

VILLAGE OF BARTLETT PLAN COMMISSION AGENDA

BARTLETT MUNICIPAL CENTER 228 S. MAIN STREET December 13, 2018 7:00 P.M.

- I. Roll Call
- II. Approval of the November 8, 2018 meeting minutes
- III. (#18-06) Bucky's

Rezoning, upon annexation, from the ER-1 (Estate Residence) Zoning District to the B-3 (Neighborhood Shopping) Zoning District Preliminary Site Plan Review

Plat of Consolidation (Two lots consolidated to one zoning lot) Special Use Permits:

- a) Automobile Service Station (Gas Station),
- b) Carwash,
- c) Package Liquor Sales,
- d) Outdoor Sales and Storage
- IV. Old Business/New Business
- V. Adjournment



J. Lemberg called the meeting to order at 7:02 pm.

Roll Call

Present: J. Lemberg, J. Miaso, J. Allen, J. Kallas, M. Hopkins, A. Hopkins, T. Ridenour

Absent: D. Negele

Also Present: A. Zubko, Village Planner

Approval of Minutes

A motion was made to approve the minutes of the October 11, 2018 meeting.

Motioned by: J. Kallas Seconded by: A. Hopkins

Roll Call

Ayes: J. Lemberg, J. Miaso, J. Allen, J. Kallas, M. Hopkins, T. Ridenour and A. Hopkins

Abstain: None Nays: None

The motion carried.



(#18-21) Southwind Business Park Subdivision

Preliminary/Final Plat of Subdivision

Petitioner: Dean Kelley 612 S. 5th Street, St. Charles, IL

A. Zubko stated the subject property was annexed to the Village in 1988 and zoned PD which is Planned Development District.

The Petitioner is requesting a Preliminary/Final Plat of Subdivision for the 20.54 acre Southwind Business Park to create five (5) lots ranging in size from 3.14 acres to 6.65 acres.

The Bluff City Office Building, located on Lot 1, was approved in 2000. The Village Staff is working with potential developers for Lot 4 (Circle K) and Lot 2 (Parkland Preparatory Academy). An official application has been submitted by Circle K, but at the request of the Petitioner, it has been put on hold. Staff has also received an Administrative Site Plan Review Application for the Parkland Preparatory Academy, which is currently being reviewed by the Staff.

There are two existing curb cuts along Route 25 - Southwind Boulevard and Benchmark Lane; and one existing curb cut off of West Bartlett Road - Southwind Boulevard; all of which will provide primary access to each of the lots. A new curb cut is proposed along West Bartlett Road, west of Southwind Blvd. as part of the Circle K development that would provide a through connection south to Benchmark Lane. This new connection would also serve as an ingress and egress easement between Lots 4 and 5. Currently, there are no new access points proposed along Route 25. (Route 25 is under the jurisdiction of Illinois Department of Transportation (IDOT).

These parcels would be served by the existing stormwater drainage and detention system currently constructed.

Preliminary engineering was approved at the time the Bartlett Pointe West Subdivision was approved in 2013. As part of this plan, Southwind Boulevard and Benchmark Lane were constructed and street lights and sidewalk locations were identified. Each have been installed within the subject property per the plan.

To be in compliance with the Public Improvements Completion Agreement, the developer shall install an eleven (11') wide bike path along the south side of West Bartlett Road in accordance with the West Bartlett Road Corridor Plan. The current plan shows a 15' wide bike path easement which will be recorded as part of this plat of subdivision. The bike path will be installed as part of the Circle K development or by December 2019, whichever comes first.

As required in the Subdivision Ordinance, the Petitioner will plant parkway trees along the existing rights-of-way spaced not less than forty feet (40') nor more than sixty feet (60') apart.

The Staff recommends approval of the petitioner's request subject to the following conditions and Findings of Fact.

Dean Kelley stated since Angela covered most of it he would just give an update. Circle K is in a class three ground water zone, which it shouldn't be so, it's in the process of being remapped through the IAPA, because they were worried there would be repercussions down the road. Once several provisions are made they will proceed with approval. **D. Kelley** stated he has met with Kane County several times to locate the proposed right-in, right-out on West Bartlett Road, which was verbally approved, but final plans will need to be submitted. Parkland Academy is primarily for special needs children who cannot be



served by the local schools. The developer of the school, David Russo, is currently operating 3 schools and is hoping to open by the next school year. **D. Kelley** stated he is excited to get going on this development. The developer of the gas station has the first refusal of the lot on the east along West Bartlett, and there are a few concept plans that have been prepared, which would be nice to see that happen. There are residential lots across the street in South Elgin that have just been approved for townhomes, and further west near the Prairie Path, there will be 160 single family homes. Hopefully with this activity this will give them the momentum to finish out this park.

- J. Lemberg asked if anyone had any questions. T. Ridenour asked if the curb cut was between lots 4 and 5. D. Kelley stated yes, it will be shared, the traffic will go to the right or to the west. T. Ridenour stated if the gas station is proposed for the corner, they wouldn't want an entrance or exit on Rt. 25? A. Zubko stated they are not allowed to have any additional exits or entrances, they will be using Benchmark Lane.
- **J. Lemberg** asked if anyone had any additional questions. **J. Lemberg** then asked for a motion to approve the Petitioner's request subject to the conditions and Findings of Fact.

Motioned by: J. Miaso Seconded by: J. Kallas

Roll Call

Ayes: J. Allen, J. Kallas, M. Hopkins, A. Hopkins, J. Miaso & T. Ridenour

Nayes: None

The motion carried.



Old Business/ New Business

- **A. Zubko** stated she had nothing at this time.
- A. Zubko added since the weather is getting colder, the doors will be opened at 6:40 instead of 6:45.
- **M. Hopkins** stated if the meeting was closed then the Committee can hear what **T. Witt** had to say about the bike path.
- J. Lemberg then asked for a motion to adjourn.

Motioned by: J. Kallas Seconded by: J. Miaso

All in favor.

The meeting was adjourned at 7:11P.M.

COMMUNITY DEVELOPMENT MEMORANDUM 18-220

DATE:

December 7, 2018

TO:

The Chairman and Members of the Plan Commission

FROM:

Angela L Zubko, Community Development Planner

RE:

(#18-06) Bucky's

PETITIONER

Richard McMahon on behalf of Buchanan Energy

SUBJECT SITE

West side of Route 59, across from Norwood Lane

REQUESTS

Rezoning, upon annexation, from the ER-1 (Estate Residence) Zoning District to the **B-3 (Neighborhood Shopping) Zoning District Preliminary Site Plan Review** Plat of Consolidation (Two lots consolidated to one zoning lot) Special Use Permits:

- a) Automobile Service Station (Gas Station),
- b) Carwash,
- c) Package Liquor Sales,
- d) Outdoor Sales and Storage

SURROUNDING LAND USES

	<u>Land Use</u>	Comprehensive Plan	Zoning
Subject Site	Vacant	Commercial	R-3*
North South East West	Single Family Commercial Commercial Single Family	Commercial Commercial Commercial Suburban Residential	R-3* B-3 PUD B-3 R-3*

^{*}Unincorporated DuPage County- Single Family

DISCUSSION

- 1. The Petitioner is requesting to **Annex** two vacant parcels consisting of 2.18 acres and to **Rezone** the subject property (upon annexation) from the ER-1 (Estate Residence) Zoning District to the B-3 (Neighborhood Shopping) Zoning District. (The Annexation will be discussed by the Village Board at a future date.)
- 2. The Petitioner is also requesting **Preliminary Site Plan Review** for a proposed 5,520 square foot convenience store to accompany an automotive service station with 10 gas pumps (20 fueling stations). A 3,285 square foot carwash is also proposed along the southern portion of the subject property.
- 3. The proposed convenience store would be oriented towards Route 59 and would consist primarily of 8"x 4"x16" CMU block in two colors, terra cotta and cream with a stone veneer on the columns at the three entrances. Metal canopies would add architectural elements over each of the windows. The tallest portions of the building, consisting of the three towers, would be 26'-8". The average height would be 21'-4", meeting the Zoning Code requirement of 25'. The carwash will architecturally match the convenience store with CMU block and will be 18' in height, also meeting the Zoning Code requirement of 25'.
- 4. The Petitioner has requested one curb cut along Route 59 for access to the automotive service station which would be located directly across from Norwood Lane. The Village approached the Petitioner regarding the installation and associated costs of a proposed traffic signal at this location. The Village Staff discussed with the Petitioner a 75%/25% split of the costs; with the Petitioner paying the 75% share. Discussions continue on this subject. (Route 59 is under the jurisdiction of Illinois Department of Transportation (IDOT) and the Petitioner has been in contact with IDOT regarding this access and a traffic control signal.) The Village has a preliminary cost estimate of \$620,545 from 2015 when this issue was first addressed with the Village Board and the residents in the area. (In this 2015 estimate, the costs for the Petitioner's share would be \$465,408.75, while the Village's share would be \$155,135.25.) A revised cost estimate would be provided during the Final Site Plan Review.
- 5. It has been Bartlett's policy when reviewing commercial site plans adjacent to one another that the number of curb cuts be minimized and a cross-access easement be utilized between adjoining properties. This encourages the most optimum traffic movements and circulation patterns between commercial entities while providing safe access onto public roadways. The Preliminary Site Plan as proposed does not include a cross-access easement.
- 6. The Site Plan identifies 59 parking stalls including 2 handicapped accessible stalls. This exceeds the Zoning Ordinance requirement of 36. The Zoning

Ordinance requires the number of stacking spaces provided to be "equal in number to 5 times the maximum capacity of the automobile laundry for each wash rack, plus 1 parking space for each 2 employees." A total of 15 stacking spaces would be required to meet the Zoning Ordinance. The Site Plan provides stacking for fifteen (15) vehicles in accordance with the Zoning Ordinance.

- 7. The Petitioner is proposing to install two 8' tall retaining walls along with an 8' tall vinyl stone fence along the western property line. A 6' tall vinyl fence is also proposed along a portion of the northern property line. As shown on the attached cross section, the subject property is approximately 19' lower than the residentially zoned properties to the west.
- 8. The Petitioner is requesting a **Plat of Consolidation** to combine the two lots, currently unincorporated, into one zoning lot. Once recorded this lot will have one PIN (parcel identification number).
- 9. The Petitioner is also requesting the following **Variations:**
 - a. A 1 foot reduction from the required 50 foot front yard (canopy),
 - b. A 6' reduction from the required 20 foot side yard (carwash),
 - c. Eliminate the required foundation area landscaping (convenience store, west side),
 - d. Reduce the perimeter landscaping on the east property line (required number of large deciduous trees from 9 to 5 (Type 2 Screening)), and
 - e. Eliminate the required trees in 4 of the 6 parking islands

The reduction in the **front yard setback** for the gas station canopy request is consistent with other variations granted for canopies along Route 59 (BP Gas Station - 30' variation, Walgreens - 7.9' variation) and front yard variations granted along Route 59 (primarily for parking).

The reduction in the required **side yard** setback for the carwash is consistent with another variation approved along Route 59 (KinderCare - 4' variation).

The request to eliminate the required **foundation landscaping** (rear elevation) has only been approved once; for Sonic. (The variation granted eliminated the east and west foundation landscaping to allow space for servers to deliver the food orders to parked vehicles.)

The request to reduce the required number of large trees within the 20' wide **perimeter landscaping** from 9 to 5 along Route 59 (east property line) has never been granted by the Village. Sonic was granted a variation in 2016 to eliminate the perimeter landscaping along Stearns 8 years after it was originally approved with the required landscaping but this was a result of the of the right-of-way taking for the Stearns Road intersection improvements.

The request to eliminate the required trees in 4 of the 6 **parking islands** on the site has never been granted by the Village. Ashton Gardens was granted a variation to allow one tree per double island rather than the required two trees, but never to eliminate the trees altogether.

(The Variation requests were discussed by the Zoning Board of Appeals at their meeting on December 6, 2018 and all were recommended for approval.)

- 10. **Special Use Permits** are being requested to allow for an Automobile Service Station (Gas Station) and a carwash. The Petitioner has designed the carwash to have the dryer portion of the tunnel wash furthest away from the residential uses to the west. There are 4 vacuums proposed north of the carwash. The retaining walls and proposed 8' tall fence along the west side of the subject property should serve as a sound barrier to minimize any noise emitted from the carwash and vacuums. (Decibel levels would be provided at the time of a Final Site Plan submittal.)
- 11. Internal vehicular circulation for the carwash would primarily consist of a counter-clockwise pattern with all vehicles queuing behind the convenience store and entering the carwash atong the west side. Vehicles would through the tunnel wash and exit the building from the east side. Vehicles would then either exit the site via Route 59 or proceed to the gas pumps or convenience store.
- 12. The Petitioner is also requesting a **Special Use Permit** to allow outdoor sales and storage including propane and seasonal sale items. These areas are located directly in front (east) of the convenience store.
- 13. The Petitioner is requesting a **Special Use Permit** for Package Liquor Sales, including beer, wine and liquor. This would be the first service/gas station permitted to sell package liquor in the Village.
- 14. Underground stormwater will be located below the southern parking lot between the convenience store and the carwash. The Preliminary Engineering Plans are being reviewed by the Village Engineer and Final Engineering, including stormwater calculations, will be required during their Final Site Plan review process.
- 15. A Traffic Study, prepared by Quigg Engineering Inc., was reviewed by the Village's Traffic Consultant, Gewalt, Hamilton Associates, Inc. and IDOT. In summary, Quigg Engineering states that "a traffic signal is warranted at the intersection of IL 59 and Norwood Lane." The Village's Traffic Consultant concurs with the Traffic Study stating, "a traffic signal is warranted at the IL Route 59 intersection with Norwood Lane and the proposed site access."

16. The Village's Future Land Use Plan identifies this area for commercial uses.

RECOMMENDATION

- 1. The Staff recommends <u>approval</u> of the Petitioner's requests subject to the following conditions and Findings of Fact:
 - A. Village Engineer approval of the Preliminary Engineering Plans;
 - B. Staff approval of the Preliminary Landscape Plans;
 - C. Building elevations shall consist of 8"x4"x16" CMU block and shall be identified on the elevations attached as an exhibit to the Ordinance
 - D. Updated traffic signal costs at the time of Final Site Plan submittal;
 - E. Final Engineering Plans including the stormwater calculations shall be required with the Final Site Plan application submittal;
 - F. Final Landscape Plans shall be required with the Final Site Plan application submittal;
 - G. IDOT approval of the full access along Route 59;
 - H. The Petitioner shall obtain a liquor license, if requested;
 - I. Findings of Fact (Site Plan):
 - i. That the proposed commercial building is a permitted use in the B-3 Zoning District;
 - ii. That the proposed building, off-street parking, access, lighting, landscaping, and drainage is compatible with adjacent land uses;
 - iii. That the vehicular ingress and egress to and from the site and circulation within the site provides for safe, efficient and convenient movement of traffic not only within the site but on adjacent roadways as well;
 - iv. That the site plan provides for the safe movement of pedestrians within the site;
 - v. That there is a sufficient mixture of grass trees and shrubs within the interior and perimeter (including public right-of-way) of the site so that the proposed development will be in harmony with adjacent land uses. Any part of the site plan area not used for buildings, structures, parking or access ways shall be landscaped with a mixture of grass, trees and shrubs; (All landscape improvements shall be in compliance with Chapter 10-11A, Landscape Requirements.)
 - vi. That all outdoor storage areas are screened and are in accordance with standards specified by this Ordinance.
 - J. Findings of Fact: Special Use Permits (automobile service station (gas station), carwash, package liquor sales and outdoor sales and storage)
 - The proposed automobile service station, carwash, package liquor sales and outdoor sales and storage are desirable to provide uses which are in the interest of public convenience and will contribute to the general welfare of the community;
 - ii. That the proposed automobile service station, carwash, package

CD Memo 18-220 December 7, 2018 Page 6

liquor sales and outdoor sales and storage will not under the circumstances of the particular case be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity or be injurious to property value or improvement in the vicinity;

- iii. That the special uses shall conform to the regulations and conditions specified in the Bartlett Zoning Ordinance for such use and with the stipulations and conditions made a part of the authorization granted by the Village Board of Trustees.
- 2. Background materials are attached for your review and consideration.

alz/attachments

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Buck's Inc.

