

AGENDA
COMMITTEE OF THE WHOLE
November 10, 2020
2200 Harnish Drive
Village Board Room
7:30 P.M.

In light of the current COVID-19 public health emergency, Governor J.B. Pritzker's Gubernatorial Disaster Proclamation, and the Village's Continuation of Proclamation of Local Disaster Emergency in response thereto, the Village President has determined that an entirely in-person meeting is not practical or prudent because of the disaster. This meeting will be held remotely and in-person, but there will be a limit of twelve (12) in-person seats available for the public in the Village Board Room. The following information is being made available to the public for the purpose of public participation in the spirit of transparency and an open meeting process.

The complete Committee of the Whole packet is posted at the Algonquin Village Hall and may be viewed online via the Village Board's link on the Village's website, www.algonquin.org. If you would like to listen to the meeting, please go to <https://algonquin.zoom.us/j/98889347199> or dial in (877)853-5257, (888)475-4499, or (312)626-6799 webinar ID **988 8934 7199**. If you wish to submit any public comment, please contact the Deputy Village Clerk in advance of the meeting at 847-658-5609 or meetingcomments@algonquin.org or during the to comment during the meeting public comment portion of the meeting after logging into the zoom meeting, please raise your hand and you will be called on, if you are dialing in, dial *9 to raise your hand. The Village will attempt to read such public comments during the public commentary portion of the meeting. Any comments received during the meeting but after the public commentary portion has ended will be provided in writing to the Village Board members after the meeting.

Remote meetings will be recorded for the purpose of accurate meeting minute

Trustee Jasper – Chairperson
Trustee Brehmer
Trustee Glogowski
Trustee Spella
Trustee Steigert
Acting President Sosine

- AGENDA -

1. **Roll Call – Establish Quorum**
2. **Public Comment – Audience Participation**
(Persons wishing to address the Committee if in person, please register with the Chair prior to roll call, if remote follow the instructions above.)
3. **Community Development**
 - A. Consider an Amendment to Chapter 23, Building Codes and Appendix B, Penalty, Salary, Bonds, and Fees
4. **General Administration**
 - A. Consider an Agreement with Sikich for Audit Services 2021 – 2025
 - B. Consider Acceptance of the Municipal Compliance Report
 - C. Consider the Police Pension Fund Tax Levy
 - D. Consider the 2020 Property Tax Levy
5. **Public Works & Safety**
 - A. Consider Certain Items as Surplus
 - B. Consider an Agreement with Atlas Bobcat to Purchase a Tele-handler
 - C. Consider an Agreement with Trotter and Associates Woods Creek Lift Station Design Services
 - D. Consider an Agreement with Rush Truck Center of Springfield for the Purchase of a 2022 International HV607 with a Hook Lift
 - E. Consider an Agreement with Rush Truck Center of Springfield for the Purchase of a 2022 International HV607
 - F. Consider an Agreement with Morrow Brothers Ford for the Purchase of Two (2) 2020 Ford Interceptor Hybrid SUV's
 - G. Consider an Agreement with Morrow Brothers Ford for the Purchase of a 2020 Ford Fusion
 - H. Consider an Agreement with Tyler Technologies for the Purchase of Electronic Crash/Citation Program Software
6. **Executive Session**
7. **Other Business**
8. **Adjournment**



VILLAGE OF ALGONQUIN
COMMUNITY DEVELOPMENT DEPARTMENT

- M E M O R A N D U M -

DATE: October 15, 2020

TO: Committee of the Whole

FROM: Craig Arps, Building Commissioner

SUBJECT: *Chapter 23 Building Codes Ordinance Update*

Background

Over the course of the past several months Village staff have been reviewing, updating and revising all of Chapter 23. As you know, Chapter 23 adopts and amends all the Building Codes enforced by the Village. Currently, Chapter 23 references the 2006 edition of the International Codes (I-Codes). Staff felt it was time for another review based on changes in construction technology, methods and materials. Staff recommends the adoption of the 2018 edition of the International Buildings Codes as well as the 2014 edition of the Illinois State Plumbing Code and the 2017 edition of the National Electrical Code.

There are numerous benefits to updating the adopted Codes. Not only do newer Codes take in account new construction technology, methods and materials, design professionals and contractors are more acquainted with more recent Codes. Furthermore, adopting the 2018 I-Codes would provide some consistency with other communities in the area, making it easier for design professionals and contractors to work in the area. Crystal Lake has already adopted the 2018 I-Codes. Lake in the Hills is in the process of reviewing the 2018 I-Codes for adoption. Huntley and Carpentersville are considering the adoption of the 2018 I-Codes.

Additionally, Permit fees have not been updated since the adoption of the 2006 I-Codes. Consequently, staff felt it was also time to update the Permit Fee Schedule in Appendix B. The recommended changes to Permit Fee Schedule reflect a modest increase in Permit fees to help offset the cost of reviewing Permits for Code compliance, processing Permits and conducting inspections. Attached is the proposed Chapter 23 and a Permit Fee Schedule.

Chapter 23
BUILDING CODES

- 23.01 Definitions
- 23.02- International Residential Code/20062018 Adopted
- 23.03- Modifications to the Residential Code
- 23.04- International Building Code/20062018 Adopted
- 23.05- Modifications to the Building Code
- 23.06- International Fire Code/20062018 Adopted
- 23.07- Modifications to the Fire Code
- 23.08- International Mechanical Code/20062018 Adopted
- 23.09- Modifications to the Mechanical Code
- 23.10- International Fuel Gas Code/20062018 Adopted
- 23.11- Modifications to the Fuel Gas Code
- 23.12- National Electrical Code/20022017 Adopted
- 23.13- Modifications to the Electrical Code
- 23.14- Illinois State Plumbing Code/20042014 Adopted
- 23.15- ~~Modifications to the Plumbing Code~~
- 23.16- International Energy Conservation Code/20062018 Adopted
- 23.17-16 Modifications to the Energy Conservation Code
- 23.18-17 International Existing Building Code/20062018 Adopted
- 23.19-18 Modification to the Existing Building Code
- 23.20-19 International Property Maintenance Code/-2006Adopted2018Adopted
- 23.21-20 Modifications to the Property Maintenance Code
- 23.22-21 Illinois Accessibility Code/19972018 Adopted
- 23.23-23.22 International Swimming Pool and Spa Code/2018
- 23.23 Modifications to Swimming Pool and Spa Code
- 23.24 Permit Fee Schedule
- 23.24-25 Kane County Road Improvement Impact Fee
- 23.25-26 Identification of Local Building Code Not Adopted

23.01- DEFINITIONS

In addition to those terms defined in Appendix A of this Code, for purposes of this Chapter, any reference to Code Official and Building Official shall mean the Building Commissioner; any reference to a specific chapter, other than Chapter, shall mean the applicable chapter in the applicable building code; and any reference to a code, other than Code, shall mean that particular building code of that section.

23.02- INTERNATIONAL RESIDENTIAL CODE/20062018

The International Residential Code, 20062018 edition, and appendices B, C, D, F, G, J, and K (“Residential Code”), are hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.03- MODIFICATIONS TO THE RESIDENTIAL CODE ~~Amended, 2012 O-32, 11 O-17~~

The Residential Code shall be amended as follows:

~~1.~~

1. Section R101.1 insert Village of Algonquin.

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~~2.~~

2. Section R105.1 shall be amended to read as follows:

 R105.1 Required. Any owner or authorized agent who intends to construct, enlarge, alter, replace, repair, including the installation of roof coverings, siding, patios, decks, gazebos, porches, detached accessory buildings or structures, sidewalk, driveways, fences, and swimming pools; retaining walls; use of a shipping container for temporary storage, if on site for more than 14 consecutive days and in no case shall the shipping container be on site for more than 90 consecutive days; move, demolish, or change the occupancy of a building or structure; install or replace any electrical gas, mechanical, or plumbing system, the installation of which is regulated by this Code, or to cause any such work to be done, shall first make application to the Building Official and obtain the required permit(s).

~~3.~~

3. Section R105.2 shall be amended to read as follows:

 R105.2 Work exempt from permit. Permits shall not be required for the following. Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinance of the Village.

 Building:

~~1.~~

 1. Prefabricated swimming pools that are not capable of holding 24 inches (610 mm) or more of water.

 2. Retaining walls that are not over ~~four~~two feet (~~1219~~610 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.

~~2.~~

 3. Painting, papering, tiling, carpeting, countertops, and similar finish work.

~~3.~~

 4. Swings and other playground equipment accessory to a one- or two-family dwelling.

~~4.~~

 5. Prefabricated storage containers less than 100 cubic feet in volume, accessory to a one- or two-family dwelling, located in the rear yard and outside any easements.

 Electrical: No change.

 Gas: No change.

 Mechanical: No change.

~~4.~~

4. Section R105.2.2 Insert new Sections:

R105.2.2.1 Fence Repair. The repair or replacement of up to two (2) fence panel sections and/or three (3) support posts.

R105.2.2.2 Siding and Roof Repair. The repair or replacement of up to an aggregate total of 200 square feet of roofing material or siding material.

5. Section R105.5 shall be amended to add:

 The work authorized by permit shall be completed and a final inspection conducted within 180 days after its issuance.

 Exceptions: The following work authorized by permit shall be completed and a final inspection conducted within one year after its issuance.

- 1.- Single-family dwellings
- 2.- Two-family dwellings
- 3.- Townhouse dwellings
- 4.- Dwelling unit additions and/or alterations

~~5.~~

6. Section R106.1 shall be amended to read as follows:

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 R106.1 Submittal documents. Construction documents for new single-family dwellings, two-family dwellings, townhouse dwellings, duplex dwellings, additions to dwelling units above the first floor, modifications which alter ~~the existing bearing walls or beams, modifications which alter the existing~~ roof of a dwelling unit ~~and alterations,~~ retaining walls that are five (5) feet in height or taller measured from the footing to the top of the wall, unless supporting a surcharge and alterations, repairs, expansion, additions, and/or modifications to a dwelling unit of a substantial scope as determined by the Building Official shall be sealed and signed by an Illinois licensed architect or structural engineer.

~~6.~~

7. Section R106.2 shall be amended to read as follows:

 R106.2 Site plan. The construction documents submitted with the permit application shall be accompanied by a plat of survey prepared by an Illinois licensed professional engineer or land surveyor showing the size and location of new construction, existing structures, any floodplain or wetland areas, and easements on the site and distances from lot lines. A plat of survey submitted for the construction of a new ~~singlefamily,~~ single-family, two-family, duplex, or townhouse dwelling shall specify the top of foundation elevation proposed for the building based on the approved engineering plan for the subdivision in which the building will be located. In the event there is not an approved engineering plan for the subdivision in which the building will be located, the proposed top of

foundation elevation shall be determined using best engineering practices.

~~7.~~

~~8.~~ Section R106.2.1 shall be amended to add the following:

R106.2.1 As-built plan. An as-built survey prepared by an Illinois licensed professional engineer or land surveyor shall be completed after the foundation for a single-family dwelling, two-family dwelling, duplex, or townhouse dwelling has been placed and submitted to the Village for review and approval. The as-built survey shall show the location of the foundation, distances from property lines, the proposed top of foundation elevation, and the actual top of foundation elevation. Construction past the first floor deck shall not continue until the as-built survey has been reviewed and approved by the Building Official.

~~8.~~

~~9.~~ Add a new Section R106.2.2, which shall read as follows:

R106.2.2 Final as-built & grading plan. A final as-built survey and grading plan prepared by an Illinois licensed professional engineer or land surveyor shall be completed after the construction of a single-family, two-family, duplex, or townhouse dwelling has been completed. The survey shall be submitted to the Village for review and approval prior to the issuance of a Certificate of Occupancy. The final as-built and grading plan shall indicate the location of all construction, site improvements, and final grading on the lot.

