | $\square$ |
| e. The proposed action may disrupt or prevent installation of an agricultural land |  |  |  |
| management system. |  |  |  |

## 9．Impact on Aesthetic Resources

The land use of the proposed action are obviously different from，or are in


No
7 YES sharp contrast to，current land use patterns between the proposed project and a scenic or aesthetic resource．（Part I．E．I．a，E．I．b，E．3．h．）
If＂Yes＂，answer questions a－g．If＂No＂，go to Section 10.

|  | $\begin{aligned} & \text { Relevant } \\ & \text { Part I } \\ & \text { Question(s) } \end{aligned}$ | No，or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a．Proposed action may be visible from any officially designated federal，state，or local scenic or aesthetic resource． | E3h | $\square$ | $\square$ |
| b．The proposed action may result in the obstruction，elimination or significant screening of one or more officially designated scenic views． | E3h，C2b | ■ | $\square$ |
| c．The proposed action may be visible from publicly accessible vantage points： i．Seasonally（e．g．，screened by summer foliage，but visible during other seasons） <br> ii．Year round | E3h | $\square$ | $\square$ |
| d．The situation or activity in which viewers are engaged while viewing the proposed action is： <br> i．Routine travel by residents，including travel to and from work <br> ii．Recreational or tourism based activities | E3h <br> E2q， <br> Elc | $\frac{\square}{\square}$ | $\square$ |
| e．The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource． | E3h | 回 | $\square$ |
| f．There are similar projects visible within the following distance of the proposed project： <br> $0-1 / 2$ mile <br> $1 / 2-3$ mile <br> 3－5 mile <br> 5＋mile | Dla，Ela， DIf，DIg | （7） | $\square$ |
| g．Other impacts： |  | 回 | $\square$ |

## 10．Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archacological $\quad \square$ NO $\quad \square \mathrm{YES}$ resource．（Part I．E．3．e，f．and g．）
If＂Yes＂，answer questions $a-e$ ．If＂No＂，go to Section II．

|  | Relevant Part I Question（s） | No，or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a．The proposed action may occur wholly or partially within，or substantially contiguous to，any buildings，archaeological site or district which is listed on the National or State Register of Historical Places，or that has been determined by the Commissioner of the NYS Office of Parks，Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places． | E3e | － | － |
| b．The proposed action may occur wholly or partially within，or substantially contiguous to，an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office（SHPO）archaeological site inventory． | E3f | $\square$ | $\square$ |
| c．The proposed action may occur wholly or partially within，or substantially contiguous to，an archaeological site not included on the NY SHPO inventory． <br> Source： $\qquad$ | E3g | $\square$ | 口 |



## 11．Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan．
（See Part 1．C．2．c，E．t．c．，E．2．q．）
If＂Yes＂，answer questions $a-e$ ．If＂No＂，go to Section 12

|  | $\begin{aligned} & \text { Relevgnt } \\ & \text { Part I } \\ & \text { Question(s) } \end{aligned}$ | No，or small impact may occur | Moderate to large impact may oceur |
| :---: | :---: | :---: | :---: |
| a．The proposed action may result in an impairment of natural functions，or＂ecosystem services＂，provided by an undeveloped area，including but not limited to stormwater storage，nutrient cycling，wildlife habitat． | $\begin{aligned} & \text { D2e, Elb } \\ & \text { E2h, } \\ & \text { E2m, E2o, } \\ & \text { E2n, E2p } \end{aligned}$ | $\square$ | 口 |
| b．The proposed action may result in the loss of a current or future recreational resource． | $\begin{aligned} & \mathrm{C} 2 \mathrm{a}, \mathrm{E} 1 \mathrm{c}, \\ & \mathrm{C} 2 \mathrm{c}, \mathrm{E} 2 \mathrm{q} \\ & \hline \end{aligned}$ | 口 | $\square$ |
| c．The proposed action may eliminate open space or recreational resource in an area with few such resources． | $\begin{aligned} & \mathrm{C} 2 \mathrm{a}, \mathrm{C} 2 \mathrm{c} \\ & \mathrm{E} 1 \mathrm{c}, \mathrm{E} 2 \mathrm{q} \end{aligned}$ | 0 | 0 |
| d．The proposed action may result in loss of an area now used informally by the community as an open space resource． | C2c，Elc | － | 口 |
| e．Other impacts： |  | $\square$ | $\square$ |


| 12．Impact on Critical Environmental Areas <br> The proposed action may be located within or adjacent to a critical environmental area（CEA）．（See Part 1．E．3．d） <br> If＂Yes＂，answer questions a $-c$ ．If＂ No ＂，go to Section 13 ． | $\boxed{\square} \mathrm{NO}$ |  | YES |
| :---: | :---: | :---: | :---: |
|  | ```Relevant Part I Question(s)``` | No，or small impact may occur | Moderate to large impact may occur |
| a．The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA． | E3d | $\square$ | － |
| b．The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA． | E3d | $\square$ | 口 |
| c．Other impacts： |  | 口 | $\square$ |

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| 13. Impact on Transportation <br> The proposed action may result in a change to existing transportation system (See Part 1. D.2.j) <br> If "Yes", answer questions $a-f$ If "No". go 10 Section 14. | $\square \mathrm{NO}$ <br> $\sqrt{7} \mathrm{YES}$ |  |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Relevant } \\ \text { Part I } \\ \text { Question(s) } \end{gathered}$ | No, or small impact may occur | Moderate to large impact may occur |
| a. Projected traffic increase may exceed capacity of existing road network. | D2j | 7] | $\square$ |
| b. The proposed action may result in the construction of paved parking area for 500 or more vehicles. | D2f | $\square$ | $\square$ |
| c. The proposed action will degrade existing transit access. | D2j | $\square$ | $\square$ |
| d. The proposed action will degrade existing pedestrian or bicycle accommodations. | D2j | 7 | $\square$ |
| e. The proposed action may alter the present pattern of movement of people or goods, | D2j | $\square$ | $\square$ |
| f. Other impacts: |  | $\square$ | $\square$ |

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy.
$\boxed{\boxed{7}}$ NO
$\square$ YES (See Part I. D.2.k)
If "Yes", answer questions $a-e$. If "No". go to Section 15 .

|  | Relevant Part I Question(s) | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action will require a new, or an upgrade to an existing, substation. | D2k | $\square$ | 0 |
| b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use. | DIf, <br> D1q, D2k | $\square$ | $\square$ |
| c. The proposed action may utilize more than $2,500 \mathrm{MWhrs}$ per year of electricity. | D2k | $\square$ | $\square$ |
| d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed. | DIg | $\square$ | $\square$ |
| e. Other Impacts: |  |  |  |

## 15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting. $\quad \downarrow$ NO $\square$ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions $a$-f. If "No", go to Section 16.

|  | Relevant <br> Part I <br> Question(s) | No, or <br> small <br> impact <br> may occur | Moderate <br> tolarge <br> impact may <br> occur |
| :--- | :--- | :--- | :--- |
| a. The proposed action may produce sound above noise levels established by local <br> regulation. | D2m | $\square$ | $\square$ |
| b. The proposed action may result in blasting within 1,500 feet of any residence, <br> hospital, school, licensed day care center, or nursing home. | D2m, E1d | $\square$ | $\square$ |
| c. The proposed action may result in routine odors for more than one hour per day. | D20 | $\square$ | $\square$ |


| d. The proposed action may result in light shining onto adjoining properties. | D2n | $\square$ | $\square$ |
| :--- | :---: | :---: | :---: |
| e. The proposed action may result in lighting creating sky-glow brighter than existing <br> area conditions. | D2n, E1a | $\square$ | $\square$ |
| f. Other impacts: | $\square$ | $\square$ |  |

16. Impact on Human Health

The proposed action may have an impact on human health from exposure $\square \mathrm{NO} \quad \square \mathrm{YES}$ to new or existing sources of contaminants. (See Part I.D.2.q., E.1. d. f. g. and h.) If "Yes", answer questions a - m. If "No", go to Section 17.

|  | Relevant Part I Question(s) | No,or small impact may cceur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community. | Eld | $\square$ | $\square$ |
| b. The site of the proposed action is currently undergoing remediation. | Elg, Elh | $\square$ | $\square$ |
| c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action. | Elg, Elh | 7 | $\square$ |
| d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction). | Elg, Elh | 7 | $\square$ |
| e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environinent and human health. | Elg, Elh | ■ | $\square$ |
| $f$. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health. | D2t | $\square$ | $\square$ |
| g. The proposed action involves construction or modiftcation of a solid waste management facility. | D2q, Elf | $\square$ | $\square$ |
| h. The proposed action may result in the unearthing of solid or hazardous waste. | D2q, E1f | 7 | $\square$ |
| i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste. | D2r, D2s | Q | $\square$ |
| j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste. | $\begin{aligned} & \text { Elf, Elg } \\ & \text { Elh } \end{aligned}$ | V | $\square$ |
| k . The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures. | Elf, Elg | 7 | $\square$ |
| I. The proposed action may result in the release of contaminated leachate from the project site. | $\begin{aligned} & \text { D2s, E1f, } \\ & \text { D2r } \end{aligned}$ | 7 | $\square$ |
| m. Other impacts: |  | 7 | $\square$ |


| 17．Consistency with Community Plans <br> The proposed action is not consistent with adopted land use plans． （See Part 1．C．1，C．2，and C．3．） <br> If＂Yes＂，answer questions $a-h$ ．If＂No＂，go to Section 18. | $\boxed{\square} \text { No }$$\square$ YES |  |  |
| :---: | :---: | :---: | :---: |
|  | Relevant Part I Question（s） | No，or small impact may occur | Moderate to large impact may occur |
| a．The proposed action＇s land use components may be different from，or in sharp contrast to，current surrounding land use pattern（s）． | $\begin{aligned} & \text { C2, C3, Dia } \\ & \text { Ela, Elb } \end{aligned}$ | 口 | － |
| b．The proposed action will cause the permanent population of the city，town or village in which the project is located to grow by more than $5 \%$ ． | C2 | － | － |
| c．The proposed action is inconsistent with local land use plans or zoning regulations． | C2，C2，C3 | $\square$ | 0 |
| d．The proposed action is inconsistent with any County plans，or other regional land use plans． | C2，C2 | 口 | $\square$ |
| e．The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure． | C3，Dlc， Did，DIf， Did，Elb | $\square$ | $\square$ |
| f．The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure． | $\begin{aligned} & \mathrm{C} 4, \mathrm{D} 2 \mathrm{c}, \mathrm{D} 2 \mathrm{~d} \\ & \mathrm{D} 2 \mathrm{j} \end{aligned}$ | $\square$ | $\square$ |
| g．The proposed action may induce secondary development impacts（e．g．，residential or commercial development not included in the proposed action） | C2a | $\square$ | $\square$ |
| h．Other： |  | 口 | $\square$ |

## 18．Consistency with Community Character

The proposed project is inconsistent with the existing community character．
（See Part 1．C．2，C．3，D．2，E．3）
If＂Yes＂，answer questions $a-g$ ．If＂No＂，proceed to Part 3.

|  | Relevant Part I Question（s） | No，or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a．The proposed action may replace or eliminate existing facilities，structures，or areas of historic importance to the community． | E3e，E3f，E3g | $\square$ | $\square$ |
| b．The proposed action may create a demand for additional community services（e．g． schools，police and fire） | C4 | 0 | $\square$ |
| c．The proposed action may displace affordable or low－income housing in an area where there is a shortage of such housing． | $\begin{aligned} & \text { C2, C3, D1f } \\ & \text { D1g, Ela } \end{aligned}$ | 0 | $\square$ |
| d．The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources． | C2，E3 | 0 | $\square$ |
| c．The proposed action is inconsistent with the predominant architectural scale and character． | C2，C3 | $\square$ | $\square$ |
| f．Proposed action is inconsistent with the character of the existing natural landscape． | $\begin{aligned} & \mathrm{C} 2, \mathrm{C} 3 \\ & \mathrm{E} 1 \mathrm{a}, \mathrm{Elb} \\ & \mathrm{E} 2 \mathrm{~g}, \mathrm{E} 2 \mathrm{~h} \\ & \hline \end{aligned}$ | $\square$ | $\square$ |
| g．Other impacts： |  | $\square$ | － |

# Full Environmental Assessment Form <br> Part 3 - Evaluation of the Magnitude and Importance of Project Impacts and <br> Determination of Significance 

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate fo large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

## Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Please see atiached.