2500 BRICKVALE ROAD, ELK GROVE VILLAGE, IL 60007 (402) 718-6724

RMcMahon@BuchananEnergy.com

19 October 2018

President Kevin Wallace and Members of the Board of Trustees Village of Bartlett
228 South Main Street
Bartlett, Illinois 60103

Dear President Wallace;

Buck's Inc., as the development arm of Buchanan Energy (N), LLC, is applying to annex 2 vacant unincorporated lots into the Village of Bartlett and rezone them to B-3 with Special Uses for Car Wash, Automobile Service Station, Package Liquor Sales, and Outdoor Sales of seasonal merchandise and propane.

Putting the vacant lots at the intersection of Il 59 and Norwood under contract began in August 2016. They are part of the 9 lot residentially restricted Williamsburg Woods Subdivision in the County. To move ahead I had to negotiate releases of the residential use restriction with the owners of 6 of the 7 remaining lots (the ComEd lot release is not needed) and obtain contractual approval of the site plan from each of these landowners.

We feel the location will be successful because of its position as the first fuel sales location across the Cook County line. Once the facility is built, we will review and consider retiring the Mobil we own on the southwest corner of the intersection of IL 59 and Sterns. This old location, built in the 1980's is outdated, and the IDOT intersection widening including installation of barrier medians down the center of both roads makes this existing site unsuitable for the future. We have preliminary approval from IDOT for access onto IL 59 directly across from Norwood and have hired a Springfield, Illinois traffic firm to advance our request for a traffic signal warrant from IDOT. We would build with or without that warrant but will continue to press the request which may take over a year to obtain.

Our 7,000 s.f. c-store is the same as the stores we recently opened in Glendale Heights and Wheaton and which have been approved at North and Swift in the County, and at Roosevelt and Lawler on land we annexed into Glen Ellyn. This large store is designed to allow future interior design flexibility when rapid electric car charging technology is finally settled and motorists will have to wait 20 to 30 minutes while their vehicles are charging.

In addition to the additional sales tax and property tax revenue we would bring into the Village, we are planning to connect the water system from Norwood under IL 59 to Bartlett Commons.

FOR THE COMPANY:

RECEIVED
COMMUNITY DEVELOPMENT

OCT 19 2018

VILLAGE OF BARTLETT

Richard J. McMahon



VILLAGE OF BARTLETT DEVELOPMENT APPLICATION

For Office Use Only Case # 2018-06

RECEIVED COMMUNITY DEVELOPMENT

JUN 0 4 2018

ppo	ECT NAME 931.02 Bucky's	Annexation	2014 0 4 2018
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DETT	TIONER INFORMATION (PR	IMARY CONTACT)	(revisid) VILLAGE OF
		MARI CONTACT)	
Name	Richard McMahon		
Street	Address: 2500 Brickvale Drive		
City,	State: Elk Grove Village, IL		Zip Code: 60007
Email	Address:		Phone Number:
Prefe	red Method to be contacted: En	nail	
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PROI	ERTY OWNER INFORMATION	ON	
	. Two Owners (See Attached	4/	
Name	TWO CHINGIS (DOG ALLACHOL		
Street	Address:	8	
City,	State:		Zip Code:
Phone	Number: 402-718-6724		
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ACTI	ON REQUESTED (Please check	all that apply)	
	Annexation	Text Amendment	
·····	PUD (preliminary)	ED 4	to B-3
	PUD (final)	_	Wash, Automobile Sentos Station, Package Liquor, outdoor sales
	Subdivision (preliminary)	•	
	Subdivision (final)		landscaping
	Site Plan (please describe use: co	mmercial, industrial, s	quare footage):
	Neighborhood Shop	ping- 7,144 s.f. c-sto	re with ancillary use Car Wash
	Unified Business Center Sign Pla		
	Other (please describe) Consolie	date 2 lots into 1 lot.	

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SIGN	B 7 8 0		F 84.5 B		24 2 2 4

(Note: A Unified Business Center Sign Plan is required for four or more individual offices or businesses sharing a common building entrance or private parking lot.)

roperty muck	Number ("Tax PIN"/"P		
Zoning: Exist	ing: ER-1	Land Use: Existin	g:_Vacant
181	(Refer to Official Zoning I osed: B-3	Map) Propos	ed: Commercial
Comerchancive	Plan Designation for th	is Property: Commercial	
Acreage: 2.182		(Refer to Futu	re Land Use Map)
	0.14.43		
For PUD's and No. of L	ots/Units:		
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FINDINGS OF FACT (Standards)

The Village of Bartlett Zoning Ordinance requires that certain findings of fact, or standards, must be met before a special use permit, variation, site plan or planned unit development may be granted. Each application for a hearing before the Plan Commission or Zoning Board of Appeals for a special use, variation, site plan or planned unit development must address the required findings of fact for each particular request. The petitioner should be aware that he or she must present specific testimony at the hearing with regards to the findings. (On the following pages are the findings of fact, or standards, to be met. Please respond to each standard, in writing, as it relates to the case.)

PLEASE FILL OUT THE FOLLOWING FINDINGS OF FACT AS THEY RELATE TO YOUR PETITION

Findings of Fact for Site Plans: Pages 4-5

Findings of Fact for Planned Unit Developments: Pages 6-9

Findings of Fact for **Special Uses:** Page 10 Findings of Fact for **Variations:** Pages 11-12

FINDINGS OF FACT FOR SITE PLANS

Both the Plan Commission and Village Board must decide if the requested Site Plan meets the standards established by the Village of Bartlett Zoning Ordinance.

The Plan Commission shall make findings based upon evidence presented on the following standards: (Please respond to each of these standards in writing below as it relates to your case. It is important that you write legibly or type your responses as this application will be included with the staff report for the Plan Commission and Village Board to review.)

1. The proposed use is a permitted use in the district in which the property is located.

The property is located in Unincorporated DuPage County. The proposed use fits within Village of Bartlett's comprehensive plan for the property.

2. The proposed arrangement of buildings, off-street parking, access, lighting, landscaping, and drainage is compatible with adjacent land uses.

The proposed development adjoins and is directly across Sutton Road from similarly zoned properties within the Village of Bartlett. The site plan, lighting, landscaping and drainage are designed to have minimum impact upon adjacent land uses. The 21' setback variance for the canopy from 50' to 39' and the 6' south setback variance for the carwash from 20' to 14' are compatible with neighboring setbacks for the BP c-store and the Walgreen's.

3. The vehicular ingress and egress to and from the site and circulation within the site provides for safe, efficient and convenient movement of traffic not only within the site but on adjacent roadways as well.

The access is designed to integrate with IDOT improvements and shall meet IDOT requirements. Traffic circulation within the site and on adjacent roadways is safe, and provides efficient and convenient movement of traffic.

4.	The site plan	provides for	the safe	movement of pedestrians	within the site.
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The site plan provides walkways and visibility for safe customer foot traffic within the site.

5. There is sufficient mixture of grass, trees and shrubs within the interior and perimeter (including public right-of-way) of the site so that the proposed development will be in harmony with adjacent land uses and will provide a pleasing appearance to the public. Any part of the site plan area not used for buildings, structures, parking or accessways shall be landscaped with a mixture of grass, trees and shrubs. (All landscape improvements shall be in compliance with Chapter 10-11A, Landscape Requirements)

Landscaping on the site meets and exceeds the Village's landscape requirements with the exception where we are asking to reduce the number of trees along the property frontage from 9 to 5. We believe that the unique nature of our business supports our request for this variance. 10-11A-4.D.1.b, The request for a 10' interior parkway variance is caused by the design features along the the west property line due to grading and setbacks from adjoining residences. 10-11A-4.D.1. We will add planters in lieu of foundation plantings.

6. All outdoor storage areas are screened and are in accordance with standards specified by this Ordinance.

There are no outdoor storage areas. The Trash Dumpster Enclosure is screened in accordance with the Village's regulations.

FINDINGS OF FACT FOR PLANNED UNIT DEVELOPMENTS

Both the Plan Commission and Village Board must decide if the requested Planned Unit Development meets the standards established by the Village of Bartlett Zoning Ordinance.

The Plan Commission shall make findings based upon evidence presented on the following standards: (Please respond to each of these standards in writing below as it relates to your case. It is important that you write legibly or type your responses as this application will be included with the staff report for the Plan Commission and Village Board to review.)

1. The proposed Planned Unit Development is desirable to provide a mix of uses which are in the interest of public convenience and will contribute to the general welfare of the community.

2. The Planned Unit Development will not under the circumstances of the particular case be detrimental to the health, safety, morals, or general welfare of persons residing or working in the vicinity or be injurious to property value or improvement in the vicinity.

3. The Planned Unit Development shall conform to the regulations and conditions specified in the Title for such use and with the stipulation and conditions made a part of the authorization granted by the Village Board of Trustees.

4.	The proposed uses conform to the Comprehensive Plan and the general planning policies of the Village for this parcel.
5.	Each of the proposed uses is a permitted or special use in the district or districts in which the Planned Unit Development would be located.
6.	The Planned Unit Development is designed, located and proposed to be operated and maintained so that the public health, safety and welfare will not be endangered or detrimentally affected.
7.	It shall not substantially lessen or impede the suitability for permitted use and development of, or be injurious to the use and enjoyment of, or substantially diminish or impair the value of, or be incompatible with, other property in the immediate vicinity.
	±

8.	Impact donations shall be paid to the Village in accordance with all applicable Village ordinance in effect at the time of approval.
9.	The plans provide adequate utilities, drainage and other necessary facilities.
10.	. The plans provide adequate parking and ingress and egress and are so designed as to minimiz traffic congestion and hazards in the public streets.
11.	The plans have adequate site area, which area may be greater than the minimum in the district in which the proposed site is located, and other buffering features to protect uses within the development and on surrounding properties.
	*

	9		

FINDINGS OF FACT FOR SPECIAL USES

Both the Plan Commission and Village Board must decide if the requested Special Use meets the standards established by the Village of Bartlett Zoning Ordinance.

The Plan Commission shall make findings based upon evidence presented on the following standards: (Please respond to each of these standards in writing below as it relates to your case. It is important that you write legibly or type your responses as this application will be included with the staff report for the Plan Commission and Village Board to review.)

1. That the proposed use at that particular location requested is necessary or desirable to provide a service or a facility which is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community.

The proposed use will provide a modern convenience store, associated ancillary use car wash, and retail sales of motor fuel on a main arterial in the community which is currently being upgraded by IDOT. This activity reflects the increasing prominence of this area as as a retail center.

2. That such use will not under the circumstances of the particular case be detrimental to the health, safety, morals, or general welfare of persons residing or working in the vicinity or be injurious to property value or improvement in the vicinity.

The proposed Special Uses shall not be detrimental nor will they endanger the public health, safety, morals, or general welfare, nor impair the property values in the vicinity.

3. That the special use shall conform to the regulations and conditions specified in this Title for such use and with the stipulation and conditions made a part of the authorization granted by the Village Board of Trustees.

The proposed Special Use shall conform to the regulations and conditions specified for such uses.

ACKNOWLEDGEMENT

I understand that by signing this form, that the property in question may be visited by village staff and Board/Commission members throughout the petition process and that the petitioner listed above will be the primary contact for all correspondence issued by the village.

I certify that the information and exhibits submitted are true and correct to the best of my knowledge and that I am to file this application and act on behalf of the above signatures.

Any late, incomplete or non-conforming application submittal will not be processed until Al materials and fees have been submitted.
SIGNATURE OF PETITIONER: Work and M. Marken
PRINT NAME: Richard J. McMahon attorney in funt
DATE: 4 June 2018
DAIL.
REIMBURSEMENT OF CONSULTANT FEES AGREEMENT
all necessary and reasonable expenses incurred by the Village for review and processing of application. Further, the undersigned acknowledges that he/she understands that these expensivil be billed on an ongoing basis as they are incurred and will be due within thirty days. It reviews of the petition will be discontinued if the expenses have not been paid within that period Such expenses may include, but are not limited to: attorney's fees, engineer fees, public advertisities, and recording fees. Please complete the information below and sign.
NAME OF PERSON TO BE BILLED: Buck's Inc. c/o Richard McMahon
ADDRESS:
PHONE NUMBER:
EMAIL:
SIGNATURE: Richard M'Mehn, attorney-in-ful
DATE: 4 June 2018

Village of Bartlett Development Committee
228 South Main Street
Bartlett, Illinois 60103

To Whom It May Concern;

This letter serves as authorization for Buck's Inc. to apply for rezoning and annexation of Lot 9 in Williamsburg Woods Subdivision, DuPage County, Illinois (P.I.N. 01-04-401-027) from R-3 to B-3 Planned Unit Development with a Special Use for an automobile service station, convenience store, and car wash together with any other ancillary requirements needed by Buck's Inc to compliment such uses.

By: The Harry Kulubis Estate Trust Dated December 1, 1988 as Amended

Harry Kulubis Date
Trustee

Village of Bartlett Development Committee

228 South Main Street

Bartlett, Illinois 60103

To Whom It May Concern;

This letter serves as authorization for Buck's Inc. to apply for rezoning and annexation of Lot 8 in Williamsburg Woods Subdivision, DuPage County, Illinois, (P.I.N. 01-040-401-021) from R-3 to B-3 1 Planned Unit Development with a Special Use for an automobile service station, convenience store, and car wash together with any other ancillary requirements needed by Buck's Inc to compliment such uses.

