VILLAGE OF ALGONQUIN

COMMUNITY DEVELOPMENT DEPARTMENT

– M E M O R A N D U M –

DATE: April 9, 2020

TO: Committee of the Whole

FROM: Russell Farnum, AICP, Community Development Director

SUBJECT: *Trails of Woods Creek, Rezoning to R1-E PUD, B2 PUD, Preliminary PUD and Preliminary Plat, and Development Agreement*

INTRODUCTION

Pulte Homes is proposing redevelopment of the Terrace Hill Golf Course property. The property was annexed in 1987 and was zoned R1-E as part of the surrounding Terrace Hill subdivision. At the time the proposed use of the land was a golf course, which was ultimately developed and has been operating on the land since.

The property is bounded by Algonquin Road on the north, Fairway View Drive on the east, Prestwicke subdivision on the west, and Terrace Hill subdivision on the south. Surrounding lots are in the 16,000 to 20,000 square foot range. Current access to the property is through a signalized intersection at Algonquin Road and Frank Road to the north.

Pulte's proposal is to subdivide the 139-acre property into 267 home sites surrounded by substantial open space. The project includes three distinct neighborhoods. The Springs is in the northern portion of the property and has 96 lots ranging from 7,000 square feet to just over 11,000 square feet in size. The homes range from 2400 to 3200 square feet, and are aimed at family-oriented buyers who are looking for a manageable home in a great school district.

The Estates is the far western portion of the property, with 47 lots ranging from 9230 to over 14,000 square feet, and homes from 2900 to 3900 square feet. The Estates offers larger homes with a higher level of amenities, aimed at the move-up buyer.

The Shores is located on the northern portion of the site and features 124 lots ranging from 7500 to nearly 13,000 square feet in size. The Shores features all ranch homes ranging from 1700 to 3000 square feet. This neighborhood is targeted toward empty-nesters, and will be a low-maintenance neighborhood, with full lawn care and snow removal services much like a townhome community.

Additionally, a commercial parcel of 2.67 acres is proposed at the northwest corner of the property, near the existing signalized intersection. Pulte's original request included development of a gas station/convenience store at this site, but that request has since been withdrawn. The request now is to zone the property B2 PUD, with any future development having to return to the Planning and Zoning Commission and Village Board for approval through an amendment to the PUD.

The primary access to the proposed development will remain at the signalized intersection at Frank Road and Algonquin Road. A secondary access will be provided to Fairway View Drive. Although when Terrace Hill was platted, a lot was reserved at the south for future access to Bunker Hill Drive, no access is planned at that location due to the flood plain and hydric soils that exist in that area. No access to the west is planned as Prestwicke Subdivision did not provide for any future street connections.

The property was substantially graded, creating many hills and valleys, as part of the original golf course construction. Despite the substantial disturbance, a substantial amount of flood plain and wetlands exist on the property, near the south and southeast sides. The property is also located within the Woods Creek Watershed area. These factors make the land perfect for the application of Conservation Design through the Village PUD ordinance, which is what Pulte's proposal follows.

The Planning and Zoning Commission held a public hearing on this project at their regular meeting January 13, 2020. The PZC recommended approval, with conditions, by a vote of 5 ayes, 1 nay (Commissioner Patrician absent). Minutes of that meeting are enclosed. Since that time the developer has been addressing the comments from staff and issues presented at the public hearing.

DENSITY AND CONSERVATION DESIGN

A large concern presented at the public hearing was the density of the project. The lot sizes, ranging from 7,000 square feet to 15,000 square feet, are smaller than the existing R1-E zoning allows (18,000 square feet), and smaller than those of surrounding homes. However, as noted above, the property has substantial hills and valleys and ecologically sensitive areas that make it highly desirable to develop as a conservation design subdivision. If this property was a flat corn field and were developed with standard 18,000 square foot lots, it would result in over 300 home sites.

Instead, Pulte's proposal works with the land, clustering the housing in developable areas while maintaining large swaths of open space and natural features. Other than a handful of lots (13%), nearly every lot will back up to open space. In addition, about 35 acres of very sensitive land in the south and southeast portion of the property will be deeded to the Village for public open space (Outlots G and H). This land will be improved by the developer to restore the wetlands and flood plain corridors, and create a natural prairie and wetland buffer area.

The remaining 30 or so acres of open space will be owned and maintained by the Homeowners Association, and provides major buffer areas between the northernmost homes and Algonquin

Road, the westernmost homes and the existing homes in Prestwicke, and a central corridor of open space between a majority of the homes. The storm water retention ponds will be integrated into these open spaces, creating natural amenities for the residents. In addition, the open space includes ribbons of bike and walking paths throughout. A wider bike path connection will extend south to Bunker Hill Drive, that will link the neighborhoods. This larger path will also serve as an emergency access for police or ambulance use, if ever necessary.

Through conservation design, this proposal has a density that is only 85% of the density that would be allowed under the existing zoning, or 15% less than would otherwise be allowed. This layout and approach are very equivalent to Manchester Lakes, a nearby subdivision located west of Square Barn Road. A chart showing the comparison of the open space between this project and Manchester Lakes is below.

Project	Gross Site Area (ac)	Area in Lots (ac)	% Lots	Open Space Private (ac)	% Open Spac Private	Park Public (ac)	% Park Public	Total % Open Space
Manchester Lakes Preliminary	**184**	**70**	**38**	**40**	**22**	**27**	**15**	**36.41**
Manchester Lakes 1	54.05	24.3	44.96	18.72	34.63			
Manchester Lakes 2	43.22	17.8	41.18	19.4	44.89			
Manchester Lakes 3	49.62	10.58	21.32	6.92	13.95	27.45	55.32	
Manchester Lakes 4	35.17	16.76	47.65	12.34	35.09			
Manchester Lakes 5	**78.1**	**25.77**	**32.99**	**40.53**	**51.90**			**51.9**
Total for Manchester Lakes	***262.1***	***95.77***	***70.99***	***80.53***	***30.72***	***27***	***10.3***	***41.02***
Trails of Woods Creek	***138.44***	***53.98***	***38.99***	***28.14***	***20.33***	***34.54***	***24.95***	***45.28***

This chart shows a comparison between the lots and home sizes in Manchester Lakes and those proposed in Trails of Woods Creek.

Project	House Min sqft	House Max sqft	Lot Min sqft	Lot Max sqft	Units
Manchester Lakes Preliminary	**1700**	**2500**	**8040**	**18074**	**349**
Manchester Lakes 1			8040	15134	70
Manchester Lakes 2			8040	13438	40
Manchester Lakes Club Homes (Duplex)	1200	1800	10370	18074	116
Manchester Lakes 3			8040	11278	50
Manchester Lakes 4			8040	13777	73
Manchester Lakes 5*	**2148**	**3036**	**8100**	**17433**	**119**
** not including commercial lots*					
Trails of Woods Creek (proposed)			**7000**	**14352**	**267**
The Springs	2200	3000	7000	11319	96
The Estates	2800	3800	9230	14532	47
The Shores	1600	2900	7425	12939	124

TRAFFIC and TRANSPORTATION

Another major issue presented at the public hearing was traffic. The developer provided an extensive traffic study. The streets servicing this subdivision include Algonquin Road, which is classified as a Primary Arterial on the Village's Comprehensive Plan. The primary entrance, at a signalized intersection, accesses Algonquin Road.

The secondary access to the subdivision intersects with Fairway View Drive. Fairway View Drive is designated as a Collector in the Comprehensive Plan. Fairway View Drive connects Algonquin Road, a Primary Arterial, and Bunker Hill Drive, another collector.

The traffic study found that this subdivision will not create any additional congestion or delays in the existing traffic on either of the intersecting streets, nor will it create any issues at Bunker Hill Drive. Staff's concern was to review the possibility of adding traffic signals at the intersection of Algonquin and Fairway View Drive. Even with the buildout of this subdivision, and a review of the sight distances at the intersection, construction of a signal at that location is not warranted. An addendum of this review was added to the traffic study.

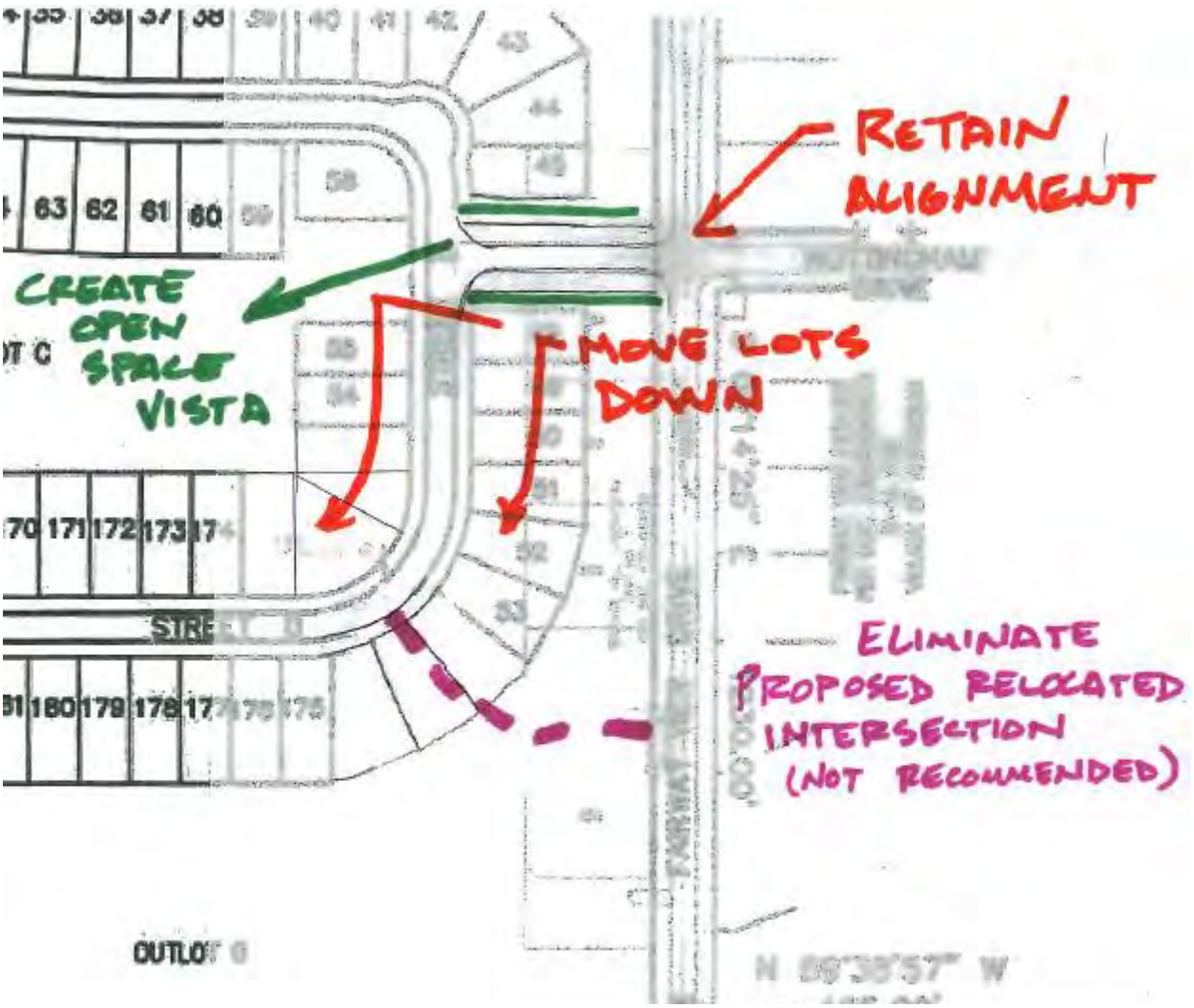
Other traffic concerns related to current speeding and other issues on Bunker Hill and Fairway View (as well as other neighborhoods further away) are enforcement issues that are unrelated to the proposed development.

Village Staff did do drone video flights and recorded the actual traffic on the surrounding streets during morning and afternoon peak hours (including the after-school peak – when school was still in session). If any Trustees would like to view those videos, please let Staff know.

In order to serve this project, Pulte will have to construct the public street improvements and improve the access to Algonquin Road at Frank Road. This includes extension of the proposed bike path to Algonquin Road, and crossing Algonquin Road to connect to the bike path to the north. Some details indicate that this may not be able to feasibly be constructed due to grades and a ditch on the north side of Algonquin Road, in which case Pulte will provide $20,000 in funding to construct that crossing at some point in the future.

The developer is also obligated to make necessary improvements to Fairway View Drive. Since they have to build a new culvert under the roadway, and the Village already has a major improvement planned for this roadway, Public Works and Pulte have agreed on certain details and provisions to coordinate that work closely.

The street layout originally had the access to Fairway View Drive aligning with Nottingham Drive on the east. For a variety of reasons, the Village Planner (Mike Hoffman from Teska) asked that the access be moved south, in order to provide open space vistas upon entry to the subdivision. The revised version has it moved further south, but standard engineering practice has the Village Engineer and Public Works Director now recommending that the access be moved back to its original location. CD Staff has sketched a possible alternative (below) that seems to meet the needs of both requests. Committee input and direction on this issue is requested.



LANDSCAPE PLAN and TREE REPLACEMENT

Pulte has proposed an extensive landscape plan for the Trails of Woods Creek. Because the property is an existing golf course, there are a large number of existing trees that will be removed as part of the redevelopment. Most of the trees were planted when the golf course was developed, so while this is not a natural wooded area, the trees are over 30 years old and many are quite large. This, combined with many trees that need to be removed for restoration of the watershed and wetlands area, results in a substantial impact to the existing trees on this property. Most recent plans show 540 trees to be removed of the 929 that exist on the site.

But, of the trees to be removed, nearly half (210 trees) are on the property that will be dedicated to the Village, and would require removal anyway in order to accomplish the restoration of the wetlands and watershed through this area.

In addition, Pulte is proposing to plant over 1100 new trees, which exceeds the current 928 trees that exist on the property today. This includes a combination of street trees internal to the subdivision, street trees to be installed along Fairway View Drive, and a minimum of one tree to

be installed on every new lot. In addition, Pulte is making substantial improvements through wetland restoration and prairie improvements to the future Village property, at an expense of over $750,000. This more than offsets the tree replacement fee that would otherwise be required.

Trees to be preserved, however, include an existing tree line located along the entire west boundary of the site, with a substantial buffer on the west side of the main entry at Algonquin Road. This existing tree stand serves as a substantial buffer to the neighboring homes in Prestwicke Subdivision, and that will remain to continue screening those homes from the new road and development. In addition, the trees along homes at the southeast end of the property will remain, as they will not interfere with the ecological restoration area, and they will continue to enhance the area of the existing, neighboring homes.

UTILITIES

The property is adequately served by existing water and sanitary sewer systems. These would be extended throughout to service the proposed subdivision. However, the downstream sanitary sewers use the Woods Creek lift station, which was studied in relation to this development proposal. The development will require upgrades to the lift station, at Pulte's expense.

Additionally, the interior water main layout was modeled by the Village, and will require an upgrade to a 12" water main along the west end of the subdivision, in order to provide sufficient water flow and pressure to the future business lot.

The subdivision will be serviced by a completely new storm sewer system that will be retained in the developer-constructed (and HOA maintained) private storm retention ponds that are incorporated into the private greenways throughout the property. These will outflow into the restored wetlands and the tributary, eventually draining under Fairway View Drive into the Woods Creek watershed. These improvements will also substantially reduce or eliminate existing flooding issues experienced by the homes along Bunker Hill Drive.

In order to accommodate the outflows, the developer will need to construct a new culvert under Fairway View Drive. The developer has also agreed to provide additional funding for stabilization improvements to the portion of the Woods Creek tributary east of Fairway View Drive.

SCHOOL IMPACT

This property is located in District 158 (Huntley School District) boundaries. Project plans were shared with D158 for their review. This project will generate school children, approximately 150 grade school students and just under 100 high school students. Pulte will pay the Village's standard school impact fees with each home that is constructed.

The Huntley School District has reviewed all of the information for this project, has the capacity for the students that will be generated by this project, and has provided a letter of no objection to the proposal.

BUILDING ELEVATIONS

Pulte has proposed a series of very attractive building elevations for the homes in this subdivision. The homes will feature a high level of architectural features with wood or LP trim and masonry on the front elevations. The elevation drawings are attached.

Of particular note, though, Staff has recommended that several models with masonry wainscot on the front elevation have that wainscot wrapped through the recessed entry walls. Pulte is objecting to that requirement and would like to discuss their concerns with the Committee. They are trying to maintain certain price points that they can hit within this market. Staff recommends the higher inclusion of masonry and that the masonry be included through the entire front elevation, including recessed entryways.

An example is below; the red line is where the wainscot should be continued into the recessed entries.

REDEVELOPMENT AGREEMENT

A draft redevelopment agreement has been provided by the developer, that would "lock in" all of the terms and agreements pertaining to the development of the property and the PUD. While this is not common practice to do unless the Village is annexing property, in this case it makes sense. There are many practical issues that have been worked through and resolved between Staff and the developer, such as the construction timing and details on Fairway View Drive, payment for the lift station improvements, and other considerations that are clearly documented in this agreement.

The agreement also includes terms and understandings for the fence replacement for the neighbors, the responsibilities of the Homeowners Association and the backup SSA, and many other details related to the project.

The ***draft*** agreement has been extensively reviewed and discussed but an updated version was not completed in time for this packet. Should the Committee give this proposal a favorable review, the final draft (inclusive of any additional Committee direction) will be completed prior to Board action on this development proposal.

CONCLUSIONS

Pulte has proposed a very good development project that will not negatively impact the neighboring properties. This proposal demonstrates a good use of conservation design, and results in preservation of 62 acres of the site as open space, including restoration of 35 acres of highly valuable wetland, flood plain and ecologically sensitive lands that will be donated to the Village.

The subdivision layout creates home sites that nearly all back up to open space. The layout minimizes the impact upon surrounding homes by providing large open space buffers and preserving existing trees around those homes.

The project will enhance the Woods Creek Watershed, and complies with the terms of the Village's Conservation Design zoning requirements. The project fulfills the intent of the underlying R1-E zoning and will actually result in less density with fewer homes being built that could be constructed by-right.

Committee input and direction on the alignment of Nottingham Drive as well as the additional masonry on the building elevations (or other issues from the Committee) is requested. Concurrence to move this forward for Board approval, subject to compliance with the Staff review comments and final Village Attorney review and approval of the Redevelopment Agreement, is recommended.

AGENDA ITEM 5: Request for Preliminary Plat of Subdivision, Preliminary Planned Unit Development, and Zoning for a New Single-Family Residential Development with a Commercial Outlot Parcel Located at 4015 W. Algonquin Road (Terrace Hill Golf Course)

Case No. 2019-2 **Trails of Woods Creek**
Petitioner: Pulte Homes, Russell Whitaker, Attorney for the Petitioner

OPEN PUBLIC HEARING AND ESTABLISH QUORUM
Acting Chair Neuhalfen opened the public hearing and asked to establish quorum. Commissioners present: Hoferle, Laipert, Neuhalfen, Postelnick, Sturznickel, and Szpekowski. Commissioners absent: Patrician. A quorum was declared.

PETITIONER COMMENTS
Acting Chair Neuhalfen asked the petitioners to step up and be sworn in. Village Attorney Quance swore in the petitioner and verified proper legal notice. Representatives on behalf of the petitioner were Russ Whitaker, Attorney, Sharon Dixon, Landscape Architect, Chris Morgart of Cemcon, Civil Engineer, Javier Millan of KLOA, Traffic Engineer. Whitaker noted the property was currently a 138-acre private golf course built in 1985. The golf course has been for sale for 10 years, and Pulte currently has a contract to purchase the land. Golf courses are suffering from decreasing membership and have 1/3 of the play that they had in peak operation. In fact, last year only 12 new golf courses opened in the United States while 138 closed.

Whitaker provided an overview of the project, including the lot sizes and other details. The land is zoned R-1-E and the overall project includes 45% open space, with 10 acres donated to the Village for park, and watershed restoration, and 27.5 acres of retention ponds and open space to be maintained by the HOA. R1-E provides for minimum lots of 18,000 square feet, which would yield over 300 lots. Using conservation design to preserve the natural features of the site, the layout provides for 267 lots, with nearly all backing up to open space of some sort. Whitaker provided an overview of the three neighborhoods, home models and lot sizes.

Dixon reviewed the proposed parkway trees at 40’ on center, monument sign details, pond and lot landscaping details and noted over 1,000 new trees would be planted on the site.

Morgart outlined the existing flooding and drainage issues that impact the neighbors and explained how those issues would be corrected with this development. The proposal included over four times the required stormwater control capacity and three times the required storm sewer capacity to alleviate the flooding issues upstream.

Millan reviewed the traffic study and noted the accesses to the subdivision are located on Algonquin Road, a Strategic Regional Arterial Highway, and Fairway View Drive, a collector street.

Whitaker re-summarized the project for the Commission and offered that Pulte's staff would be happy to answer any questions the Commission may have.

STAFF COMMENTS

Senior Planner Ben Mason reviewed the Staff Report. The Comprehensive Plan calls for this area to be open space, primarily reflective of its current use as a golf course. The property is zoned R1-E, anticipating a residential development of the property. Mason reviewed the drainage, landscaping, tree removal, utility, layout and conservation zoning details of the project. While there were still some technical and engineering details to be worked out, Staff recommended approval of the preliminary PUD for this project with conditions outlined in the Staff Report.

COMMISSION QUESTIONS/COMMENTS

Postelnick inquired if there was ever any requirement in the deed or the zoning to maintain the golf course or provide notice that the golf course was changing use. Also, what would happen to the golf course if this project were not approved? Whitaker responded there were no such title restrictions on the property. However, Pulte will not close on the land unless and until the project is approved. Whitaker could not speculate on what would happen to the golf course if the project were not approved.

Hoferle noted he didn't care for the chain link fence and would prefer a berm with heavy landscaping. He also asked about the extensive tree removal and what Pulte's tree replacement program would look like. Whitaker responded the chain link fence was existing around the golf course today and Pulte's plan was to remove it. The tree removal was unfortunately extensive due to the extensive grading that has to occur on the site. Also, as part of the watershed and prairie restoration, the Village wanted a lot of the trees removed. Hoferle asked if the storm basins were interconnected and Whitaker confirmed yes. Hoferle noted the Village Planning firm Teska recommended an active park area be added, and Whitaker noted the Village does not want an active park in the area, which was confirmed by Staff. Hoferle noted he thought Pulte overall did an excellent job with all of the challenges on this site and working all of the solutions into their design.

Szpekowski thought it was a good idea to connect to the trail north of Algonquin Road at Frank Road. She inquired if there would be off-premises marketing signs, and what the School District thought of the project and how it impacted their bus routes.

Laipert noted there were four wells and septic tanks on the property and asked how that would be environmentally cleaned up.

Whitaker noted the developer would do a Phase 1 Environmental Survey, and all wells and septics would be properly abandoned. Whitaker also noted several neighbors had tied into the existing

fence, which was on the Terrace Hill Golf Course property, but not necessarily where there were fenceposts to remove the bulk of the fence but leave sections where existing homeowners relied upon that fence. So there were some practical difficulties in eliminating the fence.

Sturznickel asked about standing water issues on neighboring properties. Whitaker responded that the Village engineers had determined that Pulte's plan would eliminate that issue.

Neuhalfen expressed concerns that the enhanced drainage would create increased flow to Woods Creek. Whitaker noted it would actually hold back water downstream, but not prevent water from flowing across the Terrace Hill golf course, which is what floods the neighbors now. Neuhalfen also commented about the soils, lot sizes, traffic impact on Bunker Hill, and wanted to be sure the bike path on Outlot M would be constructed to carry emergency vehicles, as they are much heavier than typical cars. Whitaker confirmed the engineers would design it to carry heavy fire trucks and other equipment.

PUBLIC COMMENT

There being no more Commission questions, Neuhalfen opened the public comment portion of the meeting.

Steve Mundt, 3510 Bunker Hill, didn't want to see grasslands full of weeds in his back yard, he liked the trees. He was also very concerned about traffic on Bunker Hill.

Daniel Farster on Summerdale Lane said the commercial was not needed, there is too much traffic on Bunker Hill, and a stoplight was needed at Fairway View Drive and Algonquin Road.

Carrie McCabe was told there would be 75' open space clear in their back yards and tonight it is 40 feet. Commercial was not needed on Algonquin Road, D158 Schools are overloaded already, and the Village already has a large park like Founders Days.

Keith Dafcik 3700 Bunker Hill had concerns about the buffers, lot sizes and grading.

Jim Sarek of 421 Clover said the lots were too small, spread out the open space, landscaping is unacceptable, there are 100+ undeveloped lots in the neighborhood.

Dave Ashenbrenner of 330 Fairway View Drive noted the underlying zoning was in case the golf course was not a successful business venture. The Comp Plan called for this to be green space, the traffic study is flawed as 15 cars were queued at Bunker Hill and Fairway View Drive the other day.

Tamara Marshall 4011 Whitehall was concerned about traffic on Square Barn and noted an emergency vehicle had to cut through Manchester Lakes to get around the traffic on Square Barn the other day. She suggested the Village hire their own engineer to review the proposed plans.

Matt Poulsen 3561 Bunker Hill noted he can't get out of his driveway because of the speeding and lack of enforcement.

Gary Gartrell backs up to Square Barn and noted the traffic study should go all the way to Longmeadow.

Patrick Roderick 420 Greenview said the golf course is zoned for 18,000 square foot lots and the flooding backs up onto other properties in the area.

Dave Nelson 301 Summerdale suggested this was good for people to take the emotion out of their decisions. He felt this was a positive for property values and for Algonquin. His home was by the business lot and suggested the developer increase the berm and trees along the buffer area from Bunker Hill north to Whitehall and Prestwicke.

Jeff Fucha 320 Fairway View noted his dog got ran over last year. The Village removed the speed bumps now everyone speed races down the road. He also didn't want a bunch of weeds that look like crap in the park.

Kathy Brown said no one will go up to Frank and Algonquin to turn to go east.

Josh Kiddikton 371 Summerdale asked if the commercial was needed to go forward.

Whitaker responded to several of the questions and comments:

- A traffic study was done by professional traffic engineers at KLOA and reviewed by Village staff and the Village Engineer;
- The commercial lot on Algonquin Road is a great property at a signalized intersection with high visibility and yes, it is needed;
- Phasing would include the north part of the project first, with a 4-5 year buildout, and Pulte would not leave the project half-finished;
- This project would have a positive impact on home values, even with smaller lots, the anticipated size and sales price of the homes would be higher. There is no way to keep the golf course as it is no longer a viable land use, and the extensive open space adds buffers and other benefits to all of the neighbors.
- Existing traffic and speeding problems are an enforcement issue.

Mason noted the Village notified District 158 of the proposal and was waiting on their review and comments.

Hoferle noted he thought the traffic was worse on Bunker Hill because of the Randall Road construction.

There being no more public input or Commission questions, Acting Chair Neuhalfen closed the public hearing and asked for a motion.

COMMISSION MOTION ON PETITION

Commissioner Hoferle made a motion recommending approval of the preliminary plat of subdivision, preliminary planned development, and zoning to B-2, Business, for Lot 268, consistent with the Trails of Woods Creek plans submitted by the petitioner, the Findings of Fact

listed in the January 13, 2020 Community Development Memorandum, the conditions recommended by Staff, and an additional recommendation that further review and analysis be conducted of traffic in the surrounding area.

Seconded by Commissioner Postelnick. Acting Chair Neuhalfen called for a voice vote on the Motion: AYE: Hoferle, Laipert, Neuhalfen, Postelnick, Sturznickel, and Szpekowski. NAY: None. Absent: Patrician. Motion passed, 6-0.

AGENDA ITEM 6: New/Old Business
None.

AGENDA ITEM 7: Adjournment
A motion to adjourn the meeting was seconded and a voice vote noted all ayes. The motion carried and the meeting was adjourned at 11:15 pm.

Respectfully Submitted,

Ben Mason, AICP
Senior Planner

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March 6, 2020

Village of Algonquin
2200 Harnish Drive
Algonquin, IL 60102

Attention: Russell Farnum, Director of Community Development

Subject: Trails of Woods Creek -SECOND REVIEW
Algonquin Case No. 2019-20
(CBBEL Project No. 070272.00119)

Dear Russell:

We have reviewed the following documents related to this project:

- Preliminary Engineering Plan prepared by CEMCON, Ltd. bearing a revision date of February 13, 2020
- Preliminary Subdivision Plat and PUD prepared by CEMCON, Ltd. bearing a revision date of February 13, 2020
- Preliminary Stormwater Management Report prepared by CEMCON, Ltd. bearing a revision date February 13, 2020
- Existing Agricultural Drain Tile Investigation Plan prepared by Huddleston McBride bearing a revision date of January 30, 2020
- Traffic Impact Study prepared by KLOA bearing a revision date of February 12, 2020
- Cover Letter from Pulte Group dated February 14, 2020
- Lot Configuration Letter from Pulte Group dated February 5, 2020
- Response Memo to MCDOT comments send via email dated January 8, 2020
- Response Memo to Algonquin Public Works Comments dated January 6, 2020
- Response Memo to Algonquin Community Development Comments date January 13, 2020
- Response Memo to Algonquin Police Comments dated January 23, 2020
- Response Letter to CBBEL Traffic Impact Study dated January 9, 2020
- Response Letter to CBBEL Site Engineering and Stormwater Comments dated January 7, 2020
- Annotated Teska Memo with responses from development team dated January 7, 2020

- Water Model Review memo prepared by Engineering Enterprises, Incorporated dated February 20, 2020
- Wetland Status Memo prepared by V3 dated November 7, 2019 ***PREVIOUSLY SUBMITTED***
- IDNR Consultation Letter dated October 4, 2019 ***PREVIOUSLY SUBMITTED***
- Site Plan for Trails of Woods Creek prepared by CEMCON, Ltd. bearing a revision date of December 5, 2019 ***PREVIOUSLY SUBMITTED***
- Topographic Map prepared by CEMCON, Ltd. bearing a revision date of October 23, 2019 ***PREVIOUSLY SUBMITTED***

In addition, we received but did not review the following documents:

- Preliminary Landscape Plans prepared by Dickson Design Studio bearing a revision date of February 14, 2020
- Tree Preservation and Removal Plans prepared by Dickson Design Studio bearing a revision date of February 14, 2020
- Signage Plans prepared by Pulte Group bearing a revision date of February 14, 2020
- Transmittal Memo from Dickson Design Studio dated February 18, 2020

It is our understanding that this project will be presented to the Plan Commission this month. We offer the following comments for their consideration:

PRELIMINARY ENGINEERING PLANS

Sheet 1

1. The site planning has been revised to eliminate the four-way intersection along Fairway View Drive at Nottingham Drive. The connection for Street H is now located 525' to the south of Nottingham Drive. We recommend that the site planning be modified to reestablish the previous four-way intersection.

Sheet 2

2. The callout for the connection to the 10-inch watermain on Fairway View Drive is located at the old location on the plan sheet and not to the south where the connection has been moved.

3. The engineer shall revise the proposed watermain system to conform with the findings from EEI (Alternate 2) in their report dated February 20, 2020. Portions of the proposed 8-inch watermain system will need to be upgraded to 12-inch diameter pipe.

4. The sump pump discharges for lots 60 thru 69, 74 thru 76, and 164 thru 174 should be collected into a single pipe and connected to the proposed storm sewer to prevent erosion of the banks of the detention pond in Outlot C (North).

5. The sump pump discharges for lots 86, 89 thru 92, 74 thru 76, and 157 thru 162 should be collected into a single pipe and connected to the proposed storm sewer to prevent erosion of the banks of the detention pond in Outlot C (South).

6. The sump pump discharges for lots 175 thru 186, 191 thru 192, and 197 thru 201 should be collected into a single pipe and connected to the proposed storm sewer to prevent erosion of the banks of the detention pond in Outlot G (North).

7. The sump pump discharges for lot 107 should be connected to the proposed storm sewer to prevent erosion of the banks of the detention pond in Outlot E.

8. Sump pump service lines to lots 151 thru 156 and lot 211 should be added to the structures in the proposed rear yard storm sewer.

9. The engineer stated in his response letter that the developer has offered a $20,000 contribution to the Village to construct a protected crossing at the Algonquin Road/Frank Road intersection to connect his proposed bike path with the existing bike path system on the north side of Algonquin Road through a capital project administered by the Village. It is our understanding that the Public Works Department prefers that this remain the responsibility of the developer and we support their position.

Sheet 3

10. The 12-inch sanitary sewer from lot 120 to the connection on Bunker Hill Drive has a slope of 0.198% which is less than the minimum of 0.22%.

11. Sump pump service lines to lots 213 thru 229, 136 thru 141, and 249 should be added to the proposed rear yard storm sewer.

12. The sump pump discharges for lots 107, 110, and 111 should be collected and provided a protected discharge into the detention pond in Outlot E to prevent erosion of the banks.

13. The sump pump discharges for lots 202 thru 210 and 230 thru 237 should be collected into a single pipe and provided a protected discharge into the detention pond in Outlot G (Central) to prevent erosion of the banks.

14. The sump pump discharges for lots 142 thru 150, and 212 should be collected into a single pipe and connected to the proposed storm sewer to discharge into the detention pond in Outlot C (South).

15. The sump pump discharges for lots 134 thru 130, 238 thru 243, and 244 thru 245 should be collected into a single pipe and connected to the proposed storm sewer to discharge into the detention pond in Outlot G (South).

General Comments

16. The final engineering plans shall include all proposed sanitary sewer laterals and potable water service lines.

17. The final engineering plans shall include all proposed site grading (contours and spot grading), building footprints, and proposed T/F elevations.

18. The final engineering shall include the diameter, inverts, and materials for the proposed storm sewer.

19. The final engineering shall include all applicable utility, pavement, and SESC standard details and specifications.

TRAFFIC IMPACT STUDY

All previously noted comments have been addressed and we recommend approval of the TIS to the Village. The findings of the analysis indicate that a traffic signal at the Fairway View Drive/Algonquin Road intersection is not warranted under Algonquin Road's status as a Strategic Regional Arterial (SRA) roadway. Algonquin Road is under the jurisdiction of the McHenry County Department of Transportation who must approve of any traffic signal improvements at this intersection.

STORMWATER MANAGEMENT

20. The following is regarding the existing storm sewer data: The invert of the outlet pipe of EXIST SWMF-08A is 886.97.

21. It appears that two existing ponds within subarea 003 have not been modeled. Please explain this reasoning.

22. Please provide an analysis on the outlet pipe for proposed SWMF-07, known as Outfall 2, and verification that the receiving stormwater management system has capacity.

23. At Outfall 1, the triple storm sewer under the Fairway View Drive will be replaced with a single storm sewer. Please ensure proper energy dissipation and erosion protection measures at the outlet will be designed as part of the final engineering.

24. Please provide an analysis of the proposed rear yard storm sewer at 280 and 300 Fairway View Drive. The grades of the yards are below the High-Water-Level (HWL) of proposed SWMF-01. Ensure no water from proposed SWMF-01 backs up onto these properties through the proposed storm sewer.

25. The orifice elevation for detention sizing is set at elevation 876.75. The Normal-Water-Level (NWL) of proposed SWMF-01 is 877.00. These elevations should be equal. Please revise accordingly.

26. Under proposed conditions, a 15.9-inch restrictor, the diameter used in the "Pre-Onsite" model for proposed SWMF-01, will have a release rate of 13.60 CFS at the computed actual maximum water-surface-elevation (WSEL) of 881.86 for the 100-year 24-hour storm event. The same table states a peak outflow of 33.66 CFS is being released from proposed SWMF-01. Please clarify the proposed restrictor and proposed overflow/bypass weir, if any, for proposed SWMF-01.

27. Ensure all structures adjacent to proposed stormwater management facilities meet the requirements of Section 9-139 in the Ordinance.
28. The time of concentration calculations use the previous Bulletin 70 2-year 24-hour rainfall depth of 3.04-inches. The updated Bulletin 70 2-year 24-hour rainfall depth is 3.34-inches. Please revise accordingly.

29. Please provide a summary table similar to the 100-year storm results for the 10-year storm event for both existing and proposed conditions under all durations.

30. According to Section 9-141.A.4 of the Kane County Stormwater Management Ordinance (Ordinance), hydraulically equivalent compensatory storage volume will be required for development at "A factor of one (1) to one for Depressional Storage and Nonriverine Regulatory Floodplain." The storage volume displaced below the existing ten percent (10%) frequency flood elevation must be replaced below the proposed ten percent (10%) frequency flood elevation and the storage volume displaced above the existing ten percent (10%) frequency flood elevation must be replaced above the proposed ten percent (10%) frequency flood elevation and below the existing one percent (1%) frequency flood elevation. Please provide the following:

    - Calculations for the existing 10- and 100-year base flood elevations (BFE) in the non-riverine floodplain, which is shown on the FIRM and labeled as Zone A.
    - Quantities of floodplain fill below the existing 10-year BFE using the existing elevations delineated on the site-specific topography.
    - Quantities of floodplain fill above the existing 10-year BFE and below the existing 100-year BFE using the existing elevations delineated on the site-specific topography.

- Quantities of compensatory storage provided incrementally below the proposed 10-year BFE using the proposed elevations.
- Quantities of compensatory storage provided incrementally above the proposed 10-year BFE and below the existing 100-year BFE.

31. ***PREVIOUS COMMENT NOT ADDRESSED.*** Storm sewer, inlet capacity, and overland flow calculations should be provided as part of final engineering.

32. ***PREVIOUS COMMENT PARTIALLY ADDRESSED.*** As noted in the Preliminary Stormwater Management Report, the project will need to obtain a LOMR-F from FEMA to reflect the proposed modifications to the regulatory floodplain. ***We acknowledge the engineer's response that the developer seeks to address the timing of the construction and FEMA approvals within the development agreement.***

33. ***PREVIOUS COMMENT PARTIALLY ADDRESSED.*** Per the information provided in the Wetland Status Memo, 16 areas were identified for study and analysis within the project boundaries. Areas 3-9 were noted to have the potential to be classified as jurisdictional with USACE determination to take place in the first quarter of 2020. These areas would be disturbed by the proposed project but are shown to be used for stormwater detention. If found to be jurisdictional, the loss of wetlands will need to be mitigated and a permit obtained through the USACE for it. The applicant shall provide a copy of the jurisdictional determination to the Village when obtained. ***We acknowledge the engineer's response that the client has submitted for jurisdictional determination and that the determination letter will be forwarded to the Village when it is received.***

34. ***PREVIOUS COMMENT PARTIALLY ADDRESSED***. As discussed at the development meeting of November 1, 2019, the site is within the Woods Creek Watershed. The staff indicated that the need for channel improvements to the waterway east of Fairway Drive was identified. It is the staff's desire to include these improvements within the overall development scope of work at the expense of the developer. ***The engineer states in the response letter that the developer has offered to provide a $50,000 contribution to the Village towards the construction of the channel improvements through a capital project administered by the Village. It is our understanding that the Public Works staff as amenable to the offer, but it must be formally accepted by the Village.***

OUTSIDE PERMITTING AGENCIES

35. A permit will be required from the IEPA for the proposed watermain extensions.

36. A permit will be required from the IEPA for the proposed sanitary sewer extensions.

37. A permit will be required from the IEPA for the site disturbance associated with this project.

38. A permit will be required from the McHenry County Division of Transportation (McDOT) for all work performed within the Algonquin Road right-of-way.

39. A permit from the USACE may be required for the disturbance of wetlands should any of the existing on-site ponds be found to be jurisdictional.

GENERAL COMMENTS

40. A revised Petition to Village for PUD Approval was not included with the submitted documents. The comments from our letter of January 7, 2019 remain unaddressed.

Sincerely,

Paul R. Bourke, PE CFM CPMSM
Assistant Head, Municipal Department

Michael E. Kerr, PE
President

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VILLAGE OF ALGONQUIN

PUBLIC WORKS DEPARTMENT

– M E M O R A N D U M –

DATE: March 5, 2020

TO: Russ Farnum, Community Development Director

CC: Robert Mitchard, Public Works Director

FROM: Victor C Ramirez, P.E. Project Engineer (CBBEL)

SUBJECT: **Case No. 2019-20. PW Staff Review #2**
Trails of Woods Creek Development – Preliminary Plat of Subdivision And Preliminary PUD

The Public Works review team has reviewed the following documents:

- Revised Traffic Impact Study 2 12 20 – KLOA
- Lot Configuration letter 2 5 20 – Pulte Group
- Responses to Village review comments 2 14 20 – Pulte Group
- Preliminary Landscape Plan revised 2 14 20 – dickson design
- Tree Preservation and Removal Plan revised 2 14 20 – dickson design
- Tree calculations letter 2 18 20 – dickson design
- Preliminary Engineering revised 2 13 20 - Cemcon
- Preliminary Plat and PUD revised 2 13 20 -Cemcon

Our comments are as follows:

<u>Overall:</u>

- Street H and Fairway View Drive: PW staff disagrees with the realignment of Street H to the proposed location south as a tee intersection. Staff maintains that the original alignment with Nottingham Drive is the most conventional and safe configuration. The proposed tee intersection alignment becomes the third tee alignment configuration on the project limits stretch of Fairway View Drive; the other two being Greens View Drive and the bike trail crossing.
- Bikepath:
    1. Outlot G: Prior to the connection to the crossing at Fairway View Drive, there is a E-W and N-S meeting of the paths that needs to be clarified, designed, and signed for the safest accommodation of bicyclists here and as they head to or from Fairway View Drive. A Rectangular Rapid Flashing Beacon (RRFB) will be required on Fairway View Drive for the crossing.

2. The area between lot 141 and 142 is too narrow for the bikepath.
3. Alignment and extension of the bikepath with continuity across Rt. 62 to Frank Road: Staff rejects the $20,000 offer to address this in the future and respectfully requests the developer work this out and build it as part of the development.

- Easement widths: There are a number of locations where the area for the bikepath and/or sanitary sewer is too narrow. This may necessitate the loss of some lots to accommodate the facilities properly.

Utilities:

1.) Water:
- Staff had requested its consultant, Engineering Enterprises, Inc. (EEI) provide a water modeling analysis of the proposed development. Attached is the results of that analysis dated February 20, 2020. Staff concurs with their recommendation of incorporating the Alternate 2, 12' watermain improvements north-south as shown on Exhibit 4 of the report.
- Street D cul-de-sac: Staff would like the dual watermain eliminated and side yard easements created between lots 200 and 199 and a looping connection through to Fairway View Drive.

2.) Sanitary sewer:
- Staff has evaluated the downstream Woods Creek Lift Station that this project is tributary to. Upgrades to the lift station will be required to accommodate the flow impact to the lift station. The costs for these improvements is estimated at $228,000. The Village is willing to be responsible for 36% of the cost or $82,080 for existing deficiency, and the developer responsible for $145,920 for the upgrade requirements.
- The easement between lots 47 and 48 is too narrow for the sanitary sewer.

3.) Storm sewer:
- The Outfall 1 area will require a 42" culvert to replace the existing culverts being removed as part of this development.
- Sump pump discharge and routing: All sump pump discharge points and collection system needs to be shown on the plans. The plans are inconsistent. There can be no individual discharge points. They need to be collected and routed to a specific outfall if discharging to the rear yards. Example: it is shown correctly for lots 48 through 53 and lots 40 through 47, but not correct for lots 59 through 92 and other places, and show nothing for lots 230 through 243, lots 130 through 150, etc.

Landscaping:

1.) Tree preservation plan is acceptable.
2.) Tree removal and reforestation calculations: (See attached 2/26/20 Steven Ludwig memo). Steve's memo provides, per Village Code, that the calculated environmental loss fee is $429,900. The Pulte proposal in the 2/5/20 Tree Preservation/Replacement letter differs significantly in analysis and approach. This matter will require additional discussion.
3.) Show species locations and quantities for all plants on the plan sheet.

4.) Provide a chart denoting how many of each plant, and their sizes will be installed on the project. Separate out street trees from all other quantities.
5.) The total number of all trees shall be diverse; no more than 20% of any Genus, and no more than 10% any species.
6.) Include parkway trees at 50’ centers in the ROW on Fairway View Drive the entire length of the project.
7.) The bikepath area between lots 58 and 59 is too narrow. Lot 59 may need to be removed to allow adequate space.
8.) Add four deciduous trees to outlot I.
9.) All lots dedicated to the Village shall have any proposed native development plans approved by the Village.

Attachments:

- Water modeling report 2/20/20 by Engineering Enterprises, Inc.
- Tre Removal Calculations review memo 2/26/20 by Steven Ludwig

VILLAGE OF ALGONQUIN

PUBLIC WORKS DEPARTMENT

– M E M O R A N D U M –

DATE: February 26, 2020

TO: Bob Mitchard, Public Works Director
John Heinz, CBBEL
Victor Ramirez, CBBEL
Russ Farnum, Community Development Director

FROM: Steven R. Ludwig, General Services Superintendent

SUBJECT: Trails of Woods Creek Tree Removal

I submit to you the tree removal particulars relative to the project noted in the subject line.

I applied the Village tree ordinance requirements to the submitted tree inventory, and those trees proposed for removal. Of the trees proposed for removal, there is a calculated loss (per the ordinance) of 6,471 inches of tree diameter.

The submitted landscape plans call for deciduous shade, ornamental, and coniferous tree replacement on streets, medians, and buffer areas in the total of 2,172 caliper inches (measured at six inches above grade; 3 inch caliper for shade and ornamental trees, and 4 inch caliper for coniferous trees), per Chapter 30 of Village Code. When credited to our loss total, the proposal for the site leaves us with a negative DBH tree quantity of 4,299 inches.

Additionally, the developer is proposing the installation of 1,143 caliper inches of deciduous shade trees on private lots. The concern here is the potential for our future residents to start their residency with a bit of angst toward the developer and/or the Village if they are required to receive a shade tree on their privately owned parcel if they do not really want one.

It is, therefore, my recommendation that the reforestation fee for these trees be paid, along with the other reforestation fees (prior to issuance of a site development permit) and held in a restricted account. These monies for the private lot trees can be earned back by the developer for each caliper inch of deciduous shade tree planted by the developer on the private lots as noted on the final punch list for any unit closed out. Monies returned will be $100 per caliper inch installed, up to 1,143 caliper inches. Quantities, sizes, locations, and species must be provided by the developer at the time of the initial request for a punch list. The ability to request reimbursements will expire five years from the issuance of the site development permit.

Per Village Code Chapter five (5), section fifteen (15), paragraph “P”, “Should the Village Arborist determine that full replacement would result in unreasonable crowding upon the lot; the permittee shall be required to offset the environmental loss by paying a loss fee to the Village. The loss fee will be based upon $100.00 per caliper inch of loss based upon the formula noted above. This loss fee will account for the proposed environmental losses and shall be used to provide reforestation in other areas of the Village. Said fee shall be paid prior to the issuance of a site development permit”.

With the formula from the code, as noted above, the total of inches lost, times $100.00, places the environmental loss fee at $429,900. Per the reimbursement agreement noted above, $315,000 shall go in to the reforestation fund, and $114,300 shall be placed in a separate fund for potential reimbursement to the developer. This separate fund will terminate five years after the issuance date of the site development permit. Any remaining balance shall be transferred to the Village's reforestation fund.

If this proposal is viewed as the best alternative to the development of this site, it is my recommendation that the Village be issued an environmental loss fee in the amount of $429,900. All monies will be utilized for reforestation in other areas of the Village. This will allow all parties to be accountable for this substantial amount of tree loss.

Please let me know if you have any questions.

HUNTLEY
COMMUNITY SCHOOL DISTRICT 158

Huntley Community School District 158

650 Academic Drive
Algonquin, Illinois 60102
(847) 659-6158 • www.district158.org

1/27/2020

To Whom it May Concern;

Huntley Community School District 158 was contacted by Ben Mason, Senior Planner for the Village of Algonquin on December 18, 2019 to inform us of a zoning application submitted by Pulte homes for a subdivision to be constructed within our school district boundaries. I have reviewed the proposal and as Superintendent of Huntley Community School District 158 am not opposed to this project.

Respectfully,

Scott N. Rowe Ed.D.
Superintendent
Huntley Community School District 158

VILLAGE OF ALGONQUIN

COMMUNITY DEVELOPMENT DEPARTMENT

– M E M O R A N D U M –

DATE: January 13, 2020

TO: Planning and Zoning Commission

FROM: Benjamin A. Mason, AICP, Senior Planner

SUBJECT: Case No. 2019-19. Trails of Woods Creek – Preliminary Plat of Resubdivision, Preliminary PUD, and B-2 Zoning for commercial parcel

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Introduction

Robert Getz representing Pulte Homes, contract purchaser of the Terrace Hill Golf Course located at 4015 West Algonquin Road, has submitted a petition for Plat of Resubdivision for the approximately 140-acre property bounded by the intersection of Frank Road on the west and Fairway View Drive on the east. Preliminary Planned Unit Development (PUD) is requested for a 267 lot single-family residential subdivision to be constructed on the subject property, as well as a 2.76-acre commercial parcel located at the northwest corner of the site that is identified as lot 268. B-2, Business zoning is requested for the commercial lot.

Terrace Hill Golf Course was annexed by the Village in 1987 and zoned R-1E, single family residential with a Special Use Permit to operate a golf course. Enclosed please find a thorough narrative description of the history of the subject property, as well as proposed development plans provided by the petitioner Pulte Homes.

Staff / Consultant Comments

Site Plan / Operations

The proposed plan would utilize the existing full-access signalized intersection at Frank Road as the primary entrance to the subdivision. A second access would be added onto Fairway View Drive, though Staff recommends a location south of the current proposed alignment with Nottingham Drive which will be elaborated upon later in the report.

Additionally, though additional connectivity from the proposed subdivision to the adjacent neighborhoods would be desirable, for example out to Bunker Hill Drive and / or to align with the Greens View Drive intersection at Fairway View Drive, the developer has looked at those locations and determined them impractical. The primary issue is the presence of existing floodplain and hydric soils that would necessitate building raised boardwalks or bridges, and make such connections cost prohibitive and negatively impact restoration of those areas.

It is important to highlight the property is located in the Woods Creek watershed, which is covered by the Woods Creek watershed plan, and therefore subject to the Village's Conservation Design standards. One aspect of Conservation Design is consideration for removing wetland areas – 14 acres on this subject property – from available gross land area for development, in order to calculate par (net) developable acreage. Based on the site's R-1E zoning designation of 2.42 dwelling units per acre, when multiplied by this site's Par Acreage of 129 acres, results in a total allowable unit count of 313 homes.

The developer is proposing a total of 267 single-family homes, across 3 different series of residential products, referred to in the plans and documents as the Springs, Estates, and Shores neighborhoods. Prior to discussion of the location and features of each residential home series, it is first useful to recognize that the proposed lot sizes are in fact smaller than what is permitted by-right on the property under its current R-1E zoning classification. Though NOT what the developer is proposing, theoretically the land could be subdivided – under R-1E zoning – for 18,000 square foot lots across the property, resulting in more than 300 residential parcels.

What the proposed development does instead, is seek to cluster development toward the center of the property, and integrate open space throughout the site, so that over 90 percent of the residential lots would back up to open space. A minimum 75-foot landscape buffer is provided around the entire perimeter, and increases to several hundred feet setback from adjacent homes at the southeast corner of the site where staff is requesting the developer dedicate open space and detention ponds to the Village.

Although it is recognized that the developer has made efforts to consider the surroundings and existing neighbors, the proposed lots that back up most near adjacent homeowners at the southwest corner and west side of the property shall be increased in size to more closely match lots sizes in those subdivisions, notably the Prestwicke subdivision.

Proposed Residential Homes
Beginning on the west side of the proposed subdivision, bounded by Street A to the north and Street C to the east, is the Estates segment of the development which would consist of 47 lots for "move-up" buyers interested in such amenities as 2-story great rooms, a three-car garage and first-floor master suite. The homes would range in size from 2,900 to 3,900 square feet and generally be closest to the homes in Prestwicke subdivision to the west.

The largest segment of homes in the proposed subdivision – Shores, 124 units – would be marketed toward empty nesters wanting a maintenance-free living experience, and located to the east along Streets C, D, E. The homes would be one-story ranches ranging in size from 1,700 to 2,900 square feet.

Lastly, the Springs series of homes are proposed closest to Algonquin Road, following Street B as it winds to the west back to the intersection with Street A. A total of 96 units are proposed within this segment, that would range in size from 2,400 to 3,200 square feet.

The proposed unit mix would provide a range of housing options that would all be setback the standard 30-feet from the front property line, and be required to offer multiple elevations. As a clarification, the front yard setbacks shown on the enclosed plans for the Shores series of homes are only depicted at 25-feet, though the developer has been informed by staff the setback distance shall be increased to 30 feet. Teska Associates in their review memo, noted the need to provide additional variety of elevations for the Springs and Estates series, possibly to include a ranch model. The developer shall be required to revise and re-submit updated elevation renderings at Final PUD, for further review by staff and the village.

Proposed Commercial Use
The developer is proposing a 2.76-acre parcel be re-zoned to B-2, Business PUD at the northwest corner of the site, in the approximate area where the clubhouse for the golf club is situated today. Though a specific end user is not part of this petition at this time, the location near a signalized intersection would likely be desirable for such neighborhood service uses as a gas station or small retail building. Any commercial development proposed for that parcel – lot 268 – shall be required to come back before the Planning and Zoning Commission and Village Board for Final PUD approval in the future. In the meantime, the developer's traffic study for the residential subdivision assumed a gas station use and its traffic generation as a reasonable placeholder.

Preliminary Engineering Plans
The existing ponds on the property – designed to serve an aesthetic function and provide water for irrigation purposes for the existing golf course – will be completely re-worked to comply with current stormwater management requirements in compliance with the Kane County ordinance the Village follows. The site generally drains west to east toward

Fairway View Drive, and ties into the tributary creek north of Greens View Drive. As is called out in the Village Engineer's review memo, the developer shall be required (at its expense) to make channel improvements to the waterway extending approximately 200-feet east of Fairway View Drive, in order to ensure the proposed on-site drainage ponds and improvements will be effective and property convey stormwater out toward Woods Creek located about a quarter mile further east. A detailed set of creek restoration plans for the required off-site improvements shall be provided prior to Final Plat and PUD Plan review.

The proposed development will also correct some flooding issues that have impacted property near the southwest corner of the site, through the series of inter-connected detention basins that will be engineered appropriately to collect and transmit stormwater on-site, away from adjacent residences and ultimately leading north and east toward the outlet beneath Fairway View Drive.

The floodplain, ponds, and wetlands at the south and east ends of the property will be restored and dedicated to the Village for ownership, along with 10 acres of additional open space for a passive park at the southeast corner of the property. While the open space and detention facilities the Village will ultimately own is discussed in greater detail later in this staff report, all the other outlots and storm basins toward the center and further north on the property will be the responsibility of the subdivision's HOA and shall be developed with standard turf grass.

The developer will extend Village water and sewer utilities so that the entire subdivision will be served by public utilities. The developer shall also be required to stub water and sewer lines to the three parcels along Algonquin Road that are not part of this petition and include a landscaping business. Additionally, the developer will be responsible for bringing water to the adjoining lots 28 and 30 on Fairway View Drive that have historically obtained their water supply from the golf course and its private well.

Traffic

The developer's traffic engineer KLOA, analyzed the impact to the surrounding neighborhoods and local road network based on the proposed 267-lot residential subdivision and potential gas station use at the northwest corner of the property. The large majority of traffic generated by the residential subdivision – for example, 124 of 146 peak morning hour trips – are projected to utilize the signalized intersection at Frank Road, or turn left onto Fairway View Drive to then head eastbound on Algonquin Road. The remaining 22 vehicle trips would head south on Fairway View Drive to then proceed either east or west on Bunker Hill Drive to their ultimate destination. It is important to underscore that Bunker Hill Drive is a collector street that provides a necessary east-west connection between Randall Road and Square Barn Road, but the fact the proposed subdivision will be served by an easily accessible signalized intersection at Frank Road will greatly mitigate impact to the surrounding neighborhoods.

A new traffic signal would be permitted under McHenry County DOT regulations for the intersection of Fairway View Drive and Algonquin Road as well, and both the Village Engineer and MCDOT have recommended the developer's traffic engineer perform further analysis of that intersection to determine if it might meet necessary warrants for signalization.

Enclosed are comments from the Police Department, who reviewed the plans and have recommendations for the placement of stop signs at various locations in the subdivision. Overall, the proposed internal street network is viable and there are no major issues, however staff suggests the developer look further at whether there is potential to provide some form of centralized connection or intersection, whereby vehicles would not be required to use the long loop road system as presently designed to get to their homes, in particular those on the far south end of the property.

Staff also suggests the developer shift the proposed access point onto Fairway View Drive 100-200 feet south of the proposed alignment with Nottingham Drive. Such a realignment would have the dual benefit of discouraging traffic leaving the subdivision from driving straight onto Nottingham Drive at a higher speed that can be a concern given the considerable drop in grade to the east, and also afford improved scenic sightlines into the subdivision of the open spaces designed toward the center of the development.

All of the public streets will require street lighting in accordance with the Village public street light standards. No lighting plans have been submitted at this time, which will need to be provided with the Final Plat and PUD Plan.

Preliminary Plat of Subdivision

The plat shall be revised prior to Final Plat and PUD plan review, to provide cross access from the proposed commercial parcel to the adjacent – but not a part of this petition – three individually-owned parcels to the east. It is very probable that long-term those parcels may redevelop as commercial uses given their frontage along Algonquin Road, though their primary access would be through the subdivision out to the existing signalized intersection at Frank Road. Additionally, the developer shall coordinate directly with MCDOT to address their request for additional right-of-way along Algonquin Road, which should subsequently be depicted on the Final Plat.

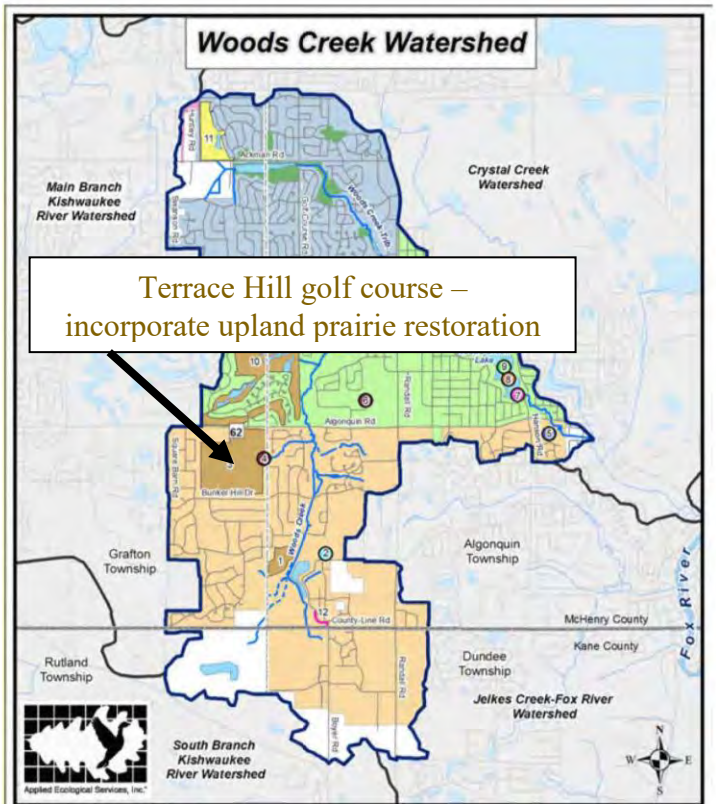
Consistency with Village Plans

The Village's Comprehensive Plan designates the Terrrace Hill golf course as private open space, primarily because that is what the property has been used as for over 30 years and the Village has no intention of acquiring the land for public open space. The property also has R-1E single-family zoning to limit any future development to quality potential residential uses, rather than permit the property to be redeveloped as some type of large retail or commercial use that would be incompatible with its surroundings. The Special Use Permit Terrace Hill obtained from the Village in 1988, permitted use of the land for the golf course until which time it would cease to operate as such.

The current owner of the golf course, the Zange family, as well as Village Staff certainly recognize the need to consider potential development of the property in a way that complements the surroundings and existing neighborhoods. To that end, the petitioner Pulte Homes has proposed a reasonable land plan that preserves open space areas along the perimeter of the site, often next to adjacent homeowners that very well may have purchased at a premium charged by the original developer for their lots with views of the golf course open space.

To accommodate the preservation of such a large amount of open space – 63 acres or 45% of the overall land area on this project – the residential lots have been consolidated and clustered generally toward the center of the property. The sizes of the lots are therefore smaller than if the property was built under straight R-1E zoning which has an 18,000 square foot lot minimum, however as was examined earlier in the memo, the total number of units proposed by the developer is substantially less than would be allowed under the Village's Conservation Design ordinance.

The development as proposed also will serve a significant enhancement to the Woods Creek Watershed, as the golf course area was identified in the Woods Creek Watershed plan as a critical opportunity to gain prairie and native landscape amenities as part of any future development (see figure at right).



While the Village's Comprehensive Land Use Plan also recommends one additional neighborhood park in the general area, Staff believes this particular site is better served to provide restorative ecological benefits in the form of naturalized detention basins, and a passive open space with walking trails and benches. There will also be a trail connection from the subdivision south to Bunker Hill Drive which will allow residents to conveniently access James B. Wood Park less than 1/2 –mile to the south.

As explained in the Public Works Department review memo, staff recommends the developer dedicate 35 acres of their proposed open space areas – outlots N and W at the southeast corner of the property to the Village for maintenance and ownership as

naturalized areas. The developer will be required to have an ecological firm prepare a design and perform the initial installation and establishment of the native areas for a minimum of three years, prior to turning the land over to the Village.

Preliminary Landscape Plan
The proposed land plan includes a minimum 75-foot landscape setback around the site, which will help serve as a buffer to the neighboring homes. There is also an existing chain link fence that encircles the entire golf course and was installed by the owner for security purposes, which is becoming old and dilapidated. Staff recommends the developer remove the existing chain link fence and propose an alternative fence design that ensures the numerous adjacent residential neighbors who have relied upon the golf course fence for their fourth side are provided an appropriate replacement.

There are open spaces located throughout the property, providing green connections between the different segments of the proposed subdivision. In addition to sidewalks on both sides of the streets, over 1.4 miles of bike / pedestrian path will wind through the site and provide for connections to both Bunker Hill Drive and Fairway View Drive. The path amenity will be similar to what exists in the Manchester Lakes subdivisions, which was also designed and built by Pulte Homes. Staff recommends the path be widened to 10-feet through Outlot M out to Bunker Hill Drive, so that it could serve as an emergency access into the subdivision – police and fire vehicles only – should the need ever arise for a direct route into the southern end of the subdivision.

As part of the native restoration work on site, staff recommends all oak trees be preserved but the other tree species which are not as high value to the proposed naturalization of the land should be removed. While there are certainly large trees located throughout the existing property, it is important to note they were all planted according to aesthetic desires that served the golf course use. Overall, staff believes the goal of creating a quality stormwater management system that ultimately channels directly in to the tributary creek along Fairway View Drive and out to Woods Creek is the highest priority natural feature that should be incorporated into the developer's plans.

The location of the large open space and passive park area at the southeast corner will serve as a buffer for homes that paid a premium for open space views when the golf course was first constructed, and also works well for accommodating the historical drainage flow of stormwater from west to east that the Conservation Design detention basin system the Public Works Department is recommending be enhanced. A back-up Special Service Area shall be required for the stormwater detention facilities to be retained and maintained by the subdivision's HOA.

As noted above, there are several reasons the Village will require the provision for one or more Owners Association(s) to regulate and maintain elements of this development. The draft HOA and any covenants or other private understandings shall be reviewed by the Village for approval with the Final Plat and PUD Plan.

Findings of Fact

The following findings of fact should be used if the Commission recommends approval of the petition:

1. The proposed uses are appropriate and desirable in this location, and will be compatible both with the Comprehensive Plan designation and surrounding uses. The subject 140-acre property has underlying R-1E residential zoning and the proposed development of the existing private open space as predominantly single-family homes, with the exception for one 2.75-acre commercial outlot along Algonquin Road, will complement the character of the neighboring single-family residential subdivisions.

2. A dramatic slowdown in the golf course industry the past two decades, and precipitous decline in business, has necessitated a change in land use for the subject property that will be consistent with the property's underlying single-family zoning designation. Furthermore, the petitioner's proposed development will provide a variety of desirable housing options for the local community.

3. The proposed use of this site will not be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity, or injurious to property values. Similar to other Planned Unit Developments throughout the Village, the petitioner's development shall both be constructed in accordance with their approved plans and adhere to the conditions of approval regulating architectural design and site layout, in order to be compatible with surrounding development.

4. The proposed uses will comply with all zoning requirements of the Village and the conditions stipulated as part of the approval. Any commercial use on Lot 268 shall be required to obtain Final PUD approval for architectural design and site layout by the Village's Planning and Zoning Commission and Village Board prior to construction.

Recommendation

Staff recommends approval of the request for Preliminary Plat of Resubdivision, Preliminary Planned Unit Development, and Zoning to B-2, Business for Lot 268, consistent with the development plans submitted by the petitioner, findings of fact outlined above, and with the following conditions:

1. The Preliminary Plat of Subdivision as prepared by CEMCON, Ltd. with a latest revision date of December 5, 2019 shall be revised to incorporate comments from the January 7 and 9, 2020 Christopher Burke memos, the January 6, 2020 Public Works memo, January 7, 2020 Teska Associates memo, January 6, 2020 Fire District review memo, January 3, 2020 Police Department review memo, and January 8, 2020 McHenry County DOT preliminary review comments. The plat shall be revised prior to Final Plat and PUD plan review, to provide county requested additional right-of-way as well as cross access from the proposed commercial parcel to the three individually-owned parcels to the east.

2. The Preliminary Site and Engineering Plans as prepared by CEMCON, Ltd. with a latest revision date of December 5, 2019 shall be revised to incorporate comments from the January 7 and 9, 2020 Christopher Burke memos, the January 6, 2020 Public Works memo, January 7, 2020 Teska Associates memo, January 6, 2020 Fire District review memo, January 3, 2020 Police Department review memo, and January 8, 2020 McHenry County DOT preliminary review comments. The lots on the southwest corner and west side of the property shall be increased in size to more closely match lots sizes in the adjacent subdivisions, notably the Prestwicke subdivision. The front yard setbacks for the Shores series of homes shall be increased to 30 feet. The developer shall be required to make channel improvements to the off-site creek extending approximately 200-feet east of Fairway View Drive; a detailed set of creek restoration plans for the required off-site improvements shall be provided prior to Final Plat and PUD Plan review. The developer shall evaluate options for shifting the proposed access point onto Fairway View Drive, to some location south of the proposed alignment with Nottingham Drive.

3. The developer shall stub water and sewer lines to the three parcels along Algonquin Road that are not part of this petition and include a landscaping business. Additionally, the developer will be responsible for bringing water to the adjoining lots 28 and 30 on Fairway View Drive that have historically obtained their water supply from the golf course and its private well.

4. The Traffic Impact Study as prepared by KLOA with a latest revision date of December 9, 2019 shall be revised to incorporate comments from the January 7 and 9, 2020 Christopher Burke memos, the January 6, 2020 Public Works memo, January 7, 2020 Teska Associates memo, January 6, 2020 Fire District review memo, January 3, 2020 Police Department review memo, and January 8, 2020 McHenry County DOT preliminary review comments. The traffic engineer shall perform further analysis of the Fairway View Drive and Algonquin Road intersection to determine if it might meet necessary warrants for signalization.

5. The Preliminary Landscape Plans as prepared by Dickson Design Studio with a latest revision date of December 6, 2019 shall be revised to incorporate comments from the January 7 and 9, 2020 Christopher Burke memos, the January 6, 2020 Public Works memo, January 7, 2020 Teska Associates memo, January 6, 2020 Fire District review memo, January 3, 2020 Police Department review memo, and January 8, 2020 McHenry County DOT preliminary review comments. The developer shall dedicate approximately 35 acres of their proposed open space areas – outlots N and W at the southeast corner of the property – to the Village for maintenance and ownership as naturalized areas. The developer shall have an ecological firm prepare a design and perform the initial installation and establishment of the native areas for a minimum of three years, prior to turning the land over to the Village. Staff recommends the developer remove the existing chain link fence around the golf course and propose an alternative fence design that ensures the numerous adjacent residential neighbors who have relied upon the golf course fence for their fourth side are provided an appropriate

replacement. The proposed internal bike path shall be widened to 10-feet through Outlot M out to Bunker Hill Drive, so that it may serve as an emergency access into the subdivision for police and fire vehicles only.

6. The developer shall petition for Final Plat of Resubdivision and Final PUD review and approval of the residential subdivision prior to any construction taking place. The engineering plans, landscape plans, building elevations, and all other development plans shall be reviewed as part of the PUD process, and the Village may add additional requirements at that time.

7. Any commercial development proposed for Lot 268 shall be required to come back before the Planning and Zoning Commission and Village Board for Final PUD approval in the future. The engineering plans, landscape plans, building elevations, and all other development plans associated with the commercial parcel shall be reviewed as part of the PUD process.

8. The Preliminary Signage Plans as prepared by Pulte Group with a latest revision date of December 4, 2019 shall be reviewed at the time of Final Plat and PUD Plan, prior to any construction taking place. Temporary marketing, sales, and model home signage shall follow Village Code requirements with respect to number, location, size and other similar regulations.

9. The Preliminary Building Elevations as prepared by Pulte Group with a latest revision date of December 6, 2019 shall be reviewed at the time of Final Plat and PUD Plan. The developer shall be required to address Teska Associates recommendation to provide additional variety of elevations for the Springs and Estates series, such as the inclusion of a ranch model.

10. The Village will require the provision for a private Owners Association(s) to regulate and maintain the common elements of this development. The draft HOA and any covenants or other private understandings shall be reviewed by the Village for approval with the Final Plat and PUD Plan.

11. A back-up Special Service Area shall be required for the stormwater detention facilities to be retained and maintained by the subdivision's HOA.

12. All temporary marketing and permanent subdivision signage shall be reviewed by the Village for approval with the Final Plat and PUD Plan.

13. All of the public streets will require street lighting in accordance with the Village public street light standards. The developer shall be required to submit lighting plans the time of the Final Plat and PUD Plan review.

Enclosures

- Staff / Consultant Memos

- Developer Plan Submittal

MEMEORANDUM

TO: Russ Farnum, AICP

From: Mike Hoffman, AICP, PLA

Date: March 5, 2020

Subject: **Pulte Trails of Woods Creek**

The proposed Pulte Trails of Woods Creek is a redevelopment of the existing Terrace Hill golf course. The property is located on Algonquin Road, east of Square Barn Road and just west of Fairway View Drive. The property contains 138 .4 acres, featuring rolling topography with many beautiful trees. The private golf course has seen reduced play in recent years, and the property owners has decided it is no longer profitable to operate the course. Pulte Homes proposes development of the property as a Planned Unit Development with three distinct single-family products, extensive open space, and a small commercial development at the project entrance.

This review is based on revised submittals provided to our office in late February 2020 including

- A revised Preliminary Plat and P.U.D. prepared by Cemcon, Ltd. dated 2/13/2020
- Revised Landscape Plans prepared by Dickson Design Studio dated 2/14/2020

Relationship to Comprehensive Plan

Algonquin's Comprehensive Plan did not anticipate the redevelopment of this property, showing the site as open space consistent with its existing golf course use. The Comprehensive Plan shows low density residential use to the east, west and south. Property to the north is in Lake-in-the-Hills and consists of the Boulder Ridge Country Club and related residential development.

In reference to this general planning area, the Comprehensive Plan notes "redevelopment shall include tree preservation and be sensitive to the surrounding uses." We feel the proposed land plan does a good job of being sensitive to surrounding uses, with open space buffers around the periphery of the property and significant open space throughout the development. Their tree preservation plan currently shows preservation of only 19% of the existing on-site trees. The applicant notes that "the property was cropland as recently as 35 years ago. While the existing tree inventory is generally in good condition, the trees were installed around design of a golf course, not in consideration of any natural conditions or habitat. The proposed development plans include more trees than exist on the golf course today." Given the extensive grading required to accommodate the proposed design, tree preservation is a challenge on this property.

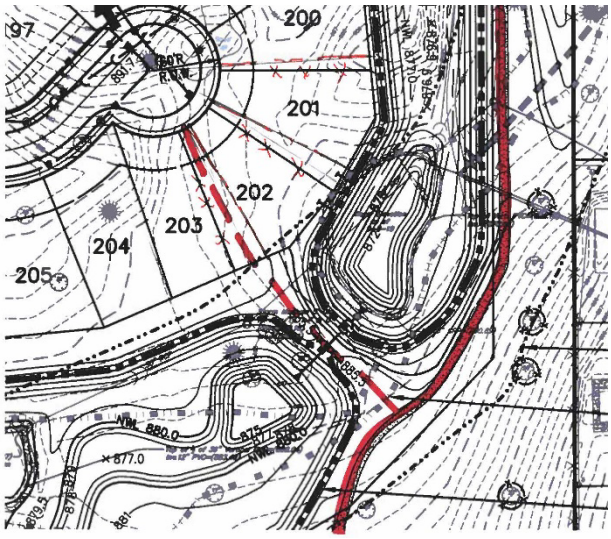
This property is in the Huntly School District (158), Huntley Park District, Huntly Fire Protection District, and Algonquin Library District.

The development takes a conservation design approach, clustering home sites and providing extensive common open space. We completely agree this is the correct approach for this property given the unique character of the existing golf course property. Individual home sites are smaller than many in surrounding neighborhoods, but most homes (96%) back-up to common open space providing a more open feel and character to the development.

As proposed, the project would have two entrance/exit points. The main entrance would be at Frank Road – generally where the golf course entrance is now. The secondary entrance would be from Fairway View Drive.

The revised plans have addressed many of our earlier concerns. Based on the revised plans we offer the following suggestions:

- We recommend a trail connection near the terminus of Street D. A location between lots 202 and 203, coupled with a slight shifting of lot lines around the cul-de-sac, would provide a more direct access to the Outlot G Park and Open Space. This location aligns with a land bridge between stormwater management areas, making the connection to the trail in Outlot G possible.



- Outlot L is a small (16,651 sq. ft.), isolated open space. At a minimum, we recommend adjusting the rear lot line on lot 226 to run perpendicular to the rear lot line of lot 222, eliminating an acute angle within the open space. Ideally, we would like to see this open space better connected to the overall open space or street network. However, to do so would likely result in the loss of a lot or two.

- Softening of the tight corners and long straight sections of the bike paths is recommended. This will make for a more enjoyable ride by changing the view while potentially enhancing trail safety with smoother corners. In particular, we suggest providing some relief to the long straight trail section that parallels Fairway View Drive on the west side of Outlot G, and smoothing of 90 degree trail corners wherever possible such as at the corner of Fairway View Drive and Street H and just to the west of lot 106.

- The landscape plan has been revised to address many of our earlier concerns. Remaining suggestions include:

    - Consider stopping the split rail fence at the northwest corner of the adjacent home at 300 Fairway View Drive (near the intersection of Green View Drive and Fairway View Drive). As proposed, the fence would split portions of Outlot G, making maintenance more difficult and limiting access to this future public park.

- Add some additional trees along the periphery of the open space to better define the area and enhance the overall aesthetics. Specifically, we would suggest:
  - 2 or 3 trees along the rear of Lot 140
  - At least 3 clusters of trees along the north and west sides of Outlot C, perhaps in the vicinity of Lots 62, 67, and 75.
- The plantings shown on the north side of Street H (entrance from Fairway View Drive) are very formal and look like a median planting design. While we have no major objections to this, we would also be fine with a more informal planting in this area.

- Provide additional variety in building elevations in the Springs and Estates product lines. The response letter from Pulte indicated a willingness to address this issue, but we have not seen the additional elevations yet.

Provided comments above are addressed, we are supportive of the project, and feel it will enhance the housing options in Algonquin while providing attractive amenities for future residents.

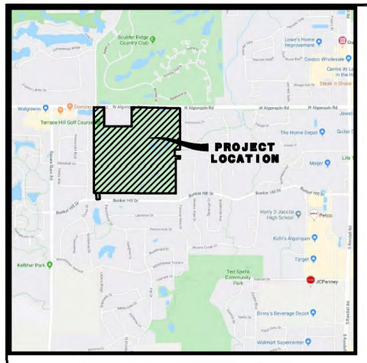
PRELIMINARY SUBDIVISION PLAT AND P.U.D.

FOR

TRAILS OF WOODS CREEK

P.O. BOX 7777 ALGONQUIN, IL 60102

PART OF THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN MCHENRY COUNTY, ILLINOIS.