~~9.~~

~~10.~~ Section R112 shall be amended to read as follows:

112.1 General. In order to hear and decide appeals of orders, decisions, or determinations made by the Building Official relative to the application and interpretation of this code, an appeal may be made to the Village Board.

~~10.~~

~~11.~~ **New** Section R115 shall be added, to read as follows:

R115 SITE REQUIREMENTS

Chapter 23, Page 4-4/22/14

R115.1 Construction site access. Access to construction sites and lots shall be by means of a paved roadway(s) capable of supporting a vehicle weighing at least 85,000 pounds.

R115.2 Street identification. All streets and roadways leading to construction site(s) shall be identified by their name, on signs clearly visible from the right-of-way with characters not less than three inches in height.

R115.3 Lot identification. All construction sites and lots shall be identified by their address, on signs clearly visible from the right-of-way with numbers and letters not less than three inches in height. Once a structure is in place, the address shall be applied legibly to the portion of the structure that faces the right-of-way and remain in place throughout the construction process.

R115.4 Roadway maintenance. All roadways, streets, sidewalks, and bike paths shall remain free of mud/dirt and debris at all time.

 R115.5 Construction driveways. The designated areas for driveways shall, at a minimum, be gravel or crushed stone from the back of the curb or end of the paved right-~~ofway~~ ~~of-way~~ up to the structure.

 R115.6 Sanitation facilities. Approved portable sanitation facilities in sufficient quantities shall be provided and maintained on construction sites and located within 200 feet of construction activity.

~~11.~~

12. Section R202: The following definition shall be added:

 DUPLEX (TWO-FAMILY DWELLING). A building not more than three stories in height, consisting of two attached single-family dwelling units in which each unit extends from foundation to roof. Each unit has a separate means of egress and each unit has open space on three sides.

~~12.~~

13. Table R301.2(1), insert the following:

<u> </u> Ground Snow Load-	<u> </u> 30 psf <u>pounds per square foot</u>
<u> </u> Wind Speed (three second gust)-	<u>90 mph</u> <u>115</u>
<u> </u> Topographic effects	<u>No</u>
<u> </u> Special Wind Region	<u>No</u>
<u> </u> Windborne Debris Zone	<u>No</u>
<u> </u> Seismic Design Category-	<u>0.17/b</u> <u>B</u>
<u> </u> Weathering-	<u>severe</u> <u>Severe</u>
<u> </u> Frost Line Depth-	<u> </u> 42 inches minimum below grade
<u> </u> Termite-	<u>moderate to heavy</u> <u>Moderate</u>
<u> </u> Winter Design Temperature-	<u> </u> -4 degrees Fahrenheit
<u> </u> Ice Barrier Underlayment	<u>required</u> <u>Required</u> <u>Yes</u>
<u> </u> Flood Hazards-	<u> </u> reference Flood Insurance Rate Map for Algonquin

11/16/2006 & Chapter 44

<u> </u> Air Freezing Index-	<u> </u> 1745
<u> </u> Mean Annual Temperature-	<u> </u> 47.8 degrees Fahrenheit
13. <u> </u> Elevation	<u> </u> 700
<u> </u> Latitude	<u> </u> 42.251264
<u> </u> Winter Heating	<u> </u> -4 degrees Fahrenheit
<u> </u> Summer Cooling	<u> </u> 89 degrees Fahrenheit
<u> </u> Altitude correction factor	<u> </u> 0.0
<u> </u> Indoor design temperature	<u> </u> 72 degrees Fahrenheit
<u> </u> Heating temperature difference	<u> </u> 76 degrees Fahrenheit [72-(-4)]
<u> </u> Cooling temperature difference	<u> </u> 14 degrees Fahrenheit [89-75]
<u> </u> Wind velocity heating	<u> </u> 8.4 miles per hour
<u> </u> Wind velocity cooling	<u> </u> 5.7 miles per hour
<u> </u> Coincident wet bulb	<u> </u> 74 degrees Fahrenheit

Daily range	M
Winter humidity	30%
Summer Humidity	50%

14. Table R301.5: Substitute the following line items:

~~Chapter 23, Page 5-4/22/14~~

~~USE- LIVE LOAD~~

~~Decks 60~~

~~Sleeping rooms- 40~~

~~14.~~

15. Table R301.7: Substitute the following line item:

~~STRUCTURAL MEMBER- ALLOWABLE DEFLECTION~~

~~Floors and plastered ceiling- L/480~~

~~15.~~

~~Section R302.1, delete exceptions 1 and 2.~~

~~16. Section R305.1, exception 2 shall be amended to read as follows:~~

~~Ceilings in basements without habitable spaces shall have a minimum ceiling height of not less than 7 feet, 7½ inches measured from the underside of the floor joist to the top of the finished floor. Beams, girders, ducts, plumbing, or other obstructions may project within 6 feet, 4 inches of the finished floor.~~

~~17. Section R305.1, the following exception shall be added:~~

~~1. Ceilings in crawl spaces shall have a minimum ceiling height of not less than 36 inches measured from the underside of the floor joist to the top of the slush coat. Beams, girders, ducts, plumbing, or other obstructions may project within 24 inches of the slush coat.~~

~~16. 18. Section R3095.1 shall be amended to add the following:~~

~~Doors shall have a net clear opening of not less than 34 inches and be self-closing.~~

~~19.~~

17. Section ~~R309.2~~R302.6 shall be amended to read as follows:

~~R309.2 Separation required.~~

~~**R302.6 Dwelling-garage fire separation.** All garages attached to a dwelling shall have 5/8-inch~~

~~Type X gypsum board or equivalent applied to all walls and ceilings. Attachment of gypsum board shall comply with Table R702.3.5.~~

~~20.~~

18. Add a new Section R309.76, which shall read as follows:

~~**R309.76 Garage exit.** Not less than one exit conforming to Section R311 shall be provided~~

~~from any attached or detached garage.~~

~~21.~~

19. Section R311.4.12 shall be amended to read as follows:

~~**R311.4.1 Exit Egress door required.** Not less than two ~~exit~~egress doors conforming to this Section~~

~~shall be provided for each dwelling unit. The required exit doors One egress door shall be side-~~

~~hinged and shall provide for direct access from the habitable portions of the dwelling to the exterior, at grade without requiring travel through a garage. Access to habitable levels not having an exit in accordance with this Section shall be by a ramp in accordance with Section R311.6 or a stairway in accordance with Section R311.5.~~

~~22. Section 311.4.2, Door type and size, shall be amended to add the following:~~

~~Chapter 23, Page 6-4/22/14~~

~~The second required exit clear width of not less than 32 inches (813 mm) where measured between the face of the door and the stop, with the door open 90 degrees. The clear height of the door opening shall be not less than 78 inches (1981 mm) in height measured from the top of the threshold to the bottom of the stop. The second required egress door may be a sliding type door, with a net clear opening of not less than 32 inches.~~

~~23. Section 311.4.3 Other doors shall not be amended required to read as follows:~~

~~**R311.4.3 Landings at** comply with these minimum dimensions. Egress doors. There shall be readily openable from the inside the dwelling without the use of a floorkey or landing not less than 36 inches by special knowledge or effort.~~

~~36 inches on each side of each exit door. The floor or landing at the exterior door shall not be more than 1.5 inches lower than the top of the threshold. The landing shall be permitted to have a slope not to exceed 0.25 units vertical in 12 units horizontal (2%).~~

~~24.~~

~~Section R317.1 shall be amended to read as follows:~~

~~**R317.1 Duplex (Two-family dwellings).** Dwelling units in a duplex (**R313.2 One- and two-family dwelling**)~~

~~shall be separated from each other by a noncombustible wall assembly with not less than a two-hour fire resistance rating. Wall assemblies, other than masonry or concrete, shall be designed to UL U336, U337 or equivalent.~~

~~**Exception 2:** Dwelling units in a duplex (two-family dwelling) equipped throughout with 20. an approved dwellings automatic fire sprinkler system installed in accordance with NFPA 13R shall be systems. Shall be deleted in its entirety.~~

~~permitted to be separated from each other by a combustibile wall assembly having not less than a one-hour fire resistance rating.~~

~~25. Section R317.2 shall be amended to read as follows and add Exception 2:~~

~~**R317.2 Townhouses.** Each townhouse shall be considered a separate building and shall be separated by fire resistance rated wall assemblies meeting the requirements of Section R302 for exterior walls. Each townhouse dwelling unit shall be separated from each other by a noncombustible wall assembly with not less than a two-hour fire resistance rating, wall assemblies other than masonry or concrete shall be designed in accordance with UL U336, U337 or equivalent.~~

~~**Exception 2:** Townhouse units equipped throughout with an approved automatic sprinkler system in accordance with NFPA 13R may be separated from each other by a combustibile wall assembly with not less than a one-hour fire resistance rating.~~

~~26.~~

~~21. Section R401 shall be amended to read as follows:~~

~~**R401.4.** A soil test shall be conducted to determine the soil's characteristics in the ultimate~~

~~bearing strata prior to the placement of footings for all one-family, duplex, twofamily,~~

two-family, and townhouse dwellings. Additionally, in areas likely to have expansive, compressive, shifting, or other unknown soil characteristics, a soil test shall be conducted prior to the placement of footings for additions to dwellings or detached accessory structures. These tests shall be made by an approved agency using an approved method. A copy of the soil report shall be submitted to the Community Development Department prior to the approval of the footing inspection.

~~27.~~

~~22.~~ Chapter 4: All references to wood foundations and rubble stone masonry foundations shall be deleted.

~~shall be deleted.~~

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~~28.~~

~~23.~~ Section 403.1 shall be amended to read as follows:

R403.1 General. All exterior walls for one-family, duplex, two-family, and townhouse dwellings, and additions to dwelling units, ~~and dwelling unit separation wall assemblies~~ shall be supported in their entirety on a continuous concrete spread footing and foundation of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill. ~~Any~~ Concrete footing shall be designed and constructed in accordance with the provisions of Section R403 or in accordance with ACI 332. Any structure attached to a dwelling unit containing any glazing including but not limited to glass, Lexan, Plexiglas, plastic, or other similar material shall be considered an addition and shall conform to the requirements of this Chapter.

Exceptions:

1.- Exterior walls for one-family, duplex, two-family, and townhouse dwellings, additions to dwelling units, and dwelling unit separation wall assemblies may be supported in their entirety on a continuous concrete bank poured (trench) foundation not less than 16 inches in width, with the base of the foundation placed at or below the frost line.

2.- Single-story additions to a dwelling unit with a total area of 400 square feet or less may be supported by a continuous concrete bank poured (trench) foundation not less than 12 inches in width, with the base of the foundation placed at or below the frost line with 24-inch #5 reinforcing bars doveled six inches into the existing foundation, 12 inches on center vertically, where the foundation for the addition abuts the existing foundation.