By: Beata Burczyc

Beata Burczyc

Date

4. ano

1/5455

ZONING/LOCATION MAP

Bucky's

Case #18-06 - Annexation, Rezoning, Special Uses, Variations, Site Plan & Plat of Consolidation



North 2

PLAT OF ANNEXATION

TO THE VILLAGE OF BARTLETT, DuPAGE COUNTY, ILLINOIS

EING

ACCORDING TO COMPENNATION CASE 92ED-3, THENCE SOUTH T DESPREES A MINDTESS 65 NETURES AS EXECUTIONS AS A SAID WEST LINE A DISTANCE OF 360.00 FT. TO THE SOUTH LINE OF SAID LOT 9; THENCE OF NORTH 95 DEGREES 5 MINUTES 14 SECONDS WEST ON THE SOUTH LINE OF SAID LOT 9 A DISTANCE OF 285.94 FT, TO THE POINT O BEGINNING, ALL IN DUPAGE COUNTY, ILLING. OCT 19 2018

VILLAGE OF BARTLET

LOT EIGHT AND NINE (EXCEPT THE EAST 10.00 FEET THEREOF, TAKEN IN CONDEMNATION CASE 92ED-4) IN WILLIAMSBURG WOODS, BEING A SUBDIVISION IN THE SOUTHEAST QUARTER OF SECTION FOUR, TOWNSHIP FORTY NORTH, RANGE NINE, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 28, 1966 AS DOCUMENT NUMBER R66-46292, IN THE TOWNSHIP OF WAYNE, IN DUPAGE COUNTY, ILLINOIS. WILLIAM E. HUMBRACHT'S SUBDIVISION ANNEXATION CERTIFICATE CORDED FERRIARY 19, 1958 AS DOCUMENT HUMBER ROS-5211 Lat 3 STATE OF ILLINOIS Lot 1 Lott SS COUNTY OF DUPAGE Unincorporated Area THIS IS TO CERTIFY THAT THE PLAT HEREON DRAWN IS A CORRECT REPRESENTATION OF THE TERRITORY ANNEXED TO THE VILLAGE OF BARTLETT, COOK, DUPAGE AND KANE COUNTIES, ILLINOIS BY Unincorporated Area -WILLIAMSBURG WOODS SUBDIVISION RECORDED NOVEMBER 28, 1966 AS DOCUMENT NUMBER R68-46292 APPROVED ON DATED AT BARTLETT, ILLINOIS THIS . DAY OF 188.46 171.38 VILLAGE PRESIDENT N 02'-46'-05" N N 05-45-51 E Record = 169.46 Record = 188.16 ATTEST VILLAGE CLERK EXISTING LIMITS OF THE VILLAGE OF BARTLETT OWNERS CERTIFICATE COUNTY OF DUPAGE BARTLETT COMMONS SUBDIVISION THIS IS TO CERTIFY THAT BUCHANAN ENERGY (N), LLC, IS THE OWNER OF RECORD OF THE HEREON DESCRIBED PROPERTY AND THAT AS SUCH OWNER HEREBY CONSENTS TO THE ANNEXATION OF SAID PROPERTY TO THE VILLAGE OF BARTLETT, DuPAGE COUNTY, ILLINOIS. RECORDED SEPTEMBER 4, 1994 AS DOCUMENT NUMBER R1994-WILLIAMSBURG WOODS SUBDIVISION Lol 2 RECORDED NOVEMBER 28, 1966 AS DOCUMENT NUMBER R66-46292 Lot Z 250. 94 HEREBY ANNEXED 98 STEVE BLICHANA TITLE: PRESIDENT OF MANAGING MEMBER CHICAGO SPE (N), INC. Unincorporated Area NOTARY CERTIFICATE STATE OF NEBRASKA S.S. BEFORE ME, A NOTARY PUBLIC QUALIFIED FOR SAID COUNTY AND STATE, PERSONALLY CAME STEVE BUCHANAN, PRESIDENT OF MANAGING MEMBER CHICAGO SPÉ (N), LLC, KNOWN TO ME TO BE THE IDENTICAL PERSON WHO SIGNED THE FOREGOING INSTRUMENT AND ACKNOWLEDGE THE EXECUTION THEREOF TO BE HIS VOLUNTARY ACT AND DEED ON BEHALF OF BUCHANAN ENERGY (N), LLC. WITNESS MY HAND AND NOTARY SEAL, ON THIS 360.00 DOSTING LIMITS OF THE VILLAGE OF BARTLETT EXISTING LIMITS OF THE VILLAGE OF BARTLETT ROUTE 59 ILLINOIS NOTARY PURI IC (ALSO KNOWN AS SUTTON ROAD) NORWOOD State of the METES AND BOUNDS LEGAL DESCRIPTION AREA SCHEDULE LANE HAT : OT FIGHT AND NINE (EXCEPT THE EAST 10.00 FEET THEREOF, TAKEN IN CONDEMNATION CASE 92ED-4) If SITE LOCADON MILLIMINSURY GOODS, BEING A SUBDIVISION IN THE SOUTHEAST OWNERED IN CONCERNMENT CASE SECURITY NORTH, RANGE NINE, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 28, 1966 AS DOCUMENT NUMBER R66-46292, IN THE TOWNSHIP OF WAYNE, BOUNDED AND ARFA SQUARE FEET ACRES PIN NO.: 01 - 04 - 401 - 010 47969 1,101 01 - 04 - 401 - 021 DESCRIBEDAS FOLLOWS.

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 9; THENCE NORTH 2 DEGREES 46 MINUTES 05 SECONDS WEST ON THE WEST LINE OF SAID LOT 9 A DISTANCE OF 188,46 FT, TO THE SOUTHEAST CORNER OF SAID LOT 7 A THENCE NORTH 5 DEGREES 45 MINUTES 31 SECONDS EAST ON THE WEST LINE OF SAID LOT 8 A DISTANCE OF 171,38 FT, TO THE NORTH-WEST CORNER OF SAID LOT 8; THENCE SOUTH 85 DEGREES 44 MINUTES 45 SECONDS EAST ON THE WORTH LINE OF SAID LOT 8 A DISTANCE OF 250 98 FT, TO THE WEST LINE OF ILLINOIS ROUTE 59 ACCORDING TO CONDENNATION CASE 92ED-4; THENCE SOUTH 1 DEGREES 4 MINUTES 35 SECONDS LAST ON SUBMITTED BY/RETURN TO: VILLAGE OF BARTLETT 228 S. MAIN STREET = THIRTY FEET

METRIC SYSTEM

RECORDER'S CERTIFICATE

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS)

SS
COUNTY OF DUPAGE)

THIS IS TO CERTIFY THAT I PAUL N. MARCHESE, AN ILLINOIS REGISTERED PROFESSIONAL LAND SURVEYOR, HAVE PLATTED FROM THE RECORD PROPERTY DESCRIBED AS FOLLOWS:

LOT EIGHT AND NINE (EXCEPT THE EAST 10,00 FEET THEREOF, TAKEN IN CONDEMNATION CASE 92ED-4) IN WILLIAMSBURG WOODS, BEING A SUBDIVISION IN THE SOUTHEAST QUARTER OF SECTION FOUR, TOWNSHIP FORTY NORTH, RANGE NINE, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 28, 1956 AS DOCUMENT NUMBER R66-46292, IN THE TOWNSHIP OF WAYNE, IN DUPAGE COUNTY, ILLINOIS.

AS SHOWN BY THE ANNEXED PLAT FOR THE PURPOSES OF ANNEXATION TO THE VILLAGE OF BARTLETT, ILLINOIS, AND THE ANNEXED PLAT ACCURATELY SHOWS SUCH TERRITORY TO BE ANNEXED, ALL DISTANCES ARE SHOWN IN FEET AND DECIMALS THEREOF, SCALE OF MAP IS 30 FEET TO ONE INCH,

GIVEN UNDER MY HAND AND SEAL AT ROSELLE, ILLINOIS, THIS 12TH DAY OF JULY, 2018

PAUL N. MARCHESE
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-002461
IO MONACO DRIVE
ROSELLE, ILLINOIS 60172
(FOUN BOLLSE)

MY CURRENT LICENSE EXPINES ON NOVEMBER 30, 2018

SHEET: 1 OF 1

ADDRESS: ILLINOIS ROUTE 59 & NORWOOD LANE

SCALE: ONE INCH = THIRTY FEET

ORDER NO.: 16-16108

BARTLETT, IL 60103 (630) 837-0800 ORDERED BY: BUCHANAN ENERGY (N) LLC.

COMPARE ALL POINT BEFORE BUILDING BY SAME AND AT ONCE REPORT ANY OFFERENCE, FOR BUILDING LINE AND OTHER RESTRICTIONS NOT SHOWN HEREON REFER TO YOUR CONTRACT, DEED, TITLE INSURANCE POLICY AND ZONING ORDINANCE, BASIS OF BEARINGS SHOWN HEREON HAVE BEEN ASSUMED, MONUMENTS OR WITNESS POINTS WERE NOT SET AT THE CLIENT'S REQUEST.

6/25/18	Village Review Comments Added	3
5/1/18	Village Review Comments Added	2
12/14/17	Original Draft Prepared	1
DATE	REVISION	MARK

REVISION SCHEDULE

PLAT OF ANNEXATION
MARCHESE AND SONS, Inc.

land - marine - construction surveys

10 Monaco Drive Phone : (530) 894-5869
Roselle, Illinois 60172 FAX : (630) 894-8869

AND DESCRIPTION OF A ROOM PORT OF THE PROPERTY AND SORE OF

ILLINOIS DEPARTMENT OF TRANSPORTATION CERTIFICATE

THIS THIS PLAT HAS BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF THIS HIS PLAT HAS BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION WITH RESPECT TO ROADWAY ACCESS PURSUANT OF \$2 OF "AN ACT TO REVISE THE LAW IN RELATION TO PLATS," AS AMENDED. A PLAN THAT MEETS THE REQUIREMENTS CONTAINED IN THE DEPARTMENTS "POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS" WILL, BE REQUIRED BY THE DEPARTMENT.

Anthony J. Quigley, P.E. Region One Engineer

I FURTHER CERTIFY THAT I HAVE RECEIVED ALL STATUTORY FEES IN CONNECTION WITH THE CONSOLIDATED PLAT.

GIVEN UNDER MY HAND AND SEAL OF THE COUNTY CLERK AT WHEATON, ILLINOIS $% \left\{ 1,2,\ldots,N\right\} =0$

COUNTY CLERK

O'CLOCK ____M

ONE INCH = THIRTY FEET

PLAT OF CONSOLIDATION MARCHESE AND SONS, Inc.

REVISION SCHEDULE

Original Draft Prepared

12/14/17

PIN NO.: 01 - 04 - 401 - 010

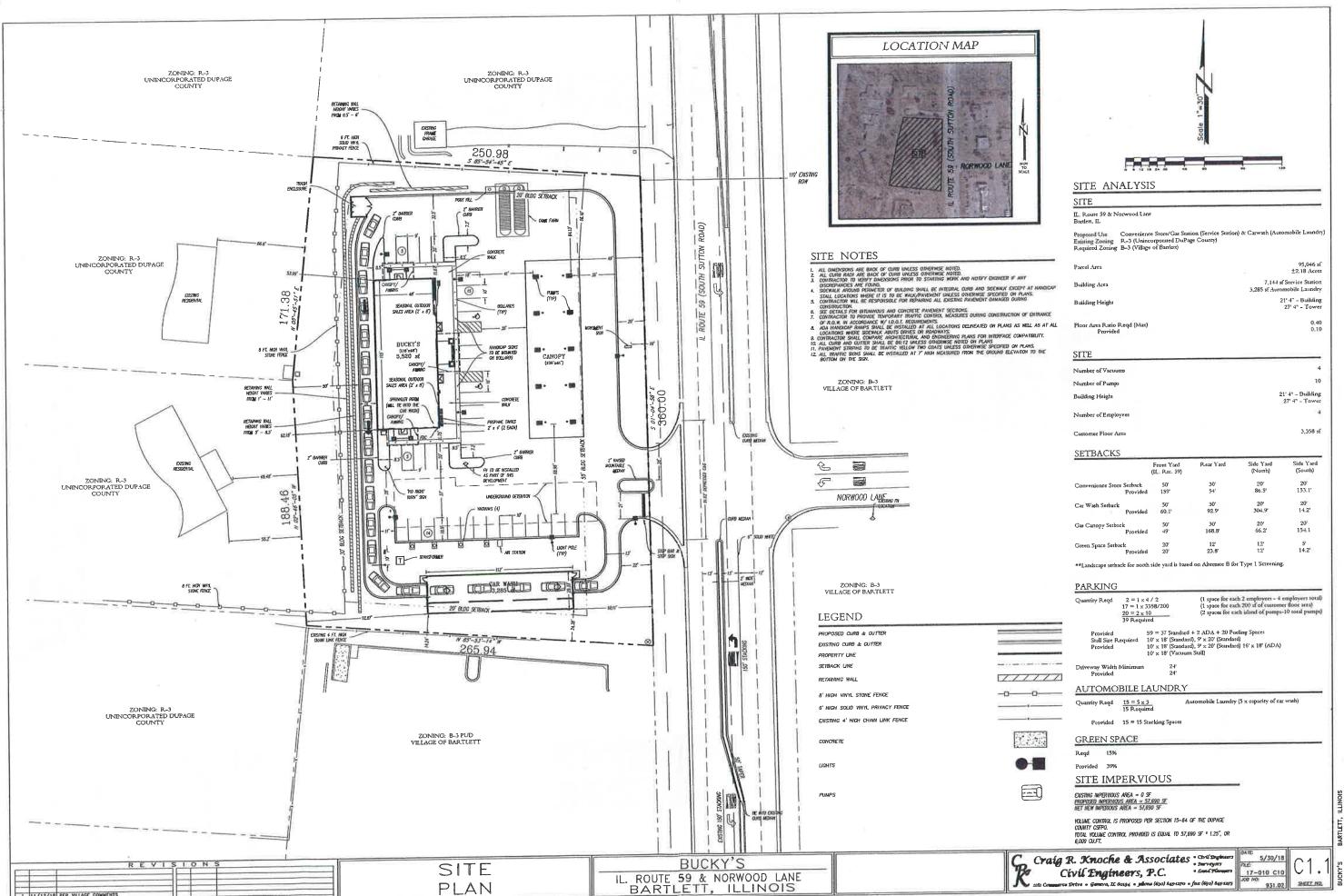
SUBMITTED BY / RETURN TO:

(630) 837-0800

01 - 04 - 401 - 021

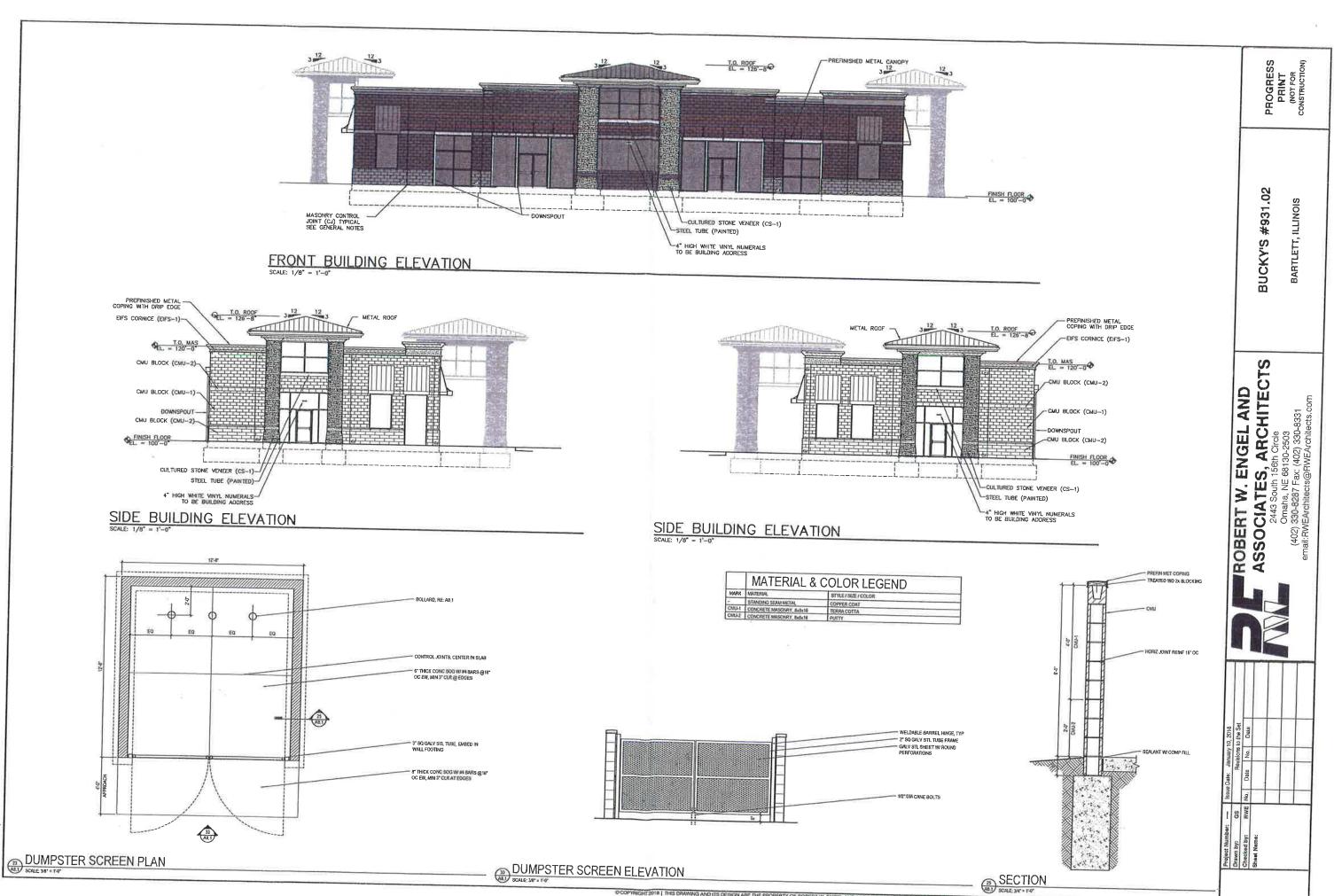
land - marine - construction surveys 10 Monaco Drive Roselle, Illinois 60172