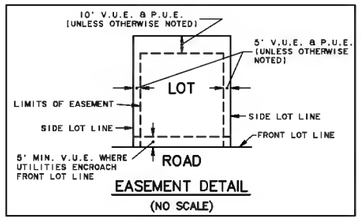


LOCATION MAP

PROPERTY OWNERS:

HOME STATE BANK N.A. AS TRUSTEE
UNDER TRUST AGREEMENT DATED FEBRUARY 23, 2004
KNOWN AS TRUST NUMBER 5378

ALGONQUIN STATE BANK, AS TRUSTEE
UNDER TRUST AGREEMENT DATED APRIL 25, 1980
KNOWN AS TRUST NUMBER 1068



EASEMENT DETAIL
(NO SCALE)

PARCEL INDEX NUMBERS

18-36-205-002
18-25-400-003
18-25-400-023
18-25-400-026
18-25-400-029
18-25-400-030
18-25-426-001
18-25-426-002
18-25-426-003
18-25-426-004
18-25-426-005

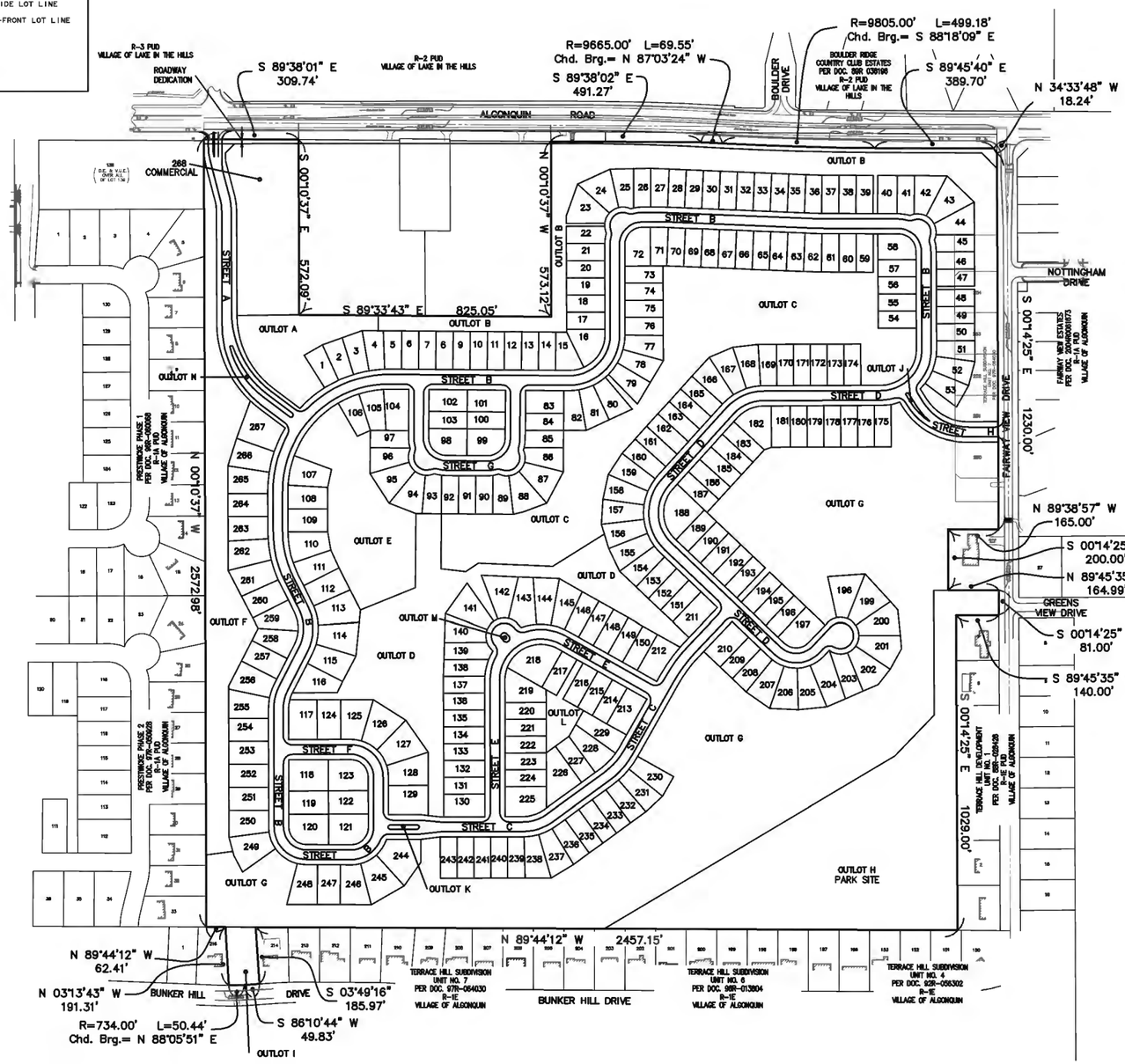
ALGONQUIN, ILLINOIS

ABBREVIATIONS

N.	- NORTH
S.	- SOUTH
E.	- EAST
W.	- WEST
NW.	- NORTHWEST
DOC.	- DOCUMENT
REC.	- RECORD
L	- ARC LENGTH
R	- RADIUS
R.O.W.	- RIGHT OF WAY
Ac.	- ACRE
S.F	- SQUARE FEET
B.S.L.	- BUILDING SETBACK LINE
DU/AC	- DWELLING UNITS PER ACRE
B/C	- BACK OF CURB
B-B	- BACK TO BACK
SWMF	- STORMWATER MANAGEMENT FACILITY
H.O.A.	- HOME OWNERS ASSOCIATION
O.S.	- OPEN SPACE
P.U.D.	- PLANNED UNIT DEVELOPMENT
V.U.E.	- VILLAGE UTILITY EASEMENT
P.U.E.	- PUBLIC UTILITY EASEMENT

N

200 100 0 200
SCALE: 1 INCH = 200 FEET



NOTES

1. ADDITIONAL V.U.E. & P.U.E. EASEMENTS MAY BE REQUIRED ON FINAL PLATS BASED ON UTILITY SIZE AND LOCATIONS FROM FINAL ENGINEERING.
2. DIMENSIONS SHOWN ALONG CURVED LINES ARE ARC DISTANCES.
3. ALL RIGHT-OF-WAYS ARE TO BE PUBLIC DEDICATIONS.
4. ALL STREETS, UTILITY PIPES AND MAINS SHALL BE PUBLICLY OWNED AND MAINTAINED.
5. ALL EASEMENTS DEPICTED ON THIS PLAT WILL BE GRANTED ON THE FINAL SUBDIVISION PLATS (UNLESS OTHERWISE NOTED)
6. STORMWATER MANAGEMENT EASEMENTS WILL BE GRANTED ON THE FINAL SUBDIVISION PLATS (UNLESS OTHERWISE NOTED)
7. STORMWATER STORAGE VOLUMES TO BE PROVIDED AND THE DESIGN OF STORMWATER MANAGEMENT FACILITIES SHALL BE IN ACCORDANCE WITH THE VILLAGE OF ALGONQUIN AND KANE COUNTY REQUIREMENTS.
8. EASEMENTS TO BE PROVIDED PER VILLAGE AND UTILITY COMPANY REQUIREMENTS.
9. FOR PROPOSED CONTOURS, GRADES, UTILITIES, STREETS AND SIDEWALKS REFER TO THE PRELIMINARY ENGINEERING DRAWINGS FOR THIS DEVELOPMENT.
10. ALL REQUIRED CERTIFICATES AND STATEMENTS WILL BE PROVIDED ON FINAL PLAT.
11. ALL R.O.W. DEPICTED ON THIS PLAT WILL BE GRANTED ON THE FINAL SUBDIVISION PLATS (UNLESS OTHERWISE NOTED).
12. THE BEARINGS SHOWN HEREON ARE BASED UPON THE WEST LINE OF SUBJECT PROPERTY BEING N 00°10'37" W (ASSUMED).
13. OUTLOTS G, H AND I TO BE DEDICATED TO VILLAGE. ALL OTHER OUTLOTS, INCLUDING MEDIANS, TO BE OWNED AND MAINTAINED BY THE H.O.A.
14. CROSS ACCESS OVER PART OF LOT 268 TO BE PROVIDED AT FINAL PLAT.

LINE LEGEND

- SUBDIVISION BOUNDARY LINE (Heavy Solid Line)
- LOT LINE/PROPERTY LINE (Solid Line)
- BUILDING LINE (Long Dashed Lines)
- EASEMENT LINE/LIMITS OF EASEMENT (Short Dashed Lines)
- CENTERLINE (Single Dashed Lines)
- QUARTER SECTION LINE (Double Dashed Lines)
- SECTION LINE (Triple Dashed Lines)

BENCHMARK & CONTROL POINTS

ELEVATION REFERENCE MARK

NGS BENCHMARK IL KANE 2-42-7 (PID AJ2940): STATION IS LOCATED 0.3 MI SOUTH OF HUNTLEY RD, 289 FT SOUTH OF CENTERLINE OF AGGREGATE DRIVEWAY ADDRESS 19N339, 127 FT. NORTH OF CENTERLINE OF AGGREGATE DRIVEWAY ADDRESS 19N241, 209 FT. SOUTHWEST OF POWERPOLE (PP), 105 FT SOUTHWEST OF PP, 63.5 FT. WEST OF PP, AND 2 FT EAST OF ORANGE FIBERGLASS WITNESS POST. NOTE: ACCESS TO DATUM POINT THROUGH 6 INCH LOGO CAP. DATUM POINT IS 0.3 FT BELOW CAP. PK NAILS WERE SET IN WOOD PHYSICAL TIES. (WB)
ELEVATION: 693.27 NAVD88

CONTROL POINTS:
CP #104: SET '+' IN CONCRETE CURB ON WEST SIDE OF FAIRWAY VIEW DRIVE AT THE INTERSECTION OF FAIRWAY VIEW AND NOTTINGHAM DRIVES.
NORTHING: 2006585.59
EASTING: 975942.61
ELEVATION: 888.59 NAVD88

CP #109: SET '+' IN CONCRETE FRAME AROUND TRAFFIC SIGNAL HANDHOLE LOCATED AT THE SOUTHEAST CORNER OF ALGONQUIN AND FRANK ROADS.
NORTHING: 2008585.59
EASTING: 975942.61
ELEVATION: 888.59 NAVD88

SITE DATA

A. TOTAL AREA	138.44 AC.±	100.00%
B. PROPOSED ZONING	R-1E/B-2 PUD	
C. EXTERNAL R.O.W. (ALGONQUIN ROAD)	0.56 AC.±	0.40 %
D. INTERNAL R.O.W.	18.42 AC.±	13.31 %
E. COMMON OPEN SPACE	64.02 AC.±	46.24 %
PARK SITE - 10.23 AC.±		
F. COMMERCIAL	2.71 AC.±	1.96 %
G. NET RESIDENTIAL	52.73 AC.±	38.09 %
H. UNITS		
THE SPRINGS (TYPICAL 66'x126')	106	
MIN. FRONT YARD SETBACK	30	
MIN. CORNER SIDE YARD SETBACK	26	
MIN. SIDE YARD SETBACK	7	
MIN. REAR YARD SETBACK	26	
THE ESTATES (TYPICAL 75'x130')	47	
MIN. FRONT YARD SETBACK	30	
MIN. CORNER SIDE YARD SETBACK	26	
MIN. SIDE YARD SETBACK	7	
MIN. REAR YARD SETBACK	26	
THE SHORES (TYPICAL 55'x135')	114	
MIN. FRONT YARD SETBACK	30	
MIN. CORNER SIDE YARD SETBACK	26	
MIN. SIDE YARD SETBACK	7	
MIN. REAR YARD SETBACK	20	
I. TOTAL PROPOSED UNITS	267	
J. POPULATION EQUIVALENT	934.6	
K. DEVELOPMENT YIELD ANALYSIS		
1.) PAR ACREAGE	129.32 AC.	
2.) ALLOWABLE UNITS	312.95 UNITS	
3.) DENSITY BONUS	64.68 UNITS	
4.) MAX. UNITS ALLOWED	377 UNITS	
L. NON-RESIDENTIAL SITE COVERAGE	70%	

LEGAL DESCRIPTION

LOT 215 IN TERRACE HILL SUBDIVISION UNIT NO. 7 BEING A SUBDIVISION OF PART OF THE NORTHEAST 1/4 AND NORTHWEST 1/4 OF SECTION 36 AND PART OF THE SOUTHEAST 1/4 OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING THE PLAT THEREOF RECORDED DECEMBER 24, 1997, AS DOCUMENT 97R064030, , AND ALSO LOTS 250, 251, 252, 253 AND 254 IN TERRACE HILL SUBDIVISION UNIT NO 7, BEING A SUBDIVISION OF PART OF THE NORTHEAST 1/4 AND NORTHWEST 1/4 OF SECTION 36 AND PART OF THE SOUTHEAST 1/4 OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 24, 1997 AS DOCUMENT 97R064030 AND CERTIFICATE OF CORRECTION RECORDED JANUARY 15, 1998 AS DOCUMENT 98R002718, ALL IN MCHENRY COUNTY, ILLINOIS.

AND ALSO INCLUDING THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN IN MCHENRY COUNTY, ILLINOIS,

EXCEPTING THAT PART OF SAID SOUTHEAST QUARTER, THE FOLLOWING DESCRIBED TRACTS:

THE NORTH 825.83 FEET OF THE EAST 825.00 FEET OF THE WEST 1134.73 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 25.

THAT PART TAKEN FOR ROAD OPENINGS, BEING PART OF ALGONQUIN ROAD AND FAIRWAY DRIVE.

LOTS 250, 251, 252, 253 AND 254 IN TERRACE HILL SUBDIVISION UNIT NO. 7, AFORESAID, ALL IN MCHENRY COUNTY, ILLINOIS.

(THE ABOVE LEGAL DESCRIPTION IS A CONSOLIDATED SIMPLIFIED LEGAL DESCRIPTION OF ENTIRE PROPERTY ASSEMBLAGE PLATTED HEREON PER THE LEGAL DESCRIPTIONS SET FORTH IN TITLE COMMITMENTS 19NW7139017CL AND 19NW7139016CL, BOTH ISSUED BY CHICAGO TITLE INSURANCE COMPANY.)

LOT DIMENSIONS & AREAS ARE APPROXIMATIONS & WILL VARY AT TIME OF FINAL PLATTING.

PREPARED FOR:
PULTE HOME COMPANY, LLC
1900 E. GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173
(847) 230-5400

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60502-9675
PH: 630.862.2100 FAX: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

DISC NO.: 402136 FILE NAME: PREOVR
DRAWN BY: LAL FLD. BK. / PG. NO.: BK./PG.
COMPLETION DATE: 12-05-19 JOB NO.: 402.136
XREF : TOPO PROJECT MANAGER : CRM
REVISED: 02-13-20/LAL

PREPLAT01

PLOT FILE CREATED: 2/13/2020 BY: LESLIE LUNDBERG DRAWING PATH: P:\402136\DWG\DVD\DRAWINGS\PRELIMINARY\PREOVR.DWG

ALGONQUIN ROAD

S 89°38'01" E 309.74'

OPEN AND PUBLIC RIGHT-OF-WAY WIDTH VARIES

ROADWAY DEDICATION

S 89°38'02" E 491.27'

R=9865.00'
L=69.55'
Chd. Brg.= N 87°03'24" W

BOULDER DRIVE

BOULDER RIDGE COUNTRY CLUB ESTATES PER DOC. R98R 036196

R=9805.00' L=499.18'
Chd. Brg.= S 88°18'09" E

S 89°45'40" E 389.70'

N 34°33'48" W
18.24'
ALGONQUIN ROAD

N

100 50 0 100
SCALE: 1 INCH = 100 FEET

COMMERCIAL
268
118,077 S.F.
2.71 Ac.

STREET A

S 00°10'37" E 572.09'

N 00°10'37" W 573.12'

PROPOSED MONUMENT SIGN LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

S 89°33'43" E 825.05'

OUTLOT A
72,031 S.F.
1.65 Ac.

OUTLOT B
253,434 S.F.
5.82 Ac.

OUTLOT C
376,594 S.F.
8.65 Ac.

PROPOSED SITTING AREA LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

PROPOSED MONUMENT SIGN LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

STREET B

STREET C

STREET D

STREET E

STREET F

STREET G

NOTTINGHAM DRIVE

OUTLOT J
874 S.F.
0.02 Ac.

OUTLOT N
4,506 S.F.
0.10 Ac.

OUTLOT E
132,747 S.F.
3.05 Ac.

OUTLOT F
174,059 S.F.
4.00 Ac.

OUTLOT D
231,650 S.F.
5.32 Ac.

OUTLOT M
629 S.F.
0.01 Ac.

OUTLOT G
(To be Dedicated to Village)

PROPOSED 8' ASPHALT PATH (TYP.)

PRESTWICK PHASE 1 PER DOC. 88R-060068

TERRACE HILL SUBDIVISION UNIT NO. 2 PER DOC. 97K-054030

FAIRWAY VIEW ESTATES PER DOC. 2004K060173

EXISTING EASEMENTS WILL BE EXTINGUISHED & RELEASED UPON THE FINAL PLATTING PROCESS

PROPOSED MONUMENT SIGN LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

SEE SHEET 3

PREPARED FOR:
PULTE HOME COMPANY, LLC
1900 E. GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173
(847) 230-5400

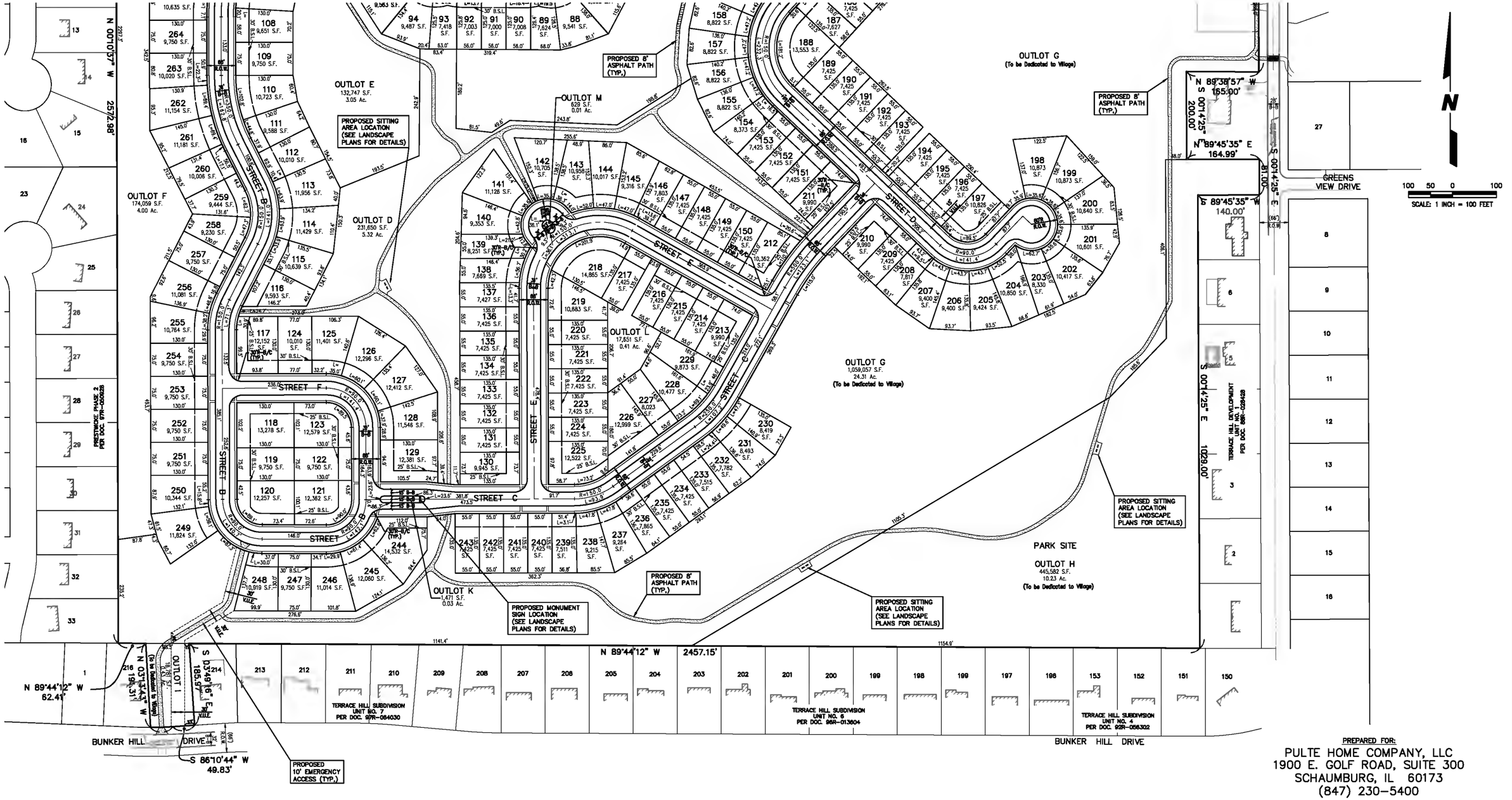
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60502-9875
PH: 630.862.2100 FAX: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

DISC NO.: 402136 FILE NAME: PREOVR
DRAWN BY: LAL FLD. BK. / PG. NO.: BK./PG.
COMPLETION DATE: 12-05-19 JOB NO.: 402.136
XREF : TOPO PROJECT MANAGER : CRM
REVISED: 02-13-20/LAL

PREPLAT02

PLOT FILE CREATED: 2/13/2020 BY: LESLIE LUNDBERG DRAWING PATH: P:\402136\WORK\DWG\DRAWINGS\PRELIMINARY\PREOVR.DWG

SEE SHEET 2



PREPARED FOR:

PULTE HOME COMPANY, LLC
1900 E. GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173
(847) 230-5400

PREPARED BY:

CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60502-9675
PH: 630.862.2100 FAX: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

DISC NO.: 402136 FILE NAME: PREOVR
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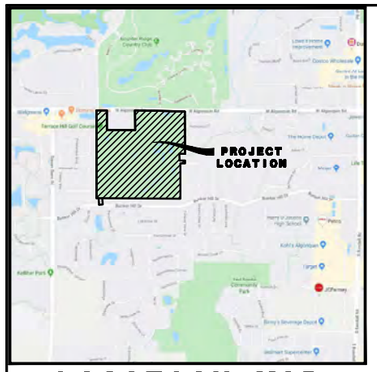
COMPLETION DATE: 12-05-19 JOB NO.: 402.136
XREF : TOPO PROJECT MANAGER : CRM
REVISED: 02-13-20/LAL

PREPLAT03

PLOT FILE CREATED: 2/13/2020 BY: LESLIE LUNDBERG DRAWING PATH: P:\402136\CIVIL\DWG\DRAWINGS\PRELIMINARY\PREOVR.DWG

PRELIMINARY ENGINEERING PLAN
FOR
TRAILS OF WOODS CREEK

PART OF THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7
EAST OF THE THIRD PRINCIPAL MERIDIAN, IN MCHENRY COUNTY, ILLINOIS.



LOCATION MAP

SITE DATA

A. TOTAL AREA	138.44 AC.±	100.00%
B. PROPOSED ZONING	R-1E/B-2 PUD	
C. EXTERNAL R.O.W. (ALGONQUIN ROAD)	0.56 AC.±	0.40 %
D. INTERNAL R.O.W.	18.42 AC.±	13.31 %
E. COMMON OPEN SPACE	64.02 AC.±	46.24 %
PARK SITE - 10.23 AC.±		
F. COMMERCIAL	2.71 AC.±	1.96 %
G. NET RESIDENTIAL	52.73 AC.±	38.09 %
H. UNITS		
THE SPRINGS (TYPICAL 56'x125')	106	
MIN. FRONT YARD SETBACK	30	
MIN. CORNER SIDE YARD SETBACK	25	
MIN. SIDE YARD SETBACK	7	
MIN. REAR YARD SETBACK	25	
THE ESTATES (TYPICAL 75'x130')	47	
MIN. FRONT YARD SETBACK	30	
MIN. CORNER SIDE YARD SETBACK	25	
MIN. SIDE YARD SETBACK	7	
MIN. REAR YARD SETBACK	25	
THE SHORES (TYPICAL 55'x135')	114	
MIN. FRONT YARD SETBACK	30	
MIN. CORNER SIDE YARD SETBACK	25	
MIN. SIDE YARD SETBACK	7	
MIN. REAR YARD SETBACK	20	
I. TOTAL PROPOSED UNITS	267	
J. POPULATION EQUIVALENT	934.5	
K. DEVELOPMENT YIELD ANALYSIS		
1.] PAR ACREAGE	129.32 AC.	
2.] ALLOWABLE UNITS	312.95 UNITS	
3.] DENSITY BONUS	64.66 UNITS	
4.] MAX. UNITS ALLOWED	377 UNITS	
L. NON-RESIDENTIAL SITE COVERAGE	70%	

NOTES

ALL RIGHT-OF-WAYS ARE TO BE PUBLIC DEDICATIONS.

ALL STREETS, UTILITY PIPES AND MAINS SHALL BE PUBLICLY OWNED AND MAINTAINED.

STORMWATER STORAGE VOLUMES TO BE PROVIDED AND THE DESIGN OF STORMWATER MANAGEMENT FACILITIES SHALL BE IN ACCORDANCE WITH VILLAGE OF ALGONQUIN AND KANE COUNTY REQUIREMENTS.

UNLESS OTHERWISE NOTED ALL WATERMAIN AND SANITARY SEWER TO BE 8" DIAMETER.

ALL SANITARY SERVICE CONNECTIONS TO SANITARY SEWER MAINS MUST HAVE AN OVERHEAD SEWER SYSTEM WITHIN THE BUILDING.

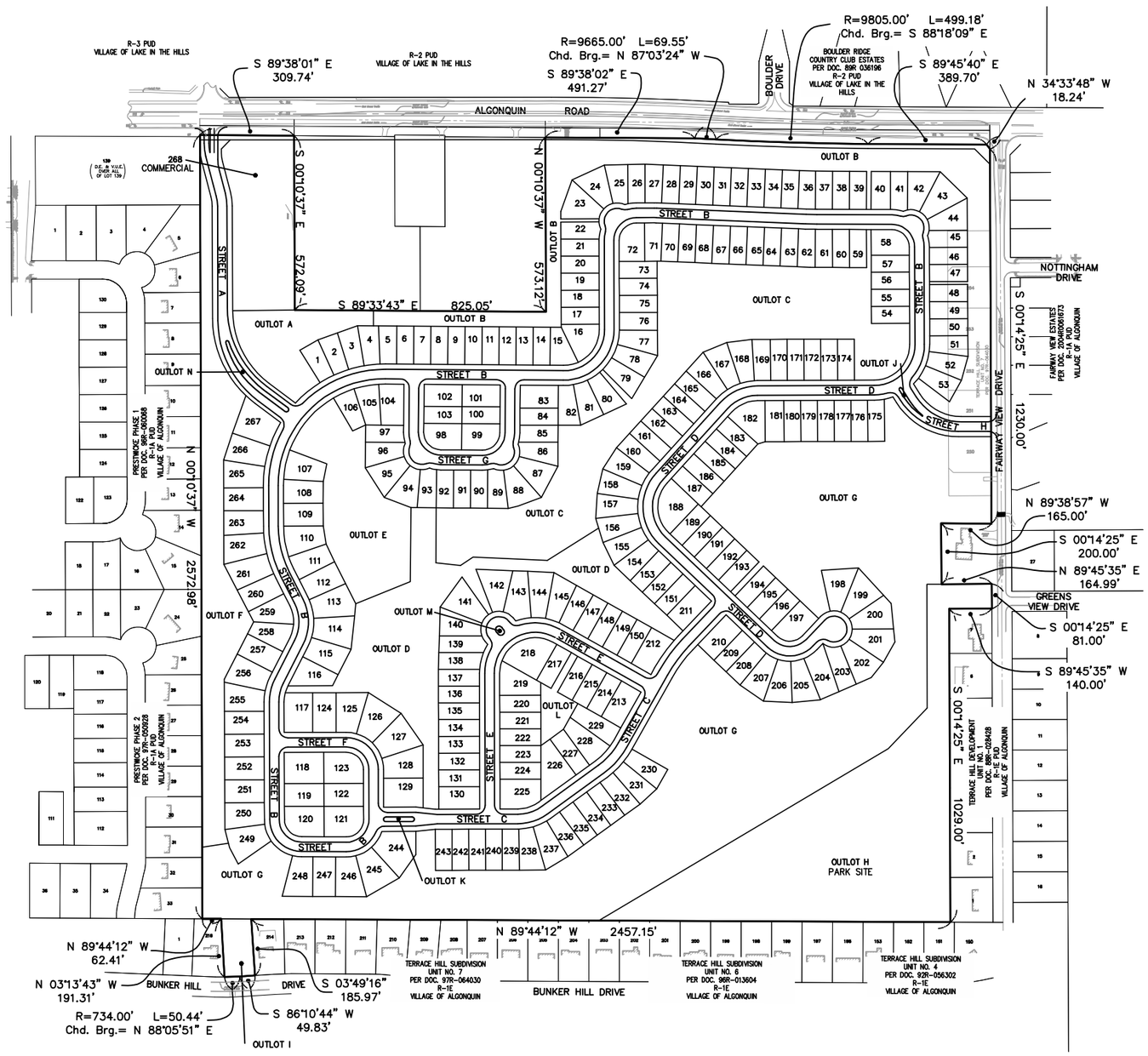
ALL EXISTING ONSITE BUILDINGS TO BE REMOVED AND DISPOSED.

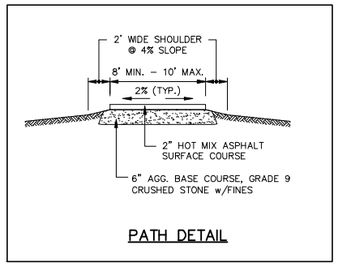
ANY EXISTING WELL AND SEPTIC FIELDS SHALL BE ABANDONED ACCORDING TO COUNTY HEALTH DEPARTMENT.

LOTS 130-243 PRIMARILY TO BE SLAB CONSTRUCTION UNLESS A WALKOUT/LOOKOUT IS INDICATED AT FINAL ENGINEERING.

LEGEND

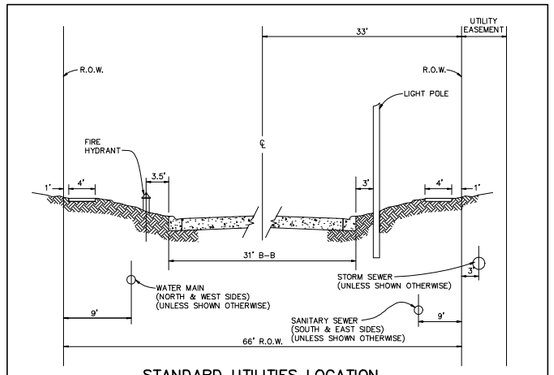
EXISTING	PROPOSED	DESCRIPTION
		MANHOLE
		CATCH BASIN
		INLET
		CLEANOUT
		SLOPE INLET BOX
		HEADWALL
		END SECTION
		STORM SEWER
		SANITARY SEWER
		WATERMAIN
		VALVE & BOX
		WATER VALVE IN VAULT
		FIRE HYDRANT
(ELEV)	ELEV	CONTOURS ELEVATIONS
		STREET LIGHT
		SCALED LIMITS OF FEMA ZONE A PER FIRM
		EXISTING 100YR FLOODPLAIN PER CEMCON STUDY
		PROPOSED 100YR FLOODPLAIN PER CEMCON STUDY
		TREE PROTECTION
		RIP-RAP
		OVERFLOW ROUTE



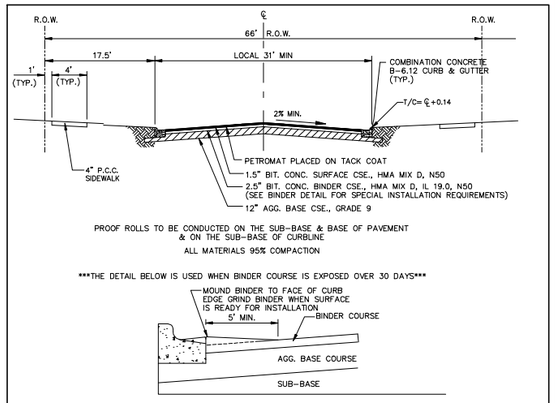


PATH DETAIL

200 100 0 200
SCALE: 1 INCH = 200 FEET



STANDARD UTILITIES LOCATION
31' PAVEMENT WITHIN 66' R.O.W.
(N.T.S.)



PROOF ROLLS TO BE CONDUCTED ON THE SUB-BASE & BASE OF PAVEMENT & ON THE SUB-BASE OF CURBLINE
ALL MATERIALS 95% COMPACTION

THE DETAIL BELOW IS USED WHEN BINDER COURSE IS EXPOSED OVER 30 DAYS

TYPICAL LOCAL ROAD PAVEMENT SECTION
N.T.S.

PREPARED FOR:
PULTE HOME COMPANY, LLC
1900 E. GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173
(847) 230-5400

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60502-9675
PH: 630.862.2100 FAX: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

DISC NO.: 402136 FILE NAME: PREOVR
DRAWN BY: LAL FLD. BK. / PG. NO.: BK./PG.
COMPLETION DATE: 12-05-19 JOB NO.: 402.136
XREF : TOPO PROJECT MANAGER : CRM
REVISED: 02-13-20/LAL

PREENG01

PLOT FILE CREATED: 2/13/2020 BY: LESLIE LUNDBERG DRAWING PATH: P:\402136\DWG\ENGINEERING\PRELIMINARY\PREOVR.DWG

STORMWATER MANAGEMENT FACILITY 05
NWL = 885.0
ON-SITE HWL = 888.3
OVERFLOW = 890.0
STORAGE PROVIDED = 11.9 AC-FT
DETENTION STORAGE REQUIRED = 7.2 AC-FT

EXISTING DRIVEWAY TO BE REMOVED

PROPOSED MONUMENT SIGN LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

ALGONQUIN ROAD

BOULDER DRIVE

CONNECT TO EXISTING DRAIN TILE

ROADWAY DEDICATION

OUTLOT B

STREET A

STREET B

STREET C

STREET D

STREET E

STREET F

STREET G

STORMWATER MANAGEMENT FACILITY 07
NWL = 879.5
ON-SITE HWL = 884.3
OVERFLOW = 884.5
STORAGE PROVIDED = 5.0 AC-FT
DETENTION STORAGE REQUIRED = 4.7 AC-FT

PROPOSED SITTING AREA LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

CONNECT TO EXISTING DRAIN TILE

OUTLOT A

OUTLOT C

OUTLOT D

OUTLOT E

OUTLOT G

OUTLOT J

OUTLOT M

OUTLOT N

10" SAN. REQUIRED TO CONNECTION POINT

(SEE BELOW FOR CONTINUATION OF WATERMAIN)
MATCH LINE

SEE SHEET 3

TREE PRESERVATION FENCE (TYP.)

PROPOSED MONUMENT SIGN LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

CONNECT TO EXISTING 8" WATERMAIN STUB

139
D.E. & V.U.E. OVER ALL OF LOT 139

PRESTWICKE PHASE 1

MATCH LINE
(SEE ABOVE FOR CONTINUATION OF WATERMAIN)

STORMWATER MANAGEMENT FACILITY 06
NWL = 885.0
ON-SITE HWL = 888.3
OVERFLOW = 890.0
STORAGE PROVIDED = 10.1 AC-FT
DETENTION STORAGE REQUIRED = 6.2 AC-FT

PROPOSED 8' ASPHALT PATH (TYP.)

PROPOSED 100-YEAR FLOODPLAIN LIMITS FROM CEMCON, LTD STUDY

EXISTING 100-YEAR FLOODPLAIN LIMITS FROM CEMCON, LTD STUDY

SEE SHEET 3

NOTTINGHAM DRIVE

FAIRWAY VIEW DRIVE

CONNECT TO EXISTING DRAIN TILE

EXISTING HYDRANT

CONNECT TO EXISTING 10" WATERMAIN w/PRESSURE CONNECTION

CONNECT TO EXISTING 8" SANITARY SEWER AT MANHOLE. INV.=882.0 W

EXISTING PIPE TO BE RECONSTRUCTED DEEPER

PROPOSED MONUMENT SIGN LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

SCALED LIMITS OF ZONE A PER F.I.R.M. 17111C0336J AND L.O.M.R. DATED FEBRUARY 14, 2007

EXISTING 24", 15" AND 18" PIPE TO BE REMOVED

N

100 50 0 100
SCALE: 1 INCH = 100 FEET

PREPARED FOR:
PULTE HOME COMPANY, LLC
1900 E. GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173
(847) 230-5400

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
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PH: 630.862.2100 FAX: 630.862.2199
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REVISED: 02-13-20/LAL

PREENG02

PLOT FILE CREATED: 2/13/2020 BY: LESLIE LUNDBERG DRAWING PATH: P:\402136\DWG\ENGINEER\PRELIMINARY\PREOVR.DWG

SEE SHEET 2

STORMWATER MANAGEMENT FACILITY 08
NWL = 883.0
ON-SITE HWL = 887.6
OVERFLOW = 889.0
STORAGE PROVIDED = 11.3 AC-FT
DETENTION STORAGE REQUIRED = 8.1 AC-FT

10" SAN. REQUIRED TO CONNECTION POINT

PROPOSED 100-YEAR FLOODPLAIN LIMITS FROM CEMCON, LTD STUDY

STORMWATER MANAGEMENT FACILITY 01
NWL = 887.0
ON-SITE HWL = 879.6
PROPOSED 100-YR BFE = 882.0
OVERFLOW = 883.6
STORAGE PROVIDED = 48.6 AC-FT
DETENTION STORAGE REQUIRED = 16.0 AC-FT
FLOODPLAIN COMP STORAGE REQUIRED = 8.9 AC-FT

PROPOSED SITTING AREA LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

TREE PROTECTION (TYP.)

PROPOSED 100-YEAR FLOODPLAIN LIMITS FROM CEMCON, LTD STUDY

PROVIDE CROSSWALK w/SIGNAGE

CONNECT TO EXISTING DRAIN TILE

SCALED LIMITS OF ZONE A PER F.I.R.M. 17111C0336J AND L.O.M.R. DATED FEBRUARY 14, 2007

EXISTING 100-YEAR FLOODPLAIN LIMITS FROM CEMCON, LTD STUDY

PROPOSED 100-YEAR FLOODPLAIN LIMITS FROM CEMCON, LTD STUDY

PROPOSED SITTING AREA LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

STORMWATER MANAGEMENT FACILITY 02
NWL = 880.0
ON-SITE HWL = 882.3
PROPOSED 100-YR BFE = 885.3
OVERFLOW = 885.5
STORAGE PROVIDED = 31.8 AC-FT
DETENTION STORAGE REQUIRED = 10.5 AC-FT

PROPOSED 8' ASPHALT PATH (TYP.)

PROPOSED 10' EMERGENCY ACCESS (TYP.)

EXISTING HYDRANT

CONSTRUCT MANHOLE OVER EXIST. 12" SANITARY SEWER

CONNECT TO EXISTING 8" WATERMAIN w/PRESSURE CONNECTION

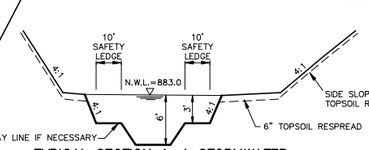
STORMWATER MANAGEMENT FACILITY 04
NWL = 882.0
ON-SITE HWL = 886.4
PROPOSED 100-YR BFE = 886.4
OVERFLOW = 886.5
STORAGE PROVIDED = 3.0 AC-FT
DETENTION STORAGE REQUIRED = 2.9 AC-FT

12" SAN. REQUIRED TO CONNECTION POINT

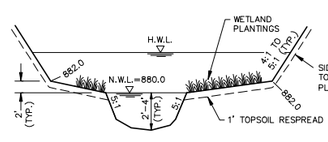
STORMWATER MANAGEMENT FACILITY 03
NWL = 881.0
ON-SITE HWL = 885.6
PROPOSED 100-YR BFE = 885.9
OVERFLOW = 886.5
STORAGE PROVIDED = 5.8 AC-FT
DETENTION STORAGE REQUIRED = 4.5 AC-FT

PROPOSED MONUMENT SIGN LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

TIE EXISTING 36" STORM SEWER INTO DETENTION BASIN. DOWNSTREAM PIPES TO BE REMOVED



TYPICAL SECTION A-A STORMWATER MANAGEMENT FACILITY
N.T.S.



TYPICAL SECTION B-B NATURALIZED WETLAND STORMWATER MANAGEMENT FACILITY
N.T.S.

PROPOSED SITTING AREA LOCATION (SEE LANDSCAPE PLANS FOR DETAILS)

SCALE: 1 INCH = 100 FEET

PREPARED FOR:
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1900 E. GOLF ROAD, SUITE 300
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(847) 230-5400

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XREF : TOPO PROJECT MANAGER : CRM
REVISED: 02-13-20/LAL

PREENG03

PLOT FILE CREATED: 2/13/2020 BY: LESLIE LUNDBERG
DRAWING PATH: P:\402136\DWG\ENGR\DWGS\PRELIMINARY\PREOVR.DWG

PLANT SYMBOLS KEY

NOTES!
NOT ALL PLANT SYMBOLS MAY BE DEPICTED ON PLANS.

ACTUAL PLANT QUANTITIES, SIZES, AND BOTANIC/COMMON NAMES SHALL BE PROVIDED AT TIME OF FINAL LANDSCAPE PLAN.

EXISTING TREE - TO PRESERVE

SHADE / CANOPY TREES, 3" CALIPER MINIMUM

ORNAMENTAL TREES, 8' TALL MIN.

EVERGREEN TREES, 6' TALL MIN.

LARGE, DECIDUOUS SHRUBS, 36"-48" TALL

SMALL, DECIDUOUS SHRUBS, 24" TALL

SMALL, EVERGREEN SHRUBS, 24" TALL/WIDE

LARGE, ORNAMENTAL GRASS, 3 GALLON

SMALL ORNAMENTAL GRASS, 1 GALLON

PERENNIAL FLOWERS & GROUNDCOVER, 1 GALLON

AMENITIES SYMBOLS KEY

POND AERATOR

ENTRANCE MONUMENT

SEATING AREA

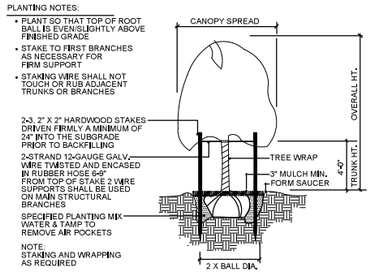
SPLIT-RAIL FENCE (NEW) (APPROX. 5,100 L.F.)

NATIVE VEGETATION: PRAIRIE

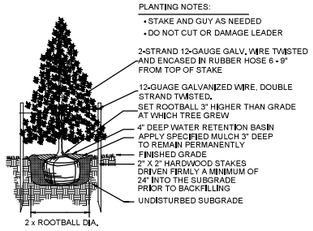
NATIVE VEGETATION: WET-MESIC PLANTINGS

NATIVE VEGETATION: EMERGENT PLANTINGS

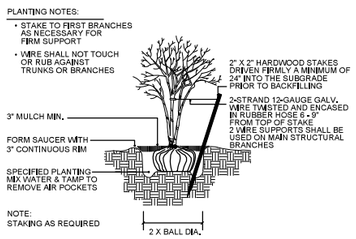
PLANTING DETAILS



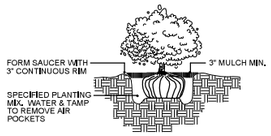
TREE PLANTING & STAKING
NOT TO SCALE



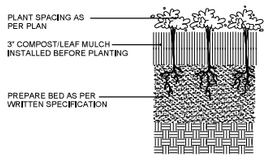
EVERGREEN TREE PLANTING
NOT TO SCALE



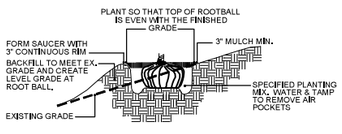
MULTI-TRUNK TREE STAKING
NOT TO SCALE



SHRUB PLANTING
NOT TO SCALE



PERENNIAL PLANTING
NOT TO SCALE



HILLSIDE PLANTING
NOT TO SCALE

GENERAL LANDSCAPE NOTES

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED. ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE STANDARDS AND CODES.
2. CALL J.U.L.I.E. UTILITY LOCATING SERVICE (TEL 800.892.0123), MINIMUM 48 HOURS PRIOR TO THE START OF ANY DIGGING.
3. EVERY ATTEMPT HAS BEEN MADE TO DEPICT ALL EXISTING UTILITY LINES. CONTRACTOR SHALL USE PRECAUTION WHEN DIGGING. CONTRACTOR SHALL MAKE THEMSELVES THOROUGHLY FAMILIAR WITH ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY DIGGING, VERIFYING LOCATIONS AND DEPTHS OF ALL UTILITIES.
4. PLANT NOTES:
   A. ALL PLANT MATERIAL SHALL CONFORM IN SIZE AND GRADE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK.
   B. ALL PLANT MATERIAL SHALL BE MAINTAINED ALIVE, HEALTHY, AND FREE FROM DISEASE AND PESTS.
   C. ALL NEW PLANT MATERIAL SHALL BE FROM A LOCAL SOURCE WHENEVER POSSIBLE (LESS THAN 50 MILES).
   D. PLANTS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORM / HABIT. PLANTS SHALL NOT BE PRUNED/HEDGED UNLESS ABSOLUTELY NECESSARY (DUE TO VISIBILITY OR HAZARD OBSTRUCTION).
   E. ALL LANDSCAPED AREAS SHALL BE FREE OF WEEDS, LITTER, AND SIMILAR SIGNS OF DEFERRED MAINTENANCE.
   F. MAINTENANCE AND CARE OF PLANT MATERIAL SHALL INCLUDE, BUT NOT BE LIMITED TO, WATERING, FERTILIZING (IF NECESSARY), DEAD-HEADING, WEEDING, AND MULCHING.
5. LOCATIONS OF PROPOSED PLANT MATERIAL MAY BE ADJUSTED AT TIME OF INSTALLATION DUE TO FINAL ENGINEERING AND FINAL LOCATION OF SITE UTILITIES.
6. ONCE TOPSOIL IS SPREAD (6"-12" DEEP), FINE GRADING, AND PREPARATION OF ALL LAWN AND LANDSCAPE AREAS MAY COMMENCE. ALL SOILS SHALL BE FREE OF CONSTRUCTION DEBRIS, PRIOR TO INSTALLING ANY PLANT MATERIAL.
7. PRIOR TO SPREADING TOPSOIL, OWNER SHALL INSPECT AND ACCEPT ALL BASE GRADES. ANY DEVIATION FROM GRADES INDICATED ON THE GRADING PLAN SHALL BE CORRECTED BEFORE PLACING ANY TOPSOIL.
8. ALL PLANTING ISLANDS SHALL BE MOUNDED TO A CENTER HEIGHT OF TWELVE INCHES (12").
9. ALL PLANTING BED AREAS SHALL MAINTAIN A MAX. 3" DEEP LAYER OF SHREDDED HARDWOOD MULCH (COLOR: NON-DYED, BROWN).
10. LANDSCAPE CONTRACTOR SHALL COORDINATE PLANTING SCHEDULE TO ENSURE PROPER WATERING OF PLANTED AND SODDED AREAS AFTER INITIAL INSTALLATION.
11. LANDSCAPE CONTRACTOR SHALL COORDINATE WORK WITH OTHER CONTRACTORS ON SITE TO MINIMIZE ANY REDO OF COMPLETED LANDSCAPE WORK AND DAMAGE TO PLANT MATERIAL.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR HIS/HER OWN LAYOUT WORK. UPON REQUEST, LANDSCAPE ARCHITECT SHALL BE AVAILABLE TO ASSIST/APPROVE CONTRACTOR LAYOUT.
13. EVERY ATTEMPT HAS BEEN MADE TO DEPICT ALL EXISTING UTILITY LINES. CONTRACTOR SHALL USE PRECAUTION WHEN DIGGING. CONTRACTOR SHALL MAKE THEMSELVES THOROUGHLY FAMILIAR WITH ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY DIGGING, VERIFYING LOCATIONS AND DEPTHS OF ALL UTILITIES.
14. IT IS THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE PRIOR TO BID SUBMITTAL, TO BECOME FAMILIAR WITH EXISTING CONDITIONS AT THE SITE.
15. PLANT LIST QUANTITIES PROVIDED AT TIME OF FINAL PLANS ARE APPROXIMATIONS. CONTRACTORS ARE RESPONSIBLE FOR COMPLETING THEIR OWN QUANTITY TAKE-OFFS. IF A DISCREPANCY IS FOUND BETWEEN THE PLAN AND THE PLANT LIST, THEN THE PLAN SHALL PREVAIL.
16. PLANT SUBSTITUTIONS ARE ALLOWED DUE TO PLANT AVAILABILITY OR PLANTING TIME OF YEAR, ONLY WITH THE PRIOR CONSENT OF THE LANDSCAPE ARCHITECT. IF SUBSTITUTIONS ARE MADE WITHOUT PRIOR CONSENT, THE LANDSCAPE ARCHITECT MAINTAINS THE RIGHT TO REJECT MATERIAL IN THE FIELD, AT THE COST TO THE CONTRACTOR.
17. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF AREAS OF POOR DRAINAGE OR OTHER UNUSUAL SUBSURFACE CONDITIONS ARE ENCOUNTERED DURING EXCAVATION FOR PLANTING PITS.
18. ALL TURF SHALL SHALL BE KENTUCKY BLUEGRASS BLEND SOD (MINERAL, NOT PEAT), UNLESS OTHERWISE NOTED ON THE PLAN.
19. CONTRACTOR SHALL RESTORE LAWN AREAS THAT HAVE REMAINED PARTIALLY INTACT, TOP DRESSING WITH SOIL, SCARIFYING, AND SEEDING TO FORM A SMOOTH, FULL, EVEN LAWN, FREE OF BARE SPOTS, INDENTATIONS, AND WEEDS.
20. LANDSCAPE DETAILS SHOWN ARE FOR DESIGN INTENT ONLY. LANDSCAPE ARCHITECT ASSUMES NO LIABILITY. CONTRACTOR IS RESPONSIBLE FOR ERECTING AND INSTALLING PROPERLY BUILT AMENITIES PER CODE, PER SITE CONDITIONS (FINAL GRADING & UTILITY LOCATIONS), AND PER AREA CLIMATE CONDITIONS. ALL LANDSCAPE SITE DETAILS FOR STRUCTURES AND FOOTINGS SHALL BE REVIEWED & APPROVED BY A STRUCTURAL ENGINEER.
21. CONTRACTOR INSTALLATION BIDS SHALL INCLUDE A ONE-YEAR WARRANTY ON ALL PLANT MATERIAL.
22. (IF APPLICABLE) CONTRACTOR INSTALLATION BIDS SHALL INCLUDE A THREE-YEAR MONITORING AND MAINTENANCE PROGRAM ON ALL NATURALIZED DETENTION AREAS.

PROJECT TEAM

DEVELOPER:
PULTE GROUP
1900 EAST GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173
TEL (847) 230-5383

CONTACT: MATT BROLLEY

ATTORNEY:
ROSANOVA & WHITAKER, LTD.
127 AURORA AVENUE
NAPERVILLE, IL 60540
TEL (630) 355-4600

CONTACT: RUSS WHITAKER

ARBORIST:
DAVEY RESOURCE GROUP
NATURAL RESOURCE CONSULTING
TEL (414) 517-1695

CONTACT: PETE SORENSEN

LAND PLANNER & CIVIL ENGINEER:
CEMCON, LTD.
2280 WHITE OAK CIRCLE, SUITE 100
AURORA, IL 60502
TEL (630) 862-2100

CONTACT: PETE PLUSKWA (LAND PLANNER)
CONTACT: CHRIS MORGART (CIVIL ENGINEER)

WETLAND CONSULTANT:
V3 COMPANIES
7325 JANES AVENUE
WOODRIDGE, IL60517
TEL (630) 729-6325

CONTACT: SCOTT BREJCHA

LANDSCAPE ARCHITECT:
DICKSON DESIGN STUDIO, INC.
526 SKYLINE DRIVE
ALGONQUIN, IL 60102
TEL (847) 878-4019

CONTACT: SHARON DICKSON

SHEET KEY

L0.1 PROJECT TEAM
GENERAL LANDSCAPE NOTES
PLANTING DETAILS
PLANT SYMBOLS KEY

L1.1 OVERALL LAND DEVELOPMENT LANDSCAPE PLAN

L1.2 LANDSCAPE PLAN DETAILS:
- NEIGHBORHOOD ENTRANCE #4
- MAIN ENTRANCE #1

L1.3 LANDSCAPE PLAN DETAILS:
- ALGONQUIN ROAD & FAIRWAY VIEW DRIVE BUFFERS
- MAIN ENTRANCE #2A & #2B
- NEIGHBORHOOD ENTRANCE #3

dickson design STUDIO
526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

PULTE GROUP

SCHAUMBURG, IL

PLAN DATE

DECEMBER 6, 2019

REVISIONS

1.	PER VILL COMMENTS 2/14/20
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PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK
ALGONQUIN, IL

PRELIMINARY LANDSCAPE PLAN

SHEET NUMBER

L0.1

LANDSCAPE SUMMARY - TREES

485 STREET TREES: (485) SHADE TREES

24 MEDIANS & ENTRANCES:
- (8) SHADE TREES
- (16) ORNAMENTAL TREES

123 BUFFERS, ALGONQUIN ROAD + FAIRWAY VIEW DRIVE:
- (39) + (20) SHADE TREES
- (19) + (12) ORNAMENTAL TREES
- (19) + (14) EVERGREEN TREES

99 OPEN SPACE:
- (89) SHADE TREES
- (7) ORNAMENTAL TREES
- (3) EVERGREEN TREES

381 LOTS:
- (153) SPRINGS & ESTATES, (1) PER LOT
- (228) SHORES, (2) PER LOT

1,112 TOTAL TREES PROPOSED

REPLACEMENT/PROPOSED TREES MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING SPECIES -

LARGE TREES (50'+ = HEIGHT AT MATURITY):

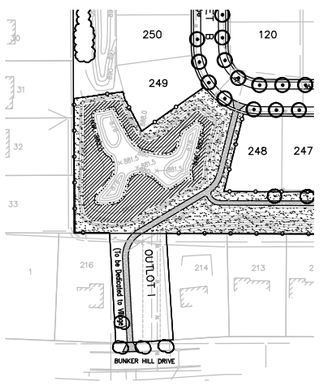
CARYA OVATA / SHAGBARK HICKORY
CELTIS OCCIDENTALIS / COMMON HACKBERRY
CORYLUS COLURNA / TURKISH FILBERT
FAGUS GRANDIFOLIA / AMERICAN BEECH
FAGUS SYLVATICA / EUROPEAN BEECH
GINGKO BILOBA / GINGKO
GYMNOCLADUS DIOICUS / KENTUCKY COFFEETREE
LIQUIDAMBAR STYRACIFLUA / AMERICAN SWEETGUM
LIRIODENDRON TULIPIFERA / TULIPTREE
MAGNOLIA ACUMINATA / CUCUMBERTREE MAGNOLIA
METASEQUOIA GLYPTOSTROBOIDES / DAWN REDWOOD
NYSSA SYLVATICA / BLACK TUPELO
PLATANUS X ACERIFOLIA / LONDON PLANETREE
QUERCUS VAR. / OAK VARIETIES
ULMUS AMERICANA / AMERICAN ELM
ULMUS PUMILA / HYBRID ELM
ZELKOVA SERRATA / JAPANESE ZELKOVA

MEDIUM TREES (30'-45' = HEIGHT AT MATURITY):

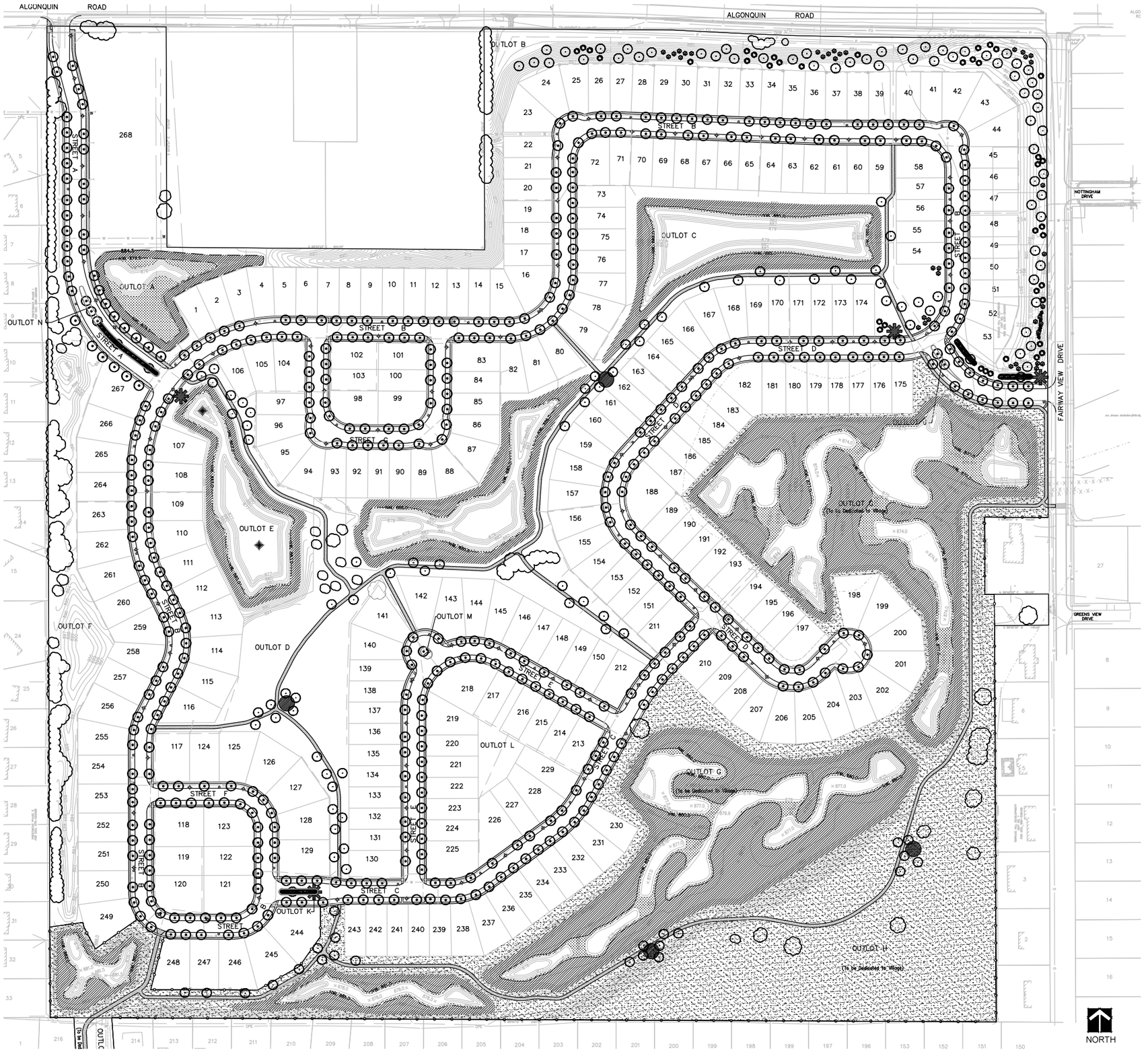
ALNUS GLUTINOSA / EUROPEAN ALDER
CARPINUS BETULUS / EUROPEAN HORNBEAM
CARPINUS CAROLINIANA / AMERICAN HORNBEAM

SMALLTREES (20'-30' = HEIGHT AT MATURITY):

AMELANCHIER ARBOREA / DOWNY SERVICEBERRY
AMELANCHIER X GRANDIFLORA / APPLE SERVICEBERRY
AMELANCHIER LAEVIS / ALLEGHENY SERVICEBERRY
CERCIS CANADENSIS / EASTERN REDBUD
CERCIS CANADENSIS VAR. ALBA / EASTERN WHITEBUD
CORNUS MAS / CORNELIANCHERRY DOGWOOD
CRATAEGUS CRUSGALLI VAR. INERMIS / THORNLESS COCKSPUR HAWTHORN
OSTRYA VIRGINIANA / AMERICAN HOPHORNBEAM
SYRINGA RETICULATA / JAPANESE TREE LILAC



SCALE: 1" = 125'-0"



OVERALL LAND DEVELOPMENT LANDSCAPE PLAN

SCALE: 1" = 125'-0"

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526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

PULTE GROUP

SCHAUMBURG, IL

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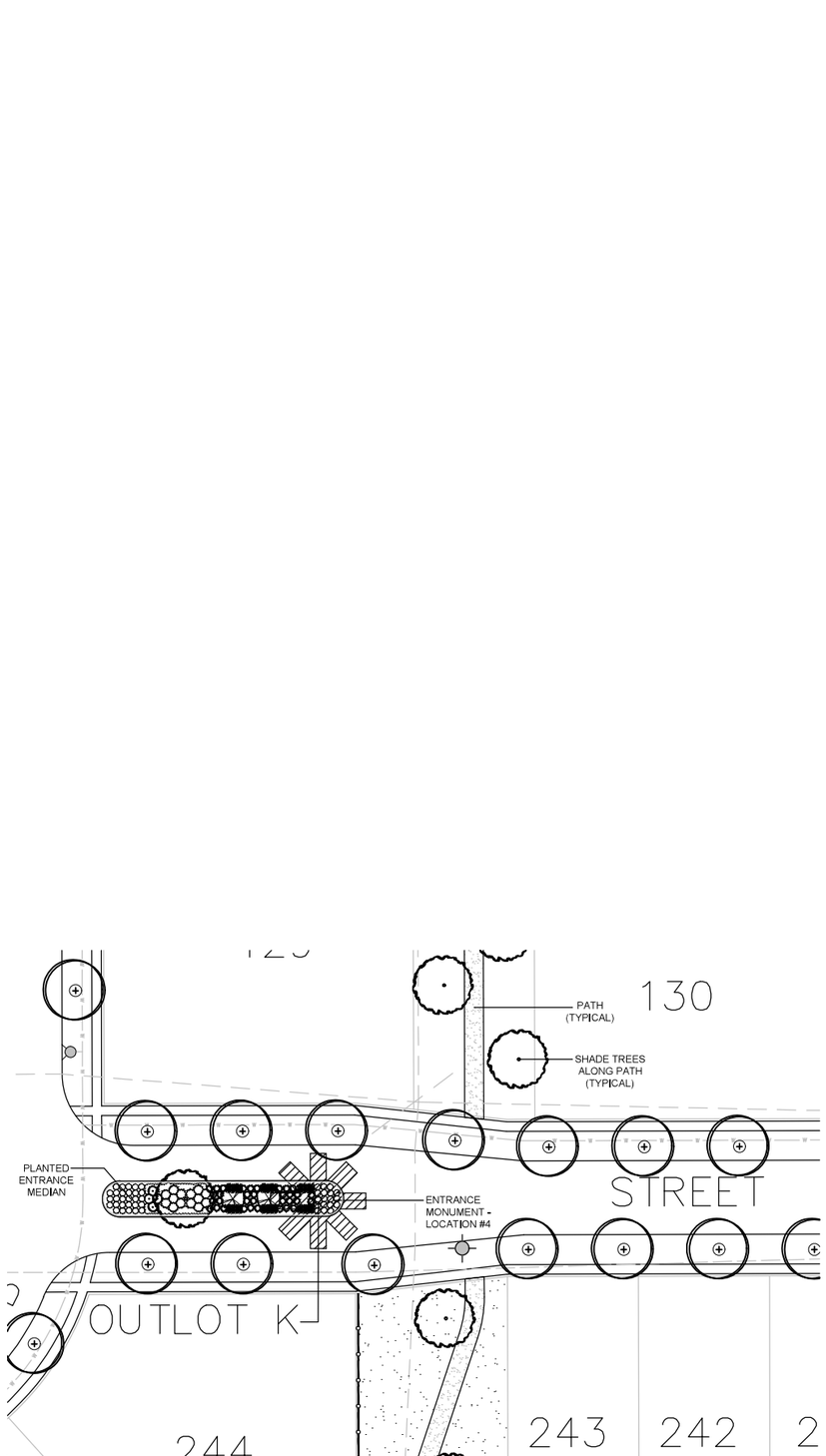
PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK
ALGONQUIN, IL

PRELIMINARY LANDSCAPE PLAN

SHEET NUMBER

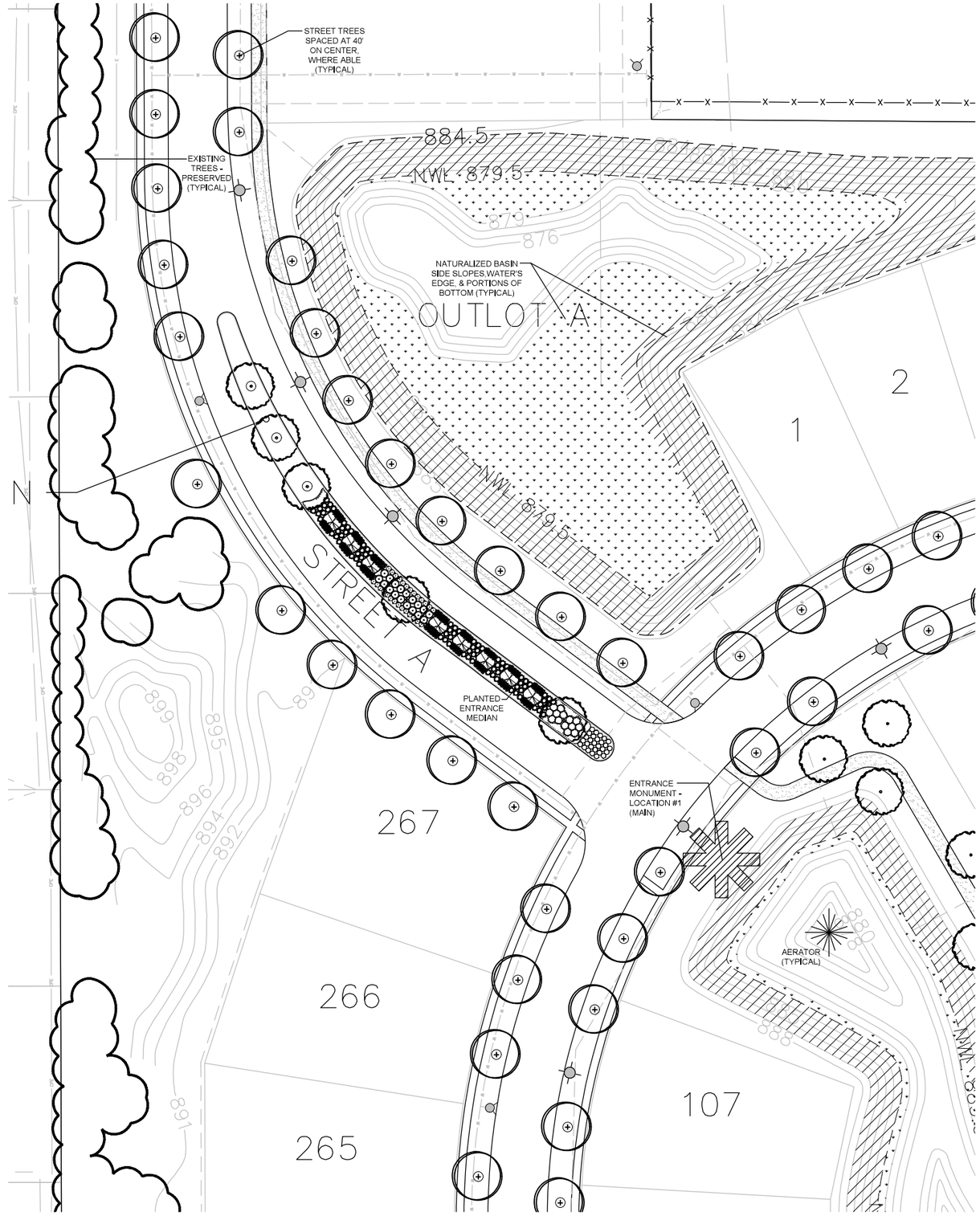
L1.1



LANDSCAPE PLAN DETAIL: NEIGHBORHOOD ENTRANCE #4

SCALE: 1" = 30'-0"

NORTH



LANDSCAPE PLAN DETAIL: MAIN ENTRANCE #1

SCALE: 1" = 30'-0"

NORTH

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847 878 4019

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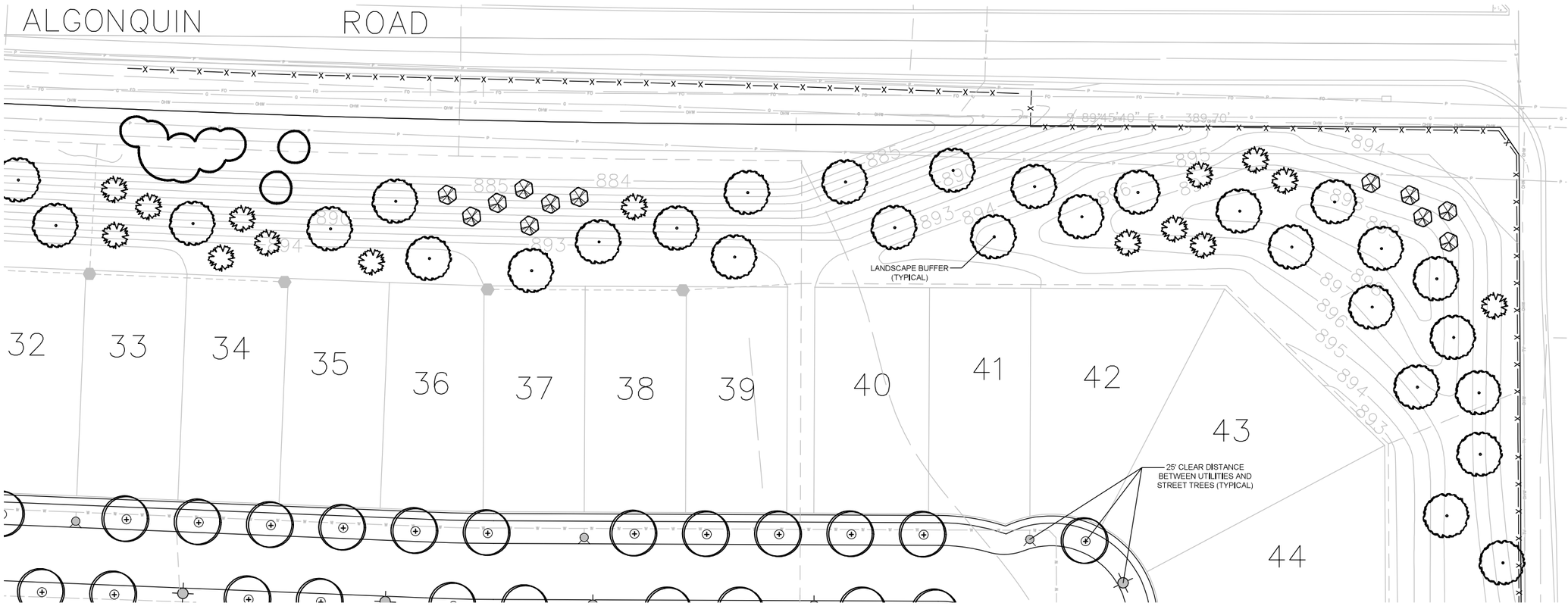
PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK
ALGONQUIN, IL

PRELIMINARY LANDSCAPE PLAN

SHEET NUMBER

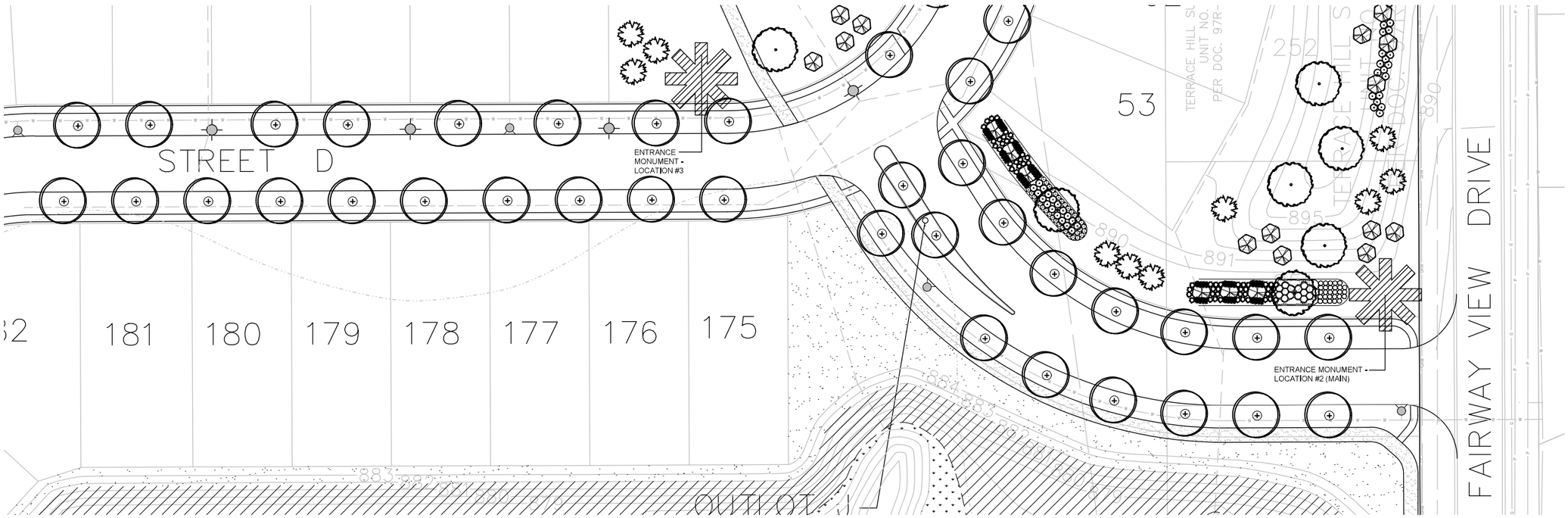
L1.2



LANDSCAPE PLAN DETAILS: ALGONQUIN ROAD & FAIRWAY VIEW DRIVE BUFFERS

SCALE: 1" = 30'-0"

NORTH



LANDSCAPE PLAN DETAILS: MAIN ENTRANCE #2A & #2B WITH NEIGHBORHOOD ENTRANCE #3

SCALE: 1" = 30'-0"

NORTH

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847 878 4019

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PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK

ALGONQUIN, IL

PRELIMINARY LANDSCAPE PLAN

SHEET NUMBER

L1.3

TREEE PROTECTION: NOTES

1. TREE PRESERVATION:

A. **ALL WORK MUST BE PERFORMED ACCORDING TO THE APPROVED TREE PRESERVATION PLAN. IT IS STRONGLY RECOMMENDED TO DOCUMENT GOOD STEWARDSHIP PRACTICES DURING CONSTRUCTION.**

B. AN APPROVED TREE PRESERVATION PLAN MUST BE AVAILABLE AT THE BUILDING SITE.

C. PRIOR TO ANY DEMOLITION / CONSTRUCTION ACTIVITY, INSTALL TREE PRESERVATION FENCE AND PERFORM ROOT PRUNING FOR ALL PROTECTED TREES. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION, ERECTION, AND MAINTENANCE OR TREE PROTECTION FENCING AROUND TREE PRESERVATION AREAS, SO THAT ALL TREES IN TREE PRESERVATION AREAS SHALL BE PRESERVED.

D. FENCE THE CRITICAL ROOT ZONE (CRZ) / CANOPY DRIP-LINE, OF THE ENTIRE EXISTING TREE TO BE PRESERVED WITH TREE PROTECTION FENCE. FENCE TO PREVENT WOUNDS TO THE TREE & SOIL COMPACTION. POST THE FENCE WITH A SIGN STATING, "TREE PROTECTION ZONE - KEEP OUT".

E. ALL REQUIRED TREE PROTECTION FENCING SHALL REMAIN IN PLACE UNTIL THE TIME OF FINISH GRADING AND LANDSCAPING.

F. NO TRENCHING SHOULD BE DONE WITHIN THE TREE PROTECTION ZONES FOR ANY CONSTRUCTION ACTIVITY, UNLESS PRE-APPROVED BY PROJECT ARBORIST &/OR PROJECT LANDSCAPE ARCHITECT.

G. NO GRADE CHANGES SHOULD BE DONE WITHIN THE TREE PROTECTION ZONES OF TREES FOR ANY CONSTRUCTION ACTIVITY.

H. SHOULD IT BE NECESSARY TO TRENCH WITHIN THE CRZ FOR UTILITIES, INCLUDING DISCONNECTION OR CAPPING OF EXISTING UTILITIES, ALL TRENCHES SHALL BE HAND DUG. NO ROOTS LARGER THAN TWO INCHES (2") SHALL BE CUT, UNLESS NO OTHER ALTERNATIVE IS FEASIBLE. ALL SMALLER ROOTS THAT REQUIRE CUTTING, SHALL BE CUT WITH A SHARP PRUNING SAW. CUTS SHALL BE MADE FLUSH WITH THE SIDE OF THE TRENCH. IF AT ANY TIME, TWENTY-FIVE PERCENT (25%) OF THE AREA WITHIN THE CRZ IS BEING SEPARATED FROM THE TREE BY A TRENCH, THEN THE LINE SHALL BE EITHER RELOCATED OR INSTALLED USING TRENCH-LESS METHODS.

I. LOCATE THE PROPOSED WATER AND SEWER LINES OUTSIDE OF THE TREE PROTECTION ZONE OR INSTALL THE SEWER AND WATER UTILITIES USING TRENCH-LESS METHODS. AUGER THROUGH THE ENTIRE TREE PROTECTION ZONE, LOCATE PITS OUTSIDE OF THE TREE PROTECTION ZONE.

J. THE PROPOSED WATER SERVICE LINE VALVES (B-BOXES), ARE TO BE TEN FEET (10') FROM PRESERVED TREES. IF FUTURE UTILITY EXCAVATIONS NEED TO OCCUR, THIS REDUCES THE CHANCES OF EXTENSIVE STEM OR ROOT DAMAGE, WHICH COULD LEAD TO TREE DECLINE.

K. AT NO TIME SHALL ANY EQUIPMENT, MATERIALS, SUPPLIES OR SOIL SPOILS SOIL BE ALLOWED IN THE TREE PROTECTION ZONE(S). DO NOT STORE EXCAVATED SOIL OR THE DUMPSTER WITHIN THE DRIP-LINE (CRZ) OF THE PRESERVED TREE(S).

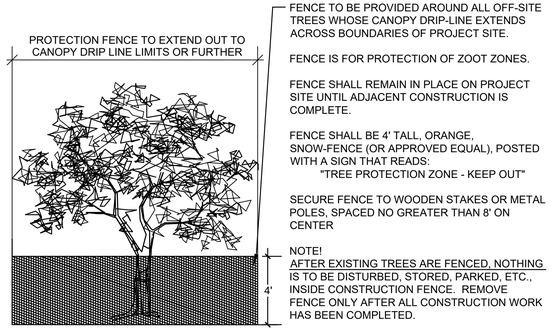
L. **REMOVAL OF ANY HARDSCAPE WITHIN THE TREE PROTECTION ZONES SHALL BE COMPLETED BY HAND.** NO ROOTS LARGER THAN TWO INCHES (2") SHALL BE CUT, UNLESS THERE IS NO ALTERNATIVE FEASIBLE. CUTS WILL BE MADE WITH A SHARP PRUNING SAW TO AVOID TEARING AND WILL BE FLUSH WITH THE TREE SIDE OF THE TRENCH.

M. THE TREE PROTECTION ZONE MAY BE MULCHED TO IMPROVE THE GROWING CONDITIONS FOR TREE ROOTS AND TO MINIMIZE MAINTENANCE OF THE LAWN.

N. ALL OFF-SITE TREES SHALL BE PRESERVED *(UNLESS OTHERWISE SPECIFIED)*.

O. EXISTING TREES SHOWN TO REMAIN SHALL BE PRESERVED TO THE BEST EXTENT POSSIBLE, PENDING FINAL SITE PLAN, FINAL CIVIL ENGINEERING, AND/OR ANY UNFORESEEN ISSUES.

TREE PROTECTION: FENCE DETAIL



FENCE TO BE PROVIDED AROUND ALL OFF-SITE TREES WHOSE CANOPY DRIP-LINE EXTENDS ACROSS BOUNDARIES OF PROJECT SITE.

FENCE IS FOR PROTECTION OF ZOOT ZONES.

FENCE SHALL REMAIN IN PLACE ON PROJECT SITE UNTIL ADJACENT CONSTRUCTION IS COMPLETE.

FENCE SHALL BE 4' TALL, ORANGE, SNOW-FENCE (OR APPROVED EQUAL), POSTED WITH A SIGN THAT READS:
"TREE PROTECTION ZONE - KEEP OUT"

SECURE FENCE TO WOODEN STAKES OR METAL POLES, SPACED NO GREATER THAN 8' ON CENTER

NOTE!
AFTER EXISTING TREES ARE FENCED, NOTHING IS TO BE DISTURBED, STORED, PARKED, ETC., INSIDE CONSTRUCTION FENCE. REMOVE FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN COMPLETED.