~~3. Decks, balconies, porches, and similar structures without a roof, attached to a dwelling unit, may be supported by a solid concrete pier not less than eight inches in diameter with the base of the pier placed at or below the frost line.~~

~~4. Decks, balconies, porches, screened rooms, and similar structures with a roof, attached to a dwelling unit, may be supported by a solid concrete pier not less than 12 inches in diameter with the base of the pier placed at or below the frost line. The exterior walls of any such addition supported by piers shall not be in-filled~~

~~with any material other than insect screening and the framework necessary to support the screening, except a guard as required by Section R312.1.~~

~~5. Wood posts supporting decks, balconies, porches, screened rooms, and similar structures shall be pressure treated to prevent decay and shall not exceed the following lengths:~~

~~4 x 4 nominal posts shall not exceed 6'-0" in total length.~~

~~4 x 6 nominal posts shall not exceed 8'-0" in total length.~~

~~Posts in excess of 8'-0" in total length shall be minimum 6 x 6 nominal.~~

~~6. Exterior stairs having three or more risers shall have stringers pressure treated to prevent decay and shall be supported by solid concrete piers not less than eight inches in diameter with the base of the pier placed at or below the frost line.~~

~~prevent decay and shall be supported by solid concrete piers not less than eight~~

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~~inches in diameter with the base of the pier placed at or below the frost line.~~

~~29.~~

~~24. Section R403.1.1, Minimum size, shall be amended to add the following:~~

~~_____ In no case shall the footing size be less than 16 inches in width and less than eight inches in thickness.~~

~~30.~~

~~25. Section R404.1.23, Concrete foundation walls, shall be amended to add the following:~~

~~_____ All foundation walls with a basement shall have not less than two continuous #4 reinforcing bars tied in~~

~~place within 12 inches of the top and bottom of the wall and no splices shall be made~~

~~within 18 inches of a corner.~~

~~31.~~

~~26. Section R404.1.5 shall be amended to read as follows add the following:~~

~~**R404.1.5 Foundation wall thickness based on walls supported. The thickness of a concrete foundation wall shall not be less than the thickness of the wall or wall assembly supported, and in**~~

~~_____ In no case shall the foundation wall thickness be less than eight inches.~~

~~32.~~

~~27. Section 405.2.3, Drainage system, shall be amended to add the following:~~

~~_____ All basement window wells shall be provided with drainage consisting of a vertical drain pipe connected to the foundation drainage system with an approved "T"-type connector.~~

~~33.~~

~~28. Section R407.3, Structural requirements, shall be amended to add the following:~~

~~_____ The amount of exposed loose shims used to support a column or girder shall not exceed one inch in height.~~

~~34.~~

~~29. Section R408.6, Finish grade, shall be amended to add the following:~~

~~_____ The under-floor grade within a crawl space shall be covered with an approved vapor barrier~~

~~and a slush-coat of concrete not less than two inches thick.~~

~~35.~~

30. Section R502.3.1 shall be amended to read as follows and delete Table R502.3.1(1):

R502.3.1 Sleeping areas and attic joists. Table R502.3.1(2) shall be used to determine the maximum allowable span of floor joists that support sleeping areas and attics that are accessed by means of a fixed stairway in accordance with Section R311.5, provided that the design live load does not exceed 40 psf and the design dead load does not exceed 20 psf. The allowable span of ceiling joists that support attics used for limited or no storage shall be determined in accordance with Section R802.45.

~~36. Section R502.3.3 shall be amended to add the following:~~

~~**R502.3.3.1 Exterior deck cantilevers.** Joist cantilever spans on exterior decks shall not exceed 300 percent of the nominal depth of the joist. Girder cantilever spans on exterior decks shall not exceed 150 percent of the nominal depth of the girder.~~

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~~H.~~

~~Section R504 shall be deleted in its entirety and all references to Pressure Preservatively~~

~~32. **Preservative-Treated Wood Floors (On Ground-shall) Shall** be deleted in its entirety.~~
~~37.~~

33. Section R506.2.2 shall be amended to read as follows and add Section R506.2.2.1:

R506.2.2 Base. A base course not less than four inches thick consisting of a compactible gravel aggregate, such as CA-6 or equivalent, shall be placed on the prepared sub-grade of any slab on grade, not confined on all edges by a footing, foundation, or other permanent structure, and compacted to not less than 95 percent modified proctor density. Any slab on grade confined on all edges may use a four-inch minimum base course of clean graded sand, gravel, crushed stone, or washed stone.

R506.2.2.1 Slab reinforcement. Two continuous #4 reinforcing bars shall be placed mid-slab the entire length of all service walks and doweled six inches into abutting stoops. Two continuous #4 reinforcing bars shall be placed mid-slab in any portion of a public walk which crosses over a backfilled excavation.

Six-inch by six-inch #10 welded wire fabric shall be placed in the top one-third of all basement slabs, garage slabs, concrete driveways, and concrete patios with more than 100 square feet of total area. Fiber reinforced concrete, with fiber content of not less than 1.5 pounds per cubic yard (0.9 kg per cubic meter) of concrete may be used in place of welded wire fabric.

~~38.~~

Section R506.2.3, Vapor retarder, ~~exception 1, shall be amended to read as follows:~~

~~35. Exception 1, shall be amended to read as follows:~~

Exception: 1. From detached garages, detached utility buildings, and other detached unheated accessory structures.

~~39.~~

~~36. Section 602.10R507.3 shall be amended to read as follows:~~

~~**Wall bracing.** All exterior walls~~

~~**Section 507.3 Piers, Decks** shall be braced with wood structural panel sheathing~~

~~with a nominal thickness supported on top of not less than one-half inch, located concrete piers. Deck piers shall be sized to carry the imposed loads from the deck structure to the ground. The base of the concrete pier shall be at each end of wall, and at least every 25 feet on center, installed a depth in accordance with Section R602.10.5 R403.1.4.~~

~~**Exception:** Noncombustible dwelling unit separation wall assemblies may use diagonal metal bracing in accordance with listed manufacturer instructions.~~

~~40. Delete Figure R507.3 Deck Posts to Deck Footing Connection.
Delete Exception.~~

37. Section R507.3.1 shall be amended to read as follows:

R507.3.1 Minimum size. The minimum size of a concrete pier shall be not less than 12 inches (305 mm) in diameter.

Delete Table R401.4.1 Minimum Footing size for Decks.

38. Section R507.3.2. Delete Exceptions

39. Table R507.4 Deck Post Height. Replace maximum heights with the following:

<u>Deck Post Size</u>	<u>Maximum Height</u>
<u>4 x 4</u>	<u>6 Feet</u>
<u>4 x 6</u>	<u>8 Feet</u>
<u>6 x 6</u>	<u>10 Feet</u>
<u>8 x 8</u>	<u>14 Feet</u>

40. Section R507.4.1 shall be amended to read as follows:

R507.4.1 Deck post to deck pier connection. Deck posts shall bear on the center of the concrete piers. The attachment of the deck post to the concrete pier shall be made by approved manufactured connectors to provide lateral and uplift restraint.

Delete Exception.

41. Section R703.1, Exterior ~~coverings~~ covering general, shall be amended to add the following:

Any enclosed, attached, or detached accessory structure constructed of canvas, nylon, plastic, or other pliable material supported by air, cables, tubing, metal, or wood framework shall be prohibited. The provisions of this Section shall not apply to awnings or canopies which provide weather protection or decoration.

~~41. Section R703.2, Water restrictive barrier: delete exceptions 2 and 3.~~

~~42.~~

42. Section R801.3, Roof drainage, shall be amended to read as follows:

R801.3 Roof drainage. All dwellings shall have a controlled method of water disposal from roofs that will collect and discharge all roof drainage to the ground surface at least

two feet from foundation walls or to an approved drainage system. Upper roof surfaces

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shall not be permitted to discharge onto lower roof surfaces. In areas where expansive or collapsible soils are known to exist, all dwellings shall have a controlled method of water disposal from roofs that will collect and discharge drainage to the ground surface at least five feet from foundation walls or to an approved drainage system.

~~43. Section N1101.2, Compliance, shall be amended to add the following:~~

~~The climate zone for the Village is 5A.~~

~~44. Section M1602.1, Return air, shall be amended to read as follows:~~

~~**M1602.1 Return air.** Return air shall be taken from every habitable room in a dwelling.~~

~~Dilution of return air with outside air shall not be permitted.~~

~~45.~~

~~43. The following chapters shall be deleted in their entirety:~~

~~Chapter 25, Plumbing Administration~~

~~Chapter 26, General Plumbing Requirements~~

~~Chapter 27, Plumbing Fixtures~~

~~Chapter 28, Water Heaters~~

~~Chapter 29, Water Supply and Distribution~~

~~Chapter 30, Sanitary Drainage~~

~~Chapter 31, Vents~~

~~Chapter 32, Traps~~

~~Chapter ~~3334~~, Electrical General Requirements~~

~~Chapter ~~3435~~, Electrical Definitions~~

~~Chapter ~~3536~~, Services~~

~~Chapter ~~3637~~, Branch Circuits and Feeder Requirements~~

~~Chapter ~~3738~~, Wiring Methods~~

~~Chapter ~~3839~~, Power and Lighting Distribution~~

~~Chapter ~~3940~~, Devices and Luminaries~~

~~Chapter ~~4041~~, Appliance Installation~~

~~Chapter ~~4142~~, Swimming Pools~~

~~Chapter ~~4243~~, Class2 Remote-Control, Signaling and Power-Limiting Circuits~~

~~46.~~

~~All plumbing installations, materials, and fixtures shall comply with the Illinois ~~State~~~~

~~44. Plumbing Code, ~~20042014~~ edition ~~and adopted amendments, promulgated by the Illinois Department of Public Health.~~~~

~~47.~~

~~All electrical installations, materials, fixtures, and devices shall comply with the National~~

~~45. Electrical Code, ~~20022017~~ edition ~~and adopted amendments, promulgated by the National Fire Protection Association, as amended by the Village.~~~~

~~48. Appendix G, Swimming Pools, Spas, and Hot Tubs, Section AG105.2, shall be amended as follows:~~

~~1. The top of the barrier shall be at least 48 inches above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be two inches measured on the side of the barrier which faces away from the swimming pool.~~

~~2. No change.~~

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~~3. No change.~~

4. No change.

5. No change.

6. No change.

7. No change.

9. No change.

~~10. Where an above-ground pool structure is used as a barrier, an additional barrier shall be mounted on top of the pool structure. The maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches. The minimum vertical height of the barrier above the top of the pool shall be 18 inches. Where the barrier is mounted on top of the pool structure and the means of access is a ladder or steps:~~

~~10.1 The ladder or steps shall be designed and manufactured to meet the barrier requirements of Section AG105.2, items 1 through 8. When the ladder or steps are removed, any opening created shall not allow the passage of a 4-inch diameter (102 mm) sphere; or~~

~~10.2 The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG105.2, items 1 through 9. When the ladder or steps are removed, any opening created shall not allow the passage of a 4-inch diameter (102 mm) sphere.~~

~~Section AG102 DEFINITIONS: Any structure intended for recreational bathing that is capable of containing water over 24 inches (610 mm) deep. This includes in-ground and on-ground swimming pools, hot tubs and spas.~~

23.04- INTERNATIONAL BUILDING CODE/20062018

The International Building Code, 20062018 edition, (“Building Code”) is hereby adopted by reference

and made part of this Section, subject to the modifications set forth herein, and shall be applicable to the Village.
~~to the Village.~~

23.05- MODIFICATIONS TO THE BUILDING CODE~~-Amended, 14-O-18, 11-O-17~~

The Building Code shall be amended as follows:

~~1.~~

1. Section [A] 101.1, insert: Village of Algonquin

~~2.~~

2. Section [A] 101.4.4 shall be amended to read as follows:

[A] 101.4.4 Plumbing. The provisions of the Illinois State Plumbing Code, 20042014 edition, ~~as amended by the Village,~~ shall apply to the installation, alteration, repair, and replacement of plumbing systems, including equipment, appliances, fixtures, fittings, and appurtenances.