MARK

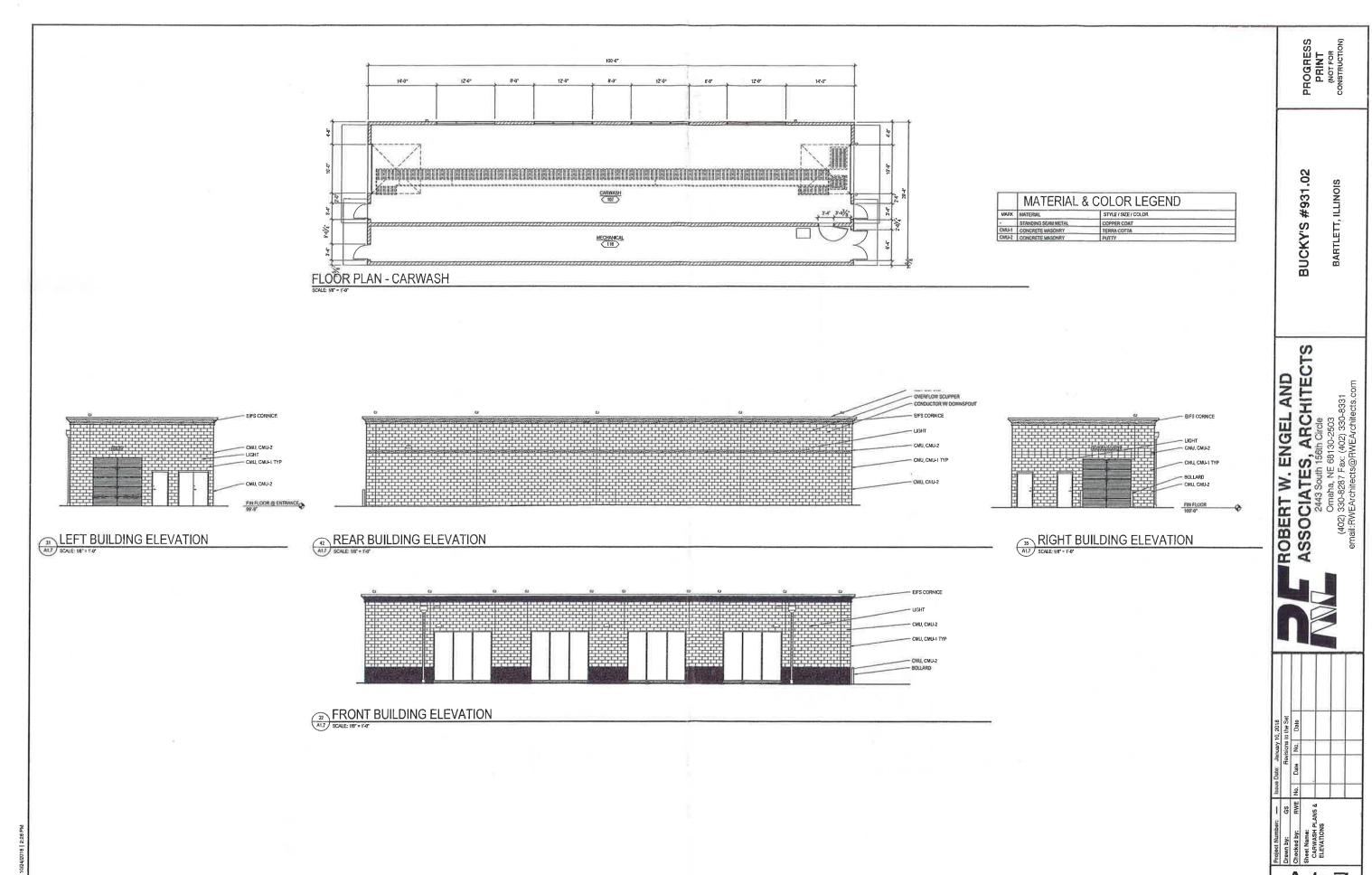


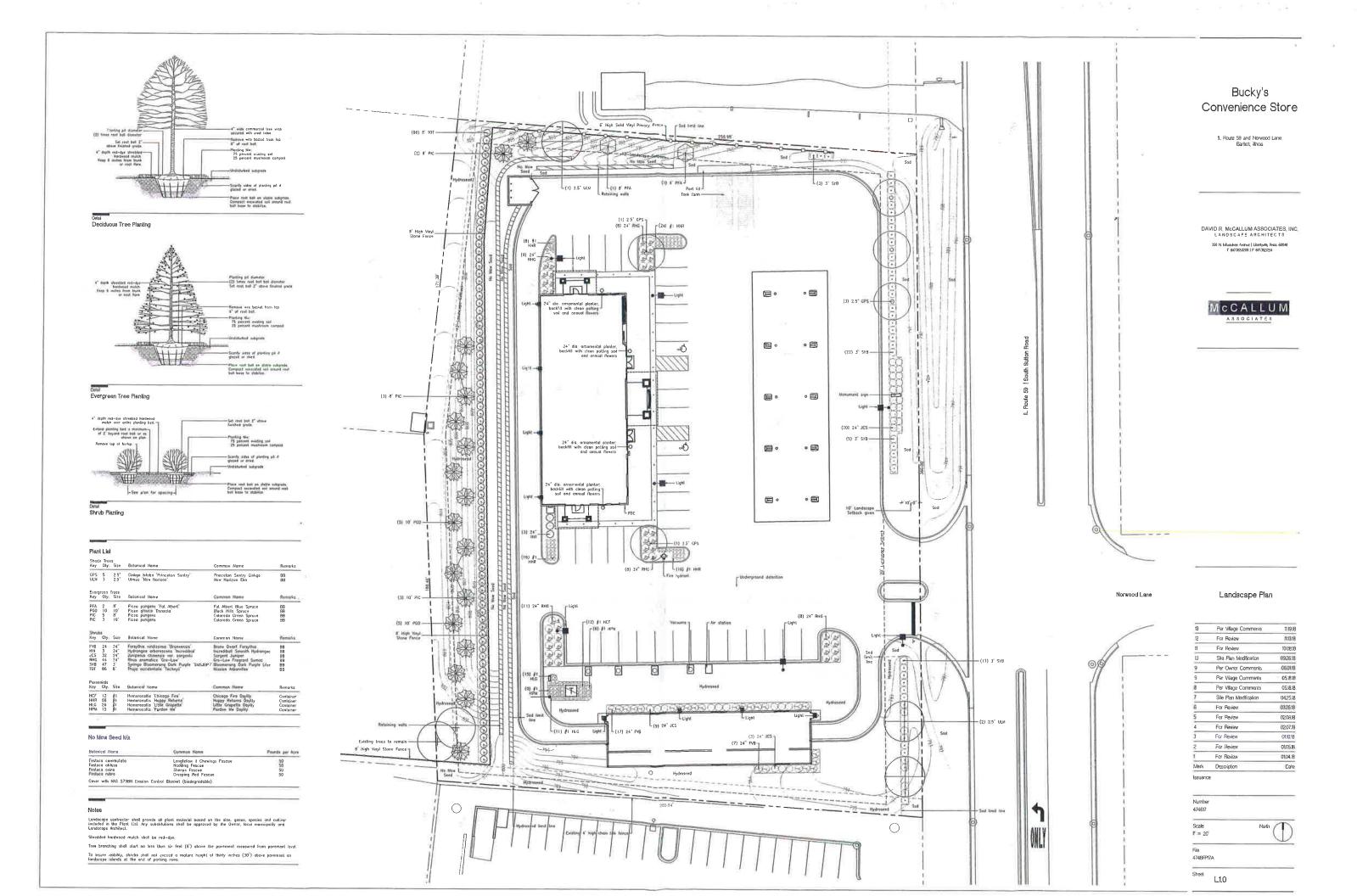
PLAN

1 11/12/18 PER VILLAGE COMMENT



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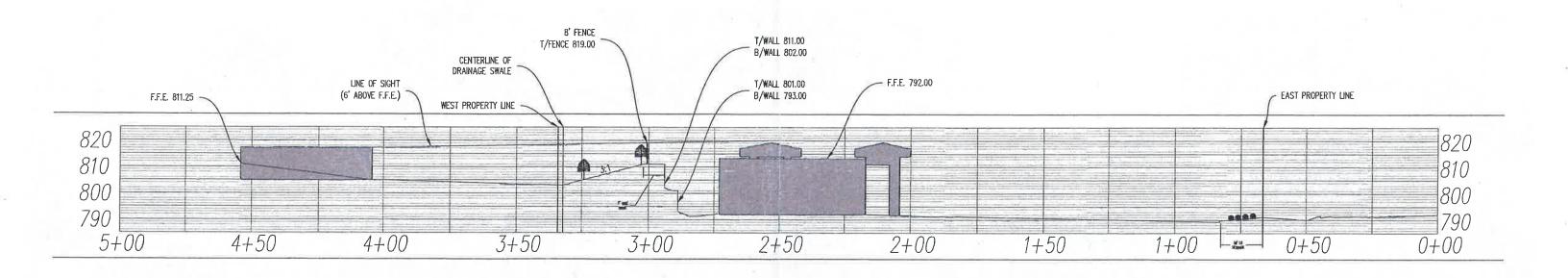


IL-59 & Norwood, Bartlett



OCT 19 2018

VILLAGE OF BARTLETT





Specialists in Hearing and Acoustics

PO Box 218, Palatine, Illinois 60078

Office: 847-359-1068 • Fax: 847-359-1207

Website: www.AcousticAssociates.com

Tom Thunder, AuD, FAAA, INCE – *Principal*Greg Andorka, BSEE – *Senior Field Engineer*Dave Harmon – *Field Technician*

Sound Evaluation for the Proposed Car Wash in Bartlett on Route 59

January 22, 2018

Acoustic Associates conducted an analysis to examine the impact of noise from the proposed car wash on Route 59 just west of Norwood Lane in Bartlett. To accomplish this, we used noise emissions data from a car wash currently operated by the petitioner in Vernon Hills. At that location, measurements were made at the exit, the entrance, and at different angles, in order to project accurate sound levels at various locations surrounding the new car wash. In addition, we inspected the Bartlett site to examine its topography and conducted ambient noise monitoring to document the current background noise levels that exist near the residents adjacent to the site.

Based on the blower noise emissions data and allowing for the reduction in noise due to directivity, distance, and the retention wall, we conclude that the noise from the car wash will meet the Illinois State noise code. Moreover, there would be no noise impact from the car wash because the projected sound levels are lower than the median ambient noise levels recorded at the site.

Ambient Noise Levels

To assess the ambient noise at this site, we set up professional grade audio equipment to record the noise from about 12:00 PM on November 29 to 11:00 AM on the next day. We located this equipment at the locations marked on the aerial photo in Figure 1. The upper location was at the northwest corner of the site.



marked on the aerial photo in Figure 1 - Aerial view showing the two locations used to locate the Figure 1. The upper location was audio recording equipment to obtain ambient rose audio recording equipment rose audio r

OCT 19 2018

VILLAGE OF BARTLETT It was near the residence on Lot 3. The lower location was at the southwest corner of the site. It was near the residence on Lot 1 3. The primary noise at these recording locations was vehicle traffic on Route 59, a primary, 4-lane highway. Secondary noise originated from traffic to the west on Sayer Road, a secondary, 2-lane road.

Ambient noise refers to the existing, all-encompassing sound at a given place in a community. It is a composite of sounds from many sources near and far.

The two recordings in the field were analyzed in our lab to determine the sound levels at 1-second intervals. These levels are shown in **Figure 2** for the north monitoring location and **Figure 3** for the south monitoring location. In both figures, the thin, blue line shows the variation in the **A-weighted sound level** at 1-second intervals. The high peaks in the curve were typically from

motorcycles, trucks, and airplane flyovers.

The thick, red line is the median sound level, which reflects the trend in the ambient noise. The median levels are the highest in the late afternoon and early morning hours, specifically 63 dB at the south location and 67 dB at the north location. After the evening rush hour, the ambient noise tapers off - but does not drop significantly (i.e. by 5 dB) until after 10 PM.

The A-weighted sound level is the standard metric to measure sound and is expressed in decibels (dB). It mimics how we hear because it is a filter that diminishes the low frequencies.

Projected Noise Levels

Based on the data obtained at the Vernon Hills car wash, we expect a sound level of 83 dB 50 feet from the exit. The opening that faces the residents is the entrance and is 7 dB lower than the exit. Also, as you move to the side of the exit or the entrance, the sound level drops off - by as much as 11 dB at an angle of 90° from the opening. A drop of this amount means the sound is half as loud.

There are several residential lots to the west and the north of the car wash property. Two representative homes close to the carwash property are on Lots 1 and 3. Using the Vernon Hills data, we projected the noise levels to these properties based on the standard attenuation for sound over distance (i.e., 6 dB per doubling of distance) and the calculated effect of the retaining wall (which acts as a large noise barrier). The projected level is below the State of Illinois daytime limit of 55 dBA for noise radiated from commercial property (Class B) to residential property (Class A).

A potential noise impact could occur if the carwash noise levels exceed the median ambient noise for a sufficiently long duration. To visualize the relationship between the projected sound level and the ambient noise levels, we plotted the car wash blower noise level and the vacuum level on the ambient noise graphs of **Figure 2** and **Figure 3**. As seen in these charts, the car wash noise levels will be well below the median ambient noise level at the site. Therefore, it can be concluded that the operation of this facility will pose no impact during the operation hours of 6:00 AM to 10:00 PM.

Submitted by,

Thomas Thunder, AuD, FAAA, INCE Bd. Cert.

Principal Audiologist and Acoustical Specialist

Adjunct Faculty - Northern Illinois University, Rush University, Salus University

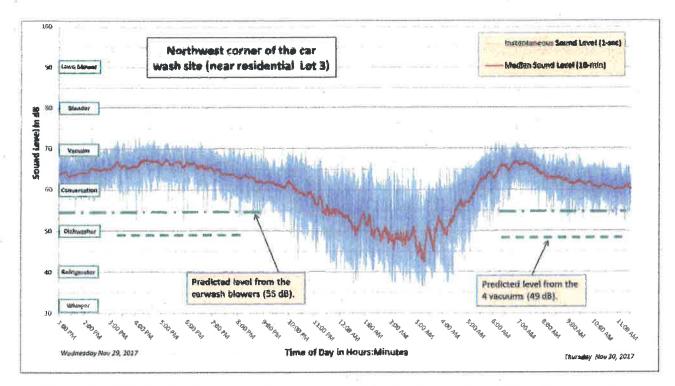


Figure 2 – Plot showing the expected car wash sound levels at the residential location on Lot 3 compared to the ambient noise level measured near this location (i.e., at the northwest corner of the car wash property).