PROJECT TEAM

DEVELOPER:
PULTE GROUP
1900 EAST GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173
TEL (847) 230-5383

CONTACT: MATT BROLLEY

SURVEYOR:
CEMCON, LTD.
2280 WHITE OAK CIRCLE, SUITE 100
AURORA, IL 60502
TEL (630) 862-2100

ARBORIST:
DAVEY RESOURCE GROUP
NATURAL RESOURCE CONSULTING
TEL (414) 517-1695

CONTACT: PETE SORENSEN

LAND PLANNER:
CEMCON, LTD.
2280 WHITE OAK CIRCLE, SUITE 100
AURORA, IL 60502
TEL (630) 862-2100

CONTACT: PETE PLUSKWA

CIVIL ENGINEER:
CEMCON, LTD.
2280 WHITE OAK CIRCLE, SUITE 100
AURORA, IL 60502
TEL (630) 862-2100

CONTACT: CHRIS MORGART

LANDSCAPE ARCHITECT:
DICKSON DESIGN STUDIO, INC.
526 SKYLINE DRIVE
ALGONQUIN, IL 60102
TEL (847) 878-4019

CONTACT: SHARON DICKSON

SHEET KEY

1: PROJECT TEAM

TREE PROTECTION: NOTES

TREE PROTECTION: FENCE DETAIL

2: SHEET KEY FOR TREE SURVEY

3-8: TREE SURVEY

9: CONDITION / FORM RATING SCALE

TREE INVENTORY LISTING - **OFFSITE**

TREE INVENTORY LISTING - **ONSITE - TO PRESERVE**

10-12:

TREE INVENTORY LISTING - **ONSITE TO REMOVE**

SUMMARY: TREE PRESERVATION & REMOVAL (SHEET #12) - **ONSITE**

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847 878 4019

CLIENT NAME AND ADDRESS

PULTE GROUP

SCHAUMBURG, IL

PLAN DATE

DECEMBER 6, 2019

REVISIONS

1.	PER SURVEY ADDS 1/2/20
2.	PER VILL COMMENTS 2/14/20
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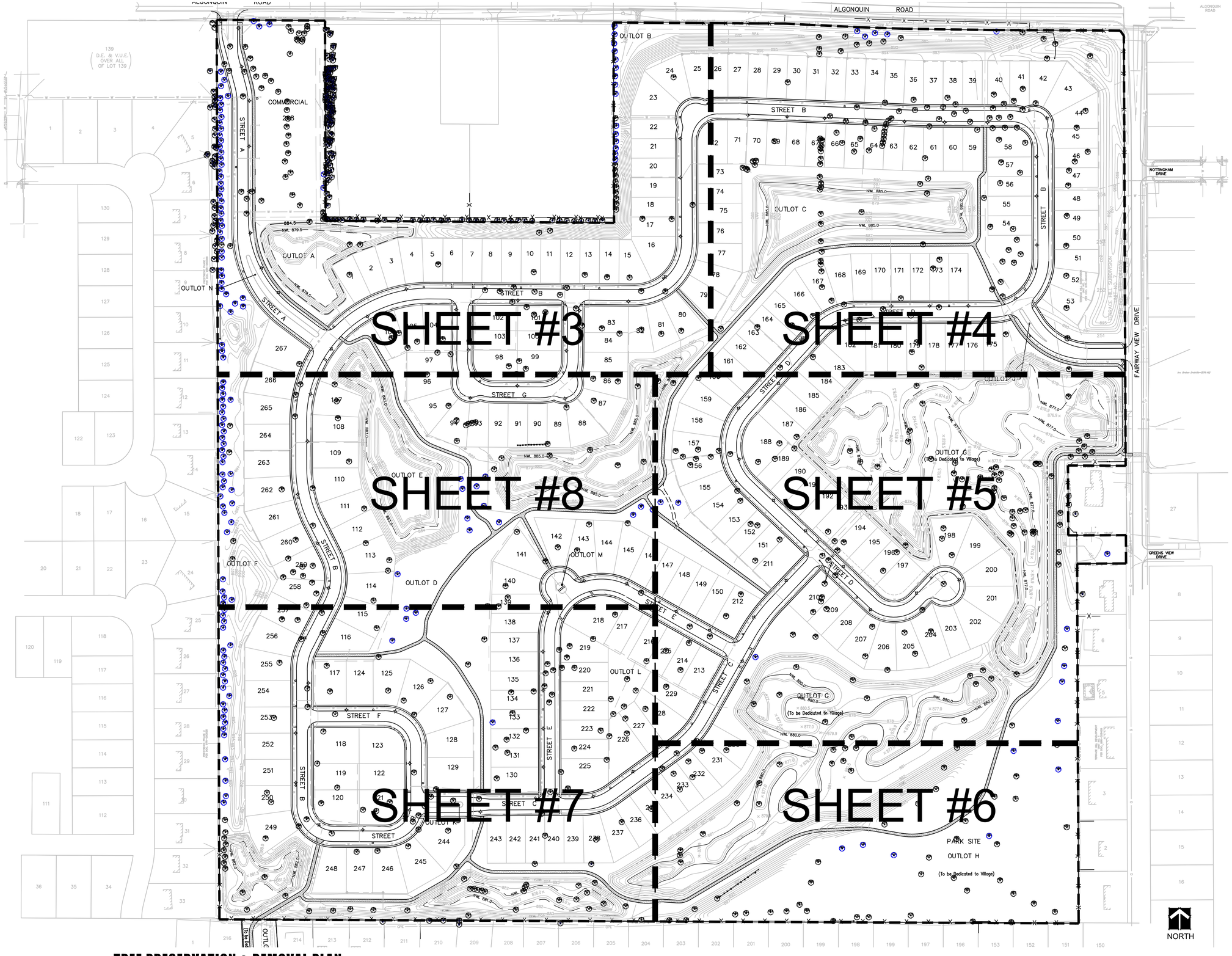
PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK
ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

1 OF 12



TREE PRESERVATION & REMOVAL PLAN

SCALE: 1" = 125'-0"

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PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK

ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

2 OF 12

ALGONQUIN ROAD

COMMERCIAL

STREET A

OUTLOT A

OUTLOT B

OUTLOT N

STREET B

PRESTWICKE PHASE 1
PER DOC. 96R-060068

KEY

- EXISTING TREE, OFFSITE - TO PRESERVE, SHOWN ONLY WITH BLUE, HATCHED CIRCLE (TYPICAL)
- EXISTING TREE - TO REMOVE, SHOWN WITH NO BLUE (TYPICAL)
- TREE PROTECTION FENCE (TYPICAL)
- TREE TAG NUMBER (TYPICAL)
- EXISTING TREE, ONSITE - TO PRESERVE, SHOWN ONLY WITH BLUE, HATCHED CIRCLE & OUTLINE (TYPICAL)
- LIMITS OF CRITICAL ROOT ZONE (CRZ) SHOWN WITH DASHED CIRCLE (TYPICAL)

NORTH

25 0 50

Scale: 1" = 50'-0"

884.5

NWL 879.5

MATCH TO SHEET 4

MATCH TO SHEET 8

MATCH TO SHEET 5

TREE PRESERVATION & REMOVAL PLAN

SCALE: 1" = 50'-0"

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PROJECT NAME AND SHEET TITLE

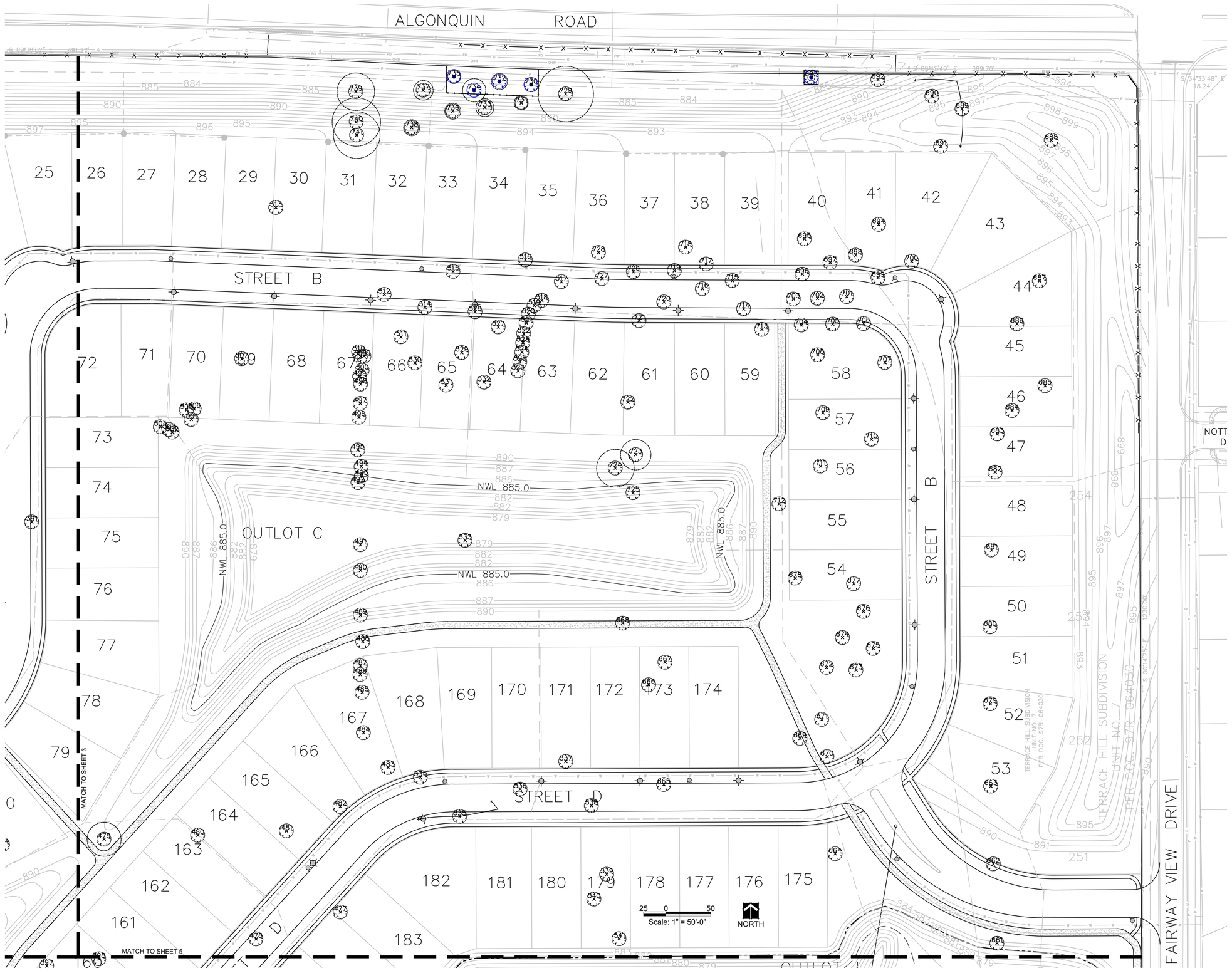
TRAILS OF WOODS CREEK

ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

3 OF 12



TREE PRESERVATION & REMOVAL PLAN

SCALE: 1" = 50'-0"

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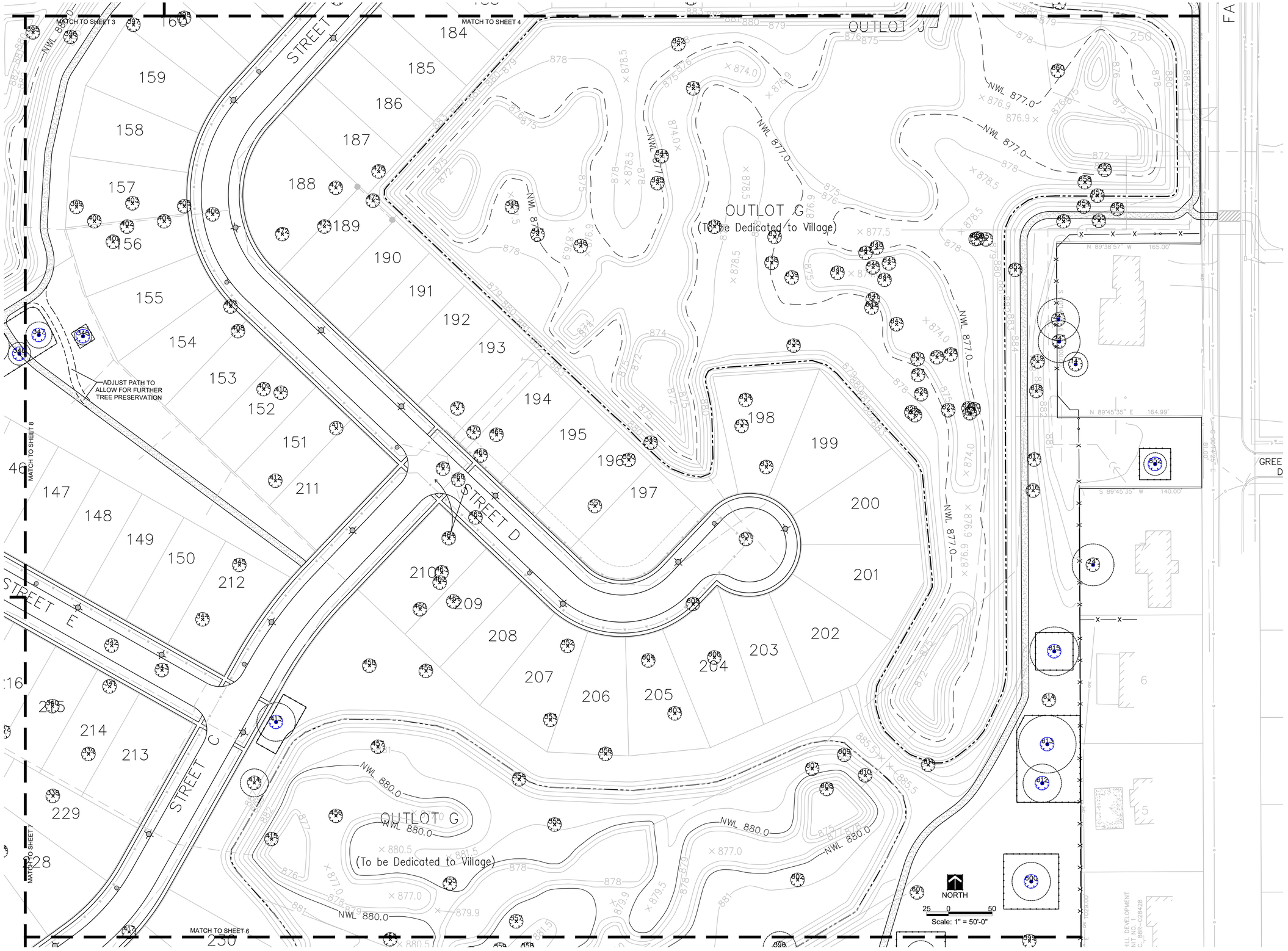
PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK
ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

4 OF 12



TREE PRESERVATION & REMOVAL PLAN

SCALE: 1" = 50'-0"

dickson design STUDIO

526 SKYLINE DRIVE
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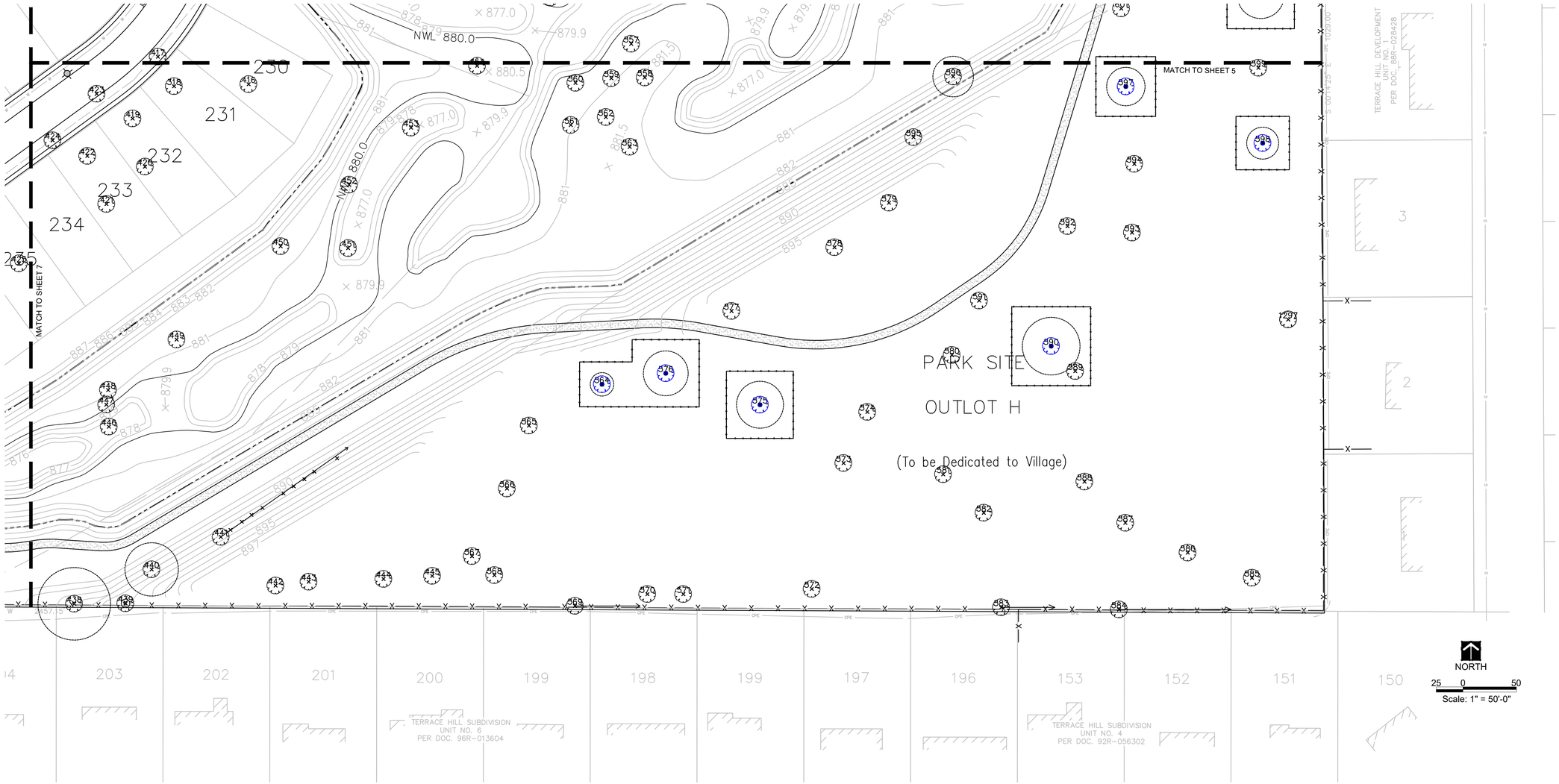
PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK
ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

5 OF 12



TREE PRESERVATION & REMOVAL PLAN

SCALE: 1" = 50'-0"

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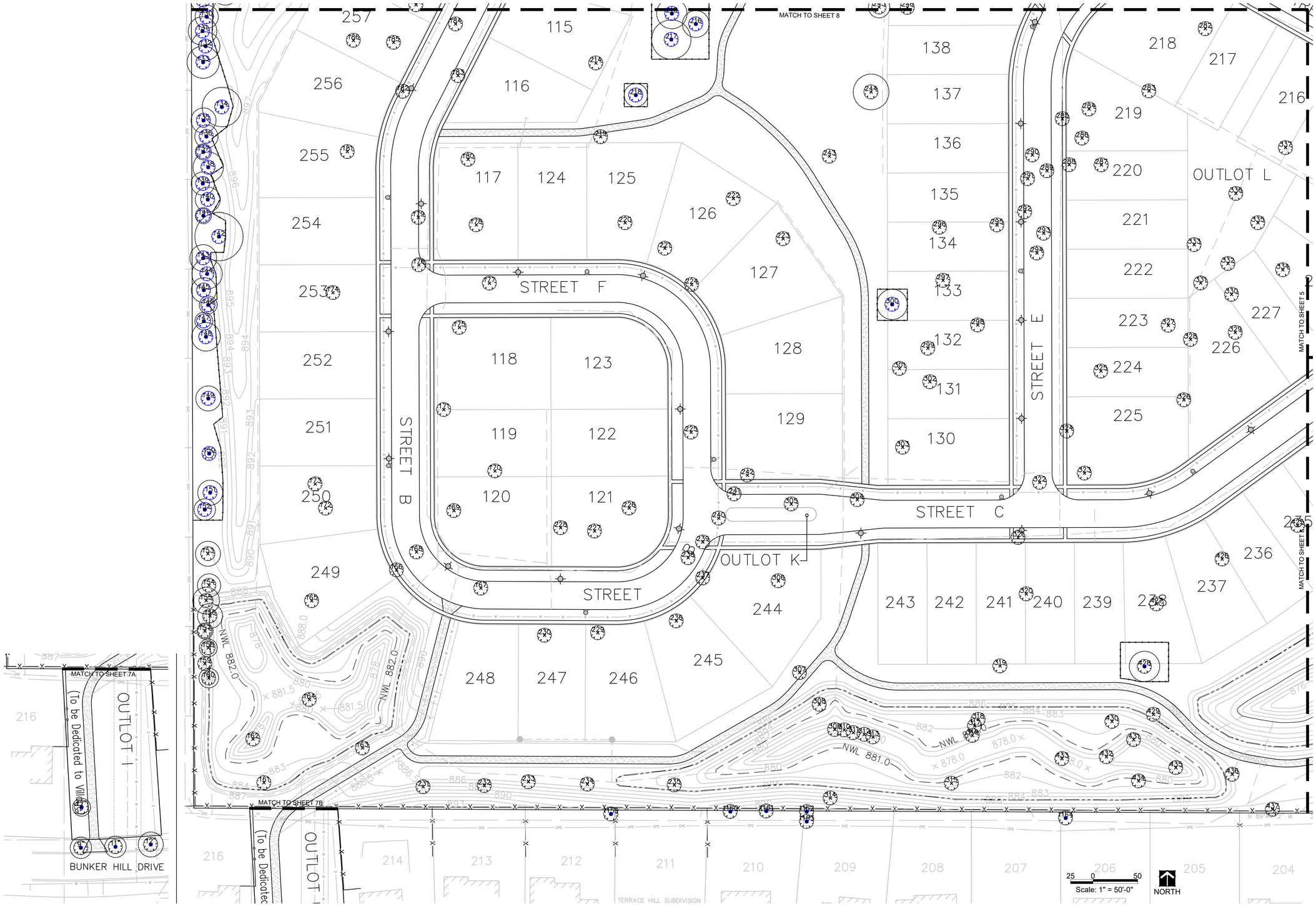
PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK
ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

6 OF 12



SHEET 7B **SHEET 7A**

TREE PRESERVATION & REMOVAL PLAN

SCALE: 1" = 50'-0"

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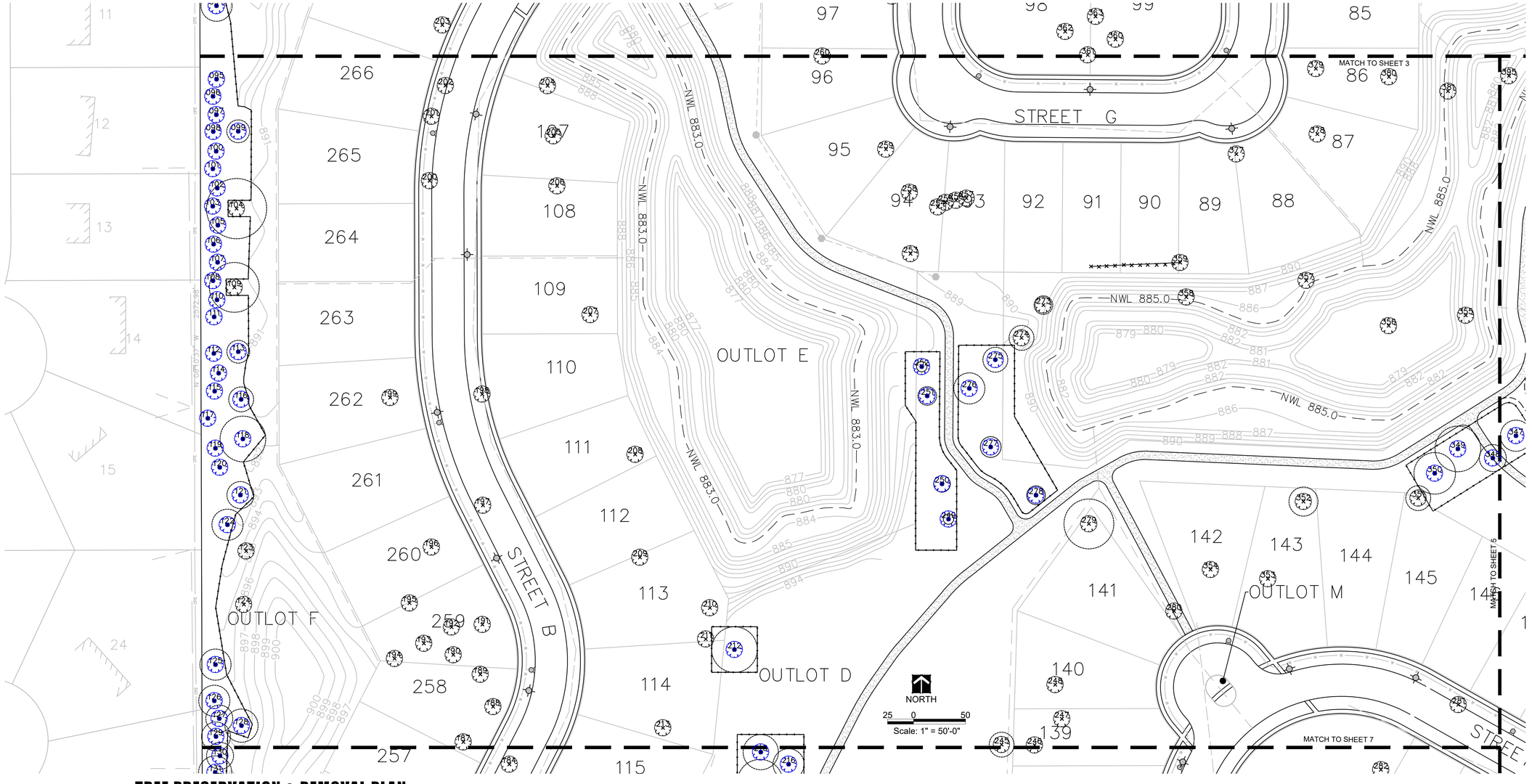
TRAILS OF WOODS CREEK
ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

7 OF 12



TREE PRESERVATION & REMOVAL PLAN

SCALE: 1" = 50'-0"

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TRAILS OF WOODS CREEK
ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

8 OF 12

TREE INVENTORY LISTING - OFFSITE (FOR REFERENCE PURPOSES) & ONSITE - TO PRESERVE

Condition / Form Rating Scale:

Very Good
The tree is typical of the species, has less than 10% deadwood in the crown (attributable to normal causes), has no other observed problems, and requireds no remedial action.

Good
The tree is typical of the species and/or has 10%-20% deadwood in the crown, only one or two minor problems (easily corrected with normal care).

Fair
The tree is typical of the species and/or has less than 30% deadwood in the crown, one or two minor problems (not eminently lethal to the tree), and no significant decay or structural problems, but the tree must have remedial care, above normal care, in order to minimize the impact of future stress and to insure continued health.

Poor
The tree is not typical of the species and/or has over 40% deadwood in the crown, major decay or structural problems, is hazardous or is severely infested with insects, disease, or other problems, that even if aggressively corrected, would not result in the long term survival of the tree.

Dead
Less than 10% of the tree shows signs of life.

TAG NO.	SCIENTIFIC NAME	COMMON NAME	DBH	CONDITION	OUTCOME
OFFSITE					
74	*Acer saccharinum*	Silver Maple	9	Fair	Preserve
75	*Acer negundo*	Boxelder	8	Dead	Preserve
768	*Pinus nigra*	Austrian Pine	20	Good	Preserve
769	*Pinus nigra*	Austrian Pine	12	Good	Preserve
770	*Pinus nigra*	Austrian Pine	19	Good	Preserve
771	*Pinus nigra*	Austrian Pine	14	Good	Preserve
772	*Pinus nigra*	Austrian Pine	21	Good	Preserve
773	*Pinus nigra*	Austrian Pine	18	Good	Preserve
774	*Pinus nigra*	Austrian Pine	20	Good	Preserve
775	*Pinus nigra*	Austrian Pine	20	Good	Preserve
778	*Pinus nigra*	Austrian Pine	11	Good	Preserve
779	*Pinus nigra*	Austrian Pine	20	Good	Preserve
780	*Pinus nigra*	Austrian Pine	12	Good	Preserve
781	*Pinus nigra*	Austrian Pine	21	Good	Preserve
782	*Pinus nigra*	Austrian Pine	21	Good	Preserve
783	*Pinus nigra*	Austrian Pine	21	Good	Preserve
784	*Pinus nigra*	Austrian Pine	20	Good	Preserve
785	*Pinus nigra*	Austrian Pine	23	Good	Preserve
786	*Pinus nigra*	Austrian Pine	19	Good	Preserve
787	*Pinus nigra*	Austrian Pine	21	Good	Preserve
788	*Pinus nigra*	Austrian Pine	12	Good	Preserve
789	*Pinus nigra*	Austrian Pine	17	Good	Preserve
790	*Pinus nigra*	Austrian Pine	22	Good	Preserve
791	*Pinus nigra*	Austrian Pine	11	Good	Preserve
792	*Pinus nigra*	Austrian Pine	20	Good	Preserve
793	*Pinus nigra*	Austrian Pine	19	Good	Preserve
794	*Pinus nigra*	Austrian Pine	16	Good	Preserve
795	*Pinus nigra*	Austrian Pine	18	Good	Preserve
796	*Pinus nigra*	Austrian Pine	16	Good	Preserve
797	*Pinus nigra*	Austrian Pine	21	Good	Preserve
798	*Pinus nigra*	Austrian Pine	19	Good	Preserve
799	*Pinus nigra*	Austrian Pine	18	Good	Preserve
800	*Pinus nigra*	Austrian Pine	26	Good	Preserve
801	*Pinus nigra*	Austrian Pine	18	Good	Preserve
802	*Pinus nigra*	Austrian Pine	11	Dead	Preserve
803	*Pinus nigra*	Austrian Pine	15	Fair	Preserve
804	*Pinus nigra*	Austrian Pine	15	Good	Preserve
805	*Picea pungens*	Blue Spruce	18	Good	Preserve
806	*Picea pungens*	Blue Spruce	16	Fair	Preserve
807	*Acer saccharum*	Sugar Maple	16	Good	Preserve
808	*Malus spp.*	Crabapple	10	Good	Preserve
809	*Malus spp.*	Crabapple	9	Fair	Preserve
810	*Morus alba*	White Mulberry	8	Good	Preserve
811	*Thuja Occidentalis*	Northern White Cedar	6	Good	Preserve
812	*Thuja Occidentalis*	Northern White Cedar	5	Good	Preserve
813	*Thuja Occidentalis*	Northern White Cedar	6	Good	Preserve
814	*Malus spp.*	Crabapple	7	Good	Preserve
815	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
815-B	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
815-C	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
815-C	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
816	*Ginkgo biloba*	Ginkgo	9	Very good	Preserve
817	*Gleditsia triacanthos*	Honeylocust	20	Very good	Preserve
818	*Thuja Occidentalis*	Northern White Cedar	6	Good	Preserve
818-B	*Thuja Occidentalis*	Northern White Cedar	6	Good	Preserve
818-C	*Thuja Occidentalis*	Northern White Cedar	6	Good	Preserve
818-D	*Thuja Occidentalis*	Northern White Cedar	6	Good	Preserve
818-E	*Thuja Occidentalis*	Northern White Cedar	6	Good	Preserve
818-F	*Thuja Occidentalis*	Northern White Cedar	6	Good	Preserve
819	*Fraxinus pennsylvanica*	Green Ash	12	Fair	Preserve
820	*Fraxinus pennsylvanica*	Green Ash	4	Fair	Preserve
821	*Picea pungens*	Blue Spruce	4	Good	Preserve
822	*Picea pungens*	Blue Spruce	5	Good	Preserve
823	*Acer X freemanii*	Freeman Maple	37	Good	Preserve
824	*Picea abies*	Norway Spruce	6	Poor	Preserve
825	*Picea abies*	Norway Spruce	10	Good	Preserve
826	*Picea abies*	Norway Spruce	9	Poor	Preserve
827	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
827-B	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
827-C	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
827-D	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
827-E	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
827-F	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
827-G	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
827-H	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
827-I	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
827-J	*Thuja Occidentalis*	Northern White Cedar	4	Good	Preserve
828	*Amelanchier spp.*	Serviceberry	6	Good	Preserve
829	*Thuja Occidentalis*	Northern White Cedar	6	Very good	Preserve
829-B	*Thuja Occidentalis*	Northern White Cedar	6	Very good	Preserve
830	*Amelanchier spp.*	Serviceberry	5	Good	Preserve
831	*Amelanchier spp.*	Serviceberry	4	Good	Preserve
832	*Morus alba*	White Mulberry	8	Good	Preserve
833	*Pinus strobus*	White Pine	8	Good	Preserve
834	*Acer saccharum*	Sugar Maple	15	Very good	Preserve
835	*Morus alba*	White Mulberry	14	Good	Preserve
836	*Amelanchier spp.*	Serviceberry	4	Good	Preserve
837	*Morus alba*	White Mulberry	15	Good	Preserve
838	*Amelanchier spp.*	Serviceberry	4	Good	Preserve
839	*Acer saccharum*	Sugar Maple	14	Very good	Preserve

TAG NO.	SCIENTIFIC NAME	COMMON NAME	DBH	CONDITION	OUTCOME	LOCATION
ONSITE - ALL						
564	*Acer saccharum*	Sugar Maple	11	Very good	Preserve	LAND DEDI
852	*Acer saccharum*	Sugar Maple	25.0	Fair	Preserve	LAND DEDI
413	*Quercus palustris*	Pin Oak	22	Very good	Preserve	LAND DEDI
576	*Quercus palustris*	Pin Oak	21	Fair	Preserve	LAND DEDI
590	*Quercus palustris*	Pin Oak	27	Very good	Preserve	LAND DEDI
597	*Quercus rubra*	Northern Red Oak	18	Very good	Preserve	LAND DEDI
598	*Quercus rubra*	Northern Red Oak	15	Very good	Preserve	LAND DEDI
600	*Quercus rubra*	Norhern Red Oak	22	Very good	Preserve	LAND DEDI
612	*Quercus rubra*	Northern Red Oak	22	Very good	Preserve	LAND DEDI
613	*Quercus rubra*	Northern Red Oak	33	Very good	Preserve	LAND DEDI
615	*Quercus rubra*	Northern Red Oak	28	Very good	Preserve	LAND DEDI
575	*Quercus velutina*	Black Oak	22	Very good	Preserve	LAND DEDI
4	*Picea pungens*	Blue Spruce	17	Fair	Preserve	
5	*Picea pungens*	Blue Spruce	16	Good	Preserve	
6	*Malus spp.*	Crabapple	16	Good	Preserve	
7	*Acer rubrum*	Red Maple	19	Good	Preserve	
8	*Picea pungens*	Blue Spruce	11	Fair	Preserve	
9	*Picea pungens*	Blue Spruce	12	Good	Preserve	
10	*Picea pungens*	Blue Spruce	14	Good	Preserve	
11	*Picea pungens*	Blue Spruce	12	Good	Preserve	
12	*Picea pungens*	Blue Spruce	14	Good	Preserve	
13	*Picea pungens*	Blue Spruce	14	Good	Preserve	
14	*Picea pungens*	Blue Spruce	14	Good	Preserve	
15	*Picea pungens*	Blue Spruce	13	Good	Preserve	
16	*Picea pungens*	Blue Spruce	8	Good	Preserve	
17	*Picea pungens*	Blue Spruce	10	Good	Preserve	
18	*Picea pungens*	Blue Spruce	10	Good	Preserve	
19	*Picea pungens*	Blue Spruce	14	Good	Preserve	
20	*Picea pungens*	Blue Spruce	16	Good	Preserve	
21	*Picea pungens*	Blue Spruce	14	Good	Preserve	
22	*Picea pungens*	Blue Spruce	16	Good	Preserve	
23	*Picea pungens*	Blue Spruce	14	Good	Preserve	
24	*Picea pungens*	Blue Spruce	13	Good	Preserve	
25	*Picea pungens*	Blue Spruce	13	Good	Preserve	
26	*Picea pungens*	Blue Spruce	15	Good	Preserve	
27	*Picea pungens*	Blue Spruce	20	Good	Preserve	
28	*Picea pungens*	Blue Spruce	13	Good	Preserve	
29	*Picea pungens*	Blue Spruce	12	Good	Preserve	
30	*Picea pungens*	Blue Spruce	12	Good	Preserve	
31	*Pinus nigra*	Austrian Pine	12	Good	Preserve	
33	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
34	*Pinus nigra*	Austrian Pine	16	Good	Preserve	
63	*Malus spp.*	Crabapple	16	Good	Preserve	
64	*Pseudotsuga menziesii*	Douglas Fir	11	Good	Preserve	
65	*Acer platanoides*	Norway Maple	22	Good	Preserve	
76	*Pinus nigra*	Austrian Pine	13	Fair	Preserve	
77	*Pinus nigra*	Austrian Pine	19	Fair	Preserve	
82	*Pinus nigra*	Austrian Pine	14	Good	Preserve	
83	*Pinus nigra*	Austrian Pine	16	Good	Preserve	
84	*Pinus nigra*	Austrian Pine	15	Good	Preserve	
85	*Pinus nigra*	Austrian Pine	15	Good	Preserve	
86	*Picea pungens*	Blue Spruce	14	Good	Preserve	
87	*Picea pungens*	Blue Spruce	13	Good	Preserve	
88	*Tilia cordata*	Little Leaf Linden	16	Good	Preserve	
89	*Picea pungens*	Blue Spruce	9	Good	Preserve	
90	*Picea pungens*	Blue Spruce	10	Good	Preserve	
91	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-AA	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-B	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-C	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-D	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-E	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-F	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-G	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-H	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-I	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-J	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-K	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-L	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-M	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-N	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-O	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-P	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-Q	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-R	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-S	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-T	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-U	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-V	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-W	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-X	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-Y	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
91-Z	*Thuja occidentalis*	Northern White Cedar	6	Good	Preserve	
92	*Pinus nigra*	Austrian Pine	13	Fair	Preserve	
93	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
94	*Pinus nigra*	Austrian Pine	15	Good	Preserve	
95	*Pinus nigra*	Austrian Pine	12	Good	Preserve	
96	*Pinus nigra*	Austrian Pine	15	Good	Preserve	
97	*Pinus nigra*	Austrian Pine	16	Good	Preserve	
98	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
99	*Fraxinus americana*	White Ash	11	Good	Preserve	
100	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
101	*Pinus nigra*	Austrian Pine	14	Good	Preserve	
102	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
103	*Pinus nigra*	Austrian Pine	14	Good	Preserve	
105	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
106	*Pinus nigra*	Austrian Pine	12	Good	Preserve	
107	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
108	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
110	*Pinus nigra*	Austrian Pine	16	Good	Preserve	

TAG NO.	SCIENTIFIC NAME	COMMON NAME	DBH	CONDITION	OUTCOME	LOCATION
ONSITE - ALL						
111	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
112	*Pinus nigra*	Austrian Pine	16	Good	Preserve	
113	*Pinus nagra*	Austrian Pine	11	Fair	Preserve	
114	*Pinus nigra*	Austrian Pine	10	Good	Preserve	
115	*Pinus nigra*	Austrian Pine	15	Good	Preserve	
116	*Pinus nigra*	Austrian Pine	12	Good	Preserve	
117	*Prunus serotina*	Black Cherry	15	Fair	Preserve	
118	*Acer platanoides*	Norway Maple	22	Good	Preserve	
119	*Pinus nigra*	Austrian Pine	14	Good	Preserve	
120	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
121	*Pinus sylvestris*	Scots Pine	11	Good	Preserve	
122	*Pinus sylvestris*	Scots Pine	15	Good	Preserve	
125	*Pinus nigra*	Austrian Pine	15	Good	Preserve	
126	*Pinus nigra*	Austrian Pine	15	Good	Preserve	
127	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
128	*Tilia cordata*	Little Leaf Linden	16	Good	Preserve	
129	*Pinus nigra*	Austrian Pine	14	Good	Preserve	
130	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
131	*Pinus nigra*	Austrian Pine	16	Good	Preserve	
132	*Pinus nigra*	Austrian Pine	16	Good	Preserve	
133	*Pinus nigra*	Austrian Pine	18	Good	Preserve	
134	*Gleditsia triacanthos*	Honeylocust	22	Good	Preserve	
135	*Pinus nigra*	Austrian Pine	16	Good	Preserve	
136	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
137	*Pinus nigra*	Austrian Pine	9	Good	Preserve	
138	*Pinus nigra*	Austrian Pine	17	Good	Preserve	
139	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
140	*Pinus nigra*	Austrian Pine	14	Good	Preserve	
141	*Pinus nigra*	Austrian Pine	9	Fair	Preserve	
142	*Gleditsia triacanthos*	Honeylocust	27	Good	Preserve	
143	*Pinus nigra*	Austrian Pine	15	Fair	Preserve	
144	*Pinus nigra*	Austrian Pine	17	Good	Preserve	
145	*Pinus nigra*	Austrian Pine	14	Good	Preserve	
146	*Pinus nigra*	Austrian Pine	10	Good	Preserve	
147	*Pinus nigra*	Austrian Pine	10	Good	Preserve	
148	*Pinus nigra*	Austrian Pine	16	Good	Preserve	
149	*Pinus nigra*	Austrian Pine	14	Good	Preserve	
150	*Pseudotsuga menziesii*	Douglas Fir	5	Good	Preserve	
151	*Pinus nigra*	Austrian Pine	14	Good	Preserve	
152	*Pinus nagra*	Austrian Pine	12	Good	Preserve	
212	*Acer saccharinum*	Silver Maple	22	Very good	Preserve	
215	*Pinus sylvestris*	Scots Pine	17	Very good	Preserve	
216	*Pinus sylvestris*	Scots Pine	15	Very good	Preserve	
217	*Pinus sylvestris*	Scots Pine	22	Very good	Preserve	
218	*Picea pungens*	Blue Spruce	13	Good	Preserve	
249	*Picea pungens*	Blue Spruce	5	Good	Preserve	
250	*Picea pungens*	Blue Spruce	8	Good	Preserve	
251	*Picea pungens*	Blue Spruce	9	Good	Preserve	
252	*Picea pungens*	Blue Spruce	5	Good	Preserve	
275	*Acer rubrum*	Red Maple	12	Very good	Preserve	
276	*Acer platanoides*	Norway Maple	15	Fair	Preserve	
277	*Picea pungens*	Blue Spruce	10	Very good	Preserve	
278	*Picea pungens*	Blue Spruce	9	Very good	Preserve	
300	*Tilia cordata*	Little Leaf Linden	17	Very good	Preserve	
346	*Pinus nigra*	Austrian Pine	10	Good	Preserve	
347	*Ulmus rubra*	Slippery Elm	15	Very good	Preserve	
348	*Acer platanoides*	Norway Maple	13	Very good	Preserve	
349	*Acer platanoides*	Norway Maple	22	Good	Preserve	
350	*Acer platanoides*	Norway Maple	20	Good	Preserve	
693	*Picea pungens*	Blue Spruce	4	Good	Preserve	
730	*Gleditsia triacanthos*	Honeylocust	8	Very good	Preserve	
732	*Picea pungens*	Blue Spruce	9	Good	Preserve	
734	*Acer saccharinum*	Silver Maple	13	Good	Preserve	
735	*Picea pungens*	Blue Spruce	7	Good	Preserve	
743	*Pinus nigra*	Austrian Pine	20	Good	Preserve	
744	*Pinus nigra*	Austrian Pine	20	Good	Preserve	
745	*Pinus nigra*	Austrian Pine	21	Good	Preserve	
746	*Pinus nigra*	Austrian Pine	13	Good	Preserve	
747	*Pinus nigra*	Austrian Pine	10	Fair	Preserve	
748	*Pinus nigra*	Austrian Pine	20	Good	Preserve	
749	*Pinus nigra*	Austrian Pine	21	Good	Preserve	
750	*Pinus nigra*	Austrian Pine	23	Good	Preserve	
751	*Pinus nigra*	Austrian Pine	20	Good	Preserve	
753	*Pinus nigra*	Austrian Pine	28	Good	Preserve	
754	*Pinus nigra*	Austrian Pine	21	Good	Preserve	
755	*Pinus nigra*	Austrian Pine	27	Good	Preserve	
756	*Pinus nigra*	Austrian Pine	14	Poor	Preserve	
757	*Pinus nigra*	Austrian Pine	20	Good	Preserve	
758	*Pinus nigra*	Austrian Pine	19	Good	Preserve	

dickson design STUDIO

526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

PULTE GROUP

SCHAUMBURG, IL

PLAN DATE

DECEMBER 6, 2019

REVISIONS

1.	PER SURVEY ADDS 1/2/20
2.	PER VILL COMMENTS 2/14/20
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK
ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

9 OF 12

TREE INVENTORY LISTING - ONSITE - TO REMOVE

TAG NO.	SCIENTIFIC NAME	COMMON NAME	DBH	CONDITION	OUTCOME	LOCATION	REQUIRED REPLACEMENT
ONSITE - ALL							
161	*Acer saccharinum*	Silver Maple	23	Good	REMOVE	LAND DEDI	0.00
162	*Acer saccharinum*	Silver Maple	21	Good	REMOVE	LAND DEDI	0.00
163	*Acer saccharinum*	Silver Maple	22	Good	REMOVE	LAND DEDI	0.00
164	*Acer saccharinum*	Silver Maple	22	Good	REMOVE	LAND DEDI	0.00
231	*Acer platanoides*	Norway Maple	15	Good	REMOVE	LAND DEDI	0.00
232	*Acer saccharum*	Sugar Maple	9	Good	REMOVE	LAND DEDI	0.00
233	*Pinus nigra*	Austrian Pine	17	Good	REMOVE	LAND DEDI	0.00
234	*Acer saccharinum*	Silver Maple	18	Very good	REMOVE	LAND DEDI	0.00
235	*Acer saccharinum*	Silver Maple	22	Good	REMOVE	LAND DEDI	0.00
308	*Pinus sylvestris*	Scots Pine	14	Very good	REMOVE	LAND DEDI	0.00
309	*Pinus nigra*	Austrian Pine	17	Good	REMOVE	LAND DEDI	0.00
310	*Pinus nigra*	Austrian Pine	19	Good	REMOVE	LAND DEDI	0.00
311	*Pinus nigra*	Austrian Pine	17	Good	REMOVE	LAND DEDI	0.00
312	*Pinus nigra*	Austrian Pine	16	Good	REMOVE	LAND DEDI	0.00
313	*Pinus nigra*	Austrian Pine	19	Good	REMOVE	LAND DEDI	0.00
314	*Picea glauca*	White Spruce	13	Good	REMOVE	LAND DEDI	0.00
315	*Acer saccharinum*	Silver Maple	23	Good	REMOVE	LAND DEDI	0.00
316	*Thuja occidentalis*	Northern White Cedar	9	Very good	REMOVE	LAND DEDI	0.00
317	*Thuja occidentalis*	Northern White Cedar	9	Very good	REMOVE	LAND DEDI	0.00
318	*Thuja occidentalis*	Northern White Cedar	8	Good	REMOVE	LAND DEDI	0.00
414	*Fraxinus americana*	White Ash	16	Good	REMOVE	LAND DEDI	0.00
415	*Acer platanoides*	Norway Maple	19	Good	REMOVE	LAND DEDI	0.00
428	*Fraxinus americana*	White Ash	17	Good	REMOVE	LAND DEDI	0.00
429	*Tilia cordata*	Little Leaf Linden	21	Good	REMOVE	LAND DEDI	0.00
430	*Pseudotsuga menziesii*	Douglas Fir	12	Good	REMOVE	LAND DEDI	0.00
431	*Pseudotsuga menziesii*	Douglas Fir	9	Good	REMOVE	LAND DEDI	0.00
432	*Acer saccharinum*	Silver Maple	24	Very good	REMOVE	LAND DEDI	0.00
433	*Tilia americana*	American Linden	23	Very good	REMOVE	LAND DEDI	0.00
434	*Acer saccharinum*	Silver Maple	21	Very good	REMOVE	LAND DEDI	0.00
435	*Fraxinus americana*	White Ash	5	Good	REMOVE	LAND DEDI	0.00
436	*Acer rubrum*	Red Maple	14	Very good	REMOVE	LAND DEDI	0.00
437	*Salix nigra*	Black Willow	66	Fair	REMOVE	LAND DEDI	0.00
438	*Salix nigra*	Black Willow	34	Fair	REMOVE	LAND DEDI	0.00
439	*Thuja occidentalis*	Northern White Cedar	4	Very good	REMOVE	LAND DEDI	0.00
440	*Acer saccharinum*	Silver Maple	25	Very good	REMOVE	LAND DEDI	0.00
442	*Pinus nigra*	Austrian Pine	17	Good	REMOVE	LAND DEDI	0.00
443	*Pinus nigra*	Austrian Pine	14	Good	REMOVE	LAND DEDI	0.00
444	*Fraxinus pennsylvanica*	Green Ash	19	Good	REMOVE	LAND DEDI	0.00
445	*Fraxinus pennsylvanica*	Green Ash	14	Good	REMOVE	LAND DEDI	0.00
446	*Acer negundo*	Boxelder	34	Poor	REMOVE	LAND DEDI	0.00
447	*Prunus serotina*	Black Cherry	15	Good	REMOVE	LAND DEDI	0.00
448	*Prunus serotina*	Black Cherry	13	Good	REMOVE	LAND DEDI	0.00
449	*Fraxinus pennsylvanica*	Green Ash	24	Good	REMOVE	LAND DEDI	0.00
450	*Acer platanoides*	Norway Maple	23	Very good	REMOVE	LAND DEDI	0.00
451	*Pinus nigra*	Austrian Pine	21	Good	REMOVE	LAND DEDI	0.00
452	*Fraxinus pennsylvanica*	Green Ash	18	Good	REMOVE	LAND DEDI	0.00
453	*Acer platanoides*	Norway Maple	16	Good	REMOVE	LAND DEDI	0.00
454	*Fraxinus pennsylvanica*	Green Ash	24	Good	REMOVE	LAND DEDI	0.00
455	*Acer saccharinum*	Silver Maple	23	Very good	REMOVE	LAND DEDI	0.00
456	*Fraxinus americana*	White Ash	20	Good	REMOVE	LAND DEDI	0.00
457	*Pinus nigra*	Austrian Pine	21	Good	REMOVE	LAND DEDI	0.00
542	*Ulmus rubra*	Slippery Elm	9	Good	REMOVE	LAND DEDI	0.00
543	*Acer saccharinum*	Silver Maple	18	Good	REMOVE	LAND DEDI	0.00
544	*Pinus nigra*	Austrian Pine	15	Good	REMOVE	LAND DEDI	0.00
545	*Pinus nigra*	Austrian Pine	15	Good	REMOVE	LAND DEDI	0.00
546	*Pinus nigra*	Austrian Pine	15	Good	REMOVE	LAND DEDI	0.00
547	*Salix babylonica*	Weeping Willow	51	Poor	REMOVE	LAND DEDI	0.00
548	*Salix babylonica*	Weeping Willow	60	Good	REMOVE	LAND DEDI	0.00
554	*Acer platanoides*	Norway Maple	17	Good	REMOVE	LAND DEDI	0.00
555	*Pinus sylvestris*	Scots Pine	21	Good	REMOVE	LAND DEDI	0.00
557	*Pinus nigra*	Austrian Pine	25	Good	REMOVE	LAND DEDI	0.00
558	*Tilia cordata*	Little Leaf Linden	20	Good	REMOVE	LAND DEDI	0.00
559	*Acer saccharinum*	Silver Maple	26	Fair	REMOVE	LAND DEDI	0.00
560	*Pinus sylvestris*	Scots Pine	15	Good	REMOVE	LAND DEDI	0.00
561	*Tilia cordata*	Little Leaf Linden	15	Good	REMOVE	LAND DEDI	0.00
562	*Acer saccharinum*	Silver Maple	26	Good	REMOVE	LAND DEDI	0.00
563	*Pinus nigra*	Austrian Pine	16	Good	REMOVE	LAND DEDI	0.00
565	*Gleditsia triacanthos*	Honeylocust	24	Very good	REMOVE	LAND DEDI	0.00
566	*Pinus nigra*	Austrian Pine	17	Good	REMOVE	LAND DEDI	0.00
567	*Picea pungens*	Blue Spruce	17	Good	REMOVE	LAND DEDI	0.00
568	*Picea pungens*	Blue Spruce	19	Good	REMOVE	LAND DEDI	0.00
569	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
569-B	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
569-C	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
569-D	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
569-E	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
569-F	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
570	*Gleditsia triacanthos*	Honeylocust	11	Very good	REMOVE	LAND DEDI	0.00
571	*Pinus nigra*	Austrian Pine	17	Good	REMOVE	LAND DEDI	0.00
572	*Acer saccharinum*	Silver Maple	31	Very good	REMOVE	LAND DEDI	0.00
573	*Pinus nigra*	Austrian Pine	28	Good	REMOVE	LAND DEDI	0.00
574	*Pinus nigra*	Austrian Pine	22	Good	REMOVE	LAND DEDI	0.00
577	*Tilia americana*	American Linden	31	Very good	REMOVE	LAND DEDI	0.00
578	*Tilia americana*	American Linden	19	Good	REMOVE	LAND DEDI	0.00
579	*Pinus nigra*	Austrian Pine	22	Good	REMOVE	LAND DEDI	0.00
580	*Acer saccharinum*	Silver Maple	22	Very good	REMOVE	LAND DEDI	0.00
581	*Acer saccharinum*	Silver Maple	25	Good	REMOVE	LAND DEDI	0.00
582	*Acer platanoides*	Norway Maple	20	Poor	REMOVE	LAND DEDI	0.00
583	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
583-B	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
583-C	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
583-D	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
583-E	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
583-F	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
583-G	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
583-H	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
583-I	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
583-J	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE	LAND DEDI	0.00
584	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-B	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-C	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-D	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-E	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-F	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-G	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-H	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-I	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-J	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-K	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-L	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-M	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-N	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-O	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-P	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-Q	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-R	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-S	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-T	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-U	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-V	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-W	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-X	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-Y	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-Z	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-AA	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-BB	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-CC	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-DD	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-EE	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-FF	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-GG	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-HH	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-II	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-JJ	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-KK	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-LL	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-MM	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-NN	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-OO	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-PP	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-QQ	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-RR	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-SS	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-TT	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-UU	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-VV	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-WW	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
584-XX	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE	LAND DEDI	0.00
585	*Pinus nigra*	Austrian Pine	23	Good	REMOVE	LAND DEDI	0.00
586	*Picea glauca*	White Spruce	10	Good	REMOVE	LAND DEDI	0.00
587	*Pinus nigra*	Austrian Pine	21	Good	REMOVE	LAND DEDI	0.00
588	*Acer saccharinum*	Silver Maple	26	Good	REMOVE	LAND DEDI	0.00
589	*Fraxinus pennsylvanica*	Green Ash	16	Good	REMOVE	LAND DEDI	0.00
591	*Acer saccharinum*	Silver Maple	19	Very good	REMOVE	LAND DEDI	0.00
592	*Pinus nigra*	Austrian Pine	15	Good	REMOVE	LAND DEDI	0.00
593	*Fraxinus americana*	White Ash	20	Good	REMOVE	LAND DEDI	0.00
594	*Gleditsia triacanthos*	Honeylocust	26	Good	REMOVE	LAND DEDI	0.00
595	*Fraxinus pennsylvanica*	Green Ash	18	Poor	REMOVE	LAND DEDI	0.00
596	*Pinus nigra*	Austrian Pine	19	Good	REMOVE	LAND DEDI	0.00
599	*Fraxinus pennsylvanica*	Green Ash	21	Fair	REMOVE	LAND DEDI	0.00
601	*Fraxinus pennsylvanica*	Green Ash	21	Poor	REMOVE	LAND DEDI	0.00
602	*Fraxinus pennsylvanica*	Green Ash	12	Fair	REMOVE	LAND DEDI	0.00
607	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE	LAND DEDI	0.00
608	*Tilia americana*	American Linden	25	Poor	REMOVE	LAND DEDI	0.00
609	*Acer platanoides*	Norway Maple	22	Good	REMOVE	LAND DEDI	0.00
610	*Acer platanoides*	Norway Maple	22	Good	REMOVE	LAND DEDI	0.00
611	*Gleditsia triacanthos*	Honeylocust	21	Very good	REMOVE	LAND DEDI	0.00
614	*Fraxinus pennsylvanica*	Green Ash	27	Good	REMOVE	LAND DEDI	0.00
620	*Populus deltoides*	Eastern Cottonwood	24	Good	REMOVE	LAND DEDI	0.00
621	*Salix babylonica*	Weeping Willow	38	Good	REMOVE	LAND DEDI	0.00
622	*Populus deltoides*	Eastern Cottonwood	28	Good	REMOVE	LAND DEDI	0.00
623	*Populus deltoides*	Eastern Cottonwood	34	Good	REMOVE	LAND DEDI	0.00
624	*Populus deltoides*	Eastern Cottonwood	34	Good	REMOVE	LAND DEDI	0.00
625	*Populus deltoides*	Eastern Cottonwood	30	Good	REMOVE	LAND DEDI	0.00
626	*Populus deltoides*	Eastern Cottonwood	19	Good	REMOVE	LAND DEDI	0.00
627	*Populus deltoides*	Eastern Cottonwood	39	Good	REMOVE	LAND DEDI	0.00
627	*Populus deltoides*	Eastern Cottonwood	39	Good	REMOVE	LAND DEDI	0.00
628	*Populus deltoides*	Eastern Cottonwood	33	Good	REMOVE	LAND DEDI	0.00
628	*Populus deltoides*	Eastern Cottonwood	33	Good	REMOVE	LAND DEDI	0.00
629	*Populus deltoides*	Eastern Cottonwood	24	Good	REMOVE	LAND DEDI	0.00
629	*Populus deltoides*	Eastern Cottonwood	24	Good	REMOVE	LAND DEDI	0.00
630	*Populus deltoides*	Eastern Cottonwood	23	Good	REMOVE	LAND DEDI	0.00
630	*Populus deltoides*	Eastern Cottonwood	23	Good	REMOVE	LAND DEDI	0.00
635	*Rhamnus cathartica*	Buckthorn	7	Fair	REMOVE	LAND DEDI	0.00
636	*Pinus nigra*	Austrian Pine	13	Good	REMOVE	LAND DEDI	0.00
637	*Prunus serotina*	Black Cherry	12	Good	REMOVE	LAND DEDI	0.00
638	*Acer negundo*	Boxelder	21	Good	REMOVE	LAND DEDI	0.00
639	*Fraxinus pennsylvanica*	Green Ash	21	Good	REMOVE	LAND DEDI	0.00
640	*Acer negundo*	Boxelder	19	Good	REMOVE	LAND DEDI	0.00
641	*Populus deltoides*	Eastern Cottonwood	25	Good	REMOVE	LAND DEDI	0.00
642	*Populus deltoides*	Eastern Cottonwood	34	Good	REMOVE	LAND DEDI	0.00
643	*Populus deltoides*	Eastern Cottonwood	28	Good	REMOVE	LAND DEDI	0.00
644	*Populus deltoides*	Eastern Cottonwood	23	Good	REMOVE	LAND DEDI	0.00
645	*Populus deltoides*	Eastern Cottonwood	28	Good	REMOVE	LAND DEDI	0.00
646	*Populus deltoides*	Eastern Cottonwood	25	Good	REMOVE	LAND DEDI	0.00
647	*Populus deltoides*	Eastern Cottonwood	24	Good	REMOVE	LAND DEDI	0.00
648	*Populus deltoides*	Eastern Cottonwood	27	Good	REMOVE	LAND DEDI	0.00
649	*Ulmus pumila*	Siberian Elm	18	Good	REMOVE	LAND DEDI	0.00
650	*Ulmus pumila*	Siberian Elm	15	Good	REMOVE	LAND DEDI	0.00
651	*Ulmus rubra*	Slippery Elm	19	Good	REMOVE	LAND DEDI	0.00
652	*Populus deltoides*	Eastern Cottonwood	51	Good	REMOVE	LAND DEDI	0.00
653	*Picea pungens*	Blue Spruce	18	Good	REMOVE	LAND DEDI	0.00
654	*Picea pungens*	Blue Spruce	17	Good	REMOVE	LAND DEDI	0.00
655	*Picea pungens*	Blue Spruce	12	Poor	REMOVE	LAND DEDI	0.00
656	*Picea pungens*	Blue Spruce	15	Fair	REMOVE	LAND DEDI	0.00
657	*Picea pungens*	Blue Spruce	14	Good	REMOVE	LAND DEDI	0.00
658	*Picea pungens*	Blue Spruce	12	Fair	REMOVE	LAND DEDI	0.00
659	*Picea pungens*	Blue Spruce	17	Fair	REMOVE	LAND DEDI	0.00
660	*Acer platanoides*	Norway Maple	16	Very good	REMOVE	LAND DEDI	0.00
661	*Acer nigrum*	Black Maple	25	Very good	REMOVE	LAND DEDI	0.00
1	*Acer rubrum*	Red Maple	15	Good	REMOVE		15.00
2	*Picea pungens*	Blue Spruce	19	Good	REMOVE		19.00
3	*Acer rubrum*	Red Maple	18	Good	REMOVE		18.00
32	*Pinus nigra*	Austrian Pine	12	Dead	REMOVE		0.00
35	*Fraxinus pennsylvanica*	Green Ash	24	Fair	REMOVE		0.00
36	*Malus spp.*	Crabapple	11	Good	REMOVE		11.00
37	*Malus spp.*	Crabapple	16	Good	REMOVE		16.00
38	*Malus spp.*	Crabapple	9	Good	REMOVE		9.00
39	*Malus spp.*	Crabapple	9	Good	REMOVE		9.00
40	*Malus spp.*	Crabapple	18	Fair	REMOVE		18.00
41	*Acer platanoides*	Norway Maple	21	Good	REMOVE		21.00
42	*Acer platanoides*	Norway Maple	23	Good	REMOVE		23.00
43	*Acer platanoides*	Norway Maple	22	Good	REMOVE		22.00
44	*Picea pungens*	Blue Spruce	14	Good	REMOVE		14.00
45	*Picea pungens*	Blue Spruce	17	Good	REMOVE		17.00
46	*Picea pungens*	Blue Spruce	21	Good	REMOVE		21.00
47	*Picea pungens*	Blue Spruce	16	Good	REMOVE		16.00
48	*Picea pungens*	Blue Spruce	11	Good	REMOVE		11.00
49	*Picea pungens*	Blue Spruce	13	Good	REMOVE		13.00
50	*Picea pungens*	Blue Spruce	14	Good	REMOVE		14.00
51	*Picea pungens*	Blue Spruce	14	Good	REMOVE		14.00
52	*Picea pungens*	Blue Spruce	14	Good	REMOVE		14.00
53	*Picea pungens*	Blue Spruce	13	Good	REMOVE		13.00
54	*Picea pungens*	Blue Spruce	16	Good	REMOVE		16.00
55	*Picea pungens*	Blue Spruce	16	Good	REMOVE		16.00
56	*Picea pungens*	Blue Spruce	13	Good	REMOVE		13.00
57	*Picea pungens*	Blue Spruce	18	Good	REMOVE		18.00
58	*Picea pungens*	Blue Spruce	14	Good	REMOVE		14.00
59	*Picea pungens*	Blue Spruce	24	Fair	REMOVE		24.00
60	*Acer rubrum*	Red Maple	19	Good	REMOVE		19.00
61	*Acer rubrum*	Red Maple	19	Good	REMOVE		19.00
62	*Acer rubrum*	Red Maple	18	Good	REMOVE		18.00
66	*Acer negundo*	Boxelder	19	Poor	REMOVE		0.00
67	*Acer negundo*	Boxelder	20	Fair	REMOVE		10.00
68	*Acer negundo*	Boxelder	4	Fair	REMOVE		2.00
69	*Acer negundo*	Boxelder	20	Fair	REMOVE		10.00
70	*Acer negundo*	Boxelder	12	Good	REMOVE		6.00
71	*Acer negundo*	Boxelder	17	Fair	REMOVE		8.50
72	*Acer saccharinum*	Silver Maple	16	Good	REMOVE		8.00
73	*Acer negundo*	Boxelder	8	Fair	REMOVE		4.00
78	*Pinus nigra*	Austrian Pine	13	Good	REMOVE		6.50
79	*Pinus nigra*	Austrian Pine	12	Good	REMOVE		6.00
80	*Pinus nigra*	Austrian Pine	16	Good	REMOVE		7.00
81	*Pinus nigra*	Austrian Pine	14	Fair	REMOVE		7.00
104	*Fraxinus pennsylvanica*	Green Ash	29	Fair	Preserve		0.00
109	*Fraxinus pennsylvanica*	Green Ash	24	Fair	Preserve		0.00
123	*Pinus sylvestris*	Scots Pine	15	Good	REMOVE		7.50
124	*Acer platanoides*	Norway Maple	19	Fair	REMOVE		19.00
153	*Pinus nigra*	Austrian Pine	14	Good	REMOVE		7.00
154	*Pinus nigra*	Austrian Pine	13	Good	REMOVE		6.50
155	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
156	*Pinus nigra*	Austrian Pine	14	Good	REMOVE		7.00
157	*Pinus nigra*	Austrian Pine	9	Good	REMOVE		4.50
158	*Pinus nigra*	Austrian Pine	10	Good	REMOVE		5.00
159	*Pinus nigra*	Austrian Pine	11	Dead	REMOVE		0.00
160	*Pinus nigra*	Austrian Pine	11	Good	REMOVE		5.50
165	*Acer saccharinum*	Silver Maple	24	Good	REMOVE		12.00
166	*Picea pungens*	Blue Spruce	15	Good	REMOVE		15.00
167	*Pinus nigra*	Austrian Pine	17	Good	REMOVE		8.50
168	*Picea pungens*	Blue Spruce	10	Good	REMOVE		10.00
169	*Acer platanoides*	Norway Maple	18	Good	REMOVE		18.00
170	*Pinus nigra*	Austrian Pine	28	Good	REMOVE		14.00
171	*Fraxinus americana*	White Ash	16	Good	REMOVE		0.00
172	*Fraxinus americana*	White Ash	14	Good	REMOVE		0.00
173	*Acer platanoides*	Norway Maple	16	Good	REMOVE		16.00
174	*Tilia americana*	American Linden	23	Good	REMOVE		23.00
175	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
176	*Pinus nigra*	Austrian Pine	17	Good	REMOVE		8.50
177	*Fraxinus pennsylvanica*	Green Ash	2	Good	REMOVE		0.00
178	*Fraxinus pennsylvanica*	Green Ash	24	Fair	REMOVE		0.00
179	*Pinus nigra*	Austrian Pine	20	Good	REMOVE		10.00
180	*Quercus rubra*	Northern Red Oak	22	Very good	REMOVE		22.00
181	*Gleditsia triacanthos*	Honeylocust	18	Very good	REMOVE		18.00
182	*Fraxinus pennsylvanica*	Green Ash	16	Good	REMOVE		0.00
183	*Acer platanoides*	Norway Maple	16	Good	REMOVE		16.00
184	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE		7.00
185	*Pinus nigra*	Austrian Pine	17	Good	REMOVE		8.50
186	*Gleditsia triacanthos*	Honeylocust	24	Very good	REMOVE		24.00
187	*Acer platanoides*	Norway Maple	21	Good	REMOVE		21.00
188	*Picea pungens*	Blue Spruce	18	Good	REMOVE		18.00
189	*Picea pungens*	Blue Spruce	14	Fair	REMOVE		14.00
190	*Acer platanoides*	Norway Maple	19	Good	REMOVE		19.00
191	*Fraxinus pennsylvanica*	Green Ash	27	Fair	REMOVE		0.00
192	*Fraxinus pennsylvanica*	Green Ash	28	Fair	REMOVE		0.00
193	*Pinus nigra*	Austrian Pine	27	Good	REMOVE		13.50
194	*Acer rubrum*	Red Maple	16	Good	REMOVE		16.00
195	*Pinus nigra*	Austrian Pine	20	Good	REMOVE		10.00
196	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
197	*Acer rubrum*	Red Maple	15	Good	REMOVE		15.00
198	*Acer saccharinum*	Silver Maple	24	Very good	REMOVE		12.00

dickson design STUDIO

526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

PULTE GROUP

SCHAUMBURG, IL

PLAN DATE

DECEMBER 6, 2019

REVISIONS

1.	PER SURVEY ADDS 1/2/20
2.	PER VILL COMMENTS 2/14/20
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK

ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

10 OF 12

TREE INVENTORY LISTING - ONSITE

TAG NO.	SCIENTIFIC NAME	COMMON NAME	DBH	CONDITION	OUTCOME	LOCATION	REQUIRED REPLACEMENT
ONSITE - ALL							
199	*Thuja occidentalis*	Northern White Cedar	5	Very good	REMOVE		5.00
200	*Fraxinus pennsylvanica*	Green Ash	23	Fair	REMOVE		0.00
201	*Picea pungens*	Blue Spruce	13	Good	REMOVE		13.00
202	*Malus spp.*	Crabapple	9	Good	REMOVE		9.00
203	*Fraxinus pennsylvanica*	Green Ash	19	Good	REMOVE		0.00
204	*Pinus nigra*	Austrian Pine	21	Good	REMOVE		10.50
205	*Pinus nigra*	Austrian Pine	24	Good	REMOVE		12.00
206	*Pinus nigra*	Austrian Pine	23	Good	REMOVE		11.50
207	*Acer rubrum*	Red Maple	12	Good	REMOVE		12.00
208	*Quercus rubra*	Red Oak	15	Good	REMOVE		15.00
209	*Acer platanoides*	Norway Maple	20	Good	REMOVE		20.00
210	*Acer saccharinum*	Silver Maple	24	Good	REMOVE		12.00
211	*Acer saccharinum*	Silver Maple	25	Good	REMOVE		12.50
213	*Fraxinus pennsylvanica*	Green Ash	28	Good	REMOVE		0.00
214	*Quercus rubra*	Red Oak	22	Very good	REMOVE		22.00
219	*Fraxinus americana*	White Ash	23	Good	REMOVE		0.00
220	*Acer saccharinum*	Silver Maple	23	Very good	REMOVE		11.50
221	*Pinus nigra*	Austrian Pine	20	Good	REMOVE		10.00
222	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
223	*Quercus rubra*	Red Oak	21	Very good	REMOVE		21.00
224	*Pinus nigra*	Austrian Pine	22	Good	REMOVE		11.00
225	*Fraxinus pennsylvanica*	Green Ash	20	Good	REMOVE		0.00
226	*Pinus nigra*	Austrian Pine	9	Good	REMOVE		4.50
227	*Pinus nigra*	Austrian Pine	17	Good	REMOVE		8.50
228	*Pinus nigra*	Austrian Pine	22	Good	REMOVE		11.00
229	*Acer platanoides*	Norway Maple	14	Good	REMOVE		14.00
230	*Fraxinus pennsylvanica*	Green Ash	19	Good	REMOVE		0.00
236	*Fraxinus americana*	White Ash	15	Good	REMOVE		0.00
237	*Picea pungens*	Blue Spruce	13	Good	REMOVE		13.00
238	*Picea pungens*	Blue Spruce	11	Very good	REMOVE		11.00
239	*Picea pungens*	Blue Spruce	11	Good	REMOVE		11.00
240	*Picea pungens*	Blue Spruce	11	Good	REMOVE		11.00
241	*Picea pungens*	Blue Spruce	11	Good	REMOVE		11.00
242	*Picea pungens*	Blue Spruce	12	Good	REMOVE		12.00
243	*Fraxinus pennsylvanica*	Green Ash	30	Good	REMOVE		0.00
244	*Acer platanoides*	Norway Maple	20	Good	REMOVE		20.00
245	*Pinus sylvestris*	Scots Pine	12	Good	REMOVE		6.00
246	*Acer saccharinum*	Silver Maple	25	Very good	REMOVE		12.50
247	*Acer saccharinum*	Silver Maple	21	Very good	REMOVE		10.50
248	*Acer saccharinum*	Silver Maple	20	Very good	REMOVE		10.00
253	*Pinus sylvestris*	Scots Pine	8	Good	REMOVE		4.00
254	*Pinus nigra*	Austrian Pine	10	Good	REMOVE		5.00
255	*Pinus nigra*	Austrian Pine	13	Very good	REMOVE		6.50
256	*Pinus nigra*	Austrian Pine	12	Very good	REMOVE		6.00
257	*Pinus nigra*	Austrian Pine	14	Very good	REMOVE		7.00
258	*Fraxinus americana*	White Ash	21	Very good	REMOVE		0.00
259	*Fraxinus americana*	White Ash	24	Very good	REMOVE		0.00
260	*Fraxinus americana*	White Ash	20	Good	REMOVE		0.00
261	*Pinus nigra*	Austrian Pine	18	Good	REMOVE		9.00
262	*Pinus sylvestris*	Scots Pine	15	Very good	REMOVE		7.50
263	*Pinus nigra*	Austrian Pine	16	Very good	REMOVE		8.00
264	*Pinus nigra*	Austrian Pine	16	Very good	REMOVE		8.00
265	*Picea pungens*	Blue Spruce	13	Good	REMOVE		13.00
266	*Pinus nigra*	Austrian Pine	10	Very good	REMOVE		5.00
267	*Pinus nigra*	Austrian Pine	8	Very good	REMOVE		4.00
268	*Fraxinus pennsylvanica*	Green Ash	20	Fair	REMOVE		0.00
269	*Picea pungens*	Blue Spruce	9	Very good	REMOVE		9.00
270	*Picea pungens*	Blue Spruce	9	Very good	REMOVE		9.00
271	*Picea pungens*	Blue Spruce	7	Good	REMOVE		7.00
272	*Tilia americana*	American Linden	25	Good	REMOVE		25.00
273	*Pinus nigra*	Austrian Pine	9	Good	REMOVE		4.50
274	*Acer rubrum*	Red Maple	12	Very good	REMOVE		12.00
279	*Tilia americana*	American Linden	24	Very good	REMOVE		24.00
280	*Thuja occidentalis*	Northern White Cedar	6	Very good	REMOVE		6.00
281	*Salix babylonica*	Weeping Willow	60	Good	REMOVE		30.00
282	*Fraxinus americana*	White Ash	22	Good	REMOVE		0.00
283	*Acer platanoides*	Norway Maple	19	Good	REMOVE		19.00
284	*Quercus velutina*	Black Oak	19	Good	REMOVE		19.00
285	*Quercus velutina*	Black Oak	18	Very good	REMOVE		18.00
286	*Quercus velutina*	Black Oak	17	Very good	REMOVE		17.00
287	*Gleditsia triacanthos*	Honeylocust	22	Good	REMOVE		22.00
288	*Acer platanoides*	Norway Maple	12	Good	REMOVE		12.00
289	*Pseudotsuga menziesii*	Douglas Fir	8	Good	REMOVE		8.00
290	*Quercus velutina*	Black Oak	17	Good	REMOVE		17.00
291	*Picea pungens*	Blue Spruce	13	Very good	REMOVE		13.00
292	*Picea pungens*	Blue Spruce	15	Very good	REMOVE		15.00
293	*Gleditsia triacanthos*	Honeylocust	19	Very good	REMOVE		19.00
294	*Thuja occidentalis*	Northern White Cedar	14	Very good	REMOVE		14.00
295	*Acer platanoides*	Norway Maple	16	Very good	REMOVE		16.00
296	*Gleditsia triacanthos*	Honeylocust	20	Very good	REMOVE		20.00
297	*Pinus nigra*	Austrian Pine	18	Very good	REMOVE		9.00
298	*Fraxinus pennsylvanica*	Green Ash	17	Good	REMOVE		0.00
299	*Fraxinus americana*	White Ash	9	Very good	REMOVE		0.00
300	*Tilia cordata*	Little Leaf Linden	17	Very good	REMOVE		17.00
301	*Picea pungens*	Blue Spruce	10	Fair	REMOVE		10.00
302	*Picea pungens*	Blue Spruce	7	Good	REMOVE		7.00
303	*Fraxinus pennsylvanica*	Green Ash	25	Good	REMOVE		0.00
304	*Acer platanoides*	Norway Maple	9	Very good	REMOVE		9.00
305	*Fraxinus americana*	White Ash	16	Good	REMOVE		0.00
306	*Picea glauca*	White Spruce	11	Good	REMOVE		11.00
307	*Pinus sylvestris*	Scots Pine	12	Good	REMOVE		6.00
319	*Picea glauca*	White Spruce	16	Good	REMOVE		16.00
320	*Acer saccharinum*	Silver Maple	23	Good	REMOVE		11.50
321	*Tilia cordata*	Little Leaf Linden	13	Good	REMOVE		13.00
322	*Acer saccharum*	Sugar Maple	12	Very good	REMOVE		12.00
323	*Tilia cordata*	Little Leaf Linden	19	Fair	REMOVE		19.00
324	*Fraxinus pennsylvanica*	Green Ash	14	Good	REMOVE		0.00
325	*Acer platanoides*	Norway Maple	24	Very good	REMOVE		24.00
326	*Tilia cordata*	Little Leaf Linden	19	Good	REMOVE		19.00
327	*Quercus velutina*	Black Oak	22	Very good	REMOVE		22.00
328	*Quercus velutina*	Black Oak	23	Good	REMOVE		23.00
329	*Quercus rubra*	Northern Red Oak	25	Very good	REMOVE		25.00
330	*Picea pungens*	Blue Spruce	14	Good	REMOVE		14.00
331	*Picea pungens*	Blue Spruce	14	Good	REMOVE		14.00
332	*Picea pungens*	Blue Spruce	11	Good	REMOVE		11.00
333	*Gleditsia triacanthos*	Honeylocust	18	Good	REMOVE		18.00
334	*Tilia americana*	American Linden	20	Very good	REMOVE		20.00
335	*Acer saccharum*	Sugar Maple	15	Very good	REMOVE		15.00
336	*Fraxinus americana*	White Ash	18	Good	REMOVE		0.00
337	*Gleditsia triacanthos*	Honeylocust	19	Good	REMOVE		19.00
338	*Pinus nigra*	Austrian Pine	11	Good	REMOVE		5.50
339	*Fraxinus pennsylvanica*	Green Ash	20	Good	REMOVE		0.00
340	*Fraxinus pennsylvanica*	Green Ash	19	Good	REMOVE		0.00
341	*Acer platanoides*	Norway Maple	23	Good	REMOVE		23.00
342	*Fraxinus pennsylvanica*	Green Ash	23	Fair	REMOVE		0.00
343	*Acer platanoides*	Norway Maple	16	Good	REMOVE		16.00
344	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
345	*Fraxinus pennsylvanica*	Green Ash	16	Good	REMOVE		0.00
351	*Pinus sylvestris*	Scots Pine	12	Good	REMOVE		6.00
352	*Acer rubrum*	Red Maple	14	Good	REMOVE		14.00
353	*Thuja occidentalis*	Northern White Cedar	8	Good	REMOVE		8.00
354	*Thuja occidentalis*	Northern White Cedar	6	Good	REMOVE		6.00
355	*Fraxinus americana*	White Ash	18	Good	REMOVE		0.00
356	*Acer saccharinum*	Silver Maple	24	Good	REMOVE		12.00
357	*Tilia americana*	American Linden	14	Very good	REMOVE		14.00
358	*Fraxinus pennsylvanica*	Green Ash	21	Poor	REMOVE		0.00
359	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-B	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-C	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-D	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-E	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-F	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-G	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-H	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-I	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-J	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-K	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
359-L	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
360	*Quercus velutina*	Black Oak	24	Very good	REMOVE		24.00
361	*Quercus velutina*	Black Oak	14	Very good	REMOVE		14.00
362	*Quercus palustris*	Pin Oak	18	Very good	REMOVE		18.00
363	*Tilia cordata*	Little Leaf Linden	25	Good	REMOVE		25.00
364	*Pinus sylvestris*	Scots Pine	17	Good	REMOVE		8.50
365	*Pinus nigra*	Austrian Pine	22	Good	REMOVE		11.00
366	*Fraxinus pennsylvanica*	Green Ash	28	Good	REMOVE		0.00
367	*Pinus nigra*	Austrian Pine	17	Good	REMOVE		8.50
368	*Tilia cordata*	Little Leaf Linden	30	Fair	REMOVE		30.00
369	*Thuja occidentalis*	Northern White Cedar	5	Good	REMOVE		5.00
370	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
371	*Pinus nigra*	Austrian Pine	20	Good	REMOVE		10.00
372	*Tilia cordata*	Little Leaf Linden	22	Good	REMOVE		22.00
373	*Acer saccharinum*	Silver Maple	17	Good	REMOVE		8.50
374	*Acer platanoides*	Norway Maple	22	Good	REMOVE		22.00
375	*Pinus nigra*	Austrian Pine	26	Good	REMOVE		13.00
376	*Pinus nigra*	Austrian Pine	18	Good	REMOVE		9.00
377	*Pinus nigra*	Austrian Pine	21	Good	REMOVE		10.50
378	*Pinus nigra*	Austrian Pine	9	Good	REMOVE		4.50
379	*Fraxinus pennsylvanica*	Green Ash	28	Good	REMOVE		0.00
380	*Quercus velutina*	Black Oak	19	Very good	REMOVE		19.00
381	*Fraxinus pennsylvanica*	Green Ash	29	Fair	REMOVE		0.00
382	*Gleditsia triacanthos*	Honeylocust	20	Very good	REMOVE		20.00
383	*Pinus nigra*	Austrian Pine	20	Good	REMOVE		10.00
384	*Fraxinus americana*	White Ash	18	Good	REMOVE		0.00
385	*Pinus nigra*	Austrian Pine	13	Good	REMOVE		6.50
386	*Acer platanoides*	Norway Maple	19	Good	REMOVE		19.00
387	*Acer pseudoplatanus*	Sycamore Maple	13	Good	REMOVE		13.00
388	*Ulmus rubra*	Slippery Elm	14	Good	REMOVE		0.00
389	*Fraxinus americana*	White Ash	20	Good	REMOVE		0.00
390	*Fraxinus americana*	White Ash	17	Good	REMOVE		0.00
391	*Pinus nigra*	Austrian Pine	11	Good	REMOVE		5.50
392	*Ulmus rubra*	Slippery Elm	14	Good	REMOVE		0.00
393	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
394	*Gleditsia triacanthos*	Honeylocust	20	Very good	REMOVE		20.00
395	*Picea pungens*	Blue Spruce	5	Good	REMOVE		5.00
396	*Ulmus rubra*	Slippery Elm	8	Very good	REMOVE		0.00
397	*Acer saccharinum*	Silver Maple	17	Very good	REMOVE		8.50
398	*Ulmus rubra*	Slippery Elm	7	Good	REMOVE		0.00
399	*Picea pungens*	Blue Spruce	19	Good	REMOVE		19.00
400	*Acer pseudoplatanus*	Sycamore Maple	12	Good	REMOVE		12.00
401	*Ulmus rubra*	Slippery Elm	8	Very good	REMOVE		0.00
402	*Prunus serotina*	Black Cherry	11	Fair	REMOVE		5.50
403	*Ulmus rubra*	Slippery Elm	8	Very good	REMOVE		0.00
404	*Acer platanoides*	Norway Maple	20	Good	REMOVE		20.00
405	*Pinus sylvestris*	Scots Pine	14	Good	REMOVE		7.00
406	*Pinus sylvestris*	Scots Pine	16	Good	REMOVE		8.00
407	*Pinus nigra*	Austrian Pine	23	Good	REMOVE		11.50
408	*Picea pungens*	Blue Spruce	14	Good	REMOVE		14.00
409	*Picea pungens*	Blue Spruce	10	Good	REMOVE		10.00
410	*Picea pungens*	Blue Spruce	10	Good	REMOVE		10.00
411	*Pinus nigra*	Austrian Pine	11	Good	REMOVE		5.50
412	*Pinus nigra*	Austrian Pine	24	Good	REMOVE		12.00
416	*Thuja occidentalis*	Northern White Cedar	7	Very good	REMOVE		7.00
417	*Acer platanoides*	Norway Maple	21	Good	REMOVE		21.00
418	*Acer platanoides*	Norway Maple	21	Good	REMOVE		21.00
419	*Pinus nigra*	Austrian Pine	16	Good	REMOVE		8.00
420	*Acer saccharinum*	Silver Maple	24	Good	REMOVE		12.00
421	*Prunus serotina*	Black Cherry	21	Fair	REMOVE		10.50
422	*Acer platanoides*	Norway Maple	9	Very good	REMOVE		9.00
423	*Acer platanoides*	Norway Maple	9	Good	REMOVE		9.00
424	*Acer platanoides*	Norway Maple	19	Good	REMOVE		19.00
425	*Acer saccharum*	Sugar Maple	18	Very good	REMOVE		18.00
426	*Pinus nigra*	Austrian Pine	20	Good	REMOVE		10.00
427	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
441	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-B	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-C	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-D	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-E	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-F	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-G	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-H	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-I	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-J	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-K	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-L	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
441-M	*Crategus spp.*	Hawthorn	4	Good	REMOVE		4.00
458	*Acer platanoides*	Norway Maple	22	Very good	REMOVE		22.00
459	*Pinus nigra*	Austrian Pine	23	Good	REMOVE		11.50
460	*Pinus nigra*	Austrian Pine	14	Good	REMOVE		7.00
461	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
462	*Pinus nigra*	Austrian Pine	12	Good	REMOVE		6.00
463	*Pinus nigra*	Austrian Pine	7	Good	REMOVE		3.50
464	*Crategus spp.*	Hawthorn	8	Good	REMOVE		8.00
464-B	*Crategus spp.*	Hawthorn	8	Good	REMOVE		8.00
464-C	*Crategus spp.*	Hawthorn	8	Good	REMOVE		8.00
464-D	*Crategus spp.*	Hawthorn	8	Good	REMOVE		8.00
464-E	*Crategus spp.*	Hawthorn	8	Good	REMOVE		8.00
464-F	*Crategus spp.*	Hawthorn	8	Good	REMOVE		8.00
464-G	*Crategus spp.*	Hawthorn	8	Good	REMOVE		8.00
464-H	*Crategus spp.*	Hawthorn	8	Good	REMOVE		8.00
465	*Acer platanoides*	Norway Maple	21	Good	REMOVE		21.00
466	*Tilia cordata*	Little Leaf Linden	20	Good	REMOVE		20.00
467	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
467-B	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
467-C	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
467-D	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
467-E	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
467-F	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
467-G	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
467-H	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
467-I	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
467-J	*Thuja occidentalis*	Northern White Cedar	8	Very good	REMOVE		8.00
468	*Pinus nigra*	Austrian Pine	16	Good	REMOVE		8.00
469	*Pinus nigra*	Austrian Pine	21	Good	REMOVE		10.50
470	*Pinus nigra*	Austrian Pine	17	Good	REMOVE		8.50
471	*Acer saccharinum*	Silver Maple	28	Good	REMOVE		14.00
472	*Quercus rubra*	Northern Red Oak	27	Very good	REMOVE		27.00
473	*Rhamnus cathartica*	Buckthorn	5	Fair	REMOVE		0.00
474	*Pinus nigra*	Austrian Pine	12	Good	REMOVE		6.00
475	*Salix babylonica*	Weeping Willow	31	Good	REMOVE		15.50
476	*Salix babylonica*	Weeping Willow	32	Good	REMOVE		16.00
477	*Salix babylonica*	Weeping Willow	58	Good	REMOVE		29.00
478	*Acer saccharinum*	Silver Maple	21	Good	REMOVE		10.50
479	*Gleditsia triacanthos*	Honeylocust	19	Very good	REMOVE		19.00
480	*Gleditsia triacanthos*	Honeylocust	22	Very good	REMOVE		22.00
481	*Gleditsia triacanthos*	Honeylocust	21	Good	REMOVE		21.00
482	*Fraxinus pennsylvanica*	Green Ash	20	Good	REMOVE		0.00
483	*Acer saccharinum*	Silver Maple	16	Very good	REMOVE		8.00
484	*Ulmus americana*	American Elm	32	Good	REMOVE		0.00
485	*Prunus serotina*	Black Cherry	16	Good	REMOVE		8.00
486	*Prunus serotina*	Black Cherry	18	Good	REMOVE		9.00
487	*Prunus serotina*	Black Cherry	7	Good	REMOVE		3.50
488	*Prunus serotina*	Black Cherry	18	Good	REMOVE		9.00
489	*Prunus serotina*	Black Cherry	14	Good	REMOVE		7.00
490	*Ulmus pumila*	Siberian Elm	46	Fair	REMOVE		23.00
491	*Prunus serotina*	Black Cherry	16	Good	REMOVE		8.00
492	*Rhamnus cathartica*	Buckthorn	22	Good	REMOVE		0.00
493	*Ulmus americana*	American Elm	21	Good	REMOVE		0.00
494	*Prunus serotina*	Black Cherry	18	Good	REMOVE		9.00
495	*Prunus serotina*	Black Cherry	17	Good	REMOVE		8.50
496	*Prunus serotina*	Black Cherry	17	Good	REMOVE		8.50
497	*Prunus serotina*	Black Cherry	16	Good	REMOVE		8.00
498	*Prunus serotina*	Black Cherry	14	Good	REMOVE		7.00
499	*Prunus serotina*	Black Cherry	12	Dead	REMOVE		0.00
500	*Ulmus americana*	American Elm	28	Good	REMOVE		0.00
501	*Acer negundo*	Boxelder	15	Good	REMOVE		7.50
502	*Acer negundo*	Boxelder	19	Fair	REMOVE		9.50
503	*Acer negundo*	Boxelder	12	Good	REMOVE		6.00
504	*Acer negundo*	Boxelder	16	Good	REMOVE		8.00
505	*Acer negundo*	Boxelder	12	Good	REMOVE		6.00
506	*Acer negundo*	Boxelder	12	Good	REMOVE		6.00
507	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
508	*Acer negundo*	Boxelder	13	Good	REMOVE		6.50
509	*Acer negundo*	Boxelder	12	Good	REMOVE		6.00
510	*Acer negundo*	Boxelder	21	Good	REMOVE		10.50
511	*Gymnocladus diocus*	Kentucky Coffee Tree	8	Very good	REMOVE		8.00
512	*Gleditsia triacanthos*	Honeylocust	21	Very good	REMOVE		21.00
513	*Pinus nigra*	Austrian Pine	21	Good	REMOVE		10.50
514	*Pinus nigra*	Austrian Pine	31	Fair	REMOVE		15.50
515	*Gleditsia triacanthos*	Honeylocust	24	Very good	REMOVE		24.00
516	*Gleditsia triacanthos*	Honeylocust	22	Very good	REMOVE		22.00
517	*Pinus nigra*	Austrian Pine	23	Good	REMOVE		11.50
518	*Pinus nigra*	Austrian Pine	16	Good	REMOVE		8.00
519	*Pinus nigra*	Austrian Pine	20	Good	REMOVE		10.00
520	*Pinus nigra*	Austrian Pine	17	Good	REMOVE		8.50
521	*Pinus nigra*	Austrian Pine	13	Good	REMOVE		6.50
522	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
523	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
524	*Pinus nigra*	Austrian Pine	13	Good	REMOVE		6.50
525	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50

dickson design STUDIO

526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

PULTE GROUP

SCHAUMBURG, IL

PLAN DATE

DECEMBER 6, 2019

REVISIONS

1.	PER SURVEY ADDS 1/2/20
2.	PER VILL COMMENTS 2/14/20
3.	
4.	
5.	
6.	
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PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK

ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

11 OF 12

TREE INVENTORY LISTING - ONSITE

TAG NO.	SCIENTIFIC NAME	COMMON NAME	DBH	CONDITION	OUTCOME	LOCATION	REQUIRED REPLACEMENT
ONSITE - ALL							
526	*Pinus nigra*	Austrian Pine	20	Good	REMOVE		10.00
527	*Acer platanoides*	Norway Maple	20	Good	REMOVE		20.00
528	*Acer platanoides*	Norway Maple	18	Good	REMOVE		18.00
529	*Acer rubrum*	Red Maple	14	Very good	REMOVE		14.00
530	*Picea pungens*	Blue Spruce	12	Good	REMOVE		12.00
531	*Picea pungens*	Blue Spruce	11	Good	REMOVE		11.00
532	*Picea pungens*	Blue Spruce	8	Good	REMOVE		8.00
533	*Tilia americana*	American Linden	20	Very good	REMOVE		20.00
534	*Pinus sylvestris*	Scots Pine	19	Good	REMOVE		9.50
535	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-B	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-C	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-D	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-E	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-F	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-G	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-H	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-I	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-J	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-K	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
535-L	*Crategus spp.*	Hawthorn	5	Good	REMOVE		5.00
536	*Quercus velutina*	Black Oak	21	Very good	REMOVE		21.00
537	*Acer platanoides*	Norway Maple	22	Good	REMOVE		22.00
538	*Pinus nigra*	Austrian Pine	14	Good	REMOVE		7.00
539	*Picea pungens*	Blue Spruce	12	Good	REMOVE		12.00
540	*Fraxinus americana*	White Ash	17	Good	REMOVE		0.00
541	*Salix babylonica*	Weeping Willow	46	Good	REMOVE		23.00
549	*Salix babylonica*	Weeping Willow	63	Poor	REMOVE		0.00
550	*Salix babylonica*	Weeping Willow	39	Good	REMOVE		19.50
551	*Tilia cordata*	Little Leaf Linden	12	Very good	REMOVE		12.00
552	*Acer platanoides*	Norway Maple	23	Good	REMOVE		23.00
553	*Acer rubrum*	Red Maple	11	Very good	REMOVE		11.00
556	*Fraxinus pennsylvanica*	Green Ash	26	Fair	REMOVE		0.00
603	*Fraxinus pennsylvanica*	Green Ash	24	Fair	REMOVE		0.00
604	*Fraxinus pennsylvanica*	Green Ash	16	Fair	REMOVE		0.00
605	*Fraxinus americana*	White Ash	21	Good	REMOVE		0.00
606	*Pinus sylvestris*	Scots Pine	23	Good	REMOVE		11.50
608	*Tilia americana*	American Linden	25	Poor	REMOVE		0.00
616	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
617	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
618	*Pinus nigra*	Austrian Pine	23	Good	REMOVE		11.50
619	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
631	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
632	*Fraxinus pennsylvanica*	Green Ash	24	Fair	REMOVE		0.00
633	*Ulmus rubra*	Slippery Elm	8	Good	REMOVE		0.00
634	*Pinus nigra*	Austrian Pine	11	Good	REMOVE		5.50
662	*Quercus rubra*	Northern Red Oak	26	Very good	REMOVE		26.00
663	*Fraxinus pennsylvanica*	Green Ash	18	Good	REMOVE		0.00
664	*Salix babylonica*	Weeping Willow	60	Good	REMOVE		30.00
665	*Tilia americana*	American Linden	20	Good	REMOVE		20.00
666	*Acer platanoides*	Norway Maple	19	Poor	REMOVE		0.00
667	*Acer platanoides*	Norway Maple	16	Fair	REMOVE		16.00
668	*Pinus sylvestris*	Scots Pine	15	Good	REMOVE		7.50
669	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
670	*Acer platanoides*	Norway Maple	18	Very good	REMOVE		18.00
671	*Pinus nigra*	Austrian Pine	18	Good	REMOVE		9.00
672	*Tilia americana*	American Linden	20	Very good	REMOVE		20.00
673	*Pinus nigra*	Austrian Pine	13	Good	REMOVE		6.50
674	*Fraxinus pennsylvanica*	Green Ash	21	Fair	REMOVE		0.00
675	*Pinus nigra*	Austrian Pine	19	Fair	REMOVE		9.50
676	*Acer platanoides*	Norway Maple	19	Good	REMOVE		19.00
677	*Pinus nigra*	Austrian Pine	14	Good	REMOVE		7.00
678	*Fraxinus pennsylvanica*	Green Ash	26	Good	REMOVE		0.00
679	*Acer saccharinum*	Silver Maple	19	Very good	REMOVE		9.50
680	*Acer platanoides*	Norway Maple	24	Good	REMOVE		24.00
681	*Quercus rubra*	Northern Red Oak	17	Very good	REMOVE		17.00
682	*Acer platanoides*	Norway Maple	21	Good	REMOVE		21.00
683	*Pinus nigra*	Austrian Pine	14	Good	REMOVE		7.00
684	*Quercus rubra*	Northern Red Oak	26	Very good	REMOVE		26.00
685	*Quercus rubra*	Northern Red Oak	21	Very good	REMOVE		21.00
686	*Pinus sylvestris*	Scots Pine	17	Good	REMOVE		8.50
687	*Salix babylonica*	Weeping Willow	39	Fair	REMOVE		19.50
688	*Fraxinus pennsylvanica*	Green Ash	27	Fair	REMOVE		0.00
689	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-B	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-C	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-D	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-E	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-F	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-G	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-H	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-I	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-J	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-K	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-L	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-M	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-N	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-O	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-P	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
689-Q	*Crategus spp.*	Hawthorn	7	Good	REMOVE		7.00
690	*Gleditsia triacanthos*	Honeylocust	12	Very good	REMOVE		12.00
691	*Gleditsia triacanthos*	Honeylocust	12	Very good	REMOVE		12.00
692	*Picea pungens*	Blue Spruce	7	Very good	REMOVE		7.00
694	*Fraxinus pennsylvanica*	Green Ash	23	Fair	REMOVE		0.00
695	*Acer platanoides*	Norway Maple	28	Good	REMOVE		28.00
696	*Picea pungens*	Blue Spruce	10	Very good	REMOVE		10.00
697	*Acer rubrum*	Red Maple	13	Very good	REMOVE		13.00
698	*Acer rubrum*	Red Maple	13	Very good	REMOVE		13.00
699	*Picea pungens*	Blue Spruce	9	Very good	REMOVE		9.00
700	*Picea pungens*	Blue Spruce	8	Good	REMOVE		8.00
701	*Gymnocladus diocus*	Kentucky Coffee Tree	9	Very good	REMOVE		9.00
702	*Picea pungens*	Blue Spruce	8	Very good	REMOVE		8.00
703	*Picea pungens*	Blue Spruce	7	Good	REMOVE		7.00
704	*Picea pungens*	Blue Spruce	8	Good	REMOVE		8.00
705	*Picea pungens*	Blue Spruce	9	Very good	REMOVE		9.00
706	*Picea pungens*	Blue Spruce	9	Good	REMOVE		9.00
707	*Fraxinus americana*	White Ash	21	Good	REMOVE		0.00
708	*Pinus nigra*	Austrian Pine	23	Good	REMOVE		11.50
709	*Acer platanoides*	Norway Maple	13	Very good	REMOVE		13.00
710	*Fraxinus americana*	White Ash	22	Good	REMOVE		0.00
711	*Acer platanoides*	Norway Maple	13	Very good	REMOVE		13.00
712	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
713	*Picea pungens*	Blue Spruce	10	Good	REMOVE		10.00
714	*Picea pungens*	Blue Spruce	9	Very good	REMOVE		9.00
715	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
716	*Picea pungens*	Blue Spruce	11	Very good	REMOVE		11.00
717	*Acer rubrum*	Red Maple	15	Fair	REMOVE		15.00
718	*Fraxinus pennsylvanica*	Green Ash	17	Good	REMOVE		0.00
719	*Picea pungens*	Blue Spruce	10	Good	REMOVE		10.00
720	*Picea pungens*	Blue Spruce	10	Good	REMOVE		10.00
721	*Picea pungens*	Blue Spruce	13	Good	REMOVE		13.00
722	*Crategus spp.*	Hawthorn	8	Good	REMOVE		8.00
723	*Quercus palustris*	Pin Oak	17	Very good	REMOVE		17.00
724	*Quercus palustris*	Pin Oak	21	Very good	REMOVE		21.00
725	*Tilia cordata*	Little Leaf Linden	14	Good	REMOVE		14.00
726	*Pinus nigra*	Austrian Pine	22	Good	REMOVE		11.00
727	*Picea pungens*	Blue Spruce	8	Good	REMOVE		8.00
728	*Fraxinus pennsylvanica*	Green Ash	17	Good	REMOVE		0.00
729	*Salix babylonica*	Weeping Willow	31	Good	REMOVE		15.50
731	*Picea pungens*	Blue Spruce	7	Very good	REMOVE		7.00
733	*Picea pungens*	Blue Spruce	10	Good	REMOVE		10.00
736	*Picea pungens*	Blue Spruce	9	Good	REMOVE		9.00
737	*Acer saccharinum*	Silver Maple	11	Good	REMOVE		5.50
738	*Picea pungens*	Blue Spruce	9	Good	REMOVE		9.00
739	*Acer negundo*	Boxelder	21	Fair	REMOVE		10.50
740	*Acer negundo*	Boxelder	27	Fair	REMOVE		13.50
741	*Acer negundo*	Boxelder	26	Fair	REMOVE		13.00
742	*Pinus nigra*	Austrian Pine	16	Good	REMOVE		8.00
752	*Pinus nigra*	Austrian Pine	17	Good	REMOVE		8.50
759	*Pinus nigra*	Austrian Pine	18	Good	REMOVE		9.00
760	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
761	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
762	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
763	*Pinus nigra*	Austrian Pine	17	Good	REMOVE		8.50
764	*Pinus nigra*	Austrian Pine	20	Dead	REMOVE		0.00
765	*Pinus nigra*	Austrian Pine	19	Good	REMOVE		9.50
766	*Pinus nigra*	Austrian Pine	15	Poor	REMOVE		0.00
767	*Pinus nigra*	Austrian Pine	15	Good	REMOVE		7.50
776	*Acer platanoides*	Norway Maple	18	Very good	REMOVE		18.00
777	*Acer platanoides*	Norway Maple	19	Fair	REMOVE		19.00
							5,367.50

SUMMARY: TREE PRESERVATION & REMOVAL

NOTES - ONSITE TREES

- TREE SURVEY WAS COMPLETED BY: CEMCON, LTD.
- TREE INVENTORY WAS COMPLETED BY: DAVEY RESOURCE GROUP *(CERTIFIED ARBORISTS)*
- TREE TAGS WERE INSTALLED BY DAVEY.
- ONLY TREES TAGGED BY DAVEY WERE LOCATED.
- TREES HAVING DIAMETERS LESS THAN 4" CALIPER WERE NOT TAGGED NOR LOCATED.
- TREES LOCATED ON THE PROPERTY LINE ARE CONSIDERED ONSITE TREES.
- ALL TREES 4" CALIPER AND GREATER ARE SHOWN - (929 TREES TOTAL):
  - (707) EXISTING TREES TOTAL, ONSITE:
    - (540) TO BE REMOVED
    - (167) TO BE PRESERVED
  - (222) EXISTING TREES TOTAL, VILLAGE LAND DEDICATION:
    - (210) TO BE REMOVED
    - (12) TO BE PRESERVED

- TREE REPLACEMENTS REQUIRED = 5,367.50" = (1,789) 3" CALIPER TREES

NOTE! FOR TREE REPLACEMENTS REFER TO LANDSCAPE PLANS FOR DEVELOPMENT (PARKWAY TREES ARE NOT AND CANNOT BE INCLUDED AS TREE REPLACEMENTS)

dickson design STUDIO

526 SKYLINE DRIVE
ALGONQUIN IL 60102
847 878 4019

CLIENT NAME AND ADDRESS

PULTE GROUP

SCHAUMBURG, IL

PLAN DATE

DECEMBER 6, 2019

REVISIONS

1.	PER SURVEY ADDS 1/2/20
2.	PER VILL COMMENTS 2/14/20
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PROJECT NAME AND SHEET TITLE

TRAILS OF WOODS CREEK
ALGONQUIN, IL

TREE PRESERVATION & REMOVAL PLAN

SHEET NUMBER

12 OF 12

dickson design
STUDIO

MEMO

DATE: February 18, 2020

TO: Mr. Steven Ludwig

FROM: Sharon Dickson

RE: ***Pulte – Trails of Woods Creek***

MESSAGE:

Steve –

Per Village comments, we have updated our site plan for this proposed development, and thus, also updated our *Tree Preservation & Removal Plan* and our *Preliminary Landscape Plan*. Enclosed are hard copy files for your use in your review. I will also provide the current Excel spreadsheet (via email) that corresponds to the calculations.

Current plans, dated with a revision of 2/14/20, depict the following:

- (929) existing trees onsite:
  - (222) existing trees *within* the Village Land Dedication
    - (210) to be removed & (12) to be preserved
  - (707) existing trees *outside* of the Village Land Dedication
    - (540) to be removed & (167) to be preserved

These (540) existing trees onsite, slated for removal, equates to 5,367.50 inches of tree replacement or approx. 1,789, 3" caliper replacement trees.

Current landscape plans, dated with a revision of 2/14/20, depict the following:

- (485) street trees *(not counted towards tree replacements)*
- (246) trees, in open space, not within the parkway
- (381) trees proposed to be planted on the lots
- In total, (1,112) trees are proposed for this development.

As requested, revised plans include: 1) existing trees denoting preservation or removal, 2) tree protection fencing, 3) tree preservation language, & 4) a landscape plan including locations and quantities of proposed trees (with shade tree species taken from the Village-approved tree species list). Please note, that all shade trees will be installed at a minimum of 3" caliper, all ornamental trees at a minimum of 8' tall, & all evergreen trees at a minimum of 6' tall. Actual plant quantities, sizes, and botanic/common names shall be provided at time of final plans.

Please let me know what questions/comments you have, thanks much!

Sharon Dickson

Enclosures

dicksondesignstudio.com
526 Skyline Drive • Algonquin Illinois 60102 • 847 878 4019

February 5, 2020

Village of Algonquin
Mr. Ben Mason, AICP
Senior Planner
2200 Harnish Drive
Algonquin, IL 60102

Re: **Tree Preservation/Replacement**
Trails of Woods Creek, Algonquin, IL

Mr. Mason,

Please accept this letter as Pulte's formal proposal with respect to required Tree Preservation/Replacement for the proposed Trails of Woods Creek Subdivision. We originally submitted a Tree Preservation and Removal Plan prepared by Dickson Design Studio and dated December 6, 2019. The plan has been updated and the revised plan will be submitted to the Village on or about February 14, 2019. The tree replacement proposal set forth in this letter is based on the revised plan.

The property was used as cropland before being redeveloped as a golf course in 1985. As such, while the existing trees are largely in good condition, the trees are generally less than 35 years old and are reflective of nursery stock available in the early 1980's. The trees are not reflective of a native habitat or dominated by hardwoods that are prioritized in the Woods Creek Watershed-Based Plan. As such, in coordination with Village staff, Pulte prepared a plan for redevelopment that prioritizes flood mitigation and creation of new natural habitat over tree preservation. Tree preservation efforts have been localized to areas around the perimeter of the property where minimal grading is proposed and Pulte is making efforts to minimize disturbance of neighbors.

The attached spreadsheet details Pulte's proposed calculation of required tree replacements. For example, we propose that no mitigation is required for trees that are either dead or in poor condition. Similarly, we propose that no mitigation should be required for trees located in either the created wetland or prairie areas that will be dedicated to the Village. The proposed tree replacement requirement is 5,327 caliper inches, which equates to roughly 1,775 new trees.

The proposed development will incorporate more total trees (1,001) than exist on the golf course today (928). However, Pulte cannot accommodate all the required tree replacements on site, particularly in light of Village staff's vision for the created wetland and prairie areas that account for nearly one-quarter of the total site area. Instead, Pulte proposes that the replacement requirement be satisfied by a combination of on-site tree replacements, other landscape enhancements requested by the Village, and a monetary donation to the Village for future improvements. Specifically, Pulte proposes the following schedule of improvements to satisfy the tree replacement requirement:

1. Pulte will plant not less than 246 trees in common areas outside of the parkway;
2. Pulte will plant not less than 381 trees on the proposed residential lots;
3. Pulte will improve 35.18 acres of wetland and prairie area pursuant to specifications approved by Village staff (value $703,600.00);
4. Pulte will install 4,716 linear feet of split rail fencing around the perimeter of the 35.18 acre wetland and prairie area to be dedicated to the Village (value $47,160.00); and
5. Pulte will donate $50,000.00 to the Village for offsite restoration in the Woods Creek watershed.

The Village Code provides an equivalency of $100 for 1 caliper inch of tree replacement. Using this calculation, the total value of Pulte's proposal far exceeds the value of the tree replacement requirement (see Attachment 2). Moreover, the proposed improvements are consistent with recommendations of the Wood Creek Watershed-Based Plan and will provide targeted environmental improvements based on the physical attributes of the property.

Sincerely,

Matt Brolley, P.E.
Manager, Land Planning and Entitlement
Pulte Homes – Illinois Division
Telephone: (630) 777-2973
Email: matt.brolley@pulte.com

Attachment 2

2. Tree Mitigation Proposal - Attachments

1. The proposed basis for calculation of Replacement Trees:
    a. Replacement Ratios:
        a. High Quality Tree Species = 1 : 1
        b. Low Quality Tree Species = ½ : 1
        c. Austrian & Scots Pines = ½ : 1
        d. Poor Condition & Dead Trees = 0 : 1
        e. Ash Tree Species = 0 : 1
        f. American & Slippery Elm Tree Species = 0 : 1
        g. Buckthorn Tree Species = 0 : 1
    b. Trees to be removed from the Village Dedication Land and Park Site are excluded from Replacement Calculations.

2. Replacement Requirement: 5,327.50 caliper inches (refer to corresponding Excel file)

3. Proposed Replacements
    a. Common Area trees outside of parkway (including buffers)
        1. 246 trees per December 2019, Preliminary Landscape Plan
        2. 3" tree at installation = 738 caliper inches
    b. On-lot tree installations
        1. 1 tree for each Springs/Estates Lot = 153 trees
        2. 2 trees for each Shores Lot = 228 trees
        3. 381 total trees x 3" tree at installation = 1,143 caliper inches
    c. Calculation does not include required Parkway Trees
    d. Native Restoration Area: $703,600
        1. 35.18 acres x $20,000/acre to install and establish = $703,600
        2. Propose only 50% credit = 3,518 caliper inches
    e. Split Rail Fence: $47,160
        1. Install new split-rail fence, per Village request, along rear yards adjacent to proposed Native Restoration Area (approx. 4,716 linear feet)
    f. Creek Restoration: $50,000 - Donation to Village to offset 200' of creek restoration
        1. The $50,000 is a concept level estimate from V3 Companies based on the
        2. Creek Restoration goals of the Woods Creek Watershed Plan.

Proposed Replacements	Cost (Dollars)	Caliper Equivalent (inches)
246 Proposed Common Area Trees (3" each)	$ 73,800.00	738.0
381 Proposed On Lot Trees (3" each)	$ 114,300.00	1143.0
35.18 acres of Native Restoration (50% of estimated cost)	$ 351,800.00	3518.0
4,700 feet of Split Rail Fence for Native Area Protection	$ 47,160.00	471.6
Donation to the village to offset 200' of creek restoration	$ 50,000.00	500.0
Total of Proposed Replacements	$ 637,060.00	6370.6
Required Replacements	$ 532,750.00	5327.5
Remaining Replacements	$ (104,310.00)	-1043.1

Notes:
1. Proposed Trees are 3" caliper
2. Per Village Code: 1 Caliper Inch equates to $100
3. Full Native Restoration Cost is $20,000 per Acre

PulteGroup

February 14, 2020

Village of Algonquin
Mr. Ben Mason, AICP
Senior Planner
2200 Harnish Drive
Algonquin, Illinois 60102

Re: Responses to Village review comments concerning Pulte's proposed Trails of Woods Creek Subdivision

Dear Mr. Mason,

Please accept this letter as Pulte's formal response to the various review letters that were issued on behalf of the Village of Algonquin concerning Pulte's first plan submittal on the Trails of Woods Creek Subdivision. Listed below are the various review comments that we've received to-date and our responses to each of the comments. Concurrent with this letter we are submitting revised plans that incorporate the changes as detailed herein.

Sincerely,

Matt Brolley, P.E.
Manager, Land Planning and Entitlement
Pulte Homes – Illinois Division
Telephone: (630) 777-2973
Email: matt.brolley@pulte.com

VILLAGE OF ALGONQUIN
COMMUNITY DEVELOPMENT DEPARTMENT

DATE: January 13, 2020

TO: Planning and Zoning Commission

FROM: Benjamin A. Mason, AICP, Senior Planner

SUBJECT: Case No. 2019-19. Trails of Woods Creek – Preliminary Plat of Resubdivision, Preliminary PUD, and B-2 Zoning for commercial parcel

Recommendation
Staff recommends approval of the request for Preliminary Plat of Resubdivision, Preliminary Planned Unit Development, and Zoning to B-2, Business for Lot 268, consistent with the development plans submitted by the petitioner, findings of; fact outlined above, and with the following conditions:

1. The Preliminary Plat of Subdivision as prepared by CEMCON, Ltd. with a latest revision date of December 5, 2019 shall be revised to incorporate comments from the January 7 and 9, 2020 Christopher Burke memos, the January 6, 2020 Public Works memo, January 7, 2020 Teska Associates memo, January 6, 2020 Fire District review memo, January 3, 2020 Police Department review memo, and January 8, 2020 McHenry County DOT preliminary review comments. The plat shall be revised prior to Final Plat and PUD plan review, to provide county requested additional right-of-way as well as cross access from the proposed commercial parcel to the three individually-owned parcels to the east.

   RESPONSE: The preliminary plat has been updated accordingly.

2. The Preliminary Site and Engineering Plans as prepared by CEMCON, Ltd. with a latest revision date of December 5, 2019 shall be revised to incorporate comments from the January 7 and 9,2020 Christopher Burke memos, the January 6,2020 Public Works memo, January 7, 2020 Teska Associates memo, January 6, 2020 Fire District review memo, January 3, 2020 Police Department review memo, and January 8, 2020 McHenry and west side of the property shall be increased in size to more closely match lots sizes in the adjacent subdivisions, notably the Prestwicke subdivision. The front yard setbacks for the Shores series of homes shall be increased to 30 feet. The developer shall be required to make channel improvements to the off-site creek extending approximately 200-feet east of Fairway View Drive; a detailed set of creek restoration plans for the required off-site improvements shall be provided prior to Final Plat and PUD Plan review. The developer shall evaluate options for shifting the proposed access point onto Fairway View Drive, to some location south of the proposed alignment with Nottingham Drive.

   RESPONSE: A. The size of the lots along the west side of the property has been addressed in a separate letter to staff dated February 5, 2020.

   B. The front yard setback in the Shores Series has been increased to 30'.

   C. The issue of off-site creek restoration was addressed in Pulte's Tree Replacement proposal dated February 3, 2020. Pulte has proposed a one-time donation of $50,000 toward creek restoration to be performed by the Village.

   D. The proposed access drive from Fairway View Drive has been shifted south and is reflected in the revised preliminary plat.

3. The developer shall stub water and sewer lines to the three parcels along Algonquin Road that are not part of this petition and include a landscaping business. Additionally, the developer will be responsible for bringing water to the adjoining lots 28 and 30 on Fairway View Drive that have historically obtained their water supply from the golf course and its private well.

RESPONSE: Water stubs to the unincorporated properties along Algonquin Road have been included in the revised preliminary engineering. A sanitary sewer stub has also been provided, however the sewer is not deep enough to serve a majority of the existing property without substantial fill or a lift station. Per the Golf Course Owner, 280 Fairway View Dr is currently serviced by a private well. Since the well is not located on Terrace Hill Golf property the Pulte Development will not impact their water situation and the owner could connect to the watermain in the Fairway View ROW if they so desire in the future (at their cost). As such, we are not proposing to provide a water connection. The other home (300 Fairway View Dr) is connected to the village water system. There are no irrigation lines running from the golf course to these properties.

4. The Traffic Impact Study as prepared by KLOA with a latest revision date of December 9, 2019 shall be revised to incorporate comments from the January 7 and 9, 2020 Christopher Burke memos, the January 6, 2020 Public Works memo, January 7, 2020 Teska Associates memo, January 6, 2020 Fire District review memo, January 3, 2020 Police Department review memo, and January 8, 2020 McHenry County DOT preliminary review comments. The traffic engineer shall perform further analysis of the Fairway View Drive and Algonquin Road intersection to determine if it might meet necessary warrants for signalization.

RESPONSE: The Traffic Study has been updated accordingly and submitted to the Village for review. The Fairway View Drive intersection does not meet warrants for signalization.

5. The Preliminary Landscape Plans as prepared by Dickson Design Studio with a latest revision date of December 6, 2019 shall be revised to incorporate comments from the January 7 and 9, 2020 Christopher Burke memos, the January 6, 2020 Public Works memo, January 7, 2020 Teska Associates memo, January 6, 2020 Fire District review memo, January 3, 2020 Police Department review memo, and January 8, 2020 McHenry County DOT preliminary review comments. The developer shall dedicate approximately 35 acres of their proposed open space areas - outlots N and W at the southeast comer of the property - to the Village for maintenance and ownership as naturalized areas. The developer shall have an ecological firm prepare a design and perform the initial installation and establishment of the native areas for a minimum of three years, prior to turning the land over to the Village. Staff recommends the developer remove the existing chain link fence around the golf course and propose an alternative fence design that ensures the numerous adjacent residential neighbors who have relied upon the golf course fence for their fourth side are provided an appropriate replacement. The proposed internal bike path shall be widened to 10-feet through Outlot M out to Bunker Hill Drive, so that it may serve as an emergency access into the subdivision for police and fire vehicles only.

RESPONSE: Pulte agrees to the requested land area dedication. Details with respect to the improvement of the land dedication area should be incorporated into a Development Agreement to be approved concurrent with the preliminary plat. Pulte agrees to delineate

the boundary between existing residences and the land dedication area with a split rail fence. The existing chain link fence around the perimeter of the property will be removed. Pulte agrees to hire a fencing contractor to coordinate with existing homeowners and install a like-kind fence for those homeowners who would like replacement of their existing fence that is tied-into the chain link fence scheduled for removal. A 10' wide emergency access has been incorporated through Outlot G (formerly Outlot M).

6. The developer shall petition for Final Plat of Resubdivision and Final PUD review and approval of the residential subdivision prior to any construction taking place. The engineering plans, landscape plans, building elevations, and all other development plans shall be reviewed as part of the PUD process, and the Village may add additional requirements at that time.

   RESPONSE: Detail concerning construction and phasing of improvements should be set forth in a Development Agreement to be approved as part of the preliminary plat.

7. Any commercial development proposed for Lot 268 shall be required to come back before the Planning and Zoning Commission and Village Board for Final PUD approval in the future. The engineering plans, landscape plans, building elevations, and all other development plans associated with the commercial parcel shall be reviewed as part of the PUD process.

   RESPONSE: Agreed.

8. The Preliminary Signage Plans as prepared by Pulte Group with a latest revision date of December 4, 2019 shall be reviewed at the time of Final Plat and PUD Plan, prior to any construction taking place. Temporary marketing, sales, and model home signage shall follow Village Code requirements with respect to number, location, size and other similar regulations.

   RESPONSE: Pulte respectfully requests that the sign package is approved as part of the preliminary plat. Given the scale of the development, we believe that additional consideration for Pulte's marketing efforts is appropriate.

9. The Preliminary Building Elevations as prepared by Pulte Group with a latest revision date of December 6, 2019 shall be reviewed at the time of Final Plat and PUD Plan. The developer shall be required to address Teska Associates recommendation to provide additional variety of elevations for the Springs and Estates series, such as the inclusion of a ranch model.

   RESPONSE: Pulte respectfully requests that the Building Elevations are incorporated as part of a Development Agreement to be approved concurrent with the preliminary plat. Pulte will include additional elevations for the Springs and Estate Series under separate cover. However, Pulte respectfully declines to include a ranch model in light of the number of ranch models available in the Shores Series.

10. The Village will require the provision for a private Owners Association(s) to regulate and maintain the common elements of this development. The draft HOA and any covenants or other private understandings shall be reviewed by the Village for approval with the Final Plat and PUD Plan.

    RESPONSE: Pulte provided a draft Declaration for the formation of an Owner's Association with its initial plan submittal. Pulte respectfully requests that the Village perform a preliminary review of the Declaration and advise if there are any issues.

11. A back-up Special Service Area shall be required for the stormwater detention facilities to be retained and maintained by the subdivision's HOA.

RESPONSE: Agreed.

12. All temporary marketing and permanent subdivision signage shall be reviewed by the Village for approval with the Final Plat and PUD Plan.

RESPONSE: Pulte respectfully requests that the sign package is incorporated as part of a Development Agreement to be approved concurrent with the preliminary plat. Given the scale of the development, we believe that additional consideration for Pulte's marketing efforts is appropriate.

13. All of the public streets will require street lighting in accordance with the Village public street light standards. The developer shall be required to submit lighting plans the time of the Final Plat and PUD Plan review.

RESPONSE: Pulte respectfully requests that the Village provide lighting specifications for preliminary review if there are standards or specifications for said lighting that are not included in the Village Code. Pulte otherwise concurs.

VILLAGE OF ALGONQUIN
COMMUNITY DEVELOPMENT DEPARTMENT

DATE: January 6, 2020

TO: Ben Mason, Senior Planner

CC: Michele Zimmerman, Asst. Public Works Director

FROM: Victor C. Ramirez, P.E. Project Engineer (CBBEL)

SUBJECT: Case No. 2019-20. PW Staff Review #1
Trails of Woods Creek Development – Preliminary Plat of Subdivision And Preliminary PUD

The Public Works review team has reviewed the following documents:

- Petition for Development Approval
- Preliminary Landscape Plan – Dickson design
- Tree Preservation and Removal Plan – Dickson design
- Site Plan Cemcon, Ltd. 12/5/19
- Topo Cemcon – 10/23/19
- Preliminary Plat and PUD Cemcon 12/5/19
- Site Plan Lot 268 Cemcon 12/5/19

Our comments are as follows:

Overall:

1.) Outlots N, O, W, and M will be dedicated to the Village of Algonquin.

RESPONSE: Agreed. The outlots have been revised to G, H & I with the re-submittal.

2.) All of the other outlots and storm water detention facilities will be the responsibility of the HOA and developed with standard turf grass, not native plantings.

RESPONSE: Agreed with respect to ownership. Pulte generally concurs with the installation of turf grass for HOA maintenance, but may seek to install limited natives in areas where it may be beneficial to limit erosion or as may be required under the applicable stormwater regulations. Any such areas located on future HOA property will be monitored and maintained by the HOA.

3.) Bikepath configuration: The proximity to many homes is tight and not an amenity to the site and will be an issue with many homeowners. This can be revised to a more useful layout with less direct impact. There is an existing bikepath on the east side of Frank Road north of Algonquin Road. There should be a bikepath configuration on the commercial property and into the residential portion to allow for continuity with this existing Frank Road bikepath. Bike path on Village owned parcels should connect along the ridge line of outlots W and N. Some seating areas with benches shall be provided on top of the ridge line.

RESPONSE: The path connection is complicated by grades and location of the existing improvements on private property. A connection across Algonquin will not be depicted on the Preliminary Development Plans, but Pulte commits to investigating the feasibility of making a

connection across Algonquin Road during final plat. If Pulte is unable to obtain the necessary easements to construct the path connection, Pulte will donate $20,000 to the Village for future improvement of the crossing. This agreement will be memorialized in the Development Agreement.

4.) Open space: In conjunction with the above bikepath comment, consider expanding the open space and provide more buffers to accommodate the bikepaths.

RESPONSE: Adjustment to the open space are depicted on the revised plans.

5.) Medians: All medians must be clearly delineated to be HOA responsibility for maintenance.

RESPONSE: Agreed. This can be specifically called out in the Declaration and in the Development Agreement. See Note 13 on the Preliminary Plat.

6.) Consider the removal of street H to expand open space and address very steep banks off the residential backyards to the detention facilities.

RESPONSE: The Street H cul-de-sac has been eliminated.

Utilities:

1.) Water:

- Staff has directed the Village engineering consultant to insert this project in the hydraulic model to determine impact and system capability.

RESPONSE: So noted. Please let us know of the findings of the study.

- Street D cul-de-sac: A 15' minimum V.U.E. will be required in the front yard along lots 241,240,239,238,237, and 236 for proper watermain/sanitary sewer separation and future maintenance by the Village.

RESPONSE: A 15' V.U.E. has been added as requested. Please note the lot numbers have been revised to 193-197.

- Outlot N and lot 205: The space on outlot N and 20' V.U.E. is not adequate for future maintenance access. A minimum 30' V.U. E. is required and a flat grade. Lot 205 may have to be eliminated to accomplish this.

RESPONSE: A 30' V.U.E. has been added as requested on Outlot G (Old Outlot N). The contours in the stormwater facility have been revised to allow for a flat grade without losing a lot.

- West watermain connection to Prestwicke Blvd: Additional review is required to validate easements and access as well as landscaping impact for the watermain route.

RESPONSE: Per the existing Plat for Prestwicke, there is an existing D.E and V.U.E over all of the lot. We have surveyed the area to show the existing contours and landscaping.

2.) Sanitary sewer:

- Street D cul-de-sac: see comment 2 above under "Water".
- Commercial lot: There does not appear to be a water or sanitary sewer service for the gas station.
- Outlot M: The V.U.E. will need to be 30' wide, not 20'.

RESPONSE: The 15' V.U.E. has been added to the Street D cul-de-sac as requested. Water and sewer stubs are shown for the Commercial Lot. A 30' VUE has been added to Outlot I (Old Outlot M).

3.) Storm sewer:

- The existing culverts require removal as part of the new storm sewer conveyance at Fairway View Drive and east into the Creek.

RESPONSE: So noted. The existing culverts have been shown to be removed on the Preliminary Engineering Plan.

Traffic and roadways:

1.) The intersection of Fairway View Drive and Algonquin Road is already compromised and difficult to handle current traffic adequately. Additional analysis is required to determine the LOS and need for signalization.

RESPONSE: KLOA, Inc. reevaluated the intersection of Fairway View Drive and Algonquin Road and their findings are incorporated in the updated Traffic Study submitted herewith. Furthermore, KLOA, Inc. conducted a signal warrant evaluation following McHenry County's guidelines and the intersection's existing and projected future traffic volumes do not meet the requirements for the installation of a traffic signal.

2.) Fairway View Drive will need to be reconstructed from Greens View Drive north to Algonquin Road as part of this development due to the impact of this development.

RESPONSE: Pulte will coordinate with the Village to facilitate installation of the required storm sewer crossing under Fairway View Drive as part of the Village's road improvement program. The Village shall construct the base and binder course improvements for Fairway View Drive. Pulte will install the surface course on Fairway View Drive from Nottingham Drive to Algonquin Road.

Landscaping:

1.) Outlots N and W: Only preserve the Oak trees.

RESPONSE: Pulte will remove the trees originally slated for preservation at the Village's request.

2.) Outlots N and W should be naturalized and an ecology firm should do the design.

RESPONSE: V3 Companies will design and permit the native areas of the project.

3.) HOA maintained detention and open space should be planted in standard turf grass.

RESPONSE: Pulte generally concurs with the installation of turf grass for HOA maintenance, but may seek to install limited natives in areas where it may be beneficial to limit erosion or as may be required under the applicable stormwater regulations.

4.) Outlots M and O should be standard turf grass.

RESPONSE: Agreed.

5.) Tree loss calculations and fees will be determined during final engineering once the Village sees the Engineer's estimate for the naturalized area. The Village will then determine the loss/replacement using the Village's Tree Preservation Ordinance and Conservation Code.

RESPONSE: Pulte submitted a proposal to the Village dated February 5, 2020 concerning requirements of the Village's Tree Preservation Ordinance.

CHRISTOPHER B. BURKE ENGINEERING, LTD.

January 7, 2020

Village of Algonquin
2200 Harnish Drive
Algonquin, IL 60102

Attention: Ben Mason, Senior Planner

Subject: Trails of Woods Creek – FIRST REVIEW
Algonquin Case No. 2019-20
(CBBEL Project No. 070272.00119)

Dear Ben:

We have received the following documents related to this project:

- Preliminary Engineering Plan prepared by CEMCON, Ltd. bearing a revision date of December 5, 2019
- Preliminary Subdivision Plat and PUD prepared by CEMCON, Ltd. bearing a revision date of December 5, 2019
- Site Plan for Lot 268 prepared by CEMCON, Ltd. bearing a revision date of December 5, 2019
- Site Plan for Trails of Woods Creek prepared by CEMCON, Ltd. bearing a revision date of December 5, 2019
- Topographic Map prepared by CEMCON, Ltd. bearing a revision date of October 23, 2019
- Preliminary Stormwater Management Report prepared by CEMCON, Ltd. bearing a revision date of December 5, 2019
- Wetland Status Memo prepared by V3 dated November 7, 2019
- IDNR Consultation Letter dated October 4, 2019
- Petition to Village for Development Approval prepared by an unknown author with no revision date
- Traffic Impact Study prepared by KLOA bearing a revision date of December 9, 2019

In addition, we received but did not review the following documents:

- Preliminary Landscape Plans prepared by Dickson Design Studio bearing a revision date of December 6, 2019
- Tree Preservation and Removal Plans prepared by Dickson Design Studio bearing a revision date of December 6, 2019
- Signage Plans prepared by Pulte Group bearing a revision date of December 4, 2019
- Product Matrix prepared by an unknown author with no revision date
- Colored Architectural Elevations prepared by Pulte Group bearing a revision date of December 6,2019

It is our understanding that this project will be presented to the Plan Commission this month. We offer the following comments for their consideration:

PRELIMINARY ENGINEERING PLANS

Sheet 2

1. The jog in the watermain through lot 268 should be eliminated and the north- south main be continued within the west parkway of Street A. If the distance between the main and the building's FDC is longer than allowable, the developer can extend an oversized service line into the property with a fire hydrant within a utility easement and split the water service to the building off beyond the hydrant to be compliant with IDPH requirements.

   RESPONSE: The jog has been eliminated as requested. There are no plans to develop lot 268 at this time so only utility stubs have been shown for service.

2. The plan calls for an off-site pressure connection to the watermain installed as part of Prestwicke Phase 1. The engineer shall verify the type of connection to be made after consultation with the public works staff as it appears that an existing stub is available for connecting with.

   RESPONSE: The note has been changed to eliminate the pressure connection.

3. Lots 76, 259, 260, and 261 are not within 150' radius of a proposed fire hydrant. The spacing of the proposed hydrants and/or additional hydrants is required to provide the correct spacing.

   RESPONSE: Additional hydrants have been added. Please note the lot numbers have been revised with the re-submittal.

4. The Public Works staff should review/modify its existing water model to determine the impact, if any, on the overall system with the addition of the proposed mains and customer demand. In particular, is there any system benefit to extending the 10-inch main from Fairview Drive westward to the Prestwicke Phase 1 connection?

   RESPONSE: So noted. Please let us know the results of the study when completed.

5. The invert of the sanitary manhole at lots 260-261 is too high. It will need to be lowered from 887.40 to at least 886.40 to provide minimum slope from the upstream manhole.

   RESPONSE: The sanitary sewer has been revised with this re-submittal.

6. The inverts of the sanitary manholes adjacent to lots 48, 65, 68, 71, 76, 83, 92, 236, and adjacent and north of Outlot A are missing.

   RESPONSE: Due to clarity, only key and intermittent inverts have been shown on the preliminary plan. All inverts will be shown with Final Engineering.

7. The slope of the sanitary sewer run from the manhole by lot 249 to lot 241 should be redistributed so that the sewer oversizing to 10-inch diameter pipe is no longer necessary. The overall slope is 0.81%.

RESPONSE: The sanitary sewer has been revised as requested.

8. The slope of the sanitary sewer between lots 72 and 50 is below minimum for an 8-inch sewer.

RESPONSE: The sanitary sewer has been revised as requested.

9. The centerline slope of Street A between the low point of 893.0 to 893.8 is only 0.47% and should be increased to promote positive pavement drainage.

RESPONSE: Centerline grades have been revised as necessary. With the final engineering design, all roadway slopes will be in excess of 0.50%.

10. The centerline slopes of Street D for the first two segments south of Street B are 0.44% and 0.47% and should be increased to promote positive pavement drainage.

RESPONSE: See response to comment 9 above.

11. The centerline slope of Street D for the first segment west of Street C is 0.10% and should be increased to promote positive drainage. It appears that an intermediate high point may be missing from the plan sheet.

RESPONSE: See response to comment 9 above.

12. The centerline elevation is missing from the low point found near lots 81 and 28 along Street B. We cannot verify the pavement slopes immediately north and south of this location due to the missing information.

RESPONSE: There is not a low point in this area. A spot elevation has been added to clarify. Please note the lot numbers have changed to Lots 20 & 73.

13. Lots 211, 212, and 213 are not within 150' radius of a proposed fire hydrant. The spacing of the proposed hydrants and/or additional hydrants is required to provide the correct spacing.

RESPONSE: Additional hydrants have been added as requested. Please note the lot numbers have been revised with this re-submittal.

14. The inverts of the sanitary manholes adjacent to lots 168, 163, 164, 150, 145, 209,215, 222,125,223 and adjacent to Outlot N and M are missing.

RESPONSE: See response to item 6 above.

15. Village staff noted at the development meeting of November 11, 2019 that the existing homes on lots 28 and 30 along Fairway View Drive may be served with potable water from the existing golf course well. The final engineering shall include determining the source of their potable water and the connection of their homes to the Village main along Fairway View Drive.

RESPONSE: Per the Golf Course Owner, 280 Fairway View Dr is currently serviced by a private well (not located on Terrace Hill Golf property) and the other home (300 Fairway View Dr) is connected to the village water system. There are no irrigation lines running from the golf course to these properties.

16. The centerline slope of Street B from the midpoint of lots 179/194 (895.0) to the mid-point of lots 181/193 (894.4) is 0.46 %.and should be increased to promote positive pavement drainage.

RESPONSE: See response to comment 9 above.

17. The centerline elevation of Street B for the intermediate high point at lot 165 is missing from the plan sheet. We cannot verify the pavement slopes immediately north and east of this location due to the missing information.

RESPONSE: See response to comment 9 above.

General Comments

18. The final engineering plans shall include all proposed sanitary sewer laterals and potable water service lines.

RESPONSE: So noted.

19. The final engineering plans shall include all proposed site grading (contours and spot grading), building footprints, and proposed T/F elevations.

RESPONSE: So noted.

20. The final engineering shall include the diameter, proposed storm sewer inverts, and materials for the proposed storm sewer.

RESPONSE: So noted.

21. The final engineering shall include all applicable utility, pavement, and SESC standard details and specifications.

RESPONSE: So noted.

PRELIMINARY PALT OF SUBDIVISION AND PUD

22. The example line types found in the LINE LEGEND for the Subdivision Boundary and the Lot Line/Property Line appear to be reversed for the plan view; typical to sheets 1 and 2.

RESPONSE: The Line Legend has been revised accordingly.

TRAFFIC IMPACT STUDY

Comments on the Traffic Impact Study, if any, will be provided under separate cover. We hereby acknowledge that common ownership exists between KLOA and CBBEL.

PETITION TO VILLAGE FOR PUD APPROVAL

23. The word "ALGONQUIN" is misspelled in the title of the document; page 1.

RESPONSE: Noted.

24. The word" Estates" should be replaced with the word "Shores" in the third line of section 14; page 3.

RESPONSE: Noted.

25. It appears that the word "than" should be inserted between "more" and "4,000" in the 7th line of section 18a: page 4.

RESPONSE: Noted.

26. There is an extra question mark inserted in the middle of the 6th line of comment 18b that should be deleted; page 9.

RESPONSE: Noted.

STORMWATER MANAGEMENT

27. PondPack is license-only model and not public domain as noted in the Kane County Stormwater Ordinance. Additionally, this development will require a FEMA LOMR and this model is not accepted by FEMA. An acceptable FEMA, model should be utilized for site design and Base Flood Elevation (BFE) determination.

RESPONSE: Per FEMA's website, PondPack is an acceptable model. In fact, we have just received approval for Pulte's Wagner Farm LOMR in Naperville with the PondPack software. Although PondPack software is not specifically mentioned in Subsection 9-84C of the Kane County Stormwater Management Ordinance, the Ordinance does allow for other tabular methods and does not mention a requirement for the modeling to be in the public domain. We respectfully request that PondPack modeling be allowed as it is one of the more appropriate modeling software to be used with several interconnected stormwater basis as it is a dynamic model that calculates tailwater.

28. Off-site topography should be provided to verity tributary areas. If previous studies will be utilized to support this development's design/calculations, then excerpts from these

studies should be provided as appendices to the stormwater report.

RESPONSE: The report and exhibits have been added to the report as requested.

29. Existing storm sewer infrastructure should be provided to verily existing modeling. This will aid in verifying existing conveyance paths and provide differentiation between existing ponds and potential depressional storage areas. Several existing storm sewer alignments appear on the existing watershed exhibit, but there is no elevation, type, size, connectivity, etc. information provided to support existing modeling.

RESPONSE: The storm sewer was omitted for clarity on the watershed exhibits. The Topographic Survey has been included in Exhibit H. The survey includes all the existing information. A digital copy has also been included for ease of review.

30. It appears that several existing lakes within areas SWMF-01 and SWMF-07 have been combined into singular existing basins. This has provided a static BFE for each tributary area. Since several of these lakes appear to have individual outlet controls and maintain different Normal Water Levels (in some cases by several feet); each lake should be modeled in series and individually: This will also provide more accurate BFE information to summarize non-riverine floodplain fill/compensatory storage volumes and provide more accurate existing conditions peak flowrates at the site boundaries.

RESPONSE: Additional lakes surrounding SWMF-01 and SWMF-07 have been introduced into the model (SWMF-01 A-B, SWMF-08, SWMF-08 A-B, SWMF-09). SWMF-01 still represents the combination of the lakes adjacent to Fairway View Drive. The average Edge of Water for these lakes is the same (878.5), and there is only 1 to 1.5' before they overtop and become one basin. In addition the existing storm sewers underneath the road act as the ultimate restrictors for the entire inundated area.

31. Tailwater conditions should be considered for discharge into existing closed systems. The crown of the existing system should be utilized if a 10-year BFE is not known.

RESPONSE: Tailwater conditions have been added as requested.

32. All curve numbers should be rounded to the nearest whole number.

RESPONSE: The curve numbers have been revised as requested.

33. Storm sewer, inlet capacity, and overland flow calculations should be provided as part of final engineering.

RESPONSE: So noted.

34. A blocked restrictor scenario should also be provided for Outfall No. 2.

RESPONSE: A blocked restrictor scenario has been included for Outfall No. 2 as requested.

35. All modeled durations should be provided for review. It appears that only the 24- hour duration runs were provided in the report.

RESPONSE: In order to save on paper, only key durations have been included in the physical report. The digital copy of the analysis will have all the duration runs included. Please refer to the digital copy for review.

36. As noted in the Preliminary Stormwater Management Report, the project will need to obtain a LOMR-F from FEMA to reflect the proposed modifications to the regulatory floodplain.

RESPONSE. Noted. Pulte seeks to address the timing of construction and FEMA permitting in the Development Agreement.

37. Per the information provided in the Wetland Status Memo, 16 areas were identified for study and analysis within the project boundaries. Areas 3-9 were noted to have the potential to be classified as jurisdictional with USACE determination to take place in the first quarter of 2020. These areas would be disturbed by the proposed project but are shown to be used for stormwater detention. If found to be jurisdictional, the loss of wetlands will need to be mitigated and a permit obtained through the USACE for it. The applicant shall provide a copy of the jurisdictional determination to the Village when obtained.

RESPONSE: Noted. Pulte has submitted for a jurisdictional determination. We will provide information to the Village regarding the ACOE determination when it becomes available.

38. As discussed at the development meeting of November 1, 2019, the site is within the Woods Creek Watershed. The staff indicated that the need for channel improvements to the waterway east of Fairway Drive was identified. It is the staffs desire to include these improvements within the overall development scope of work at the expense of the developer.

RESPONSE: Pulte respectfully disagrees that these improvements are within the scope of the proposed project. The improvements would require separate federal permitting for Village owned property. As part of Pulte's Tree Replacement proposal, Pulte has offered to donate $50,000 to the Village for the Village to construct the improvements.

OUTSIDE PERMITTING AGENCIES

39. A permit will be required from the IEPA for the proposed watermain extensions.

RESPONSE: Noted.

40. A permit will be required from the IEPA for the proposed sanitary sewer extensions.

RESPONSE: Noted.

41. A permit will be required from the IEPA for the site disturbance associated with this project.

RESPONSE: Noted.

42. A permit will be required from the McHenry County Division of Transportation (McDOT) for all work performed within the Algonquin Road Right-Of-Way.

RESPONSE: Noted.

43. A permit from the USACE may be required for the disturbance of wetlands should any of the existing on-site ponds be found to be jurisdictional.

RESPONSE: Noted.

CHRISTOPHER B. BURKE ENGINEERING, LTD.

January 9, 2020

Village of Algonquin
2200 Harnish Drive
Algonquin, IL 60102

Attention: Ben Mason, Senior Planner

Subject: Trails of Woods Creek – FIRST REVIEW ADDENDUM
Algonquin Case No. 2019-20
(CBBEL Project No. 070272.00119)

Dear Ben:

We have reviewed the following documents related to this project:

- Traffic Impact Study prepared by KLOA bearing a revision date of December 9, 2019

TRAFFIC IMPACT STUDY

Please consider the comments below as an addendum to our review letter of January 7, 2020.

1. The TIS will need to be submitted to McHenry County Division of Transportation (McDOT) for review and approval due to the change of land use and access to Algonquin Road. A copy of the approval letter should be included in the TIS and any comments received from McDOT should be provided to the Village of Algonquin.

Response: The revised TIS has been submitted to McDOT.

2. This TIS may be subject to additional review if the site plan is modified including changes to access points of the subdivision.

Response: No new access points are being requested.

3. An exhibit depicting the proposed intersection geometry and alignment at Frank Road and Algonquin Road should be included in the TIS. It is not clear in the TIS what the proposed geometry is for the south approach, since the TIS and the capacity analyses indicate that two outbound lanes should be provided (left and shared through/right) but the site plan depicts an approximately 16' wide roadway on the south approach, which is not wide enough for 2 outbound lanes and one inbound lane. It should be noted that under existing conditions, the north and south approaches do not align.

Response: The main access road off Algonquin Road will provide one inbound lane and two outbound lanes striped for an exclusive left-turn lane and a shared through/right-turn lane. See the attached revised site plan.

4. The TIS should obtain CMAP concurrence for 2050 volume projections due to the size of the development.

Response: The original TIS as well as the revised one includes the CMAP 2050 volume projections.

5. Trip generation for land use 945 - Gas Station with Convenience Market should utilize the equation for the AM Peak. This would increase the total AM volume to 207 trip ends.

Response: Based on ITE guidelines, the fitted curve equation should be used if a fitted curve equation is provided, the data plot has at least 20 data points and the R^2 value is at least 0.75. Given that neither of these requirements is met, ITE then recommends using the average trip rate. Furthermore, the number of proposed fueling positions is very close the average number of fueling positions in the ITE surveys and as such using the average trip rate will yield the most accurate estimate.

6. The 60% pass-by reduction seems high given that the gas station/convenience market/car wash is not directly accessible from Algonquin Road. Contrasted with the gas station at Randall Road and Algonquin, which provides direct access to Algonquin Road as well as to Randall Road.

Response: While it is true that the future gas station/convenience market/car wash will not be directly accessible from Algonquin Road it will be clearly visible to traffic on Algonquin Road and it will have excellent accessibility via the existing signalized intersection of Algonquin Road with Frank Road. Based on ITE data, the pass-by reduction for gas stations with convenience market can be as high as 78 percent with an average pass-by reduction of 62 percent. Therefore, the 60 percent pass-by reduction is appropriate and consistent with ITE guidelines for this location.

7. A traffic signal warrant analysis should be performed for Fairway view Drive and Algonquin Road. The results of the warrant analysis should be included in the revised TIS. If a new traffic signal is installed at Fairway View Drive, it should be interconnected to Frank Road and the existing traffic signal system re-optimized.

Response: A traffic signal warrant analysis for the intersection of Fairway View Drive with Algonquin Road is included in the revised TIS. Based on the results of the analysis, a traffic signal is not warranted under existing or future conditions.

VILLAGE OF ALGONQUIN

POLICE DEPARTMENT

DATE: January 3, 2020

TO: Ben Mason, Senior Planner

FROM: Sergeant Robert Salazar

SUBJECT: Case No. 2019-19. Trails of Woods Creek

I have reviewed the plans for the Trails of Woods Creek.

Examining the layout of the subdivision and to slow traffic on the residential streets, I would suggest the usage of eleven stop signs throughout the development. The signs should be placed as follows:

1) three signs, one being placed on street A, two on street B, creating a three way stop
2) two signs placed on either side of street G intersecting with street B
3) one sign placed on street D intersecting with street B
4) one sign placed on street C intersecting with street D
5) two signs placed on street E at both intersections with street C
6) one sign on street C intersecting with street B
7) one sign on street F intersecting 'with street B

Also submitted with this memo is a highlighted copy of the aforementioned intersections.

Please let me know if there is questions or the need for clarification in the implementation suggestions.

RESPONSE: Agreed. The signs will be included with Final Engineering.

teska

Memorandum

To: Ben Mason, Senior Planner

From: Mike Hoffman

Date: January 7, 2020

Subject: Pulte Trails of Woods Creek

The proposed Pulte Trails of Woods Creek is a redevelopment of the existing Terrace Hill golf course. The property is located on Algonquin Road, east of Square Barn Road and just west of Fairway View Drive. The property contains 138 .4 acres, featuring rolling topography with many beautiful trees. The private golf course has seen reduced play in recent years, and the property owners has decided it is no longer profitable to operate the course. Pulte Homes development of the property as a Planned Unit Development with three distinct single-family products, extensive open space, and a small commercial development of a gas station/convenience store/car wash at the development entrance.

Relationship to Comprehensive Plan
Algonquin's Comprehensive Plan did not anticipate the redevelopment of this property, showing the site as open space consistent with its existing golf course use. The Comprehensive Plan shows low density residential use to the east, west and south. Property to the north is in Lake-in-the-Hills and consists of the Boulder Ridge Country Club and related residential development.

RESPONSE: The property is zoned R1-E in the Village of Algonquin. Residential development of the property is permitted by right.

In reference to this general planning area, the Comprehensive Plan notes "redevelopment shall include tree preservation and be sensitive to the surrounding uses." We feel the proposed land plan does do a good job of being sensitive to surrounding uses, with open space buffers around the periphery of the property and significant open space throughout the development. However, we have significant concerns highlighted below regarding tree preservation and would suggest a closer look at opportunities to preserve some of the quality trees on the property. Their tree preservation plan currently shows preservation of only 27% of the existing on-site trees.

RESPONSE: Pulte met with Village staff in advance of formally designing the subdivision. Village staff stated a desire to address flooding issues in the area and to emphasize wetland and or prairie type improvements for the area tributary to Woods Creek. Pulte designed the subdivision around this vision, which necessarily resulted in substantial regrading of the property and accordingly, eliminated a substantial number of trees. Furthermore, it should be noted that the property was cropland as recently as 35 years ago. While the existing tree inventory is generally in good condition, the trees were installed around design of a golf course, not in consideration of any natural conditions or habitat. As revised, the proposed development plans include more trees than exist on the golf course today. Combined with the wetland and prairie habitat that is created, the proposed condition provides substantially more ecological benefit than would efforts to preserve some additional trees.

This property is in the Huntly School District (158), Huntley Park District, Huntly Fire Protection District, and Algonquin Library District.

RESPONSE: Noted.

Overall Layout and Circulation

The development takes a conservation design approach, clustering home sites and providing extensive common open space. We completely agree this is the correct approach for this property given the unique character of the existing golf course property. Individual home sites are smaller than many in surrounding neighborhoods, but most homes back-up to common open space providing a more open feel and character to the development.

RESPONSE: Agreed.

As proposed, the project would have two entrance/exit points. The main entrance would be at Frank Road - generally where the golf course entrance is now. The secondary entrance would be from Fairway View Drive via a western extension of Nottingham Drive. These two access points are appropriate - but for reasons noted below we would encourage consideration of an additional access to the south.

RESPONSE: Pulte respectfully disagrees. Given feedback from area residents, Pulte believes that an additional outlet directly to Bunker Hill Drive would be very poorly received and would encourage more traffic on Bunker Hill Drive. Pulte's design intentionally drives traffic toward Algonquin Road.

Specific concerns with the overall layout/circulation include:

- To provide enhanced emergency vehicle access, and for better neighborhood connectivity, we recommend consideration of a roadway connection to the south to Bunker Hill Drive. The plan currently shows a trail connection in this location - but not a road. Bunker Hill Drive is an important east-west collector roadway through this part of Algonquin. A road connection would provide future residents of the Trails of Wood Creek with a much better connection to the Huntley Schools just to the west along Square Barn Road and the adjacent Kelliher Park. It would also greatly enhance emergency response if there were a need for a call in an adjacent subdivision or one of the main entrances was blocked for some reason.

  RESPONSE: Bikepath to Bunker Hill Road has been oversized to accommodate emergency vehicles.

- There is no clear organizational structure to the roadway layout. Yes, people do use G.P.S. these days to navigate, and that would work. However, in our opinion that should not be necessary to find your way through a neighborhood. The northern part of the site is straight forward - it is the southern portion of the site, particularly Street D and Street E, which may be appropriate to reconfigure to provide a more logical site circulation.

  RESPONSE: Respectfully declined. The proposed layout discourages cut-through traffic and will primarily be utilized by residents familiar with the subdivision. Moreover, the Street network maximizes the number of lots adjacent to open space.

- The alignment of some streets seems very mechanical, and not consistent with the existing topography. Street D is a good example of this, with two 90 degree turns.

  RESPONSE: Noted.

- The main entrance is nicely done, providing a nice view into the open space network. However, why not take the same approach to the secondary entrance from Nottingham Drive? Here the open space (Outlot G) could easily be expanded and reconfigured to provide a more inviting sense of arrival and connectivity.

  RESPONSE: The entrance drive via Fairway View Drive has been reconfigured in light of Village comments and resident concerns. Consistent with this comment, the revised alignment provides a terminated vista at the entrance.

- Preserving only 27% of the existing trees on this property does not do the site justice. We did not have time to count the specific number, but numerous trees noted as in either good condition or very good condition are proposed for removal. While some are less desirable species, many are quality trees like Red Maples or Oaks. We recommend a closer look at the layout to identify opportunities to preserve more of the quality trees on-site to take advantage of this wonderful resource.

  RESPONSE: Pulte met with Village staff in advance of formally designing the subdivision. Village staff stated a desire to address flooding issues in the area and to emphasize wetland and or prairie type improvements for the area tributary to Woods Creek. Pulte designed the subdivision around this vision, which necessarily resulted in substantial regrading of the property and accordingly, eliminated a substantial number of trees. Furthermore, it should be noted that the property was cropland as recently as 35 years ago. While the existing tree inventory is generally in good condition, the trees were installed around design of a golf course, not in consideration of any natural conditions or habitat. As revised, the proposed development plans include more trees than exist on the golf course today. Combined with the wetland and prairie habitat that is created, the proposed condition provides substantially more ecological benefit than would efforts to preserve some additional trees.

- The proposed park site (approximately 10 acres) in the southeast corner appears to be an afterthought - left over space on the wrong side of the flood plain - and not ideally suited for a park to serve this development. First, triangular shaped properties are difficult to utilize efficiently for any type of development - parks included. For example, ball fields on the property would be challenging. This proposed park site is also not very accessible to residents -a centrally located park would seem much more appropriate to provide a focal point for the development and shorten the walk, bike ride, or drive to the park (see sketch). We appreciate the trail connections stubbed into the park site - but why not just show the trail continued through the park....or on the south side of Outlot N? If the primary park site remains at the southeast corner of the property, we feel there should be a trail connection from the end of Street D - generally near lot 231.

  RESPONSE: Respectfully disagree. The location of the park was coordinated with Village staff prior to formal development of Pulte's plan. The land dedication of 35 acres in the south and eastern portion of the site is consistent with the vision of the Woods Creek Watershed-Based Plan.

- The landscape plan generally does a good job with street trees and entrances but could be enhanced within the open space areas. For example, at the end of Street A, and the eastern end of Street E, the roadway terminates into a potentially attractive open space. Why not create a break in the formal street tree planting, meshing more into the more informal open space with a less rigid planting scheme that mixes in smaller ornamental and/or native species? Another example would be along the west side of Street A, where evenly spaced street trees are shown adjacent to a more natural existing hedge row. Why not cluster the trees - perhaps a cluster of Hawthorns or other native species? While the plan shows a few scattered new trees in the opens space areas, we feel additional trees within the open space adjacent to lots would help to better define the space. Examples include at the rear of lots 7-13, 61,186,187,192-197, 216- 222, 228-231....and the side of lots 47,134,135, 222, and 235. Perhaps a more creative planting in the Street I cul-de-sac rather than just 3 street trees?

  RESPONSE: The landscape plan has been updated to include additional plantings. Note that Pulte has not depicted on-lot landscape in the plan, but intends to install 1 tree on all Estate Series and Spring Series lots and 2 trees on all Shores Series lots.

- The proposed commercial use at the Frank/Street A entrance seems appropriate. Frank Road is a collector roadway in Lake-in-the-Hills which could draw traffic from the north in addition to the on-site and Algonquin Road traffic passing the site. The overall site layout is functional, with an appropriate site entrances from Street A (but not Algonquin Road). Handicap parking will be needed for the convenience store, and opportunities to reduce pavement - such as curing the drive along Algonquin Road - should be considered. A sidewalk connection should be provided between the sidewalk along Street A and the convenience store.

  RESPONSE: Pulte is no longer seeking site plan approval for the commercial site. Additional approvals will be required through the Village when an end-user is identified.

- Building elevations are attractive, although we would want to ensure that elements such as decorative garage doors, varied facade materials, varied roof lines, etc, are not just options that may or may not happen. We certainly understand the desire to stick with a ranch product for the Shores/empty nester product but would welcome additional variety in the Springs and Estates product lines - perhaps adding in a ranch model as well.

  RESPONSE: Pulte has provided some additional options in the Estate Series and the Springs Series, but declines to provide a ranch option in these series. Buyers have ample opportunity for ranch construction in the Shores Series. The revised elevations also include some additional upgrades such as windows in all base garage doors.

Trails of Woods Creek - Preliminary Plat of Subdivision and PUD Review #1

1/6/2020

Approved

1.) Impact fees equal $700.00 per unit unless otherwise established in an intergovernmental agreement (see below).

105.9.2 New developmental donations/impact. Add as additional section:

The Huntley Fire Protection District has established the following fees for dwelling unit constructions within their jurisdiction for compensation of equipment, facilities, and personnel in addition to all other fees depicted through the ordinances provided elsewhere. The developer contribution fee per dwelling unit is as follows:

1. All Dwelling Units - $700.00 each

Any future expansion or increase in density, following approval of the preliminary plat, will be subject to the contribution payment schedule. Payment will be due at a time agreed upon by both parties prior to the issuance of any building permits.
Exception-Intergovernmental Agreement with Municipal Jurisdiction

RESPONSE: State law is clear that impact fees are appropriate only where they offset new capital costs that are specifically and uniquely attributable to the proposed development. By way of example, an impact fee that includes charges for personnel costs is inappropriate.

Ken Madziarek
Fire Marshal / Huntley Fire Protection District
11808 Coral St. /P.O. Box 517
Huntley, IL 60142
Office- 847-669-8284
Fax- 847-669-0572
kmadziarek@huntlevfpd.org

Email to Ben Mason

From: Ray Beets

Sent: Wednesday, January 8, 2020 5:07 PM

To: Ben Mason

Cc: Russell Farnum; Benjamin Redding; Scott Hennings; Tom Anthony

Subject: Re: Pulte- Trails of Woods Creek project

Good afternoon Ben Mason,

The key points we highlighted were:

- Pre-application meeting required with MCDOT per County Ordinance

RESPONSE: Pre-application meeting has been completed.

- Formal Permit Application package submittal required by Developer/Engineer directly to MCDOT
    - Highway Access Permit Application
    - $4,500 application fee
    - Traffic Impact Study (dated, signed and sealed by a P.T.O.E.)
    - Preliminary Plat
    - Engineering/Site plans

RESPONE: Noted.

- Provide pedestrian path connection from development across Algonquin Road to connect to existing bike path on NW corner Algonquin/Frank. (VOA also indicated a desire for this at meeting and suggested the west leg of the intersection).

RESPONSE: The path connection is complicated by grades and location of the existing improvements on private property. A connection across Algonquin will not be depicted on the Preliminary Development Plans, but Pulte commits to investigating the feasibility of making a connection across Algonquin Road during final plat. If Pulte is unable to obtain the necessary easements to construct the path connection, Pulte will donate $20,000 to the Village for future improvement of the crossing. This agreement will be memorialized in the Development Agreement.

- Additional Right-of-Way dedication required along property frontage of Algonquin Road and Right-of-Way corner cuts at intersection with main entrance road and at Fairway View Drive, per County Ordinance. Existing R.O.W. varies but is approximately 70' half. Ordinance requires an 85' half R.O.W. for Algonquin Road upon development, so an additional 15' or so would be required. This additional R.O.W. would also allow for a pedestrian path to be built either now or at a later date along the property frontage.

RESPONSE: R.O.W. dedication has been added to include an 85' half R.O.W.

- Existing Detention Basin is at or within existing Algonquin Road right-of-way. Will require reconfiguration to meet setback requirements away from R.O.W. per County Ordinance and State Statute (10' +1.5 times rule).

RESPONSE: The detention basin has been relocated accordingly.

- Traffic Study should include a Signal Warrant Analysis for Algonquin Road at Fairway View Drive (VOA would like to see a signal here if it meets warrants and would be allowed by County. Should at least be investigated).

RESPONSE: The Traffic Study was updated accordingly and has been resubmitted for Village review. Warrants were not met for a traffic signal in this location.

- Bunker Hill Road access connection to development should be Included to aid in traffic movement and assist with Fire/Police emergency access, (suggested by VOA as well)

RESPONSE: Pulte acknowledges that Bunker Hill Road is a collector roadway that is intended to funnel traffic from local roads to arterial roads. However, existing residents have expressed significant concerns about traffic volumes, speeding and safety issues on Bunker Hill Road. Accordingly, Pulte respectfully declines to add an access to the subdivision via Bunker Hill Road, but agrees to modify the bikepath to accommodate an emergency vehicles. Pulte believes that the subdivision traffic can appropriately be directed toward and accommodated by Algonquin Road, an SRA that was designed to handle heavy volumes of traffic.

- Cross-Access easement required between proposed commercial site (Gas/Convenience) and adjacent properties to the east. Upon future development of those parcels full access would likely not be permitted directly to Algonquin Road. Would likely be restricted to RI/RO. Full access would be via this cross access thru the commercial site then out to Algonquin Road at the main access. (VOA was in support of this). Should also look at cross access on the east side of these parcels out to Street B in vicinity of lots 24-32 for same interconnection reason. Hard surface connection not necessary now but access easements should be provided to allow for future interconnect.

RESPONSE: A note regarding cross access over the commercial parcel has been added to the preliminary plat. A cross access easement can be granted with final plat. Pulte respectfully declines to add a secondary connection into the middle of the residential subdivision.

- Water and Sanitary sewer stubs should be provided up to those same adjacent parcels now, to allow for connection in the future once they develop. Most likely will be commercial developments. (VOA agreed)

RESPONSE: Utility stubs have been added to the preliminary engineering however it should be noted that the existing sanitary inverts are too shallow to serve all of the adjacent parcels without significant fill or a lift station

We have yet to do a formal written review until the developer has made a formal permit application package submittal to MCDOT. Today we just received a formal written request to have a pre-application meeting with them. We'll work on scheduling that and let you know.

We look forward to working with the Village on this project and will cc: on any formal correspondence we have. If you have any questions please let me know.

Trails of Woods Creek
Elevation Selections

December 6, 2019

Confidential and Proprietary

PulteGroup

Abbeyville – Shores

Abbeyville – Shores

Ascend – Shores

Ascend – Shores

Martin Ray – Shores

Martin Ray – Shores

Newberry – Springs

Newberry – Springs

Mercer – Springs

Mercer – Springs

Continental – Springs

Continental – Springs

Hilltop – Estates

Hilltop – Estates

Riverton – Estates

Riverton – Estates

Westchester – Estates

Westchester – Estates

Woodside – Estates

Woodside – Estates

Castleton – Estates

Castleton – Estates

MONOTONY CODE RESTRICTIONS

I. Single Family Detached Communities

a. The following criteria apply to homes on straight or curved streets, cul-de-sacs and corner lots.

1. No house shall have the same configuration that is within one (1) house on either side **or** on any of the three houses most directly across the street from the subject house. Additionally, the house directly behind a corner subject house is included in these criteria.

2. No house shall have the same color package that is within one (1) house on either side **or** on any house directly across the street from the subject house. Additionally, the house directly behind a corner subject house is included in these criteria.

II. Definitions

a. Configuration – a combination of product type, elevation, exterior fenestration (siding or stone), and color package.

b. Color Package – a combination of siding, stone, trim/gutter, accent, and roof colors incorporated into the exterior color fenestration of a single house.