~~3.~~

3. Section [A] 101.4. Add new Section:

[A] 104.4.8 Electrical. The provisions of the National Electrical Code, 2017 edition,

promulgated by the National Fire Protection Association, as amended by the Village shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

4. Section [A] 105.1, Required, shall be amended to read as follows:

[A] 105.1 Required. Any owner or authorized agent who intends to construct, enlarge, alter, ~~Chapter 23, Page 12 4/22/14~~ repair, move, demolish, or change the occupancy of a building or structure; or to erect, install, enlarge, alter, repair, remove, convert, or replace any electrical, gas, mechanical, plumbing, or fire protection system; the installation of communication towers or antennas; the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the Building Official and obtain the required permit.

4.

5. ~~Section 106~~[A] 107.3, Examination of documents, shall be amended to read as follows:

~~106~~

[A] 107.3 Examination of documents. The Building Official shall examine or cause to be examined the accompanying construction documents and fire protection shop drawings and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this Code and other pertinent laws or ordinances. The Building Official is authorized to submit the construction documents and fire protection shop drawings to a third-party plan review agency chosen by the Building Official. The property owner or owner's agent shall be responsible for the reimbursement to the Village of all fees associated with the review of documents by any third-party plan review agency, and all fees shall be paid in full prior to the issuance of the permit.

5.

6. ~~Section 109~~[A] 110.4, Inspection agencies, shall be amended to read as follows:

~~109~~

[A] 110.4 Inspection agencies. The Building Official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability. The Building Official is authorized to engage a third-party inspection agency for inspections of a technical nature in addition to the inspections required in Section 1704. The property owner or the owner's agent shall be responsible for the reimbursement to the Village of all fees associated with inspections conducted by any ~~thirdparty~~ third-party inspection agency and shall be paid in full prior to the issuance of a Certificate of Occupancy.

6.

7. ~~Section 112~~[A] General, 113.1 shall be amended to read as follows:

~~112~~

[A] 113.1 General. In order to hear and decide appeals of order, decisions, or determinations made by the Building Official relative to the application and interpretation of this code, an appeal may be made to the Village Board.

7.

8. ~~Section 112~~[A] 113.3, Qualifications, shall be deleted in its entirety.

8.

9. ~~Section 310.13~~, Residential Group R-~~2~~, shall be amended to add the following ~~to R-2~~:

_____ Buildings with more than two dwelling units where any portion of any individual dwelling unit does not extend from the foundation to the roof, regardless of egress arrangement, shall be classified as R-2.

~~9.~~

10. Section 310.14, Residential Group R-3, shall be amended to add the following ~~to R-3~~:

_____ Buildings with not more than two dwelling units where any portion of any individual dwelling unit does not extend from the foundation to the roof, regardless of egress arrangement, shall be classified as R-3.

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~~10. Section 310.2, Definitions, shall be amended to add the following definitions:~~

~~**DUPLEX (TWO-FAMILY DWELLING).** A building not more than three stories in height, consisting of two single family dwelling units, constructed in a group of two attached units in which each unit extends from the foundation to the roof with separate means of egress and with open space on three sides and shall comply with the International Residential Code in accordance with Section 101.2, Exception.~~

~~**MULTIPLE FAMILY DWELLING.** A building containing three or more dwelling units, in accordance with Section 310.1.~~

~~11. Table 508.2, Incidental Use Areas, shall be amended to add the following:~~

~~**ROOM OR AREA SEPARATION**~~

~~Fire sprinkler valve room two hours~~

~~Fire pump room two hours~~

~~12. Section 902, Definitions, shall be amended to add the following definition:~~

~~**HIGH-PILED COMBUSTIBLE STORAGE.** As defined in Section 2302 of the International Fire Code.~~

~~13.~~

11. Section [F] 903.2 shall be amended to read as follows:

_____ [F] **903.2 Where required.** An approved automatic sprinkler system shall be provided throughout all new buildings and structures regardless of Group or fire area and in locations described in the Section.

~~14. Delete Exception.~~

12. Section [F] 903.2.1 shall be amended to read as follows:

_____ [F] **903.2.1. Group A.** An automatic sprinkler system shall be provided for in Group A-1 occupancies.

~~15.~~

13. Section [F] 903.2.1.1 shall be amended to read as follows:

_____ [F] **903.2.1.1 Group A-1.** An automatic sprinkler system shall be provided for in Group A-1 occupancies.

~~16.~~

14. Section [F] 903.2.1.2 shall be amended to read as follows:

_____ [F] **903.2.1.2 Group A-2.** An automatic sprinkler system shall be provided for in Group A-2 occupancies.

17.

15. Section [F] 903.2.1.3 shall be amended to read as follows:

 [F] **903.2.1.3 Group A-3.** An automatic sprinkler system shall be provided for in Group A-3 occupancies.

 Exception: Areas used exclusively as participant sports areas where the main floor area ~~Chapter 23, Page 14 4/22/14~~

is located at the same level as exit discharge of the main entrance and exit.

18.

16. Section [F] 903.2.1.4 shall be amended to read as follows:

 [F] **903.2.1.4 Group A-4.** An automatic sprinkler system shall be provided for in Group A-4 occupancies.

 Exception: Areas used exclusively as participant sports areas where the main floor is located at the same level as exit discharge of the main entrance and exit.

~~at the same level as exit discharge of the main entrance and exit.~~

19.

17. Section [F] 903.2.1.5 shall be amended to read as follows:

 [F] **903.2.1.5 Group A-5.** An automatic sprinkler system shall be provided in all Group A-5 occupancies in the following areas: concession stands, retail areas, press boxes, and all other accessory use areas.

20.

18. Section [F] 903.2.2 shall be amended to read as follows ~~and the exception shall be deleted:~~

 [F] **903.2.2 ~~Group E. Ambulatory care facilities.~~** An automatic sprinkler system shall be provided in all Group E any area containing an ambulatory care facility.

~~occupancies.~~

21.

19. Section [F] 903.2.3 shall be amended to read as follows:

[F] **903.2.3 Group ~~F-1E.~~** An automatic sprinkler system shall be provided throughout all buildings containing a Group ~~F-1E~~ occupancy.

~~22.~~

20. Section [F] 903.2.3-14 shall be amended to read as follows:

[F] **903.2.3.1 ~~Woodworking operations. 4 Group F-1.~~** An automatic sprinkler system shall be provided throughout all buildings containing a F-1 occupancy.

~~throughout all~~

21. Section [F] 903.2.4.1 shall be amended to read as follows:

[F] 903.2.4.1 Woodworking operations. An automatic sprinkler system shall be provided throughout all Group F-1 occupancies that contain woodworking operations.

23.

22. Section [F] 903.2.45.3 shall be amended to read as follows:

[F] **903.2.45.3 Pyroxylin plastics.** An automatic sprinkler system shall be provided throughout buildings where cellulose nitrate film or pyroxylin plastics are manufactured, 23. stored, or handled.

24.

24. Section [F] 903.2.6 ~~shall be amended to read as follows:~~

~~[F] **903.2.6 Group M.** An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy.~~

~~25. Delete exceptions.~~

25. Section [F] 903.2.87 shall be amended to read as follows:

[F] **903.2.87 Group S-1M.** An automatic sprinkler system shall be provided throughout buildings containing a Group ~~S-1M~~ occupancy.

26.

26. Section [F] 903.2.8-19 shall be amended to read as follows:

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[F] **903.2.89 Group S-1.** An automatic sprinkler system shall be provided throughout buildings containing a Group S-1 occupancy.

27. Section [F] 903.2.9.1 shall be amended to read as follows:

[F] **903.2.9.1 Repair garages.** An automatic sprinkler system shall be provided throughout buildings used as repair garages in accordance with Section 406.

27.

28. Section [F] 903.2.89.2 shall be amended to read as follows:

[F] **903.2.89.2 Bulk storage of tires.** Buildings and structures used for the storage of tires shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1

903.3.1.1

28. Section [F] 903.2.91 shall be amended to read as follows:

~~[F] **903.2.9.1 Commercial parking garages.** An automatic sprinkler system shall be provided throughout buildings used for the storage of commercial trucks or busses.~~

29.

29. Section [F] 903.2.10.1 shall be amended to read as follows:

~~[F] **903.2.10**~~

[F] **903.2.10.1 Commercial parking garages.** An automatic sprinkler system shall be provided throughout buildings used for the storage of commercial motor vehicles.

30. Section [F] 903.2.11.1 shall be amended to read as follows:

[F] **903.2.11.1 Stories and basements without openings.** An automatic sprinkler system shall be installed throughout every story or basement of all buildings.

30.

31. Section [F] 903.2.1011.3, Buildings over 55 feet in height, delete ~~exception 3~~exceptions.

31.

32. Section 903 shall be amended to add the following section:

 [F] **903.2.1413 Group B.** An automatic sprinkler system shall be provided throughout buildings containing a Group B occupancy.

32.

33. Section 903 shall be amended to add the following section:

 [F] **903.2.1514 Group F-2.** An automatic sprinkler system shall be provided throughout buildings containing a Group F-2 occupancy.

~~1. 33. Section 903 shall be amended to add the following section:~~

34. Section 903 shall be amended to add the following sections:

 [F] **903.2.1615 Group U.** An automatic sprinkler system shall be provided throughout buildings containing a Group U occupancy.

~~Exception: Structures regulated by the International Residential Code in accordance with Section 101.2.~~

34.

 [F] **603.2.16 Discontinuation of use.** An automatic sprinkler system shall be provided throughout a building containing any occupancy specified in Section 903 that has been unoccupied for more than 365 consecutive days.

 [F] **603.2.17 Substantial improvement.** An automatic sprinkler system shall be provided throughout a building containing any occupancy specified in Section 903 when the building or structure is substantially improved. Substantial improvement is defined when any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started.

35. Section [F] 903.3.1.1, Exempt locations, delete 2, 3, and 4.

35.

36. Section [F] 903.3.5, Water supplies, shall be amended to read as follows:

 [F] **903.5 Water Supplies.** Water supplies for automatic sprinkler systems shall comply with this Section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of the Illinois Plumbing Code ~~and Chapter 6B of this Code.~~ A minimum 10- % but less than 5 pounds- per-square inch

 square inch safety factor shall be provided in the fire protection system hydraulic calculations.

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 The system demand shall be a minimum of 105 pounds per square inch below the seasonal low water flow test supply. Hydrant water flow data used for the design of any sprinkler system shall be no more than one year old.

36.

37. Section [F] 903.3.6, Hose threads, shall be amended to add the following sections:

[F] **903.3.6.1 Algonquin–Lake in the Hills Fire Protection District.** The fire department connection on buildings constructed within the Algonquin-Lake in the Hills Fire Protection District shall be based on the fire protection system demand as follows:

- 1.- 400–999 GPM: One four-inch locking Storz FDC with cap.
- 2.- Greater than 1000 GPM: Two four-inch locking Storz FDC’s with caps. The FDC’s shall be remotely located on the building.

 [F] **903.3.6.2 Huntley Fire Protection District.** The fire department connection on buildings constructed within the Huntley Fire Protection District shall be a single ~~five-inch~~ five-inch locking Storz FDC with cap.

 [F] **903.3.6.3 Carpentersville Fire Protection District.** The fire department connection on buildings constructed within the Carpentersville Fire Protection District shall be one 2.5-inch x 2.5-inch x 4-inch NST double-clappered Siamese FDC and one four-inch locking Storz FDC with a check valve in the piping between the connections.