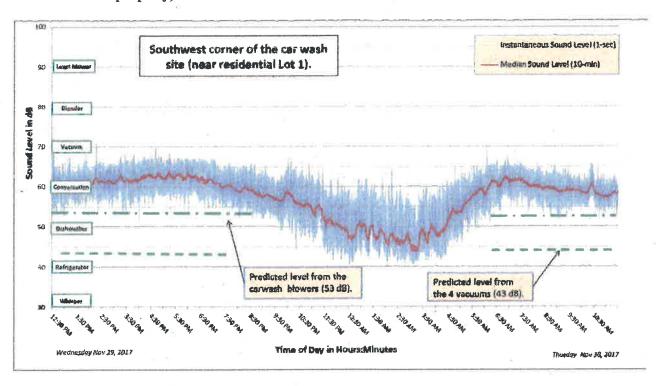


Figure 3 - Plot showing the expected car wash sound levels at the residential location on Lot 1 compared to the ambient noise levels measured near this lot (i.e., at the southwest corner of the car wash property).

2351 South Dirksen Parkway • Springfield, IL 62703
Phone: 217.670.0563 • Fax: 217.245.5398

www.quiggengineering.com

Memorandum

To:

Richard McMahon

Buchanan Energy

From:

Michael Vail. P.E.

Operations Manager Quigg Engineering Inc.

Date:

July 25, 2018

Subject:

Bucky's Gas Station

IL 59 and Norwood Lane

Bartlett, Illinois

This memorandum summarizes a traffic study conducted for a proposed Bucky's Gas Station with a convenience store and car wash located on the west side of IL 59 (Sutton Road) at Norwood Lane. The purpose of the study was to observe existing traffic patterns in the area of the proposed development site, estimate the traffic generated by the proposed development, and determine if a traffic signal would be warranted for the intersection at the proposed development entrance on IL 59.

Existing Conditions

The proposed development site is located in Bartlett, IL on the west side of IL 59 (Sutton Road) at Norwood Lane and will have 10 fuel dispensers, a 7,144 square foot convenience store, and a car wash. Proposed access to the development will be provided through one access drive on IL 59 at the intersection with Norwood Lane. The existing intersection of IL 59 at Norwood Lane is a three-leg intersection, and the proposed development would convert the intersection to a four-leg intersection. The surrounding land use is primarily commercial, with office, retail, and restaurant uses to the south and east of the site. There are some residential areas to the north and east of the proposed site as well. West of the site, the land use is primarily residential developments.

Illinois 59 is a north-south roadway classified as an Other Principal Arterial and is also designated as a Strategic Regional Arterial (SRA) route. At the unsignalized intersection with Norwood Lane, IL 59 has two through lanes in each direction and a southbound left turn lane. The posted speed limit on IL 59 is 45 mph. Norwood Lane is an east-west roadway classified as a Local Road and includes one through lane in each direction with stop-controlled left and right turn lanes at the intersection with IL 59. The posted speed limit on Norwood Lane is 25 mph.

Traffic counts were performed for a 24-hour period on Wednesday, June 13, 2018 at the intersection of IL 59 and Norwood Lane. These counts indicated the AM peak hour occurred between 7:00 a.m. and 8:00 a.m. and the PM peak hour occurred between 4:45 p.m. and 5:45 p.m. The existing peak hour traffic volumes are shown in Figure 1. See Appendix for full 24-hour traffic count volumes.

RECEIVED COMMUNITY DEVELOPMENT

OCT 1 9 2018

VILLAGE OF BARTLETT

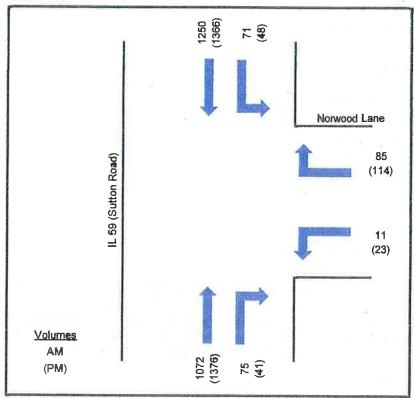


Figure 1: Peak Hour - Existing (2018) Traffic Volumes

Traffic Generation Summary

Trip Generation

The additional traffic to be generated by the proposed development was estimated using the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition Land Use: 960 – Super Convenience Market/Gas Station. Based on 20 fueling positions (10 fuel dispensers) and using the charts for the AM and PM Peak Hours of Generator (see Appendix), it was determined the site would generate 426 trips in the AM peak hour and 405 trips in the PM peak hour. It was assumed that, based on the ITE Trip Generation Manual, the directional distribution for the site would be 50% entering and 50% exiting traffic. Table 1 shows the total site-generated traffic for the AM and PM peak hours.

Fueling Directional Peak Hour (DHV) **TOTAL** Average Rate Entering Exiting **Positions** Distributional AM 426 21.30 20 50% 213 213 PM 405 20.25 20 50% 204 204

Table 1: Site-Generated Traffic

Trip Distribution

The trip distribution for the proposed gas station was derived using Tables E.37 and E.38 in the ITE Trip Generation Handbook, 3rd Edition (see **Appendix**). The tables show average pass-by trip percentages of 62% and 56% for the AM and PM peak periods, respectively for Land Use Code 945 — Gasoline/Service Station with Convenience Market. The directional distribution of trips entering the proposed development

was derived from the distribution of the northbound and southbound traffic on IL 59 obtained from the 24-hour traffic counts. For the direct trips (38% of AM, 44% of PM site-generated trips), the exiting trips were assumed to return to the originated location while the pass-by trips were assumed to continue along the original path. Based on the traffic counts, in the AM peak hour, SB traffic accounted for 51.5%, NB traffic accounted for 44.7%, and WB traffic accounted for 3.7% of total traffic volumes at the intersection. In the PM peak hour, SB traffic accounted for 47.6%, NB traffic accounted for 47.7% and WB traffic accounted for 4.6% of total traffic volumes at the intersection. **Table 2** shows the directional distribution of the direct trip volumes and **Figure 2** shows the peak hour volume adjustment based on the direct trip volumes. **Table 3** shows the directional distribution of the pass-by trip volumes and **Figure 3** shows the peak hour volume adjustment based on the site-generated direct and pass-by trips for the proposed development.

Table 2: Direct Trip Volume Directional Distribution

T	rip Generation - D	irect Trip Volume Adjus	tment (38% AM, 44% P	M)
		IL 59 (Sut	ton Road)	Norwood Lane
Peak Hour (DHV)	Entering Trips	RT (SB) - (51.5%)	LT (NB) - (44.7%)	TH (WB) - (3.7%)
AM	81	42	36	3
	Exiting Trips	LT (EB) - (51.5%)	RT (EB) - (44.7%)	TH (EB) - (3.7%)
AM	81	42	36	3
	Entering Trips	RT (SB) - (47.6%)	LT (NB) - (47.7%)	TH (WB) - (4.6%)
PM	90	43	43	4
	Exiting Trips	LT (EB) - (47.6%)	RT (EB) - (47.7%)	TH (EB) - (4.6%)
PM	90	43	43	4

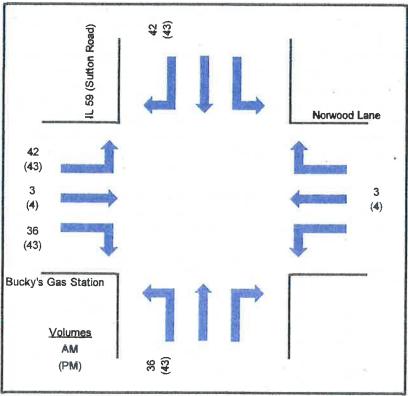


Figure 2: Peak Hour Site-Generated Direct Trip Volume Adjustment

Table 3: Pass-By Trip Volume Directional Distribution

		IL	59 (Sut	Norwood Lane					
Peak Hour (DHV)	Entering Trips	RT (SB) - (51			NB) - (44.7%)	TH (WB) - (3.7%)			
AM	132	68			59	5			
	Exiting Trips	RT (EB) - (48.8%)		EB) - 7%)	LT (EB) - (41.8%)	RT (EB) - (0.4%)	LT (EB) (3.3%)		
AM	132	64	8	8	55	1	4		
	Entering Trips	RT (SB) - (47	.6%)	LT (N	NB) - (47.7%)	TH (WB)	- (4.6%)		
PM	114	54			54		5		
	Exiting Trips	RT (EB) - (46.0%)		EB) - 0%)	LT (EB) - (46.4%)	RT (EB) - (0.8%)	LT (EB) - (3.8%)		
PM	114	52	3	3	53	1	5		

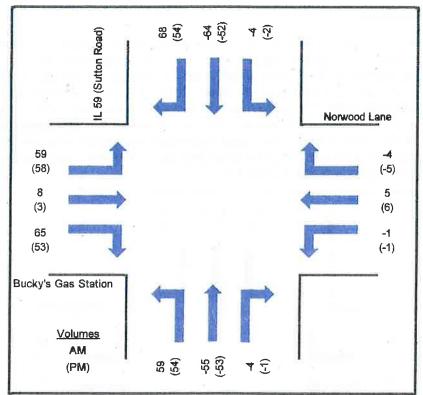


Figure 3: Peak Hour Site-Generated Pass-By Trip Volume Adjustment

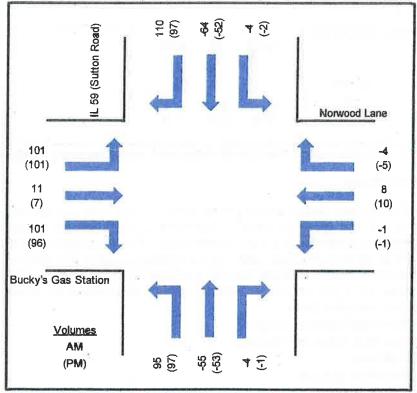


Figure 4: Peak Hour Total Site-Generated Traffic Adjustment

Projected Traffic Volumes

The total traffic volumes for the intersection are a combination of the existing traffic volumes with projected growth to the construction year and the proposed development generated traffic volumes. Construction of the gas station is proposed for 2019. Data provided by the Chicago Metropolitan Agency for Planning (CMAP) shows a growth rate for IL 59 at Norwood Lane of 0.6% per year, on average. A copy of the CMAP letter is included in the **Appendix**. The growth rate was applied to the existing (2018) traffic volumes at the intersection of IL 59 and Norwood Lane, shown in Figure 1, to obtain the base construction year (2019) volumes without the proposed development. These volumes were then combined with the site-generated traffic volumes, shown in Figure 4, to obtain the total traffic volumes for the construction year (2019). The total traffic volume distribution is shown in Figure 5.

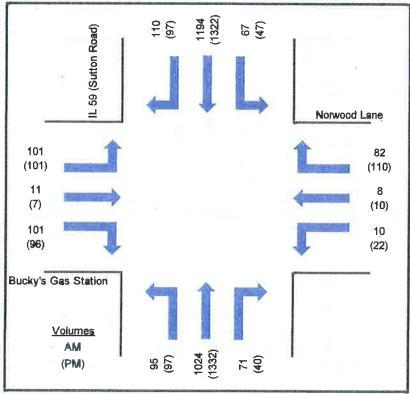


Figure 5: Peak Hour Construction Year (2019) Traffic with Site-Generated Traffic Adjustment

Signal Warrant Analysis

A traffic signal warrant study was performed using the proposed construction year (2019) traffic volumes at the intersection of IL 59 and Norwood Lane to determine if the intersection meets the minimum requirements to warrant the installation of a traffic control signal. The investigation of the need for a traffic control signal includes an analysis of factors related to the existing operation and safety at the intersection and the potential to improve these conditions, and the applicable factors contained in Warrants 1 through 9 as detailed in Chapter 4C of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). The warrants are listed below:

- Warrant 1, Eight-Hour Vehicular Volume
- Warrant 2, Four-Hour Vehicular Volume
- Warrant 3, Peak Hour
- Warrant 4. Pedestrian Volume
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal System

- Warrant 7, Crash Experience
- Warrant 8, Roadway Network
- Warrant 9, Intersection Near a Grade Crossing

Because IL 59 is an SRA Route, the Illinois Department of Transportation (IDOT) does not allow Warrants 2 and 3 to be used for justification of a traffic signal. Additionally, Warrants 4, 5, and 9 were not considered for this study as they do not apply to this intersection due to the lack of presence of pedestrians, school crossings, and rail crossings which are required for each of the warrants, respectively. Warrant 8 was also not applicable for this study as Norwood Lane does not meet the requirements to be considered a major route. Therefore, Warrants 1, 6, and 7 were further considered for this intersection.

Warrant 1 - Eight-Hour Vehicular Volume

Warrant 1 has two conditions which can be applied to an intersection. Condition A is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic signal. Condition B is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. The need for a traffic control signal shall be considered if a study finds that one of the following conditions exist for each of any 8 hours of an average day:

- A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 (MUTCD) exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or
- B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition, the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

According to Section 57-4.04(c) of the IDOT Bureau of Design and Environment (BDE) Manual, for a proposed development, "the 8-hour vehicle volume may be considered as 55% of the projected 30th maximum hour volume." The 30th maximum hour volume is typically considered the design hourly volume (DHV), or the peak hour volume for the intersection based on the traffic count volumes. **Table 4** shows the 8-hour maximum vehicle volumes based on the AM and PM peak hour volumes. These volumes represent the 8th highest hour of traffic during the day based on the DHV, meaning there are 7 other hours throughout the day with higher traffic volumes than the 8th maximum hourly volume. The 8th max hourly volume for the higher volume approach of the minor road (Proposed Development) is 117 vph based on the AM peak hour volumes at the proposed development and the 8th max hourly two-way volume for the major road (IL 59) is 1612 vph based on the PM peak hour volumes.

Table 4: 8-Hour Vehicle Volumes

	AM F	Peak	PM Peak				
Peak Hour - Traffic Volumes	2-Way Volume	1-Approach	2-Way Volume	1-Approach			
(DHV)	Major Road (IL 59)	Minor Road (Proposed Development)	Major Road (IL 59)	Minor Road (Proposed Development)			
Construction Year - 2019 Volumes	2561	213	2935	204			
8th MAX Hourly - 0.55 x (DHV)	1409	117	1614	112			

Warrant 1A cannot be met with the volumes ofraffic for the proposed development. The two-way volumes on the major road (IL 59) meet the minimum volume of 600 vph for the 100 percent column for the major road in Table 4C-1 (see **Appendix**) for 8 hours, but the higher-volume minor-street approach (proposed development) does not meet the minimum volume of 150 vph. Condition B can be met with the volumes of traffic for the proposed development. The two-way volumes on the major road (IL 59) meet the minimum volume of 900 vph for the 100 percent column of Table 4C-1 and the higher-volume minor-street approach (proposed development) meets the minimum volume of 100 vph (per D1 SRA Route Signal Warrant Restrictions). Since only one of the two conditions needs to be met for the warrant to be satisfied, **Warrant 1 is satisfied**.

Warrant 6 - Coordinated Signal System

Warrant 6 states that a traffic control signal should be considered if a study finds that one of the following criteria is met:

- A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning.
- B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.

Additionally, Warrant 6 should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.