Determination of Significance - Type 1 and Unlisted Actions
SEQR Status: $\quad \square$ Type 1 $\quad \square$ Unlisted

Upon review of the information recorded on this EAF, as noted, plus this additionai support information
All aoplication materials submitted by the Applicant, memoranda from City staff and consullants, agency and public comment, and testimony from meatings held on the application.
and considering both the magnitude and impertance of each identified potential impact, it is the conclusion of the as lead agency that:
A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.
B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).
C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.


# ATTACHMENT TO <br> NEGATIVE DECLARATION REASONS SUPPORTING DETERMINATION 

## APPLICATION FOR CONCEPT PLAN, SITE PLAN, SUBDIVISION AND VARIANCE APPROVALS FOR 23-28 CREEK DRIVE

Parcel No. 6054-37-037625

## CONCLUSIONS

Based upon a review of Parts 1 and 2 of the Full Environmental Assessment Form (EAF) and all other application materials that were submitted in support of the Proposed Action (Unlisted), along with reports from City staff and consultants, information from involved and interested agencies, and information from the public, the City of Beacon Planning Board, undergoing an coordinated review, provides the following rationale for its SEQRA Determination.

## Project Description:

The Proposed Action is to allow construction of a mixed-use development on the former City Department of Public Works (DPW) site with a total of eight (8) apartments and 20,000 square feet of commercial space (the "Proposed Action" or "Project") on property consisting of approximately 2.81 acres adjacent to Fishkill Creek and located at 23-28 Creek Drive in the Fishkill Creek Development (FCD) Zoning District (the "Property"). The Proposed Action includes a request for approval of a Concept Plan, Site Plan and Subdivision (lot line adjustment), and the following variances: (1) parking variance to allow 93 spaces where 113 are required; (2) building height variance to allow a 4 -story building where a maximum of 3stories are permitted; (3) building height variance to allow a 53.5 ' building where a maximum of $40^{\prime}$ is permitted; and (4) a variance to permit two (2) of the eight (8) apartments to exceed the maximum size of 2,000 square feet. A Greenway Trail segment and public park are also proposed as part of the Project.

The Proposed Action is an Unlisted action. The Planning Board opened a public hearing to consider comments on the Proposed Action on April 9, 2019. The public hearing was closed on June 11, 2019.

## Summary of Rationale for Negative Declaration

The Proposed Action will not result in any significant adverse impacts on the environment. In summary:

- Impact on Land: The Proposed Action will not have a significant adverse environmental impact as a result of any physical change to the project site.

The Property is currently improved with several buildings previously used by the City DPW. The Project would include demolition of these buildings and to construct the proposed mixed-use development with grading and site work associated with such construction. Based on the information set forth herein, the Proposed Action will not have a significant adverse environmental impact as a result of physical changes to the Property.

- Impact on Geological Features: The Proposed Action will not have a significant adverse environmental impact on any unique or unusual land forms on the site.

There are no unique geological features on the Property.

- Impacts on Surface Water and Groundwater: The Proposed Action will not have a significant adverse environmental impact on surface or groundwater quality or quantity.

Since site disturbance will exceed 1-acre, a Stormwater Pollution Prevention Plan is required to obtain coverage under the NYSDEC SPDES General Permit GP-0-15002. The Project will result in a slight decrease in impervious area as compared to existing conditions, so pursuant to NYSDEC Stormwater Manual requirements the Project requires water quality control for $25 \%$ of the impervious surface coverage, as well as erosion and sediment control measures.

A Preliminary Stormwater Pollution Prevention Plan, prepared by Hudson Land Design, has been reviewed by the Planning Board and the City Engineer. The City Engineer has confirmed that the general design of the SWPPP appears acceptable. Prior to finalizing the SWPPP, infiltration tests will need to be conducted at the locations of the two (2) proposed infiltration systems. Sizing information for the hydrodynamic separators will also be provided prior to finalizing the SWPPP.

See response re Human Health, below, concerning groundwater quality.
The Project does not include or require wastewater discharged to groundwater. The Project will be connected to the existing public water distribution and sanitary sewer systems. Water usage and liquid waste generation is anticipated to be 2,940 gallons per day. Adequate water supply and sewer capacity exist for these flows. A new sewer service connection will be provided at he proposed building and all existing service connections on-site will be disconnected to the City's mains and capped in place or removed. This will eliminate any inflow and infiltration issues that may be occurring as a result of the existing service connections.

The Proposed Action will not result in any significant adverse impact to surface or groundwater quality or quantity.

## - Impact on Flooding: The Proposed Action will not have a significant adverse

 environmental impact on or alter drainage flows or patterns, or surface water runoff.Portions of the site are within the 100 year flood plain. The Project design avoids disturbances within the flood plain to the greatest extent practicable, but some areas in the flood plain are proposed to be disturbed. A portion of the proposed building is located within the 100 year flood plan which results in 312.16 cubic yards of fill within the flood plain. In accordance with Chapter 123 (Flood Damage Prevention) of the City Code, the fill in the floodplain is mitigated near the south end of the Site where 336.72 cubic yards of existing material is proposed to removed for a net removal of 24.56 cubic yards. This provides additional available floodplain storage post-development.

A Flood Mitigation Calculation Plan, prepared by Hudson Land Design Professional Engineering, P.C., dated March 26, 2019, last revised May 28, 2019, was submitted to the Planning Board and reviewed by the City Engineer for conformance with the requirements of Chapter 123 (Flood Damage Prevention) of the City Code The City Engineer confirmed that the Flood Mitigation Calculation Plan is in conformance with such requirements. No disturbances are proposed within the 100 year flood way. Based on a review of the Flood Mitigation Plan, the Project is not expected to impact of change the flood plain elevation of the Fishkill Creek.

Portions of the Greenway Trail are located below the floodplain elevation so those portions of the trail could be partially inundated during flood conditions.

Fishkill Creek is classified as "C" by NYSDEC and will not require a stream bank disturbance permit. However, two proposed stormwater outfalls will require certain permits. A joint application was submitted to the U.S Army Corps of Engineers (ACOE) and NYSDEC for the Nationwide Permit for Outfall Structures in connection with the two stormwater outfalls proposed to be constructed within the bank of Fishkill Creek. NYSDEC has issued a blanket Water Quality Certification dated May 22, 2019 after determining the Project is eligible for coverage under such blanket WQC. Any modification to the stormwater outfalls as shown on the plans received by NYSDEC on May 6,2019 will require an updated determination from NYSDEC. Thus, an individual WQC permit is not required from NYSDEC. According to the Applicant, ACOE has acknowledged that the proposed disturbances to the streambank for floodplain mitigation are not within their jurisdiction and that the proposed work must be performed in accordance with FEMA and City of Beacon Regulations.

Therefore, the Project will not have a significant adverse impact on or alter drainage flows or patterns, or surface water runoff.

- Impact on Air: The Proposed Action will not have a significant adverse environmental impact on air quality.

Construction activities associated with grading and excavation could result in temporary air quality impacts. Air quality in the area, however, is not expected to be significantly impacted by project construction because the construction activities will be temporary and confined to the Property. Construction vehicles will emit certain air pollutants through engine exhaust. There is also the potential for fugitive dust to be created during the construction period from site preparation activities, including removal of existing impervious surfaces and vegetation, and site grading. These unavoidable short term impacts to air quality will cease upon project completion. Construction will be conducted in accordance with all applicable federal, state and local codes.

- Impact on Plants and Animals: The Proposed Action will not have a significant adverse environmental impact on flora or fauna.

Approximately twenty-eight (28) trees over 6 " caliper are proposed to be removed within the limits of disturbance. All other major trees are proposed to remain. A Landscape Plan has been prepared which will be finalized during the Site Plan review stage. The Landscape Plan proposes the planting of approximately twenty-eight (28) new trees.

- Impact on Agricultural Resources: The Proposed Action will not have a significant adverse environmental impact on agricultural resources.

There are no agricultural resources in the vicinity of the Property.

- Impact on Aesthetic Resources: The Proposed Action will not have a significant adverse environmental impact on aesthetic resources.

The Proposed Action will not result in the obstruction, elimination or significant screening of one or more officially designated scenic views. The Proposed Action will be visible from Fishkill Creek but the aesthetics of the site will be far improved from the existing condition of a DPW facility. Further, public viewing of Fishkill Creek from the Site will be enhanced by providing a Greenway Trail segment and a public park at the south end of the site.

- Impact on Historic and Archeological Resources: The Proposed Action will not have a significant adverse environmental impact on historic or archeological resources.

The Project is located in close proximity to the State and National Register eligible Upper Main Street Historic District. However, the Project is set back a distance from the Main Street/Churchill Street corridor. Moreover, the proposed architecture and
layout of the Project is not in direct conflict with the Upper Main Street Historic District.

By letter dated May 23, 2019, NYS Historic Preservation Office (SHPO) cited the Upper Main Street Historic District and found that the Project will have "No Adverse Effect" to historic and cultural resources. By email dated May 17, 2019, SHPO also confirmed that based on information concerning the historic disturbance and development on the Property, the potential for the presence of archeological resources is low.

Therefore, the Project will not have a significant adverse impact on historic or archeological resources.

- Impact on Open Space and Recreation: The Proposed Action will not have a significant adverse environmental impact on open space and recreation.

The area of the Proposed Action is not designated as open space by the City of Beacon. The Proposed Action will not result in the loss of a current or future recreational resource, eliminate significant open space, or result in loss of an area now used informally by the community as an open space resource.

- Impact on Critical Environmental Areas: The Proposed Action will not have a significant adverse environmental impact on Critical Environmental Areas.

The Proposed Action is not located in a Critical Environmental Area.

- Impact on Transportation: The Proposed Action will not have a significant adverse environmental impact on transportation.

The Applicant submitted a traffic report prepared by Maser Consulting P.A., dated March 25, 2019 to review the traffic impacts associated with the Project. Based on data provided by the Institute of Transportation Engineers (ITE) as contained in their publication Trip Generation, 10th Edition dated 2017, the Project is estimated to generate approximately 45 total trips during the AM Peak Hour and approximately 51 total trips during the PM Peak Hour. Capacity analyses were conducting utilizing Existing, No-Build and Build Traffic Volumes to determine the existing and future operating conditions in the vicinity of the Property. The results indicate that the site generated traffic can be accommodated on the area roadways without significant impacts to operating conditions at the study area intersections. The study area intersections included: (1) Tioronda Avenue \& Main Street; (2) Churchill Street \& Main Street; (3) Creek Road \& Churchill Street; and (4) Churchill Street \& Beacon City Municipal Lot/Site Access. The traffic report by Maser Consultant was reviewed by the City's Traffic Engineer, Creighton Manning Engineering, LLP. Creighton Manning
generally concurred with the results after confirming that the 2017 traffic data was appropriately adjusted to account for growth and new projects since 2017.

Based on the professional traffic impact review, the Project will not create a significant adverse traffic impact.

- Impact on Energy: The Proposed Action will not have a significant adverse environmental impact on energy.

The existing energy infrastructure will adequately serve the additional demand. The Proposed Action does not require a new substation, or an upgrade to any existing substation.

## - Impact on Noise, Odor and Light: The Proposed Action will not have a significant

 adverse environmental impact as a result of objectionable odors, noise or light.The Proposed Action is not anticipated to generate any noxious odors. Outdoor lighting will be consistent with typical residential lighting and will include building mounted lights and pole mounted lights. All lighting shall be shielded and pointed downward. Noise impacts associated with the proposed Project will be limited to temporary impacts generated during construction. Temporary noise impacts associated with construction will be mitigated by limiting construction activities to the hours between 7:00 a.m. and 5:00 p.m Monday-Friday, and 8 a.m. - 5 p.m on Saturday. It is not anticipated that blasting will be necessary during the proposed construction. If blasting does become necessary, it will be performed in accordance with all applicable state and local requirements. In addition, there will be no significant noise impacts post-construction.