 [F] **903.3.7 Fire Department Connections.** Fire department connections shall be visible and unobstructed on a street front, parking lot, fire lane, or other accessible location approved by the Building Official and appropriate fire protection district. A fire hydrant shall be located within 100 feet of fire department connections. A blue weatherproof 75-candela exterior strobe light shall be installed on the exterior of the building above each fire department connection and shall be activated by water flow only.

 38. Section 903 shall be amended to add the following section:

~~1. 37. Section 903 shall be amended to add the following section:~~

 [F] **903.3.89 Fire pump test header.** An outside test header shall be provided on all fire pump installations. An OS&Y control valve with a tamper switch shall be provided on all fire pump test headers.

 39. Section 903 shall be amended to add the following section:

~~1. 38. Section 903 shall be amended to add the following section:~~

 [F] **903.3.910 Riser check valve.** Provide a check valve in each sprinkler riser.

 40. Section 903 shall be amended to add the following section:

~~1. 39. Section 903 shall be amended to add the following section:~~

 [F] **903.3.1011 Hydraulic placard information.** A reproduction of each hydraulic placard shall be included on the design drawings near the corresponding hydraulically calculated area.

 41. Section 903 shall be amended to add the following section:

~~area.~~

~~40. Section 903 shall be amended to add the following section:~~

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~~_____~~ **[F] 903.3.112 Sprinkler room access.** Where fire sprinkler risers or fire pumps are located in a separate room, a minimum of a 36-inch side-swinging door complying with Section 715.4 shall be installed to provide direct access into the room from inside and outside of the building. Where the fire sprinkler risers are not located in a separate room, a minimum of a 36-inch side-swinging door complying with Section 715.4 shall be installed in an exterior wall, in an approved location, to provide access to the vicinity of the sprinkler risers from the outside of the building. A sign shall be provided on the exterior of the door(s) with minimum four-inch high letters stating, “SPRINKLER CONTROL VALVES” and/or “FIRE PUMP ROOM,” as applicable.

41.

Section 903 shall be amended to add a new section that will read as follows:

~~[F] 903.3.12 Thinwall pipe.~~ The use of XL thinwall sprinkler pipe shall not be permitted.

42. Section ~~[F] 903.4, Sprinkler system monitoring and alarms,~~ 2 shall be amended to read as follows:

~~[F] 903.4 Sprinkler system monitoring and alarms.~~ All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures, and water flow switches, shall be electrically supervised by the building fire alarm system.

Exceptions: No change

43. Section ~~[F] 903.4.1, Signals,~~ shall be amended to add to read as follows:

~~[F] Section 903.4.1 Signals.~~ Alarm, supervisory, and trouble signals shall be distinctly different and automatically transmitted to an approved supervising station in accordance with NFPA 72.

44. Section ~~[F] 903.4.2 shall be amended to read as follows:~~

~~_____~~ **[F] 903.4.2 Alarms.** A fire alarm shall monitor all automatic sprinkler systems. Approved audible and visual devices shall be connected to every automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Actuation of the automatic sprinkler system shall actuate the building fire alarm system flow alarm, sprinkler bells, and water flow indicating appliances over the fire protection district direct connection. Visual alarm devices shall be arranged so the flashing light beam can be seen at the required level of intensity from all common use areas. Visual alarm appliances shall be provided as directed in Section ~~[F] 907.9.15.2.3~~ and in restrooms. Audible alarms shall be arranged so the alarm can be heard in all areas of the building, ~~as directed in Section [F] 907.9.2.~~

45.

43. Section [F] 903.4.3 shall be amended to read as follows:

~~_____~~ **[F] 903.4.3 Floor control valves.** Approved, supervised indicating floor control valves with water flow switches shall be provided at the point of connection to the riser on each floor in multiple story buildings, including all floor levels below grade.

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46.

44. Section [F] 903 shall be amended to add the following section:

~~_____~~ [F] 903.6. **Yard Hydrants.** Fire hydrants shall be provided around the perimeter of a building in 300 foot increments.

~~47.~~

~~45.~~ Section [F] 905.3 shall be amended ~~to read~~ as follows:

[F] ~~905.3. Required installations.~~**Installations.** Class I standpipe systems shall be installed where required

by Sections 905.3.1 through 905.3.7 and in locations indicated in Sections 905.4.

Standpipe systems are permitted to be combined with automatic sprinkler systems unless otherwise noted.

Exception: Standpipe systems are not required in buildings and structures regulated by the International Residential Code in accordance with Section 101.2, Exception 1.

~~the International Residential Code in accordance with Section 101.2, Exception 1.~~

~~48.~~

~~46.~~ Section [F] 905.3-~~1301~~ shall be amended ~~to read~~ as follows:

[F] ~~905.3.1 Building height and area.~~**Height.** Class I standpipe systems shall be installed throughout all buildings and portions of buildings:

- ~~1.~~ With more than two stories above the lowest level of fire department vehicle access.
- ~~2.~~ With more than two stories below the highest level of fire department vehicle access.
- ~~3.~~ Where there is a floor level located more than 30 feet above the lowest level of fire department vehicle access, including mezzanines.
- ~~4.~~ Where there is a floor level located more than 30 feet below the highest level of fire department vehicle access, including mezzanines.
- ~~5.~~ Where any portion of the building floor area, including mezzanines, is more than 400 feet of travel from the nearest point of fire department vehicle access.

~~49.~~

~~47.~~ Section [F] 905.3 shall be amended to add the following ~~section~~**Section**:

Section [F] 905.3.89 High-piled ~~plied~~ combustible storage. Buildings or portions of buildings with

high-piled combustible storage shall be equipped with a Class I automatic wet standpipe system. Standpipe hose connections shall be located in high-piled combustible storage areas where storage exceeds 12 feet in height. Hose connections shall be located at each door to the high-piled combustible storage area. Where the travel distance between hose connections exceeds 200 feet, the Building Official is authorized to require additional hose connections be provided in approved locations. The standpipe system shall be:

- ~~1.~~ A separate riser piping system.
- ~~2.~~ Hydraulically calculated for a minimum of 250 gallons per minute at 75 pounds per square inch to the most hydraulically remote fire hose valve.
- ~~3.~~ Where system pressures exceed 100 pounds per square inch, a reduced pressure field-adjustable type hose valve shall be provided.

~~50.~~

~~48.~~ Section [F] 905.4 shall be amended to add ~~the following to the list of locations of Class I:~~

~~standpipe hose connections:~~

- ~~7.~~ In Group A-1 and A-2 occupancies with occupant loads of more than 1,000, hose connections shall be located on each side of any stage, on each side of the rear of

the auditorium, on each side of the balcony, and on each tier of dressing rooms.

~~51.~~

~~49. Section [F] 905.4 shall be amended to add the following to the list of locations of Class I standpipe hose connections:~~

~~7. In Group A-1 and A-2 occupancies with occupant loads of more than 1,000, hose connections shall be located on each side of any stage, on each side of the rear of the auditorium, on each side of the balcony, and on each tier of dressing rooms.~~

~~50.~~ Section [F] 905.4 shall be amended to add the following section:

~~_____ [F] 905.4.3 Hose connection threads.~~ Each Class I standpipe hose connection shall be equipped with a 2.5-inch NST male hose valve, with a removable 2.5-inch female to 1.5-inch male adapter, which shall be permanently chained to the hose connection.

~~52.~~

~~Section [F] 905.5, Locations of Class II standpipe hose connections, shall.~~ Shall be deleted in its

~~51.~~ entirety.

~~53. Section [F] 905.6, Locations~~ Location of Class III standpipe ~~hose~~ hose connections, ~~shall.~~ Shall be deleted in

~~52.~~ its entirety.

~~53.~~ ~~54.~~ Section [F] 907.1.23, Equipment, shall be amended to read as follows:

~~_____ [F] 907.1.23. Equipment.~~ All fire alarm systems shall be of the addressable type. Systems

and their components shall be listed and approved for the purpose for which they are installed.

~~55.~~

~~54.~~ Section [F] 907.2, Where required, shall be amended to read as follows:

~~_____ [F] 907.2 Where required.~~ An approved manual, automatic, or manual and automatic fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in accordance with Section 907.2.1 through 907.2.23, as amended, and provide occupant notification in accordance with Section 907.9. An approved manual fire alarm system shall be provided in all Groups. An approved automatic fire detection system installed in accordance with NFPA 72 shall be provided in all non-sprinklered Groups. Where automatic sprinkler protection, installed in accordance with Section 903.1.1 or 903.1.2, is provided and connected to the building fire alarm system, automatic heat detection required by this Section shall not be required. Devices, combinations of devices, appliances, and equipment shall comply with Section 907.1.2. The automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms where, during normal operation, products of combustion are present in sufficient quantity to activate a smoke detector. All fire alarm control panels of full function annunciator panels shall be installed within 10 feet of the main entrance or in a location approved by the fire protection district.

~~Exception: Buildings and structures regulated by the International Residential Code in Chapter 23, Page 20 4/22/14
accordance with Section 101.2, Exception 1.~~

56.

55. Section [F] 907.2.1, Group A, delete the exception.

~~57.~~

56. Section [F] 907.2.2, Group B, delete the exception.

~~58.~~

57. Section [F] 907.2.3, Group E, delete exception 2.

~~59.~~

58. Section [F] 907.2.4, Group F, delete the exception.

~~60. Section [F] 907.2.5, Group H, shall be amended to read as follows:~~

~~[F] 907.2.5 Group H. A manual fire alarm system shall be installed in accordance with NFPA 72 in all Group H occupancies. An automatic fire detection system shall be installed in accordance with NFPA 72 in all incidental use areas, all accessory use areas and any non-sprinklered room or area in a Group H occupancy in compliance with Section 903.3.1.1.1, Exception 1.~~

~~61.~~

59. Section [F] 907.2.7, Group M, delete exception 2.

~~62.~~

60. Section [F] 907.2.8.1, Manual fire alarm system, shall be amended to read as follows:

[F] 907.2.8.1 Manual fire alarm system. A manual fire alarm system shall be installed in accordance with NFPA 72 in all Group R-1 occupancies.

Delete Exceptions 1 and 2.

61. Section [F] 907.2.9, Group R-2, shall be amended to read as follows:

[F] 907.2.9.1 Group R-2. A manual fire alarm system shall be installed in accordance with NFPA 72 in all Group R-1 occupancies.

~~Delete Exceptions 1 and 2.~~

~~63. Section [F] 907.2.8.2, Automatic fire alarm system, shall be amended to read as follows:~~

~~[F] 907.2.8.2 Automatic fire alarm system. An automatic fire alarm system shall be installed in accordance with NFPA 72 in all Group R-1 interior~~2~~ common areas.~~

~~Delete: Exception.~~

~~1. ~~64. An automatic~~ Section [F] 907.2.9, Group R-2, shall be amended to read as follows:~~

~~[F] 907.2.9 Group R-2. A manual fire alarm~~detection~~ system shall be installed in accordance with NFPA 72 in all Group R-2 common areas. An automatic fire detection system shall be installed in accordance with NFPA 72 in all Group R-2 common areas.~~

Delete Exceptions 1, 2, and 3

~~65.~~

62. Section [F] 907.2.12, High-rise buildings, all exceptions shall be deleted.

~~66.~~

~~Section [F] 907.5, Wiring, substitute National Electrical Code in place of ICC Electrical Code.~~

63. ~~67. Section [F] 907.86.4,~~ Zones, shall be amended to read as follows:

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[F] **907.86.4 Zones.** Each floor shall be zoned separately and a zone shall not exceed 22,500 square feet. The length of any zone shall not exceed 300 feet in any direction. ~~Multi-tenant 64. Multi-tenant~~ buildings shall ring by tenant space.