The nearest traffic signal to the north of Norwood Lane on IL 59 is approximately 6,000 feet, or 1.14 miles away at the intersection of IL 59 and Bartlett Road. This traffic signal is part of a coordinated traffic signal system that extends north along IL 59 from Bartlett Road to Golf Road.

To the south, the nearest traffic signal is at the intersection of IL 59 at Stearns Road approximately 1,150 feet, or 0.22 miles, away. This traffic signal is part of a different coordinated traffic signal system than the signal at Bartlett Road that extends south to Smith Road. The traffic signals at Bartlett Road and Stearns Road are not coordinated with each other. Illinois 59 and Stearns Road are both designated SRA routes. At the intersection of two major routes, the traffic signal timings are typically split equally between the two routes, which impacts green time available for traffic progression on each route. Traffic traveling southbound on IL 59 forms a platoon at the intersection with Bartlett Road. As the platoon travels further south, the vehicles begin to spread out more over the 7,150 feet between Bartlett Road and Stearns Road. By the time vehicles reach the intersection at Stearns Road, the platoon has dispersed and the likelihood of the platoon making it through the limited green time at Stearns Road decreases. A traffic signal at Norwood Lane would help manage the platoon and maximize the number of vehicles in the platoon clearing the intersection during the limited green time at Stearns Road.

While the warrant states the resultant spacing of traffic control signals should not be less than 1,000 feet, IDOT's BDE Manual states that for suburban SRA routes, "the spacing should not be less than ½ mile (400 m) to an adjacent signal, but ½ mile (800 m) spacing is preferred." The BDE Manual does not have a restriction on the minimum spacing for traffic signals on an urban SRA Route. If a traffic signal were installed at the IL 59 and Norwood Lane intersection, the resultant traffic signal spacing would be approximately 6,000 feet from the signal at Bartlett Road and 1,150 feet from Stearns Road. Both of these distances satisfy the warrant requirement of a minimum 1,000 feet between traffic signals. This spacing would be similar to the spacing of 1,125 feet between the Stearns Road and Apple Valley Drive/Home Depot traffic signal located south of Stearns Road, and the area can be considered urban due to the numerous commercial and residential properties in the area. Therefore, installing a traffic signal at IL 59 and Norwood Lane would be beneficial to providing a progressive operation along IL 59 and Warrant 6 is satisfied.

Warrant 7 - Crash Experience

The conditions for Warrant 7 are intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic signal. The need for a traffic control signal should be considered if a study finds that all of the following criteria are met:

- A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and
- B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and
- C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in Table 4C-1 (see Section 4C.02 in MUTCD), or the vph in both of the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

There have only been thirteen crashes at the intersection in the five years from 2011-2015 based on the most recent available crash data provided by IDOT. Of these thirteen crashes, only five crashes over the five year study period appear to be correctable with the installation of a traffic signal. Copies of the crash data are included in the **Appendix**. Since there were not enough crashes to meet the minimum criteria for this warrant, **Warrant 7** is not satisfied.

Conclusions

The results of the study show that a traffic signal is warranted at the intersection of IL 59 and Norwood Lane. Based on the existing traffic and the proposed site-generated traffic, Warrant 1 — Eight-Hour Vehicular Volume, is satisfied. Additionally, Warrant 6 — Coordinated Signal System, is satisfied based on the benefits that a traffic signal at Norwood Lane would provide to better platoon traffic on IL 59 approaching Stearns Road. Warrant 7 — Crash Experience was not met due to the low number of correctable crashes at the intersection over a five year period (2011-2015). Warrants 2, 3, 4, 5, 8, and 9 were not applicable to the intersection.

Appendix

- Existing Traffic Counts
- ITE Trip Generation Manual Figures
- CMAP Letter
- MUTCD Table 4C-1
- Crash Data (2011-2015)
- Preliminary Site Plan

Dates: 6/13/2018 (AM) 6/13/2018 (PM)

Bartlett DuPage IL 59 at Norwood Lane
City: Bar
County: Duf

Summary of Traffic Survey

	GRAND		306	188	159	188	487	1,524	2,335	2,564	2,400	2,066	1,958	2,026	2,235	2,102	2,279	2,664	2,815	2,961	2.520	1.977	4,76T	1,481	888	586
	TOTAL	WEST	16	14	7	27	36	76	110	96	122	ď	80	92	103	83	404	85	101	125	65	59	20	45	43	29
		TOTAL	16	7	7	21	38	94	110	96	122	91	88	92	103	83	101	95	101	125	65	59	20	45	43	29
		Z	7	ဖ	2	7	19	20	96	85	100	70	29	74	79	73	84	79	82	104	56	\$	38	34	29	19
n: m																										
Traffic From:	Morwood Lane Going	ဟ	တ	5	ιΩ	4	19	4	4	+	22	21	21	18	24	20	17	16	16	21	တ	10	12	#	4	10
	TOTAL	SOUTH	290	177	152	177	458	1,430	2,225	2,468	2,276	1,977	1,870	,934	2,132	2,009	2,178	2,569	2,744	2,836	2,455	1,918	1,717	1,446	855	292
		TOTAL	155	98	74	80	199	267	666	1,147	1,093	966	696	939	1,097	1,019	1,153	1,272	1,329	1,427	1,247	991	903	712	450	318
		ш	12	00	ന	16	56	54	82	75	83	9	9	39	89	64	20	44	35	41	33	58	8	27	32	21
S :mc	Going	z	143	78	71	64	173	513	914	1,072	1,010	936	806	900	1,029	970	1,103	1,228	1,294	1,386	1,208	962	869	685	418	297
Traffic From:	IF 28	OTAL	135	91	78	45	260	863	1,226	1,321	1,185	981	901	995	1,035	066	1,025	1,297	1,385	1,409	1,208	927	814	734	405	249
~																										
_	Going	S	126	83	72	84	239	792	1,167	1,250	1,099	918	852	951	971	932	975	1,238	1,333	1,355	1,171	888	777	705	390	235
raffic From:	NL 59	ш	0	80	ဖ	13	21	71	29	7.1	98	62	4	44	64	28	20	29	25	54	37	36	37	29	15	14
Ţ	4																							7		
	QJ.			1:00	2:00	3:00	4:00	5:00	00:9	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
	Route	Start																								

IL 59 at Norwood Lane

City: County: District: Bartlett DuPege 1

Dates: 6/13/2018 (AM) 6/13/2018 (PM)

Summary of Traffic Survey

Route	Traffic From:	N		Traffic From: L 59	s		TOTAL	Traffic From: Norwood Lane	E		TOTAL	GRAND	
		Going		Going		(A	NORTH	Going			EAST	TOTAL	
Start	E	S	TOTAL	N	E	TOTAL	SOUTH	S	N	TOTAL	WEST		
Hour 0:00	1	38	39	39	9 5	44	83	4	3	7	7	90	
0:15	3	32	35	47		49	84	3	0	3	3	87	
0:30	4	26	30	29		30	60	2	3	5	5	65	
0:45	1	30	31	28		32	63	0	1	1	1	64	
1:00	2	27	29	21		22	51	0		1	1	52	
1:15	- 1	19	20	23			46	2	5	7	7	63	
1:30	3	17	20	16		19	39	2	0	2	2	41	
1:45	2	20	22	18		19	41	1	0	1	1	42	
2:00	0	22	22	16			38		<u>0</u>			39	
2:15	3	15	18	19			37	2	0	2	2	39	
2:30	2	15	17	26			48	1	1	2	2	47	
2:45	1	20	21	10		11	32	1	1	2	2	34	
3:00	3	10	13	14		19	32	4	2		6	38	
3:15	2	21	23	18			43	3	3	6		49	
3:30	5	23	28	15			45	4	0	4	Ä	49	
3:45	3	30	33	17		24	67	3	2	5	5	62	
4:00	4	39	43	38		40	83	0	3	3	3	86	
4:15	5	47	52	29		33	85	5	2	7	7	92	
4:30	8	73	81	51		60	141	5	6	11	11	152	
4:45	4	80	84	55		66	150	9	8	17	17	167	
5:00	13	130	143	76	12	88	231	6	11	17	17	248	
5:15	19	193	212	122		137	349	16	10	26	26	375	
5:30	22	240	262	170		185	447	15	9	24	24	471	
5:45	17	229	246	145		157	403	7	20	27	27	430	
6:00	12	276	288	203	15	218	504	6	17	23	23	529	
6:15	17	312	329	238	29	267	596	1	25	26	26	622	
6:30	. 17	328	345	240	22	262	607	2	35	37	37	844	
6:45	13	251	264	233	19	252	516	5	19	24	24	540	
7.00	16	311	327	258	16	274	601	- 2	15	17	17	618	7
7.15	20	342	362	291		311	673	2	25	27	27	700	
7.30	21	304	325	266		289	614	4	22	26	26	540	AM PEAK HOUR
7:45	14	293	307	257	16	273	580	3	23	26	28	806	
8:00	23	245	268	247	15	262	530	4	19	23	23	553	
8:15	17	308	325	267	21	288	613	6	- 20	26	26	639	
8:30	22	263	285	254	19	273	558	4	32	36	36	594	
8:45	24	283	307	242	28	270	577	8	29	37	37	614	
9:00	14	245	259	234	13	247	506	3	21	24	24	530	
9:15	19	237	256	236	16	252	808	7	12	19	19	527	
9:30	16	218	234	245	17	262	496	7	20	27	27	623	
9:45	13	219	232	221	14	235	467	44	17	21	21	488	*
10:00	15	199	214	. 208	14	222	436	6	17	23	23	469	
10:15	10	222	232	213	15	228	460	4	11	15	15	475	
10:30	6	239	245	238		255	500	6	18	24	24	524	
10:45	18	192	210	249		264	474	5	21	26	26	600	
11:00	12	209	221	227	9	236	457	5	19	24	24	481	
11:15	12	238	250	228		236	486	3	18	21	21	607	
11:30	11	274	265	218	11	229	514	5	17	22	22	536	
11:45	9	230	239	227	11	238	477	5	20	25	28	502	

IL 58 at Norwood Lane City: County: District:

Bartlett DuPage 1

6/13/2018 (AW) 6/13/2018 (PW)

Summary of Traffic Survey

Route	Traffic From IL 59	n:	N	Traffic From: IL 89	S				Traffic From: Norwood Lane	E		TOTAL	GRAND	
		Going		Goin				NORTH	Going	-		EAST	TOTAL	
Start Hour	E	S	TOTAL		N	E	TOTAL	SOUTH	S	N	TOTAL	WEST		
12:00	25	260	285		231	29	260	645	8	20	28	28	873	
12:15	18	244	262		290	15	305	567	4	18	22	22	589	
12:30	12	231	243	}	270	17	287	530	6	24	30	30	560	
12:45	9	236			238	7	245	490	6	17	23	23	813	
13:00	12	237	249		236	13	249	498	6	16	22	22	520	
13:15	22	238			213	4	217	477	1	25	26	26	503	
13:30	10	199			251	15	266	475	7	20	27	27	502	
13:45	14	258			270	17	287	559	6	12	18	18	577	
14:00	11	221	232		231	6	237	469	7	21	28	28	497	
14:15	17	220	237		271	14	285	522	7	23	30	30	582	
14:30	9	263	272		283	12	295	587	2	17	19	19	586	
14:45	13	271	284		318	18	336	620	1	23	24	24	644	
15:00	11	288	299		303	10	313	612	6	20	26	26	638	
15:15	12	343	355		272	11	283	638	3	18		21	659	
15:30	16	281	297		300	10	310	507	4	21	25	25	632	
15:45	20	326	346		353	13	366	712	3	20	23	23	738	
16:00	7	349	356		366	7	373	729	2	23	25	25	754	110
16:15	14	328	342		324	8	332	674	4	13	17	17	691	
16:30	20	327	347		305	10	315	662	1	21	22	22	684	
					299	-10	309	649	9		37	57	686	
16:45	11	329	340		351	11	362	742	6	28	29	29	771	
17:00		10000	380		324	7	331			23	26	20	689	PM PEAK HOUR
17.15	1	321	332					663	5	40	45	45	822	
17:30	18	344	362		402	10	319	777 654	7	18	25	25	679	
17:45	17	318	335		309					18	20		733	
18:00	12	325	337		363	13	376	743	2	18	21	20 - 21	634	
18:15	10	304	314		289	10	299	613					673	
18:30	8	279	287		264	9	273	560	2	11	13	13	580	
18:45	<u> </u>	263	270		292	7	299	569	2	9	<u>11</u>	11	448	
19:00	7°	212	219		230	10	240	459	0	-	_	-		
19:15	9	277	286		236	9	245	531	2	12	14	14	545 485	
19:30	12	171	163		252	3	255	438	4	13	17	17	-	
19:45	11	228	239		244	7	251	490	4	15	19	19	609 490	
20:00	6	220	226		242	9	251	477	4	9	13.	13		
20:15	7	183	190		205	12	217	407	1	12	13	13	420	
20:30	15	, 200	215		227	8	235	450	2	10	12	12	462	
20:45	9	174	183		195	5	200	383	5	7	12	12	395	
21:00	9	213	222		207	6	213	435	3		10	10	445	
21:15	7	169	176		179	9	188	364	5	10	15	15	379	
21:30	10	158	168		169	5	174	342	2	6	8	8	350	
21:45	3	165	168		130	7	137	305	1	11	12	12	317	
22:00	2	115	117		110	7	117	234	4	7	11	11	246	
22:15	6	90	96		109	9	118	214	2	9	11	11	226	
22:30	3	93	96		117	8	125	221	5	7	12	12	233	
22:45	4	92	96		82	8	90	186	3	6	9	9	195	
23:00	5	81	86		86	7	93	179	0	7	7	7	186	
23:15	4	59	63		80	3	83	145	5	6	11	11	157	
23:30	3	46	49		69	5	74	123	2	3	5	5	128	
23:45	2	49	51		62	6	68	119	3	3	6	8	125	

Super Convenience Market/Gas Station

(960)

Vehicle Trip Ends vs: Vehicle Fueling Positions

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 18

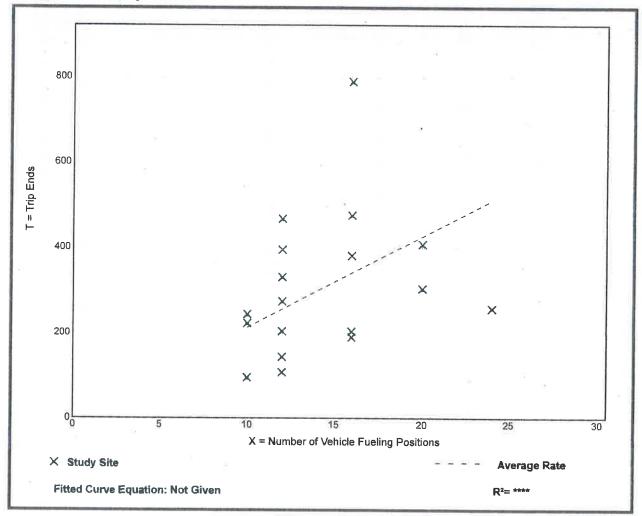
Avg. Num. of Vehicle Fueling Positions: 14

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
21.30	9.00 - 49.31	11.15

Data Plot and Equation





Super Convenience Market/Gas Station

(960)