- Impact on Human Health: The Proposed Action will not have a significant adverse environmental impact on human health from exposure to new or existing sources of contaminants.

Based upon soil testing conducted at the site, and the findings of those tests, a spill number was opened with NYSDEC by the Applicant's environmental engineer. Remediation of the site will be conducted where petroleum contamination was found, and the potential for groundwater contamination shall be assessed during remediation. The Applicant will prepare a remediation work plan for submittal to NYSDEC in accordance with NYSDEC requirements. A copy of the remediation work plan will also be submitted to the City of Beacon for informational purposes. No building permit should be issued for the Project until site remediation has been completed as determined by NYSDEC. Any additional contamination discovered during construction which requires remediation shall be remediated in accordance with all State and local laws, rules and regulations.

- Consistency with Community Plans and Community Character: The Proposed Action is not inconsistent with adopted community plans and community character.

The Proposed Action is generally consistent with the Comprehensive Plan and City Zoning Code.

Based upon this information and the information in the Full Environmental Assessment Form, the Zoning Board of Appeals finds that the Proposed Action will not have any significant adverse impacts upon the environment. .

Adopted: July 9, 2019
Beacon, New York

Motion by P. LAMBERI , seconded by R. WILLIAMS:

| Gary Barrack | Voting: AYE | Jill Reynolds | Voting: AVE |
| :--- | :--- | :--- | :--- |
| David Burke | Voting: EXCUSED | Randall Williams | Voting: AVE |
| Patrick Lambert | Voting: AYE | John Gunn, Chairman | Voting: AYE |
| Rick Muscat | Voting: AYE |  |  |

Approved 6-0
Denied

Exhibit C

## Memorandum

Planning Board

TO: Zoning Board Chairman Lanier and Zoning Board Members
FROM: Planning Board Chairman Gunn and Planning Board Members
RE: Advisory Opinion
23-28 Creek Drive
Applicant: 23-28 Creek Drive, LLC
DATE: July 11, 2019

The Planning Board has reviewed the application submitted by 23-28 Creek Drive for variances to allow construction of a mixed-use development with eight apartments and 20,000 sq. ft. of commercial space on the former DPW site situated on Creek Drive. A lengthy discussion took place about building height, the number of stories, and apartment size as it relates to this project. After careful consideration, members voted to remain neutral with regard to the applicant's variance requests for building height, number of stories, and apartment size.

They discussed the variance for parking and gave thought to the following factors. The Fishkill Creek Development zone relies on general parking standards, while the similar mixed use Linkage and CMS zoning districts would require far fewer spaces, and in this case the commercial space is the main factor in the parking requirement. A shared parking situation will exist because some of the employees will live and work on site, and the commercial operation will take not be operating when some residents are at home. Lastly fewer parking spaces would cut down on the amount of impervious surfaces and add more accessible greenspace. After careful consideration, members unanimously supported and send a positive recommendation with regard to the parking variance.

As always the final decision will be based on your review of the application but the Planning Board felt the aforementioned factors should be offered as an advisory viewpoint.

# Memorandum 

Planning Board

TO: Mayor Randy Casale and City Council Members<br>FROM: Etha Grogan<br>for Planning Board Chairman Gunn and Planning Board Members<br>RE: $\quad$ 23-28 Creek Drive<br>DATE: July 11, 2019

As requested by the City Council in its December 3, 2018 resolution, the Planning Board, acting as Lead Agency, reviewed the 23-28 Creek Drive Concept Plan for significant environmental impacts under the State Environmental Quality Review Act (SEQRA).

A comprehensive review took place during the Planning Board's regular meetings on March 12, 2019, April 9, 2019, May 14, 2019, June 11, 2019 and July 9, 2019. After hearing from the public and considering all the associated materials prepared in connection with the proposed action, the Planning Board at its July 9, 2019 meeting adopted a Negative Declaration, finding that the proposal will not result in any significant environmental impacts.

The City Council resolution also requested a report and recommendations on the proposed Concept Plan. At its July 9, 2019 meeting all the Planning Board members present voted to issue a positive recommendation to the Council on the current Concept Plan. The applicant has been responsive to requests for additional information and changes to the plan from the Board, City consultants, and Greenway Trail Committee. From the Planning Board's perspective, the application appears complete and satisfies the Concept Plan criteria of the Fishkill Creek Development District.

It is important to note, however, that more specific architectural, landscaping, lighting, parking, and engineering details have not yet been reviewed by the Planning Board. These and other more detailed and technical issues will be covered during the subsequent Site Plan review process.

If you have any questions, please feel free to contact me.

## Exhibit D



NEGATIVE IMPACTS OF POTENTIAL ADDITIONAL PARKING TO CREATE 113 TOTAL PARKING SPACES:

1. THE POTENTIAL PARKING ELIMINATES A SIGNIFICANT STORMWATER MANAGEMENT AREA - NEED TO GO UNDERGROUND OR PUSH TO THE SOUTH, FURTHER ENCROACHMENT INTO THE PARK
2. RETAINING WALL WILL BE NEEDED ON BOTH SIDES OF THE PARKING AREA AND GREENWAY TRAIL. THE TRAIL WALL MAY ENCROACH INTO THE FLOODPLAIN REQUIRING FURTHER MITIGATION
3. THE LANDSCAPED BUFFER BETWEEN THE GREENWAY TRAIL AND PARKING LOT WOULD BE ELIMINATED. A THE LANDSCAPED BUFFER BETWEEN THE GREENWAY TRAIL AND PARKING LOT WOULD BE ELIMINATED. A
GREENWAY TRAIL VARIANCE WOULD BE REQUIRED, OR THE GREENWAY TRAIL WOULD HAVE TO MOVE CLOSER
TO THE CREEK THAN IS PERMITTED
4. OVERALL GREEN SPACE WOULD BE REDUCED BY THE ADDITIONAL PARKING AREA
5. INCREASED IMPERVIOUS AREA WOULD REQUIRE FURTHER STORM WATER MANAGEMENT

## Memorandum

Planning Board

TO: Zoning Board Chairman Lanier and Zoning Board Members
FROM: Planning Board Chairman Gunn and Planning Board Members
RE: Advisory Opinion
23-28 Creek Drive
Applicant: 23-28 Creek Drive, LLC
DATE: July 11, 2019

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They discussed the variance for parking and gave thought to the following factors. The Fishkill Creek Development zone relies on general parking standards, while the similar mixed use Linkage and CMS zoning districts would require far fewer spaces, and in this case the commercial space is the main factor in the parking requirement. A shared parking situation will exist because some of the employees will live and work on site, and the commercial operation will take not be operating when some residents are at home. Lastly fewer parking spaces would cut down on the amount of impervious surfaces and add more accessible greenspace. After careful consideration, members unanimously supported and send a positive recommendation with regard to the parking variance.

As always the final decision will be based on your review of the application but the Planning Board felt the aforementioned factors should be offered as an advisory viewpoint.

April 30, 2019

## VIA E-MAIL

Mr. John Gunn, Chairman
City of Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508
Re: $\quad 23-28$ Creek Drive LLC
City of Beacon, New York
MC Project No. 14000477B
Dear Mr. Gunn:
We have received the comments on the Traffic Impact Study for the 23-28 Creek Drive development as presented by Creighton Manning in their April 4, 2019 letter to the Planning Board. The following provides specific responses to each of the comments presented in that letter.

Site Plan

1. CM recommends that the applicant consider adding crosswalks and ramps at the internal intersection between 7-11 Creek Drive and 23-28 Creek Drive to enhance pedestrian connectivity between buildings, as shown below:

Response: Comment noted. A crosswalk and sidewalk curb ramps will be added on the west side of the intersection. A crosswalk on the east side would lead to the proposed trash enclosure for 23-28 Creek Drive and therefore does not seem to be an appropriate location for a crosswalk. See exhibits in Item No. 2 below for proposed location of this crosswalk.
2. CM recommends additional traffic control signs, markings, and/or other physical features to reduce the likelihood that Creek Drive is used for non-emergency access. Consideration should be given to both ends of Creek Drive so that the intended purpose of the road is clear to arriving and departing traffic, especially visitors who will not gain a sense of familiarity with the property. CM notes that Google Maps directs inbound traffic to 23 Creek Drive onto Creek Drive from Churchill Street, which is not the intended circulation. Maser should assess and provide specific recommendations.

Mr. John Gunn, Chairman
MC Project No. 14000477B

Response: "Do Not Enter" signs should be placed at the Creek Drive intersection with Churchill Street as well as the emergency access intersection with Creek Drive to designate to drivers that Creek Drive is not open to regular traffic. These signs could also be supplemented with "Authorized Vehicles Only" signs (MUTCD NO. R5-11). If desired by the City, further enforcement of the nature of this access could be implemented such as the installation of bollards or a gate that would be accessible by emergency vehicles only but would still permit pedestrian flow. The proposed signing is shown in the below exhibits.


Mr. John Gunn, Chairman
MC Project No. 14000477B

3. CM recommends that the applicant consider providing a bicycle rack and/or an interior bicycle storage area to accommodate future tenants who choose not to drive.

Response: This will be considered as part of the Site plan approval process.
Traffic Impact Letter Report

1. Maser's report relies on data that was collected in March 2017 and compared to older data collected by the firm. CM recommends that Maser provide this comparison and clarify whether an adjustment was made.

Response: The older data collected by our office in the vicinity of the Site was collected during March 2014 as part of our Traffic Studies conducted for the 7 \& 11 Creek Drive projects. This data was compared to the 2017 data utilizing the intersection of Main Street and Churchill Street for comparison. A comparison of the total intersection volume from the 2014 to the 2017 traffic counts is provided in the table below.

Mr. John Gunn, Chairman
MC Project No. 14000477B

| Main Street at Churchill Street |  |  |
| :---: | :---: | :---: |
| 2014 vs 2014 Traffic Volume Comparison |  |  |
|  | AM Peak Hour | PM Peak Hour |
| 2014 Traffic Counts | 365 | 471 |
| 2017 Traffic Counts | 276 | 472 |
| Report Volumes | 375 | 519 |

As shown in the table above the AM Peak Hour traffic volumes were found to be nearly 100 vehicles higher in 2014 as compared to 2017, while during the PM Peak Hour the 2014 and 2017 traffic counts are nearly identical when looking at the total intersection volume. However, for both peak hours, the highest observed individual turning movement traffic volumes were utilized for in the study in order to provide a somewhat conservative analysis. This resulted in a total intersection volume of 375 vehicles for the AM Peak Hour and a total intersection volume of 519 vehicles for the PM Peak Hour being utilized in the study. These volumes were then balanced to the other study area intersections.
2. Due to the extent of development in Beacon over the past two years, performing new traffic counts to establish 2019 conditions would be the typical approach. Maser addressed this by "growing" the 2017 data at a rate of $4 \%$ annually and factoring the site-generated traffic associated with the 7 Creek Drive, 11 Creek Drive projects, which are now occupied, plus others along Main Street. CM agrees with this methodology. We request trip generation data for all development projects considered so we can confirm the adequacy of the 2022 No-Build Traffic Volumes. A tabular breakdown by project, peak-hour trips, and source would suffice.

Response: As indicated in the Traffic Impact Study and the comment above the 2017 Existing Traffic Volumes were projected to the 2022 Design year utilizing a growth rate of 4\% per year. In addition, traffic associated with the 7 Creek Drive, 11 Creek Drive and Beacon Theater Apartments projects were also added to the study area intersections to account for these other projects in the area of the site. A summary of the traffic associated with these Other Developments is provided below.