Trails of Woods Creek – Algonquin

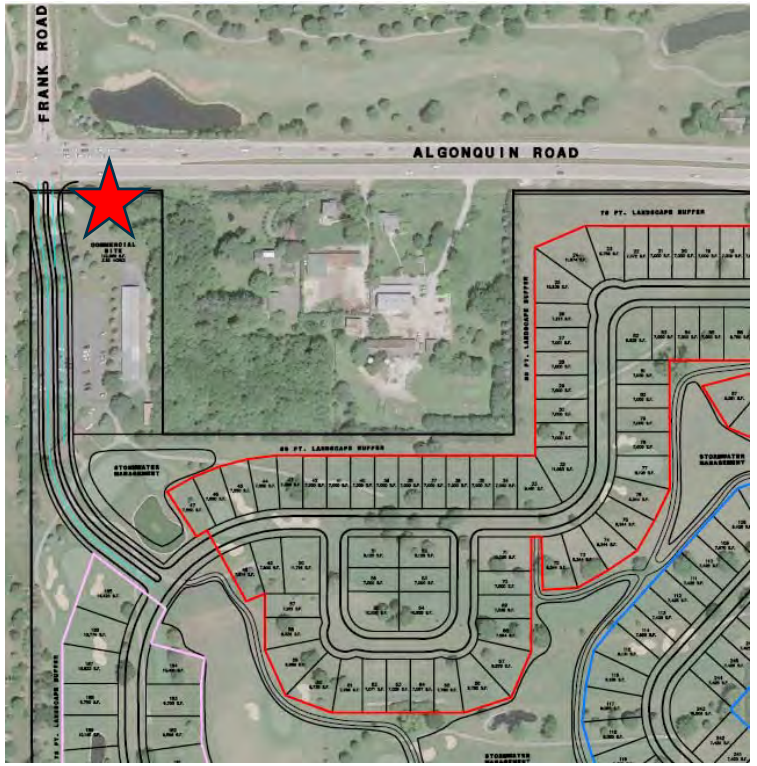
Proposed Signage Plan

February 14, 2020

Entrance Billboard – Algonquin Road and Frank Road

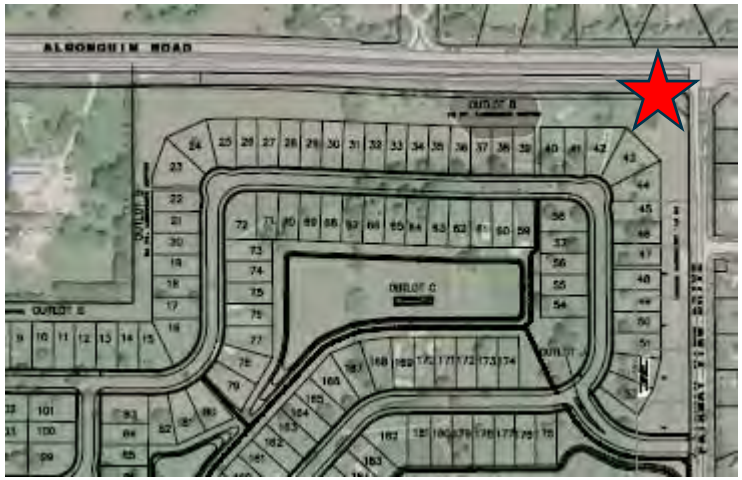
Main Entrance: Algonquin & Frank Rd.
Double Sided 5'x10' Informational Billboard.

5'x10' Double Sided Informational Billboard.
3/8" MDO Painted Ronan Dark Blue w/White, Red, Yellow, Black, Duranodic Bronze & Digital Vinyl.
MDO Mounted To White Wooden 4"x6" Post w/White Wooden Toppers.
Qty: 1



On-site Billboard – Fairway View Drive and Algonquin Road

Secondary Entrance: Algonquin Rd. & Fairway View Dr.
Double Sided 5'x10' Informational Billboard.

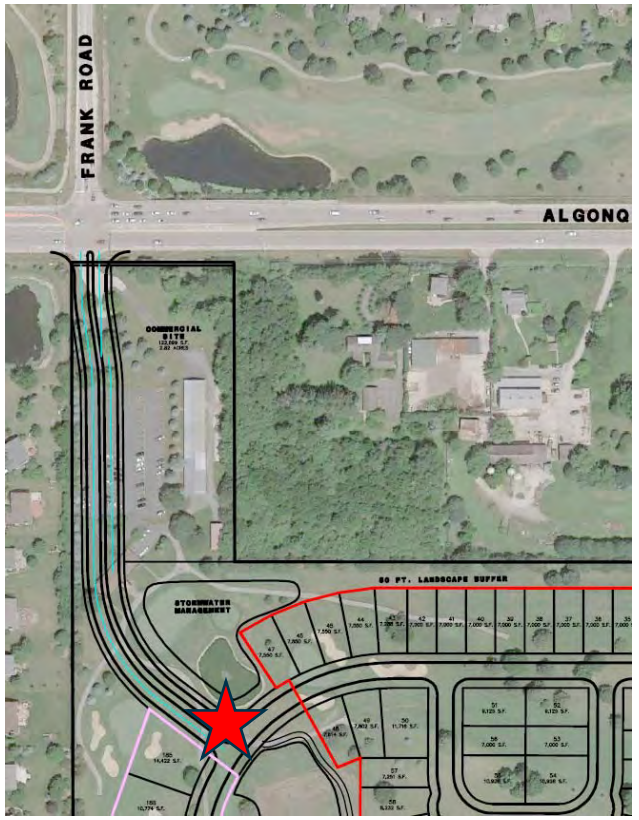


5'x10' Double Sided Informational Billboard.
3/8" MDO Painted Ronan Dark Blue w/White, Red, Yellow, Black, Duranodic Bronze & Digital Vinyl.
MDO Mounted To White Wooden 4"x6" Post w/White Wooden Toppers.
Qty: 1

Directional Sign on Frank Road at Corner Near Model Park

Directional Sign For The Corner Of Frank Road

36"x24" Double Sided Directional Sign
3/8" MDO Painted Ronan Dark Blue w/White Vinyl & Digital Vinyl.
Edges Of MDO Painted Ronan Dark Blue. MDO Mounted To (2) White Wooden 4"x4" Post.
Qty: 1 (2 Faces)

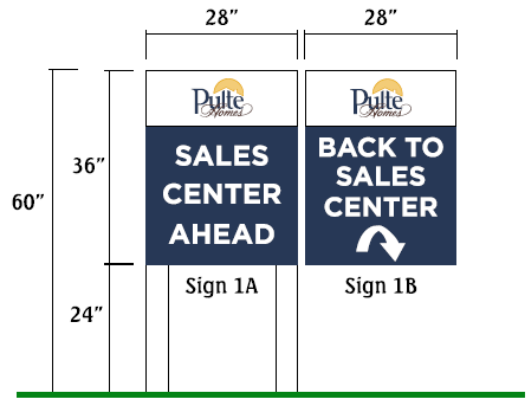


Directional Signs from Fairway View Drive Entrance to Model Park

See next page for proofs and key

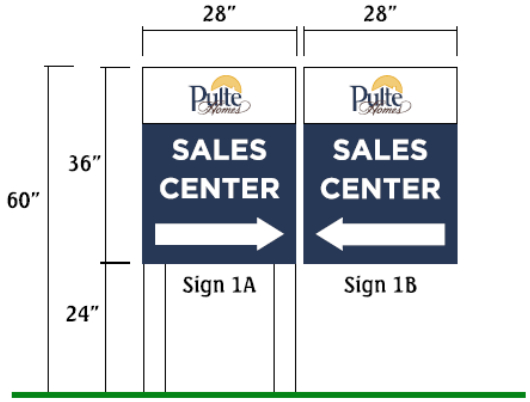
Directional Signs from Fairway View Drive Entrance to Model Park

Directional Sign Leading From Fairway View Dr. Entrance



36"x24" Double Sided Directional Sign
3/8" MDO Painted Ronan Dark Blue w/White Vinyl & Digital Vinyl.
Edges Of MDO Painted Ronan Dark Blue. MDO Mounted To (2) White Wooden 4"x4" Post.
Qty: 3 (6 Faces)

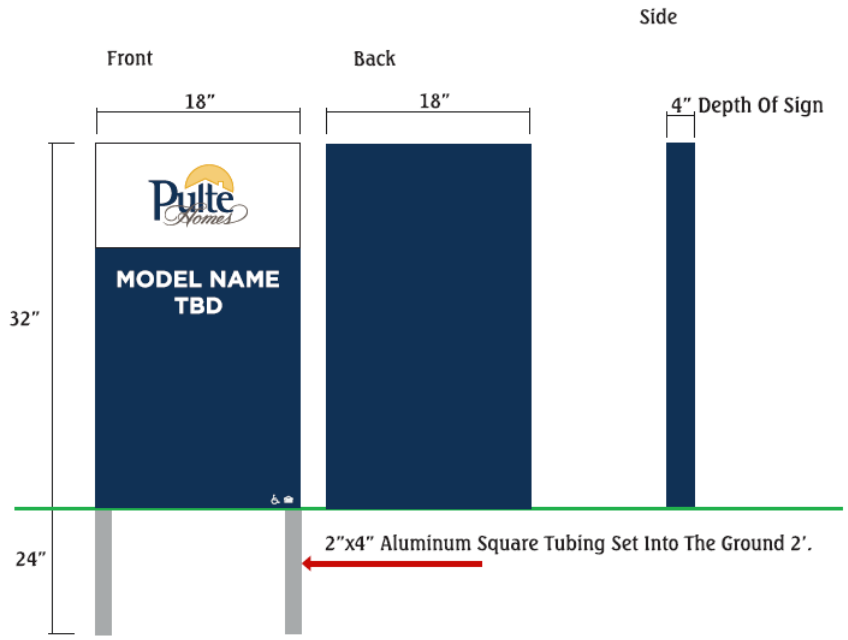
Directional Sign For Sales Center



36"x24" Double Sided Directional Sign
3/8" MDO Painted Ronan Dark Blue w/White Vinyl & Digital Vinyl.
Edges Of MDO Painted Ronan Dark Blue. MDO Mounted To (2) White Wooden 4"x4" Post.
Qty: 1 (2 Faces)

Model Identification Signage (Homesites 48, 49 and 50)

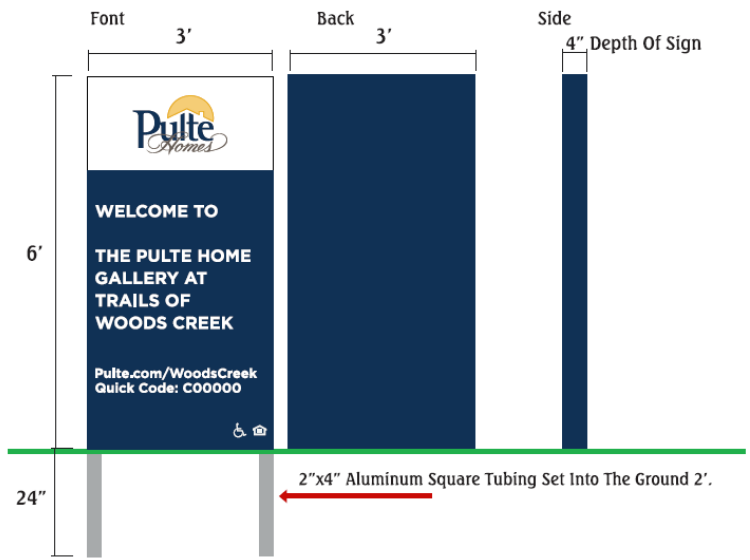
Square Footage Of Sign Is 4 SQ. FT.



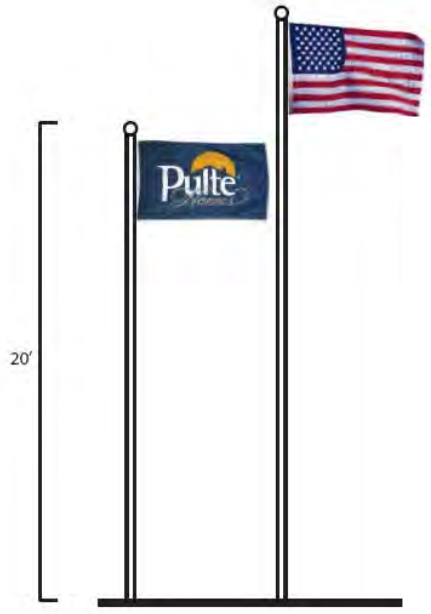
32"x18" Custom Made Aluminum Box Sign w/Aluminum Square Tubing Frame. Sign Is 4" Deep w/Front, Back & Side Faces Made Out Of .063 Aluminum Painted PMS 540. White Vinyl Lettering & Digitally Printed Logo To The Front. Back Of Sign Is Blank.
Qty: 1

Sales Center Signage and Flagpoles (Homesite TBD)

Square Footage Of Sign Is 18 SQ. FT.



6'x3' Custom Made Aluminum Box Sign w/Aluminum Square Tubing Frame. Sign Is 4" Deep w/Front, Back & Side Faces Made Out Of .063 Aluminum Painted PMS 540. White Vinyl Lettering & Digitally Printed Logo To The Front. Back Of Sign Is Blank.

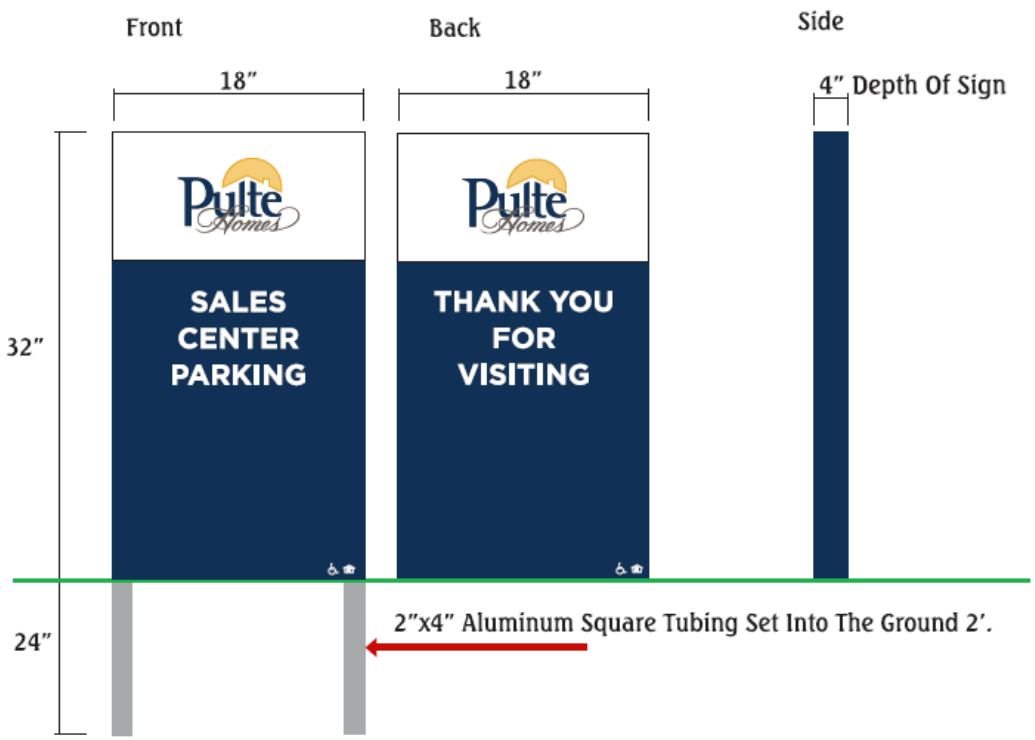


20' Aluminum Satin Finish Flagpole w/Gold Anodized Aluminum Ball Ornament....Qty: 1

25' Aluminum Satin Finish Flagpole w/Gold Anodized Aluminum Ball Ornament....Qty: 1

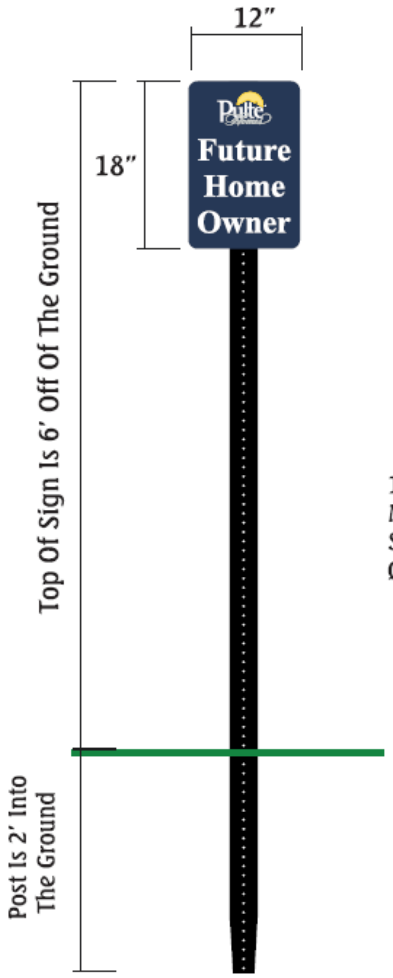
Parking Signage (Homesite TBD)

Square Footage Of Sign Is 4 SQ. FT.



32"x18" Custom Made Aluminum Box Sign w/Aluminum Square Tubing Frame. Sign Is 4" Deep w/Front, Back & Side Faces Made Out Of .063 Aluminum Painted PMS 540. White Vinyl Lettering & Digitally Printed Logo To The Front & Back.

Parking Signage (Homesite TBD)



18″x12″ Single Sided .080 Aluminum w/Digitally Printed Faces To Match Pulte's Colors & Laminated. Mounted To 8' Black U-channel Post. (2 Feet Of The Post Will Be In The Ground To Make The Signs 6' Off Of The Ground.)
Qty: 4

February 5, 2020

Village of Algonquin
Mr. Ben Mason, AICP
Senior Planner
2200 Harnish Drive
Algonquin, IL 60102

Re: **Building Elevation and Signage Comments**
Trails of Woods Creek, Algonquin, IL

Mr. Mason,

We have reviewed your comments regarding the proposed Building Elevations and Marketing Signage for the project. In response to your comments, we offer the following:

Proposed Signage Plan – dated 12.04.19

1. *Billboards – Village Code allows one sign per development announcing impending construction and one for sale / lease sign per development. So need to eliminate one of the entrance or on-site billboards as proposed, and the remaining shall be required to comply with standard code requirements for size / location. One sign allowed maximum surface area up to 50 sq ft (100 if double-sided), setback 10 feet from property line and maximum height 15 feet. One sign allowed maximum surface area up to 32 sq. ft, (single-sided), setback 10 feet from property line and maximum height 10 feet*

   Response: The marketing of community is critical to the overall success of the Trails of Woods Creek. We feel that due to the size of the community (spanning roughly 0.5 miles along Algonquin Road) two signs of 50 sf each should be allowed and incorporated into our PUD ordinance approval.

2. *"Unique Selling Position Signs" – not permitted by code and shall be eliminated*

   Response: Although these signs are a key component to our messaging and sales campaign, we will remove these signs, as you have requested.

3. *Directional Signs – proposed locations at two main entrances reasonable to direct traffic to the models, but three internal proposed on street not necessary and shall be eliminated*

   Response: We request that all the directional signage be allowed. The internal site marketing has been very helpful to prospective buyers in our other communities and provides no impact to the surrounding area.

4. *Model Identification Signage – maximum size allowable is 4 sq ft, proposed signage for lots 48, 49, 50 shall be revised down from current 5.83 sq ft size*

   Response: We will revise each to a maximum size of 4 square-feet

5. *Sales Center Signage and Flagpoles – approved as submitted*

   Response: Thank you

6. *Parking Signage – Sales Center Parking sign box panel shall be reduced from 5.83 sq ft to maximum allowable 4 sq ft per village code (8 sq ft if double-sided)*

   Response: We will revise each to a maximum size of 4 square-feet

Proposed Elevation Selections – dated 12.06.19

7. *Per previous discussions, 40% brick on the Estates series required*

   Response: Correct.

8. *All models shall have decorative garage doors with patterned design and / or window lites at the top to break up the massing. Ex: Abbeyville Shores – replace garage door on HR2G model with garage door style proposed for EC2G or HR2L*

   Response: We understand this to be an important item for the village. To comply with your request, we will utilize our Classic garage door, upgraded with top row windows as the base or standard for all elevations in the community. Additionally, we will offer our other two types of garage doors (Gallery and Grand Harbor) with and without windows as optional upgrades for each homebuyer.

9. *On several models, continue masonry so it wraps side walls on the "outdoor hallway" leading to front door. Ex: Newberry Springs – HR3T; Continental Springs – HR3S; Hilltop Estates HR3S*

   Response: We will incorporate the masonry wrap along the sidewalls of the covered porch areas, as requested.

10. *Any horizontal vinyl lap siding (dutch lap, 4" lap, 3" lap, etc.) shall not be used on a front wall of greater length than the siding (i.e. no seams); NOTE: Vinyl "shake" and vertical siding are acceptable.*

    Response: We have confirmed with our suppliers that horizontal vinyl siding only comes in 12' lengths. Looking at our proposed elevations, we have many instances where several feet above the garage door would require a single span of 21 feet. This is an impossible request. However, similar to Response #12 below, we will commit to installing horizontal vinyl siding per manufactures specifications and Pulte Group construction standards.

11. *All trim and corner boards to be cedar or Hardie Plank, properly installed*

    Response: Standard practice at Pulte Homes is to utilize vinyl trim when also utilizing vinyl siding. We are currently building this setup in Naperville (Ashwood Crossing, Atwater & Wagner Farms) and Plainfield (Northpointe). I have attached sample photos for your consideration. Our standard practice provides a low maintenance, cohesive and attractive home exterior for our customers. We are unable to accommodate this request.

12. *All siding and masonry shall be properly installed in a workmanlike manner, without wrinkles or puckers*

    Response: Pulte Group employs the highest construction standards and robust quality controls to ensure proper installation of siding and masonry.

13. *All models to have 12-inch overhanging eaves*

Response: We are agreeable to revising the architecture to include standard 12” overhanging eaves and rake for this community.

Sincerely,

Matt Brolley, P.E.
Manager, Land Planning and Entitlement
Pulte Homes – Illinois Division
Telephone: (630) 777-2973
Email: matt.brolley@pulte.com


12511


3759


1507

February 5, 2020

Village of Algonquin
Mr. Ben Mason, AICP
Senior Planner
2200 Harnish Drive
Algonquin, IL 60102

Re: **Lot Configuration Issue**
Trails of Woods Creek, Algonquin, IL

Mr. Mason,

As you know, Village staff has suggested several revisions to the proposed site plan for Trails of Woods Creek. Pulte is working through some of the suggested modifications and anticipates submitting revised documentation for the project on or about February 14th.

This correspondence specifically addresses staff's suggestion that square footage of lots in the southwest portion of the site be increased to more closely mirror adjacent lots in the Prestwicke Subdivision. We've evaluated that possibility and believe that it would negatively affect the community for the following reasons:

1. The proposed plan for Trails at Woods Creek is consistent with the Village's "Conservation Design Standards." The Village encourages conservation design through its Planned Development Ordinance. As Village staff is aware, conservation design prioritizes common open space over private yard area, necessarily resulting in smaller private lots. This type of design was used successfully at Manchester Lakes, which is an award-winning subdivision that Pulte is looking to mirror with Trails of Woods Creek. Where Manchester Lakes included two different series of homes, Pulte proposes three different series of homes at Trails of Woods Creek. All the lots are clustered toward the center of the site and 96% back up to preserved open space. The largest of the proposed lots, which comprise the Estate Series, are strategically located along the south and west portion of the property near the Prestwicke Subdivision. While the lots in the Estate Series are smaller than the lots in Prestwicke, all but 6 of the Estate Series homes will back up to open space, making the lots feel larger than they are. The square footage of the Estate Series homes sizes will average about 10% larger than homes in Prestwicke and 20% larger than homes in Manchester Lakes. Pulte does not believe that the proposed location of size of the Estate Series lots will negatively impact existing homes in the Prestwicke Subdivision.

2. Relative zoning and lot sizes for Estate Series homes. While the underlying zoning of the Terrace Hill Golf Course and Terrace Hill Subdivision is R1-E, Prestwicke and Manchester Lakes subdivisions are respectively zoned R-1A and R-1/R-3. The minimum single-family lot in Prestwick is 14,000 square feet. Manchester Lakes includes both single-family and duplex lots, with minimum lot sizes of 8,400 square feet and 5,500 square feet respectively. The proposed Estate Series lots in the Trails of Woods Creek range from 9,230 to 14,532 square feet. Accordingly, the Estate Series lots will fill a range between the standards established for Manchester Lakes and Prestwicke. The proposed Estate Series lots will be additive to the community, providing diverse housing stock that is consistent with the character of the area and is targeted to the needs and desires of prospective purchasers.

3. Estate Series Homes will push values. Over the last twenty-four months, the average sales price of single-family homes in Manchester Lakes and Prestwicke were respectively $328,000 and $340,000. On average, homes in Prestwicke sell for a higher gross value than homes in Manchester Lakes because the Prestwicke homes are generally larger. However, homes in Manchester Lakes sell for approximately $17 more per

square foot than homes in Prestwicke. Pulte believes that it can maximize value drivers from both Manchester Lakes and Prestwicke by building the largest homes in the area with exceptional amenities and open space adjacency. In Trails of Woods Creek, Pulte estimates that the Estate Series homes will transact at $13 per square foot more than Manchester Lakes or $30 per square foot more than Prestwicke. Because homes in the Estate Series will also be larger than the homes in Manchester Lakes and Prestwicke, Pulte anticipates that the gross sales price of homes in the Estate Series will average approximately $100,000 more than homes in Manchester Lakes and Prestwicke. We believe that values in Manchester Lakes and Prestwicke will be positively influenced as Pulte drives top-end home prices higher with new construction in the Estate Series.

4. No direct correlation between value and lot size. The smallest single-family lots in Manchester Lakes are about 60% the size of the smallest single-family lots in Prestwicke. The average home in Manchester Lakes is about 90% the size of the average home in Prestwicke. At the same time, the average sales price in Manchester Lakes is 96% of that in Prestwicke. These numbers evidence that buyers in today's market are not paying value for the larger lot sizes that are prevalent in Prestwicke. Instead, buyers are assigning greater value to amenities and open space that is prevalent in Manchester Lakes. Pulte seeks to build upon these buyer preferences by maximizing open space and home sizes at Trails of Woods Creek.

5. Open Space creates value. Core to the amenities at Trails of Woods Creek is the protected open space located around the perimeter and through the core of the subdivision. This protected open space will provide buffers between homes, create view corridors and provide connections to the existing public spaces to the east along Woods Creek. Within Trails of Woods Creek, 96% of the homes will back up to some form of open space. Externally, Pulte is dedicating new, permanently restricted open space adjacent to all existing homes. Accordingly, the design of Trails of Woods Creek will create value not only for the homes within Trails of Woods Creek, but also for existing Algonquin residents who buffer the protected open space.

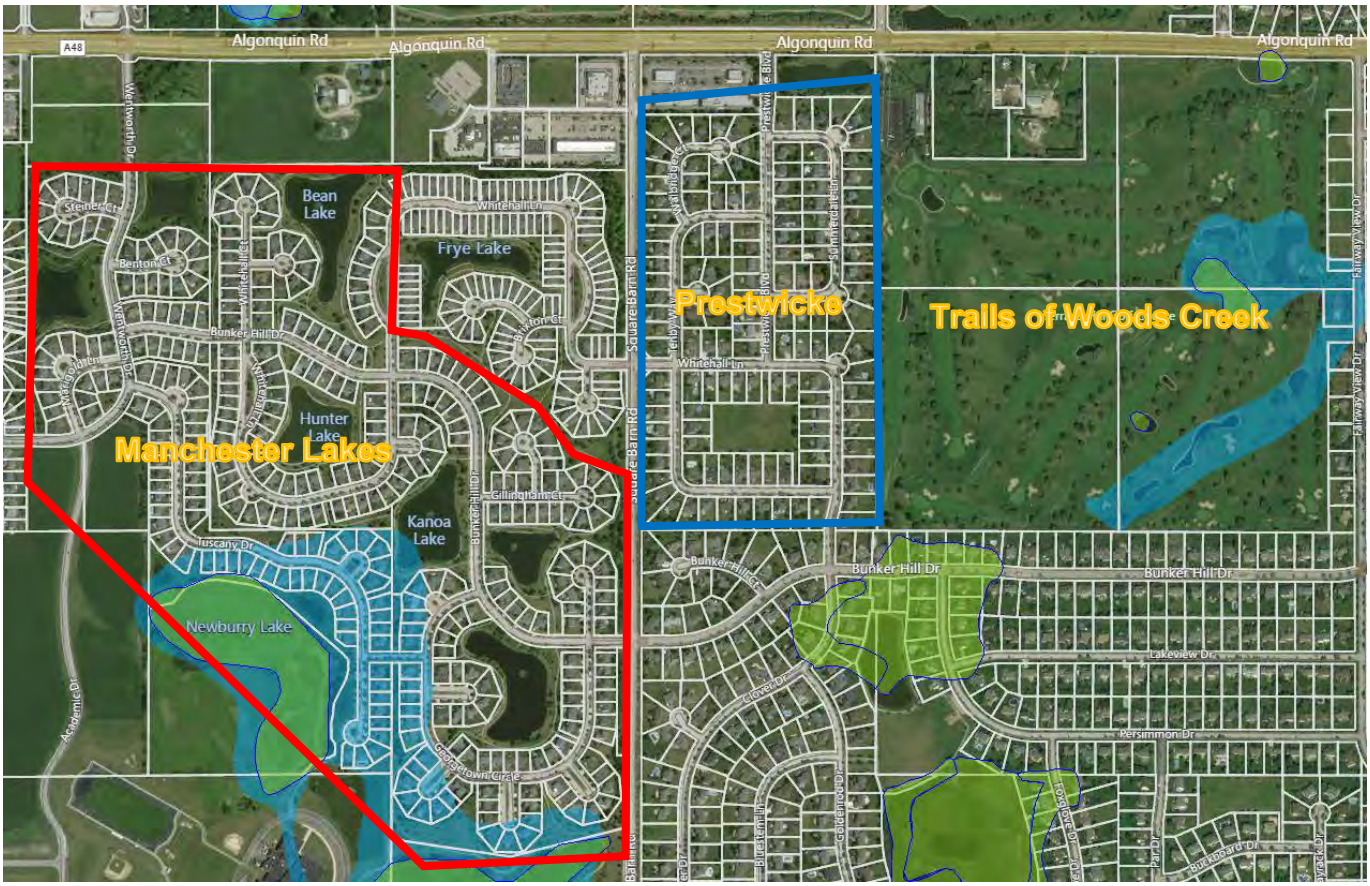
6. Current Market Premiums for Open Space. Pulte is currently selling homes in Wagner Farms Subdivision located in Naperville, Illinois. Both the Spring Series and Estate Series Homes are offered at Wagner Farms. While the layout of Wagner Farms is more of a traditional design, the lot premiums shown in the attached exhibit further support the value today's buyer is placing on open space. Pulte is charging $5,000.00 lot premiums for Estate Series Lots that back directly to existing homes on 20,000 square foot lots. However, Pulte is charging $28,000 to $30,000 lot premiums for Estate Series lots that back to a minimum 80' naturalized buffer area. We believe that buyers in Algonquin will view open space adjacency in the same manner, paying premiums for new or existing homes that back to even relatively small areas of protected open space.

While we understand and respect Village staff's suggestion to increase the square footage of lots in the southwest portion of the proposed Trails of Woods Creek, Pulte believe that the change would be counterproductive. Trails of Woods Creek utilizes a Conservation Design that builds upon the success of Manchester Lakes. The recent sales numbers from Manchester Lakes and Prestwicke support the conservation design strategy to prioritize open space over larger private lots.

Sincerely,

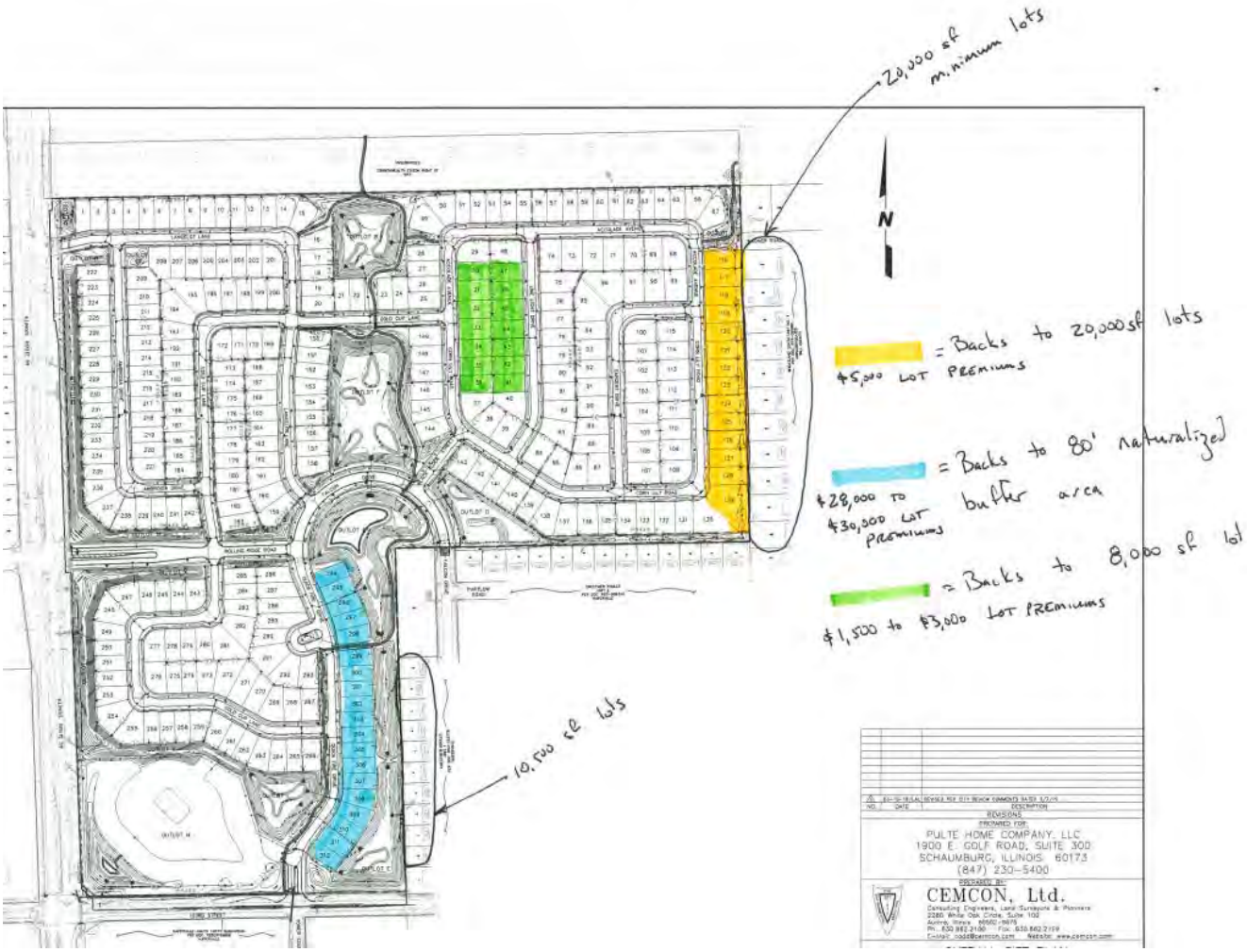
Matt Brolley, P.E.
Manager, Land Planning and Entitlement
Pulte Homes – Illinois Division
Telephone: (630) 777-2973
Email: matt.brolley@pulte.com

Attachments



	Manchester Lakes	Prestwicke	Trails of Woods Creek (Estates Series)
# of Homes in Community	353	137	46
Average Sale Price L24M [1]	$328,000	$340,000	$448,000[4]
Average Home Size [1][2]	2,547 sf	2,855 sf	3,123 sf
Average Price per SF	$131/sf	$114/sf	$143/sf
Minimum Lot Size (Overall SF)	8,100 sf	14,000 sf [3]	9,750 sf
Typical Lot Width	66’	88’	75’
Typical Lot Depth	120’	160’	130’

(1) MLS Data for last 24 months of closings.
(2) Average home size excludes finished basements, where applicable
(3) Lot size of the lots backing to the golf course is 18,000
(4) Anticipated


20,000 sf minimum lots
N
= Backs to 20,000sf lots
$5,000 LOT PREMIUMS
= Backs to 80' naturalized buffer area
$28,000 TO $30,000 LOT PREMIUMS
= Backs to 8,000 sf lot
$1,500 to $3,000 LOT PREMIUMS
10,500 sf lots
REVISIONS
PREPARED FOR:
PULTE HOME COMPANY, LLC
1900 E. GOLF ROAD, SUITE 300
SCHAUMBURG, ILLINOIS 60173
(847) 230-5400
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60502-9675
Ph. 630.862.2100 Fax. 630.862.2199

STATE OF ILLINOIS)
)
COUNTY OF MCHENRY)
)
VILLAGE OF ALGONQUIN)

PETITION TO THE VILLAGE OF ANGONQUIN FOR DEVELOPMENT APPROVAL

THE UNDERSIGNED Petitioner, Pulte Home Company, LLC, a Michigan limited liability company (hereinafter the "Petitioner"), as the contract purchaser of the property legally described on **Exhibit A** (hereinafter the "Property"), respectfully petitions the Village of Algonquin to: (i) approve a special use for a planned development for the Property with exceptions as depicted on the Development Plans; (ii) rezone an approximately 2.76 acre portion of the Property to B-2 PUD with a special use to construct an automobile service station; and (iii) to approve such other relief from the Algonquin Municipal Code ("Code") as may be deemed necessary and appropriate to develop the Property consistent with the Development Plans.

BACKGROUND INFORMATION

1. Home State Bank, N.A., as Trustee under Trust Number 5378 is vested in title to the Property (hereinafter referred to as the "Owner").

2. The Petitioner, Pulte Home Company, LLC is a Michigan limited liability company having an office at 1900 E. Golf Road, Suite 300, Schaumburg, Illinois 60173.

3. Petitioner is contract purchaser of the Property.

4. The Property contains approximately 138.44 acres and has a common address of 4015 W. Algonquin Road, Algonquin, IL 60102.

5. The Property currently functions as a private golf course commonly known as the Terrace Hill Golf Course, which has been marketed "for sale" for more than a decade.

6. The Property is governed by the Village of Algonquin Municipal Code and is zoned R-1E.

7. Petitioner proposes to redevelop the Property as depicted on the "Development Plans," which Development Plans consist of the following:

a. Preliminary Site Plan;

b. Preliminary Gas Station Site Plan;

c. Preliminary Plat of Subdivision;

d. Preliminary Engineering Plan;

e. Preliminary Stormwater Report

f. Preliminary Landscape Plan;

g. Tree Survey and Tree Preservation Plan;

h. Product Matrix and Building Elevation Renderings; and

i. Proposed Signage Plan.

8. As depicted on the Development Plans, portions of the Property will be utilized for commercial, single-family residential and public/private open-space.

9. The proposed commercial portion of the Property consists of approximately 2.76 acres which Petitioner proposes to develop as an automobile service station.

10. The proposed residential portion of the Property consists of 267 single-family residential lots to be known as Trails of Woods Creek.

11. As proposed, Trails of Woods Creek consists of three different series of homes: The Springs, The Estates and The Shores.

12. The Springs consists of 96 single family lots with homes ranging from approximately 2,400 square feet to approximately 3,200 square feet. The Springs is popular through the Chicago area, allowing first time buyers or buyers desirous of a more manageable sized home, the opportunity to purchase a new home in well-regarded suburbs with exceptional

schools.

13. The Estates consists of 47 single family lots with homes ranging from approximately 2,900 square feet to 3,900 square feet. The Estates will serve move-up buyers seeking a larger home with a modern floor plan which offers a variety of options such as a sunroom, a 2-story great rooms, a three-car garage and a first-floor master suite.

14. The Shores consists of 124 single family lots with homes ranging from approximately 1,700 square feet to 2,900 square feet. The Shores will serve empty nesters who are looking to down-size within a low-maintenance community. All of the homes in The Estates will be ranches with first-floor master suites with options for second-story living and/or storage spaces. This neighborhood will live as a private enclave within the broader master community, highlighted by two dedicated entrances that will be demarcated by neighborhood specific monuments.

15. In providing three unique housing choices, Petitioner broadens the market of potential buyers and helps to diversify the Village's housing stock.

16. The proposed open space consists of almost 63 acres, or approximately 45% of the total land area of the Property, with portions to be owned/maintained by the Village and other portions to be owned/maintained by the private homeowners' association that will be created to govern the residential development.

17. The existing land uses surrounding the Property are as follows:

a. North: Single Family Residential & Boulder Ridge Country Club/ Zoned R-2C PUD in Lake in the Hills, Illinois

b. South: Single-Family residential zoned R-1E, Algonquin, Illinois

c. East: Single-Family residential zoned R-1A, and R-1E PUD, Algonquin, Illinois

d. West: Single-Family residential zoned R-1A, Algonquin, Illinois

18. The proposed special use for a planned unit development meets the standards as set forth in the Code as follows:

APPROVAL OF A SPECIAL USE FOR A PLANNED DEVELOPMENT

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

Terrace Hill Golf Course was developed by the Zange family, long-time residents of the Village, in 1984 and opened as a private membership-based course in 1985. At the time, Terrace Hill Golf Course was one of the first developments to occur west of Randall Road. As the course matured and golf was booming through the 1980's and 1990's, Terrace Hill thrived with nearly 30,000 rounds played annually and a nearly 5-year waiting list for membership. At the same time, golf course construction was exploding and nationally more 4,000 new courses were opened during a period of just twenty years. The Algonquin area was emblematic of that boom, with seven courses ultimately being developed within an approximately 4-mile radius of Terrace Hill. Boulder Ridge Country Club is immediately north and adjacent to Terrace Hill. Pinecrest Country Club is just 3 miles west of the Property off of Algonquin Road. Golf Club of Illinois is located 4 miles southeast of Terrace Hill off Hanson Road. RedTail Golf Club is located 3 miles north of the Property, which is also in close proximity to Turnberry Golf Club and Crystal Lake Golf Club.

Since the economic downturn of 2008, there has been a significant decline in golf as a sport nationwide. Golf course closures have outweighed new openings nationwide since 2006. In 2019 there were 12.5 new 18-hole equivalent courses opened and 198.5

closures. This is consistent with reports from the National Golf Foundation, which found that the Country is oversupplied with golf courses. With 7 courses located within approximately 4 miles of Terrace Hill, this submarket appears to be one of those which is over-supplied. At Terrace Hill this translates to the business simply not being a viable ongoing concern. Paid memberships have declined by over 40% from historic peaks. Rounds played in 2019 were down to approximately 11,000, representing a decline of more than 60% from historic operations. The use of the Property as a golf course is no longer economically viable and is not necessary to provide a service that contributes to the general welfare given the supply of golf courses in the general vicinity of the Property.

The proposed residential use of the Property is consistent with both the existing residential zoning designation of the Property and the single-family subdivisions that surround the Property. The Property is currently zoned R-1E. The parcels to the east, south and west of the Property are all developed as single-family residential subdivisions. Based on the operational issues with the golf course, the existing zoning of the Property and the surrounding residential uses, Petitioner believes that the proposed residential development of the Property is the highest and best use of the Property. Petitioner could, as a legal matter of right, develop the Property as a residential subdivision strictly in accordance with the R-1E zoning and the applicable subdivision standards; however, Petitioner believes that the proposed Development Plans for the Trails of Woods Creek more closely follow the intent of the Village's Conservation Design Standards and will provide broader community benefits as more specifically detailed herein.

The Development Plans for the Trails of Woods Creek were designed to maximize open space and ecological resources while providing new and diverse housing

stock for the growth of the Village. Approximately 45% of the total Property is designated for open space. A significant percentage of that open space has been allocated to landscape buffers around the perimeter of the Property. These landscape buffers mean that no existing residence that abuts the golf course will have a new residence located immediately adjacent to their property. At a minimum, a 75 foot landscape buffer is provided between adjacent residences. The open space will also provide substantial benefits to future residents of the Trails of Woods Creek. In fact, 95% of the proposed lots will back to some form of open space. Thus, while some of the private yards in the Trails of Woods Creek may be smaller than the yards in surrounding subdivisions, residents of the subdivision will have the unique views and access substantial common areas which are unique to the area. This design is consistent with the purpose and intent of the Conservation Design Standards and will provide a unique benefit to home buyers who increasingly prioritize common open space, naturalized areas and active amenities over having larger private yards.

b. *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 injurious to the property values or improvements in the vicinity;*

The proposed planned unit development will not be detrimental to the health, safety, morals or general welfare of the surrounding residents nor will it be injurious to the property values in the vicinity of the Property. While the Property is currently utilized as a golf course, it provides no publicly accessible or beneficial open space. The golf course is private and open exclusively to paid members. Moreover, as outlined above, the number of members utilizing the private facilities has declined dramatically in recent years. The course itself is not a natural condition but is a developed property that

provides little ecological benefit to the surrounding area. The existing ponds were designed as aesthetic features and as an irrigation resource, not for the purpose of meeting modern stormwater requirements. The extensive turf and specialized grasses require substantial chemical fertilization and large amounts of artificial watering. Existing trees do not provide native woodland habitats but were planted exclusively for the purpose of operating a golf course.

The Development Plans were formulated around the express purpose of creating new publicly usable open spaces and providing tangible ecological improvements. This type of design is consistent with the Village's Conservation Design Standards and Procedures, which encourages practices such as clustered housing and native landscapes. In total, 62.3 acres or approximately 45% of the Property will be dedicated to common open spaces. Of that common open space, Approximately 10.23 acres located in the southeast portion of the Property, will be reserved as a park site to be dedicated to the Village. The Village will ultimately be responsible for improvement of the park site based on the needs and wants of the community. The balance of the open space will consist of landscape buffers, stormwater detention ponds, native landscaped areas and a new trail system.

Generous landscape buffers are located around the entire perimeter of the Property and provide a transitional yard between existing residences or adjacent roadways and the new residences. Petitioner recognizes that adjacent homeowners enjoyed views of the golf course. While those views cannot be replicated, the plan for Trails of Woods Creek avoids any new lot backing directly to an existing home. The landscape buffers provide a minimum 75' of separation between new and existing

residences and the landscape buffers will be improved with a combination of deciduous trees, evergreen trees, ornamental trees and shrubs. The resulting condition will maintain premium open space adjacency for existing homeowners who previously enjoyed golf course views. While preservation of golf course views is not presently guaranteed, the creation of landscape easements as part of the Development Plans can preserve the proposed landscape buffers in perpetuity.

Stormwater detention facilities will be incorporated throughout the development and will provide a modern stormwater system to accommodate both stormwater runoff associated with the residential development and to provide additional storage in response to deficiencies previously identified by the Village. More specifically, total required detention for the residential development is 63.70 acre-feet of storage. However, Petitioner proposes to provide 105.27 acre-feet of storage, which is over 165% of the legal requirement for the residential development. With these improvements, Petitioner will be reducing the collective stormwater discharge rate from the Property by nearly 1/3rd, from 67.86 cubic-feet-per-second to 46.24 cubic-feet-per-second. The excess stormwater volume and the reduction to peak stormwater discharge rates, coupled with new storm sewer infrastructure designed to improve drainage in the southwest portion of the course, will provide direct and tangible community benefits.

The stormwater facilities will not only improve handling of stormwater, but will provide other tangible benefits as well. The areas within and around the stormwater facilities will planted with native grasses and flowers. These plantings will promote infiltration, will filter the runoff and will re-establish native habitats. The new naturalized area of the Property will provide direct and tangible community benefits.

A trail system will be incorporated throughout open space areas around the detention basins and provide pedestrian connections north-south and east-west throughout the Property and linking to adjacent subdivisions. In total, approximately 1.4 miles of new trails will be developed on the Property. These trails are in addition to sidewalks that will be provided along all of the new public streets. The trail system will provide an amenity that activates? and makes the common areas usable by not only residents of the proposed subdivision, but also residents of the surrounding subdivisions, providing direct and tangible community benefits.

c. *That the proposed use will comply with the regulations and conditions specified in this Chapter for such use and with the stipulations and conditions made a part of the authorization granted by the Village Board.*

The use will comply with the regulations governing a Planned Development as described below.

APPROVAL OF A PLANNED DEVELOPMENT

19. The proposed Planned Development meets the standards as set forth in the Code as follows:

1. *The number of dwelling units erected shall not exceed the number permitted by the regulations of the district in which it is located, except in cluster developments where a density bonus may be granted as part of the planned development.*

The number of dwelling units do not exceed the number permitted by the regulations of the R-1E zoning district. The R-1E zoning district requires a minimum lot area of 18,000 square feet, which equates to 2.42 dwelling units per acre. The total residential acreage of the Property is 135.68 acres. The Par Acreage, as defined in Section 21.11(J)(4), is 129.32 acres (135.68 – (14.133 x 0.5) x 0.9). Accordingly, the allowable density of 2.42 dwelling unit per acre multiplied by the Par Acreage of 129.32 produces an

allowable unit count of 313.

Petitioner's Development Plans meet the standards for an additional density bonus as set forth in Section 21.11(J)(5). Specifically, the Development Plans meet the following standards: (i) incorporating internal trails and open spaces throughout the development; (ii) floodplain to be donated to the Village and preserved in perpetuity; (iii) Petitioner's plan will be providing more floodplain storage than currently exists on the Property; (iv) the development proposes a mix of housing types and price ranges; and (v) all structures will be built to Energy Star Certification standards. The maximum allowable density bonus is 0.5 units per acre. As applied to the Trails of Woods Creek, an additional 64 bonus dwelling units should be permitted based on the Par Acreage.

With the allowable density bonus a total of 377 dwelling units are permitted pursuant to the Village Code. The Development Plans for the Trails of Woods Creek propose 267 units for the Property, which equates to approximately 70% of the allowable density permitted under the Code. Accordingly, the number of dwelling units proposed to be constructed does not exceed the number permitted under the Code.

2. *If a building is permitted to exceed the height limit of the district in which it is located, the yards and open spaces around such building shall be increased by an amount equal to the height that the building exceeds the height limit of the district measured in feet.*

The building heights will not exceed the height limit set forth in the R-1E zoning district.

3. *If more intensive uses are permitted than are allowed by the district regulations, there must be clear evidence that such uses are appropriate, provided the Planning and Zoning commission finds:*

   a. *That the use permitted by such exceptions is necessary or desirable and is*

appropriate with respect to the primary purpose of the development;

b. *That the uses permitted by such exception are not of such a nature or so located as to exercise a detrimental influence on the development nor on the surrounding neighborhood;*

c. *That, in an industrial development, such additional uses allowed by exception shall conform to the performance standards of the district in which the development is located as set forth in Section 21.4 herein;*

d. *That the use exceptions allowed are on file in the Community Development Department.*

All exceptions to the applicable standards of the Code are depicted on the Development Plans. Petitioner respectfully requests that the Development Plans be incorporated into the requested approvals and that the exceptions as depicted on the Development Plans are thereby approved. The exceptions are necessary, desirable and appropriate to create the unique open space subdivision design and to provide product diversity within the proposed subdivision. By way of example, the Trails of Woods Creek does not comply with the minimum lot area as dictated by the R-1E standards, but at the same time, Petitioner seeks only 70% of the allowable density while far exceeding open space requirements and providing surplus stormwater detention capacity. As such, the exceptions facilitate a more creative design to the overall subdivision consistent with the Conservation Design Standards and will not be detrimental to the surrounding neighborhood.

4. *The amount of off-street parking must be adequate to serve the needs of the projects. The Planning and Zoning Commission and Village Board may require more or less off-street parking, than is otherwise required by this Chapter if it is determined the use(s) warrants the deviation.*

The amount of off-street parking is adequate to serve the needs of the Planned Development. All of the proposed homes will provide a minimum 2-car attached garage. Some of the homes will offer an option for a 3rd car garage. All of the driveways in the

subdivision will accommodate two parked vehicles without blocking the sidewalk. All of the internal subdivision streets are a minimum of thirty-one feet back-of-curb to back-of-curb, which is sufficient to accommodate on-street parking. More than sufficient parking is accommodated pursuant to the Development Plans.

5. *If any open space or recreational facility is to be used solely by the residents of the project, adequate provisions shall be made for assessments against the property within the project so that such facilities can be properly improved, maintained, and operated.*

A Declaration of Covenants, Conditions and Restrictions (the "Declaration") will encumber all of the residential lots in the Trails of Woods Creek. The Declaration will establish restrictions on the ownership, use and operation of the residential portion of the Property. A homeowners' association (the "Association") will be formed, under the terms of the Declaration, to enforce the terms of the Declaration and to own, operate and maintain that portion of the Common Areas not conveyed to the Village. The Association will be funded through dues paid by each homeowner that is a member of the Association.

6. *All residential planned developments that involve annexation shall include clearly identifiable community-wide benefit improvements to the Village. Benefits may include the following, but shall not be limited to those listed: expansion of Village infrastructure that can serve other parts of the community; creation of a community park; dedication of right-of-way or construction of a collector road; and component of a larger mixed-use development that includes commercial uses. The larger the residential unit count, the larger the community-wide benefit improvements.*

The proposed development does not require annexation of the Property. The Property was annexed to the Village of Algonquin in 1988 pursuant to Ordinance No. 87-0-52 and recorded as document number 88R-001736 in McHenry County.

7. *All commercial planned developments that include lots fronting on any major*

collector or arterial roadway shall provide landscaped open space between each building and parking lot. Said landscaped area shall include combinations of trees, shrubs, and seasonal plantings that shall be planted on top of earthen berms. The appropriate land area, height of the berm, and exact plant material specifications shall be reviewed and approved by the Village Board as part of the final planned development review process.

Petitioner proposes a residential planned development for the Property; however, a single 2.76 acre lot at the northwest corner of the Property (Lot 268) is designated for commercial use. This portion of the Property has historically been used for commercial purposes and is presently improved with a clubhouse building, two storage or maintenance type buildings, an above ground storage tank and a large commercial parking lot. Petitioner proposes that Lot 268 is zoned B-2 and a special use is approved to permit use of said lot as an automobile service station. The redevelopment of Lot 268 for commercial use would be consistent with currently development standards and would include appropriate landscaped open space between the proposed use and adjacent residents.

APPROVAL OF A SPECIAL USE FOR AN AUTOMOBILE SERVICE STATION AND REZONING A PORTION OF THE PROPERTY TO THE B-2 ZONING DISTRICT

20. The proposed automobile service station and rezoning meets the standards as set forth in the Code as follows:

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

Petitioner proposes that Lot 268 be rezoned from the R-1E zoning district to the B-2 zoning district with a special use for an automobile service station. The proposed use of Lot 268 will comply with the standards of the B-2 district except to the extent that any

exceptions to standards are depicted on the Development Plans.

Lot 268 is located along Algonquin Road at the lighted intersection with Frank Road. Algonquin Road is designated as a Strategic Regional Arterial by the McHenry County Division of Transportation, which has jurisdiction over the road. Algonquin Road carries roughly 25,000 vehicles a day. Frank Road is designated as a collector roadway by the Illinois Department of Transportation and is under the jurisdiction of the Village of Lake in the Hills. Frank Road carries approximately 6,400 vehicles a day.

The Development Plans contemplate the extension of Frank Road onto the Property as a primary means of ingress/egress for Lot 268 and the Trails of Woods Creek. The proposed commercial development of Lot 268 is desirable at this location and is in the interest of the public because the automobile service station will provide a necessary service to the substantial number of vehicles that are presently utilizing adjacent roadways. The proposed use is also desirable because it will generate new tax revenue for the Village of Algonquin.

b. 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 injurious to the property values or improvements in the vicinity;

The proposed use and rezoning will not be detrimental to the health, safety, morals, or general welfare of the persons in the vicinity of the Service Station Property. The portion of the Property for which Petitioner seeks the B-2 zoning (Lot 268) is already utilized for commercial purposes. This portion of the Property is presently improved with a clubhouse building, two storage or maintenance type buildings, an above ground storage tank and a large commercial parking lot. Accordingly, the historic use of this

portion of the Property is substantially more intensive than the historic use of other portions of the Property.

In redeveloping this portion of the Property Petitioner seeks to improve upon the existing conditions. The existing clubhouse building is located within fifty feet of adjacent residences and the outdoor dining area or beer garden is located even closer to the residences. The existing parking lot is located less than forty feet from adjacent residences. Maintenance buildings are located as close as ten feet from adjacent residences. An above ground storage tank is located within twenty feet of adjacent residences. In redevelopment of Lot 268 Petitioner seeks to increase setbacks, improve landscaping and eliminate any above ground storage tanks.

The proposed site plan for Lot 268 incorporates a landscape buffer yard along the western property line. The configuration of this landscape buffer yard, which is approximately forty feet wide, is dictated by the geometry associated with the intersection of Frank Road and Algonquin Road. Within this landscape buffer yard, which will be owned and maintained by the homeowner's association for the Trails of Woods Creek, is an existing line of substantial evergreen trees. The existing trees will provide a solid buffer between the adjacent residential and commercial uses. Additional overstory trees will also be incorporated to supplement the existing landscape buffer consistent with Code requirements.

The proposed service station buildings will substantially increase the setbacks to residential properties located to the west. The proposed service station building is located more than one hundred feet from the western property line and the car wash is located more than one hundred and fifty feet from the western property line. While the service

station buildings are closer to the eastern property line, this property is heavily wooded, and the proposed buildings still maintain a minimum fifty-foot setback which incorporates a twenty foot landscape buffer yard. The service station building has also been pushed substantially closer to Algonquin Road, which will help to minimize any impact to adjacent residences.

By constructing the proposed use in the B-2 zoning district, the Petitioner will enhance the overall essential character along Algonquin Road with a significant sales tax producing use, which enhances the larger community. Additionally, Petitioner will provide adequate landscaping along Algonquin Road, which will improve the appearance of the Service Station Property to ensure it is aesthetically pleasing.

c. *That the proposed use will comply with the regulations and conditions specified in this Chapter for such use and with the stipulations and conditions made a part of the authorization granted by the Village Board.*

Upon rezoning the Service Station Parcel to B-2, the proposed use will comply with the regulations and conditions set forth therein except as may be depicted on the Development Plans.

WHEREFORE, by reason of the foregoing, the undersigned Petitioner requests the Village of Algonquin take the necessary steps to: (i) approve a special use for a planned development for the Property with exceptions as depicted on the Development Plans; (ii) rezone an approximately 2.76 acre portion of the Property to B-2 PUD with a special use to construct an automobile service station; and (iii) to approve such other relief from the Algonquin Municipal Code ("Code") as may be deemed necessary and appropriate to develop the Property consistent with the Development Plans.

RESPECTFULLY SUBMITTED this 10th day of December, 2019.

PETITIONER:

PULTE HOME COMPANY, LLC, a Michigan
limited liability company

By: _____
Rosanova & Whitaker, Ltd.
Attorney for Petitioner

EXHBIT A

LEGAL DESCRIPTION

PARCEL 1:

LOT 215 IN TERRACE HILL SUBDIVISION UNIT NO. 7 BEING A SUBDIVISION OF PART OF THE NORTHEAST 1/4 AND NORTHWEST 1/4 OF SECTION 36 AND PART OF THE SOUTHEAST 1/4 OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING THE PLAT THEREOF RECORDED DECEMBER 24, 1997, AS DOCUMENT NUMBER 97R064030, IN MCHENRY COUNTY, ILLINOIS.

PARCEL 2:

THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN IN MCHENRY COUNTY, ILLINOIS EXCEPTING THEREFROM: THE NORTH 625.63 FEET OF THE EAST 825.00 FEET OF THE WEST 1134.73 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 25 AND ALSO EXCEPTING THEREFROM: BEGINNING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 25; THENCE WESTERLY ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 33.0 FEET; THENCE SOUTHERLY PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 347.79 FEET: THENCE WESTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED COURSE A DISTANCE OF 140.0 FEET: THENCE SOUTHERLY PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 870.00 FEET: THENCE EASTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED COURSE A DISTANCE OF 140.00 FEET: THENCE SOUTHERLY PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 100.00 FEET TO THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SOUTHEAST QUARTER; THENCE WESTERLY ALONG SAID SOUTH LINE A DISTANCE OF 165.00 FEET; THENCE SOUTHERLY PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 200.00 FEET: THENCE EASTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED COURSE A DISTANCE OF 165.00 FEET: THENCE SOUTHERLY PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 87.57 FEET: THENCE WESTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED COURSE A DISTANCE OF 140.01 FEET: THENCE SOUTHERLY PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 1029.00 FEET TO THE SOUTH LINE OF SAID SOUTHEAST QUARTER: THENCE EASTERLY ALONG SAID SOUTH LINE A DISTANCE OF 173.01 FEET TO THE EAST LINE OF SAID SOUTHEAST QUARTER; THENCE NORTHERLY ALONG SAID EAST LINE A DISTANCE OF 2635.58 FEET TO THE PLACE OF BEGINNING, MCHENRY COUNTY, ILLINOIS. AND ALSO EXCEPTING THEREFROM THAT PART OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 25 DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER OF SECTION 25, THENCE

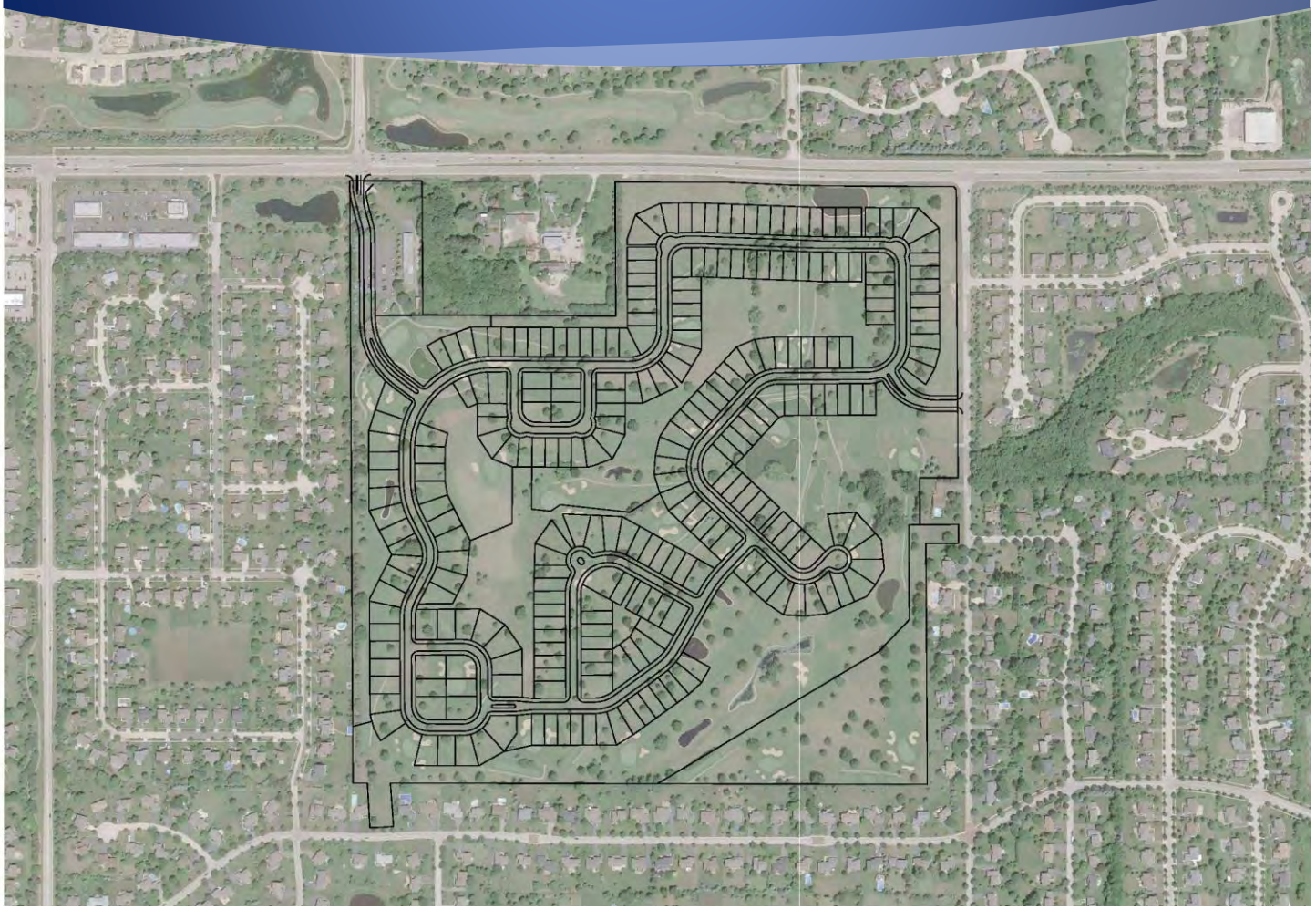
SOUTH 00 DEGREES 19 MINUTES 08 SECONDS EAST ALONG THE WEST LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 21.93 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF ALGONQUIN ROAD, SAID POINT ALSO BEING THE POINT OF BEGINNING; THENCE SOUTH 89 DEGREES 37 MINUTES 52 SECONDS EAST ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 309.16 FEET; THENCE SOUTH 00 DEGREES 19 MINUTES 08 SECONDS EAST, A DISTANCE OF 32.03 FEET; THENCE NORTH 89 DEGREES 27 MINUTES 52 SECONDS WEST ALONG A LINE 32.03 FEET SOUTH OF AND PARALLEL WITH SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 309.16 FEET TO THE WEST LINE OF SAID SOUTHEAST QUARTER OF SECTION 25; THENCE NORTH 00 DEGREES 19 MINUTES 08 SECONDS WEST ALONG SAID WEST LINE, A DISTANCE OF 32.03 FEET TO THE POINT OF BEGINNING, IN MCHENRY COUNTY, ILLINOIS AND ALSO EXCEPTING THEREFROM THAT PART OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 25 DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER OF SECTION 25, THENCE SOUTH 00 DEGREES 19 MINUTES 08 SECONDS EAST ALONG THE WEST LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 21.93 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF ALGONQUIN ROAD; THENCE SOUTH 89 DEGREES 37 MINUTES 52 SECONDS EAST ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 1134.21 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 89 DEGREES 37 MINUTES 52 SECONDS EAST ALONG SAID SOUTHERLY LINE, A DISTANCE OF 179.02 FEET; THENCE SOUTH 00 DEGREES 19 MINUTES 08 SECONDS EAST, A DISTANCE OF 32.03 FEET; THENCE NORTH 89 DEGREES 37 MINUTES 52 SECONDS WEST ALONG A LINE 32.03 FEET SOUTH OF AND PARALLEL WITH SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 179.02 FEET; THENCE NORTH 00 DEGREES 19 MINUTES 08 SECONDS WEST, A DISTANCE OF 32.03 FEET TO THE POINT OF BEGINNING, IN MCHENRY COUNTY, ILLINOIS AND ALSO EXCEPTING THEREFROM THAT PART OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 25 DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 25; THENCE NORTH 89 DEGREES 33 MINUTES 34 SECONDS WEST ALONG THE NORTH LINE OF SAIDSOUTHEAST QUARTER, A DISTANCE OF 32.56 FEET TO THE WESTERLY RIGHT OF WAY LINE OF FAIRWAY VIEW DRIVE EXTENDED NORTHERLY; THENCE SOUTH 00 DEGREES 27 MINUTES 46 SECONDS WEST ALONG SAID NORTHERLY EXTENSION, A DISTANCE OF 18.53 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF HUNTLEY ALGONQUIN ROAD AND THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 27 MINUTES 46 SECONDS WEST ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 61.00 FEET; THENCE NORTH 33 DEGREES I7 MINUTES 43 SECONDS WEST, A DISTANCE OF 17.99 FEET; THENCE NORTH 89 DEGREES 45 MINUTES 31 SECONDS EAST, A DISTANCE OF 389.69 FEET; THENCE WESTERLY ALONG A CURVE CONCAVE TO THE NORTH HAVING A RADIUS OF 9805.00 FEET AN ARC DISTANCE OF 499.20 FEET AND A CHORD BEARING OF NORTH 88 DEGREES 18 MINUTES 00 SECONDS WEST TO A POINT OF REVERSE CURVATURE; THENCE WESTERLY ALONG A CURVE CONCAVE TO THE SOUTH HAVING A RADIUS OF 9665 FEET AN ARC DISTANCE OF 69.55 FEET AND A CHORD BEARING OF NORTH 87 DEGREES 02 MINUTES 5I SECONDS WEST; THENCE NORTH 89 DEGREES 37 MINUTES 52 SECONDS WEST

ALONG A LINE 32.03 FEET SOUTH OF AND PARALLEL WITH THE SOUTHERLY RIGHT OF WAY LINE OF ALGONQUIN ROAD, A DISTANCE OF 312.13 FEET; THENCE NORTH 00 DEGREES 19 MINUTES 08 SECONDS WEST, A DISTANCE OF 32.03 FEET TO SAID SOUTHERLY RIGHT OF WAY LINE; THENCE SOUTH 89 DEGREES 37 MINUTES 52 SECONDS EAST, ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 1055.79 FEET; THENCE EASTERLY ALONG A CURVE CONCAVE TO THE NORTH HAVING A RADIUS OF 103166.78 FEET AN ARC DISTANCE OF 224.97 FEET AND A CHORD BEARING OF SOUTH 89 DEGREES 39 MINUTES 59 SECONDS EAST TO THE POINT OF BEGINNING, IN MCHENRY COUNTY, ILLINOIS

PARCEL 1:
LOTS 250, 251, 252, 253 AND 254 IN TERRACE HILL SUBDIVISION UNIT NO 7, BEING A SUBDIVISION OF PART OF THE NORTHEAST 1/4 AND NORTHWEST 1/4 OF SECTION 36 AND PART OF THE SOUTHEAST 1/4 OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN,
ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 24, 1997 AS DOCUMENT NUMBER
97R064030 AND CERTIFICATE OF CORRECTION RECORDED JANUARY 15, 1998 AS DOCUMENT NUMBER 98R002718, IN MCHENRY COUNTY, ILLINOIS.

PARCEL 2:
THAT PART OF THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 25: THENCE WESTERLY ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 33.0 FEET; THENCE SOUTHERLY PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER, A DISTANCE OF 347.79 FEET TO THE POINT OF BEGINNING; THENCE WESTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED COURSE A DISTANCE OF 140.0 FEET; THENCE SOUTHERLY PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 870.00 FEET: THENCE EASTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED COURSE A DISTANCE OF 140.00 FEET TO THE EAST LINE OF SAID SOUTHEAST QUARTER; THENCE NORTHERLY ALONG SAID EAST LINE TO THE PLACE OF BEGINNING, IN MCHENRY COUNTY, ILLINOIS. EXCEPTING THEREFROM, LOTS 250, 251, 252, 253 AND 254 IN TERRACE HILL SUBDIVISION UNIT NO. 7 NOTED AT PARCEL 1 ABOVE.

Traffic Impact Study
Trails of Woods Creek Residential Development
Algonquin, Illinois



Prepared For:

PulteGroup

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

February 12, 2020

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for Trails of Woods Creek, a proposed residential development to be located in Algonquin, Illinois. The site, which currently contains the Terrace Hill Golf Course, is located in the southwest quadrant of the intersection of Algonquin Road with Fairway View Drive.

As proposed, the site will be primarily be redeveloped with a single-family subdivision providing 267 lots and an approximately ten-acre park. Additionally, an approximately three-acre parcel located in the northwest corner of the site will be redeveloped to provide a gas station with a convenience store and car wash. Access to the proposed residential development and gas station will be provided via the south leg of the signalized intersection of Algonquin Road with Frank Road, which currently serves the Terrace Hill Golf Course. Secondary residential access will also be provided via a full movement access roadway off Fairway View Drive approximately 500 feet south of Nottingham Drive.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate the traffic generated by the proposed development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

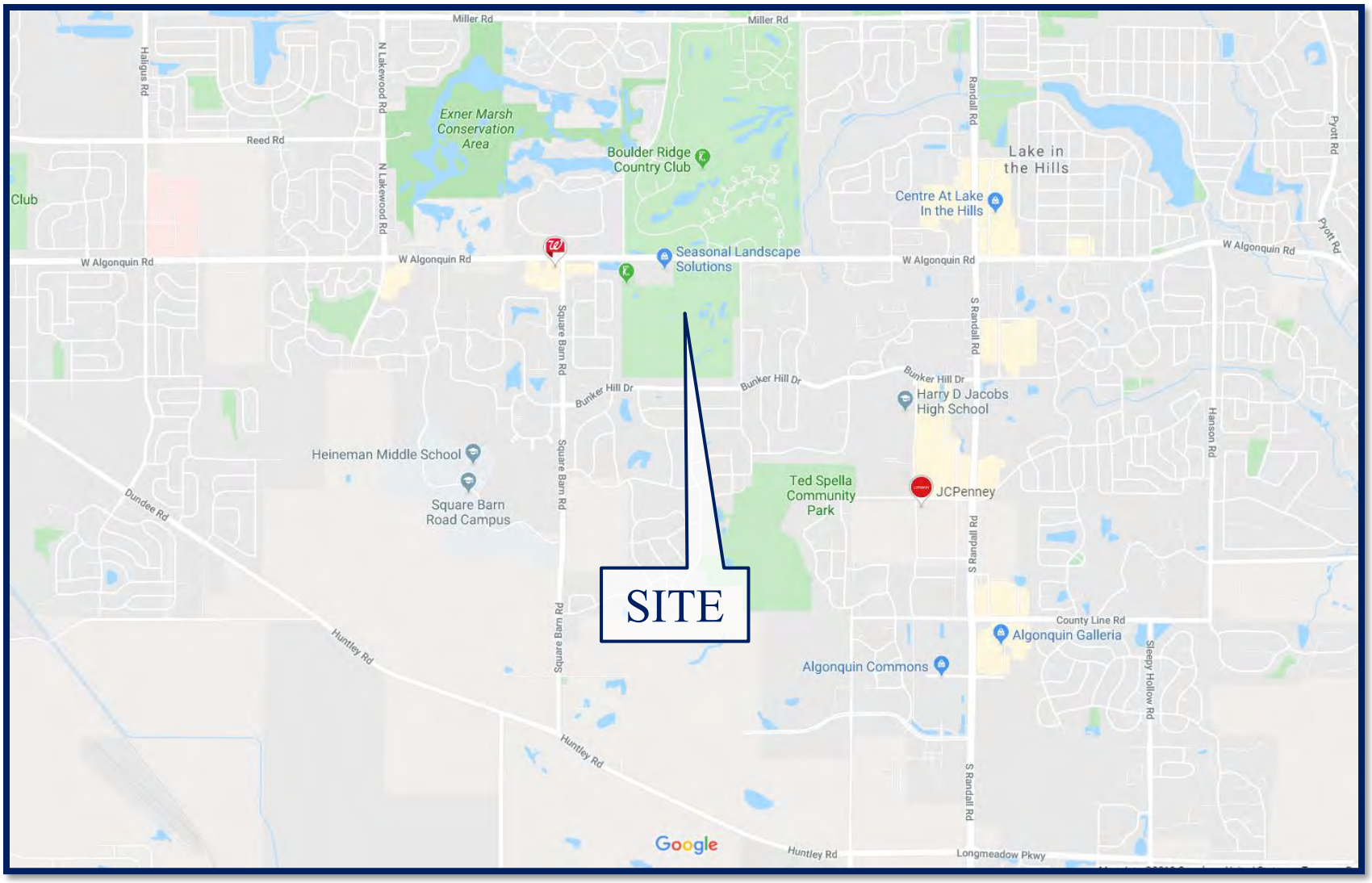
- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and weekday evening
- Recommendations with respect to adequacy of the site access and adjacent roadway system

Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

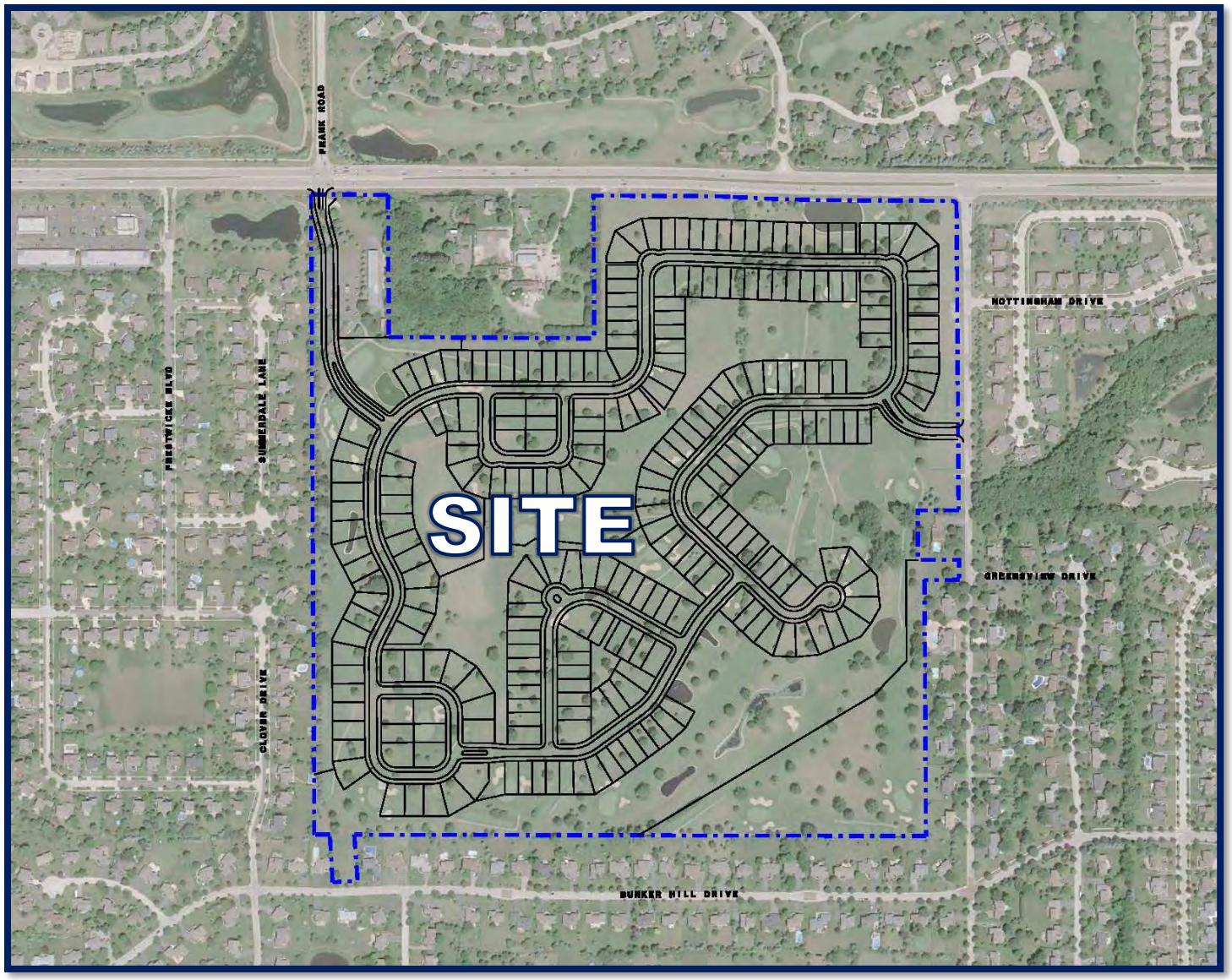
1. Existing Conditions – Analyze the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.

2. No-Build Conditions – Analyze the capacity of the existing roadway system using existing peak hour traffic volumes including ambient traffic growth and other area developments.

3. Projected Conditions – Analyze the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient traffic growth, other area developments, and the traffic estimated to be generated by the full buildout of the proposed development.



Site Location **Figure 1**



Aerial View of Site Location **Figure 2**

2. Existing Conditions

Existing traffic and roadway conditions were documented based on field visits and traffic counts conducted by KLOA, Inc. The following provides a detailed description of the physical characteristics of the roadways including geometry and traffic control, adjacent land uses, and peak hour traffic flows along area roadways.