Vehicle Trip Ends vs. Vehicle Fueling Positions

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 19

Avg. Num. of Vehicle Fueling Positions: 14

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
20.25	9.83 - 37.42	7.73

Data Plot and Equation

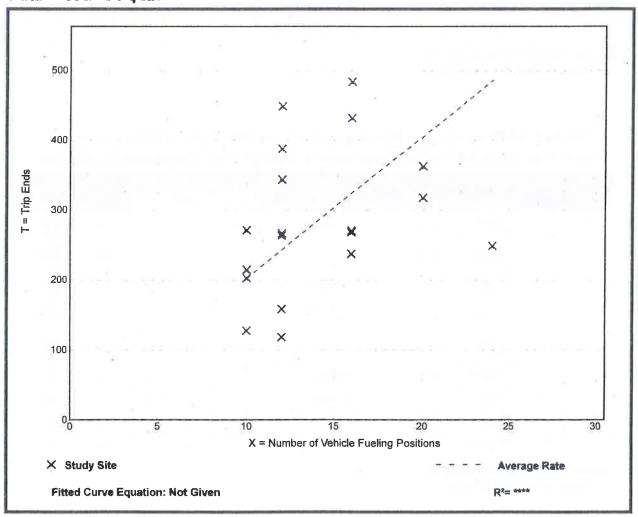




Table E.37 Pass-By and Non-Pass-By Trips Weekday, AM Peak Period Land Use Code 945—Gasoline/Service Station with Convenience Market

Su22	VERNICER		WHEREAY (BUNE	NAME OF TARREST	0 (5)	ALL STREET	
FT GFA:	PRIEDRIC POTETRONIS	LOCATION	DATE	NO OF	TOME RETRICO	TRIPAST	PRIMARY	DIVERTED	TOTAL	MEAN HOUR	SHURCE
0.8	8	Louisvilla area, KY	1993	61	7:00-9:80 a.m.	60	15	25	40	4,000	Berton- Aschman Assoc.
9.6	8	Louisville, KY	1993	48	7:00-9:00 a.m.	68	13	19	32	1,307	Barton- Aschman Assoc
0.7	10	Louisville, KY	1993	47	7:00-9:00 a.m.	67	11	22	33	1,105	Barton- Aschman Assoc.
0.7	8	Louisville area, KY	1993	=	7:00-9:00 a,m,	56	22	22	44	1,211	Barton- Aschman Assoc.
0.7	10	Louisville area, KY	1993	=	7:00-9:00 a.m.	46	42	12	54	1,211	Barton- Asehman Assoc
0.3	-	Louisville area, KY	1993	75	7:00-9:00 a.m.	72	15	13	28	-	Barton- Aschman Assoc.
0.8	8	Silver Spring, MD	1992	36	7:00-9:00 a.m.	47	14	39	53	3,095	RBA
0.4	8	Derwood, MD	1992	46	7:00-9:00 a.m.	75	0	26	25	3,770	RBA
2.2	8	Kensington, MD	1992	91	7:00-9:00 a.m.	47	34	19	53	1,785	RBA
1	8	Silver Spring, MD	1992	35	7:00-9:00 a.m.	78	9	13	22	7,080	RBA

Average Pass-By Trip Percentage: 62
"—" means no data were provided

Table E.38 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period Land Use Code 945—Gasoline/Service Station with Convenience Market

SUST VI DING	VIOLE		WELKOWY	The same of the sa	53.		70°46°0	ASSUR TRIES	Park S	ACU STUDE	
SG_FI	SESTIMAL.	EDICATION	DATE	SKIESVEWS	THE SCORE	PASS IN	PRIMARY	DIVERTED	TOTAL	PLACIFIE	SIL ROZ
0.8	8	Louisville erea, KY	1993	83	4;00–6:00 p.m.	52	a	40	48	4,965	Berton- Aschman Assoc.
0.8	a	Louisville, KY	1993	60	4:00–6:00 p.m;	53	20	27	47	1,491	Barton- Aschmar Assoc.
0.7	10	Louisville, KY	1993	·=	4:00–6:00 p.m.	57	19	24	43	1,812	Barton- Aschmar Assoc,
0.7	8	Louisville area, KY	1993		4:00-6:00 p.m.	72	7	21	28	2,657	Berton- Aschmar Assoc
0.7	10	Louisville area, KY	1993	-	4:00–6:00 p.m	55	18	29	46	2,867	Barton- Aschma Assoc
0.0	8	Silver Spring, MD	1992	36	4:00-6:00 p.m.	67	14	19	33	3,095	RBA
0.4	8	Derwood, MD	1992	46	4:00–6:00 p.m.	46	11	43	54	3,770	RBA
2.1	8	Kensington, MD	1992	31	4:00-6:00 p.m.	52	13	35	48	1,785	RBA
1	8	Silver Spring, MD	1992	35	4:00–6:00 p.m.	54	3	43	46	7,080	RBA

Average Pass-By Trip Percentage: 56 "—" means no data were provided



233 South Wacher Drive Suite 800 Chicago, Illinois 60606

312 454 0400 www.cmap.illiads.gov

November 20, 2017

Stephen B. Corcoran, P.E., PTOE Director of Traffic Engineering Eriksson Engineering Associates, Ltd. 145 Commerce Drive Grayslake, IL 60030

Subject: IL 59 (Sutten Road) @ Norwood Lane
IDCT

Dear Mr. Corcoran:

In response to a request made on your behalf and dated November 18, 2017, we have developed year 2040 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2040 ADT			
IL 59-Sutton Rd, @ Norwood Ln	37,700	43,300			

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2017 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2040 socioeconomic projections and assumes the implementation of the GO TO 2040 Comprehensive Regional Plan for the Northeastern Illinois area.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP

Senior Planner, Research & Analysis

cc: Quigley (IDOT)

S:\AdminGroups\ResearchAnalysis\TrafficForecasts_CY2017\Bartlett\du-68-17\du-68-17\duck

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A-Minimum Vehicular Volume

	nes for moving ch approach	Vehicle (total	s per hou al of both	ir on majo approach	r street les)	Vehicles per hour on higher-volume minor-street approach (one direction only)						
Major Street	Minor Street	100%ª	80%b	70%€	56% ^d	100%ª	80%b	70%°	56% ⁴			
		500	400	350	280	150	120	105	84			
2 or more	1	600	480	420	336	150	120	105	84			
2 or more	2 or more	600	480	420	336	200	160	140	112			
1	2 or more	500	400	350	280	200	160	140	112			

Condition B-Interruption of Continuous Traffic

	nes for moving ch approach	Vehicle (tot	s per hou al of both	ır on majo approach	r street les)	Vehicle minor-stre	es per hour et approac	on higher- h (one dire	olume ction only
Major Street	Minor Street	100%	80% ^b	70%°	56% ^d	100%ª	80%b	70%°	56% ^d
		750	600	525	420	75	60	53	42
2 or more	_ 1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

^{*} Basic minimum hourly volume

^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

⁴ May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

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By: CENTRALIADAMSCH

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Coordinate Collision Diagram Report

1/1/2011 to 12/31/2011

Injuries	Injuries	Injuries			1		Light		XCondinate	Vehicle	Name of		THE STATE OF						
Westher Roadway A B Killed Type of Crash	A B C Killed Type of Cresh	8 Killed Type of Coash	Killed Type of Cresh	Ulied Type of Coash	ripe of Coash	7	Condition	THE STREET	YCoordinate	Type	DIRP	Maneuver	Event 1	Loc 1	Event 2 Loc 2	Locz	Event 3	Loc 3	100
201101243203 7725/201112:40 PM Clear Dry 0 2 0 0 Turning	2 0 0	0			ming		Daylight	33.05	2829386.03450329 1940658.75610259										
										Passenger	開発する	Turning Left Motor Vehicle In Traffic	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(DINK)	(UNK)	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										Van/Mini- Van	North	Straight Ahead	Motor Vehicle In Traffic	On Pavemen (Roadwa)	(UNK)	(UNK)		(UNK)	
11/6/2011 6:43 PM Clear Dry 0 0 0 Turning	0	0	0	0 Turning	gujun		Darkness, Lighted Road	33.05	2829386,0303839 1940659,02386321				1						**:
							P			Van/Mini- Van	North	Stratght Ahead	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(nnk)	(UNK)	N
										Passenger	West	Turning Right	Motor Vehicle	On Pavement	(UNK)	(UNK)	(UNK)	(UNK)	

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Coordinate Collision Diagram Report

1/1/2011 to 12/31/2011

r	
INJURIES C INJURIES	O
B INJURIES	73
A INJURIES	0
TOTAL	183
TOTAL	а
PROPERTY DAMAGE CRASHES	₽
C INJURY CRASHES	O.
B INJURY CRASHES	ᠳ
A INJURY CRASHES	a
FATAL	a
TOTAL	Oil

TOTAL CRASHES	FATAL CRASHES	A INJURY CRASHES	Y B INJURY S CRASHES	C INJURY CRASHES	/ PROPERTY S DAMAGE CRASHES	TY TOTAL E KILLED SS	TOFAL		A INJURIES	B INJURIES C INJURIES	C INJUR	1ES
21	ō	9	1	0	H	ō	2		ō	2		O
												Ō
Type of Crash	Total	%	Dayof Wit	Total	%	Hour of Day	Total	%		Vehicle Type	Total	%
Turning	, 2	100.0%	Monday	•	50.0%	Noon	(5	%0.09	Passenger	je	М	50.0%
TOTAL:	2		Sunday	-	50.0%	6 PM	-	50.0%	Van/Mini-Van	-Van	Ø	50.0%
			TOTAL:	N		TOTAL:	Ø		TOTAL:		• 94	
Weather Cond	Total	%	Light Cond	Total	%	Road Surface	Total	%	DIRP		Total	%
Clear	64	100.0%	Darkness, Lighted Road	les :	90.0%	Dry	2	100.0%	East		Š	25.0%
TOTAL:	64		Daylight	÷	50.0%	TOTAL:	81		North		2	50.0%
			TOTAL:	2					West		*	25.0%
									TOTAL:		•	

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Illinois Department of Transportation Division of Traffic Safety

By: CENTRAL\ADAMSCH

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Coordinate Collision Diagram Report

1/1/2011 to 12/31/2011

For XCoordinate 2829385.91952772 : YCoordinate 1940658.49080392 | Foot Tolerance : 250 | County : DuPage | Intersection Related: Intersections | *See Notes at End of Report.

Notes

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Milnois Department of Transportation
Division of Traffic Safety

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By: CENTRAL\ADAMSCH

Report Produced: 11/21/2017 8:39 AM

Coordinate Collision Diagram Report

1/1/2012 to 12/31/2012

Uou		-	6	e9
Lac 3		(NNK)	(UNK)	(UNK)
Eyant 3		(UNK)	(UNK) ent way	(UNK)
Loc 3		(UNK)	On Pervering Roadh	(UNK)
Event 2 Loc 3		(CNK)	Motor Vehicle F In Traffic ((NNK)
5		On Pavement (Roadway)	On Pavement V (Roadway) Ir	On Pavement (Roadway)
Event 1		Motor Vehicle In Traffic	Motor Vehicle In Traffic	Motor Vehicle In Traffic
Maneuver		Straight Ahead	Slow/Stop - Right Tum	Slow/Stop - Motor Left Turn Vehicle In Traffic
DIRP		North	North	West
Vehicle Type		Tractor With Semi- Trailer	Passenger	SUV
XCoordinate YCoordinate	2829385.8028459 1940658.48625895			
Malle	33.14			
Light Condition	Daylight			
Type of Crash	Rear End			*
Kulled	0			
1 0	es .			
E Edundes	· •			
1 .	-			
Roadwa	ony			
Weather	Snow			-
Date	201201012446 1/2/2012 9:61 AM Snow			

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By: CENTRALIADAMSCH

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Coordinate Collision Diagram Report

1/1/2012 to 12/31/2012

For XCoordinate 2829385.91952772 : YCoordinate 1940658.49080392 | Foot Tolerance : 250 | County : DuPage | Intersection Related: Intersections | *See Notes at End of Report.

TOTAL	FATAL CRASHES	A INJURY CRASHES	B INJURY CRASHES	C INJURY CRASHES	PROPERTY DAMAGE CRASHES	TOTAL	TOTAL	A INJURIES	A INJURIES B INJURIES C INJURIES	CINJUR	S
ᅱ	0	TI	OI	a	Ol	a	кŊ	-1	←		(2)
25	**]
Type of Crash	Total	% %	Dayof MK	Total %	Mour a	Hour of Day	Total %		Vahicle Type Total	Total	%
Rear End	-	100.0% Mc	Monday	-	100.0% 09 AM		10	100.0% Passenger	Idel		33.3%

TOTAL	FATAL CRASHES	A INJURY CRASHES	B INJURY CRASHES	C INJURY CRASHES	PROPERTY DAMAGE CRASHES	TOTAL	TOTAL	A INJURIES	B INJURIES C INJURIES	CINJUR	ES
ᆏ	O	1	O	O	01	CI	岭	-	- 1((c)
ielu	41										
Type of Crash	Total	%	Dayof MK	Total %		Hour of Day	Total %		Vehicle Type	Total	*
Rear End	-	100.0%	Monday	÷	100.0% 09 AM	5	£	100.0% Passenger	nger	æ	33.3%
TOTAL:	-		TOTAL:	•	TOTAL:	47:	*	SUV		-	33.3%
								Tracto	Tractor With Semi-Trailer	٠	33.3%
				7,5			×	TOTAL:	ŗ.	(9)	
Westher Cond	Totai	%	Light Cond	Total 9	Ross	Road Surface	Total %	DIRP		Total	%
Snow	~	100.0%	Daylight	*	100.0% Dry		± -	100.0% North	_	2	66.7%
TOTAL:	***		TOTAL:		TOTAL:	47:	-	West		٠	33.3%

FOTAL:

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Coordinate Collision Diagram Report

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For XCoordinate 2829385.91952772 : YCoordinate 1940658.49080392 | Foot Tolerance : 250 | County : DuPage | Intersection Related: Intersections | *See Notes at End of Report.

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Coordinate Collision Diagram Report

1/1/2013 to 12/31/2013

For XCoordinate 2829385.91952772 : YCoordinate 1940658.49080392 | Foot Tolerance : 250 | County : DuPage | Intersection Related: Intersections | *See Notes at End of Report.

Date Weather	Roadway	*	Rojunijes B	1 "	Killed	Type of Crash	Light Condition	4	XCoordinate YCoordinate	Vehicle Type	DIRP	Maneirver	Event 1	Loca	Event 2 Loc 2	Loc 2	Event 3	Local	Line
201301217564 16/31/2013 3:50 PM Rain	Wet	٥	0	o	0	Rear End	Daylight	33,14	33.14 2829386.08692991 1940658.49732455								28		
										Truck Single Unit	North	Slow/Stop In Traffic	Motor Vehicle In Traffic	On Pavement (Roadway)	CNK)	(UNIK)	(CNK)	(NNK)	-
							5			Passenger North	North	Slow/Stop In Traffic	Motor Vehicle In Traffic	Motor On (Vehicle Pavement In Traffic (Roadway)	(CONK)	(UNK)	(UNK)	(CINK)	7

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1/1/2013 to 12/31/2013

For XCoordinate 2829385.91952772 : YCoordinate 1940658.49080392 | Foot Tolerance : 250 | County : DuPage | Intersection Related: Intersections | *See Notes at End of Report.