Mr. John Gunn, Chairman
MC Project No. 14000477B
April 12, 2019
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| Other Development Traffic Volume Summary |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Project | Time <br> Period | Project Generated Traffic |  | Sourumes | Source

These Other Development Traffic Volumes together with the background traffic growth result in a total growth of approximately 30\% from the 2017 Existing Traffic Volumes to the 2022 No-Build Traffic Volumes at the intersection of Main Street and Churchill Street.
3. CM has reviewed Maser's site-generated trip generation calculations for the proposed development, and we find them acceptable.

Response: Comment Noted. No response required.
4. CM has reviewed Maser's arrival and departure distributions for site-generated traffic. Due to the right-turn restriction on Churchill Street at Main Street, $85 \%$ of the departure volume is assigned to the left-turn movement, which includes $35 \%$ that originated from north and east along Main Street. What route is this traffic expected to use to return to its origin?

Response: It is expected that the $35 \%$ of site generated traffic that arrives from and destined to the north would make a left turn onto Main Street and then a right turn onto Route 52 (Fishkill Avenue) to return back to the north when departing the site.

Mr. John Gunn, Chairman
MC Project No. 14000477B
5. The report states that the main site access driveway on Churchill Street for 7 Creek Drive and 11 Creek Drive will also serve the proposed development at 23-28 Creek Drive. The mix of uses (i.e., residential and office/commercial) means that people will be coming and going simultaneously. Based on the volume levels presented by Maser, we are not concerned from a volume and capacity perspective. However, we believe that traffic calming measures should be considered and implemented to protect the residential nature of the northerly half of the site from the office/commercial component. Maser should assess and provide specific recommendations.

Response: We agree that from a volume and capacity perspective, the volumes generated by the proposed development will not create an issue for the operation of the overall Site. We don't see these additional volumes causing a significant safety concern either, since the nature of the Site will require vehicles destined to the proposed project to travel through the existing parking areas of 7 and 11 Creek Drive, which would tend to slow speeds through this area. However, the Applicant could consider installing 1-2 speed tables and/or raised crosswalks aligning with the existing parking bay islands along the 7 Creek Drive property and/or at the existing crosswalk between the 7 and 11 Creek Drive properties. This can be determined as part of the Final Site plan Approvals.
6. CM understands and agrees with Maser's statement regarding shared parking. Given the site's connectivity with 7 Creek Drive and 11 Creek Drive, will all off- street parking be shared amongst residents and employees? Visitors, deliveries, and service calls associated with the proposed office/commercial use could have the potential to generate a demand for parking in excess of 80 spaces. Maser should explain how these additional vehicles would be accommodated.

Response: As indicated in the study, the commercial space is anticipated to have a maximum of 80 employees and 93 parking spaces are proposed to be provided for the proposed development. During the 9 AM - 5 PM hours when the commercial use parking demand peaks and visitors, deliveries, etc. would be expected, it is anticipated that the use of the residential parking spaces by residents would be low. Therefore, these residential parking spaces could be utilized by the visitors, deliveries, etc. Similarly, during these hours it is anticipated that the 7 and 11 Creek Drive parking areas would also have vacant spaces that could be utilized as part of a typical shared parking condition.

Mr. John Gunn, Chairman MC Project No. 14000477B
7. Maser's report presents two ideas for consideration beyond the application itself. The first has to do with creating an all-way stop-controlled intersection at Main Street and Tioranda Avenue. Preliminarily, CM believes the idea has merit, but we recommend further engineering analysis if the City of Beacon wants to consider it. Specifically, MUTCD Section 2B. 07 should be examined and applied. Additionally, the roadway curve on Main Street should be taken into consideration to ensure that drivers would have an adequate stopping distance prior to the crosswalk since pedestrians would be crossing under the assumption that drivers will be coming to a stop.

Response: Comment noted. If requested by the City, Maser could conduct a further analysis of the Main Street/Tironda Avenue intersection based on the MUTCD Criteria for an all-way stop.

The second idea for consideration pertains to potentially allowing the now-illegal rightturn movement from Churchill Street onto Main Street. CM reviewed the traffic control signs on Churchill Street and we believe illegal right turns repeatedly occur because of the location of the No Right Turn sign, which is approximately 30 feet behind where drivers actually stop or pause before turning. We agree that there could be a benefit to legally permitting the movement. CM recommends that further engineering analysis be conducted if the City of Beacon wants to consider permitting the turn including a review of why the sign was originally installed. In the interim, the City of Beacon has two options, which can be done separately or together, to strengthen the turn prohibition:
a. Consider relocating the No Right Turn sign so that it is closer to Main Street. It may be necessary to trim the mature tree at the intersection corner so the sign is not blocked by foliage.
b. Consider installing an additional No Right Turn sign on the north side of Main Street facing drivers on Churchill Street as they contemplate their turn. CM can assist with the placement of this sign if desired.

Response: Comment noted. Maser agrees with the assessment of these potential modifications to the Churchill Street/Main Street intersection. The Applicant would offer to make these modifications if desired by the City. Note it appears that a "No Right Turn" sign opposite the Churchill Street approach could be placed on the existing lamp post opposite the intersection or on a separate sign post in this vicinity. The height of the sign would have to be such that any parked vehicle on the north side of Main Street would not prohibit the visibility of the sign.

Mr. John Gunn, Chairman
MC Project No. 14000477B
April 12, 2019
Page 8 of 8
8. Churchill Street approaching Main Street is controlled by a Yield sign that is set back approximately 30 feet from Main Street. However, since the intersection resembles a traditional " T " shape and does not feature a merging movement, drivers tend to treat the intersection as if it were controlled by a Stop sign. Maser's analysis treats Churchill Street as a stop-controlled approach, which CM agrees with. Given the increase in traffic (vehicles and pedestrians) on Churchill Street over the past several years, the City of Beacon may want to consider replacing the Yield sign with a Stop sign. CM can provide further guidance as needed.

Response: Comment noted. Maser agrees with this assessment of this potential modification to the intersection. The Applicant would offer to make this modification if desired by the City.

If you have any questions regarding the above, please do not hesitate to contact us.
Very truly yours,
MASER CONSULTING P.A.


Richard G. D'Andrea, P.E., PTOE
Principal Associate/Project Manger
RGD/ces

R:\Projects\2014\14000477B_13 Creek Drive\Correspondence\OUT\190430RGD_Gunn R2C Ltr.docx


## Full Environmental Assessment Form <br> Part 2 -Identification of Potential Project Impacts

Agency Use Only [If applicable]
Project: 23-28 Crask Drive
Date: July 9, 2019
Part 2 is to be completed by the lead agency. Part 2 is designed to belp the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency and the action is in any Coastal Area, complete the Coastal Assessment Form beforc proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "Yes" to a numbered question, please complete all the questions that follow in that section.
- If you answer "No" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable rnanner considering the scale and context of the project.

1. Impact on Land

Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part I. D.I)
If "Yes", answer questions $a-j$. If "No", move on to Section 2.

|  | Relevant Part I Question(s) | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action may involve construction on land where depth to water table is less than 3 feet. | E2d | (7) | $\square$ |
| b. The proposed action may involve construction on slopes of $15 \%$ or greater. | E2f | - | $\square$ |
| c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface. | E2a | 7 | $\square$ |
| d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material. | D2a | (7) | $\square$ |
| e. The proposed action may involve construction that continues for more than one year or in multiple phases. | Dle | $\square$ | $\square$ |
| f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides). | D2e, D2q | $\square$ | $\square$ |
| g. The proposed action is, or may be, located within a Coastal Erosion hazard area. | Bli | V | $\square$ |
| h. Other impacts: |  | 7 | $\square$ |

## 2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)
If "Yes", answer questions a - c. If "No", move on to Section 3.

|  | Relevant <br> Part I <br> Question(s) | No, or <br> small <br> impact <br> may occur | Moderate <br> to large <br> impact may <br> occur |
| :--- | :---: | :---: | :---: | :---: |
| a. Identify the specific land form(s) attached: | $E 2 \mathrm{~g}$ | $\square$ | 0 |
| b. The proposed action may affect or is adjacent to a geological feature listed as a <br> registered National Natural Landmark. <br> Specific feature: | E3c | 0 | $\square$ |
| c. Other impacts: |  | $\square$ | $\square$ |

## 3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water $\square$ NO $\quad 7$ YES bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)
If "Yes", answer questions $a-1$. If "No", move on to Section 4.

|  | $\begin{gathered} \text { Relevant } \\ \text { Part I } \\ \text { Question(s) } \end{gathered}$ | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action may create a new water body. | D2b, Dith | T | $\square$ |
| b. The proposed action may result in an increase or decrease of over $10 \%$ or more than a 10 acre increase or decrease in the surface area of any body of water. | D2b | 区 | $\square$ |
| c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body. | D2a | 7 | $\square$ |
| d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body. | E2h | 2 | $\square$ |
| e. The proposed action may crcate turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments. | D2a, D2h | 7 | $\square$ |
| f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water. | D2c | V | $\square$ |
| g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s). | D2d | V | $\square$ |
| h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies. | D2e | V | $\square$ |
| i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action. | E2h | (2) | $\square$ |
| j. The proposed action may involve the application of pesticides or herbicides in or around any water body. | D2q, E2h | $\square$ | $\square$ |
| k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities. | D1a, D2d | $\square$ | $\square$ |

## 4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer.
(See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) If "Yes", answer questions $a-h$. If "No", move on to Section 5 .

|  | Relevant Part I Question(s) | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells. | D2c | $\square$ | $\square$ |
| b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. <br> Cite Source: $\qquad$ | D2c | $\square$ | $\square$ |
| c. The proposed action may allow or result in residential uses in areas without water and sewer services. | D1a, D2c | (7) | $\square$ |
| d. The proposed action may include or require wastewater discharged to groundwater, | D2d, E21 | 7 | $\square$ |
| e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated. | D2c, Elf, <br> Elg, Elh | W | $\square$ |
| f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer. | D2p, E2l | V | $\square$ |
| g. The proposed action may involve the commercial application of pesticides within 100 feet of polable drinking water or irrigation sources. | $\begin{aligned} & \text { E2h, D2q, } \\ & \text { E2I, D2c } \end{aligned}$ | 7 | $\square$ |
| h. Other impacts: |  | 团 | $\square$ |


| 5. Impact on Flooding <br> The proposed action may result in development on lands subject to flooding. (Sec Part 1. E.2) <br> If "Yes", answer questions $a-g$. If "No", move on to Section 6. | $\square \mathrm{NO}$ |  |  |
| :---: | :---: | :---: | :---: |
|  | Relevant Part I Question(s) | No, or small impact may occur | Moderate to large impact may occur |
| a. The proposed action may result in development in a designated floodway. | E2i | $\square$ | $\square$ |
| b. The proposed action may result in development within a 100 year floodplain. | E2j | $\square$ | $\square$ |
| c. The proposed action may result in development within a 500 year floodplain. | E2k | $\square$ | $\square$ |
| d. The proposed action may result in, or require, modification of existing drainage patterns. | D2b, D2e | $\square$ | $\square$ |
| e. The proposed action may change flood water flows that contribute to flooding. | $\begin{aligned} & \text { D2b, E2i, } \\ & \text { E2j, E2k } \end{aligned}$ | $\square$ | $\square$ |
| f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade? | Ele | $\square$ | $\square$ |


6. Impacts on Air

The proposed action may include a state regulated air emission source.
(See Part 1. D.2.f., D.2.h. D.2.g)
If "Yes", answer questions $a-f$. If "No", move on to Section 7.