Site Location

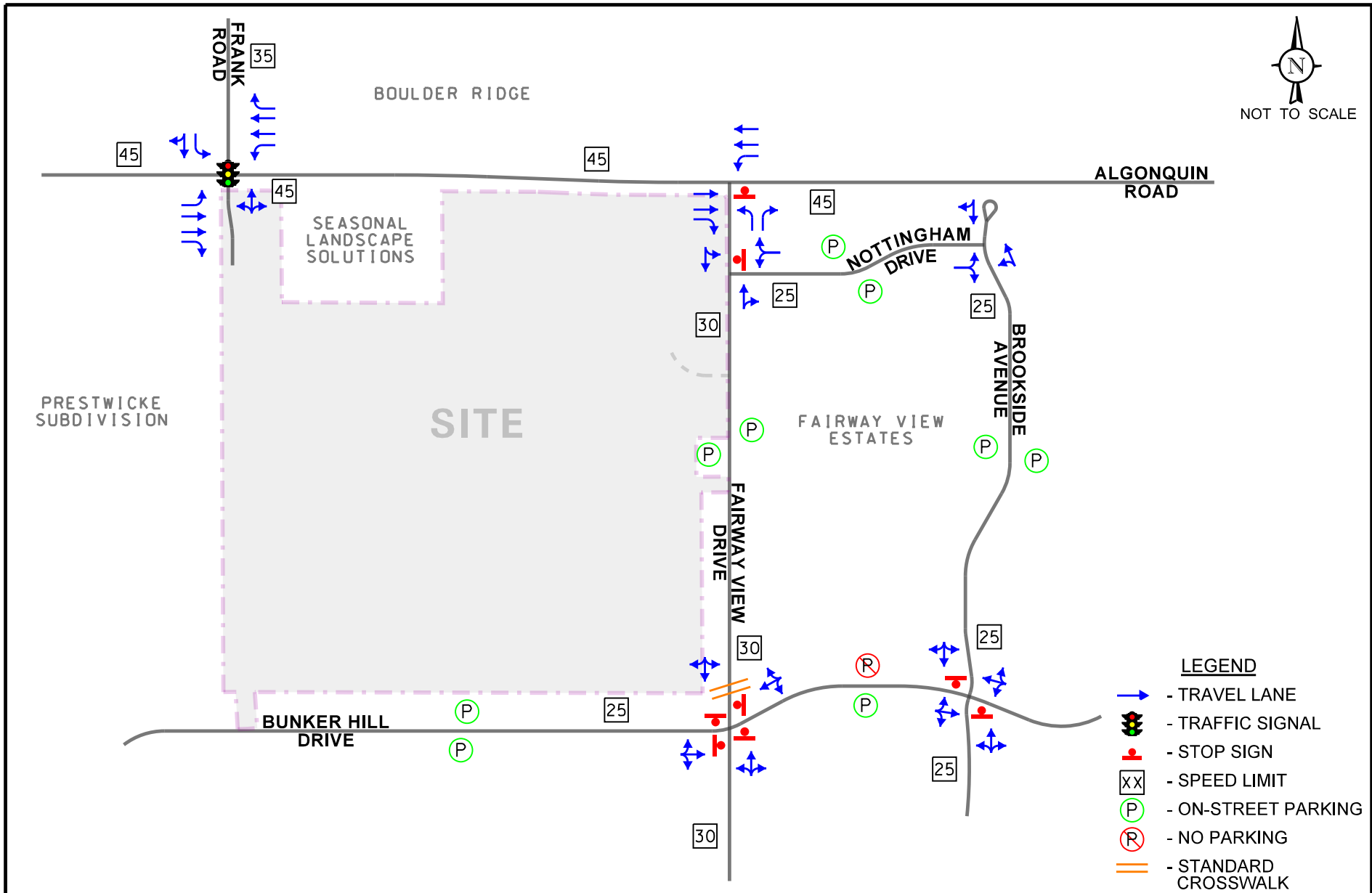
The site, which is currently occupied by the Terrace Hill Golf Course, is located in the southwest quadrant of the intersection of Algonquin Road with Fairway View Drive. Land uses in the vicinity of the site are primarily residential in all directions and include the Boulder Ridge country club to the north, Fairway View Estates to the east, and The Estates of Manchester Lakes, Prestwicke Subdivision, and Prestwicke Plaza to the west. Additionally, Harry D Jacobs High School is located approximately one mile to the east and Heineman Middle School and Mackeben Elementary School are located approximately one mile to the southwest.

Existing Roadway System Characteristics

The characteristics of the existing roadways that surround the proposed development are illustrated in **Figure 3** and described below.

Algonquin Road is an east-west roadway that provides two through lanes in each direction separated by a landscaped median and is classified as a primary arterial roadway in the Village of Algonquin Comprehensive Plan (March 2008). At its signalized intersection with Frank Road, Algonquin Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the eastbound and westbound approaches. At its unsignalized intersection with Fairway View Drive, Algonquin Road provides two through lanes and an exclusive right-turn lane on the eastbound approach and an exclusive left-turn lane and two through lanes on westbound approach. Algonquin Road is under the jurisdiction of the McHenry County Division of Transportation (McDOT), is classified as a Strategic Regional Arterial (SRA), carries an annual average daily traffic (AADT) volume of 24,900 vehicles west of Frank Road (IDOT 2017) and an AADT volume of 25,600 vehicles east of Frank Road (IDOT 2017), and has a posted speed limit of 45 miles per hour.

Frank Road is generally a north-south roadway that provides one through lane in each direction and is classified as a collector roadway by the Illinois Department of Transportation (IDOT). At its signalized intersection with Algonquin Road, Frank Road provides an exclusive left-turn lane and a shared through/right-turn lane on the southbound approach. The south leg of this intersection is the access driveway serving the Terrace hill Golf Course which provides a shared left-turn/through/right-turn lane. Frank Road is under the jurisdiction of the Village of Lake in the Hills, carries an AADT volume of 6,400 vehicles (IDOT 2017), and has a posted speed limit of 35 miles per hour.



Trails of Woods Creek
Algonquin, Illinois

Existing Roadway Characteristics

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Job No: 19-272

Figure: 3

Fairway View Drive is a north-south roadway that provides one through lane in each direction and is classified as a collector roadway in the Village of Algonquin Comprehensive Plan (March 2008). At its unsignalized intersection with Algonquin Road, Fairway View Drive provides an exclusive left-turn lane and an exclusive right-turn lane under stop-sign control. At its all-way stop sign controlled intersection with Bunker Hill Drive, Fairway View Drive provides a shared left/through/right-turn lane on the northbound and southbound approaches and the north leg of the intersection provides a standard style crosswalk. At its unsignalized intersection with Nottingham Drive, Fairway View Drive provides a shared through/right-turn lane on the northbound approach and a shared left-turn/through lane on the southbound approach. Fairway View Drive is under the jurisdiction of the Village of Algonquin, carries an AADT volume of 1,350 vehicles (IDOT 2018), and has a posted speed limit of 30 miles per hour.

Bunker Hill Drive is an east-west roadway that provides one through lane in each direction and is classified as a collector roadway in the Village of Algonquin Comprehensive Plan (March 2008). At its all-way stop sign controlled intersection with Fairway View Drive, Bunker Hill Drive provides a shared left-turn/through/right-turn lane on the eastbound and westbound approaches. At its unsignalized intersection with Brookside Avenue, Bunker Hill Drive provides a shared left-turn/through/right-turn lane on the eastbound and westbound approaches. Bunker Hill Drive is under the jurisdiction of the Village of Algonquin, carries an AADT volume of 3,100 vehicles (IDOT 2017), and has a posted speed limit of 25 miles per hour.

Nottingham Drive is an east-west local roadway that provides one through lane in each direction. At its unsignalized intersection with Fairway View Drive, Nottingham Drive provides a shared left/right-turn lane under stop-sign control. At its unsignalized intersection with Brookside Avenue, Nottingham Drive provides a shared left-turn/right-turn lane. Nottingham Drive is under the jurisdiction of the Village of Algonquin and has a posted speed limit of 25 miles per hour.

Brookside Avenue is a north-south local roadway that provides one through lane in each direction. At its unsignalized intersection with Bunker Hill Drive, Brookside Avenue provides a shared left/through/right-turn lane on the northbound and southbound approaches that are under stop-sign control. At its unsignalized intersection with Nottingham Drive, Brookside Avenue provides a shared left-turn/through lane on the northbound approach and a shared through/right-turn lane on the southbound approach. Brookside Avenue is under the jurisdiction of the Village of Algonquin and has a posted speed limit of 25 miles per hour.

Traffic Signal Interconnect

The intersection of Algonquin Road with Frank Road is part of a five-signal interconnect system that extends along Algonquin Road between Frank Road and Lakewood Road (approximately one mile to the west) and includes the intersection of Lakewood Road with Reed Road and Miller Road. These signals are maintained by McDOT.

Randall Road Improvements

It should be noted that the Randall Road corridor between Polaris Drive/Acorn Lane and Harnish Drive is being improved/widened to provide three to four lanes in each direction, as part of a joint (multi-jurisdictional) roadway improvement project to increase the roadway and intersection capacities along the corridor. The improvements to the Randall Road corridor include the following intersection improvements at Algonquin Road, which is located approximately one mile east of Fairway View Drive:

- Randall Road is being widened to provide four through lanes in each direction.
- Dual left-turn lanes and an exclusive right-turn lane will be provided in the northbound and southbound directions.
- Triple left-turn lanes and an exclusive right-turn lane will be provided in the eastbound and westbound directions.

These improvements are based on intersection design studies which take into consideration Year 2040 projected traffic volumes that include an approximately 45 percent increase in traffic traveling through the intersection. Furthermore, the project includes the intersection of Randall Road with Bunker Hill Drive, which is currently under construction to be modified and expanded to provide dual left-turn lanes and exclusive right-turn lanes on all approaches and Randall Road is being widened to provide three through lanes in each direction. The Randall Road corridor improvements are scheduled to be completed in June 2021.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period vehicle, pedestrian, and bicycle traffic counts utilizing Miovision Scout Video Collection Units in November/December 2019 during the weekday morning (6:00 A.M. to 9:00 A.M.) and weekday evening (2:00 P.M. to 6:00 P.M.) peak periods at the following intersections:

- Algonquin Road with Frank Road
- Algonquin Road with Fairway View Drive
- Fairway View Drive with Nottingham Drive
- Nottingham Drive with Brookside Avenue
- Bunker Hill Drive with Brookside Avenue
- Bunker Hill Drive with Fairway View Drive

The results of the traffic counts showed that the weekday morning peak hour of traffic occurs from 7:15 A.M. to 8:15 A.M. and the weekday evening peak hour of traffic occurs from 4:30 P.M. to 5:30 P.M. It should be noted that Bunker Hill Drive experiences a secondary afternoon peak hour from 3:00 P.M. to 4:00 P.M. due to the proximity of Harry D Jacobs High School, Heineman Middle School, and Mackeben Elementary School (which were all in session when the traffic counts were conducted). However, during the early afternoon peak hour, the traffic volumes on Bunker Hill Drive were approximately 12 percent less than during the weekday evening peak hour.

As previously indicated, at the time the traffic counts were conducted, Algonquin Road between Harvest Gate/Talaga Drive and Oakleaf Road and Randall Road between Polaris Drive/Acorn Lane and Harnish Drive were under construction as part of the Randall Road with Algonquin Road intersection improvements. As such, in order to account for any reduction in through traffic on Algonquin Road due to the ongoing construction, the traffic volumes along Algonquin Road were adjusted (increased) based on a review of the Intersection Design Study (IDS) prepared by McDOT as well as a previous traffic study conducted by KLOA, Inc. in the area.

Figure 4 illustrates the existing peak hour traffic volumes with the through volumes on Algonquin Road adjusted to reflect normal traffic conditions. Copies of the traffic count summary sheets are included in the Appendix.

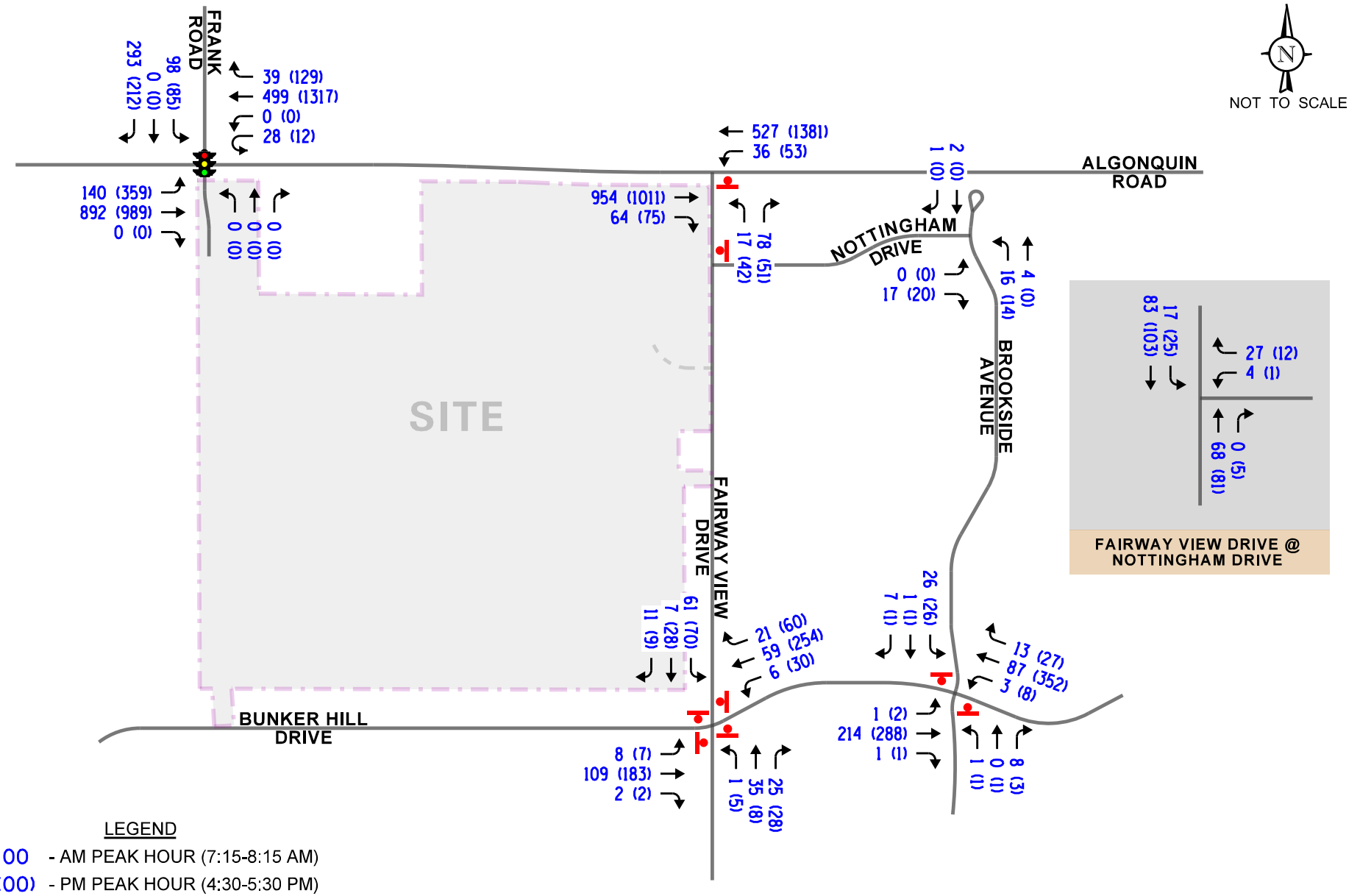
As can be seen in Figure 4, there is a high volume of eastbound left-turning and southbound right-turning movements at the intersection of Algonquin Road with Frank Road during the weekday morning and weekday evening peak hours. These traffic volumes may be the result of vehicles utilizing Frank Road to travel to/from Miller Road and its signalized intersection with Randall Road to bypass the ongoing construction at the intersection of Randall Road with Algonquin Road. However, in order to provide conservative analyses, these traffic volumes were not adjusted.

Crash Data Analysis

KLOA, Inc. obtained crash data[1] for the past five years (2013 to 2017) for the study area intersections. **Tables 1** and **2** summarize the crash data for the intersections of Algonquin Road with Frank Road and Algonquin Road with Fairway View Drive, respectively. A review of the crash data revealed the following:

- The intersection of Fairway View Drive with Bunker Hill Drive experienced one crash in 2014, 2015, 2016 and 2018 and zero crashes in 2017.
- The intersection of Brookside Avenue with Bunker Hill Drive experienced one crash in 2014, 2015, 2016, and 2017 and zero crashes in 2018
- The intersection of Fairway View Drive with Nottingham Drive experienced zero crashes between 2014 and 2018
- The intersection of Nottingham Drive with Brookside Avenue experienced zero crashes between 2014 and 2018
- No fatalities were reported at any of the study area intersections between 2014 and 2018.

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.



Trails of Woods Creek
Algonquin, Illinois

Existing Traffic Volumes

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Job No: 19-272

Figure: 4

Table 1
ALGONQUIN ROAD WITH FRANK ROAD – CRASH SUMMARY

	Type of Crash Frequency							
Year	**Angle**	**Head On**	**Object**	**Rear End**	**Sideswipe**	**Turning**	**Other**	**Total**
2014	0	0	0	5	1	2	0	8
2015	0	0	0	6	1	4	0	11
2016	0	0	0	3	0	2	0	5
2017	0	0	0	2	0	0	0	2
2018	0	0	0	0	1	3	0	4
Total	**0**	**0**	**0**	**16**	**3**	**11**	**0**	**30**
Average	**0**	**0**	**0**	**3.2**	**< 1**	**2.2**	**0**	**6.0**

Table 2
ALGONQUIN ROAD WITH FAIRWAY VIEW DRIVE – CRASH SUMMARY

	Type of Crash Frequency							
Year	**Angle**	**Head On**	**Object**	**Rear End**	**Sideswipe**	**Turning**	**Other**	**Total**
2014	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	1	0	1
2016	0	0	0	3	0	2	0	5
2017	0	0	1	0	0	1	0	2
2018	0	0	0	1	1	0	0	2
Total	**0**	**0**	**1**	**4**	**1**	**4**	**0**	**10**
Average	**0**	**0**	**< 1**	**< 1**	**< 1**	**< 1**	**0**	**2.0**

3. Traffic Characteristics of the Proposed Development

To evaluate the impact of the subject development on the area roadway system, it was necessary to quantify the number of vehicle trips the site will generate during the respective three peak hours and then determine the directions from which the development-generated traffic will approach and depart the site.

Proposed Site and Development Plan

As proposed, the site will be primarily redeveloped with a single-family residential subdivision containing approximately 267 lots and an approximately ten-acre park. The residential developed will be developed with three series of homes, approximately 96 "Springs", approximately 47 "Estates", and approximately 124 "Shores". It should be noted that the Shores series of homes will be a low maintenance ranch community that will have the characteristics of an age-restricted community. Furthermore, an approximately three-acre parcel located in the northwest corner of the site will be redeveloped to provide a gas station with a convenience store and car wash.

Access to the proposed residential lots and gas station will be provided via the south leg of the signalized intersection of Algonquin Road with Frank Road, which currently serves the Terrace Hill Golf Course. In order to accommodate the increase in traffic, the south leg will be widened to provide two outbound lanes that should be striped to provide an exclusive left-turn lane and a shared through/right-turn lane. Furthermore, the traffic signal will be modified to provide a northbound protected permissive left-turn phase.

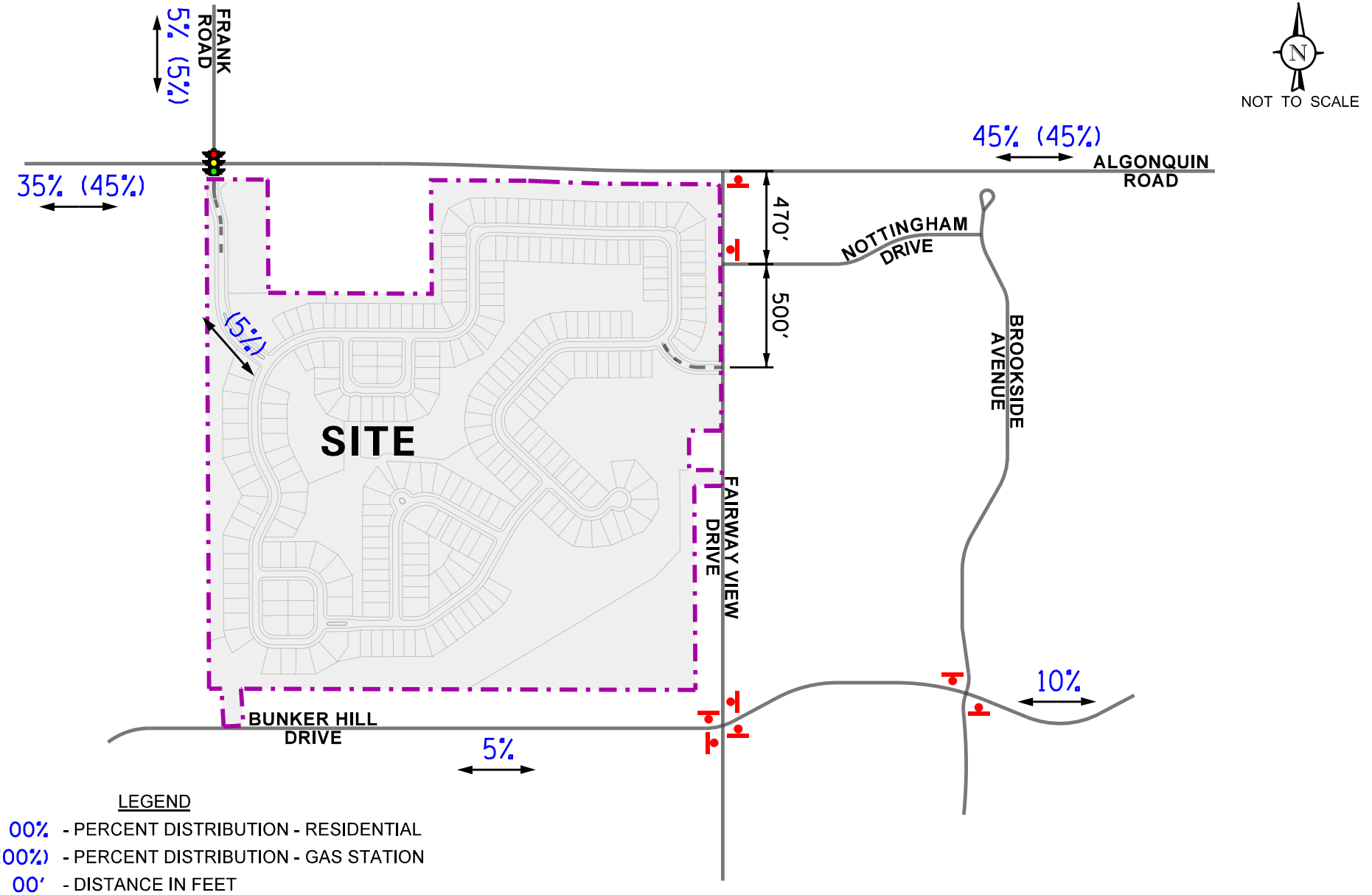
It should be noted that Algonquin Road at its intersection with Frank Road currently has an exclusive eastbound right-turn lane and an exclusive westbound left-turn lane that serve the access drive for Terrace Hill Golf Course. The right-turn lane provides approximately 240 feet of storage and 255 feet of taper and the left-turn lane provides approximately 240 feet of storage and 230 feet of taper, both of which will be adequate to accommodate the traffic that will be generated by the proposed development

Secondary residential access to the proposed development will also be provided via a full movement access roadway off Fairway View Drive approximately 500 feet south of Nottingham Drive. This access roadway will provide one inbound lane and one outbound lane with outbound movements under stop sign control.

A site plan illustrating the proposed development and access is included in the Appendix.

Directional Distribution of Development Traffic

The directional distribution of how traffic will approach and depart the site was estimated based on the general travel patterns through the study area derived from the peak hour traffic volumes. **Figure 5** shows the established directional distribution for this development in addition to the distances, measured in feet, between the study area intersections.



Trails of Woods Creek
Algonquin, Illinois

Estimated Directional Distribution

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 19-272

Figure: 5

Development Traffic Generation

The estimate of vehicle traffic to be generated by the proposed development is based upon the proposed land use types and sizes. The vehicle trip generation for the overall development was calculated using data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition.

It is important to note that that the trip generation for the gas station was estimated using the average number of fueling positions per ITE survey (16 fueling positions). Furthermore, surveys conducted by ITE have shown that approximately 60 percent of trips made to gas stations are diverted from the existing traffic on the roadway system. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic. As such, the new trips estimated to be generated by the proposed gas station were reduced by 60 percent.

As previously indicated, approximately 124 of the residential lots (Shores series) will have the characteristics of an age-restricted community and, as such, are projected to have a reduction in peak hour vehicle trips (up to 70 percent). However, for the purpose of the analysis and in order to provide a conservative analysis, a traditional residential subdivision was assumed.

Table 3 shows the estimated vehicle trip generation for the weekday morning and weekday evening peak hours. The ITE trip generation summary sheets are included in the Appendix.

Table 3
ESTIMATED PEAK HOUR VEHICLE TRIP GENERATION

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		In	Out	Total	In	Out	Total
210	Single Family Homes (267 lots)	48	146	194	164	97	261
945	Gas Station (16 fueling positions)	102	98	200	114	110	224
	60 Percent Pass-By Reduction[1]	-60	-60	-120	-67	-67	-134
	Total New Trips	**90**	**184**	**274**	**211**	**140**	**351**

1 – Applied to the trips estimated to be generated by the proposed gas station.

4. Projected Traffic Conditions

The total projected traffic volumes take into consideration the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

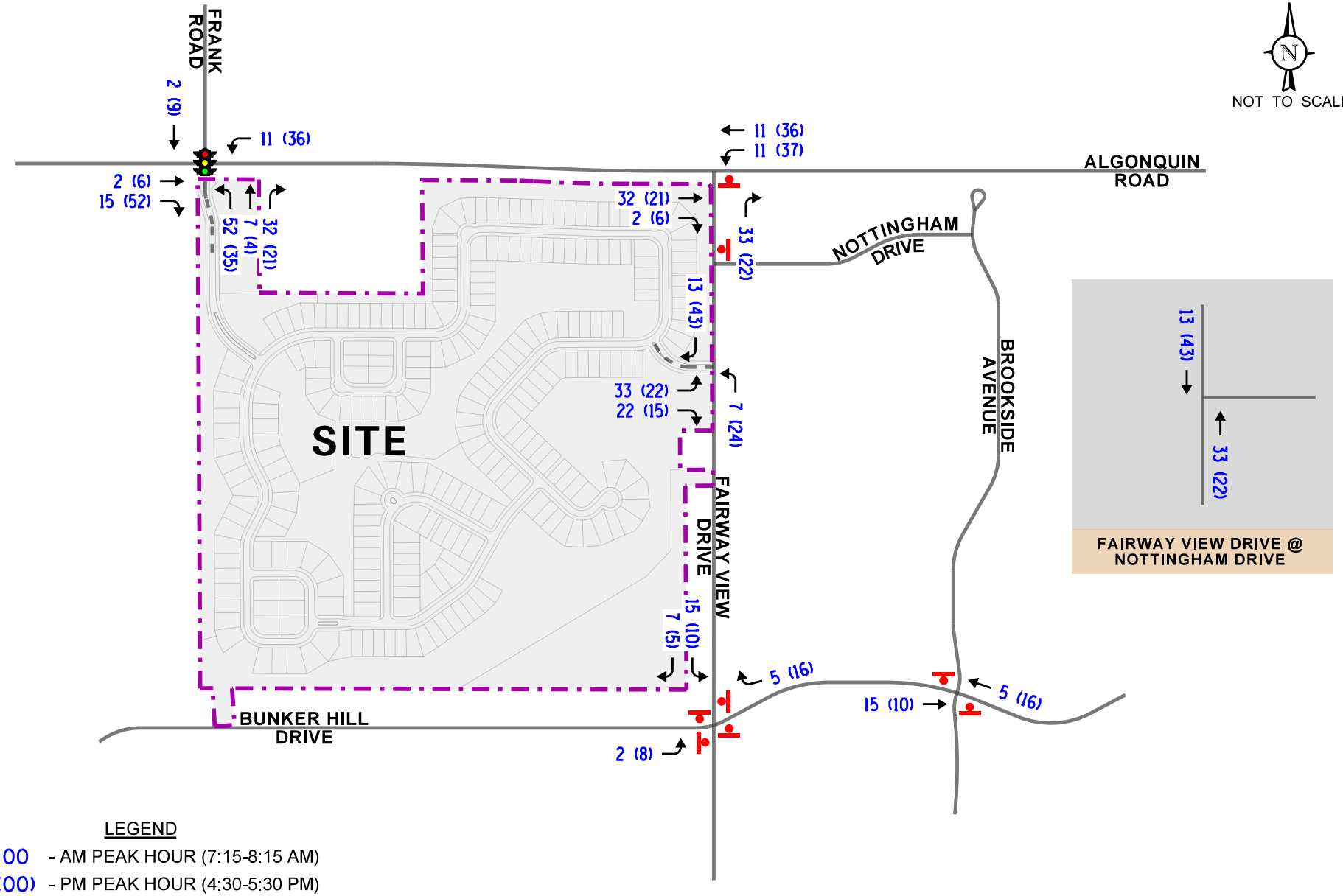
The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the traffic assignment of the new passenger vehicle trips for the residential lots and **Figure 7** illustrates the traffic assignment of the new passenger vehicle trips for the gas station. **Figure 8** illustrates the pass-by traffic assignment for the gas station.

Year 2025 No-Build Traffic Conditions

The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any planned development). Based on AADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes are projected to increase by an annual compounded growth rate of approximately 0.86 percent per year. As such, traffic volumes were increased by approximately five percent total to represent Year 2025 no-build traffic conditions (one-year buildout plus five years). A copy of the CMAP projections letter is included in the Appendix. **Figure 9** illustrates the Year 2025 no-build traffic volumes.

Year 2025 Total Projected Traffic Conditions

The new development-generated traffic (Figure 6) was added to the existing traffic volumes increased by the regional growth factor to determine the Year 2025 total projected traffic volumes. **Figure 10** illustrates the Year 2025 total projected traffic volumes.



Trails of Woods Creek
Algonquin, Illinois

Estimated New Site Traffic Assignment
Residential Lots

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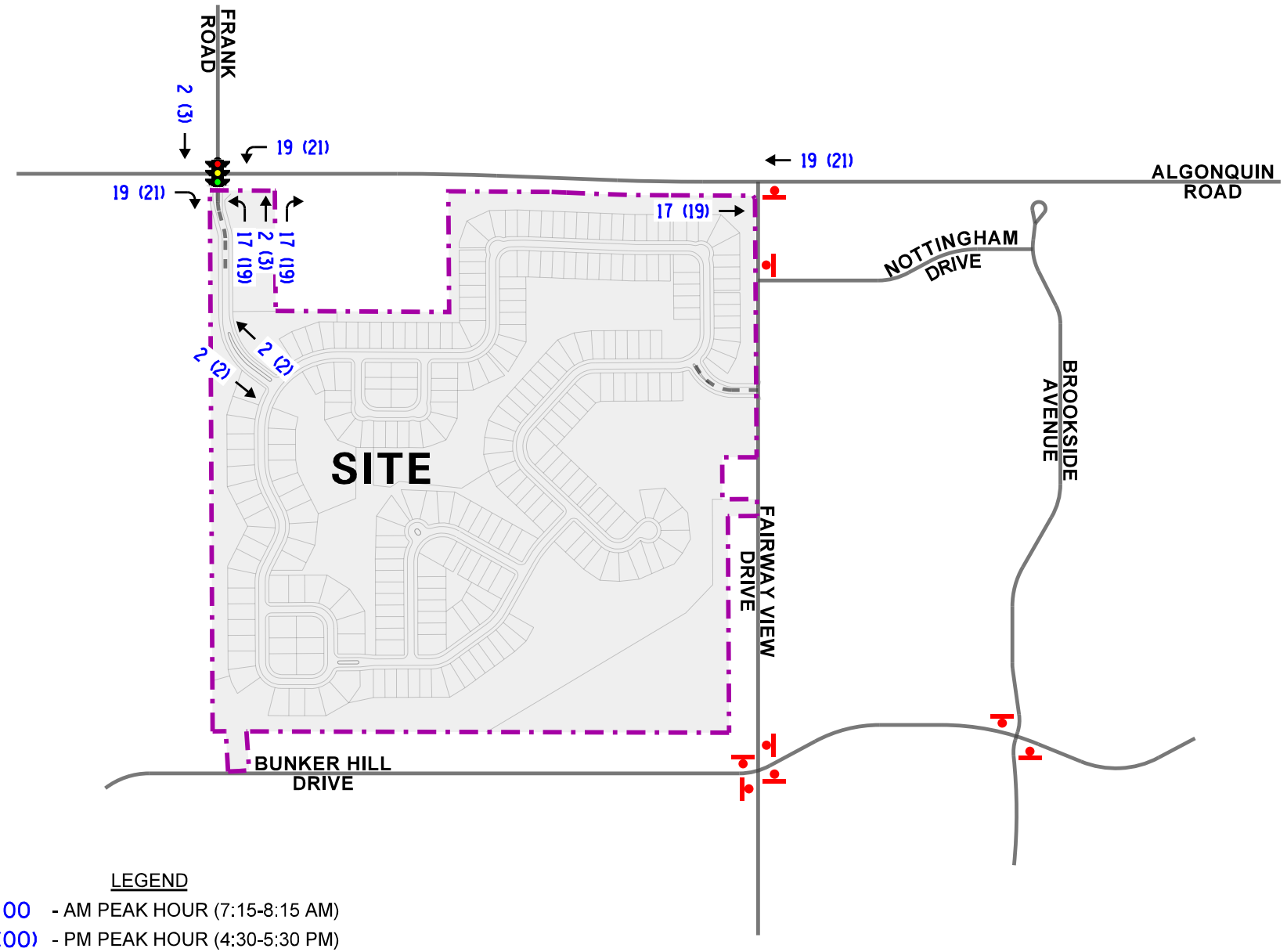
Figure: 6



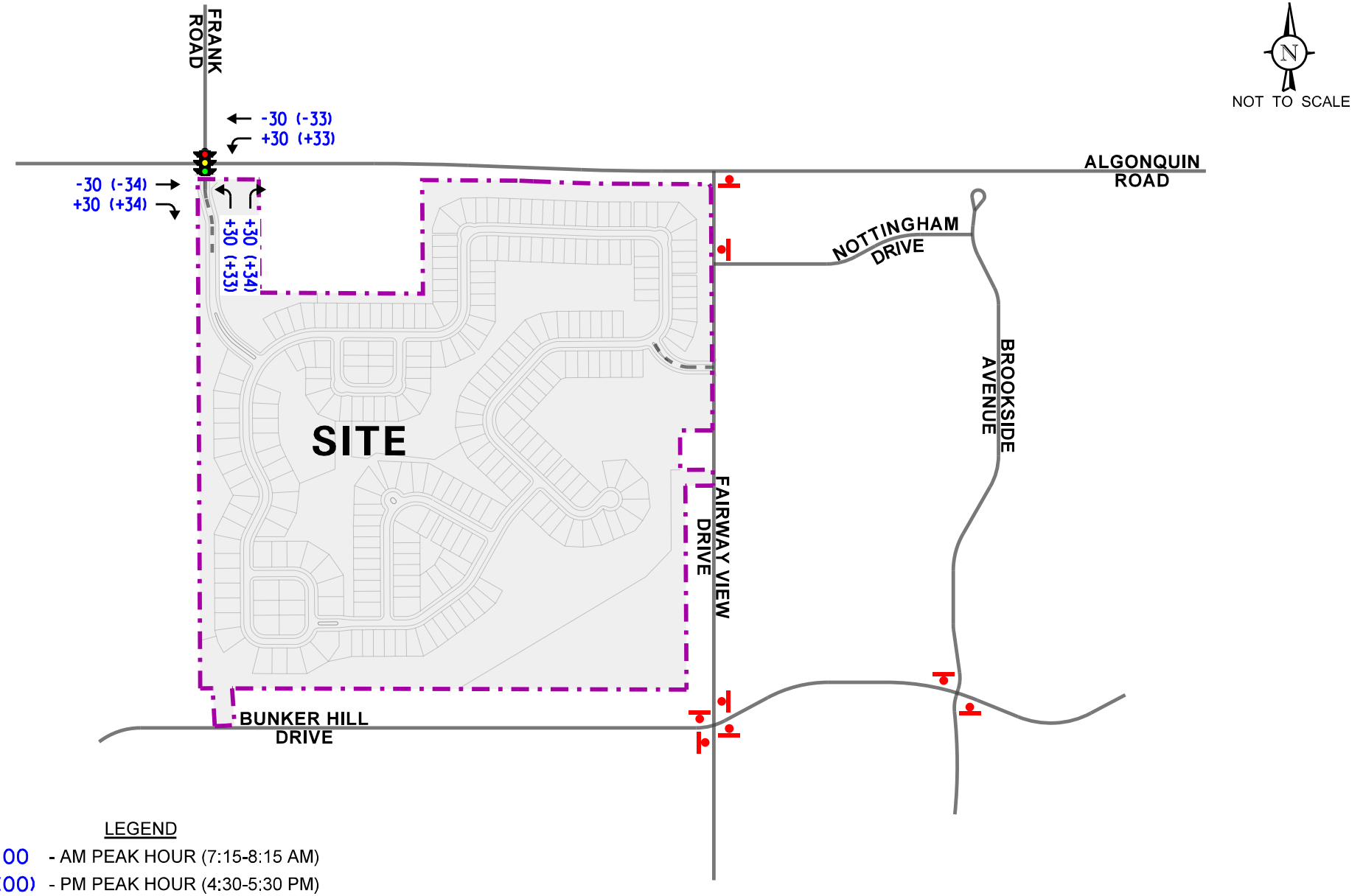
Trails of Woods Creek
Algonquin, Illinois

Estimated New Site Traffic Assignment
Gas Station

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 19-272

Figure: 7



Trails of Woods Creek
Algonquin, Illinois

Estimated Pass-By Site Traffic Assignment

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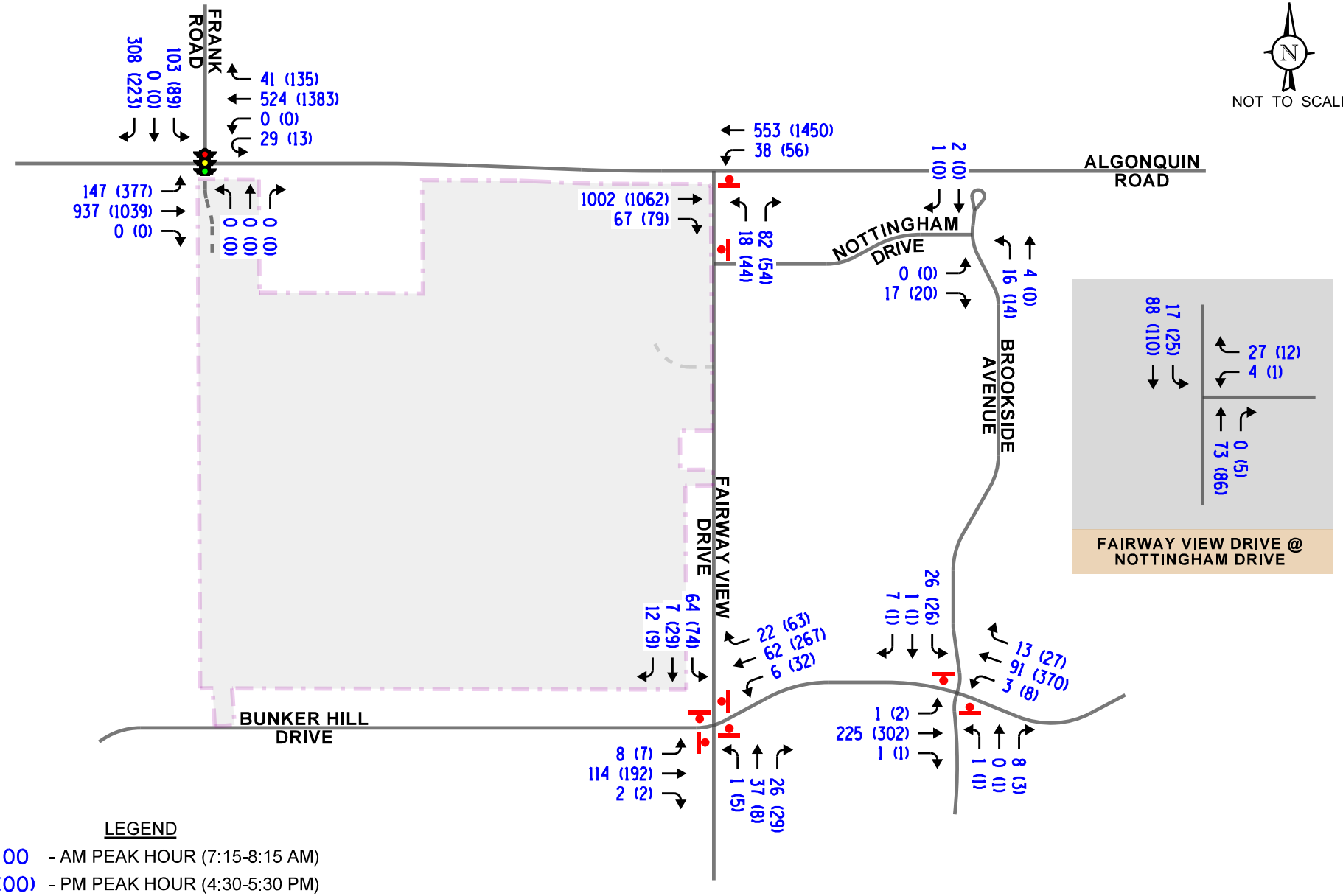
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 19-272

Figure: 8



LEGEND

00 - AM PEAK HOUR (7:15-8:15 AM)

(00) - PM PEAK HOUR (4:30-5:30 PM)

Trails of Woods Creek
Algonquin, Illinois

Year 2025 No Build Traffic Volumes

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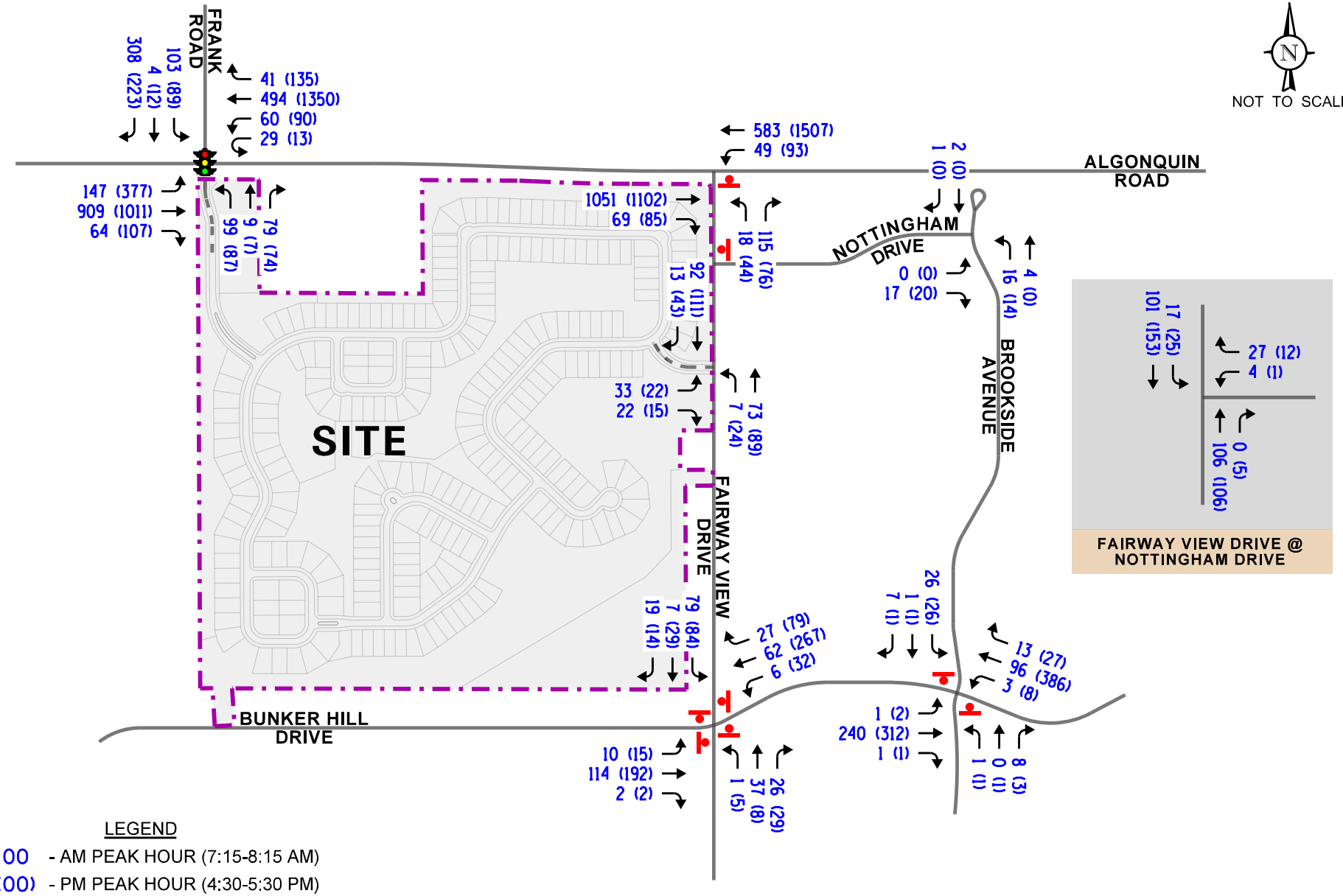
Figure: 9



Trails of Woods Creek
Algonquin, Illinois

Year 2025 Total Projected Traffic Volumes

KLOA
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Job No: 19-272 Figure: 10

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning an, weekday evening peak hours for the existing (Year 2019), Year 2025 no-build, and Year 2025 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 6th Edition* and analyzed using the Synchro/SimTraffic 10 software. The analysis for the traffic-signal controlled intersection of Algonquin Road with Frank Road were accomplished using actual cycle lengths and phasings to determine the average overall vehicle delay and levels of service.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics. It should be noted that the intersection of Nottingham Drive onto Brookside Avenue currently does not provide any traffic control. However, for the purposes of this evaluation it was assumed that this intersection operates under all-way stop sign control.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing, no-build and total projected conditions are presented in **Tables 4** through **7**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 4
CAPACITY ANALYSIS RESULTS – ALGONQUIN ROAD WITH FRANK ROAD– SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2019 Existing Traffic Volumes	**Weekday Morning Peak Hour**	A 2.4	A 5.6	--	A 2.1	A 6.1	A 0.1				D 53.0	A 5.6		A – 7.7
		A – 5.2			A – 5.5						B – 17.5			
	Weekday Evening Peak Hour	C 30.6	A 5.6	--	A 6.4	C 28.7	A 5.3				D 55.0	C 22.9		C – 20.8
		B – 12.3			C – 26.4						C – 32.1			
Year 2025 No-Build Traffic Volumes	**Weekday Morning Peak Hour**	A 2.7	A 6.1	--	A 2.3	A 6.5	A 0.1				D 52.0	A 7.4		A – 8.2
		A – 5.6			A – 5.9						B – 18.5			
	Weekday Evening Peak Hour	C 34.6	A 6.1	--	A 6.6	C 31.0	A 5.8				D 53.8	C 25.2		C – 22.6
		B – 13.7			C – 28.6						C – 33.4			
Year 2025 Projected Traffic Volumes	**Weekday Morning Peak Hour**	A 7.3	B 15.1	A 1.0	A 7.7	B 13.9	A 0.1	C 33.3	B 16.3		C 32.0	B 15.0		B – 15.0
		B – 13.3			B – 12.1			C – 25.3			B – 19.2			
	Weekday Evening Peak Hour	E 79.4	B 15.3	A 2.9	A 9.4	C 30.2	A 5.6	D 42.1	B 18.2		D 39.6	B 18.8		C – 28.3
		C – 30.6			C – 26.7			C – 30.6			C – 24.5			

Letter denotes Level of Service
Delay is measured in seconds.

L – Left Turns
T – Through
R – Right Turns

Note: Capacity analyses include the high volume of eastbound left-turning and southbound right-turning movements which may be the result of the ongoing construction at the intersection of Randall Road with Algonquin Road.

Table 5
CAPACITY ANALYSIS RESULTS
UNSIGNALIZED INTERSECTIONS – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Algonquin Road with Fairway View Drive				
• Northbound Left Turns	C	22.3	D	33.2
• Northbound Right Turns	B	13.9	B	13.1
• Westbound Left Turns	B	11.4	B	11.2
Fairway View Drive with Nottingham Drive				
• Westbound Approach	A	9.1	A	9.0
• Southbound Left Turns	A	7.4	A	7.5
Fairway View Drive with Bunker Hill Drive				
• Overall	A	8.0	B	10.5
• Eastbound Approach	A	8.2	A	9.7
• Westbound Approach	A	7.8	B	11.5
• Northbound Approach	A	7.7	A	8.5
• Southbound Approach	A	8.2	A	9.6
Bunker Hill Drive with Brookside Avenue				
• Northbound Approach	A	9.8	B	12.9
• Southbound Approach	B	11.2	C	17.4
• Eastbound Left Turns	A	8.5	A	8.2
• Westbound Left Turns	A	7.7	A	7.9
Nottingham Drive with Brookside Avenue				
• Overall	A	7.0	A	6.7
• Eastbound Approach	A	6.4	A	6.4
• Northbound Approach	A	7.5	A	7.2
• Southbound Approach	A	6.8	--	--

LOS = Level of Service
Delay is measured in seconds

Table 6
CAPACITY ANALYSIS RESULTS
UNSIGNALIZED INTERSECTIONS – YEAR 2025 NO-BUILD CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Algonquin Road with Fairway View Drive				
• Northbound Left Turns	C	23.8	E	36.9
• Northbound Right Turns	B	14.4	B	13.5
• Westbound Left Turns	B	11.7	B	11.5
Fairway View Drive with Nottingham Drive				
• Westbound Approach	A	9.1	A	9.0
• Southbound Left Turns	A	7.4	A	7.5
Fairway View Drive with Bunker Hill Drive				
• Overall	A	8.1	B	10.9
• Eastbound Approach	A	8.3	A	9.9
• Westbound Approach	A	7.9	B	12.1
• Northbound Approach	A	7.7	A	8.6
• Southbound Approach	A	8.2	A	9.8
Bunker Hill Drive with Brookside Avenue				
• Northbound Approach	A	9.9	B	13.3
• Southbound Approach	B	11.3	C	18.2
• Eastbound Left Turns	A	8.5	A	8.2
• Westbound Left Turns	A	7.8	A	8.0
Nottingham Drive with Brookside Avenue				
• Overall	A	7.0	A	6.7
• Eastbound Approach	A	6.4	A	6.4
• Northbound Approach	A	7.5	A	7.2
• Southbound Approach	A	6.8	--	--

LOS = Level of Service
Delay is measured in seconds

Table 7
CAPACITY ANALYSIS RESULTS
UNSIGNALIZED INTERSECTIONS – YEAR 2025 TOTAL PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Algonquin Road with Fairway View Drive				
• Northbound Left Turns	D	26.0	E	47.1
• Northbound Right Turns	C	15.9	B	14.1
• Westbound Left Turns	B	12.3	B	12.2
Fairway View Drive with Nottingham Drive				
• Westbound Approach	A	9.4	A	9.2
• Southbound Left Turns	A	7.5	A	7.5
Fairway View Drive with Access Drive				
• Eastbound Approach	A	9.8	B	10.3
• Northbound Left Turns	A	7.5	A	7.6
Fairway View Drive with Bunker Hill Drive				
• Overall	A	8.2	B	11.4
• Eastbound Approach	A	8.4	B	10.2
• Westbound Approach	A	8.0	B	12.7
• Northbound Approach	A	7.8	A	8.7
• Southbound Approach	A	8.4	B	10.2
Bunker Hill Drive with Brookside Avenue				
• Northbound Approach	B	10.0	B	13.5
• Southbound Approach	B	11.5	C	18.9
• Eastbound Left Turns	A	8.5	A	8.3
• Westbound Left Turns	A	7.8	A	8.0
Nottingham Drive with Brookside Avenue				
• Overall	A	7.0	A	6.7
• Eastbound Approach	A	6.4	A	6.4
• Northbound Approach	A	7.5	A	7.2
• Southbound Approach	A	6.8	--	--

LOS = Level of Service
Delay is measured in seconds

Discussion and Recommendations

The following is an evaluation of the analyzed intersections based on the projected traffic volumes and the capacity analyses performed.

Algonquin Road with Frank Road

The results of the capacity analysis indicate that overall this intersection currently operates at Level of Service (LOS) A during the weekday morning peak hour and at LOS C during the weekday evening peak hour. Furthermore, all of the approaches operate at LOS C or better during the peak hours. Under Year 2025 no-build conditions, this intersection overall is projected to continue operating at LOS A during the weekday morning peak hour and at LOS C during the weekday evening peak hour with increase in delay of less than one second and approximately two seconds, respectively. Furthermore, all of the approaches are projected to continue operating at LOS C or better during the peak hours with increases in delay of approximately two seconds or less.

Under Year 2025 total projected conditions, with the modification of the intersection to provide two northbound lanes and a protected/permissive northbound left-turn phase, this intersection overall is projected to operate at LOS B during the weekday morning peak hour and at LOS C during the weekday morning peak hour with increases in delay of approximately seven seconds and six seconds, respectively. Furthermore, all of the approaches are projected to operate at LOS C or better during the peak hours and the 95th percentile queues for the westbound, southbound, and northbound left-turning movements are projected to be contained within the left-turn lane storages provided.

It should be noted that the eastbound left-turning movement is projected to operate at LOS E during the weekday evening peak hour with 95th percentile queues that extend beyond the left-turn lane storage provided. However, as previously indicated, the traffic volumes analyzed for this movement may be higher than usual due to the ongoing construction at the intersection of Algonquin Road with Randall Road. Furthermore, the proposed development is not projected to increase the volume of traffic for the movement. Therefore, the traffic volumes should be monitored in the future upon completion of the Randall Road corridor improvements to determine if additional green time should be reallocated to the eastbound left-turning movement.

As such, this intersection with the proposed improvements has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no additional roadway improvements or signal modifications will be required.

Algonquin Road with Fairway View Drive

The results of the capacity analysis indicate that northbound left-turning movements from Fairway View Drive onto Algonquin Road currently operate at LOS C during the weekday morning peak hour and at LOS D during the weekday evening peak hour. Under Year 2025 no-build conditions, northbound left-turning movements are projected to operate at LOS C during the weekday morning peak hour and at LOS E during the weekday evening peak hour with increases in delay of approximately one second and four seconds, respectively.

Under Year 2025 total projected conditions, northbound left-turning movements are projected to operate at LOS D during the weekday morning peak hour and at LOS E during the weekday evening peak hour with increases in delay of approximately two seconds and ten seconds, respectively, over no-build conditions.

Northbound right-turning movements from Fairway View Drive onto Algonquin Road currently operate at LOS B during the peak hours and are projected to continue operating at LOS B under Year 2025 no-build conditions with increases in delay of less than one second. Under Year 2025 total projected conditions, northbound right-turning movements are projected to operate at LOS C during the weekday morning peak hour and at LOS B during the weekday evening peak hours with increases in delay of approximately one second or less. The 95th percentile queues for the northbound approach are projected to be approximately one to two vehicles which will not extend beyond Nottingham Drive/the proposed access roadway.

Westbound left-turning movements from Algonquin Road onto Fairway View Drive currently operate at LOS B during the weekday morning and weekday evening peak hours and are projected to continue operating at LOS B during the peak hours under Year 2025 no-build and total projected conditions with increases in delay of approximately one second or less. The 95th percentile queues are projected to be one to two vehicles, which can be accommodated within the approximately 240 feet of storage provided.

As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

Traffic Signal Warrant Analysis

The intersection of Algonquin Road with Fairway View Drive was examined to determine if a traffic signal will be warranted under existing and/or future conditions.

In order to determine the amount of traffic utilizing the intersection of Algonquin Road and Fairway View Drive, KLOA, Inc. conducted a 12-hour traffic count on Thursday, November 14, 2019 from 6:00 A.M. to 6:00 P.M. The traffic count data is included in the Appendix. The results of the traffic count are summarized in **Table 8,** which shows the inbound and outbound movements from Fairway View Drive as well as the two-way traffic on Algonquin Road.

Table 8
EXISTING TRAFFIC COUNT SUMMARY - THURSDAY, NOVEMBER 14, 2019

Time	Algonquin Road Two-Way Traffic	Fairway View Drive Outbound Traffic			Total Traffic
		Left Out	Right Out	Total	
6:00 AM	1,118	8	33	41	1,159
7:00 AM	1,344	16	75	91	1,435
8:00 AM	1,292	16	58	74	1,366
9:00 AM	1,235	23	29	52	1,287
10:00 AM	1,285	17	33	50	1,335
11:00 AM	1,465	26	40	66	1,531
12:00 PM	1,498	41	25	66	1,564
1:00 PM	1,489	34	40	74	1,563
2:00 PM	1,639	32	30	62	1,701
3:00 PM	1,840	53	54	107	1,947
4:00 PM	1,969	30	43	73	2,042
5:00 PM	1,918	53	62	115	2,033
Total	**18,092**	**349**	**522**	**871**	**18,963**

The installation of a traffic signal requires the satisfaction of one or more of the nine warrants from the Federal Highway Administration's *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD), 2009. Installation of a traffic signal requires that one or more of the nine signal warrants outlined in the MUTCD is met. Of these nine warrants that can be applied in establishing the justification for a traffic signal and given Algonquin Road's designation as an SRA route, only Warrant 1, Eight-Hour Vehicular Volume was considered.

Warrant 1, Eight-Hour Vehicular Volume states that the minimum vehicular volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volumes on a major street are so heavy that traffic on the minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. Given that Algonquin Road provides two or more lanes, the required vehicles per hour on the major street is 600 (total of both approaches) and the required vehicles per hour on the minor street (one direction only) is 150 for Condition A. For Condition B, the required number of vehicles per hour on the major street is 900 (total of both approaches) and the required number of vehicles per hour on the minor street (one direction only) is 75. However, for SRA routes, the requirements on the minor street for Condition B shall be increased from 75 vehicles per hour to 100 for a single-lane minor approach and from 100 vehicles per hour to 150 for a two or more lane minor approach. Furthermore, based on the Illinois Department of Transportation (IDOT) guidelines, which are also followed by McDOT, and the fact that an exclusive right-turn lane is provided on Fairway View Drive, the right-turn volume from the minor approach will be reduced by 75 percent.

The hourly distribution for the site-generated traffic volumes for the proposed development was based on surveys conducted by the Wisconsin Department of Transportation and distributed to the roadway system based on the directional distribution presented in the traffic study dated December 9, 2019.

Based on the results of the signal warrant analysis (**Tables 9** and **10**), a traffic signal at the intersection of Algonquin Road with Fairway View Drive is not warranted under existing conditions and will not be warranted under future conditions following the MUTCD guidelines for signal warrants and taking into account Algonquin Road's designation as an SRA route.

Table 9
EXISTING CONDITIONS SIGNAL WARRANT EVALUATION

Time	Algonquin Road Two-Way Traffic	Fairway View Drive Outbound Traffic				Meets Warrant 1A	Meets Warrant 1B
		Left Out	Right Out	Reduced Right Out	Total		
6:00 AM	1,118	8	33	8	16	No	No
7:00 AM	1,344	16	75	19	35	No	No
8:00 AM	1,292	16	58	15	31	No	No
9:00 AM	1,235	23	29	7	30	No	No
10:00 AM	1,285	17	33	8	25	No	No
11:00 AM	1,465	26	40	10	36	No	No
12:00 PM	1,498	41	25	6	47	No	No
1:00 PM	1,489	34	40	10	44	No	No
2:00 PM	1,639	32	30	8	40	No	No
3:00 PM	1,840	53	54	14	67	No	No
4:00 PM	1,969	30	43	11	41	No	No
5:00 PM	1,918	53	62	16	69	No	No
Total	**18,092**	**349**	**522**	**132**	**481**		

Table 10
FUTURE CONDITIONS SIGNAL WARRANT EVALUATION

Time	Algonquin Road Two-Way Traffic	Fairway View Drive Outbound Traffic								Meets Warrant 1A	Meets Warrant 1B
		Existing Traffic		Site Traffic		Future Traffic			Total		
		Left Out	Right Out	Left Out	Right Out	Left Out	Right Out	Reduced Right Out			
6:00 AM	1,118	8	33	4	22	12	55	14	26	No	No
7:00 AM	1,344	16	75	6	35	22	110	28	50	No	No
8:00 AM	1,292	16	58	4	22	20	80	20	40	No	No
9:00 AM	1,235	23	29	3	14	26	43	11	37	No	No
10:00 AM	1,285	17	33	3	17	20	50	13	33	No	No
11:00 AM	1,465	26	40	3	15	29	55	14	43	No	No
12:00 PM	1,498	41	25	3	18	44	43	11	55	No	No
1:00 PM	1,489	34	40	3	14	37	54	14	51	No	No
2:00 PM	1,639	32	30	4	20	36	50	13	49	No	No
3:00 PM	1,840	53	54	3	17	56	71	18	74	No	No
4:00 PM	1,969	30	43	3	19	33	62	16	49	No	No
5:00 PM	1,918	53	62	3	19	56	81	20	76	No	No
Total	**18,092**	**349**	**522**	**42**	**232**	**391**	**754**	**192**	**583**		

Fairway View Drive with Nottingham Drive

The results of the capacity analysis indicate that the westbound approach currently operates at LOS A during the weekday morning and weekday evening peak hours. Under Year 2025 no-build and total projected conditions, the westbound approach is projected to continue operating at LOS A during the peak hours with increases in delay of less than one second and 95th percentile queues of one to two vehicles. Southbound left turns from Fairway View Drive onto Nottingham Drive are projected to continue operating at LOS A during the peak hours with increases in delay of less than one second and 95th percentile queues of one to two vehicles. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

Fairway View Drive with Proposed Access Road

The results of the capacity analyses indicate that the eastbound approach of this intersection will operate at LOS B or better during the peak hours. Furthermore, the northbound left-turn movements will operate at LOS A with 95th percentile queues of one to two vehicles. As such, this intersection will have sufficient capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway widening will be required.

Fairway View Drive with Bunker Hill Drive

The results of the capacity analysis indicate that this intersection overall currently operates at LOS A during the weekday morning peak hour and at LOS B during the weekday evening peak hour. Furthermore, all of the approaches currently operate at LOS B or better during the peak hours. Under Year 2025 no-build and total projected conditions, this intersection overall is projected to continue operating at LOS A during the weekday morning peak hour and at LOS B during the weekday evening peak hour with increases in delay of less than one second. Furthermore, all of the approaches are projected to continue operating at LOS B or better during the peak hours with increases in delay of approximately one second or less. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

Bunker Hill Drive with Brookside Avenue

The results of the capacity analysis indicate that the northbound and southbound approaches currently operate at LOS C or better during the weekday morning and weekday evening peak hours. Under Year 2025 no-build and total projected conditions, the northbound and southbound approaches are projected to continue operating at LOS C or better during the peak hours with increases in delay of approximately one second or less and 95th percentile queues of one to two vehicles. Furthermore, eastbound and westbound left-turning movements from Bunker Hill Drive onto Brookside Avenue are projected to continue operating at LOS A during the peak hours with increases in delay of less than one second and 95th percentile queues of one to two vehicles. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

Nottingham Drive with Brookside Avenue

The results of the capacity analysis indicate that overall this intersection and all of the approaches currently operate at LOS A during the weekday morning and weekday evening peak hours. Under Year 2025 no-build and total projected conditions, this intersection and all of the approaches are projected to continue operating at LOS A during the weekday morning and weekday evening peak hours with increases in delay of less than one second and 95th percentile queues of one to two vehicles. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.

Impact on Adjacent Neighborhoods

As previously indicated, Fairway View Drive and Bunker Hill Drive are classified as collector roadways in the Village of Algonquin Comprehensive Plan (March 2008). As stated in the comprehensive plan, collectors are designed to channel smaller columns of traffic from local roads into the network of primary and secondary arterials and typically provide one lane in each direction with average daily traffic volumes between 1,000 and 3,000 vehicles per lane.

Based on information provided by IDOT, Fairway View Drive and Bunker Hill Drive carry AADT volumes of 675 vehicles per lane and 1,550 vehicles per lane, respectively and, as such, operate as described in the comprehensive plan.

Providing full access to Fairway View Drive will provide future residents with secondary access to utilize Fairway View Drive and Bunker Hill Drive (collector roadways) to access Algonquin Road and Randall Road (primary arterials) as designed. Furthermore, the proposed connection will enhance connectivity between the existing and proposed residential subdivisions and will allow existing residential vehicles to access the traffic signal at Algonquin Road with Frank Road, which may result in the reduction of northbound left-turning movements from Fairway View Drive onto Algonquin Road.

It should be noted that the Village of Algonquin traffic volume ranges for collector streets are consistent with national residential street standards as contained in *Residential Streets*, Third Edition, published by the Urban Land Institute (ULI), National Associate of Home Builders (NAHB), American Society of Civil Engineers (ASCE), and ITE, which indicates collector roadways typically carry an average daily two-way traffic volume of greater than 1,500 vehicles. As such, with the proposed connection to Fairway View Drive and the traffic projected to be generated by the proposed development, Fairway View Drive and Bunker Hill Road will continue to function within the range of acceptable capacity of collector roadways.

6. Conclusion

Based on existing conditions and the traffic capacity analyses for the full buildout of the development, the findings and recommendations of this study are outlined below:

- The traffic that will be generated by the proposed development can be accommodated by the area roadway system.

- Providing main access via the signalized intersection of Algonquin Road with Frank Road with two outbound lanes and the provision of a northbound protected/permissive left-turn lane will ensure that adequate access is provided to accommodate the traffic estimated to be generated by the proposed development.

- The existing eastbound right-turn lane and westbound left-turn lane on Algonquin Road at its intersection with Frank Road will be adequate in accommodating the traffic estimated to be generated by the proposed development and will accommodate the projected 95th percentile queues.

- Providing secondary full access off Fairway View Drive will increase site access efficiency and flexibility, will allow site traffic to access Algonquin Road east of the traffic signal at Frank Road, and will also allow for existing vehicles on the roadway network of the adjacent neighborhoods to utilize the existing traffic signal on Algonquin Road at Frank Road.

- Based on the results of the signal warrant study, a traffic signal at the intersection of Algonquin Road with Fairway View Drive is not warranted under existing conditions and will not be warranted under future conditions following the MUTCD guidelines for signal warrants and taking into account Algonquin Road's designation as an SRA route.

- Fairway View Drive and Bunker Hill Drive will continue to function as collector roadways within their carrying capacity limits as designated in the Village of Algonquin Comprehensive Plan.

Appendix

Traffic Count Summary Sheets
Site Plan
ITE Trip Generation Summary Sheets
CMAP 2050 Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Algonquin Road with Frank Road
Site Code:
Start Date: 11/14/2019

Turning Movement Data

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Access Drive Northbound						Frank Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	13	132	0	0	145	2	0	36	2	0	40	0	0	0	0	0	0	0	18	0	40	0	58	243
6:15 AM	0	14	146	0	0	160	1	0	81	6	0	88	0	0	0	0	0	0	0	29	0	57	0	86	334
6:30 AM	0	27	198	1	0	226	3	0	122	5	0	130	0	0	0	0	0	0	0	36	0	83	0	119	475
6:45 AM	0	21	163	0	0	184	3	1	106	16	0	126	0	0	0	0	0	0	0	23	0	87	0	110	420
Hourly Total	0	75	639	1	0	715	9	1	345	29	0	384	0	0	0	0	0	0	0	106	0	267	0	373	1472
7:00 AM	0	26	193	0	0	219	3	0	92	14	0	109	0	0	0	0	0	0	0	25	0	78	0	103	431
7:15 AM	0	33	178	1	0	212	4	0	122	8	0	134	0	0	1	0	0	1	0	24	0	75	0	99	446
7:30 AM	0	29	165	0	0	194	4	0	122	13	0	139	0	0	0	1	0	1	0	22	0	78	0	100	434
7:45 AM	0	42	186	0	0	228	12	0	124	6	0	142	0	0	0	0	0	0	0	18	0	65	0	83	453
Hourly Total	0	130	722	1	0	853	23	0	460	41	0	524	0	0	1	1	0	2	0	89	0	296	0	385	1764
8:00 AM	0	36	153	0	0	189	8	0	131	12	0	151	0	0	0	0	0	0	0	34	0	75	0	109	449
8:15 AM	0	34	178	1	0	213	4	0	106	14	0	124	0	0	1	0	0	1	0	16	0	64	0	80	418
8:30 AM	0	30	183	0	0	213	5	0	96	13	0	114	0	0	0	0	0	0	0	24	0	65	0	89	416
8:45 AM	0	27	165	0	0	192	7	0	122	12	0	141	0	0	0	0	0	0	0	24	0	54	0	78	411
Hourly Total	0	127	679	1	0	807	24	0	455	51	0	530	0	0	1	0	0	1	0	98	0	258	0	356	1694
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	1	42	150	0	0	193	4	0	182	26	0	212	0	0	0	0	0	0	0	17	0	34	0	51	456
2:15 PM	0	50	150	0	0	200	2	0	198	25	0	225	0	0	0	0	0	0	0	18	0	37	0	55	480
2:30 PM	0	42	142	0	0	184	5	0	217	22	0	244	0	0	0	0	0	0	0	19	0	26	0	45	473
2:45 PM	0	48	155	0	0	203	5	0	202	32	0	239	0	0	0	0	0	0	0	14	0	22	0	36	478
Hourly Total	1	182	597	0	0	780	16	0	799	105	0	920	0	0	0	0	0	0	0	68	0	119	0	187	1887
3:00 PM	1	53	145	0	0	199	4	0	219	27	0	250	0	0	0	0	0	0	0	23	0	28	0	51	500
3:15 PM	0	61	174	0	0	235	0	1	218	33	0	252	0	0	0	0	0	0	0	14	0	47	0	61	548
3:30 PM	0	68	199	0	0	267	1	0	232	39	0	272	0	0	0	0	0	0	0	24	0	54	0	78	617
3:45 PM	0	84	201	0	0	285	2	0	248	28	0	278	0	0	0	0	0	0	0	24	0	59	0	83	646
Hourly Total	1	266	719	0	0	986	7	1	917	127	0	1052	0	0	0	0	0	0	0	85	0	188	0	273	2311
4:00 PM	0	88	179	0	0	267	3	0	208	30	0	241	0	0	0	0	0	0	0	19	0	60	0	79	587
4:15 PM	0	76	201	0	0	277	0	0	241	40	0	281	0	0	0	0	0	0	0	20	0	61	0	81	639
4:30 PM	0	82	197	0	0	279	2	0	240	27	0	269	1	0	0	2	0	3	0	19	0	46	0	65	616
4:45 PM	2	88	223	0	0	313	2	0	204	26	0	232	0	0	0	0	0	0	0	21	0	49	0	70	615
Hourly Total	2	334	800	0	0	1136	7	0	893	123	0	1023	1	0	0	2	0	3	0	79	0	216	0	295	2457
5:00 PM	0	100	178	0	0	278	5	0	245	40	0	290	0	0	0	0	0	0	0	25	0	56	0	81	649
5:15 PM	0	87	198	0	0	285	3	0	262	36	0	301	0	0	0	0	0	0	0	20	0	61	0	81	667
5:30 PM	1	91	166	0	0	258	4	0	218	43	0	265	0	0	1	0	0	1	0	18	0	57	0	75	599
5:45 PM	0	77	169	0	0	246	1	0	233	39	0	273	0	0	0	0	0	0	0	18	0	46	0	64	583

Hourly Total	1	355	711	0	0	1067	13	0	958	158	0	1129	0	0	1	0	0	1	0	81	0	220	0	301	2498
Grand Total	5	1469	4867	3	0	6344	99	2	4827	634	0	5562	1	0	3	3	0	7	0	606	0	1564	0	2170	14083
Approach %	0.1	23.2	76.7	0.0	-	-	1.8	0.0	86.8	11.4	-	-	14.3	0.0	42.9	42.9	-	-	0.0	27.9	0.0	72.1	-	-	-
Total %	0.0	10.4	34.6	0.0	-	45.0	0.7	0.0	34.3	4.5	-	39.5	0.0	0.0	0.0	0.0	-	0.0	0.0	4.3	0.0	11.1	-	15.4	-
Lights	5	1444	4766	2	-	6217	99	1	4700	624	-	5424	1	0	2	3	-	6	0	596	0	1544	-	2140	13787
% Lights	100.0	98.3	97.9	66.7	-	98.0	100.0	50.0	97.4	98.4	-	97.5	100.0	-	66.7	100.0	-	85.7	-	98.3	-	98.7	-	98.6	97.9
Buses	0	11	16	0	-	27	0	0	23	3	-	26	0	0	0	0	-	0	0	5	0	3	-	8	61
% Buses	0.0	0.7	0.3	0.0	-	0.4	0.0	0.0	0.5	0.5	-	0.5	0.0	-	0.0	0.0	-	0.0	-	0.8	-	0.2	-	0.4	0.4
Single-Unit Trucks	0	11	65	1	-	77	0	1	69	5	-	75	0	0	1	0	-	1	0	4	0	17	-	21	174
% Single-Unit Trucks	0.0	0.7	1.3	33.3	-	1.2	0.0	50.0	1.4	0.8	-	1.3	0.0	-	33.3	0.0	-	14.3	-	0.7	-	1.1	-	1.0	1.2
Articulated Trucks	0	3	20	0	-	23	0	0	35	2	-	37	0	0	0	0	-	0	0	1	0	0	-	1	61
% Articulated Trucks	0.0	0.2	0.4	0.0	-	0.4	0.0	0.0	0.7	0.3	-	0.7	0.0	-	0.0	0.0	-	0.0	-	0.2	-	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Algonquin Road with Frank Road
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Access Drive Northbound						Frank Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:15 AM	0	33	178	1	0	212	4	0	122	8	0	134	0	0	1	0	0	1	0	24	0	75	0	99	446
7:30 AM	0	29	165	0	0	194	4	0	122	13	0	139	0	0	0	1	0	1	0	22	0	78	0	100	434
7:45 AM	0	42	186	0	0	228	12	0	124	6	0	142	0	0	0	0	0	0	0	18	0	65	0	83	453
8:00 AM	0	36	153	0	0	189	8	0	131	12	0	151	0	0	0	0	0	0	0	34	0	75	0	109	449
Total	0	140	682	1	0	823	28	0	499	39	0	566	0	0	1	1	0	2	0	98	0	293	0	391	1782
Approach %	0.0	17.0	82.9	0.1	-	-	4.9	0.0	88.2	6.9	-	-	0.0	0.0	50.0	50.0	-	-	0.0	25.1	0.0	74.9	-	-	-
Total %	0.0	7.9	38.3	0.1	-	46.2	1.6	0.0	28.0	2.2	-	31.8	0.0	0.0	0.1	0.1	-	0.1	0.0	5.5	0.0	16.4	-	21.9	-
PHF	0.000	0.833	0.917	0.250	-	0.902	0.583	0.000	0.952	0.750	-	0.937	0.000	0.000	0.250	0.250	-	0.500	0.000	0.721	0.000	0.939	-	0.897	0.983
Lights	0	138	654	1	-	793	28	0	479	33	-	540	0	0	1	1	-	2	0	94	0	293	-	387	1722
% Lights	-	98.6	95.9	100.0	-	96.4	100.0	-	96.0	84.6	-	95.4	-	-	100.0	100.0	-	100.0	-	95.9	-	100.0	-	99.0	96.6
Buses	0	1	5	0	-	6	0	0	5	2	-	7	0	0	0	0	-	0	0	2	0	0	-	2	15
% Buses	-	0.7	0.7	0.0	-	0.7	0.0	-	1.0	5.1	-	1.2	-	-	0.0	0.0	-	0.0	-	2.0	-	0.0	-	0.5	0.8
Single-Unit Trucks	0	0	15	0	-	15	0	0	7	2	-	9	0	0	0	0	-	0	0	1	0	0	-	1	25
% Single-Unit Trucks	-	0.0	2.2	0.0	-	1.8	0.0	-	1.4	5.1	-	1.6	-	-	0.0	0.0	-	0.0	-	1.0	-	0.0	-	0.3	1.4
Articulated Trucks	0	1	8	0	-	9	0	0	8	2	-	10	0	0	0	0	-	0	0	1	0	0	-	1	20
% Articulated Trucks	-	0.7	1.2	0.0	-	1.1	0.0	-	1.6	5.1	-	1.8	-	-	0.0	0.0	-	0.0	-	1.0	-	0.0	-	0.3	1.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Algonquin Road with Frank Road
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Access Drive Northbound						Frank Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	82	197	0	0	279	2	0	240	27	0	269	1	0	0	2	0	3	0	19	0	46	0	65	616
4:45 PM	2	88	223	0	0	313	2	0	204	26	0	232	0	0	0	0	0	0	0	21	0	49	0	70	615
5:00 PM	0	100	178	0	0	278	5	0	245	40	0	290	0	0	0	0	0	0	0	25	0	56	0	81	649
5:15 PM	0	87	198	0	0	285	3	0	262	36	0	301	0	0	0	0	0	0	0	20	0	61	0	81	667
Total	2	357	796	0	0	1155	12	0	951	129	0	1092	1	0	0	2	0	3	0	85	0	212	0	297	2547
Approach %	0.2	30.9	68.9	0.0	-	-	1.1	0.0	87.1	11.8	-	-	33.3	0.0	0.0	66.7	-	-	0.0	28.6	0.0	71.4	-	-	-
Total %	0.1	14.0	31.3	0.0	-	45.3	0.5	0.0	37.3	5.1	-	42.9	0.0	0.0	0.0	0.1	-	0.1	0.0	3.3	0.0	8.3	-	11.7	-
PHF	0.250	0.893	0.892	0.000	-	0.923	0.600	0.000	0.907	0.806	-	0.907	0.250	0.000	0.000	0.250	-	0.250	0.000	0.850	0.000	0.869	-	0.917	0.955
Lights	2	355	792	0	-	1149	12	0	937	129	-	1078	1	0	0	2	-	3	0	85	0	210	-	295	2525
% Lights	100.0	99.4	99.5	-	-	99.5	100.0	-	98.5	100.0	-	98.7	100.0	-	-	100.0	-	100.0	-	100.0	-	99.1	-	99.3	99.1
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	-	0.1	0.0	-	0.1	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	2	4	0	-	6	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	2	-	2	17
% Single-Unit Trucks	0.0	0.6	0.5	-	-	0.5	0.0	-	0.9	0.0	-	0.8	0.0	-	-	0.0	-	0.0	-	0.0	-	0.9	-	0.7	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	4
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	-	0.4	0.0	-	0.4	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Algonquin Road with Fairway View Drive
Site Code:
Start Date: 11/14/2019