68. Section [F] 907.8.2, ~~High-rise buildings, shall be amended to read as follows:~~

~~[F] 907.8.2 Zone by floor required.~~ A separate zone by floor shall be provided for each of the following types of alarm-initiating devices where provided:

1. Manual fire alarm boxes
2. Heat detectors
3. Smoke detectors
4. Sprinkler water flow switches
5. Other suppression systems
6. Other fire detection devices

69. Section [F] 907.9.1.1, ~~Public and common areas, shall be amended to read as follows:~~

~~[F] 907.9.1.1 Public and common areas.~~ Visible alarm-notification appliances shall be provided in public areas and common areas. A clear weatherproof 75-candela exterior strobe shall be installed on the exterior of all multi-tenant buildings over the main entrance to each tenant space, and shall be activated by the fire alarm devices within that tenant space only. A blue weatherproof 75-candela exterior strobe shall be installed on the exterior of the building above each fire department connection and shall be activated by water flow only.

70. Section [F] 907.13, ~~Fire-extinguishing systems, shall be amended to read as follows:~~

~~[F] 907.13 Fire-extinguishing systems.~~ Automatic fire-extinguishing systems shall be supervised by the building fire alarm system.

71. Section 1006.3, ~~Illumination emergency power, shall be amended to add an additional location for emergency illumination, which shall read as follows:~~

6. All rooms containing building fire sprinkler riser(s), fire pump(s), and fire alarm control panel(s) shall be provided with emergency lighting.

72. Section 1019.1, ~~Minimum number of exits, shall be amended to add the following section:~~ For the purposes of this Chapter, tenant spaces shall be provided with exits as required by Table 1015.1.

73. Section 1019.2, ~~Buildings with one exit, shall be deleted in its entirety.~~

74. Section 1608.2, ~~Ground snow loads, shall be amended to read as follows:~~

~~1608.2 Ground snow loads.~~ A ground snow load of not less than 30 pounds per square foot shall be used in determining the design snow loads for roofs.

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75. Section 1612.3, ~~insert Village of Algonquin and January 1, 2006.~~

76. Section 1802.2, ~~Foundations and soils investigations, shall be amended to add the following subsection, which shall read as follows:~~

~~1802.2.8 Soil Test.~~ A soil test shall be conducted to determine the soil's characteristics in the ultimate bearing strata prior to the placement of any footings. Additionally, in areas likely to have expansive, compressive, shifting, or other unknown soil characteristics, a soil test shall be conducted prior to the placement of footings for additions to dwellings or detached accessory structures. These tests shall be made by an approved agency using an approved method. A copy of the soil report shall be submitted to the Community Development

Department prior to the approval of the footing inspection.

77. The following sections/chapter shall be deleted in their entirety:

Section 1805.4.5 Timber footings

~~Section 1805.4.6 Wood foundations~~

~~78. Chapter 29, Plumbing Systems and the Illinois State Plumbing Code shall govern the erection, installation, alterations, repairs, relocation, replacement, addition to, use, or maintenance of plumbing equipment and systems. Plumbing systems and equipment shall be constructed, installed, and maintained in accordance with the Illinois State Plumbing Code.~~

~~Code.~~

~~79. Section 3410.2, insert January 1, 1987.~~

~~80. Chapter 35, add the following to the list of NFPA Standards:~~

~~All standards listed in Chapter 45 of the International Fire Code.~~

~~81. The following Section shall be added:~~

~~1. **Definitions:** The following words and phrases shall have the meanings ascribed to them in this Section:~~

~~**ALFPD:** The Algonquin/Lake in the Hills Fire Protection District.~~

~~**Direct Connect Network:** The direct connect system that commercial properties and multi-family residential properties (with more than two dwelling units) were previously required to utilize that transmitted signals to a board owned and supervised by the ALFPD until Dec. 1, 2013, and by the Village on and after Dec. 1, 2013.~~

~~**False alarm:** An alarm signal which indicates the existence of any emergency situation when in fact, no such emergency exists, and shall include any alarm signal generated by any fire protection system by whatever means, but shall not include alarms resulting from any of the following causes:~~

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~~a. Fire causing damage to structures or contents of a protected premise verified by the ALFPD.~~

~~b. Earthquake causing structural damage to the protected premise.~~

~~c. Tornado winds causing structural damage to the protected premise.~~

~~d. Flooding to the protected premise due to overflow of natural drainage or other water leaks within the structure or building.~~

~~e. Lightning causing physical damage to the protected premise.~~

~~f. Telephone line malfunction verified to the ALFPD by an authorized telephone company supervisor within seven days of the occurrence.~~

~~g. Radio receiver malfunction verified by the ALFPD contractor.~~

~~h. Electrical service interruption verified to the ALFPD by the local power company manager within seven days of the occurrence.~~

~~i. Plumbing or electrical malfunctions unrelated to the fire protection system.~~

~~j. Malicious activations when, in the opinion of the ALFPD, beyond the control of the user.~~

~~**User:** The owner of the property from which the false alarm originates and any individual, partnership, corporation, organization, or other entity on the property with the permission of the owner.~~

~~**Intentional false alarm:** A false alarm that is purposely and non-accidentally activated in a non-emergency situation without prior notification to the ALFPD.~~

~~**Improper installation or design:** Systems fall under the scope of this definition when new systems are installed in a negligent or faulty manner, or when a system is designed in a substandard or faulty manner, either of which results in a false alarm activation in a non-emergency situation.~~

~~**Improper maintenance:** Systems fall under the scope of this definition when existing~~

systems have not been properly maintained by the property owner, which results in a false alarm activation in a non-emergency situation. This definition includes, but is not limited to, the proper maintenance of all components within any system.

Improper use: Systems fall under the scope of this definition when an action of a user results in a false alarm activation in a non-emergency situation due to the user's carelessness or negligence.

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System: This includes all fire alarm systems, sprinkler systems, and other automated systems that transmit alarms or signals.

12-month period: The 12-month period shall be the 12 calendar months immediately preceding the date of the false alarm for which the citation was issued.

2. The following provisions and requirements shall apply to commercial properties and multi-family residential properties (with more than two dwelling units) in the Village.

a. **Design and Installation:** Fire alarm systems shall be designed and installed in accordance with the provisions of the International Building Code 2006 edition (IBC) as amended by the Village, International Fire Code 2006 edition (IFC) as amended by the Village, and NFPA 72. Devices, appliances, and equipment shall be approved for the purpose for which they are installed. Where differences occur between the provisions of the IBC/IFC as amended and NFPA 72, the provisions of the IBC/IFC as amended shall apply.

b. **Supervision of Sprinkler Systems:** Required automatic fire sprinkler systems shall be supervised by a fire alarm system in accordance with IBC/IFC §903.4.

c. **Plan Submission:** Construction documents for all systems under this Section shall be prepared in accordance with IBC/IFC §907.1.1 and NFPA 72.

A permit application and not less than four sets of plans and specifications shall be submitted for review and approval to Community Development.

d. **Owner/Occupant Responsibility for Compliance:** All owners and permitted occupants (for individuals, those at least 18 years of age) of commercial properties and multi-family residential properties (with more than two dwelling units) are responsible for compliance with the requirements of this Section.

e. **Previous Direct Connect Network:** Nothing in this Chapter shall be construed to conflict with or interfere with the Village's transitioning out of the Direct Connect Network. Nothing in this Section shall impede the Village's ability to exercise the rights it possesses by contract or law with the Direct Connect Network during the transition period prescribed by proper legal mechanism, nor shall it absolve any subscriber of the Direct Connect Network of its obligations by contract or law until the subscriber has successfully transitioned from the Direct Connect Network.

23.06- INTERNATIONAL FIRE CODE/20062018

The International Fire Code, 20062018 edition, and appendices B, C, and D, ("Fire Code"), be and the

same are hereby adopted by reference and made a part of this Section, subject to modifications

set forth herein, and shall be applicable to the Village.

~~Chapter 23, Page 25-4/22/14~~

23.07- MODIFICATIONS TO THE FIRE CODE

The Fire Code shall be amended as follows:

~~1.~~

For the purpose of this code, any Fire Code sections repeated within the International

~~1. _____~~ Building Code and modified therein shall also be considered modified accordingly within the Fire Code.

~~the Fire Code.~~

~~2.~~

~~2. _____~~ Section 101.1, insert Village of Algonquin.

~~3.~~

~~3. _____~~ Section ~~108~~109.1 shall be amended to read as follows:

~~108~~

109.1 Board of appeals established. In order to hear and decide appeals of order, decisions,

or determinations made by the fire code/building code official relative to the application and interpretation of this code, an appeal may be made to the Village Board.

~~4.~~

~~4. _____~~ Section ~~108~~109.3, Qualifications, shall be deleted in its entirety.

~~5.~~

Open Burning and Recreational Fires shall be deleted in its entirety (refer to Section

~~5. _____~~ 43.08 of ~~this~~the Village of Algonquin Municipal Code)

23.08- INTERNATIONAL MECHANICAL CODE/20062018

The International Mechanical Code, 20062018 edition, (“Mechanical Code”) be and the same is hereby

adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.09- MODIFICATIONS TO THE MECHANICAL CODE

The Mechanical Code shall be amended as follows:

~~1.~~

~~1. _____~~ Section [A] 101.1, insert Village of Algonquin.

~~2.~~

~~2. _____~~ Section [A] 106.5.2, insert Appendix B of the Village of Algonquin Municipal Code.

Section ~~23.22 of this Code.~~

~~3. _____~~ ~~3. Section [A]~~ 106.5.3 shall be amended to read as follows:

[A] 106.5.3 Fee refunds. Refunds for mechanical permits shall be in accordance with ~~Section 23.23 of this~~Appendix B of the Village of Algonquin Municipal Code.

~~4.~~

~~4. _____~~ Section [A] 108.4, insert Appendix B of ~~this~~the Village of Algonquin Municipal Code.

~~5.~~

5. Section [A] 108.5, insert Appendix B of ~~this~~the Village of Algonquin Municipal Code.

~~6.~~

6. Section [A] 109.1 shall be amended to read as follows:

[A] 109.1 Application of appeal. A person shall have the right to appeal a decision of the Code Official to the Village Board. An appeal shall be based on a claim that the intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the ~~Chapter 23, Page 26 4/22/14~~ provisions of this code do not fully apply, or an equally good or better form of construction is proposed.

~~7.~~

7. The following sections shall be deleted in their entirety::

- ~~Section [A] 109.2 Membership of board.~~
- ~~Section [A] 109.2.2, Alternate members.~~
- ~~Section [A] 109.2.3 Chairman.~~
- ~~Section [A] 109.2.4 Disqualification of member.~~
- ~~Section [A] 109.2.5 Secretary.~~
- ~~Section [A] 109.2.6 Compensation of members.~~
- ~~Section [A] 109.3, Notice of ~~meeting~~meetings.~~
- ~~Section [A] 109.4 Open hearings.~~
- ~~Section [A] 109.4.1 Procedure.~~
- ~~Section [A] 109.5, Postponed hearing~~
- ~~Section [A] 109.6 Board decision~~
- ~~Section [A] 109.6.1 Resolution~~
- ~~Section [A] 109.6.2 Administration~~

23.10- INTERNATIONAL FUEL GAS CODE/20062018

The International Fuel Gas Code, ~~2006~~2018 edition, (“Fuel Gas Code”) be and the same is ~~herby~~ hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.11- MODIFICATIONS TO THE FUEL GAS CODE

The Fuel Gas Code shall be amended as follows:

~~1.~~

1. Section [A] 101.1, insert Village of Algonquin.

~~2.~~

2. Section [A] 106.~~56~~.2, insert Appendix B of the Village of Algonquin Municipal Code.

~~Section 23.22 of this Code.~~

~~3.~~ ~~3.~~ Section [A] 106.~~56~~.3 shall be amended to read as follows:

[A] 106.~~56~~.3 Fee refunds. Refunds for permit fees shall be in accordance with ~~Section 23.23 of this~~Appendix B of the Village of Algonquin Municipal Code.