## 7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2.m.q.) $\square$ NO $\square$ YES If "Yes", answer questions $a-j$. If "No", move on to Section 8.

|  | Relevant | No, or <br> small <br> impact <br> Part I <br> Question(s) occur | Moderate <br> impact may <br> occur |
| :--- | :--- | :---: | :---: |
| a. The proposed action may cause reduction in population or loss of individuals of any <br> threatened or endangered species, as listed by New York State or the Federal <br> government, that use the site, or are found on, over, or near the site. | E20 | $\square$ |  |
| b. The proposed action may result in a reduction or degradation of any habitat used by <br> any rare, threatened or endangered species, as listed by New York State or the federal <br> government. | E20 | $\square$ | $\square$ |
| c. The proposed action may cause reduction in population, or loss of individuals, of any <br> species of special concern or conservation need, as listed by New York State or the <br> Federal government, that use the site, or are found on, over, or near the site. | E2p | $\square$ | $\square$ |
| d. The proposed action may result in a reduction or degradation of any habitat used by <br> any species of special concern and conservation need, as listed by New York State or <br> the Federal government. | E2p | $\square$ | $\square$ |

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| e. The proposed action may diminish the capacity of a registered National Natural <br> Landmark to support the biological community it was established to protect. | E3c | $\square$ | $\square$ |
| :--- | :--- | :--- | :---: |
| f. The proposed action may result in the removal of, or ground disturbance in, any <br> portion of a designated significant natural community. <br> Source; | E2n | $\square$ | $\square$ |
| g. The proposed action may substantially interfere with nesting/breeding, foraging, or <br> over-wintering habitat for the predominant species that occupy or use the project site. | E2m | $\square$ | $\square$ |
| h. The proposed action requires the conversion of more than 10 acres of forest, <br> grassland or any other regionally or locally important habitat. <br> Habitat typc \& information source: | Elb | $\square$ | $\square$ |
| i. Proposed action (commercial, industrial or recreational projects, only) involves use of <br> herbicides or pesticides. | D2q | $\square$ | $\square$ |
| j. Other impacts: | $\square$ | $\square$ | $\square$ |

## 8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.)
[.] NO If "Yes", answer questions $a-h$. If "No", move on to Section 9.

|  | Relevant <br> Part I <br> Question(s) | No, or <br> small <br> impact <br> may occur | Moderate <br> to large <br> impact may <br> occur |
| :--- | :---: | :---: | :---: |
| a. The proposed action may impact soil classified within soil group I through 4 of the <br> NYS Land Classification System. | E2c, E3b | $\square$ | $\square$ |
| b. The proposed action may sever, cross or otherwise limit access to agricultural land <br> (includes cropland, hayfields, pasture, vineyard, orchard, etc). | Ela, Elb | $\square$ | $\square$ |
| c. The proposed action may result in the excavation or compaction of the soil profile of <br> active agricultural land. | E3b | $\square$ | $\square$ |
| d. The proposed action may irreversibly convert agricultural land to non-agricultural <br> uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 <br> acres if not within an Agricultural District. | E1b, E3a | $\square$ | $\square$ |
| e. The proposed action may disrupt or prevent installation of an agricultural land |  |  |  |
| management system. |  |  |  |

## 9．Impact on Aesthetic Resources

The land use of the proposed action are obviously different from，or are in


No
7 YES sharp contrast to，current land use patterns between the proposed project and a scenic or aesthetic resource．（Part I．E．I．a，E．I．b，E．3．h．）
If＂Yes＂，answer questions a－g．If＂No＂，go to Section 10.

|  | $\begin{aligned} & \text { Relevant } \\ & \text { Part I } \\ & \text { Question(s) } \end{aligned}$ | No，or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a．Proposed action may be visible from any officially designated federal，state，or local scenic or aesthetic resource． | E3h | $\square$ | $\square$ |
| b．The proposed action may result in the obstruction，elimination or significant screening of one or more officially designated scenic views． | E3h，C2b | ■ | $\square$ |
| c．The proposed action may be visible from publicly accessible vantage points： i．Seasonally（e．g．，screened by summer foliage，but visible during other seasons） <br> ii．Year round | E3h | $\square$ | $\square$ |
| d．The situation or activity in which viewers are engaged while viewing the proposed action is： <br> i．Routine travel by residents，including travel to and from work <br> ii．Recreational or tourism based activities | E3h <br> E2q， <br> Elc | $\frac{\square}{\square}$ | $\square$ |
| e．The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource． | E3h | 回 | $\square$ |
| f．There are similar projects visible within the following distance of the proposed project： <br> $0-1 / 2$ mile <br> $1 / 2-3$ mile <br> 3－5 mile <br> 5＋mile | Dla，Ela， DIf，DIg | （7） | $\square$ |
| g．Other impacts： |  | 回 | $\square$ |

## 10．Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archacological $\quad \square$ NO $\quad \square \mathrm{YES}$ resource．（Part I．E．3．e，f．and g．）
If＂Yes＂，answer questions $a-e$ ．If＂No＂，go to Section II．

|  | Relevant Part I Question（s） | No，or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a．The proposed action may occur wholly or partially within，or substantially contiguous to，any buildings，archaeological site or district which is listed on the National or State Register of Historical Places，or that has been determined by the Commissioner of the NYS Office of Parks，Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places． | E3e | － | － |
| b．The proposed action may occur wholly or partially within，or substantially contiguous to，an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office（SHPO）archaeological site inventory． | E3f | $\square$ | $\square$ |
| c．The proposed action may occur wholly or partially within，or substantially contiguous to，an archaeological site not included on the NY SHPO inventory． <br> Source： $\qquad$ | E3g | $\square$ | 口 |



## 11．Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan．
（See Part 1．C．2．c，E．t．c．，E．2．q．）
If＂Yes＂，answer questions $a-e$ ．If＂No＂，go to Section 12

|  | $\begin{aligned} & \text { Relevgnt } \\ & \text { Part I } \\ & \text { Question(s) } \end{aligned}$ | No，or small impact may occur | Moderate to large impact may oceur |
| :---: | :---: | :---: | :---: |
| a．The proposed action may result in an impairment of natural functions，or＂ecosystem services＂，provided by an undeveloped area，including but not limited to stormwater storage，nutrient cycling，wildlife habitat． | $\begin{aligned} & \text { D2e, Elb } \\ & \text { E2h, } \\ & \text { E2m, E2o, } \\ & \text { E2n, E2p } \end{aligned}$ | $\square$ | 口 |
| b．The proposed action may result in the loss of a current or future recreational resource． | $\begin{aligned} & \mathrm{C} 2 \mathrm{a}, \mathrm{E} 1 \mathrm{c}, \\ & \mathrm{C} 2 \mathrm{c}, \mathrm{E} 2 \mathrm{q} \\ & \hline \end{aligned}$ | 口 | $\square$ |
| c．The proposed action may eliminate open space or recreational resource in an area with few such resources． | $\begin{aligned} & \mathrm{C} 2 \mathrm{a}, \mathrm{C} 2 \mathrm{c} \\ & \mathrm{E} 1 \mathrm{c}, \mathrm{E} 2 \mathrm{q} \end{aligned}$ | 0 | 0 |
| d．The proposed action may result in loss of an area now used informally by the community as an open space resource． | C2c，Elc | － | 口 |
| e．Other impacts： |  | $\square$ | $\square$ |


| 12．Impact on Critical Environmental Areas <br> The proposed action may be located within or adjacent to a critical environmental area（CEA）．（See Part 1．E．3．d） <br> If＂Yes＂，answer questions a $-c$ ．If＂ No ＂，go to Section 13 ． | $\boxed{\square} \mathrm{NO}$ |  | YES |
| :---: | :---: | :---: | :---: |
|  | ```Relevant Part I Question(s)``` | No，or small impact may occur | Moderate to large impact may occur |
| a．The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA． | E3d | $\square$ | － |
| b．The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA． | E3d | $\square$ | 口 |
| c．Other impacts： |  | 口 | $\square$ |

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| 13. Impact on Transportation <br> The proposed action may result in a change to existing transportation system (See Part 1. D.2.j) <br> If "Yes", answer questions $a-f$ If "No". go 10 Section 14. | $\square \mathrm{NO}$ <br> $\sqrt{7} \mathrm{YES}$ |  |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Relevant } \\ \text { Part I } \\ \text { Question(s) } \end{gathered}$ | No, or small impact may occur | Moderate to large impact may occur |
| a. Projected traffic increase may exceed capacity of existing road network. | D2j | 7] | $\square$ |
| b. The proposed action may result in the construction of paved parking area for 500 or more vehicles. | D2f | $\square$ | $\square$ |
| c. The proposed action will degrade existing transit access. | D2j | $\square$ | $\square$ |
| d. The proposed action will degrade existing pedestrian or bicycle accommodations. | D2j | 7 | $\square$ |
| e. The proposed action may alter the present pattern of movement of people or goods, | D2j | $\square$ | $\square$ |
| f. Other impacts: |  | $\square$ | $\square$ |

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy.
$\boxed{\boxed{7}}$ NO
$\square$ YES (See Part I. D.2.k)
If "Yes", answer questions $a-e$. If "No". go to Section 15 .

|  | Relevant Part I Question(s) | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action will require a new, or an upgrade to an existing, substation. | D2k | $\square$ | 0 |
| b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use. | DIf, <br> D1q, D2k | $\square$ | $\square$ |
| c. The proposed action may utilize more than $2,500 \mathrm{MWhrs}$ per year of electricity. | D2k | $\square$ | $\square$ |
| d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed. | DIg | $\square$ | $\square$ |
| e. Other Impacts: |  |  |  |

## 15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting. $\quad \downarrow$ NO $\square$ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions $a$-f. If "No", go to Section 16.

|  | Relevant <br> Part I <br> Question(s) | No, or <br> small <br> impact <br> may occur | Moderate <br> tolarge <br> impact may <br> occur |
| :--- | :--- | :--- | :--- |
| a. The proposed action may produce sound above noise levels established by local <br> regulation. | D2m | $\square$ | $\square$ |
| b. The proposed action may result in blasting within 1,500 feet of any residence, <br> hospital, school, licensed day care center, or nursing home. | D2m, E1d | $\square$ | $\square$ |
| c. The proposed action may result in routine odors for more than one hour per day. | D20 | $\square$ | $\square$ |


| d. The proposed action may result in light shining onto adjoining properties. | D2n | $\square$ | $\square$ |
| :--- | :---: | :---: | :---: |
| e. The proposed action may result in lighting creating sky-glow brighter than existing <br> area conditions. | D2n, E1a | $\square$ | $\square$ |
| f. Other impacts: | $\square$ | $\square$ |  |

16. Impact on Human Health

The proposed action may have an impact on human health from exposure $\square \mathrm{NO} \quad \square \mathrm{YES}$ to new or existing sources of contaminants. (See Part I.D.2.q., E.1. d. f. g. and h.) If "Yes", answer questions a - m. If "No", go to Section 17.

|  | Relevant Part I Question(s) | No,or small impact may cceur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community. | Eld | $\square$ | $\square$ |
| b. The site of the proposed action is currently undergoing remediation. | Elg, Elh | $\square$ | $\square$ |
| c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action. | Elg, Elh | 7 | $\square$ |
| d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction). | Elg, Elh | 7 | $\square$ |
| e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environinent and human health. | Elg, Elh | ■ | $\square$ |
| $f$. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health. | D2t | $\square$ | $\square$ |
| g. The proposed action involves construction or modiftcation of a solid waste management facility. | D2q, Elf | $\square$ | $\square$ |
| h. The proposed action may result in the unearthing of solid or hazardous waste. | D2q, E1f | 7 | $\square$ |
| i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste. | D2r, D2s | Q | $\square$ |
| j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste. | $\begin{aligned} & \text { Elf, Elg } \\ & \text { Elh } \end{aligned}$ | V | $\square$ |
| k . The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures. | Elf, Elg | 7 | $\square$ |
| I. The proposed action may result in the release of contaminated leachate from the project site. | $\begin{aligned} & \text { D2s, E1f, } \\ & \text { D2r } \end{aligned}$ | 7 | $\square$ |
| m. Other impacts: |  | 7 | $\square$ |


| 17．Consistency with Community Plans <br> The proposed action is not consistent with adopted land use plans． （See Part 1．C．1，C．2，and C．3．） <br> If＂Yes＂，answer questions $a-h$ ．If＂No＂，go to Section 18. | $\boxed{\square} \text { No }$$\square$ YES |  |  |
| :---: | :---: | :---: | :---: |
|  | Relevant Part I Question（s） | No，or small impact may occur | Moderate to large impact may occur |
| a．The proposed action＇s land use components may be different from，or in sharp contrast to，current surrounding land use pattern（s）． | $\begin{aligned} & \text { C2, C3, Dia } \\ & \text { Ela, Elb } \end{aligned}$ | 口 | － |
| b．The proposed action will cause the permanent population of the city，town or village in which the project is located to grow by more than $5 \%$ ． | C2 | － | － |
| c．The proposed action is inconsistent with local land use plans or zoning regulations． | C2，C2，C3 | $\square$ | 0 |
| d．The proposed action is inconsistent with any County plans，or other regional land use plans． | C2，C2 | 口 | $\square$ |
| e．The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure． | C3，Dlc， Did，DIf， Did，Elb | $\square$ | $\square$ |
| f．The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure． | $\begin{aligned} & \mathrm{C} 4, \mathrm{D} 2 \mathrm{c}, \mathrm{D} 2 \mathrm{~d} \\ & \mathrm{D} 2 \mathrm{j} \end{aligned}$ | $\square$ | $\square$ |
| g．The proposed action may induce secondary development impacts（e．g．，residential or commercial development not included in the proposed action） | C2a | $\square$ | $\square$ |
| h．Other： |  | 口 | $\square$ |