Turning Movement Data

Start Time	Algonquin Road Eastbound					Algonquin Road Westbound					Fairway View Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
6:00 AM	0	155	6	0	161	0	3	38	0	41	0	0	5	0	5	207
6:15 AM	0	168	9	0	177	0	2	85	0	87	0	2	6	0	8	272
6:30 AM	0	208	22	0	230	0	1	115	0	116	0	2	13	0	15	361
6:45 AM	0	168	23	0	191	0	6	109	0	115	0	4	9	0	13	319
Hourly Total	0	699	60	0	759	0	12	347	0	359	0	8	33	0	41	1159
7:00 AM	0	189	19	0	208	0	8	106	0	114	0	3	14	0	17	339
7:15 AM	0	196	9	0	205	0	11	125	0	136	0	5	17	0	22	363
7:30 AM	0	177	15	0	192	0	2	120	0	122	0	5	19	0	24	338
7:45 AM	0	195	17	0	212	0	14	141	0	155	0	3	25	0	28	395
Hourly Total	0	757	60	0	817	0	35	492	0	527	0	16	75	0	91	1435
8:00 AM	0	158	23	0	181	0	9	141	0	150	0	4	17	0	21	352
8:15 AM	2	187	10	0	199	1	4	113	0	118	0	1	15	0	16	333
8:30 AM	0	204	14	0	218	0	9	90	0	99	0	8	13	0	21	338
8:45 AM	0	179	13	0	192	1	5	129	0	135	0	3	13	0	16	343
Hourly Total	2	728	60	0	790	2	27	473	0	502	0	16	58	0	74	1366
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	1	151	16	0	168	0	12	200	0	212	0	6	14	0	20	400
2:15 PM	0	160	12	0	172	0	11	212	0	223	0	12	8	0	20	415
2:30 PM	0	158	10	0	168	0	7	244	0	251	0	4	6	0	10	429
2:45 PM	1	162	13	0	176	1	17	251	0	269	0	10	2	0	12	457
Hourly Total	2	631	51	0	684	1	47	907	0	955	0	32	30	0	62	1701
3:00 PM	0	170	7	0	177	0	6	235	0	241	0	13	13	0	26	444
3:15 PM	0	173	13	0	186	1	12	232	0	245	0	16	16	0	32	463
3:30 PM	0	190	24	0	214	0	9	276	0	285	0	16	15	0	31	530
3:45 PM	0	221	17	0	238	0	12	242	0	254	0	8	10	0	18	510
Hourly Total	0	754	61	0	815	1	39	985	0	1025	0	53	54	0	107	1947
4:00 PM	0	188	13	0	201	0	19	248	0	267	0	8	14	0	22	490
4:15 PM	0	199	20	0	219	0	14	286	0	300	0	8	7	0	15	534
4:30 PM	0	204	19	0	223	1	15	254	0	270	0	8	8	0	16	509
4:45 PM	0	215	21	0	236	0	9	244	0	253	0	6	14	0	20	509
Hourly Total	0	806	73	0	879	1	57	1032	0	1090	0	30	43	0	73	2042
5:00 PM	0	204	24	0	228	0	15	253	0	268	0	14	16	0	30	526
5:15 PM	0	216	11	0	227	0	14	264	0	278	0	14	13	0	27	532
5:30 PM	0	196	12	0	208	0	16	257	0	273	0	17	15	0	32	513
5:45 PM	0	180	17	0	197	1	16	222	0	239	0	8	18	0	26	462
Hourly Total	0	796	64	0	860	1	61	996	0	1058	0	53	62	0	115	2033

Grand Total	4	5171	429	0	5604	6	278	5232	0	5516	0	208	355	0	563	11683
Approach %	0.1	92.3	7.7	-	-	0.1	5.0	94.9	-	-	0.0	36.9	63.1	-	-	-
Total %	0.0	44.3	3.7	-	48.0	0.1	2.4	44.8	-	47.2	0.0	1.8	3.0	-	4.8	-
Lights	4	5063	422	-	5489	6	274	5119	-	5399	0	208	340	-	548	11436
% Lights	100.0	97.9	98.4	-	97.9	100.0	98.6	97.8	-	97.9	-	100.0	95.8	-	97.3	97.9
Buses	0	15	6	-	21	0	3	16	-	19	0	0	12	-	12	52
% Buses	0.0	0.3	1.4	-	0.4	0.0	1.1	0.3	-	0.3	-	0.0	3.4	-	2.1	0.4
Single-Unit Trucks	0	66	1	-	67	0	1	62	-	63	0	0	3	-	3	133
% Single-Unit Trucks	0.0	1.3	0.2	-	1.2	0.0	0.4	1.2	-	1.1	-	0.0	0.8	-	0.5	1.1
Articulated Trucks	0	27	0	-	27	0	0	35	-	35	0	0	0	-	0	62
% Articulated Trucks	0.0	0.5	0.0	-	0.5	0.0	0.0	0.7	-	0.6	-	0.0	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Algonquin Road with Fairway View Drive
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Algonquin Road Eastbound					Algonquin Road Westbound					Fairway View Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:15 AM	0	196	9	0	205	0	11	125	0	136	0	5	17	0	22	363
7:30 AM	0	177	15	0	192	0	2	120	0	122	0	5	19	0	24	338
7:45 AM	0	195	17	0	212	0	14	141	0	155	0	3	25	0	28	395
8:00 AM	0	158	23	0	181	0	9	141	0	150	0	4	17	0	21	352
Total	0	726	64	0	790	0	36	527	0	563	0	17	78	0	95	1448
Approach %	0.0	91.9	8.1	-	-	0.0	6.4	93.6	-	-	0.0	17.9	82.1	-	-	-
Total %	0.0	50.1	4.4	-	54.6	0.0	2.5	36.4	-	38.9	0.0	1.2	5.4	-	6.6	-
PHF	0.000	0.926	0.696	-	0.932	0.000	0.643	0.934	-	0.908	0.000	0.850	0.780	-	0.848	0.916
Lights	0	701	61	-	762	0	34	502	-	536	0	17	73	-	90	1388
% Lights	-	96.6	95.3	-	96.5	-	94.4	95.3	-	95.2	-	100.0	93.6	-	94.7	95.9
Buses	0	3	3	-	6	0	1	5	-	6	0	0	5	-	5	17
% Buses	-	0.4	4.7	-	0.8	-	2.8	0.9	-	1.1	-	0.0	6.4	-	5.3	1.2
Single-Unit Trucks	0	14	0	-	14	0	1	11	-	12	0	0	0	-	0	26
% Single-Unit Trucks	-	1.9	0.0	-	1.8	-	2.8	2.1	-	2.1	-	0.0	0.0	-	0.0	1.8
Articulated Trucks	0	8	0	-	8	0	0	9	-	9	0	0	0	-	0	17
% Articulated Trucks	-	1.1	0.0	-	1.0	-	0.0	1.7	-	1.6	-	0.0	0.0	-	0.0	1.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Rosemont, Illinois, United States 60018
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Count Name: Algonquin Road with Fairway View Drive
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Algonquin Road Eastbound					Algonquin Road Westbound					Fairway View Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:30 PM	0	204	19	0	223	1	15	254	0	270	0	8	8	0	16	509
4:45 PM	0	215	21	0	236	0	9	244	0	253	0	6	14	0	20	509
5:00 PM	0	204	24	0	228	0	15	253	0	268	0	14	16	0	30	526
5:15 PM	0	216	11	0	227	0	14	264	0	278	0	14	13	0	27	532
Total	0	839	75	0	914	1	53	1015	0	1069	0	42	51	0	93	2076
Approach %	0.0	91.8	8.2	-	-	0.1	5.0	94.9	-	-	0.0	45.2	54.8	-	-	-
Total %	0.0	40.4	3.6	-	44.0	0.0	2.6	48.9	-	51.5	0.0	2.0	2.5	-	4.5	-
PHF	0.000	0.971	0.781	-	0.968	0.250	0.883	0.961	-	0.961	0.000	0.750	0.797	-	0.775	0.976
Lights	0	835	75	-	910	1	53	1008	-	1062	0	42	49	-	91	2063
% Lights	-	99.5	100.0	-	99.6	100.0	100.0	99.3	-	99.3	-	100.0	96.1	-	97.8	99.4
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	3	0	-	3	0	0	2	-	2	0	0	2	-	2	7
% Single-Unit Trucks	-	0.4	0.0	-	0.3	0.0	0.0	0.2	-	0.2	-	0.0	3.9	-	2.2	0.3
Articulated Trucks	0	1	0	-	1	0	0	5	-	5	0	0	0	-	0	6
% Articulated Trucks	-	0.1	0.0	-	0.1	0.0	0.0	0.5	-	0.5	-	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Algonquin Road with Fairway View Drive
Site Code:
Start Date: 11/14/2019

Turning Movement Data

Start Time	Algonquin Road Eastbound					Algonquin Road Westbound					Fairway View Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
6:00 AM	0	155	6	0	161	0	3	38	0	41	0	0	5	0	5	207
6:15 AM	0	168	9	0	177	0	2	85	0	87	0	2	6	0	8	272
6:30 AM	0	208	22	0	230	0	1	115	0	116	0	2	13	0	15	361
6:45 AM	0	168	23	0	191	0	6	109	0	115	0	4	9	0	13	319
Hourly Total	0	699	60	0	759	0	12	347	0	359	0	8	33	0	41	1159
7:00 AM	0	189	19	0	208	0	8	106	0	114	0	3	14	0	17	339
7:15 AM	0	196	9	0	205	0	11	125	0	136	0	5	17	0	22	363
7:30 AM	0	177	15	0	192	0	2	120	0	122	0	5	19	0	24	338
7:45 AM	0	195	17	0	212	0	14	141	0	155	0	3	25	0	28	395
Hourly Total	0	757	60	0	817	0	35	492	0	527	0	16	75	0	91	1435
8:00 AM	0	158	23	0	181	0	9	141	0	150	0	4	17	0	21	352
8:15 AM	2	187	10	0	199	1	4	113	0	118	0	1	15	0	16	333
8:30 AM	0	204	14	0	218	0	9	90	0	99	0	8	13	0	21	338
8:45 AM	0	179	13	0	192	1	5	129	0	135	0	3	13	0	16	343
Hourly Total	2	728	60	0	790	2	27	473	0	502	0	16	58	0	74	1366
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	1	151	16	0	168	0	12	200	0	212	0	6	14	0	20	400
2:15 PM	0	160	12	0	172	0	11	212	0	223	0	12	8	0	20	415
2:30 PM	0	158	10	0	168	0	7	244	0	251	0	4	6	0	10	429
2:45 PM	1	162	13	0	176	1	17	251	0	269	0	10	2	0	12	457
Hourly Total	2	631	51	0	684	1	47	907	0	955	0	32	30	0	62	1701
3:00 PM	0	170	7	0	177	0	6	235	0	241	0	13	13	0	26	444
3:15 PM	0	173	13	0	186	1	12	232	0	245	0	16	16	0	32	463
3:30 PM	0	190	24	0	214	0	9	276	0	285	0	16	15	0	31	530
3:45 PM	0	221	17	0	238	0	12	242	0	254	0	8	10	0	18	510
Hourly Total	0	754	61	0	815	1	39	985	0	1025	0	53	54	0	107	1947
4:00 PM	0	188	13	0	201	0	19	248	0	267	0	8	14	0	22	490
4:15 PM	0	199	20	0	219	0	14	286	0	300	0	8	7	0	15	534
4:30 PM	0	204	19	0	223	1	15	254	0	270	0	8	8	0	16	509
4:45 PM	0	215	21	0	236	0	9	244	0	253	0	6	14	0	20	509
Hourly Total	0	806	73	0	879	1	57	1032	0	1090	0	30	43	0	73	2042
5:00 PM	0	204	24	0	228	0	15	253	0	268	0	14	16	0	30	526
5:15 PM	0	216	11	0	227	0	14	264	0	278	0	14	13	0	27	532
5:30 PM	0	196	12	0	208	0	16	257	0	273	0	17	15	0	32	513
5:45 PM	0	180	17	0	197	1	16	222	0	239	0	8	18	0	26	462
Hourly Total	0	796	64	0	860	1	61	996	0	1058	0	53	62	0	115	2033

Grand Total	4	5171	429	0	5604	6	278	5232	0	5516	0	208	355	0	563	11683
Approach %	0.1	92.3	7.7	-	-	0.1	5.0	94.9	-	-	0.0	36.9	63.1	-	-	-
Total %	0.0	44.3	3.7	-	48.0	0.1	2.4	44.8	-	47.2	0.0	1.8	3.0	-	4.8	-
Lights	4	5063	422	-	5489	6	274	5119	-	5399	0	208	340	-	548	11436
% Lights	100.0	97.9	98.4	-	97.9	100.0	98.6	97.8	-	97.9	-	100.0	95.8	-	97.3	97.9
Buses	0	15	6	-	21	0	3	16	-	19	0	0	12	-	12	52
% Buses	0.0	0.3	1.4	-	0.4	0.0	1.1	0.3	-	0.3	-	0.0	3.4	-	2.1	0.4
Single-Unit Trucks	0	66	1	-	67	0	1	62	-	63	0	0	3	-	3	133
% Single-Unit Trucks	0.0	1.3	0.2	-	1.2	0.0	0.4	1.2	-	1.1	-	0.0	0.8	-	0.5	1.1
Articulated Trucks	0	27	0	-	27	0	0	35	-	35	0	0	0	-	0	62
% Articulated Trucks	0.0	0.5	0.0	-	0.5	0.0	0.0	0.7	-	0.6	-	0.0	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Algonquin Road with Fairway View Drive
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Algonquin Road Eastbound					Algonquin Road Westbound					Fairway View Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:15 AM	0	196	9	0	205	0	11	125	0	136	0	5	17	0	22	363
7:30 AM	0	177	15	0	192	0	2	120	0	122	0	5	19	0	24	338
7:45 AM	0	195	17	0	212	0	14	141	0	155	0	3	25	0	28	395
8:00 AM	0	158	23	0	181	0	9	141	0	150	0	4	17	0	21	352
Total	0	726	64	0	790	0	36	527	0	563	0	17	78	0	95	1448
Approach %	0.0	91.9	8.1	-	-	0.0	6.4	93.6	-	-	0.0	17.9	82.1	-	-	-
Total %	0.0	50.1	4.4	-	54.6	0.0	2.5	36.4	-	38.9	0.0	1.2	5.4	-	6.6	-
PHF	0.000	0.926	0.696	-	0.932	0.000	0.643	0.934	-	0.908	0.000	0.850	0.780	-	0.848	0.916
Lights	0	701	61	-	762	0	34	502	-	536	0	17	73	-	90	1388
% Lights	-	96.6	95.3	-	96.5	-	94.4	95.3	-	95.2	-	100.0	93.6	-	94.7	95.9
Buses	0	3	3	-	6	0	1	5	-	6	0	0	5	-	5	17
% Buses	-	0.4	4.7	-	0.8	-	2.8	0.9	-	1.1	-	0.0	6.4	-	5.3	1.2
Single-Unit Trucks	0	14	0	-	14	0	1	11	-	12	0	0	0	-	0	26
% Single-Unit Trucks	-	1.9	0.0	-	1.8	-	2.8	2.1	-	2.1	-	0.0	0.0	-	0.0	1.8
Articulated Trucks	0	8	0	-	8	0	0	9	-	9	0	0	0	-	0	17
% Articulated Trucks	-	1.1	0.0	-	1.0	-	0.0	1.7	-	1.6	-	0.0	0.0	-	0.0	1.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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Count Name: Algonquin Road with Fairway View Drive
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Algonquin Road Eastbound					Algonquin Road Westbound					Fairway View Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:30 PM	0	204	19	0	223	1	15	254	0	270	0	8	8	0	16	509
4:45 PM	0	215	21	0	236	0	9	244	0	253	0	6	14	0	20	509
5:00 PM	0	204	24	0	228	0	15	253	0	268	0	14	16	0	30	526
5:15 PM	0	216	11	0	227	0	14	264	0	278	0	14	13	0	27	532
Total	0	839	75	0	914	1	53	1015	0	1069	0	42	51	0	93	2076
Approach %	0.0	91.8	8.2	-	-	0.1	5.0	94.9	-	-	0.0	45.2	54.8	-	-	-
Total %	0.0	40.4	3.6	-	44.0	0.0	2.6	48.9	-	51.5	0.0	2.0	2.5	-	4.5	-
PHF	0.000	0.971	0.781	-	0.968	0.250	0.883	0.961	-	0.961	0.000	0.750	0.797	-	0.775	0.976
Lights	0	835	75	-	910	1	53	1008	-	1062	0	42	49	-	91	2063
% Lights	-	99.5	100.0	-	99.6	100.0	100.0	99.3	-	99.3	-	100.0	96.1	-	97.8	99.4
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	3	0	-	3	0	0	2	-	2	0	0	2	-	2	7
% Single-Unit Trucks	-	0.4	0.0	-	0.3	0.0	0.0	0.2	-	0.2	-	0.0	3.9	-	2.2	0.3
Articulated Trucks	0	1	0	-	1	0	0	5	-	5	0	0	0	-	0	6
% Articulated Trucks	-	0.1	0.0	-	0.1	0.0	0.0	0.5	-	0.5	-	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Algonquin Road with Fairway View Drive - Sup... - TMC

Thu Nov 14, 2019
Full Length (9 AM-2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 739083, Location: 42.175671, -88.35452

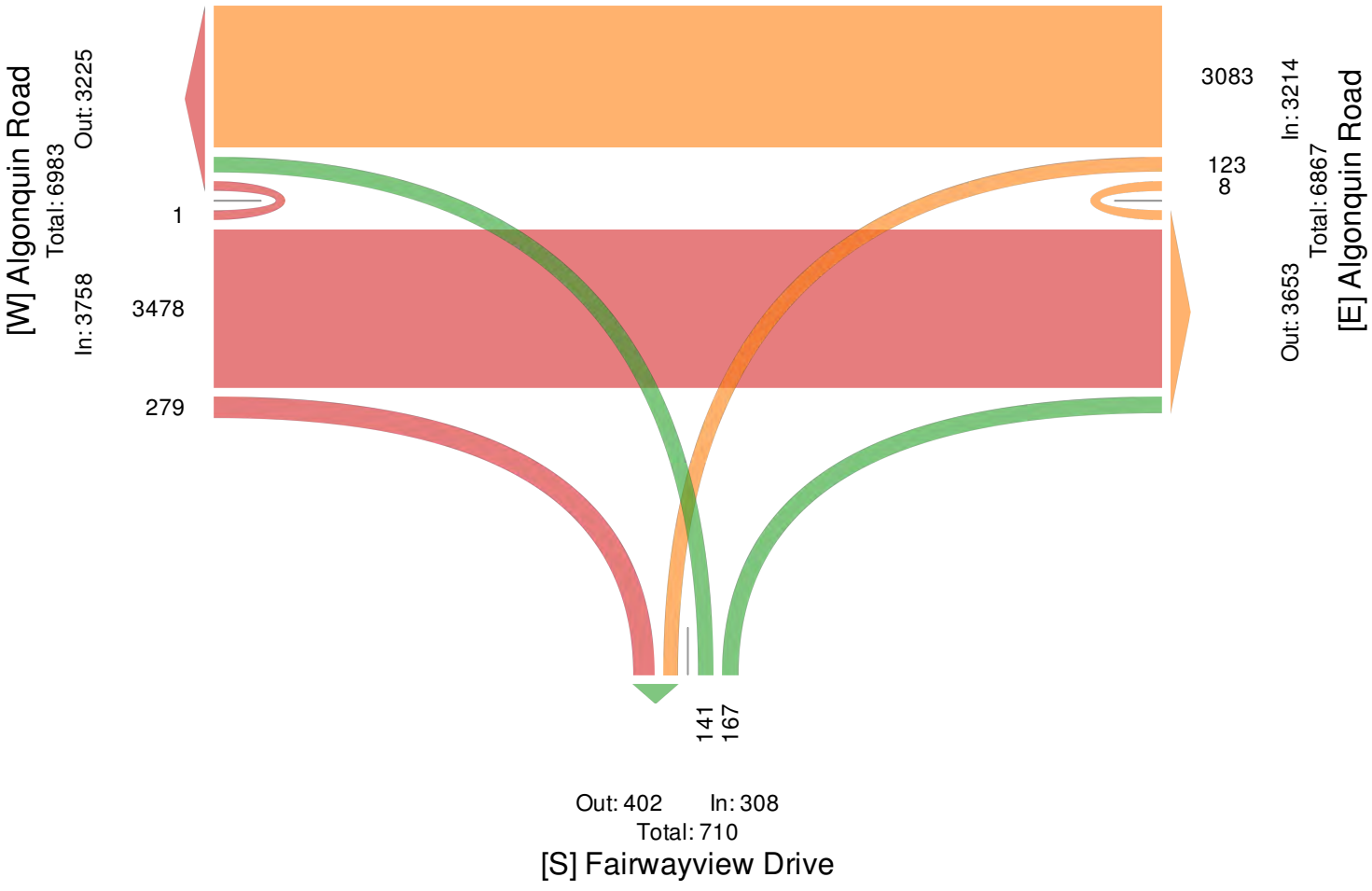
Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	Algonquin Road					Fairwayview Drive					Algonquin Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2019-11-14 9:00AM	110	3	0	**113**	0	7	1	0	**8**	0	10	156	0	**166**	0	**287**
9:15AM	109	6	0	**115**	0	8	6	0	**14**	0	19	205	0	**224**	0	**353**
9:30AM	120	3	0	**123**	0	7	10	0	**17**	0	11	173	0	**184**	0	**324**
9:45AM	128	1	0	**129**	0	7	6	0	**13**	0	12	169	0	**181**	0	**323**
Hourly Total	467	13	0	**480**	0	29	23	0	**52**	0	52	703	0	**755**	0	**1287**
10:00AM	120	4	0	**124**	0	7	2	0	**9**	0	16	155	0	**171**	0	**304**
10:15AM	120	3	0	**123**	0	7	5	0	**12**	0	14	180	0	**194**	0	**329**
10:30AM	147	8	0	**155**	0	12	3	0	**15**	0	11	174	0	**185**	0	**355**
10:45AM	131	6	0	**137**	0	7	7	0	**14**	0	14	182	0	**196**	0	**347**
Hourly Total	518	21	0	**539**	0	33	17	0	**50**	0	55	691	0	**746**	0	**1335**
11:00AM	152	3	0	**155**	0	5	10	0	**15**	0	13	165	0	**178**	0	**348**
11:15AM	151	9	0	**160**	0	9	6	0	**15**	0	13	198	0	**211**	0	**386**
11:30AM	162	6	1	**169**	0	16	8	0	**24**	0	13	187	0	**200**	0	**393**
11:45AM	176	11	0	**187**	0	10	2	0	**12**	0	14	191	0	**205**	0	**404**
Hourly Total	641	29	1	**671**	0	40	26	0	**66**	0	53	741	0	**794**	0	**1531**
12:00PM	157	7	1	**165**	0	7	7	0	**14**	0	16	200	0	**216**	0	**395**
12:15PM	168	11	2	**181**	0	4	16	0	**20**	0	12	178	1	**191**	0	**392**
12:30PM	193	4	0	**197**	0	8	8	0	**16**	0	17	158	0	**175**	0	**388**
12:45PM	180	10	0	**190**	0	6	10	0	**16**	0	13	170	0	**183**	0	**389**
Hourly Total	698	32	3	**733**	0	25	41	0	**66**	0	58	706	1	**765**	0	**1564**
1:00PM	182	7	1	**190**	0	5	8	0	**13**	0	11	152	0	**163**	0	**366**
1:15PM	183	6	0	**189**	0	11	3	0	**14**	0	15	169	0	**184**	0	**387**
1:30PM	188	6	0	**194**	0	16	14	0	**30**	0	18	174	0	**192**	0	**416**
1:45PM	206	9	3	**218**	0	8	9	0	**17**	0	17	142	0	**159**	0	**394**
Hourly Total	759	28	4	**791**	0	40	34	0	**74**	0	61	637	0	**698**	0	**1563**
Total	3083	123	8	**3214**	0	167	141	0	**308**	0	279	3478	1	**3758**	0	**7280**
% Approach	95.9%	3.8%	0.2%	**-**	-	54.2%	45.8%	0%	**-**	-	7.4%	92.5%	0%	**-**	-	-
% Total	42.3%	1.7%	0.1%	**44.1%**	-	2.3%	1.9%	0%	**4.2%**	-	3.8%	47.8%	0%	**51.6%**	-	-
Lights	2972	121	7	**3100**	-	163	139	0	**302**	-	277	3375	1	**3653**	-	7055
% Lights	96.4%	98.4%	87.5%	**96.5%**	-	97.6%	98.6%	0%	**98.1%**	-	99.3%	97.0%	100%	**97.2%**	-	96.9%
Single-Unit Trucks	78	2	1	**81**	-	3	2	0	**5**	-	0	72	0	**72**	-	158
% Single-Unit Trucks	2.5%	1.6%	12.5%	**2.5%**	-	1.8%	1.4%	0%	**1.6%**	-	0%	2.1%	0%	**1.9%**	-	2.2%
Articulated Trucks	26	0	0	**26**	-	0	0	0	**0**	-	0	28	0	**28**	-	54
% Articulated Trucks	0.8%	0%	0%	**0.8%**	-	0%	0%	0%	**0%**	-	0%	0.8%	0%	**0.7%**	-	0.7%
Buses	7	0	0	**7**	-	1	0	0	**1**	-	2	3	0	**5**	-	13
% Buses	0.2%	0%	0%	**0.2%**	-	0.6%	0%	0%	**0.3%**	-	0.7%	0.1%	0%	**0.1%**	-	0.2%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Algonquin Road with Fairway View Drive - Sup... - TMC
Thu Nov 14, 2019
Full Length (9 AM-2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 739083, Location: 42.175671, -88.35452

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Algonquin Road with Fairway View Drive - Sup... - TMC

Thu Nov 14, 2019
AM Peak (10 AM - 11 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 739083, Location: 42.175671, -88.35452

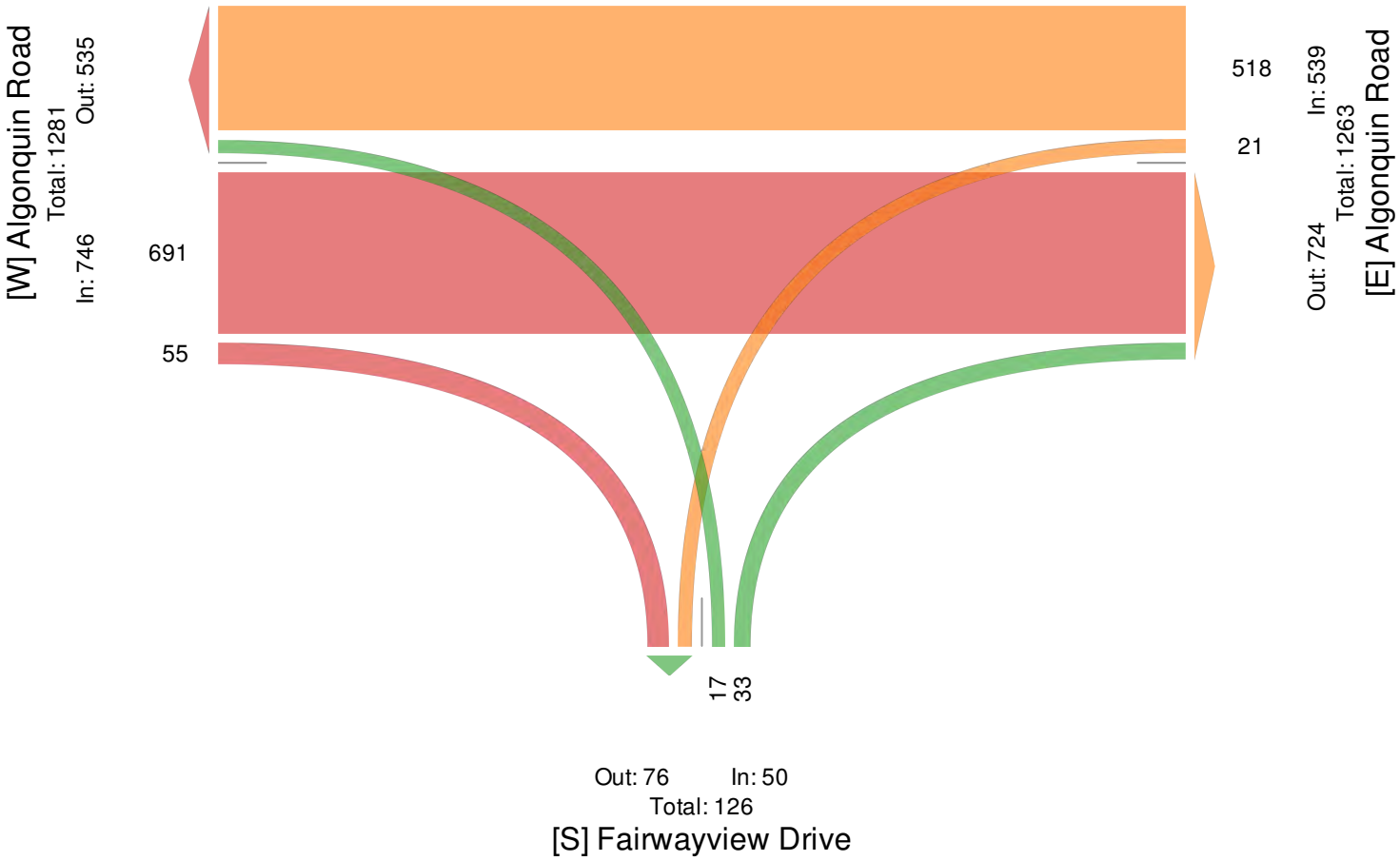
Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg Direction	Algonquin Road Westbound					Fairwayview Drive Northbound					Algonquin Road Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2019-11-14 10:00AM	120	4	0	**124**	0	7	2	0	**9**	0	16	155	0	**171**	0	**304**
10:15AM	120	3	0	**123**	0	7	5	0	**12**	0	14	180	0	**194**	0	**329**
10:30AM	147	8	0	**155**	0	12	3	0	**15**	0	11	174	0	**185**	0	**355**
10:45AM	131	6	0	**137**	0	7	7	0	**14**	0	14	182	0	**196**	0	**347**
Total	518	21	0	**539**	0	33	17	0	**50**	0	55	691	0	**746**	0	**1335**
% Approach	96.1%	3.9%	0%	-	-	66.0%	34.0%	0%	-	-	7.4%	92.6%	0%	-	-	-
% Total	38.8%	1.6%	0%	**40.4%**	-	2.5%	1.3%	0%	**3.7%**	-	4.1%	51.8%	0%	**55.9%**	-	-
PHF	0.881	0.656	-	**0.869**	-	0.688	0.607	-	**0.833**	-	0.859	0.949	-	**0.952**	-	0.940
Lights	497	20	0	**517**	-	32	17	0	**49**	-	55	671	0	**726**	-	1292
% Lights	95.9%	95.2%	0%	**95.9%**	-	97.0%	100%	0%	**98.0%**	-	100%	97.1%	0%	**97.3%**	-	96.8%
Single-Unit Trucks	14	1	0	**15**	-	0	0	0	**0**	-	0	15	0	**15**	-	30
% Single-Unit Trucks	2.7%	4.8%	0%	**2.8%**	-	0%	0%	0%	**0%**	-	0%	2.2%	0%	**2.0%**	-	2.2%
Articulated Trucks	6	0	0	**6**	-	0	0	0	**0**	-	0	5	0	**5**	-	11
% Articulated Trucks	1.2%	0%	0%	**1.1%**	-	0%	0%	0%	**0%**	-	0%	0.7%	0%	**0.7%**	-	0.8%
Buses	1	0	0	**1**	-	1	0	0	**1**	-	0	0	0	**0**	-	2
% Buses	0.2%	0%	0%	**0.2%**	-	3.0%	0%	0%	**2.0%**	-	0%	0%	0%	**0%**	-	0.1%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Algonquin Road with Fairway View Drive - Sup... - TMC
Thu Nov 14, 2019
AM Peak (10 AM - 11 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 739083, Location: 42.175671, -88.35452

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Algonquin Road with Fairway View Drive - Sup... - TMC

Thu Nov 14, 2019
Midday Peak (11:30 AM - 12:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 739083, Location: 42.175671, -88.35452

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	Algonquin Road					Fairwayview Drive					Algonquin Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2019-11-14 11:30AM	162	6	1	**169**	0	16	8	0	**24**	0	13	187	0	**200**	0	**393**
11:45AM	176	11	0	**187**	0	10	2	0	**12**	0	14	191	0	**205**	0	**404**
12:00PM	157	7	1	**165**	0	7	7	0	**14**	0	16	200	0	**216**	0	**395**
12:15PM	168	11	2	**181**	0	4	16	0	**20**	0	12	178	1	**191**	0	**392**
Total	663	35	4	**702**	0	37	33	0	**70**	0	55	756	1	**812**	0	**1584**
% Approach	94.4%	5.0%	0.6%	**-**	-	52.9%	47.1%	0%	**-**	-	6.8%	93.1%	0.1%	**-**	-	-
% Total	41.9%	2.2%	0.3%	**44.3%**	-	2.3%	2.1%	0%	**4.4%**	-	3.5%	47.7%	0.1%	**51.3%**	-	-
PHF	0.942	0.795	0.500	**0.939**	-	0.578	0.516	-	**0.729**	-	0.859	0.945	0.250	**0.940**	-	0.980
Lights	636	35	4	**675**	-	36	32	0	**68**	-	53	727	1	**781**	-	1524
% Lights	95.9%	100%	100%	**96.2%**	-	97.3%	97.0%	0%	**97.1%**	-	96.4%	96.2%	100%	**96.2%**	-	96.2%
Single-Unit Trucks	18	0	0	**18**	-	1	1	0	**2**	-	0	19	0	**19**	-	39
% Single-Unit Trucks	2.7%	0%	0%	**2.6%**	-	2.7%	3.0%	0%	**2.9%**	-	0%	2.5%	0%	**2.3%**	-	2.5%
Articulated Trucks	7	0	0	**7**	-	0	0	0	**0**	-	0	8	0	**8**	-	15
% Articulated Trucks	1.1%	0%	0%	**1.0%**	-	0%	0%	0%	**0%**	-	0%	1.1%	0%	**1.0%**	-	0.9%
Buses	2	0	0	**2**	-	0	0	0	**0**	-	2	2	0	**4**	-	6
% Buses	0.3%	0%	0%	**0.3%**	-	0%	0%	0%	**0%**	-	3.6%	0.3%	0%	**0.5%**	-	0.4%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Algonquin Road with Fairway View Drive - Sup... - TMC
Thu Nov 14, 2019
Midday Peak (11:30 AM - 12:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 739083, Location: 42.175671, -88.35452

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
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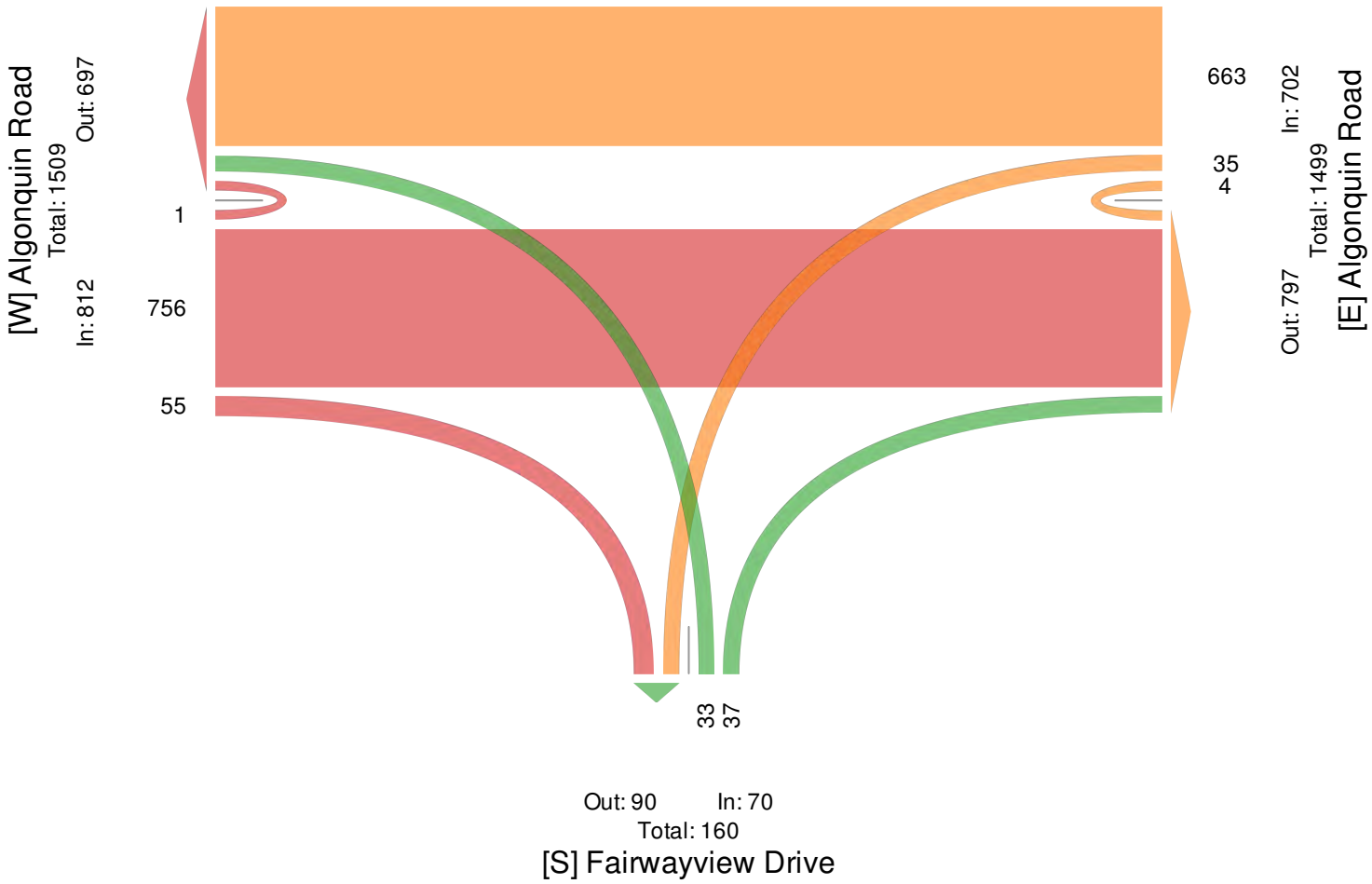

Algonquin Road with Fairway View Drive - Sup... - TMC

Thu Nov 14, 2019
PM Peak (1 PM - 2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 739083, Location: 42.175671, -88.35452

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg Direction	Algonquin Road Westbound					Fairwayview Drive Northbound					Algonquin Road Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2019-11-14 1:00PM	182	7	1	**190**	0	5	8	0	**13**	0	11	152	0	**163**	0	**366**
1:15PM	183	6	0	**189**	0	11	3	0	**14**	0	15	169	0	**184**	0	**387**
1:30PM	188	6	0	**194**	0	16	14	0	**30**	0	18	174	0	**192**	0	**416**
1:45PM	206	9	3	**218**	0	8	9	0	**17**	0	17	142	0	**159**	0	**394**
Total	759	28	4	**791**	0	40	34	0	**74**	0	61	637	0	**698**	0	**1563**
% Approach	96.0%	3.5%	0.5%	**-**	-	54.1%	45.9%	0%	**-**	-	8.7%	91.3%	0%	**-**	-	-
% Total	48.6%	1.8%	0.3%	**50.6%**	-	2.6%	2.2%	0%	**4.7%**	-	3.9%	40.8%	0%	**44.7%**	-	-
PHF	0.921	0.778	0.333	**0.907**	-	0.625	0.607	-	**0.617**	-	0.847	0.915	-	**0.909**	-	0.939
Lights	734	28	3	**765**	-	39	34	0	**73**	-	61	619	0	**680**	-	1518
% Lights	96.7%	100%	75.0%	**96.7%**	-	97.5%	100%	0%	**98.6%**	-	100%	97.2%	0%	**97.4%**	-	97.1%
Single-Unit Trucks	18	0	1	**19**	-	1	0	0	**1**	-	0	11	0	**11**	-	31
% Single-Unit Trucks	2.4%	0%	25.0%	**2.4%**	-	2.5%	0%	0%	**1.4%**	-	0%	1.7%	0%	**1.6%**	-	2.0%
Articulated Trucks	4	0	0	**4**	-	0	0	0	**0**	-	0	6	0	**6**	-	10
% Articulated Trucks	0.5%	0%	0%	**0.5%**	-	0%	0%	0%	**0%**	-	0%	0.9%	0%	**0.9%**	-	0.6%
Buses	3	0	0	**3**	-	0	0	0	**0**	-	0	1	0	**1**	-	4
% Buses	0.4%	0%	0%	**0.4%**	-	0%	0%	0%	**0%**	-	0%	0.2%	0%	**0.1%**	-	0.3%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Algonquin Road with Fairway View Drive - Sup... - TMC
Thu Nov 14, 2019
PM Peak (1 PM - 2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 739083, Location: 42.175671, -88.35452

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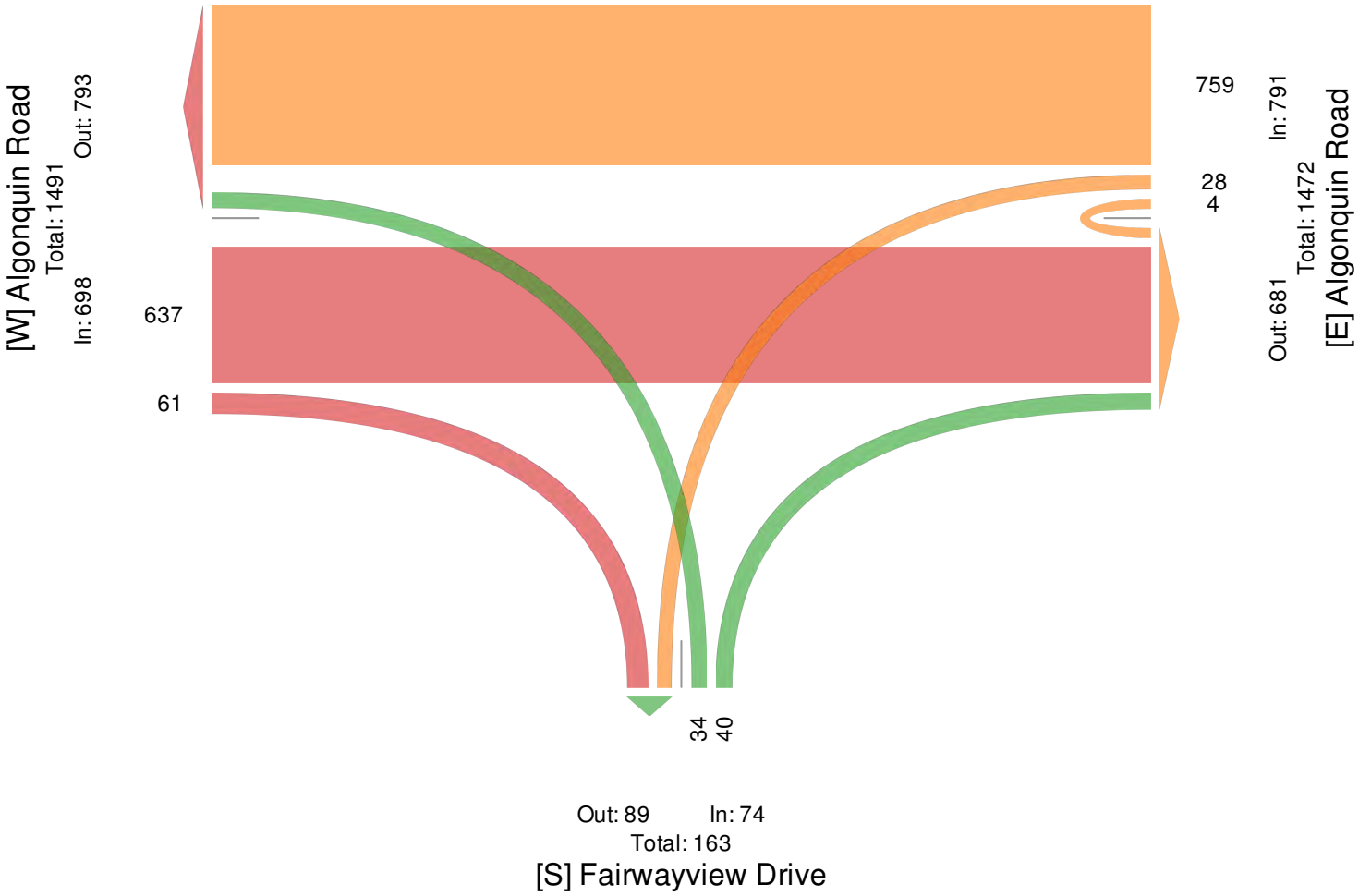


Algonquin, IL Weather: Cold and Dry 12/04/19
Fairway View Dr and Bunker Hill Drive 22:41:26
Wednesday December 4, 2019

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 7 fairwayview/bunkerhill

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
600	1	0	4	2	3	0	3	4	1	0	6	1	25
615	2	1	7	0	3	0	8	4	0	0	7	2	34
630	0	0	22	2	1	0	6	4	1	0	14	2	52
645	2	0	22	5	11	2	4	3	2	1	22	2	76
700	1	3	30	2	6	4	4	6	0	1	24	1	82
715	1	1	19	6	14	2	5	7	0	0	22	1	78
730	5	2	13	6	16	1	6	6	1	0	24	2	82
745	2	2	17	7	14	3	9	15	0	2	34	2	107
800	3	2	12	2	15	0	5	7	0	0	27	3	76
815	0	6	19	3	12	3	6	7	0	0	42	1	99
830	1	4	17	5	15	2	5	11	0	0	32	3	95
845	1	1	27	7	20	2	5	4	0	1	26	2	96
1400	1	4	12	17	61	11	3	3	0	2	22	2	138
1415	2	3	17	8	59	4	3	4	0	1	26	0	127
1430	1	5	12	9	55	7	3	2	1	1	32	2	130
1445	4	3	15	8	43	3	4	4	0	1	32	1	118
1500	3	4	15	11	55	9	5	5	0	1	23	1	132
1515	5	6	14	20	52	8	4	1	0	0	26	3	139
1530	4	5	16	21	65	7	8	7	0	2	36	1	172
1545	3	7	23	10	38	6	5	5	0	2	45	1	145
1600	7	9	13	13	54	5	6	3	1	0	41	1	153
1615	5	11	16	9	44	2	7	3	0	0	36	3	136
1630	3	7	13	11	61	8	5	2	0	1	39	4	154
1645	0	5	17	17	35	11	6	1	1	0	42	1	136
1700	1	8	22	24	48	5	12	3	1	0	48	0	172
1715	5	8	18	8	41	6	5	2	3	1	27	2	126
1730	2	10	15	6	58	13	11	6	2	1	45	4	173
1745	3	7	15	10	45	6	13	9	2	2	33	0	145
Total	68	124	462	249	944	130	166	138	16	20	833	48	3198

Algonquin, IL Weather: Cold and Dry 12/04/19
Fairway View Dr and Bunker Hill Drive 22:41:26
Wednesday December 4, 2019

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - Totals

Intersection # 7 fairwayview/bunkerhill

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
600	5	5	8	7	7	13	0	5	25
615	10	3	12	9	6	22	1	5	34
630	22	3	11	16	8	42	0	2	52
645	24	18	9	25	10	48	3	15	76
700	34	12	10	26	9	58	8	7	82
715	21	22	12	23	14	46	3	15	78
730	20	23	13	26	14	43	3	22	82
745	21	24	24	38	24	60	7	16	107
800	17	17	12	30	12	44	2	18	76
815	25	18	13	43	11	67	9	12	99
830	22	22	16	35	19	54	6	16	95
845	29	29	9	29	13	58	4	21	96
1400	17	89	6	26	22	37	17	62	138
1415	22	71	7	27	12	46	8	61	127
1430	18	71	6	35	13	47	13	57	130
1445	22	54	8	34	13	51	7	47	118
1500	22	75	10	25	17	43	14	58	132
1515	25	80	5	29	24	44	14	57	139
1530	25	93	15	39	29	60	14	69	172
1545	33	54	10	48	16	73	15	41	145
1600	29	72	10	42	17	60	14	62	153
1615	32	55	10	39	15	59	13	49	136
1630	23	80	7	44	17	57	16	64	154
1645	22	63	8	43	19	65	16	36	136
1700	31	77	16	48	27	82	13	50	172
1715	31	55	10	30	12	50	15	49	126
1730	27	77	19	50	16	71	24	62	173
1745	25	61	24	35	19	61	15	50	145
Total	654	1323	320	901	435	1461	274	1028	3198

Algonquin, IL Weather: Cold and Dry 12/04/19
Fairway View Dr and Bunker Hill Drive 22:41:26
Wednesday December 4, 2019

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Flow Rates: by Movement

Intersection # 7 fairwayview/bunkerhill

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
600	4	0	16	8	12	0	12	16	4	0	24	4	100
615	8	4	28	0	12	0	32	16	0	0	28	8	136
630	0	0	88	8	4	0	24	16	4	0	56	8	208
645	8	0	88	20	44	8	16	12	8	4	88	8	304
700	4	12	120	8	24	16	16	24	0	4	96	4	328
715	4	4	76	24	56	8	20	28	0	0	88	4	312
730	20	8	52	24	64	4	24	24	4	0	96	8	328
745	8	8	68	28	56	12	36	60	0	8	136	8	428
800	12	8	48	8	60	0	20	28	0	0	108	12	304
815	0	24	76	12	48	12	24	28	0	0	168	4	396
830	4	16	68	20	60	8	20	44	0	0	128	12	380
845	4	4	108	28	80	8	20	16	0	4	104	8	384
1400	4	16	48	68	244	44	12	12	0	8	88	8	552
1415	8	12	68	32	236	16	12	16	0	4	104	0	508
1430	4	20	48	36	220	28	12	8	4	4	128	8	520
1445	16	12	60	32	172	12	16	16	0	4	128	4	472
1500	12	16	60	44	220	36	20	20	0	4	92	4	528
1515	20	24	56	80	208	32	16	4	0	0	104	12	556
1530	16	20	64	84	260	28	32	28	0	8	144	4	688
1545	12	28	92	40	152	24	20	20	0	8	180	4	580
1600	28	36	52	52	216	20	24	12	4	0	164	4	612
1615	20	44	64	36	176	8	28	12	0	0	144	12	544
1630	12	28	52	44	244	32	20	8	0	4	156	16	616
1645	0	20	68	68	140	44	24	4	4	0	168	4	544
1700	4	32	88	96	192	20	48	12	4	0	192	0	688
1715	20	32	72	32	164	24	20	8	12	4	108	8	504
1730	8	40	60	24	232	52	44	24	8	4	180	16	692
1745	12	28	60	40	180	24	52	36	8	8	132	0	580

Algonquin, IL Weather: Cold and Dry 12/04/19
Fairway View Dr and Bunker Hill Drive 22:41:26
Wednesday December 4, 2019

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Flow Rates: Appr/Exit Totals

Intersection # 7 fairwayview/bunkerhill

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
600	20	20	32	28	28	52	0	20	100
615	40	12	48	36	24	88	4	20	136
630	88	12	44	64	32	168	0	8	208
645	96	72	36	100	40	192	12	60	304
700	136	48	40	104	36	232	32	28	328
715	84	88	48	92	56	184	12	60	312
730	80	92	52	104	56	172	12	88	328
745	84	96	96	152	96	240	28	64	428
800	68	68	48	120	48	176	8	72	304
815	100	72	52	172	44	268	36	48	396
830	88	88	64	140	76	216	24	64	380
845	116	116	36	116	52	232	16	84	384
1400	68	356	24	104	88	148	68	248	552
1415	88	284	28	108	48	184	32	244	508
1430	72	284	24	140	52	188	52	228	520
1445	88	216	32	136	52	204	28	188	472
1500	88	300	40	100	68	172	56	232	528
1515	100	320	20	116	96	176	56	228	556
1530	100	372	60	156	116	240	56	276	688
1545	132	216	40	192	64	292	60	164	580
1600	116	288	40	168	68	240	56	248	612
1615	128	220	40	156	60	236	52	196	544
1630	92	320	28	176	68	228	64	256	616
1645	88	252	32	172	76	260	64	144	544
1700	124	308	64	192	108	328	52	200	688
1715	124	220	40	120	48	200	60	196	504
1730	108	308	76	200	64	284	96	248	692
1745	100	244	96	140	76	244	60	200	580

Algonquin, IL Weather: Cold and Dry 12/04/19
Fairway View Dr and Bunker Hill Drive 22:41:26
Wednesday December 4, 2019

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 7 fairwayview/bunkerhill

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
600	5	1	55	9	18	2	21	15	4	1	49	7	187
615	5	4	81	9	21	6	22	17	3	2	67	7	244
630	4	4	93	15	32	8	19	20	3	2	82	6	288
645	9	6	84	19	47	9	19	22	3	2	92	6	318
700	9	8	79	21	50	10	24	34	1	3	104	6	349
715	11	7	61	21	59	6	25	35	1	2	107	8	343
730	10	12	61	18	57	7	26	35	1	2	127	8	364
745	6	14	65	17	56	8	25	40	0	2	135	9	377
800	5	13	75	17	62	7	21	29	0	1	127	9	366
815	2	11	63	15	47	7	16	22	0	1	100	6	290*
830	2	5	44	12	35	4	10	15	0	1	58	5	191*
845	1	1	27	7	20	2	5	4	0	1	26	2	96*
1400	8	15	56	42	218	25	13	13	1	5	112	5	513
1415	10	15	59	36	212	23	15	15	1	4	113	4	507
1430	13	18	56	48	205	27	16	12	1	3	113	7	519
1445	16	18	60	60	215	27	21	17	0	4	117	6	561
1500	15	22	68	62	210	30	22	18	0	5	130	6	588
1515	19	27	66	64	209	26	23	16	1	4	148	6	609
1530	19	32	68	53	201	20	26	18	1	4	158	6	606
1545	18	34	65	43	197	21	23	13	1	3	161	9	588
1600	15	32	59	50	194	26	24	9	2	1	158	9	579
1615	9	31	68	61	188	26	30	9	2	1	165	8	598
1630	9	28	70	60	185	30	28	8	5	2	156	7	588
1645	8	31	72	55	182	35	34	12	7	2	162	7	607
1700	11	33	70	48	192	30	41	20	8	4	153	6	616
1715	10	25	48	24	144	25	29	17	7	4	105	6	444*
1730	5	17	30	16	103	19	24	15	4	3	78	4	318*
1745	3	7	15	10	45	6	13	9	2	2	33	0	145*

Algonquin, IL Weather: Cold and Dry 12/04/19
Fairway View Dr and Bunker Hill Drive 22:41:26
Wednesday December 4, 2019

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 7 fairwayview/bunkerhill

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
600	61	29	40	57	31	125	4	27	187
615	90	36	42	76	33	170	12	29	244
630	101	55	42	90	41	194	14	39	288
645	99	75	44	100	47	195	17	59	318
700	96	81	59	113	61	207	21	60	349
715	79	86	61	117	64	193	15	71	343
730	83	82	62	137	61	214	21	68	364
745	85	81	65	146	66	225	24	62	377
800	93	86	50	137	55	223	21	67	366
815	76	69	38	107	43	179	19	49	290*
830	51	51	25	64	32	112	10	37	191*
845	29	29	9	29	13	58	4	21	96*
1400	79	285	27	122	60	181	45	227	513
1415	84	271	31	121	55	187	42	223	507
1430	87	280	29	123	67	185	48	219	519
1445	94	302	38	127	83	198	49	231	561
1500	105	302	40	141	86	220	57	225	588
1515	112	299	40	158	86	237	57	229	609
1530	119	274	45	168	77	252	56	221	606
1545	117	261	37	173	65	249	58	216	588
1600	106	270	35	168	68	241	59	211	579
1615	108	275	41	174	78	263	58	199	598
1630	107	275	41	165	75	254	60	199	588
1645	111	272	53	171	74	268	68	197	607
1700	114	270	69	163	74	264	67	211	616
1715	83	193	53	115	47	182	54	161	444*
1730	52	138	43	85	35	132	39	112	318*
1745	25	61	24	35	19	61	15	50	145*

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Bunker Hill Drive with Brookside Avenue
Site Code:
Start Date: 11/14/2019

Turning Movement Data

Start Time	Bunker Hill Drive Eastbound						Bunker Hill Drive Westbound						Brookside Avenue Northbound						Brookside Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	0	14	0	0	14	0	0	1	1	0	2	0	0	0	0	0	0	0	2	0	1	0	3	19
6:15 AM	0	0	29	0	0	29	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	35
6:30 AM	0	0	60	0	0	60	0	0	7	0	0	7	0	0	0	1	0	1	0	5	0	0	0	5	73
6:45 AM	0	0	60	0	0	60	0	1	24	1	0	26	0	0	0	2	0	2	0	4	0	1	0	5	93
Hourly Total	0	0	163	0	0	163	0	1	38	2	0	41	0	0	0	3	0	3	0	11	0	2	0	13	220
7:00 AM	0	0	62	0	0	62	0	0	12	1	0	13	0	0	0	1	1	1	0	9	0	0	1	9	85
7:15 AM	0	0	61	0	0	61	0	0	21	5	0	26	0	0	0	5	0	5	0	14	0	0	0	14	106
7:30 AM	0	1	46	0	0	47	0	3	35	5	0	43	0	1	0	2	0	3	0	4	1	6	0	11	104
7:45 AM	0	0	55	1	0	56	0	0	17	1	0	18	0	0	0	1	0	1	0	5	0	0	0	5	80
Hourly Total	0	1	224	1	0	226	0	3	85	12	0	100	0	1	0	9	1	10	0	32	1	6	1	39	375
8:00 AM	0	0	52	0	0	52	0	0	14	2	0	16	0	0	0	0	1	0	0	3	0	1	0	4	72
8:15 AM	0	2	47	1	0	50	0	0	24	1	0	25	0	0	0	2	0	2	0	5	0	1	0	6	83
8:30 AM	0	0	62	0	0	62	0	0	24	1	0	25	0	0	0	3	0	3	0	2	0	0	0	2	92
8:45 AM	0	0	67	0	0	67	0	0	24	2	0	26	0	0	0	0	0	0	0	6	0	0	0	6	99
Hourly Total	0	2	228	1	0	231	0	0	86	6	0	92	0	0	0	5	1	5	0	16	0	2	0	18	346
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	0	55	0	0	55	0	0	67	3	0	70	0	0	1	1	0	2	0	1	0	0	0	1	128
2:15 PM	0	0	53	0	0	53	0	1	75	7	0	83	0	0	0	1	0	1	0	0	0	0	0	0	137
2:30 PM	0	0	58	0	0	58	0	4	60	4	0	68	0	1	0	1	0	2	0	3	0	0	0	3	131
2:45 PM	0	1	48	1	0	50	0	0	66	2	0	68	0	0	0	1	0	1	0	3	0	1	0	4	123
Hourly Total	0	1	214	1	0	216	0	5	268	16	0	289	0	1	1	4	0	6	0	7	0	1	0	8	519
3:00 PM	0	0	42	1	0	43	0	0	98	12	0	110	0	0	0	2	0	2	0	7	0	0	0	7	162
3:15 PM	0	0	52	0	0	52	0	1	78	3	0	82	0	1	1	1	0	3	0	5	1	1	1	7	144
3:30 PM	0	1	54	0	0	55	0	1	83	7	0	91	0	0	0	1	0	1	0	6	0	0	0	6	153
3:45 PM	0	0	73	0	0	73	0	1	78	11	0	90	0	0	0	1	0	1	0	5	0	0	0	5	169
Hourly Total	0	1	221	1	0	223	0	3	337	33	0	373	0	1	1	5	0	7	0	23	1	1	1	25	628
4:00 PM	0	0	47	0	0	47	0	0	74	6	0	80	0	0	0	0	0	0	0	5	1	1	0	7	134
4:15 PM	0	0	55	0	0	55	0	1	84	6	0	91	0	1	0	0	0	1	0	3	0	1	0	4	151
4:30 PM	0	1	68	0	0	69	0	1	70	7	0	78	0	0	0	1	0	1	0	6	0	1	0	7	155
4:45 PM	0	1	75	0	0	76	0	4	64	6	0	74	0	0	0	0	0	0	0	7	0	0	0	7	157
Hourly Total	0	2	245	0	0	247	0	6	292	25	0	323	0	1	0	1	0	2	0	21	1	3	0	25	597
5:00 PM	0	0	71	0	0	71	0	2	107	4	0	113	0	0	1	2	0	3	0	8	1	0	0	9	196
5:15 PM	0	0	74	1	0	75	0	1	111	10	0	122	0	1	0	0	0	1	0	5	0	0	0	5	203
5:30 PM	0	0	55	0	0	55	0	2	90	5	0	97	0	0	0	2	0	2	0	5	0	1	0	6	160
5:45 PM	0	0	69	0	0	69	0	3	80	3	0	86	0	0	0	2	0	2	0	5	0	1	0	6	163

Hourly Total	0	0	269	1	0	270	0	8	388	22	0	418	0	1	1	6	0	8	0	23	1	2	0	26	722
Grand Total	0	7	1564	5	0	1576	0	26	1494	116	0	1636	0	5	3	33	2	41	0	133	4	17	2	154	3407
Approach %	0.0	0.4	99.2	0.3	-	-	0.0	1.6	91.3	7.1	-	-	0.0	12.2	7.3	80.5	-	-	0.0	86.4	2.6	11.0	-	-	-
Total %	0.0	0.2	45.9	0.1	-	46.3	0.0	0.8	43.9	3.4	-	48.0	0.0	0.1	0.1	1.0	-	1.2	0.0	3.9	0.1	0.5	-	4.5	-
Lights	0	6	1548	3	-	1557	0	26	1485	115	-	1626	0	4	2	32	-	38	0	132	4	17	-	153	3374
% Lights	-	85.7	99.0	60.0	-	98.8	-	100.0	99.4	99.1	-	99.4	-	80.0	66.7	97.0	-	92.7	-	99.2	100.0	100.0	-	99.4	99.0
Buses	0	1	10	2	-	13	0	0	9	0	-	9	0	1	0	1	-	2	0	0	0	0	-	0	24
% Buses	-	14.3	0.6	40.0	-	0.8	-	0.0	0.6	0.0	-	0.6	-	20.0	0.0	3.0	-	4.9	-	0.0	0.0	0.0	-	0.0	0.7
Single-Unit Trucks	0	0	6	0	-	6	0	0	0	1	-	1	0	0	1	0	-	1	0	1	0	0	-	1	9
% Single-Unit Trucks	-	0.0	0.4	0.0	-	0.4	-	0.0	0.0	0.9	-	0.1	-	0.0	33.3	0.0	-	2.4	-	0.8	0.0	0.0	-	0.6	0.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Bunker Hill Drive with Brookside Avenue
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Bunker Hill Drive Eastbound						Bunker Hill Drive Westbound						Brookside Avenue Northbound						Brookside Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:15 AM	0	0	61	0	0	61	0	0	21	5	0	26	0	0	0	5	0	5	0	14	0	0	0	14	106
7:30 AM	0	1	46	0	0	47	0	3	35	5	0	43	0	1	0	2	0	3	0	4	1	6	0	11	104
7:45 AM	0	0	55	1	0	56	0	0	17	1	0	18	0	0	0	1	0	1	0	5	0	0	0	5	80
8:00 AM	0	0	52	0	0	52	0	0	14	2	0	16	0	0	0	0	1	0	0	3	0	1	0	4	72
Total	0	1	214	1	0	216	0	3	87	13	0	103	0	1	0	8	1	9	0	26	1	7	0	34	362
Approach %	0.0	0.5	99.1	0.5	-	-	0.0	2.9	84.5	12.6	-	-	0.0	11.1	0.0	88.9	-	-	0.0	76.5	2.9	20.6	-	-	-
Total %	0.0	0.3	59.1	0.3	-	59.7	0.0	0.8	24.0	3.6	-	28.5	0.0	0.3	0.0	2.2	-	2.5	0.0	7.2	0.3	1.9	-	9.4	-
PHF	0.000	0.250	0.877	0.250	-	0.885	0.000	0.250	0.621	0.650	-	0.599	0.000	0.250	0.000	0.400	-	0.450	0.000	0.464	0.250	0.292	-	0.607	0.854
Lights	0	0	212	0	-	212	0	3	86	13	-	102	0	1	0	8	-	9	0	26	1	7	-	34	357
% Lights	-	0.0	99.1	0.0	-	98.1	-	100.0	98.9	100.0	-	99.0	-	100.0	-	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	98.6
Buses	0	1	1	1	-	3	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	4
% Buses	-	100.0	0.5	100.0	-	1.4	-	0.0	1.1	0.0	-	1.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.1
Single-Unit Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	0.5	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Bunker Hill Drive with Brookside Avenue
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Bunker Hill Drive Eastbound						Bunker Hill Drive Westbound						Brookside Avenue Northbound						Brookside Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	1	68	0	0	69	0	1	70	7	0	78	0	0	0	1	0	1	0	6	0	1	0	7	155
4:45 PM	0	1	75	0	0	76	0	4	64	6	0	74	0	0	0	0	0	0	0	7	0	0	0	7	157
5:00 PM	0	0	71	0	0	71	0	2	107	4	0	113	0	0	1	2	0	3	0	8	1	0	0	9	196
5:15 PM	0	0	74	1	0	75	0	1	111	10	0	122	0	1	0	0	0	1	0	5	0	0	0	5	203
Total	0	2	288	1	0	291	0	8	352	27	0	387	0	1	1	3	0	5	0	26	1	1	0	28	711
Approach %	0.0	0.7	99.0	0.3	-	-	0.0	2.1	91.0	7.0	-	-	0.0	20.0	20.0	60.0	-	-	0.0	92.9	3.6	3.6	-	-	-
Total %	0.0	0.3	40.5	0.1	-	40.9	0.0	1.1	49.5	3.8	-	54.4	0.0	0.1	0.1	0.4	-	0.7	0.0	3.7	0.1	0.1	-	3.9	-
PHF	0.000	0.500	0.960	0.250	-	0.957	0.000	0.500	0.793	0.675	-	0.793	0.000	0.250	0.250	0.375	-	0.417	0.000	0.813	0.250	0.250	-	0.778	0.876
Lights	0	2	286	1	-	289	0	8	352	27	-	387	0	1	1	2	-	4	0	26	1	1	-	28	708
% Lights	-	100.0	99.3	100.0	-	99.3	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	66.7	-	80.0	-	100.0	100.0	100.0	-	100.0	99.6
Buses	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	3
% Buses	-	0.0	0.7	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	33.3	-	20.0	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Fairway View Drive with Nottingham Drive
Site Code:
Start Date: 11/14/2019

Turning Movement Data

Start Time	Nottingham Drive Westbound					Fairway View Drive Northbound					Fairway View Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
6:00 AM	0	0	0	0	0	0	5	0	0	5	0	2	7	0	9	14
6:15 AM	0	0	2	0	2	0	6	0	0	6	0	1	10	0	11	19
6:30 AM	0	1	3	0	4	0	13	1	0	14	0	0	23	0	23	41
6:45 AM	0	0	4	0	4	0	9	0	0	9	0	0	30	0	30	43
Hourly Total	0	1	9	0	10	0	33	1	0	34	0	3	70	0	73	117
7:00 AM	0	0	3	0	3	0	14	0	0	14	0	2	24	0	26	43
7:15 AM	1	1	5	0	7	0	13	0	0	13	0	2	19	0	21	41
7:30 AM	0	0	6	0	6	0	17	0	0	17	0	2	13	0	15	38
7:45 AM	0	2	14	0	16	0	14	0	0	14	0	7	25	0	32	62
Hourly Total	1	3	28	0	32	0	58	0	0	58	0	13	81	0	94	184
8:00 AM	0	1	2	0	3	0	19	0	0	19	0	6	26	0	32	54
8:15 AM	0	1	3	0	4	0	13	0	0	13	0	1	12	0	13	30
8:30 AM	0	0	5	0	5	0	16	0	0	16	0	1	24	0	25	46
8:45 AM	0	0	3	0	3	0	13	0	0	13	0	2	17	0	19	35
Hourly Total	0	2	13	0	15	0	61	0	0	61	0	10	79	0	89	165
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	1	3	0	4	0	17	0	0	17	0	3	26	0	29	50
2:15 PM	0	0	3	0	3	0	17	2	0	19	0	4	20	0	24	46
2:30 PM	0	0	4	0	4	0	6	0	0	6	0	1	15	0	16	26
2:45 PM	0	0	0	0	0	0	11	0	0	11	0	4	26	0	30	41
Hourly Total	0	1	10	0	11	0	51	2	0	53	0	12	87	0	99	163
3:00 PM	0	0	2	0	2	0	25	0	0	25	0	4	10	0	14	41
3:15 PM	0	0	3	0	3	0	29	0	0	29	0	4	19	0	23	55
3:30 PM	0	0	3	0	3	0	27	0	0	27	0	3	29	0	32	62
3:45 PM	0	0	3	0	3	0	16	1	0	17	0	3	25	0	28	48
Hourly Total	0	0	11	0	11	0	97	1	0	98	0	14	83	0	97	206
4:00 PM	0	0	6	0	6	0	17	0	0	17	0	3	28	0	31	54
4:15 PM	0	0	5	0	5	0	8	0	0	8	0	5	31	0	36	49
4:30 PM	0	0	4	0	4	0	12	0	0	12	0	9	24	0	33	49
4:45 PM	0	0	3	0	3	0	17	1	0	18	0	3	28	0	31	52
Hourly Total	0	0	18	0	18	0	54	1	0	55	0	20	111	0	131	204
5:00 PM	0	0	2	0	2	0	28	3	0	31	0	9	30	0	39	72
5:15 PM	0	1	3	0	4	0	23	1	0	24	0	4	21	0	25	53
5:30 PM	0	0	2	0	2	0	30	1	0	31	0	4	23	0	27	60
5:45 PM	0	1	7	0	8	0	19	1	0	20	0	6	28	0	34	62
Hourly Total	0	2	14	0	16	0	100	6	0	106	0	23	102	0	125	247

Grand Total	1	9	103	0	113	0	454	11	0	465	0	95	613	0	708	1286
Approach %	0.9	8.0	91.2	-	-	0.0	97.6	2.4	-	-	0.0	13.4	86.6	-	-	-
Total %	0.1	0.7	8.0	-	8.8	0.0	35.3	0.9	-	36.2	0.0	7.4	47.7	-	55.1	-
Lights	1	9	99	-	109	0	444	11	-	455	0	94	603	-	697	1261
% Lights	100.0	100.0	96.1	-	96.5	-	97.8	100.0	-	97.8	-	98.9	98.4	-	98.4	98.1
Buses	0	0	4	-	4	0	9	0	-	9	0	1	8	-	9	22
% Buses	0.0	0.0	3.9	-	3.5	-	2.0	0.0	-	1.9	-	1.1	1.3	-	1.3	1.7
Single-Unit Trucks	0	0	0	-	0	0	1	0	-	1	0	0	1	-	1	2
% Single-Unit Trucks	0.0	0.0	0.0	-	0.0	-	0.2	0.0	-	0.2	-	0.0	0.2	-	0.1	0.2
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Articulated Trucks	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.2	-	0.1	0.1
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Fairway View Drive with Nottingham Drive
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Nottingham Drive Westbound					Fairway View Drive Northbound					Fairway View Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:15 AM	1	1	5	0	7	0	13	0	0	13	0	2	19	0	21	41
7:30 AM	0	0	6	0	6	0	17	0	0	17	0	2	13	0	15	38
7:45 AM	0	2	14	0	16	0	14	0	0	14	0	7	25	0	32	62
8:00 AM	0	1	2	0	3	0	19	0	0	19	0	6	26	0	32	54
Total	1	4	27	0	32	0	63	0	0	63	0	17	83	0	100	195
Approach %	3.1	12.5	84.4	-	-	0.0	100.0	0.0	-	-	0.0	17.0	83.0	-	-	-
Total %	0.5	2.1	13.8	-	16.4	0.0	32.3	0.0	-	32.3	0.0	8.7	42.6	-	51.3	-
PHF	0.250	0.500	0.482	-	0.500	0.000	0.829	0.000	-	0.829	0.000	0.607	0.798	-	0.781	0.786
Lights	1	4	25	-	30	0	60	0	-	60	0	17	78	-	95	185
% Lights	100.0	100.0	92.6	-	93.8	-	95.2	-	-	95.2	-	100.0	94.0	-	95.0	94.9
Buses	0	0	2	-	2	0	3	0	-	3	0	0	4	-	4	9
% Buses	0.0	0.0	7.4	-	6.3	-	4.8	-	-	4.8	-	0.0	4.8	-	4.0	4.6
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	0.0	0.0	0.0	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Articulated Trucks	0.0	0.0	0.0	-	0.0	-	0.0	-	-	0.0	-	0.0	1.2	-	1.0	0.5
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Fairway View Drive with Nottingham Drive
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Nottingham Drive Westbound					Fairway View Drive Northbound					Fairway View Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:30 PM	0	0	4	0	4	0	12	0	0	12	0	9	24	0	33	49
4:45 PM	0	0	3	0	3	0	17	1	0	18	0	3	28	0	31	52
5:00 PM	0	0	2	0	2	0	28	3	0	31	0	9	30	0	39	72
5:15 PM	0	1	3	0	4	0	23	1	0	24	0	4	21	0	25	53
Total	0	1	12	0	13	0	80	5	0	85	0	25	103	0	128	226
Approach %	0.0	7.7	92.3	-	-	0.0	94.1	5.9	-	-	0.0	19.5	80.5	-	-	-
Total %	0.0	0.4	5.3	-	5.8	0.0	35.4	2.2	-	37.6	0.0	11.1	45.6	-	56.6	-
PHF	0.000	0.250	0.750	-	0.813	0.000	0.714	0.417	-	0.685	0.000	0.694	0.858	-	0.821	0.785
Lights	0	1	12	-	13	0	80	5	-	85	0	25	102	-	127	225
% Lights	-	100.0	100.0	-	100.0	-	100.0	100.0	-	100.0	-	100.0	99.0	-	99.2	99.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	1.0	-	0.8	0.4
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Nottingham Drive with Brookside Avenue
Site Code:
Start Date: 11/14/2019

Turning Movement Data

Start Time	Nottingham Drive Eastbound					Brookside Avenue Northbound					Brookside Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
6:00 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	3
6:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
6:30 AM	0	0	4	0	4	0	3	0	0	3	0	0	0	0	0	7
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	7	0	7	0	5	0	0	5	0	0	0	0	0	12
7:00 AM	0	0	2	0	2	0	1	0	0	1	0	1	1	0	2	5
7:15 AM	0	0	4	0	4	0	4	1	0	5	0	0	1	0	1	10
7:30 AM	0	0	4	0	4	0	4	2	0	6	0	2	0	0	2	12
7:45 AM	0	0	6	0	6	0	6	0	0	6	0	0	0	0	0	12
Hourly Total	0	0	16	0	16	0	15	3	0	18	0	3	2	0	5	39
8:00 AM	0	0	3	0	3	0	2	1	0	3	0	0	0	0	0	6
8:15 AM	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	4
8:30 AM	0	0	1	0	1	0	1	0	0	1	0	0	1	0	1	3
8:45 AM	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	3
Hourly Total	0	0	9	0	9	0	5	1	0	6	0	0	1	0	1	16
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	0	3	0	3	0	2	0	0	2	0	0	0	0	0	5
2:15 PM	0	0	2	0	2	0	5	0	0	5	0	0	0	0	0	7
2:30 PM	0	0	3	0	3	0	5	0	0	5	0	0	0	0	0	8
2:45 PM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	0	12	0	12	0	12	0	0	12	0	0	0	0	0	24
3:00 PM	0	0	4	0	4	0	5	1	0	6	0	0	1	0	1	11
3:15 PM	0	0	6	0	6	0	2	0	0	2	0	0	0	0	0	8
3:30 PM	0	0	4	0	4	0	5	0	0	5	0	0	0	0	0	9
3:45 PM	0	1	2	0	3	0	7	1	0	8	0	0	0	0	0	11
Hourly Total	0	1	16	0	17	0	19	2	0	21	0	0	1	0	1	39
4:00 PM	0	1	3	0	4	1	4	1	0	6	0	2	0	1	2	12
4:15 PM	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	4
4:30 PM	0	0	6	0	6	0	6	0	0	6	0	0	0	0	0	12
4:45 PM	0	0	4	0	4	0	3	0	0	3	0	0	0	0	0	7
Hourly Total	0	1	16	0	17	1	14	1	0	16	0	2	0	1	2	35
5:00 PM	0	0	6	0	6	0	1	0	0	1	0	0	0	0	0	7
5:15 PM	0	0	4	0	4	0	4	0	0	4	0	0	0	0	0	8
5:30 PM	0	0	4	0	4	0	5	0	0	5	0	0	0	0	0	9
5:45 PM	0	0	5	0	5	0	3	0	0	3	0	0	1	0	1	9
Hourly Total	0	0	19	0	19	0	13	0	0	13	0	0	1	0	1	33

Grand Total	0	2	95	0	97	1	83	7	0	91	0	5	5	1	10	198
Approach %	0.0	2.1	97.9	-	-	1.1	91.2	7.7	-	-	0.0	50.0	50.0	-	-	-
Total %	0.0	1.0	48.0	-	49.0	0.5	41.9	3.5	-	46.0	0.0	2.5	2.5	-	5.1	-
Lights	0	2	93	-	95	1	78	7	-	86	0	5	5	-	10	191
% Lights	-	100.0	97.9	-	97.9	100.0	94.0	100.0	-	94.5	-	100.0	100.0	-	100.0	96.5
Buses	0	0	1	-	1	0	4	0	-	4	0	0	0	-	0	5
% Buses	-	0.0	1.1	-	1.0	0.0	4.8	0.0	-	4.4	-	0.0	0.0	-	0.0	2.5
Single-Unit Trucks	0	0	1	-	1	0	1	0	-	1	0	0	0	-	0	2
% Single-Unit Trucks	-	0.0	1.1	-	1.0	0.0	1.2	0.0	-	1.1	-	0.0	0.0	-	0.0	1.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Nottingham Drive with Brookside Avenue
Site Code:
Start Date: 11/14/2019

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Nottingham Drive Eastbound					Brookside Avenue Northbound					Brookside Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:15 AM	0	0	4	0	4	0	4	1	0	5	0	0	1	0	1	10
7:30 AM	0	0	4	0	4	0	4	2	0	6	0	2	0	0	2	12
7:45 AM	0	0	6	0	6	0	6	0	0	6	0	0	0	0	0	12
8:00 AM	0	0	3	0	3	0	2	1	0	3	0	0	0	0	0	6
Total	0	0	17	0	17	0	16	4	0	20	0	2	1	0	3	40
Approach %	0.0	0.0	100.0	-	-	0.0	80.0	20.0	-	-	0.0	66.7	33.3	-	-	-
Total %	0.0	0.0	42.5	-	42.5	0.0	40.0	10.0	-	50.0	0.0	5.0	2.5	-	7.5	-
PHF	0.000	0.000	0.708	-	0.708	0.000	0.667	0.500	-	0.833	0.000	0.250	0.250	-	0.375	0.833
Lights	0	0	17	-	17	0	14	4	-	18	0	2	1	-	3	38
% Lights	-	-	100.0	-	100.0	-	87.5	100.0	-	90.0	-	100.0	100.0	-	100.0	95.0
Buses	0	0	0	-	0	0	2	0	-	2	0	0	0	-	0	2
% Buses	-	-	0.0	-	0.0	-	12.5	0.0	-	10.0	-	0.0	0.0	-	0.0	5.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Nottingham Drive with Brookside Avenue
Site Code:
Start Date: 11/14/2019

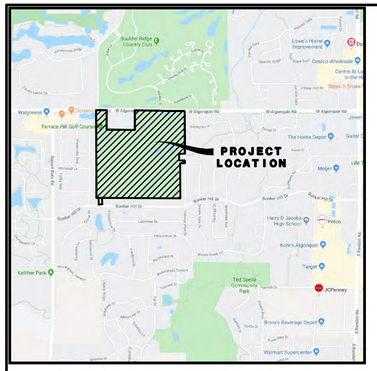
Turning Movement Peak Hour Data (4:30 PM)

Start Time	Nottingham Drive Eastbound					Brookside Avenue Northbound					Brookside Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	0	6	0	6	0	6	0	0	6	0	0	0	0	0	12
4:45 PM	0	0	4	0	4	0	3	0	0	3	0	0	0	0	0	7
5:00 PM	0	0	6	0	6	0	1	0	0	1	0	0	0	0	0	7
5:15 PM	0	0	4	0	4	0	4	0	0	4	0	0	0	0	0	8
Total	0	0	20	0	20	0	14	0	0	14	0	0	0	0	0	34
Approach %	0.0	0.0	100.0	-	-	0.0	100.0	0.0	-	-	0.0	0.0	0.0	-	-	-
Total %	0.0	0.0	58.8	-	58.8	0.0	41.2	0.0	-	41.2	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.000	0.833	-	0.833	0.000	0.583	0.000	-	0.583	0.000	0.000	0.000	-	0.000	0.708
Lights	0	0	20	-	20	0	14	0	-	14	0	0	0	-	0	34
% Lights	-	-	100.0	-	100.0	-	100.0	-	-	100.0	-	-	-	-	-	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	-	-	-	-	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	-	-	-	-	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	-	-	-	-	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	-	-	-	-	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Site Plan

PRELIMINARY ENGINEERING PLAN
FOR
TRAILS OF WOODS CREEK

PART OF THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN MCHENRY COUNTY, ILLINOIS.