C INJURIES	ō
B INJURIES	ō
A INJURIES	0
TOTAL	Ø.
TOTAL	а
PROPERTY DAMAGE CRASHES	
C INJURY CRASHES	Ø
B INJURY CRASHES	a
A INJURY CRASHES	đ
FATAL CRASHES	Oi
TOTAL	÷i

+7	CRASHES	CRASHES	ES CRASHES	CRASHES	DAMAGE	KILLED	NJURED		A INJURIES I	B INJURIES	CINCORRES	S
	а	а	ā	ō	₽	OI	O		0	Õ		O
Type of Crash	Total	%	Dayof Mit	Total	% Hour e	Hour of Day	Total	%		Vehicle Type	Total	%
Rear End	Ţ	100.0%	Thursday	3 77	100.0% 3 PM			100.0%	Passenger	L-	Ŧ	50.0%
TOTAL:	٠		TOTAL:	**	: TOTAL:	3	۳		Truck Single Unit	ile Unit	•	50.0%
									TOTAL:		C4	
Weather Cond	Total	%	Light Cond	Total	Road %	Road Surface	Total	%	DIRP		Totel	%
Rain	,-	100.0%	Daylight	-	100.0% Wet		Sec.	100.0%	North		O	100.0%

TOTAL:

TOTAL:

TOTAL:

TOTAL:

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Coordinate Collision Diagram Report

1/1/2014 to 12/31/2014

Date	Weather	Roadway	*	Injuries B	1 0	Killed	Type of Creah	Condition	ži.	XCoordinate YCoordinate	Vehicle Type	DIRP	Maneuver	Event 1	Local	Event 2	1002	Event 3	Loca	Link
201400084057 1123/2014 3:14 PM	Clear	ργ	0	0	0	0	Rear End	Daylight	33.14	2829385,63318484 1940658.47965034	9									
											Passenger	West	Straight Ahead	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(UNK)	(UNK)	_
204480044800					:	:					Passenger	West	Slow/Stop - Right Tum	Moter Vehicle In Traffic	On Pavement (Roadway)	(UNK)			(UNK)	7
411/2014 1:21 PW	Clear	ρίο	0	5.	0	0	Tuming	Daylight	33.14	2829385,63318484 1940658,47965034		! !			7.17					:
											SUV	West	Turning Left	Motor Vehicle In Traffic	intersectio n	(UNK)	(UNK)	(UNK)	(UNK)	-
			:			!				-	Passenger	North	Straight Ahead	Motor Vehicle In Traffic	Intersectio n	(UNK)	(NNK)	(UNK)	(UNK)	71
¥.	Clear	Dry	0	0 *	0	0	Turning	Daylight	33.14	2829386.91952772 1940658.49080392							•			:
											Passenger	West	Turning Left	Motor Vehicle In Traffic	On Pavement (Roadway)	(CNNK)	(UNK)	(UNK)	(UNK)	4-
						:					Truck Single Unit	North	Straight	Motor Vehicle In Traffic		(ONK)	(UNK)	(UNK)	(UNK)	71
A	Clear	وال	0	o	0	0	Rear End	Daylight	33.14	2829385.63318484 1940658.47865034					•		:			
											Passenger	Unknown	Slow/Stop - Right Tum	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(UNK)	(UNIK)	τ-
		4 4 5 1			1			1	1		Passenger	Unknown	Slow/Stop - Right Turn	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNIK)	(UNK)	(ONK)	7
12/12/2014 6:41 AM Clear	Clear	<u>8</u>	0	0	0	0	Rear End	Darkness, Lighted Road	33.14	2829385.63446228 1940658.42382018		; ; ;	6 5 7 1 0 1		1 1 1 1 1		: : :		1	:
											Passenger	South	Slow/Stop In Traffic	Motor Vehicle In Traffic	On Pavement (Roadway)	(ONK)	(UNK)	(UNK)	(UNK)	-
											Passenger	South	Slow/Stop In Traffic	Motor Vehicle	On Pavement	(CNNK)	(NNK)	(UNK)	(UNK)	7

Report No: SDM-RC001 Sorted by: Mile / Date / ICN

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Coordinate Collision Diagram Report

1/1/2014 to 12/31/2014

TOTAL	FATAL CRASHES	A INJURY CRASHES	R B INJURY S CRASHES	C INJURY CRASHES	PROPERTY DAMAGE CRASHES	TOTAL SE KILLED ES	TOTAL INJURED	A INJURIES		B INJURIES	CINJURIES	S
Ŋ	Ø	O	~ 1	0	41	ō	2		0	12		O
Type of Cresh	Total	%	Dayof Wit	Total	%	Mour of Day	Total	%		Vehicle Type	Total	%
Rear End	Ø	%0:09	Monday	æ	20.0%	06 AM	æ	20.0%	Passenger		68	80.0%
Tuming	7	40.0%	Thursday	τ.	20.0%	08 AM	8	40.0%	SUV		(**):	10.0%
TOTAL:	ιo		Friday	8	40.0%	1 PM	S₹.	20.0%	Truck Single Unit	le Unit	*	10.0%
			Sunday	X75.	20.0%	3 PM	**	20.0%	TOTAL:		9	
			TOTAL:	lr)		TOTAL:	lG.					
Meather Cond	Total	%	Light Cond	Total	%	Road Surface	Total	%	DIRP		Total	%
Clear	9	100.0%	Darkness, Lighted Road	+	20.0%	Dry	4	B0.0%	North	21	24	20.0%
TOTAL:	15		Daylight	4	%0.08	lce	=	20.0%	South		2	20.0%
			TOTAL:	ıo		TOTAL:	ro		Unknown		N	20.0%
									West		4	40.0%
									TOTAL:		10	

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Coordinate Collision Diagram Report

1/1/2015 to 12/31/2015

Date Weather	Roadway	1	injuries B	1 0	Killed	Type of Crash	Light Condition	Mile	XCoordinate VCoordinate	Vehicle Type	DIRP	Maneuver	Event 1	Luct E	Event 2	Locz	Event 3	Local	THE REAL PROPERTY.
The state of the s	North Charles Co.	出土の日	E CO	No.			The state of the s	A L		THE PERSON NAMED IN								1	10
201501375391 3/23/2015 10:80 AM Snow	Snow or	0	0	0	0	Turning	Daylight	33,14	2829404.73093345 1040659 22354284		В.								
										Van/Mini- Van	West	Slow/Stop in Traffic	Motor Vehicle In Traffic	On ((Pavement (Roadway)) (ANK)	(nnk)	(UNK)	(UNIK)	7
										Passenger	Northeast	Turning Right							-
201501396829 5/20/2015 7:31 AM Clear	ρίλ	0	0	0		Rear End	Daylight	33.14	2829363.22069313 1940658.81755399				•			! !		2	:
										Passenger	South	Straight Ahead	Motor Vehicle In Traffic	On (I Pavernent (Rosdway)) (UNIK)	(UNK)	(UNK)	(UNK)	F
										Pickup	South	Slow/Stop In Traffic			(CUNK)	NK)	(CUNK)	(UNK)	2
										:						!	:		:
7/10/2016 6:29 AM Clear	ρ	0	-	0	0	Turning	Daylight	33.14	2829404.69168533 1940659.22201405										
	2			S						Passenger	North	Slow/Stop In Traffic	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(UNK)	(UNK)	~
										Van/Mini- Van	North	Turning Right			(UNK)	(UNK)	(UNK)	(UNK)	7
201501218669					!				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					, family 1					Ī
10/6/2015 10:35 AM Clear	, Dry	0	0	0	0	Turning	Daylight	33.14	2829363.1982959 1940658.39520634										
									i:	Tractor With Semi- Trailer	South	Straight Ahead	Motor Vehicle In Traffic	On Pavement (Roadway)	(nnk)	(UNK)	(UNIK)	(UNK)	2
15										snv	Southwest	Southwest Turning Left	Motor Vehicle In Traffic	On Pavement (Roadway)	(UNK)	(UNK)	(UNK)	(NNK)	-

By: CENTRAL/ADAMSCH

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Coordinate Collision Diagram Report

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1/1/2015 to 12/31/2015

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co)
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-1
O
a
41

		5		25.5		CRASHES	NICED		2			
41	a	OI	-1	a		3	ō	~-)		O	Ψi	O
Type of Crash	Total	%	Dayof ME	Total	%	Mour of Day	Day	Tetal	%	Vehicle Type	pe Total	%
Rear End	-	25.0%	Monday	~	25.0%	OG AM		~	25.0%	Passenger	es	37.5%
Turning	ю	75.0%	Tuesday	~	25.0%	07 AM		-	25.0%	Pickup	eres	12.5%
TOTAL:	*		Wednesday	4-	25.0%	10 AM		8	90.09	SUV	1	12.5%
			Friday	_	25.0%	TOTAL:		•		Tractor With Semi-Trailer	1005	12.5%
			TOTAL:	*						Van/Mini-Van	63	25.0%
										TOTAL:	=0	
Weather Cond	Total	%	Light Cond	Total	%	Road Surface		Total	%	DKRP	Total	%
Clear	ю	75.0%	Daylight	্ৰ	100.0%	Dry		ო	75.0%	North	กง	25.0%
Snow	196	25.0%	TOTAL:	•		Snow or Slush	Slush		25.0%	Northeast		12.5%
TOTAL:	*					TOTAL:		•		South	φ	37.5%
										Southwest	٣	12.5%
										West	٠	12.5%
										TOTAL:	32 <u>3</u>	

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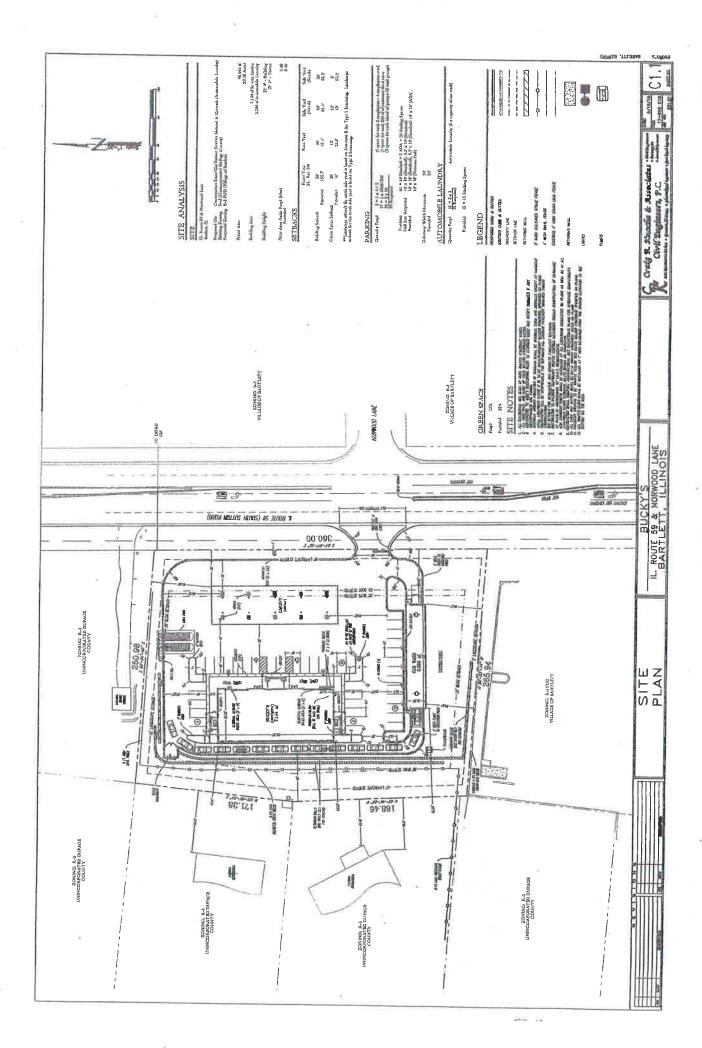
Coordinate Collision Diagram Report

1/1/2015 to 12/31/2015

For XCoordinate 2829385.91952772 : YCoordinate 1940658.49080392 | Foot Tolerance : 250 | County : DuPage | Intersection Related : Intersections | *See Notes at End of Report.

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To:

Ms. Paula Schumacher

Village Administrator, Village of Bartlett

From:

Lynn M. Means, P.E., PTOE

Senior Transportation Engineer

Date:

October 29, 2018

Subject:

Bartlett Case Number: 18-06

Bucky's Gasoline Station Development

IL Route 59 and Norwood Lane

Bartlett, Illinois

GENALT HAMILTON ASSOCIATES, INC.

625 Forest Edge Drive, Vernon Hills, IL 60061
Tel. 847.478.9700 FAX 847.478.9701

www.gha-engineers.com

Per your request, Gewalt Hamilton Associates, Inc. (GHA) has reviewed the traffic signal warrant study prepared by Quigg Engineering, Inc. (Quigg) dated July 25, 2018 (marked draft) for the above captioned project. It is our understanding the Quigg study is a supplement to the Traffic Study Memorandum prepared by Eriksson Engineering, Inc. (EEA), with the most recent study dated September 25, 2018.

GHA concurs with the Quigg study's findings that a traffic signal is warranted at the IL Route 59 intersection with Norwood Lane and the proposed site access. Conclusions of this effort and recommendations are presented below:

- 1. Existing traffic volumes were developed by performing 24-hour traffic volume counts in June 2018 at the IL Route 59 and Norwood Lane intersection. During this timeframe, the IL Route 59 and US Route 20 interchange reconstruction project was ongoing, which has impacted traffic volumes through the subject area. A review of the EEA traffic counts performed in November 2017 are, overall, approximately 15 to 25 percent higher during the weekday peak hours of adjacent street traffic and should, therefore, be used in both studies. The Quigg study is conservative relative to using lower, June 2018 traffic volumes to satisfy the traffic signal warrant volumes.
- 2. The trip generation estimates for the proposed development were generated using the average rates contained within the ITE Trip Generation Handbook, 10th Edition. This is consistent with the methodology contained within EEA Traffic Study. However, as noted in GHA's review of the EEA Traffic Study, the trip generation estimates are approximately 24 to 11 percent lower during the weekday AM and PM peak hours, respectively, when compared to calculations using the ITE equations provided. This represents approximately 136 fewer total trips (68 entering and 68 exiting) during the weekday AM peak and 52 fewer total trips (26 enter and 26 exiting) during the weekday PM peak hour. Accordingly, to help ensure the maximum impacts of the development are considered, it is recommended that the study be revised to utilize the ITE equations. Again, the Quigg study is conservative relative to using lower, site trip generation volumes to satisfy the traffic signal warrant volumes.
- 3. GHA concurs with the Traffic Study pass-by assumptions of 62% during the weekday AM peak hour and 56% during the weekday PM peak hour, representing site-generated vehicle trips that are already present in the adjacent passing stream of traffic. Again, this is consistent with the EEA Traffic Study. However, as previously noted in our past reviews, for Strategic Regional Arterial (SRA) Routes, such as Illinois Route 59, IDOT typically allows only a maximum reduction of 20 percent for pass-by traffic be applied to the development site-generated trips. The volume of pass-by traffic does not reduce the total trips generated and will still be realized as turning movements at the site access, which will not impact the results of the signal warrant analysis.

4. Based on our experience with similar gasoline station developments, GHA would expect that a higher percentage of new traffic would be of the right-in/right-out type, similar to that assumed in the EEA Traffic Study. The directional distribution of site traffic will not impact the results of the signal warrant analysis, as the driveway functions as a one-lane approach (combining left- and right-turn exiting volumes).

5. GHA concurs that the Manual on Uniform Traffic Control Devices (MUTCD) Warrant 1 – Eight Hour Vehicular Volume and Warrant 6 - Coordinated Signal System are satisfied for this location, and have been a basis for traffic signal installation on a SRA Route previously by the Illinois Department of Transportation (IDOT). We also concur that Warrant 7, Crash Experience is not satisfied for this location. Please confirm that the Quigg study has been submitted to IDOT for review and provide any correspondence or feedback from IDOT pertaining the proposed / requested traffic signal at this intersection.

We hope you find these comments helpful in your continued assessment of the proposed development. GHA does not believe the comments noted above will materially impact the findings / recommendations of the signal warrant study. Should you have any questions please do not hesitate to contact GHA at 847-478-9700.

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