## 18．Consistency with Community Character

The proposed project is inconsistent with the existing community character．
（See Part 1．C．2，C．3，D．2，E．3）
If＂Yes＂，answer questions $a-g$ ．If＂No＂，proceed to Part 3.

|  | Relevant Part I Question（s） | No，or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: | :---: |
| a．The proposed action may replace or eliminate existing facilities，structures，or areas of historic importance to the community． | E3e，E3f，E3g | $\square$ | $\square$ |
| b．The proposed action may create a demand for additional community services（e．g． schools，police and fire） | C4 | 0 | $\square$ |
| c．The proposed action may displace affordable or low－income housing in an area where there is a shortage of such housing． | $\begin{aligned} & \text { C2, C3, D1f } \\ & \text { D1g, Ela } \end{aligned}$ | 0 | $\square$ |
| d．The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources． | C2，E3 | 0 | $\square$ |
| c．The proposed action is inconsistent with the predominant architectural scale and character． | C2，C3 | $\square$ | $\square$ |
| f．Proposed action is inconsistent with the character of the existing natural landscape． | $\begin{aligned} & \mathrm{C} 2, \mathrm{C} 3 \\ & \mathrm{E} 1 \mathrm{a}, \mathrm{Elb} \\ & \mathrm{E} 2 \mathrm{~g}, \mathrm{E} 2 \mathrm{~h} \\ & \hline \end{aligned}$ | $\square$ | $\square$ |
| g．Other impacts： |  | $\square$ | － |

# Full Environmental Assessment Form <br> Part 3 - Evaluation of the Magnitude and Importance of Project Impacts and <br> Determination of Significance 

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate fo large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

## Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Please see atiached.

Determination of Significance - Type 1 and Unlisted Actions
SEQR Status: $\quad \square$ Type 1 $\quad \square$ Unlisted

Upon review of the information recorded on this EAF, as noted, plus this additionai support information
All aoplication materials submitted by the Applicant, memoranda from City staff and consullants, agency and public comment, and testimony from meatings held on the application.
and considering both the magnitude and impertance of each identified potential impact, it is the conclusion of the as lead agency that:
A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.
B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).
C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.


# ATTACHMENT TO <br> NEGATIVE DECLARATION REASONS SUPPORTING DETERMINATION 

## APPLICATION FOR CONCEPT PLAN, SITE PLAN, SUBDIVISION AND VARIANCE APPROVALS FOR 23-28 CREEK DRIVE

Parcel No. 6054-37-037625

## CONCLUSIONS

Based upon a review of Parts 1 and 2 of the Full Environmental Assessment Form (EAF) and all other application materials that were submitted in support of the Proposed Action (Unlisted), along with reports from City staff and consultants, information from involved and interested agencies, and information from the public, the City of Beacon Planning Board, undergoing an coordinated review, provides the following rationale for its SEQRA Determination.

## Project Description:

The Proposed Action is to allow construction of a mixed-use development on the former City Department of Public Works (DPW) site with a total of eight (8) apartments and 20,000 square feet of commercial space (the "Proposed Action" or "Project") on property consisting of approximately 2.81 acres adjacent to Fishkill Creek and located at 23-28 Creek Drive in the Fishkill Creek Development (FCD) Zoning District (the "Property"). The Proposed Action includes a request for approval of a Concept Plan, Site Plan and Subdivision (lot line adjustment), and the following variances: (1) parking variance to allow 93 spaces where 113 are required; (2) building height variance to allow a 4 -story building where a maximum of 3stories are permitted; (3) building height variance to allow a 53.5 ' building where a maximum of $40^{\prime}$ is permitted; and (4) a variance to permit two (2) of the eight (8) apartments to exceed the maximum size of 2,000 square feet. A Greenway Trail segment and public park are also proposed as part of the Project.

The Proposed Action is an Unlisted action. The Planning Board opened a public hearing to consider comments on the Proposed Action on April 9, 2019. The public hearing was closed on June 11, 2019.

## Summary of Rationale for Negative Declaration

The Proposed Action will not result in any significant adverse impacts on the environment. In summary:

- Impact on Land: The Proposed Action will not have a significant adverse environmental impact as a result of any physical change to the project site.

The Property is currently improved with several buildings previously used by the City DPW. The Project would include demolition of these buildings and to construct the proposed mixed-use development with grading and site work associated with such construction. Based on the information set forth herein, the Proposed Action will not have a significant adverse environmental impact as a result of physical changes to the Property.

- Impact on Geological Features: The Proposed Action will not have a significant adverse environmental impact on any unique or unusual land forms on the site.

There are no unique geological features on the Property.

- Impacts on Surface Water and Groundwater: The Proposed Action will not have a significant adverse environmental impact on surface or groundwater quality or quantity.

Since site disturbance will exceed 1-acre, a Stormwater Pollution Prevention Plan is required to obtain coverage under the NYSDEC SPDES General Permit GP-0-15002. The Project will result in a slight decrease in impervious area as compared to existing conditions, so pursuant to NYSDEC Stormwater Manual requirements the Project requires water quality control for $25 \%$ of the impervious surface coverage, as well as erosion and sediment control measures.

A Preliminary Stormwater Pollution Prevention Plan, prepared by Hudson Land Design, has been reviewed by the Planning Board and the City Engineer. The City Engineer has confirmed that the general design of the SWPPP appears acceptable. Prior to finalizing the SWPPP, infiltration tests will need to be conducted at the locations of the two (2) proposed infiltration systems. Sizing information for the hydrodynamic separators will also be provided prior to finalizing the SWPPP.

See response re Human Health, below, concerning groundwater quality.
The Project does not include or require wastewater discharged to groundwater. The Project will be connected to the existing public water distribution and sanitary sewer systems. Water usage and liquid waste generation is anticipated to be 2,940 gallons per day. Adequate water supply and sewer capacity exist for these flows. A new sewer service connection will be provided at he proposed building and all existing service connections on-site will be disconnected to the City's mains and capped in place or removed. This will eliminate any inflow and infiltration issues that may be occurring as a result of the existing service connections.

The Proposed Action will not result in any significant adverse impact to surface or groundwater quality or quantity.

## - Impact on Flooding: The Proposed Action will not have a significant adverse

 environmental impact on or alter drainage flows or patterns, or surface water runoff.Portions of the site are within the 100 year flood plain. The Project design avoids disturbances within the flood plain to the greatest extent practicable, but some areas in the flood plain are proposed to be disturbed. A portion of the proposed building is located within the 100 year flood plan which results in 312.16 cubic yards of fill within the flood plain. In accordance with Chapter 123 (Flood Damage Prevention) of the City Code, the fill in the floodplain is mitigated near the south end of the Site where 336.72 cubic yards of existing material is proposed to removed for a net removal of 24.56 cubic yards. This provides additional available floodplain storage post-development.

A Flood Mitigation Calculation Plan, prepared by Hudson Land Design Professional Engineering, P.C., dated March 26, 2019, last revised May 28, 2019, was submitted to the Planning Board and reviewed by the City Engineer for conformance with the requirements of Chapter 123 (Flood Damage Prevention) of the City Code The City Engineer confirmed that the Flood Mitigation Calculation Plan is in conformance with such requirements. No disturbances are proposed within the 100 year flood way. Based on a review of the Flood Mitigation Plan, the Project is not expected to impact of change the flood plain elevation of the Fishkill Creek.

Portions of the Greenway Trail are located below the floodplain elevation so those portions of the trail could be partially inundated during flood conditions.

Fishkill Creek is classified as "C" by NYSDEC and will not require a stream bank disturbance permit. However, two proposed stormwater outfalls will require certain permits. A joint application was submitted to the U.S Army Corps of Engineers (ACOE) and NYSDEC for the Nationwide Permit for Outfall Structures in connection with the two stormwater outfalls proposed to be constructed within the bank of Fishkill Creek. NYSDEC has issued a blanket Water Quality Certification dated May 22, 2019 after determining the Project is eligible for coverage under such blanket WQC. Any modification to the stormwater outfalls as shown on the plans received by NYSDEC on May 6,2019 will require an updated determination from NYSDEC. Thus, an individual WQC permit is not required from NYSDEC. According to the Applicant, ACOE has acknowledged that the proposed disturbances to the streambank for floodplain mitigation are not within their jurisdiction and that the proposed work must be performed in accordance with FEMA and City of Beacon Regulations.

Therefore, the Project will not have a significant adverse impact on or alter drainage flows or patterns, or surface water runoff.

- Impact on Air: The Proposed Action will not have a significant adverse environmental impact on air quality.

Construction activities associated with grading and excavation could result in temporary air quality impacts. Air quality in the area, however, is not expected to be significantly impacted by project construction because the construction activities will be temporary and confined to the Property. Construction vehicles will emit certain air pollutants through engine exhaust. There is also the potential for fugitive dust to be created during the construction period from site preparation activities, including removal of existing impervious surfaces and vegetation, and site grading. These unavoidable short term impacts to air quality will cease upon project completion. Construction will be conducted in accordance with all applicable federal, state and local codes.

- Impact on Plants and Animals: The Proposed Action will not have a significant adverse environmental impact on flora or fauna.

Approximately twenty-eight (28) trees over 6 " caliper are proposed to be removed within the limits of disturbance. All other major trees are proposed to remain. A Landscape Plan has been prepared which will be finalized during the Site Plan review stage. The Landscape Plan proposes the planting of approximately twenty-eight (28) new trees.

- Impact on Agricultural Resources: The Proposed Action will not have a significant adverse environmental impact on agricultural resources.

There are no agricultural resources in the vicinity of the Property.

- Impact on Aesthetic Resources: The Proposed Action will not have a significant adverse environmental impact on aesthetic resources.

The Proposed Action will not result in the obstruction, elimination or significant screening of one or more officially designated scenic views. The Proposed Action will be visible from Fishkill Creek but the aesthetics of the site will be far improved from the existing condition of a DPW facility. Further, public viewing of Fishkill Creek from the Site will be enhanced by providing a Greenway Trail segment and a public park at the south end of the site.

- Impact on Historic and Archeological Resources: The Proposed Action will not have a significant adverse environmental impact on historic or archeological resources.

The Project is located in close proximity to the State and National Register eligible Upper Main Street Historic District. However, the Project is set back a distance from the Main Street/Churchill Street corridor. Moreover, the proposed architecture and
layout of the Project is not in direct conflict with the Upper Main Street Historic District.

By letter dated May 23, 2019, NYS Historic Preservation Office (SHPO) cited the Upper Main Street Historic District and found that the Project will have "No Adverse Effect" to historic and cultural resources. By email dated May 17, 2019, SHPO also confirmed that based on information concerning the historic disturbance and development on the Property, the potential for the presence of archeological resources is low.