~~4.~~

4. Section [A] 108.4, insert Appendix B of ~~this~~the Village of Algonquin Municipal Code.

~~5.~~

~~5.~~ Section [A] 108.5, insert Appendix B of ~~this~~the Village of Algonquin Municipal Code.

~~6.~~

~~6.~~ Section [A] 109.1 shall be amended to read as follows:

[A] 109.1 Application of appeal. A person shall have the right to appeal a decision of the Code Official to the Village Board. An appeal based on a claim that the intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed.

~~7.~~

~~7.~~ The following sections shall be deleted in their entirety:

~~Section [A] 109.2; Membership of board~~

~~Section [A] 109.2.2; Alternate members~~

~~Section [A] 109.2.3; Chairman~~

~~Section [A] 109.2.4; Disqualification of member~~

~~Section [A] 109.2.5; Secretary~~

~~Section [A] 109.2.6; Compensation of members~~

~~Section [A] 109.3; Notice of meeting~~

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~~Section [A] 109.5.4 Open hearing~~

~~Section [A] 109.5 Postponed hearing~~

~~8. Section [A] 109.6 Board decision~~

~~Section [A] 109.6.1 Resolution~~

~~Section [A] 109.6.2 Administration~~

Section 401.5 ~~shall be amended to read as follows:~~

~~8. 401.5 Identification- shall be amended to add the follows:~~

~~Exterior gas piping shall be coated to protect the piping from corrosion.~~

~~Exterior gas piping located on the roof shall be painted yellow. All other exterior gas piping shall be painted to match the exterior of the building.~~

~~9. Section 402: the following tables shall be deleted: 402.4(13), 402.4(14), 402.4(15), 402.4(16), and 402.4(17).~~

~~10. Section 403.5.4 shall be amended to read as follows:~~

~~The use of corrugated stainless steel tubing is prohibited.~~

~~23.12- NATIONAL ELECTRICAL CODE/2002~~2017

The National Electrical Code, ~~2002~~2017 edition, promulgated by the National Fire Protection Association,

(“Electrical Code”) be and the same is hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

~~23.13- MODIFICATIONS TO THE~~ NATIONAL ELECTRICAL CODE

The Electrical Code shall be amended as follows:

~~1.~~

1. Article 110.2 shall be amended to add the following:

All electrical devices, conductors, and equipment shall be listed by a recognized and approved testing laboratory, or by express written approval from the Electrical Inspector.

2.

2. Article 110.12(A) shall be amended to ~~read as follows~~ add the following:

110.12(AC). All accessible temporary and/or abandoned wiring conductors, conduit systems, ~~race ways~~ raceways, junction boxes, electrical materials, and electrical equipment shall be completely removed, unless express written approval is obtained from the Electrical Inspector.

3.

3. Article 110.34 shall be amended to add the following:

(D)

(G) Utility sinks, water hose bibs, drinking fountains, and similar fixtures shall not be installed in a dedicated electric panel or switch gear room in commercial or industrial buildings. In a non-dedicated electric panel or switch gear room, utility sinks, water hose bibs, drinking fountains, and similar fixtures shall not be installed within six (6) feet of electric service panels or switch gear.

4.

4. Article 210.8(A)(1) shall be amended to add the following:

No less than one 20-ampere GFCI-protected duplex outlet shall be provided for every vanity sink installed in a residential occupancy.

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5.

5. Article 210.8(A)-(7) shall be amended to add the following:

Not less than one GFCI-protected duplex outlet shall be provided for every wet bar sink.

6.

6. Article 210.8(B) shall be amended to add the following:

(3)

(4) All outdoor outlets in all residential, commercial and industrial construction shall be ~~GFCI-protected~~ GFCI-protected.

~~(4) All indoor outlets~~

(5) All indoor receptacles in residential, commercial and industrial construction shall be GFCI-protected, if within six feet of sinks, water hose bibs, drinking fountains, any equipment with exposed or accessible water, open water, or similar fixtures ~~shall~~ be GFCI-protected.

7.

7. Article 210.10(C) shall be amended to add the following:

(5) All required smoke detectors shall be 110-volt with battery backup, interconnected and supplied by a general lighting circuit. Where smoke detectors are installed adjacent to unconditioned spaces, conduit shall be connected to the side of the junction box or an approved sealant to the top of the junction box entries.

~~spaces, conduit shall be connected to the side of the junction box.~~

~~8. Article 210.11 shall be amended to add the following:~~

~~In no case shall there be more than ten 110-volt and/or light fixtures connected to any branch circuit in a residential occupancy.~~

~~9. Exception. Existing non-modified structures shall have wireless battery-powered inter-connected smoke detectors, at locations where required.~~

8. Article 210.11(A) shall be amended to add the following:

~~(1) All sump pumps and ejector pumps shall each be supplied by a separate circuit.. with a single dedicated receptacle device.~~

~~(2) All furnaces and air conditioners shall each be supplied by a separate circuit.~~

~~10. Article 210.11(C)(3) shall be amended to add the following:~~

~~Kitchen outlets shall not be combined with lighting circuits.~~

~~11.~~

9. Article 220.10 shall be amended to add the following:

In no case shall the electric service size for a single-family detached dwelling unit be less than 200 ampere, with a 40-circuit panel; or

Less than 200 ampere electric service with a 40-circuit panel for single-family attached dwelling units with 1,400 square feet or more of living space; or

Less than 100 ampere electric service with a 20-circuit panel for single-family attached dwelling units with 1,399 square feet or less of living space; or

Less than 400 ampere electric service with an 80-circuit panel for single-family dwelling units with 4,000 or more square feet of living space.

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~~12.~~

10. Article 230.70(A) shall be amended to add the following:

Service disconnecting means shall be located outside of the building or within five feet of the point in which the service conductors enter the building.

~~13.~~

11. Article 2240 shall be amended to add the following:

~~1. Article 250.34 shall be amended to add the following:~~

~~A permit shall be obtained from the Community Development Department prior to the use of a portable generator of 10,000 watts or more in size; a separate permit may be issued each day of operation.~~

~~14. Article 300 shall be amended to add the following:~~

~~300.51(A) Wiring methods for devices. All switches and outlets shall be connected to the branch circuit by use of screw terminals. No more than one conductor shall be connected to an electrical device screw terminal. Conductors connected to screwless terminals shall not be permitted.~~

~~300.51(B) Circuit breakers. Only one conductor per screw terminal shall be permitted on full size single-pole, two 2-pole, and three 3-pole circuit breakers. Mini-circuit breakers and double/single-pole combination circuit breakers shall not be installed in any service panel, sub-panel, or disconnect enclosure of any size or type.~~

~~15.~~ ____

12. Article 250.34 shall be amended to add the following:

A permit shall be obtained from the Community Development Department prior to the use of a portable generator of 10,000 watts or more in size; a separate permit may be issued each day of operation.

~~13.~~ Article 310.2(B)10 shall be amended to read as follows:

~~Article 310.2(B) Conductor Material. All~~

All conductor material shall be copper.

~~16.~~

14. Article 348.10 shall be amended to add the following:

Flexible metal conduit: Type FMC (Greenfield) shall not exceed six feet can be used in enclosed areas with a proper sized equipment grounding conductor in length compliance with Article 250.122.

~~17.~~

15. Article 358.10(A) shall be amended to add the following:

~~All exterior electrical wiring shall be enclosed in rigid metal conduit or intermediate metal conduit.~~

~~Exceptions:~~

~~1. Rigid PVC conduit~~

1. Interior above slab wiring: All 110-volt and higher voltage conductors shall be enclosed in EMT (Electrical Metallic Tubing), or IMC (Intermediate Metal Conduit) or RMC (Rigid Metal Conduit) installed in accordance with this Code shall be used for interior above slab wiring.

2. Exterior above grade exposed wiring: All exterior above grade exposed wiring shall be enclosed in IMC (Intermediate Metal Conduit) or RMC (Rigid Metal Conduit) and installed in accordance with the Code.

3. Under slab and below grade wiring: Rigid PVC and RTRC (Reinforced Thermo-setting Resin Conduit) or RMC (Rigid Metal Conduit) installed in accordance with this code may be used below grade and under slab wiring.

~~2. Service Direct burial wiring shall be used for underground service~~ entrance conductors.

~~18.~~

4. Other raceways and wireways may be permitted by express written approval by the Electrical Inspector.

16. Article 404.2 shall be amended to add the following:

A three-way switch or interior motion sensing switching device or photocell device shall be provided for interior lighting in all screen rooms, sunrooms, and additions classified as three-season rooms, constructed off an exterior door.

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~~19.~~

17. Article ~~408.13~~404.4 shall be amended to add the following:

(D) Switches shall be located at least five feet measured horizontally, from the inside walls of a bathtub, whirlpool tub, hot tub, spa, hydro-massage bathtub, tub/shower combination, shower stall or shower enclosure.

18. Article 406.9(C) shall be amended to add the following:

(D) Receptacles shall be located at least six feet measured horizontally, from the inside walls of a bathtub, whirlpool tub, hot tub, spa, hydro-massage bathtub, tub/shower combination, shower stall or shower enclosure.

19. Article 410.10 shall be amended to add the following:

~~A sub-panel of any size shall not be connected to an electric panel less than 100 amperes in size.~~

~~20. Article 410.8 shall be amended to add the following:~~

~~Not less than one light fixture installed in accordance with this Code~~

(G) Ceiling mounted, open or exposed, glass tube fluorescent luminaires shall be provided with fall protection for the light bulbs.

~~all clothes closets of any size.~~

~~21.~~

20. Article 410.1530 (B) (3) shall be amended to add the following:

A 5/8 inch by eight-foot copper-clad ground rod shall be provided for all light pole bases; the ground rod shall be properly terminated and accessible from the hand hole.

~~22.~~

21. Article 422.119G16 (B) shall be amended to add the following:

(5) All dishwashers and food waste disposals installed in residential occupancies shall be hard-wired and shall be equipped with a disconnect located within sight of the appliance.

Exception: Appliances equipped with factory-installed power cords.

~~23.~~

22. Article 700.12.12 IV shall be amended to add the following:

Emergency systems shall be properly identified.

~~24.~~

23. Article 700.16 shall be amended to add the following:

Emergency lighting consisting of not less than two lamps shall be provided in all ~~nonresidential~~ non-residential bathrooms, connected to the bathroom lighting circuit.

~~25.~~

24. Article 760 shall be amended to add the following:

Accessible fire alarm cable, conduit, and junction boxes shall be the color red in their entirety.

26. ~~Delete~~ Requirements for Electrical Contractors:

It shall be unlawful for any person to engage in the following articles and the business of

electrical contracting without being a licensed Electrical Contractor. If such person is licensed for the current year in another City or Village within the State of Illinois, in conformity with the State Statutes, such Electrical Contractor shall be required to show proof of such license. The term “Licensed Electrical Contractor” as used in Section shall be understood to mean any person installing or altering electric equipment, methods, for the utilization of electricity supplied for light, heat or power; not including radio apparatus or equipment for wireless reception of sounds and signals, conductors and/or procedures referred to other equipment installed under the jurisdiction of the Illinois Commerce Commission, for use in their operation as Public Utilities; but the term “Licensed Electrical Contractor” does not include employees of an electrical contractor who perform and supervise work. The Corporate Authorities, by virtue of the Illinois Compiled Statutes, requires candidates for electrical contracting to successfully complete a written examination administered by any Illinois Municipality that administers written examinations.