LOCATION MAP

SITE DATA

A. TOTAL AREA	138.44 AC.±	100.00%
B. PROPOSED ZONING	R-1E/B-2 PUD	
C. EXTERNAL R.O.W. (ALGONQUIN ROAD)	0.56 AC.±	0.40 %
D. INTERNAL R.O.W.	18.42 AC.±	13.31 %
E. COMMON OPEN SPACE PARK SITE - 10.23 AC.±	64.02 AC.±	46.24 %
F. COMMERCIAL	2.71 AC.±	1.96 %
G. NET RESIDENTIAL	52.73 AC.±	38.09 %
H. UNITS		
THE SPRINGS (TYPICAL 56'x125')	106	
MIN. FRONT YARD SETBACK	30	
MIN. CORNER SIDE YARD SETBACK	25	
MIN. SIDE YARD SETBACK	7	
MIN. REAR YARD SETBACK	25	
THE ESTATES (TYPICAL 75'x130')	47	
MIN. FRONT YARD SETBACK	30	
MIN. CORNER SIDE YARD SETBACK	25	
MIN. SIDE YARD SETBACK	7	
MIN. REAR YARD SETBACK	25	
THE SHORES (TYPICAL 55'x135')	114	
MIN. FRONT YARD SETBACK	30	
MIN. CORNER SIDE YARD SETBACK	25	
MIN. SIDE YARD SETBACK	7	
MIN. REAR YARD SETBACK	20	
I. TOTAL PROPOSED UNITS	267	
J. POPULATION EQUIVALENT	934.5	
K. DEVELOPMENT YIELD ANALYSIS		
1.) PAR ACREAGE	129.32 AC.	
2.) ALLOWABLE UNITS	312.95 UNITS	
3.) DENSITY BONUS	64.66 UNITS	
4.) MAX. UNITS ALLOWED	377 UNITS	
L. NON-RESIDENTIAL SITE COVERAGE	70%	

NOTES

ALL RIGHT-OF-WAYS ARE TO BE PUBLIC DEDICATIONS.

ALL STREETS, UTILITY PIPES AND MAINS SHALL BE PUBLICLY OWNED AND MAINTAINED.

STORMWATER STORAGE VOLUMES TO BE PROVIDED AND THE DESIGN OF STORMWATER MANAGEMENT FACILITIES SHALL BE IN ACCORDANCE WITH VILLAGE OF ALGONQUIN AND KANE COUNTY REQUIREMENTS.

UNLESS OTHERWISE NOTED ALL WATERMAIN AND SANITARY SEWER TO BE 8" DIAMETER.

ALL SANITARY SERVICE CONNECTIONS TO SANITARY SEWER MAINS MUST HAVE AN OVERHEAD SEWER SYSTEM WITHIN THE BUILDING.

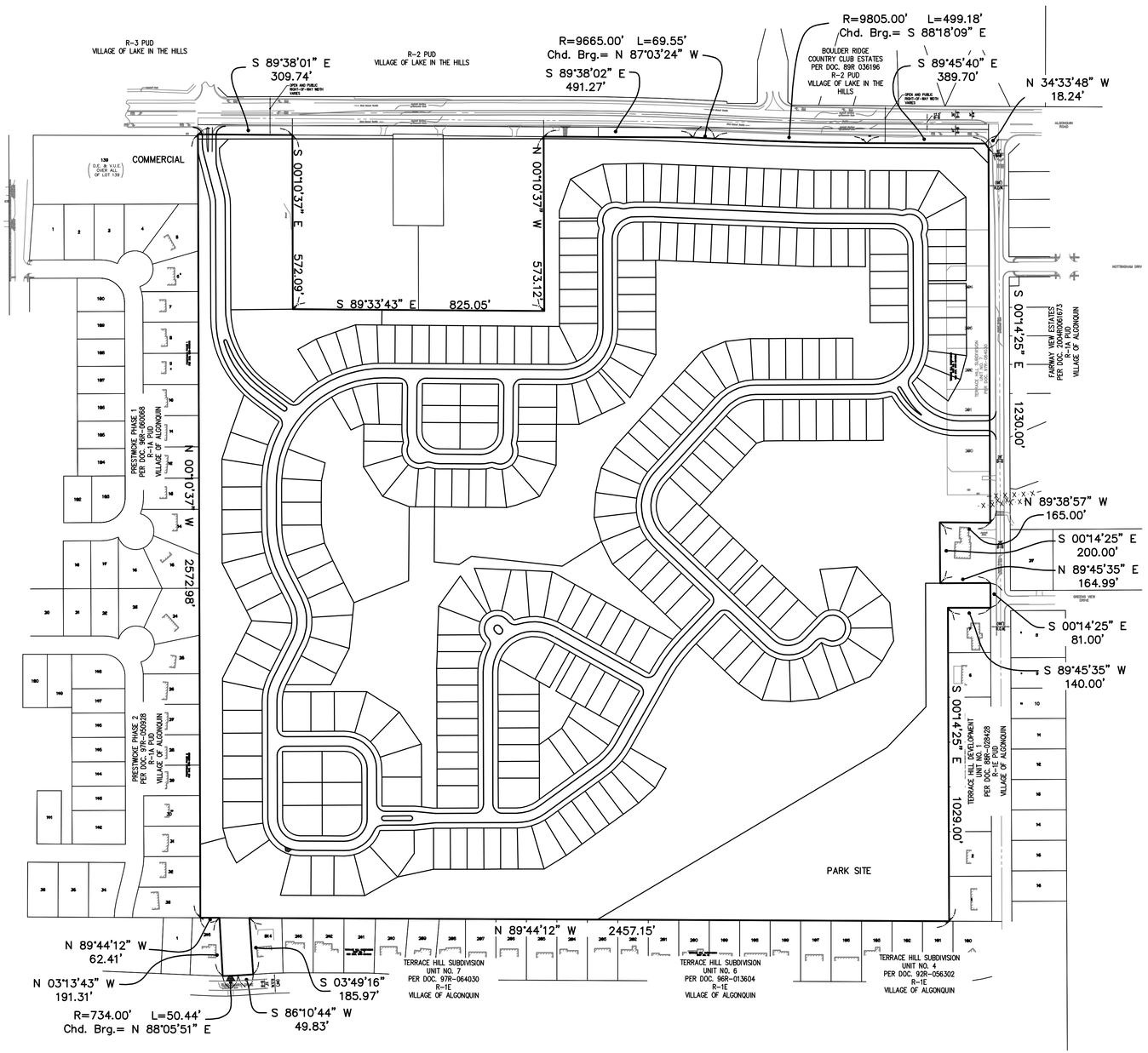
ALL EXISTING ONSITE BUILDINGS TO BE REMOVED AND DISPOSED.

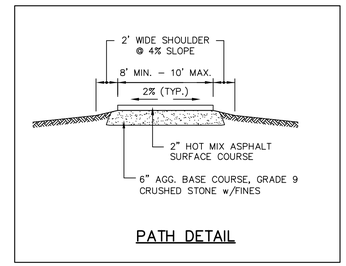
ANY EXISTING WELL AND SEPTIC FIELDS SHALL BE ABANDONED ACCORDING TO COUNTY HEALTH DEPARTMENT.

LOTS 97-162 & 210-267 PRIMARILY TO BE SLAB CONSTRUCTION UNLESS A WALKOUT/LOOKOUT IS INDICATED AT FINAL ENGINEERING.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
◎	◉	MANHOLE
○	●	CATCH BASIN
□	■	INLET
	●	CLEANOUT
	▭	SLOPE INLET BOX
⊢	⊢	HEADWALL
◁	◀	END SECTION
		STORM SEWER
		SANITARY SEWER
		WATERMAIN
⊗	⊗	VALVE & BOX
◎	◉	WATER VALVE IN VAULT
♂	♂	FIRE HYDRANT
(ELEV)	ELEV	CONTOURS ELEVATIONS
⌑	✦	STREET LIGHT
		SCALED LIMITS OF FEMA ZONE A PER FIRM
		EXISTING 100YR FLOODPLAIN PER CEMCON STUDY
		PROPOSED 100YR FLOODPLAIN PER CEMCON STUDY
		TREE PROTECTION
		RIP-RAP
		OVERFLOW ROUTE



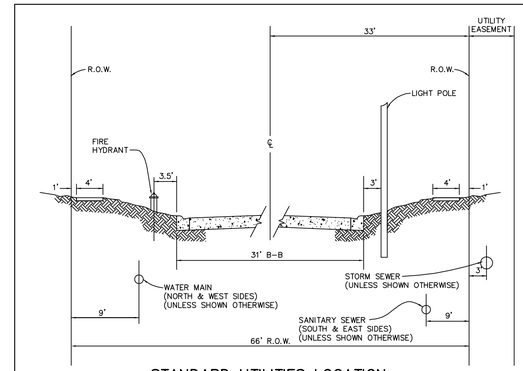


PATH DETAIL

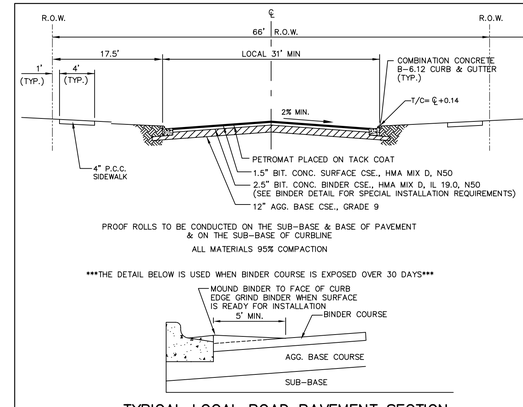
N

200 100 0 200

SCALE: 1 INCH = 200 FEET



STANDARD UTILITIES LOCATION
31' PAVEMENT WITHIN 66' R.O.W.
(N.T.S.)



TYPICAL LOCAL ROAD PAVEMENT SECTION
N.T.S.

PREPARED FOR:
PULTE HOME COMPANY, LLC
1900 E. GOLF ROAD, SUITE 300
SCHAUMBURG, IL 60173
(847) 230-5400

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60502-9675
PH: 630.862.2100 FAX: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

DISC NO.: 402136 FILE NAME: PREOVR
DRAWN BY: LAL FLD. BK. / PG. NO.: BK./PG.
COMPLETION DATE: 12-05-19 JOB NO.: 402.136
XREF : TOPO PROJECT MANAGER : CRM

PREENG01

PLOT FILE CREATED: 2/10/2020 BY: PETER PLUSKWA DRAWING PATH: P:\402136\DWG\ENG\DRAWINGS\PRELIMINARY\PREOVR.DWG

ITE Trip Generation Summary Sheets

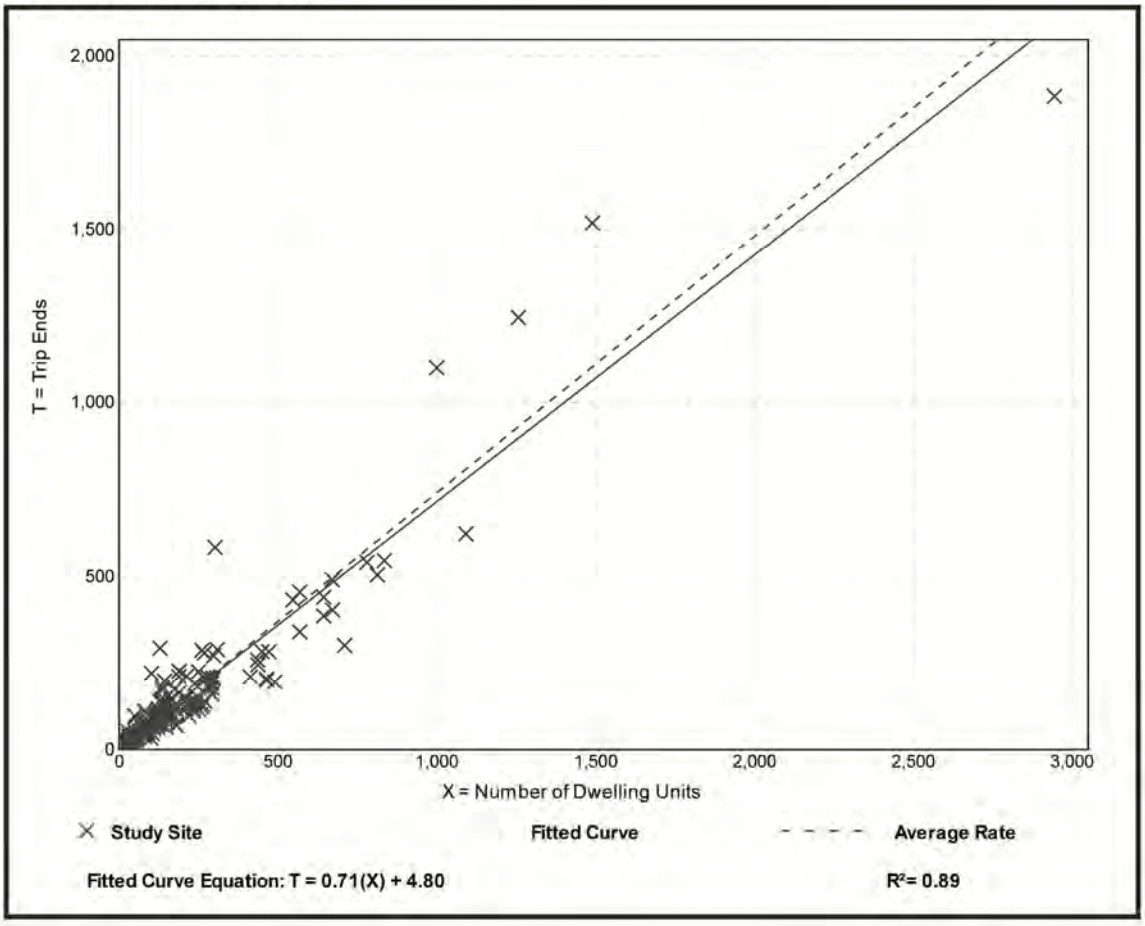
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 173
Avg. Num. of Dwelling Units: 219
Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.74	0.33 - 2.27	0.27

Data Plot and Equation



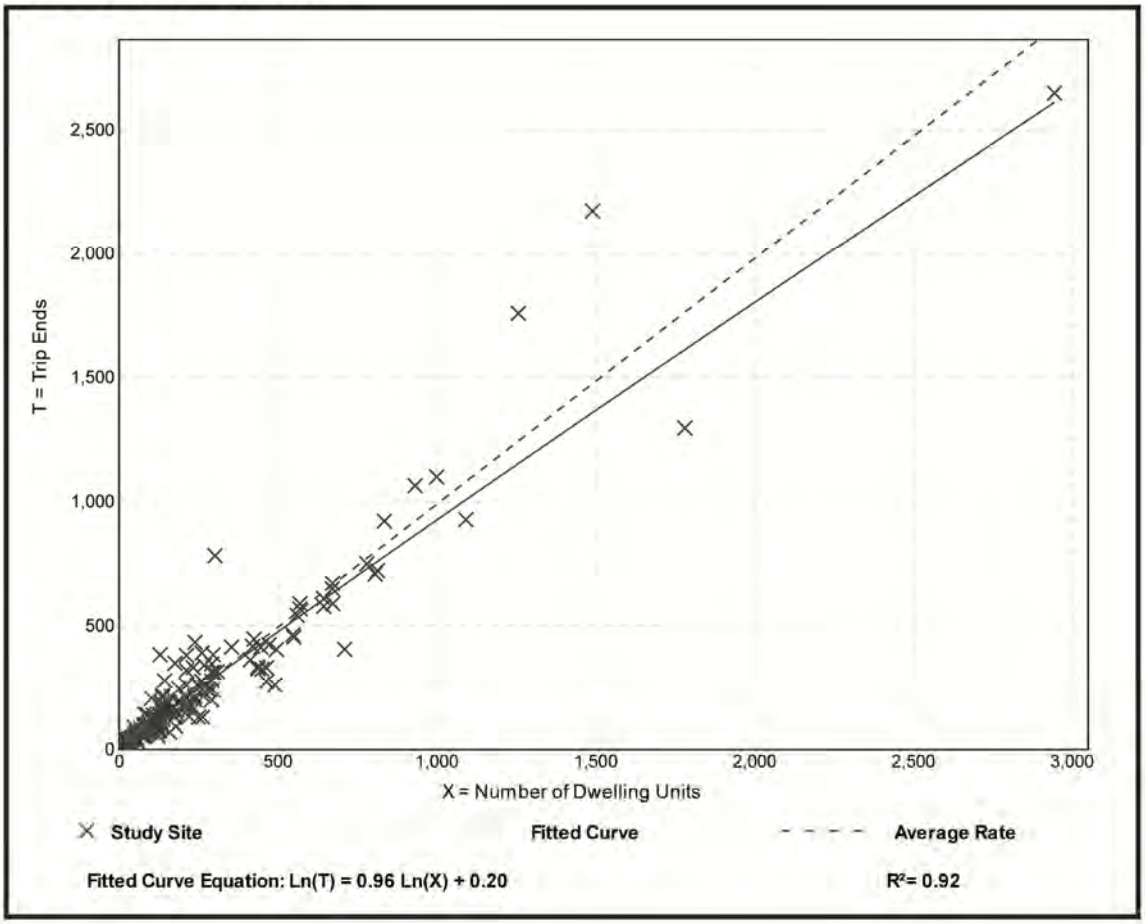
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 190
Avg. Num. of Dwelling Units: 242
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.99	0.44 - 2.98	0.31

Data Plot and Equation



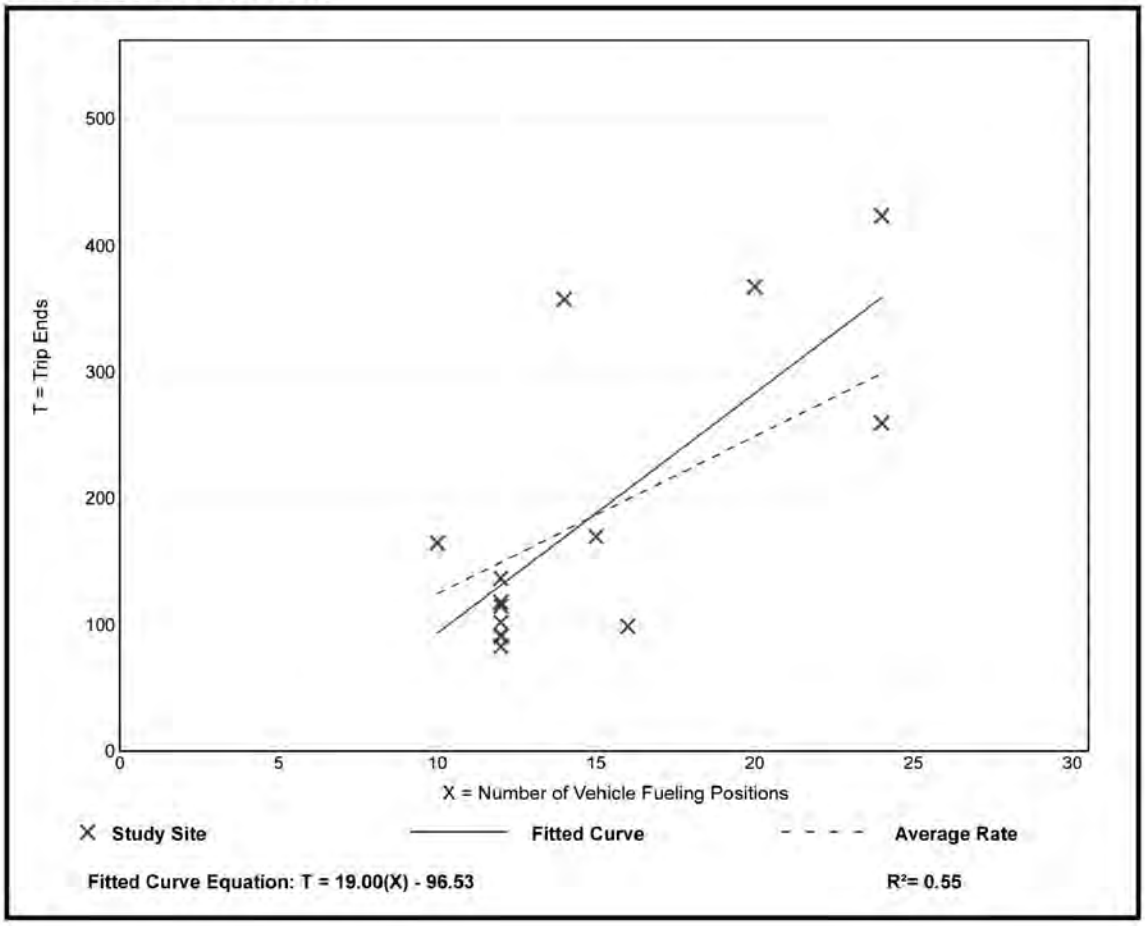
Gasoline/Service Station With Convenience Market
(945)

Vehicle Trip Ends vs: **Vehicle Fueling Positions**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 14
Avg. Num. of Vehicle Fueling Positions: 15
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
12.47	6.19 - 25.57	5.56

Data Plot and Equation



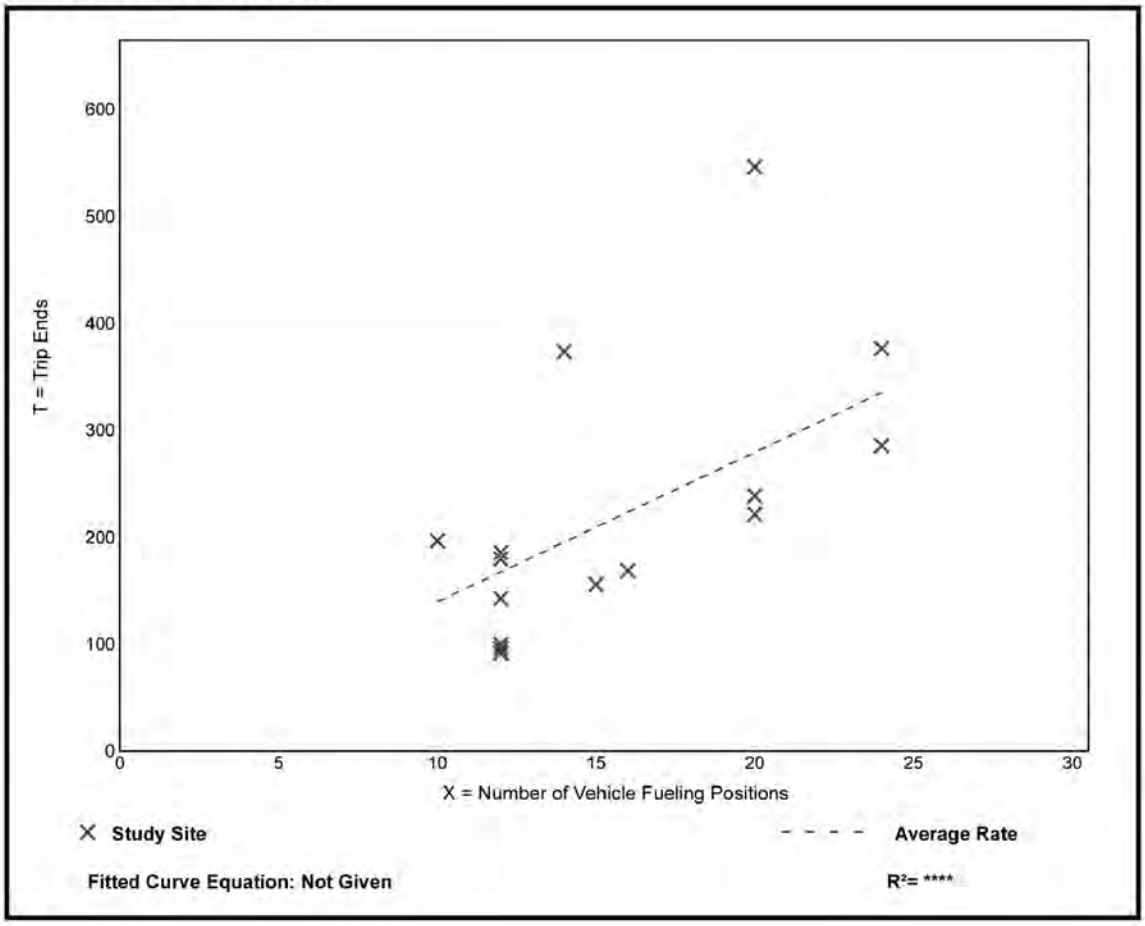
Gasoline/Service Station With Convenience Market
(945)

Vehicle Trip Ends vs: **Vehicle Fueling Positions**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 16
Avg. Num. of Vehicle Fueling Positions: 15
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
13.99	7.67 - 27.35	6.18

Data Plot and Equation



CMAP 2050 Projections Letter

Trails of Woods Creek
Algonquin, Illinois

Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

December 3, 2019

Brendan S. May
Consultant
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: ***Algonquin Road - Fairway View Drive - Bunker Hill Drive***
IDOT

Dear Mr. May:

In response to a request made on your behalf and dated December 3, 2019, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current Volumes	Year 2050 ADT
Algonquin Rd west of Frank Rd	24,900	32,200
Algonquin Rd east of Frank Rd	25,600	33,200
Fairway View Dr	1,350	1,840
Bunker Hill Dr	3,100	4,220

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2019 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

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

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Quigley (IDOT)
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Level of Service Criteria

LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0

Unsignalized Intersections	
Level of Service	Average Total Delay (SEC/VEH)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Reports

Weekday Morning Peak Hour – Existing Conditions

Trails of Woods Creek
Algonquin, Illinois

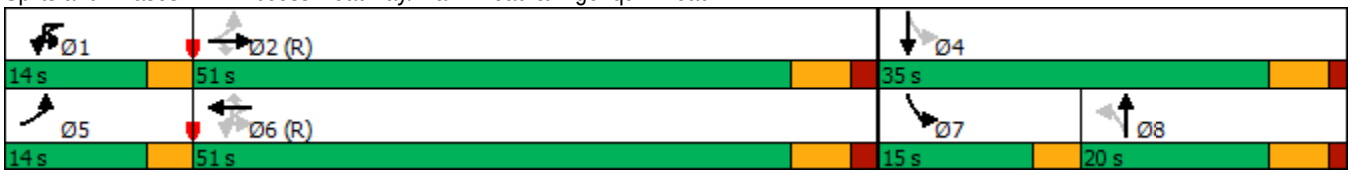
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	140	892	0	28	0	499	39	0	0	0	98	0
Future Volume (vph)	140	892	0	28	0	499	39	0	0	0	98	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	240		240		240		225	0		0	100	
Storage Lanes	1		1		1		1	1		0	1	
Taper Length (ft)	255				230			25			90	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt							0.850					0.850
Flt Protected	0.950				0.950						0.950	
Satd. Flow (prot)	1787	3654	1900	0	1805	3654	1404	1900	1900	0	1736	1615
Flt Permitted	0.440				0.303						0.784	
Satd. Flow (perm)	828	3654	1900	0	576	3654	1404	1900	1900	0	1432	1615
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)							109					407
Link Speed (mph)		45				45			25			35
Link Distance (ft)		1144				2604			599			781
Travel Time (s)		17.3				39.5			16.3			15.2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	4%	0%	0%	0%	4%	15%	0%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	910	0	0	29	509	40	0	0	0	100	299
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm			pm+pt	NA
Protected Phases	5	2		1	1	6			8		7	4
Permitted Phases	2		2	6	6		6	8			4	
Detector Phase	5	2	2	1	1	6	6	8	8		7	4
Switch Phase												
Minimum Initial (s)	3.0	20.0	20.0	3.0	3.0	20.0	20.0	8.0	8.0		3.0	8.0
Minimum Split (s)	6.5	26.5	26.5	6.5	6.5	26.5	26.5	14.0	14.0		6.5	14.0
Total Split (s)	14.0	51.0	51.0	14.0	14.0	51.0	51.0	20.0	20.0		15.0	35.0
Total Split (%)	14.0%	51.0%	51.0%	14.0%	14.0%	51.0%	51.0%	20.0%	20.0%		15.0%	35.0%
Yellow Time (s)	3.5	4.5	4.5	3.5	3.5	4.5	4.5	4.5	4.5		3.5	4.5
All-Red Time (s)	0.0	2.0	2.0	0.0	0.0	2.0	2.0	1.5	1.5		0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	3.5	6.5	6.5		3.5	6.5	6.5	6.0	6.0		3.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None	None
Act Effct Green (s)	80.9	73.4			77.2	68.5	68.5				11.0	8.5
Actuated g/C Ratio	0.81	0.73			0.77	0.68	0.68				0.11	0.08

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	293
Future Volume (vph)	293
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.98
Growth Factor	100%
Heavy Vehicles (%)	0%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.19	0.34			0.06	0.20	0.04				0.53	0.59
Control Delay	2.4	5.6			2.1	6.1	0.1				53.0	5.6
Queue Delay	0.0	0.0			0.0	0.0	0.0				0.0	0.0
Total Delay	2.4	5.6			2.1	6.1	0.1				53.0	5.6
LOS	A	A			A	A	A				D	A
Approach Delay		5.2				5.5						17.5
Approach LOS		A				A						B
Queue Length 50th (ft)	13	106			2	54	0				61	0
Queue Length 95th (ft)	24	142			7	80	0				114	10
Internal Link Dist (ft)		1064				2524			519			701
Turn Bay Length (ft)	240				240		225				100	
Base Capacity (vph)	779	2680			599	2501	995				199	757
Starvation Cap Reductn	0	0			0	0	0				0	0
Spillback Cap Reductn	0	0			0	0	0				0	0
Storage Cap Reductn	0	0			0	0	0				0	0
Reduced v/c Ratio	0.18	0.34			0.05	0.20	0.04				0.50	0.39

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 7.7		Intersection LOS: A	
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Access Roadway/Frank Road & Algonquin Road



Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	109	2	6	59	21	1	35	25	61	7	11
Future Vol, veh/h	8	109	2	6	59	21	1	35	25	61	7	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	118	2	7	64	23	1	38	27	66	8	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	7.8	7.7	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	7%	7%	77%
Vol Thru, %	57%	92%	69%	9%
Vol Right, %	41%	2%	24%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	119	86	79
LT Vol	1	8	6	61
Through Vol	35	109	59	7
RT Vol	25	2	21	11
Lane Flow Rate	66	129	93	86
Geometry Grp	1	1	1	1
Degree of Util (X)	0.079	0.158	0.111	0.109
Departure Headway (Hd)	4.294	4.388	4.294	4.581
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	836	820	837	784
Service Time	2.311	2.402	2.309	2.597
HCM Lane V/C Ratio	0.079	0.157	0.111	0.11
HCM Control Delay	7.7	8.2	7.8	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.4	0.4

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	16	4	2	1
Future Vol, veh/h	0	17	16	4	2	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	13	0	0	0
Mvmt Flow	0	20	19	5	2	1
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.4	7.5	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	80%	0%	0%
Vol Thru, %	20%	0%	67%
Vol Right, %	0%	100%	33%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	20	17	3
LT Vol	16	0	0
Through Vol	4	0	2
RT Vol	0	17	1
Lane Flow Rate	24	20	4
Geometry Grp	1	1	1
Degree of Util (X)	0.029	0.019	0.004
Departure Headway (Hd)	4.319	3.347	3.753
Convergence, Y/N	Yes	Yes	Yes
Cap	833	1070	957
Service Time	2.322	1.364	1.762
HCM Lane V/C Ratio	0.029	0.019	0.004
HCM Control Delay	7.5	6.4	6.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	954	64	36	527	17	78
Future Vol, veh/h	954	64	36	527	17	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	185	240	-	0	100
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	5	6	5	0	6
Mvmt Flow	1037	70	39	573	18	85

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1107	0	1402	519
Stage 1	-	-	-	-	1037	-
Stage 2	-	-	-	-	365	-
Critical Hdwy	-	-	4.22	-	6.8	7.02
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.26	-	3.5	3.36
Pot Cap-1 Maneuver	-	-	604	-	133	491
Stage 1	-	-	-	-	307	-
Stage 2	-	-	-	-	679	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	604	-	124	491
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	679	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	15.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	226	491	-	-	604	-
HCM Lane V/C Ratio	0.082	0.173	-	-	0.065	-
HCM Control Delay (s)	22.3	13.9	-	-	11.4	-
HCM Lane LOS	C	B	-	-	B	-
HCM 95th %tile Q(veh)	0.3	0.6	-	-	0.2	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	27	68	0	17	83
Future Vol, veh/h	4	27	68	0	17	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	7	5	0	0	6
Mvmt Flow	5	34	86	0	22	105

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	235	86	0	0	86	0
Stage 1	86	-	-	-	-	-
Stage 2	149	-	-	-	-	-
Critical Hdwy	6.4	6.27	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.363	-	-	2.2	-
Pot Cap-1 Maneuver	758	959	-	-	1523	-
Stage 1	942	-	-	-	-	-
Stage 2	884	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	747	959	-	-	1523	-
Mov Cap-2 Maneuver	747	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	884	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	925	1523	-
HCM Lane V/C Ratio	-	-	0.042	0.014	-
HCM Control Delay (s)	-	-	9.1	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	214	1	3	87	13	1	0	8	26	1	7
Future Vol, veh/h	1	214	1	3	87	13	1	0	8	26	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	100	1	100	0	1	0	0	0	0	0	0	0
Mvmt Flow	1	252	1	4	102	15	1	0	9	31	1	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	253	0	0	377	380	253	377	373	110
Stage 1	-	-	-	-	-	-	255	255	-	118	118	-
Stage 2	-	-	-	-	-	-	122	125	-	259	255	-
Critical Hdwy	5.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1034	-	-	1324	-	-	584	556	791	584	561	949
Stage 1	-	-	-	-	-	-	754	700	-	891	802	-
Stage 2	-	-	-	-	-	-	887	796	-	750	700	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1034	-	-	1324	-	-	576	554	791	575	559	949
Mov Cap-2 Maneuver	-	-	-	-	-	-	576	554	-	575	559	-
Stage 1	-	-	-	-	-	-	753	699	-	890	800	-
Stage 2	-	-	-	-	-	-	875	794	-	740	699	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	9.8	11.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	760	1034	-	-	1324	-	-	625
HCM Lane V/C Ratio	0.014	0.001	-	-	0.003	-	-	0.064
HCM Control Delay (s)	9.8	8.5	0	-	7.7	0	-	11.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Capacity Analysis Summary Reports

Weekday Evening Peak Hour – Existing Conditions

Trails of Woods Creek
Algonquin, Illinois

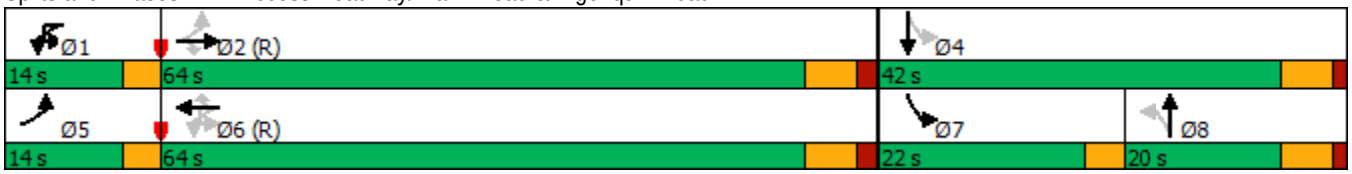
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	359	989	0	12	0	1317	129	0	0	0	85	0
Future Volume (vph)	359	989	0	12	0	1317	129	0	0	0	85	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	240		240		240		225	0		0	100	
Storage Lanes	1		1		1		1	1		0	1	
Taper Length (ft)	255				230			25			90	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt							0.850					0.850
Flt Protected	0.950				0.950						0.950	
Satd. Flow (prot)	1787	3762	1900	0	1805	3725	1615	1900	1900	0	1805	1599
Flt Permitted	0.075				0.278						0.950	
Satd. Flow (perm)	141	3762	1900	0	528	3725	1615	1900	1900	0	1805	1599
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)							107					187
Link Speed (mph)		45				45			25			35
Link Distance (ft)		1144				2604			599			781
Travel Time (s)		17.3				39.5			16.3			15.2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	374	1030	0	0	13	1372	134	0	0	0	89	221
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm			pm+pt	NA
Protected Phases	5	2		1	1	6			8		7	4
Permitted Phases	2		2	6	6		6	8			4	
Detector Phase	5	2	2	1	1	6	6	8	8		7	4
Switch Phase												
Minimum Initial (s)	3.0	20.0	20.0	3.0	3.0	20.0	20.0	8.0	8.0		3.0	8.0
Minimum Split (s)	6.5	26.5	26.5	6.5	6.5	26.5	26.5	14.0	14.0		6.5	14.0
Total Split (s)	14.0	64.0	64.0	14.0	14.0	64.0	64.0	20.0	20.0		22.0	42.0
Total Split (%)	11.7%	53.3%	53.3%	11.7%	11.7%	53.3%	53.3%	16.7%	16.7%		18.3%	35.0%
Yellow Time (s)	3.5	4.5	4.5	3.5	3.5	4.5	4.5	4.5	4.5		3.5	4.5
All-Red Time (s)	0.0	2.0	2.0	0.0	0.0	2.0	2.0	1.5	1.5		0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	3.5	6.5	6.5		3.5	6.5	6.5	6.0	6.0		3.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None	None
Act Effct Green (s)	99.3	92.5			66.8	58.2	58.2				13.7	11.2
Actuated g/C Ratio	0.83	0.77			0.56	0.48	0.48				0.11	0.09

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	212
Future Volume (vph)	212
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.96
Growth Factor	100%
Heavy Vehicles (%)	1%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.63	0.36			0.04	0.76	0.16				0.43	0.69
Control Delay	30.6	5.6			6.4	28.7	5.3				55.0	22.9
Queue Delay	0.0	0.0			0.0	0.0	0.0				0.0	0.0
Total Delay	30.6	5.6			6.4	28.7	5.3				55.0	22.9
LOS	C	A			A	C	A				D	C
Approach Delay		12.3				26.4						32.1
Approach LOS		B				C						C
Queue Length 50th (ft)	178	82			2	431	10				67	25
Queue Length 95th (ft)	318	215			6	540	45				112	101
Internal Link Dist (ft)		1064				2524			519			701
Turn Bay Length (ft)	240				240		225				100	
Base Capacity (vph)	590	2900			427	1805	838				284	610
Starvation Cap Reductn	0	0			0	0	0				0	0
Spillback Cap Reductn	0	0			0	0	0				0	0
Storage Cap Reductn	0	0			0	0	0				0	0
Reduced v/c Ratio	0.63	0.36			0.03	0.76	0.16				0.31	0.36

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 52 (43%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 20.8		Intersection LOS: C	
Intersection Capacity Utilization 81.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Access Roadway/Frank Road & Algonquin Road



Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	183	2	30	254	60	5	8	28	70	28	9
Future Vol, veh/h	7	183	2	30	254	60	5	8	28	70	28	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	199	2	33	276	65	5	9	30	76	30	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	11.5	8.5	9.6
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	4%	9%	65%
Vol Thru, %	20%	95%	74%	26%
Vol Right, %	68%	1%	17%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	192	344	107
LT Vol	5	7	30	70
Through Vol	8	183	254	28
RT Vol	28	2	60	9
Lane Flow Rate	45	209	374	116
Geometry Grp	1	1	1	1
Degree of Util (X)	0.063	0.277	0.469	0.174
Departure Headway (Hd)	5.055	4.778	4.517	5.394
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	701	747	793	659
Service Time	3.139	2.836	2.566	3.469
HCM Lane V/C Ratio	0.064	0.28	0.472	0.176
HCM Control Delay	8.5	9.7	11.5	9.6
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.2	1.1	2.5	0.6

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	14	0	0	0
Future Vol, veh/h	0	20	14	0	0	0
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	28	20	0	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.4	7.2	0
HCM LOS	A	A	-

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	0%	100%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	14	20	0
LT Vol	14	0	0
Through Vol	0	0	0
RT Vol	0	20	0
Lane Flow Rate	20	28	0
Geometry Grp	1	1	1
Degree of Util (X)	0.023	0.026	0
Departure Headway (Hd)	4.149	3.335	3.964
Convergence, Y/N	Yes	Yes	Yes
Cap	868	1077	0
Service Time	2.151	1.345	1.971
HCM Lane V/C Ratio	0.023	0.026	0
HCM Control Delay	7.2	6.4	7
HCM Lane LOS	A	A	N
HCM 95th-tile Q	0.1	0.1	0

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1011	75	53	1381	42	51
Future Vol, veh/h	1011	75	53	1381	42	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	185	240	-	0	100
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	1	0	0	1	0	4
Mvmt Flow	1032	77	54	1409	43	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1109	0	1845	516
Stage 1	-	-	-	-	1032	-
Stage 2	-	-	-	-	813	-
Critical Hdwy	-	-	4.1	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.34
Pot Cap-1 Maneuver	-	-	637	-	68	499
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	402	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	637	-	62	499
Mov Cap-2 Maneuver	-	-	-	-	170	-
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	402	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	22.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	170	499	-	-	637	-
HCM Lane V/C Ratio	0.252	0.104	-	-	0.085	-
HCM Control Delay (s)	33.2	13.1	-	-	11.2	-
HCM Lane LOS	D	B	-	-	B	-
HCM 95th %tile Q(veh)	1	0.3	-	-	0.3	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	12	81	5	25	103
Future Vol, veh/h	1	12	81	5	25	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	1	15	103	6	32	130

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	300	106	0	0	109	0
Stage 1	106	-	-	-	-	-
Stage 2	194	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	696	954	-	-	1494	-
Stage 1	923	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	680	954	-	-	1494	-
Mov Cap-2 Maneuver	680	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	844	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	925	1494	-
HCM Lane V/C Ratio	-	-	0.018	0.021	-
HCM Control Delay (s)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	288	1	8	352	27	1	1	3	26	1	1
Future Vol, veh/h	2	288	1	8	352	27	1	1	3	26	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	1	0	0	0	0	0	0	33	0	0	0
Mvmt Flow	2	327	1	9	400	31	1	1	3	30	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	431	0	0	328	0	0	767	781	328	768	766	416
Stage 1	-	-	-	-	-	-	332	332	-	434	434	-
Stage 2	-	-	-	-	-	-	435	449	-	334	332	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.53	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.597	3.5	4	3.3
Pot Cap-1 Maneuver	1139	-	-	1243	-	-	322	329	647	321	335	641
Stage 1	-	-	-	-	-	-	686	648	-	604	585	-
Stage 2	-	-	-	-	-	-	604	576	-	684	648	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1139	-	-	1243	-	-	318	325	647	316	331	641
Mov Cap-2 Maneuver	-	-	-	-	-	-	318	325	-	316	331	-
Stage 1	-	-	-	-	-	-	685	647	-	603	579	-
Stage 2	-	-	-	-	-	-	596	570	-	678	647	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	12.9	17.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	460	1139	-	-	1243	-	-	322
HCM Lane V/C Ratio	0.012	0.002	-	-	0.007	-	-	0.099
HCM Control Delay (s)	12.9	8.2	0	-	7.9	0	-	17.4
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Capacity Analysis Summary Reports

Weekday Morning Peak Hour – No-Build Conditions

Trails of Woods Creek
Algonquin, Illinois

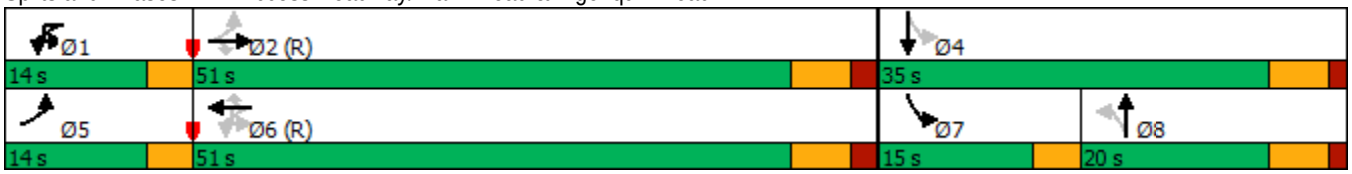
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	147	937	0	29	0	524	41	0	0	0	103	0
Future Volume (vph)	147	937	0	29	0	524	41	0	0	0	103	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	240		240		240		225	0		0	100	
Storage Lanes	1		1		1		1	1		0	1	
Taper Length (ft)	255				230			25			90	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt							0.850					0.850
Flt Protected	0.950				0.950						0.950	
Satd. Flow (prot)	1787	3654	1900	0	1805	3654	1404	1900	1900	0	1736	1615
Flt Permitted	0.425				0.284						0.784	
Satd. Flow (perm)	800	3654	1900	0	540	3654	1404	1900	1900	0	1432	1615
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)							109					392
Link Speed (mph)		45				45			25			35
Link Distance (ft)		1144				2604			599			781
Travel Time (s)		17.3				39.5			16.3			15.2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	4%	0%	0%	0%	4%	15%	0%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	150	956	0	0	30	535	42	0	0	0	105	314
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm			pm+pt	NA
Protected Phases	5	2		1	1	6			8		7	4
Permitted Phases	2		2	6	6		6	8			4	
Detector Phase	5	2	2	1	1	6	6	8	8		7	4
Switch Phase												
Minimum Initial (s)	3.0	20.0	20.0	3.0	3.0	20.0	20.0	8.0	8.0		3.0	8.0
Minimum Split (s)	6.5	26.5	26.5	6.5	6.5	26.5	26.5	14.0	14.0		6.5	14.0
Total Split (s)	14.0	51.0	51.0	14.0	14.0	51.0	51.0	20.0	20.0		15.0	35.0
Total Split (%)	14.0%	51.0%	51.0%	14.0%	14.0%	51.0%	51.0%	20.0%	20.0%		15.0%	35.0%
Yellow Time (s)	3.5	4.5	4.5	3.5	3.5	4.5	4.5	4.5	4.5		3.5	4.5
All-Red Time (s)	0.0	2.0	2.0	0.0	0.0	2.0	2.0	1.5	1.5		0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	3.5	6.5	6.5		3.5	6.5	6.5	6.0	6.0		3.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None	None
Act Effct Green (s)	80.5	72.8			76.7	67.8	67.8				11.5	9.0
Actuated g/C Ratio	0.80	0.73			0.77	0.68	0.68				0.12	0.09

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	308
Future Volume (vph)	308
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.98
Growth Factor	100%
Heavy Vehicles (%)	0%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.21	0.36			0.06	0.22	0.04				0.54	0.63
Control Delay	2.7	6.1			2.3	6.5	0.1				52.0	7.4
Queue Delay	0.0	0.0			0.0	0.0	0.0				0.0	0.0
Total Delay	2.7	6.1			2.3	6.5	0.1				52.0	7.4
LOS	A	A			A	A	A				D	A
Approach Delay		5.6				5.9						18.5
Approach LOS		A				A						B
Queue Length 50th (ft)	14	116			3	58	0				64	0
Queue Length 95th (ft)	29	164			8	92	0				116	29
Internal Link Dist (ft)		1064				2524			519			701
Turn Bay Length (ft)	240				240		225				100	
Base Capacity (vph)	755	2661			570	2478	987				206	746
Starvation Cap Reductn	0	0			0	0	0				0	0
Spillback Cap Reductn	0	0			0	0	0				0	0
Storage Cap Reductn	0	0			0	0	0				0	0
Reduced v/c Ratio	0.20	0.36			0.05	0.22	0.04				0.51	0.42

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Access Roadway/Frank Road & Algonquin Road



Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	114	2	6	62	22	1	37	26	64	7	12
Future Vol, veh/h	8	114	2	6	62	22	1	37	26	64	7	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	124	2	7	67	24	1	40	28	70	8	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	7.9	7.7	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	6%	7%	77%
Vol Thru, %	58%	92%	69%	8%
Vol Right, %	41%	2%	24%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	124	90	83
LT Vol	1	8	6	64
Through Vol	37	114	62	7
RT Vol	26	2	22	12
Lane Flow Rate	70	135	98	90
Geometry Grp	1	1	1	1
Degree of Util (X)	0.084	0.165	0.117	0.115
Departure Headway (Hd)	4.327	4.415	4.321	4.607
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	830	815	832	780
Service Time	2.344	2.429	2.337	2.623
HCM Lane V/C Ratio	0.084	0.166	0.118	0.115
HCM Control Delay	7.7	8.3	7.9	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.4	0.4

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	16	4	2	1
Future Vol, veh/h	0	17	16	4	2	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	13	0	0	0
Mvmt Flow	0	20	19	5	2	1
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.4	7.5	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	80%	0%	0%
Vol Thru, %	20%	0%	67%
Vol Right, %	0%	100%	33%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	20	17	3
LT Vol	16	0	0
Through Vol	4	0	2
RT Vol	0	17	1
Lane Flow Rate	24	20	4
Geometry Grp	1	1	1
Degree of Util (X)	0.029	0.019	0.004
Departure Headway (Hd)	4.319	3.347	3.753
Convergence, Y/N	Yes	Yes	Yes
Cap	833	1070	957
Service Time	2.322	1.364	1.762
HCM Lane V/C Ratio	0.029	0.019	0.004
HCM Control Delay	7.5	6.4	6.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1002	67	38	553	18	82
Future Vol, veh/h	1002	67	38	553	18	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	185	240	-	0	100
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	5	6	5	0	6
Mvmt Flow	1089	73	41	601	20	89

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1162	0	1472	545
Stage 1	-	-	-	-	1089	-
Stage 2	-	-	-	-	383	-
Critical Hdwy	-	-	4.22	-	6.8	7.02
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.26	-	3.5	3.36
Pot Cap-1 Maneuver	-	-	575	-	120	472
Stage 1	-	-	-	-	288	-
Stage 2	-	-	-	-	665	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	575	-	111	472
Mov Cap-2 Maneuver	-	-	-	-	211	-
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	211	472	-	-	575	-
HCM Lane V/C Ratio	0.093	0.189	-	-	0.072	-
HCM Control Delay (s)	23.8	14.4	-	-	11.7	-
HCM Lane LOS	C	B	-	-	B	-
HCM 95th %tile Q(veh)	0.3	0.7	-	-	0.2	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	27	73	0	17	88
Future Vol, veh/h	4	27	73	0	17	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	7	5	0	0	6
Mvmt Flow	5	34	92	0	22	111

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	247	92	0	0	92	0
Stage 1	92	-	-	-	-	-
Stage 2	155	-	-	-	-	-
Critical Hdwy	6.4	6.27	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.363	-	-	2.2	-
Pot Cap-1 Maneuver	746	952	-	-	1515	-
Stage 1	937	-	-	-	-	-
Stage 2	878	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	735	952	-	-	1515	-
Mov Cap-2 Maneuver	735	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	878	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	917	1515	-
HCM Lane V/C Ratio	-	-	0.043	0.014	-
HCM Control Delay (s)	-	-	9.1	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	225	1	3	91	13	1	0	8	26	1	7
Future Vol, veh/h	1	225	1	3	91	13	1	0	8	26	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	100	1	100	0	1	0	0	0	0	0	0	0
Mvmt Flow	1	265	1	4	107	15	1	0	9	31	1	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	122	0	0	266	0	0	395	398	266	395	391	115
Stage 1	-	-	-	-	-	-	268	268	-	123	123	-
Stage 2	-	-	-	-	-	-	127	130	-	272	268	-
Critical Hdwy	5.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1029	-	-	1310	-	-	568	543	778	568	548	943
Stage 1	-	-	-	-	-	-	742	691	-	886	798	-
Stage 2	-	-	-	-	-	-	882	792	-	738	691	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1029	-	-	1310	-	-	561	541	778	559	546	943
Mov Cap-2 Maneuver	-	-	-	-	-	-	561	541	-	559	546	-
Stage 1	-	-	-	-	-	-	741	690	-	885	796	-
Stage 2	-	-	-	-	-	-	870	790	-	728	690	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	9.9	11.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	746	1029	-	-	1310	-	-	610
HCM Lane V/C Ratio	0.014	0.001	-	-	0.003	-	-	0.066
HCM Control Delay (s)	9.9	8.5	0	-	7.8	0	-	11.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Capacity Analysis Summary Reports

Weekday Evening Peak Hour – No-Build Conditions

Trails of Woods Creek
Algonquin, Illinois

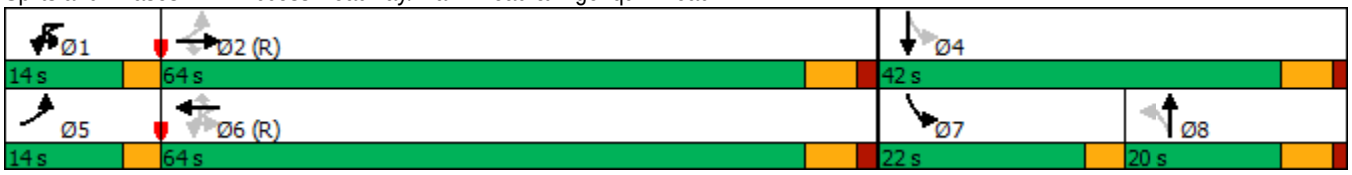
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	377	1039	0	13	0	1383	135	0	0	0	89	0
Future Volume (vph)	377	1039	0	13	0	1383	135	0	0	0	89	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	240		240		240		225	0		0	100	
Storage Lanes	1		1		1		1	1		0	1	
Taper Length (ft)	255				230			25			90	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt							0.850					0.850
Flt Protected	0.950				0.950						0.950	
Satd. Flow (prot)	1787	3762	1900	0	1805	3725	1615	1900	1900	0	1805	1599
Flt Permitted	0.066				0.264						0.950	
Satd. Flow (perm)	124	3762	1900	0	502	3725	1615	1900	1900	0	1805	1599
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)							107					184
Link Speed (mph)		45				45			25			35
Link Distance (ft)		1144				2604			599			781
Travel Time (s)		17.3				39.5			16.3			15.2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	393	1082	0	0	14	1441	141	0	0	0	93	232
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm			pm+pt	NA
Protected Phases	5	2		1	1	6			8		7	4
Permitted Phases	2		2	6	6		6	8			4	
Detector Phase	5	2	2	1	1	6	6	8	8		7	4
Switch Phase												
Minimum Initial (s)	3.0	20.0	20.0	3.0	3.0	20.0	20.0	8.0	8.0		3.0	8.0
Minimum Split (s)	6.5	26.5	26.5	6.5	6.5	26.5	26.5	14.0	14.0		6.5	14.0
Total Split (s)	14.0	64.0	64.0	14.0	14.0	64.0	64.0	20.0	20.0		22.0	42.0
Total Split (%)	11.7%	53.3%	53.3%	11.7%	11.7%	53.3%	53.3%	16.7%	16.7%		18.3%	35.0%
Yellow Time (s)	3.5	4.5	4.5	3.5	3.5	4.5	4.5	4.5	4.5		3.5	4.5
All-Red Time (s)	0.0	2.0	2.0	0.0	0.0	2.0	2.0	1.5	1.5		0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	3.5	6.5	6.5		3.5	6.5	6.5	6.0	6.0		3.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None	None
Act Effct Green (s)	98.5	91.7			66.2	57.5	57.5				14.5	12.0
Actuated g/C Ratio	0.82	0.76			0.55	0.48	0.48				0.12	0.10

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	223
Future Volume (vph)	223
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.96
Growth Factor	100%
Heavy Vehicles (%)	1%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.68	0.38			0.04	0.81	0.17				0.43	0.71
Control Delay	34.6	6.1			6.6	31.0	5.8				53.8	25.2
Queue Delay	0.0	0.0			0.0	0.0	0.0				0.0	0.0
Total Delay	34.6	6.1			6.6	31.0	5.8				53.8	25.2
LOS	C	A			A	C	A				D	C
Approach Delay		13.7				28.6						33.4
Approach LOS		B				C						C
Queue Length 50th (ft)	202	93			3	485	14				69	36
Queue Length 95th (ft)	#398	240			7	582	49				114	113
Internal Link Dist (ft)		1064				2524			519			701
Turn Bay Length (ft)	240				240		225				100	
Base Capacity (vph)	580	2876			411	1784	829				288	608
Starvation Cap Reductn	0	0			0	0	0				0	0
Spillback Cap Reductn	0	0			0	0	0				0	0
Storage Cap Reductn	0	0			0	0	0				0	0
Reduced v/c Ratio	0.68	0.38			0.03	0.81	0.17				0.32	0.38

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 52 (43%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 22.6		Intersection LOS: C	
Intersection Capacity Utilization 84.8%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Access Roadway/Frank Road & Algonquin Road



Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	192	2	32	267	63	5	8	29	74	29	9
Future Vol, veh/h	7	192	2	32	267	63	5	8	29	74	29	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	209	2	35	290	68	5	9	32	80	32	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	12.1	8.6	9.8
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	3%	9%	66%
Vol Thru, %	19%	96%	74%	26%
Vol Right, %	69%	1%	17%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	201	362	112
LT Vol	5	7	32	74
Through Vol	8	192	267	29
RT Vol	29	2	63	9
Lane Flow Rate	46	218	393	122
Geometry Grp	1	1	1	1
Degree of Util (X)	0.065	0.293	0.498	0.185
Departure Headway (Hd)	5.133	4.825	4.553	5.47
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	689	738	787	650
Service Time	3.231	2.892	2.608	3.555
HCM Lane V/C Ratio	0.067	0.295	0.499	0.188
HCM Control Delay	8.6	9.9	12.1	9.8
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.2	1.2	2.8	0.7

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	14	0	0	0
Future Vol, veh/h	0	20	14	0	0	0
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	28	20	0	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.4	7.2	0
HCM LOS	A	A	-

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	0%	100%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	14	20	0
LT Vol	14	0	0
Through Vol	0	0	0
RT Vol	0	20	0
Lane Flow Rate	20	28	0
Geometry Grp	1	1	1
Degree of Util (X)	0.023	0.026	0
Departure Headway (Hd)	4.149	3.335	3.964
Convergence, Y/N	Yes	Yes	Yes
Cap	868	1077	0
Service Time	2.151	1.345	1.971
HCM Lane V/C Ratio	0.023	0.026	0
HCM Control Delay	7.2	6.4	7
HCM Lane LOS	A	A	N
HCM 95th-tile Q	0.1	0.1	0

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1062	79	56	1450	44	54
Future Vol, veh/h	1062	79	56	1450	44	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	185	240	-	0	100
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	1	0	0	1	0	4
Mvmt Flow	1084	81	57	1480	45	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1165	0	1938	542
Stage 1	-	-	-	-	1084	-
Stage 2	-	-	-	-	854	-
Critical Hdwy	-	-	4.1	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.34
Pot Cap-1 Maneuver	-	-	607	-	59	480
Stage 1	-	-	-	-	290	-
Stage 2	-	-	-	-	382	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	607	-	53	480
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	382	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	24
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	157	480	-	-	607	-
HCM Lane V/C Ratio	0.286	0.115	-	-	0.094	-
HCM Control Delay (s)	36.9	13.5	-	-	11.5	-
HCM Lane LOS	E	B	-	-	B	-
HCM 95th %tile Q(veh)	1.1	0.4	-	-	0.3	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	12	86	5	25	110
Future Vol, veh/h	1	12	86	5	25	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	1	15	109	6	32	139

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	315	112	0	0	115	0
Stage 1	112	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	682	947	-	-	1487	-
Stage 1	918	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	666	947	-	-	1487	-
Mov Cap-2 Maneuver	666	-	-	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	836	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	917	1487	-
HCM Lane V/C Ratio	-	-	0.018	0.021	-
HCM Control Delay (s)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	302	1	8	370	27	1	1	3	26	1	1
Future Vol, veh/h	2	302	1	8	370	27	1	1	3	26	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	1	0	0	0	0	0	0	33	0	0	0
Mvmt Flow	2	343	1	9	420	31	1	1	3	30	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	451	0	0	344	0	0	803	817	344	804	802	436
Stage 1	-	-	-	-	-	-	348	348	-	454	454	-
Stage 2	-	-	-	-	-	-	455	469	-	350	348	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.53	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.597	3.5	4	3.3
Pot Cap-1 Maneuver	1120	-	-	1226	-	-	304	313	634	304	320	625
Stage 1	-	-	-	-	-	-	672	638	-	589	573	-
Stage 2	-	-	-	-	-	-	589	564	-	671	638	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1120	-	-	1226	-	-	300	309	634	299	316	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	300	309	-	299	316	-
Stage 1	-	-	-	-	-	-	671	637	-	588	567	-
Stage 2	-	-	-	-	-	-	581	558	-	665	637	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	13.3	18.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	442	1120	-	-	1226	-	-	305
HCM Lane V/C Ratio	0.013	0.002	-	-	0.007	-	-	0.104
HCM Control Delay (s)	13.3	8.2	0	-	8	0	-	18.2
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Capacity Analysis Summary Reports

Weekday Morning Peak Hour – Projected Conditions

Trails of Woods Creek
Algonquin, Illinois

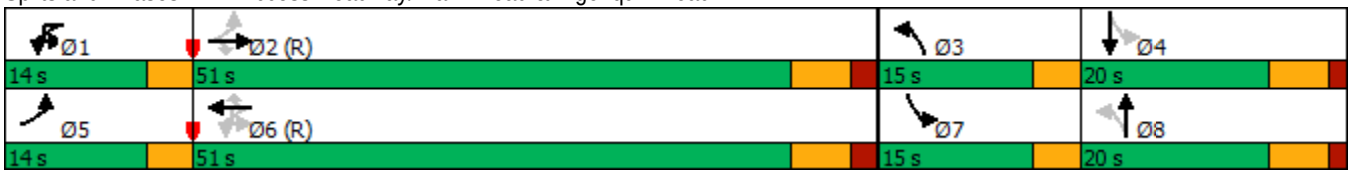
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	147	909	64	29	60	494	41	99	9	79	103	4
Future Volume (vph)	147	909	64	29	60	494	41	99	9	79	103	4
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	240		240		240		225	0		0	100	
Storage Lanes	1		1		1		1	1		0	1	
Taper Length (ft)	255				230			25			90	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850				0.850		0.865			0.852
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1787	3654	1615	0	1805	3654	1404	1805	1644	0	1736	1619
Flt Permitted	0.436				0.264			0.412			0.685	
Satd. Flow (perm)	820	3654	1615	0	502	3654	1404	783	1644	0	1251	1619
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			109				109		81			314
Link Speed (mph)		45				45			25			35
Link Distance (ft)		1144				2604			599			781
Travel Time (s)		17.3				39.5			16.3			15.2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	4%	0%	0%	0%	4%	15%	0%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	150	928	65	0	91	504	42	101	90	0	105	318
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	5	2		1	1	6		3	8		7	4
Permitted Phases	2		2	6	6		6	8			4	
Detector Phase	5	2	2	1	1	6	6	3	8		7	4
Switch Phase												
Minimum Initial (s)	3.0	20.0	20.0	3.0	3.0	20.0	20.0	3.0	8.0		3.0	8.0
Minimum Split (s)	6.5	26.5	26.5	6.5	6.5	26.5	26.5	6.5	14.0		6.5	14.0
Total Split (s)	14.0	51.0	51.0	14.0	14.0	51.0	51.0	15.0	20.0		15.0	20.0
Total Split (%)	14.0%	51.0%	51.0%	14.0%	14.0%	51.0%	51.0%	15.0%	20.0%		15.0%	20.0%
Yellow Time (s)	3.5	4.5	4.5	3.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5
All-Red Time (s)	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	1.5		0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	3.5	6.5	6.5		3.5	6.5	6.5	3.5	6.0		3.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None	None
Act Effct Green (s)	67.7	57.6	57.6		65.0	54.7	54.7	20.5	9.7		20.9	9.9
Actuated g/C Ratio	0.68	0.58	0.58		0.65	0.55	0.55	0.20	0.10		0.21	0.10

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	308
Future Volume (vph)	308
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.98
Growth Factor	100%
Heavy Vehicles (%)	0%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.24	0.44	0.07		0.22	0.25	0.05	0.39	0.39		0.34	0.72
Control Delay	7.3	15.1	1.0		7.7	13.9	0.1	33.3	16.3		32.0	15.0
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	7.3	15.1	1.0		7.7	13.9	0.1	33.3	16.3		32.0	15.0
LOS	A	B	A		A	B	A	C	B		C	B
Approach Delay		13.3				12.1			25.3			19.2
Approach LOS		B				B			C			B
Queue Length 50th (ft)	29	176	0		17	85	0	52	5		54	2
Queue Length 95th (ft)	64	280	8		42	143	0	87	50		90	82
Internal Link Dist (ft)		1064				2524			519			701
Turn Bay Length (ft)	240		240		240		225				100	
Base Capacity (vph)	666	2103	975		477	1998	817	286	299		328	496
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.23	0.44	0.07		0.19	0.25	0.05	0.35	0.30		0.32	0.64

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 15.0		Intersection LOS: B	
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Access Roadway/Frank Road & Algonquin Road



Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	114	2	6	62	27	1	37	26	79	7	19
Future Vol, veh/h	10	114	2	6	62	27	1	37	26	79	7	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	124	2	7	67	29	1	40	28	86	8	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8	7.8	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	8%	6%	75%
Vol Thru, %	58%	90%	65%	7%
Vol Right, %	41%	2%	28%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	126	95	105
LT Vol	1	10	6	79
Through Vol	37	114	62	7
RT Vol	26	2	27	19
Lane Flow Rate	70	137	103	114
Geometry Grp	1	1	1	1
Degree of Util (X)	0.085	0.171	0.125	0.146
Departure Headway (Hd)	4.377	4.482	4.358	4.602
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	819	801	823	781
Service Time	2.401	2.503	2.381	2.625
HCM Lane V/C Ratio	0.085	0.171	0.125	0.146
HCM Control Delay	7.8	8.4	8	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.4	0.5

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	16	4	2	1
Future Vol, veh/h	0	17	16	4	2	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	13	0	0	0
Mvmt Flow	0	20	19	5	2	1
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.4	7.5	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	80%	0%	0%
Vol Thru, %	20%	0%	67%
Vol Right, %	0%	100%	33%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	20	17	3
LT Vol	16	0	0
Through Vol	4	0	2
RT Vol	0	17	1
Lane Flow Rate	24	20	4
Geometry Grp	1	1	1
Degree of Util (X)	0.029	0.019	0.004
Departure Headway (Hd)	4.319	3.347	3.753
Convergence, Y/N	Yes	Yes	Yes
Cap	833	1070	957
Service Time	2.322	1.364	1.762
HCM Lane V/C Ratio	0.029	0.019	0.004
HCM Control Delay	7.5	6.4	6.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1051	69	49	583	18	115
Future Vol, veh/h	1051	69	49	583	18	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	185	240	-	0	100
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	5	6	5	0	6
Mvmt Flow	1142	75	53	634	20	125

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1217	0	1565	571
Stage 1	-	-	-	-	1142	-
Stage 2	-	-	-	-	423	-
Critical Hdwy	-	-	4.22	-	6.8	7.02
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.26	-	3.5	3.36
Pot Cap-1 Maneuver	-	-	547	-	104	454
Stage 1	-	-	-	-	271	-
Stage 2	-	-	-	-	635	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	547	-	94	454
Mov Cap-2 Maneuver	-	-	-	-	191	-
Stage 1	-	-	-	-	245	-
Stage 2	-	-	-	-	635	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	191	454	-	-	547	-
HCM Lane V/C Ratio	0.102	0.275	-	-	0.097	-
HCM Control Delay (s)	26	15.9	-	-	12.3	-
HCM Lane LOS	D	C	-	-	B	-
HCM 95th %tile Q(veh)	0.3	1.1	-	-	0.3	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	27	106	0	17	101
Future Vol, veh/h	4	27	106	0	17	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	7	5	0	0	6
Mvmt Flow	5	34	134	0	22	128

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	306	134	0	0	134	0
Stage 1	134	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	6.4	6.27	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.363	-	-	2.2	-
Pot Cap-1 Maneuver	690	902	-	-	1463	-
Stage 1	897	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	679	902	-	-	1463	-
Mov Cap-2 Maneuver	679	-	-	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	849	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	865	1463	-
HCM Lane V/C Ratio	-	-	0.045	0.015	-
HCM Control Delay (s)	-	-	9.4	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	22	7	73	92	13
Future Vol, veh/h	33	22	7	73	92	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	5	6	0
Mvmt Flow	42	28	9	92	116	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	234	124	132	0	-	0
Stage 1	124	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	759	932	1466	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	754	932	1466	-	-	-
Mov Cap-2 Maneuver	754	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	920	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1466	-	816	-	-
HCM Lane V/C Ratio	0.006	-	0.085	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	240	1	3	96	13	1	0	8	26	1	7
Future Vol, veh/h	1	240	1	3	96	13	1	0	8	26	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	100	1	100	0	1	0	0	0	0	0	0	0
Mvmt Flow	1	282	1	4	113	15	1	0	9	31	1	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	128	0	0	283	0	0	418	421	283	418	414	121
Stage 1	-	-	-	-	-	-	285	285	-	129	129	-
Stage 2	-	-	-	-	-	-	133	136	-	289	285	-
Critical Hdwy	5.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1023	-	-	1291	-	-	549	527	761	549	532	936
Stage 1	-	-	-	-	-	-	727	679	-	880	793	-
Stage 2	-	-	-	-	-	-	875	788	-	723	679	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1023	-	-	1291	-	-	542	525	761	541	530	936
Mov Cap-2 Maneuver	-	-	-	-	-	-	542	525	-	541	530	-
Stage 1	-	-	-	-	-	-	726	678	-	879	791	-
Stage 2	-	-	-	-	-	-	863	786	-	713	678	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	728	1023	-	-	1291	-	-	592
HCM Lane V/C Ratio	0.015	0.001	-	-	0.003	-	-	0.068
HCM Control Delay (s)	10	8.5	0	-	7.8	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Capacity Analysis Summary Reports

Weekday Evening Peak Hour – Projected Conditions

Trails of Woods Creek
Algonquin, Illinois

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	377	1011	107	13	90	1350	135	87	7	74	89	12
Future Volume (vph)	377	1011	107	13	90	1350	135	87	7	74	89	12
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%			0%			0%
Storage Length (ft)	240		240		240		225	0		0	100	
Storage Lanes	1		1		1		1	1		0	1	
Taper Length (ft)	255				230			25			90	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850				0.850		0.862			0.858
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1787	3762	1615	0	1805	3725	1615	1805	1638	0	1805	1615
Flt Permitted	0.067				0.267			0.460			0.527	
Satd. Flow (perm)	126	3762	1615	0	507	3725	1615	874	1638	0	1001	1615
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			111				110		77			232
Link Speed (mph)		45				45			25			35
Link Distance (ft)		1144				2604			599			781
Travel Time (s)		17.3				39.5			16.3			15.2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%			0%			0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	393	1053	111	0	108	1406	141	91	84	0	93	245
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	5	2		1	1	6		3	8		7	4
Permitted Phases	2		2	6	6		6	8			4	
Detector Phase	5	2	2	1	1	6	6	3	8		7	4
Switch Phase												
Minimum Initial (s)	3.0	20.0	20.0	3.0	3.0	20.0	20.0	3.0	8.0		3.0	8.0
Minimum Split (s)	6.5	26.5	26.5	6.5	6.5	26.5	26.5	6.5	14.0		6.5	14.0
Total Split (s)	14.0	64.0	64.0	14.0	14.0	64.0	64.0	22.0	20.0		22.0	20.0
Total Split (%)	11.7%	53.3%	53.3%	11.7%	11.7%	53.3%	53.3%	18.3%	16.7%		18.3%	16.7%
Yellow Time (s)	3.5	4.5	4.5	3.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5
All-Red Time (s)	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	1.5		0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	3.5	6.5	6.5		3.5	6.5	6.5	3.5	6.0		3.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None	None
Act Effct Green (s)	86.0	71.9	71.9		68.3	57.5	57.5	21.1	10.3		24.1	10.4
Actuated g/C Ratio	0.72	0.60	0.60		0.57	0.48	0.48	0.18	0.09		0.20	0.09

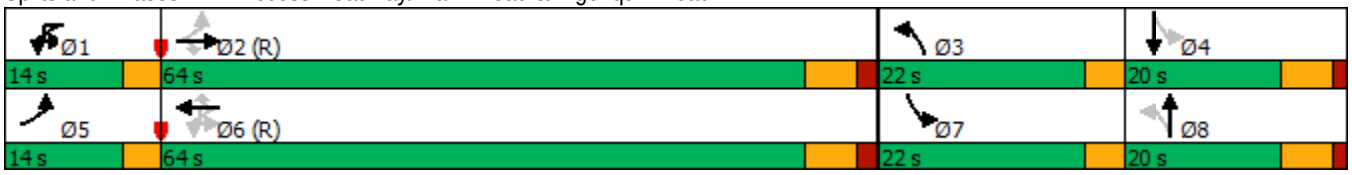
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	223
Future Volume (vph)	223
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.96
Growth Factor	100%
Heavy Vehicles (%)	1%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.99	0.47	0.11		0.29	0.79	0.17	0.39	0.40		0.32	0.70
Control Delay	79.4	15.3	2.9		9.4	30.2	5.6	42.1	18.2		39.6	18.8
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	79.4	15.3	2.9		9.4	30.2	5.6	42.1	18.2		39.6	18.8
LOS	E	B	A		A	C	A	D	B		D	B
Approach Delay		30.6				26.7			30.6			24.5
Approach LOS		C				C			C			C
Queue Length 50th (ft)	242	212	0		20	466	12	60	5		61	10
Queue Length 95th (ft)	#575	352	29		52	561	48	94	52		96	87
Internal Link Dist (ft)		1064				2524			519			701
Turn Bay Length (ft)	240		240		240		225				100	
Base Capacity (vph)	397	2253	1012		413	1784	831	335	265		350	399
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.99	0.47	0.11		0.26	0.79	0.17	0.27	0.32		0.27	0.61

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 52 (43%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 28.3 Intersection LOS: C
Intersection Capacity Utilization 92.7% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Access Roadway/Frank Road & Algonquin Road



Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	192	2	32	267	79	5	8	29	84	29	14
Future Vol, veh/h	15	192	2	32	267	79	5	8	29	84	29	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	209	2	35	290	86	5	9	32	91	32	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.2	12.7	8.7	10.2
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	7%	8%	66%
Vol Thru, %	19%	92%	71%	23%
Vol Right, %	69%	1%	21%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	209	378	127
LT Vol	5	15	32	84
Through Vol	8	192	267	29
RT Vol	29	2	79	14
Lane Flow Rate	46	227	411	138
Geometry Grp	1	1	1	1
Degree of Util (X)	0.068	0.31	0.525	0.215
Departure Headway (Hd)	5.349	4.909	4.596	5.618
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	673	725	777	643
Service Time	3.353	2.997	2.67	3.618
HCM Lane V/C Ratio	0.068	0.313	0.529	0.215
HCM Control Delay	8.7	10.2	12.7	10.2
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.2	1.3	3.1	0.8

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	14	0	0	0
Future Vol, veh/h	0	20	14	0	0	0
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	28	20	0	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.4	7.2	0
HCM LOS	A	A	-

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	0%	100%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	14	20	0
LT Vol	14	0	0
Through Vol	0	0	0
RT Vol	0	20	0
Lane Flow Rate	20	28	0
Geometry Grp	1	1	1
Degree of Util (X)	0.023	0.026	0
Departure Headway (Hd)	4.149	3.335	3.964
Convergence, Y/N	Yes	Yes	Yes
Cap	868	1077	0
Service Time	2.151	1.345	1.971
HCM Lane V/C Ratio	0.023	0.026	0
HCM Control Delay	7.2	6.4	7
HCM Lane LOS	A	A	N
HCM 95th-tile Q	0.1	0.1	0

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1102	85	93	1507	44	76
Future Vol, veh/h	1102	85	93	1507	44	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	185	240	-	0	100
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	1	0	0	1	0	4
Mvmt Flow	1124	87	95	1538	45	78

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1211	0	2083	562
Stage 1	-	-	-	-	1124	-
Stage 2	-	-	-	-	959	-
Critical Hdwy	-	-	4.1	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.34
Pot Cap-1 Maneuver	-	-	583	-	47	465
Stage 1	-	-	-	-	276	-
Stage 2	-	-	-	-	337	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	583	-	~ 39	465
Mov Cap-2 Maneuver	-	-	-	-	126	-
Stage 1	-	-	-	-	231	-
Stage 2	-	-	-	-	337	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	26.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	126	465	-	-	583	-
HCM Lane V/C Ratio	0.356	0.167	-	-	0.163	-
HCM Control Delay (s)	48.6	14.3	-	-	12.4	-
HCM Lane LOS	E	B	-	-	B	-
HCM 95th %tile Q(veh)	1.5	0.6	-	-	0.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	12	106	5	25	153
Future Vol, veh/h	1	12	106	5	25	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	1	15	134	6	32	194

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	395	137	0	0	140	0
Stage 1	137	-	-	-	-	-
Stage 2	258	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	614	917	-	-	1456	-
Stage 1	895	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	599	917	-	-	1456	-
Mov Cap-2 Maneuver	599	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	1.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	881	1456	-
HCM Lane V/C Ratio	-	-	0.019	0.022	-
HCM Control Delay (s)	-	-	9.2	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	15	24	89	111	43
Future Vol, veh/h	22	15	24	89	111	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	28	19	30	113	141	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	341	168	195	0	-	0
Stage 1	168	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	659	881	1390	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	862	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	644	881	1390	-	-	-
Mov Cap-2 Maneuver	644	-	-	-	-	-
Stage 1	847	-	-	-	-	-
Stage 2	862	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1390	-	723	-	-
HCM Lane V/C Ratio	0.022	-	0.065	-	-
HCM Control Delay (s)	7.6	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	312	1	8	386	27	1	1	3	26	1	1
Future Vol, veh/h	2	312	1	8	386	27	1	1	3	26	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	1	0	0	0	0	0	0	33	0	0	0
Mvmt Flow	2	355	1	9	439	31	1	1	3	30	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	470	0	0	356	0	0	834	848	356	835	833	455
Stage 1	-	-	-	-	-	-	360	360	-	473	473	-
Stage 2	-	-	-	-	-	-	474	488	-	362	360	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.53	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.597	3.5	4	3.3
Pot Cap-1 Maneuver	1102	-	-	1214	-	-	290	301	624	289	307	609
Stage 1	-	-	-	-	-	-	662	630	-	576	562	-
Stage 2	-	-	-	-	-	-	575	553	-	661	630	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1102	-	-	1214	-	-	286	297	624	284	303	609
Mov Cap-2 Maneuver	-	-	-	-	-	-	286	297	-	284	303	-
Stage 1	-	-	-	-	-	-	661	629	-	575	556	-
Stage 2	-	-	-	-	-	-	567	547	-	655	629	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	13.5	18.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	428	1102	-	-	1214	-	-	290
HCM Lane V/C Ratio	0.013	0.002	-	-	0.007	-	-	0.11
HCM Control Delay (s)	13.5	8.3	0	-	8	0	-	18.9
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor
Colleen Callahan, Director

October 04, 2019

Alicia Metzger
V3 Companies
7325 Janes Ave.
Woodridge, IL 60517

RE: Terrace Hill
Project Number(s): 2003204 [19381]
County: McHenry

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Brian Willard
Division of Ecosystems and Environment
217-785-5500