Therefore, the Project will not have a significant adverse impact on historic or archeological resources.

- Impact on Open Space and Recreation: The Proposed Action will not have a significant adverse environmental impact on open space and recreation.

The area of the Proposed Action is not designated as open space by the City of Beacon. The Proposed Action will not result in the loss of a current or future recreational resource, eliminate significant open space, or result in loss of an area now used informally by the community as an open space resource.

- Impact on Critical Environmental Areas: The Proposed Action will not have a significant adverse environmental impact on Critical Environmental Areas.

The Proposed Action is not located in a Critical Environmental Area.

- Impact on Transportation: The Proposed Action will not have a significant adverse environmental impact on transportation.

The Applicant submitted a traffic report prepared by Maser Consulting P.A., dated March 25, 2019 to review the traffic impacts associated with the Project. Based on data provided by the Institute of Transportation Engineers (ITE) as contained in their publication Trip Generation, 10th Edition dated 2017, the Project is estimated to generate approximately 45 total trips during the AM Peak Hour and approximately 51 total trips during the PM Peak Hour. Capacity analyses were conducting utilizing Existing, No-Build and Build Traffic Volumes to determine the existing and future operating conditions in the vicinity of the Property. The results indicate that the site generated traffic can be accommodated on the area roadways without significant impacts to operating conditions at the study area intersections. The study area intersections included: (1) Tioronda Avenue \& Main Street; (2) Churchill Street \& Main Street; (3) Creek Road \& Churchill Street; and (4) Churchill Street \& Beacon City Municipal Lot/Site Access. The traffic report by Maser Consultant was reviewed by the City's Traffic Engineer, Creighton Manning Engineering, LLP. Creighton Manning
generally concurred with the results after confirming that the 2017 traffic data was appropriately adjusted to account for growth and new projects since 2017.

Based on the professional traffic impact review, the Project will not create a significant adverse traffic impact.

- Impact on Energy: The Proposed Action will not have a significant adverse environmental impact on energy.

The existing energy infrastructure will adequately serve the additional demand. The Proposed Action does not require a new substation, or an upgrade to any existing substation.

## - Impact on Noise, Odor and Light: The Proposed Action will not have a significant

 adverse environmental impact as a result of objectionable odors, noise or light.The Proposed Action is not anticipated to generate any noxious odors. Outdoor lighting will be consistent with typical residential lighting and will include building mounted lights and pole mounted lights. All lighting shall be shielded and pointed downward. Noise impacts associated with the proposed Project will be limited to temporary impacts generated during construction. Temporary noise impacts associated with construction will be mitigated by limiting construction activities to the hours between 7:00 a.m. and 5:00 p.m Monday-Friday, and 8 a.m. - 5 p.m on Saturday. It is not anticipated that blasting will be necessary during the proposed construction. If blasting does become necessary, it will be performed in accordance with all applicable state and local requirements. In addition, there will be no significant noise impacts post-construction.

- Impact on Human Health: The Proposed Action will not have a significant adverse environmental impact on human health from exposure to new or existing sources of contaminants.

Based upon soil testing conducted at the site, and the findings of those tests, a spill number was opened with NYSDEC by the Applicant's environmental engineer. Remediation of the site will be conducted where petroleum contamination was found, and the potential for groundwater contamination shall be assessed during remediation. The Applicant will prepare a remediation work plan for submittal to NYSDEC in accordance with NYSDEC requirements. A copy of the remediation work plan will also be submitted to the City of Beacon for informational purposes. No building permit should be issued for the Project until site remediation has been completed as determined by NYSDEC. Any additional contamination discovered during construction which requires remediation shall be remediated in accordance with all State and local laws, rules and regulations.

- Consistency with Community Plans and Community Character: The Proposed Action is not inconsistent with adopted community plans and community character.

The Proposed Action is generally consistent with the Comprehensive Plan and City Zoning Code.

Based upon this information and the information in the Full Environmental Assessment Form, the Zoning Board of Appeals finds that the Proposed Action will not have any significant adverse impacts upon the environment. .

Adopted: July 9, 2019
Beacon, New York

Motion by P. LAMBERI , seconded by R. WILLIAMS:

| Gary Barrack | Voting: AYE | Jill Reynolds | Voting: AVE |
| :--- | :--- | :--- | :--- |
| David Burke | Voting: EXCUSED | Randall Williams | Voting: AVE |
| Patrick Lambert | Voting: AYE | John Gunn, Chairman | Voting: AYE |
| Rick Muscat | Voting: AYE |  |  |

Approved 6-0
Denied


NEGATIVE IMPACTS OF POTENTIAL ADDITIONAL PARKING TO CREATE 113 TOTAL PARKING SPACES:

1. THE POTENTIAL PARKING ELIMINATES A SIGNIFICANT STORMWATER MANAGEMENT AREA - NEED TO GO UNDERGROUND OR PUSH TO THE SOUTH, FURTHER ENCROACHMENT INTO THE PARK
2. RETAINING WALL WILL BE NEEDED ON BOTH SIDES OF THE PARKING AREA AND GREENWAY TRAIL. THE TRAIL WALL MAY ENCROACH INTO THE FLOODPLAIN REQUIRING FURTHER MITIGATION
3. THE LANDSCAPED BUFFER BETWEEN THE GREENWAY TRAIL AND PARKING LOT WOULD BE ELIMINATED. A THE LANDSCAPED BUFFER BETWEEN THE GREENWAY TRAIL AND PARKING LOT WOULD BE ELIMINATED. A
GREENWAY TRAIL VARIANCE WOULD BE REQUIRED, OR THE GREENWAY TRAIL WOULD HAVE TO MOVE CLOSER
TO THE CREEK THAN IS PERMITTED
4. OVERALL GREEN SPACE WOULD BE REDUCED BY THE ADDITIONAL PARKING AREA
5. INCREASED IMPERVIOUS AREA WOULD REQUIRE FURTHER STORM WATER MANAGEMENT

## City of Beacon Planning Board

 8/20/2019
## Title:

184 Main Street

## Subject:

Application submitted by 184 Main, LLC, 184 Main Street, Tax Grid No. 30-5954-27-811956-00, CMS Zoning District, for relief from Section $223-41.18(\mathrm{E})(4)$ to add a second story on the building with a 10 ft . rear yard setback ( 25 ft . required)

## Background:

## ATTACHMENTS:

Description Type
184 Main Street Application
184 Main Street Site Plan

Application
Plans

ZONING BOARD OF APPEALS
City of Beacon, New York
APPLICATION FOR APPEAL

OWNER: $\qquad$ 184 Main LLC

TELEPHONE: $\qquad$ 8454711504

APPLICANT (if not owner): $\qquad$ Mike Arnoff

TELEPHONE: $\qquad$

REPRESENTED BY: $\qquad$

TELEPHONE: $\qquad$ 8452554774


TAX MAP DESIGNATION: SECTION 811956

ADDRESS: 1282 DUTCHESS TAKE POUGHKEEPSIE NY 12603
E-MALL: Mike@arnoff.com

ADDRESS: $\qquad$
$\qquad$
EMAIL: $\qquad$
ADDRESS: 231 Main Street New Paltz NY, 12561
E-MALL:-jbuglino@alfandre.com
ZONING DISTRICT: $\qquad$

BLOCK $\qquad$ LOT $\qquad$
Section of Zoning Code appealed from or Interpretation desired:
25 ft Rear yard setback reduce to 10 ft
$\qquad$
Reason supporting request:
The rear yard area was reduced to accommodate egress, can storage, and grease trap.

Supporting documents submitted herewith. Site Plan, Survey, etc. as required:
Submittal dated ohareff, 2019 by Alfandre Architecture
Date: $\qquad$

Fee Schedule
AREA VARIANCE $\$ 250$
USE VARIANCE $\$ 500$
INTERPRETATION: $\$ 250$

$\qquad$
Applicant's Signature
** escrow fees may apply if required by Chairman**

## APPLICATION PROCESSING RESTRICTION LAW

## Affidavit of Property Owner

Property Owner: $\qquad$
If guyed by a corporation, partnership or organization, please list names of persons holding over $5 \%$ interest. Mike Arnoff + LisA Arnoff

List all properties in the City of Beacon that you hold a 5\% interest in:
N/4.


Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent $(5 \%)$ interest in a corporation or partnership or other business.
I, NiLe Arnerff
hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon
3. ALL tax payments due to the City of Beacon are current
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current



| Office Use Only: |
| :--- | :--- | :--- |
| Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.) |
| ALL taxes are current for properties in the City of Beacon are current (Tax Dept.) |
| ALL Special Assessments, ie. water, sewer, foes, etc. are current (Water Billing) |

## FOR OFFICE USE ONLY

Application \#

## CITY OF BEACON <br> 1 Municipal Plaza, Beacon, NY <br> Telephone (845) 838-5000 ${ }^{\circ}$ http://cityofbeacon,org $/$

## INDIVIDUAL DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any person(s))

Disclosure of the names and addresses of all persons) filing a land-use application with the City is required pursuant to Section 223-62 of the City Code of the City of Beacon. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

## SECTION A

Name of Applicant:

## 184 Main LLC

Address of Applicant: 1282 DUTCHESS TPKE POUGHKEEPSIE NY 12603
Telephone Contact Information: 8454711504

SECTION B. List all owners of record of the subject property or any part thereof.

| Name | Residence or <br> Business Address | Telephone <br> Number | Date and <br> Manner title <br> was acquired | Date and place <br> where the deed <br> or document of <br> conveyance <br> was recorded <br> or filed. |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

SECTION B. Is any owner of record an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?


If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

| Agency | Title | Date of Hire, Date <br> Elected, or Date <br> Appointed | Position or Nature <br> of Relationship |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

SECTION C. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application.

SECTION D. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.


1. Michael fry fry being first duly sworn, according to law, deposes and says that the statements made herein are true, accurate, and complete.


## Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part l based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

| Part 1 - Project and Sponsor Information |
| :--- | :--- | :--- | :--- |
| Name of Action or Project: <br> Myers Old Dutch "MOD" |
| Project Location (describe, and attach a location map): <br> 184 Main Street Beacon New York |
| Brief Description of Proposed Action: <br> we are proposing to replace the existing single story Myers Old Dutch restaurant with a new two story restaurant. Two separate restaurants will <br> be run from this location. The first tloor will remain MOD. The second tloor will be kitchen Sink. |


| 5. Is the proposed action, <br> a. A permitted use under the zoning regulations? <br> b. Consistent with the adopted comprehensive plan? |  | NO | YES | N/A |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\checkmark$ |  |
|  |  |  | $\checkmark$ |  |
| 6. Is the proposed action consistent with the predominant character of the existing built or natural landscape? |  |  | NO | YES |
|  |  |  |  | $\checkmark$ |
| 7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: $\qquad$ |  |  | NO | YES |
|  |  |  | 1 |  |
| 8. a. Will the proposed action result in a substantial increase in traffic above present levels? <br> b. Are public transportation service(s) available at or near the site of the proposed action? <br> c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action? |  |  | NO | YES |
|  |  |  | $\square$ |  |
|  |  |  |  | $\checkmark$ |
|  |  |  |  | $\checkmark$ |
| 9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: Our intention is to design and build energy efficient building that will exceed the minimum code requirements related to thermal enclosure and indoor air quality. |  |  | NO | YES |
|  |  |  |  | $\checkmark$ |
| 10. Will the proposed action connect to an existing public/private water supply? <br> If No, describe method for providing potable water: $\qquad$ |  |  | NO | YES |
|  |  |  |  | $\checkmark$ |
| 11. Will the proposed action connect to existing wastewater utilities? <br> If No, describe method for providing wastewater treatment: |  |  | NO | YES |
|  |  |  |  |  |
| 12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places? <br> b. Is the proposed action located in an archeological sensitive area? |  |  | NO | YES |
|  |  |  | 1 |  |
|  |  |  | $\checkmark$ |  |
| 13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency? <br> b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? <br> If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: $\qquad$ |  |  | NO | YES |
|  |  |  | 1 |  |
|  |  |  | $\checkmark$ |  |
| 14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:Shoreline Forest Agricultural/grasslands Early mid-successionalWetland $\square$ Urban $\square$ Suburban |  |  |  |  |
| 15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? |  |  | NO | YES |
|  |  |  | $\triangle$ |  |
| 16. Is the project site located in the 100 year flood plain? |  |  | NO | YES |
|  |  |  | $\checkmark$ |  |
| 17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, <br> a. Will storm water discharges flow to adjacent properties? NO YES <br> b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? <br> If Yes, briefly describe: $\square$ NO YES <br> The roof currently discharges on the adjacent property. We plan to either connect to the existing storm drainage on main street or provide a subsurface stromwater exfiltration system |  |  | NO | YES |
|  |  |  |  | $\checkmark$ |
|  |  |  |  |  |



Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

|  | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: |
| 1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations? | $\checkmark$ |  |
| 2. Will the proposed action result in a change in the use or intensity of use of land? | $\checkmark$ |  |
| 3. Will the proposed action impair the character or quality of the existing community? | $\checkmark$ |  |
| 4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)? | $\checkmark$ |  |
| 5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway? | $\checkmark$ |  |
| 6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities? | $\checkmark$ |  |
| 7. Will the proposed action impact existing: <br> a. public / private water supplies? <br> b. public / private wastewater treatment utilities? | $\checkmark$ |  |
| 8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources? | $\checkmark$ |  |
| 9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)? | $\checkmark$ |  |


|  | No, or <br> small <br> impact <br> may <br> occur | Moderate <br> to large <br> impact <br> may <br> occur |
| :--- | :--- | :--- |
| 10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage <br> problems? | $\boxed{ }$ | $\square$ |
| 11. Will the proposed action create a hazard to environmental resources or human health? | $\checkmark$ | $\square$ |

Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3. For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.
Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.


$\xrightarrow{ }$ Date

Title of Responsible Officer

Signature of Preparer (if different from Responsible Officer)


## City of Beacon Planning Board 8/20/2019

## Title:

## 27 Monell Place

## Subject:

Application submitted by James Schumm, 27 Monell Place, Tax Grid No. 30-5955-04-635190-00, for relief from Section $223-17(\mathrm{C})$ to construct a bedroom addition with 14.5 ft . side yard setback ( 20 ft . required)

## Background:

## ATTACHMENTS:

Description
27 Monell Place Application
27 Monell Place Site Plan \& Survey
Type
Application
Plans

## ZONING BOARD OF APPEALS

City of Beacon, New York
APPLICATION FOR APPEAL

OWNER:James Schumm

TELEPHONE: $\qquad$

APPLICANT (if not owner): Same as Owner

TELEPHONE: $\qquad$

REPRESENTED BY: Aryeh Siegel Architect

TELEPHONE: 845-838-2490

PROPERTY LOCATION: 27 Monell Place

TAX MAP DESIGNATION: SECTION 5955

ADDRESS: 27 Monell Place
Beacon, NY 12508
E-MAIL: jim.schumm@gmail.com

ADDRESS: $\qquad$

E-MAIL: $\qquad$

ADDRESS: 84 Mason Circle Beacon, NY 12508
E-MAIL: ajs@ajsarch.com

ZONING DISTRICT: R1-20

BLOCK 04 LOT 635190

Section of Zoning Code appealed from or Interpretation desired:
Requesting side yard setback of 14.5 feet where 20 feet is required : Relif from Section $223 \cdot 1 /(c)$
for a bedroom addition with a 14.6.ft side yant setback (20 ft.required)
Reason supporting request:
Proposed bedroom addition is the only feasible location in the house to expand

Supporting documents submitted herewith: Site Plan, Survey, etc. as required:


## APPLICATION PROCESSING RESTRICTION LAW <br> Affidavit of Property Owner

Property Owner: James Schumm
If owned by a corporation, partnership or organization, please list names of persons holding over $5 \%$ interest.

List all properties in the City of Beacon that you hold a 5\% interest in:

## Applicant Address: 27 Monell Place

Project Address: 27 Monell Place
Project Tax Grid \#5955-04-635190
Type of Application Zoning Board of Appeals Variance Application
Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5\%) interest in a corporation or partnership or other business.

I, James Schumm , the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon

2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon

3. ALL tax payments due to the City of Beacon are current

4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon

5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon
6. ALL Special Assessments due to the City of Beacon on any pargel owyd by me are current


Title if owner is corporation

| Office Use Only: |  | YES | Initial |
| :---: | :---: | :---: | :---: |
| Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.) |  |  |  |
| ALL taxes are current for properties in the City of Beacon are current (Tax Dept.) |  |  | 5 |
| ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing) |  |  | 4 |

# FOR OFFICE USE ONLY 

Application \#

CITY OF BEACON<br>1 Municipal Plaza, Beacon, NY<br>Telephone (845) 838-5000 http ://cityofbeacon.org/

## INDIVIDUAL DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any persons))

Disclosure of the names and addresses of all persons) filing a land-use application with the City is required pursuant to Section 223-62 of the City Code of the City of Beacon. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

## SECTION A

Name of Applicant: JaMES SCHUMm
Address of Applicant: 27 Manuel Place, Beacon, Ny 12508
Telephone Contact Information: $\qquad$

SECTION B. List all owners of record of the subject property or any part thereof.


SECTION B. Is any owner of record an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon?

## $\square$ YES <br>  <br> NO

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

| Agency | Title | Date of Hire, Date <br> Elected, or Date <br> Appointed | Position or Nature <br> of Relationship |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

SECTION C. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application.

SECTION D. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.


I, Jame5 Sch J mMbeing first duly sworn, according to law, deposes and says that the statements made herein are true, accurate, and complete.


## Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

| Part 1 - Project and Sponsor Information |  |
| :--- | :--- | :--- | :--- | :--- |
| Name of Action or Project: <br> 27 Monell Place Addition |  |
| Project Location (describe, and attach a location map): <br> 27 Monell Place |  |
| Brief Description of Proposed Action: <br> 1 story addition to existing bedroom |  |



| 18. Does the proposed action include construction or other activities that result in the impoundment of <br> water or other liquids (e.g. retention pond, waste lagoon, dam)? <br> If Yes, explain purpose and size: |
| :--- |

## I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

| Applicant/sponsor namentames Schump |
| :--- |
| Signature: Date: June 25, 2019 |

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the foliowing questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

|  | No, or small impact may occur | Moderate to large impact may occur |
| :---: | :---: | :---: |
| 1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations? |  |  |
| 2. Will the proposed action result in a change in the use or intensity of use of land? |  |  |
| 3. Will the proposed action impair the character or quality of the existing community? |  |  |
| 4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)? | $\square$ |  |
| 5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway? | $\square$ |  |
| 6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities? | $\square$ |  |
| 7. Will the proposed action impact existing: <br> a. public / private water supplies? | $\square$ |  |
| b. public / private wastewater treatment utilities? |  |  |
| 8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources? |  |  |
| 9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)? |  |  |


|  | No, or <br> small <br> impact <br> may <br> occur | Moderate <br> to large <br> impact <br> may <br> occur |
| :--- | :--- | :--- |
| 10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage <br> problems? | $\square$ | $\square$ |
| 11. Will the proposed action create a hazard to environmental resources or human health? | $\square$ |  |

Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3. For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.
Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency
Print or Type Name of Responsible Officer in Lead Agency

Signature of Responsible Officer in Lead Agency

Date

Title of Responsible Officer

Signature of Preparer (if different from Responsible Officer)


Scale: $\boldsymbol{f}^{\prime \prime}=1-0$


Existing Condition Photos



Site Plan
Site 20


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James Schumm
27 Monell Place
Beacon, NY 12508

Aryeh Siegel, Architec 84 Mason Circle
Beacon, New York 12508

## City of Beacon Planning Board <br> 8/20/2019

Title:
Edgewater

## Subject:

Miscellaneous Business
Consider request for one (1) year extension of 1/17/2018 area variances - Edgewater

## Background:

## ATTACHMENTS:

Description
Type
Edgewater Extension Request - ZBA
Cover Memo/Letter


Civil \& Environmental Engineering Consultants 174 Main Street, Beacon, New York 12508
13 Chambers Street, Newburgh, New York 12550
Phone: 845-440-6926 Fax: 845-440-6637
www.HudsonLandDesign.com

July 26, 2019
Hon. Robert Lanier, Chairman
\& Members of the Zoning Board of Appeals
City of Beacon Zoning Board
1 Municipal Center
Beacon, NY 12508
Re: Edgewater Area Variance Approvals - Request for One (1) Year Extension
Tax IDs 5954-25-566983, 574979, 582985, \& 5955-19-590022
City of Beacon, New York
Dear Chairman Lanier and Zoning Board Members:
On behalf of Scenic Beacon Developments, LLC ("the Applicant") we are writing to request a one (1) year extension of the January 17, 2018 variances granted by Resolution of the Zoning Board of Appeals ("ZBA"). According to condition 2 on page 8 of the ZBA Resolution "[t]he Applicant shall obtain a building permit within twelve (12) months from the date of obtaining the last land use approval." ${ }^{1}$ The last land use approval was issued by the Planning Board at their September 11, 2018 regular meeting, where the Applicant was granted Site Plan and Subdivision Approval. This request is timely, as one (1) year has not elapsed since the date of the September 11, 2018 Planning Board Approval. Accordingly, the Applicant respectfully requests a one (1) year extension of the ZBA Resolution from September 11, 2019 in order to obtain a Building Permit.

The Applicant has been working diligently with the project consultants, City Staff and the Dutchess County Department of Behavior and Community Health (DCDBCH) in order to satisfy each of the prerequisite conditions provided in the 2018 Planning Board Approval Resolution in order for the Final Subdivision Plat to be signed by the Planning Board Chairman and subsequently recorded in the Dutchess County Clerk's Office. Further, our office has been in regular contact with the DCDBCH, as well as the City

[^4]Page 2 of 2
Engineer and the Applicant doing everything possible to facilitate this signoff. ${ }^{2}$ To date, all of the DCDBCH comments have been satisfied with the exception of providing hydraulic modeling of the receiving City sewer system, which is being processed. We continue to work with the City to provide this information.

As noted above, the one (1) year period to fulfill all items noted within the conditions of the adopted ZBA Resolution will expire on September 11, 2019. In accordance with condition 2 on page 8 of the adopted ZBA Resolution, the Applicant hereby respectfully requests a one (1) year extension in order for the Applicant to obtain a Building Permit, extending the ZBA Resolution until September 11, 2020. If the conditions are fulfilled prior to the expiration date, we will withdraw our extension request. Please place this item on the next available ZBA Agenda for consideration of the one (1) year extension.

We look forward to discussing this proposal with you at your next available ZBA meeting. Should you have any questions, please feel free to call me at 845-440-6926.

Sincerely,


Michael A. Bodendorf, P.E. Principal

cc: Scenic Beacon Developments, LLC<br>Tina Andress-Landolfi<br>Taylor M. Palmer, Esq.<br>Aryeh Siegel, AIA<br>Daniel G. Koehler, P.E. (HLD File)

[^5]
[^0]:    ${ }^{1}$ Note: As noted at the ZBA Public Hearing, copies of the letters of support were submitted to the ZBA

[^1]:    ${ }_{5}$ Note: For additional reference, a copy of the Planning Board's referral comments to the City Council are included in Exhibit C, as noted at the ZBA Public Hearing.

[^2]:    ${ }^{6}$ A CD-ROM containing the enclosures referenced herein is also enclosed.

[^3]:    1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR DETAILS OF LEVEL OF SERVICE AND DELAY.
[^4]:    ${ }^{1}$ Note: Based on discussions during the ZBA's review of the application, the Resolution notes that the project will take time to build/complete, indicating that without extension the variance would terminate after five (5) years from the date of the last land use approval.

[^5]:    ${ }^{2}$ Note: Copies of related correspondence with the DCDBCH is available upon request.