~~therein, which are prohibited and not approved for installation within the Village:~~

~~Article 80 Administration and Enforcement~~

~~Article 320 Armored Cable~~

~~Article 330 Metal Clad Cable~~

~~Article 332 Mineral Insulated Metal Sheathed Cable~~

~~Article 334 Non Metallic Sheathed Cable~~

~~Article 338 Service Entrance Cable~~

~~Article 340 Underground Feeder and Branch Circuit Cable~~

~~Article 352.10(A)(E)(F) Rigid Non-Metallic Conduit~~

~~Article 360 Flexible Metallic Tubing~~

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~~Article 382 Non-metallic Tubing~~

~~Article 388.2 Surface non-Metallic Raceways~~

~~Article 398 Open Wiring on Insulators~~

~~Article 604 Manufactured Wiring Systems~~

~~23.14_ILLINOIS STATE PLUMBING CODE/20042014~~

The Illinois State Plumbing Code, 20042014 edition, (State of Illinois Plumbing License Law, Plumbers

Licensing Code and Plumbing Code) (“Plumbing Code”) be and the same, is hereby adopted by reference and made part of this Section, subject to the modifications set forth herein and shall be applicable to the Village. No plumbing work, unless modified by this Chapter, shall be undertaken

prior to the issuance of a permit by the Building Commissioner. The application for a permit shall be made on forms provided by the Building Commissioner and shall be accompanied by the prescribed permit fees as set forth in Appendix B.

~~23.15-MODIFICATIONS TO THE PLUMBING CODE~~

~~The Plumbing Code shall be amended as follows:~~

~~1. Section 890.170(e), Private Water Supply, shall be deleted in its entirety.~~

~~2. Section 890.170 shall be amended to add the following:~~

~~g) Any building connected to the Village public water system that has a private water supply shall disconnect from its private water supply, abandon, and seal its well in accordance with the requirements as set forth by the applicable~~

County Department of Health.

- ~~3. Section 890.320 (k), Bituminized Fiber Pipe Joints, shall be deleted in its entirety.~~
- ~~4. Section 890.320 (I)(1)(2), Plastic Pipe Joints & Fittings in Potable Water, shall be deleted in its entirety.~~
5. Section 890.310 (1)(3) shall be amended to add the following:
 - 3) Purple primer shall be used on all joints and fittings.
6. Section 890.630 shall be amended to add the following:
 - h) Plumbing fixtures attached to a wall or penetrating through a wall shall be made watertight by caulking or a factory-supplied gasket where the fixture contacts the wall surface.
7. Section 890.1190(b) shall be amended to read as follows:

The utility meter may be installed outside in an accessible meter vault or within the building. The meter shall have unions on the inlet and outlet openings. A full-port valve with an open area at least that of the water service shall be provided on the inlet and outlet side of the meter with a dip valve installed on the discharge side of the meter. (See Appendix Chapter 23, Page 32-4/22/14 I: Illustrations H and I.)
8. Section 890.1200(A) shall be amended to read as follows:

Water Service Pipe Sizing. The water service pipe from the street main (including the tap) to the water distribution system for the building shall be sized in accordance with Appendix A, Tables M, N, O, P, and Q. In no case shall the water service pipe and fittings shall be less than one inch in diameter. If flushometers or other devices requiring a high rate of water flow are used, the water service pipe shall be designed and installed to provide this additional flow.
9. Section 890.1200 shall be amended to add the following:

Section 890.1200(d). The number of separate water taps, the number of separate water services, and the number, location, and arrangement of water meters for multiple dwelling units and/or multiple tenant buildings shall be approved by the Utilities Division of the Public Works Department.
10. Section 890.1210(f)(1) shall be amended to read as follows:
 - 1) Air chambers. An air chamber shall be installed in all fixture supplies and shall be at least 12 inches in length and at least the same size as the fixture supply. An air chamber shall be installed in all risers and shall be at least 24 inches in length and at least the same size as the riser. An air chamber shall be installed at the end of all runs 30 feet or more in length and shall be at least 24 inches in length and at least the same size as the run.
11. Section 890.1320 shall be amended to add the following:
 - p) Safe Pans. A safe pan shall be installed beneath all clothes washers, water heaters, and water softeners located above the first floor to collect and drain any leakage or discharge. The safe pan shall be connected to the building drainage system.
12. Section 890.1340(b)(4) shall be amended to read as follows:
 - 4) No portion of the drainage system installed underground or below a basement or crawl space, including floor drains, shall be less than three inches in diameter, unless approved by the Plumbing Inspector.
13. Section 890.1360(e) shall be amended to read as follows:
 - e) Vent sizes. Building sump vents shall be sized in accordance with Appendix A: Table K. In no case shall the vent size be less than two inches in diameter.
14. Section 890.1360 shall be amended to add the following:

~~h) Ejector Pump and Discharge. The ejector sump shall be at least 30 inches deep. The ejector pump discharge shall be at least two inches in diameter.~~

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~~15. Section 890.1420(e) shall be amended to read as follows:~~

~~e) Building Sub-drain Sump Vent Sizes. Building sub-drain sump vents shall be sized in accordance with Appendix A: Table K. In no case shall the vent size be less than two inches in diameter.~~

~~16. Section 890.1420 shall be amended to add the following:~~

~~f) In the event a drainage system is installed for fixtures that are to be installed at a future date (roughed in), the venting for these fixtures shall be completed in accordance with this chapter and the drains sealed airtight by the use of proper fittings.~~

~~17. Section 890.1440(a) shall be amended to read as follows:~~

~~a) Vent Terminal Size. Each vent extension through the roof shall be a minimum of four inches in diameter and no smaller than the vent which it terminates. Vent terminals shall not be screened.~~

~~18. Section 890, Appendix A, Table A, Approved Building Drainage/Vent Pipe, shall be amended as follows:~~

~~1) Acrylonitrile Butadiene Styrene (ABS) Pipe, delete in its entirety.~~

~~2) Polyvinyl Chloride (PVC) Pipe with Cellular Core, delete in its entirety.~~

~~19. Section 890, Appendix A, Table A, Approved Materials for Building Sewer, shall be amended as follows:~~

~~1) Acrylonitrile Butadiene Styrene (ABS) Pipe, delete in its entirety.~~

~~2) Asbestos Cement Pipe, delete in its entirety.~~

~~3) Bituminized Fiber Pipe, delete in its entirety.~~

~~6) Concrete Pipe, delete in its entirety.~~

~~20. Section 890, Appendix A, Table A, Approved Material for Water Service Pipe, shall be amended as follows:~~

~~1) Acrylonitrile Butadiene Styrene (ABS) Pipe, delete in its entirety.~~

~~2) Brass Pipe, delete in its entirety.~~

~~4) Chlorinated Polyvinyl Chloride (CPVC) Pipe, delete in its entirety.~~

~~5) Copper/Copper Alloy Pipe, add: Type K only; L & M not permitted.~~

~~6) Copper/Copper Alloy Tubing, add: Type K only; L & M not permitted.~~

~~7) Galvanized Steel Pipe, delete in its entirety.~~

~~8) Polybutylene (PB) Pipe/Tubing, delete in its entirety.~~

~~9) Polyethylene (PE) Pipe, delete in its entirety.~~

~~10) Polyethylene (PE) Tubing, delete in its entirety.~~

~~11) Cross Linked Polyethylene (Pex pipe), delete in its entirety.~~

~~12) Polyvinyl Chloride (PVC) Pipe, delete in its entirety.~~

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~~21. Section 890, Appendix A, Table A, Approved Material for Water Distribution Pipe, shall be amended as follows:~~

~~2) Chlorinated Polyvinyl Chloride (CPVC) Pipe/Tubing, delete in its entirety.~~

~~3) Copper/Copper Alloy Pipe, add: Type K & L only; M not permitted.~~

~~4) Copper/Copper Alloy Tubing, add: Type K & L only; M not permitted.~~

~~7) Polybutylene (BP) Pipe/Tubing, delete in its entirety.~~

~~23.16~~ **INTERNATIONAL ENERGY CONSERVATION CODE/20062018**

The International Energy Conservation Code, 20062018 edition, (“Energy Conservation Code”)

be

and the same, is hereby adopted by reference and made part of this Section, subject to the modifications set forth herein, and shall be applicable to the Village.
~~set forth herein, and shall be applicable to the Village.~~

~~23.17-16~~ **MODIFICATIONS TO THE ENERGY CONSERVATION CODE**

The Energy Conservation Code shall be amended as follows:

~~1.~~

~~1.~~ Section ~~101C101~~.1, insert Village of Algonquin

~~2.~~

~~2.~~ Section ~~104C109~~ shall be amended to add the following:

~~**104.3 Reports.** ResCheck or ComCheck reports shall be submitted with the construction documents. The reports shall be signed by the design professional of record.~~

~~3. Section 301.1 shall be amended to read as follows:~~

~~**301.1 General.** The climate zone for the Village is Zone 5A.~~

C 109.1 General. In order to hear and decide appeals of orders, decisions, or determinations made by the Code Official relative to the application and interpretation of this code, an appeal may be made to the Village Board.

~~3. Section C109.3 Qualifications, shall be deleted in its entirety~~

~~23.18-17~~ **INTERNATIONAL EXISTING BUILDING CODE/20062018**

The International Existing Building Code, ~~2006~~2018 edition, (“Existing Building Code”) be and the

same, is hereby adopted by reference and made part of the Section, subject to modifications set forth herein, and shall be applicable to the Village.

~~23.19-18~~ **MODIFICATIONS TO THE EXISTING BUILDING CODE**

The Existing Building Code shall be amended as follows:

~~1.~~

~~1.~~ Section [A] 101.1, insert Village of Algonquin

~~2.~~

~~2.~~ Section [A] 101.2 shall be amended to read as follows:

[A]101.2 Scope. The provisions of the Existing Building Code shall apply to the repair, alteration,

change of occupancy, addition, and relocation of existing, non-residential, and

mixed-use occupancy buildings ~~located within the Old Town District, as defined in Section 21.3 of the Algonquin Zoning Ordinance.~~ New buildings or a building or portion of a

building that has not been previously occupied or used for its intended purpose shall

comply with the provisions of the Building Code for new construction. Repairs, ~~altera~~Chapter 23, Page 35-4/22/14

tionalterations, change of occupancy, existing buildings to which additions are made, historic buildings, and relocated buildings complying with the provisions of the Building Code, Mechanical Code, Plumbing Code, Electrical Code, and Residential Code, as applicable,

shall be considered in compliance with the provisions of the code.

~~3.~~

~~3.~~ Section [A] 105.2, Work exempt from permit, delete: 1, 3, 4, and 5.

~~4.~~

~~4.~~ Section [A] 112.1 shall be amended to read as follows:

[A] 112.1 General. In order to hear and decide appeals of orders, decisions, or determinations made by the Code Official relative to the application and interpretation of this code, an appeal may be made to the Village Board.

~~an appeal may be made to the Village Board.~~

~~5.~~

~~5.~~ Section [A] 112.3, Qualifications, shall be deleted in its entirety.

~~6. Section [ICC] 305.6, Electrical, shall be amended by inserting National Electrical Code in place of ICC Electrical Code.~~

~~7. Section [P] 305.9, Plumbing, shall be amended by inserting Illinois State Plumbing Code in place of International Plumbing Code.~~

~~23.20-19~~ **INTERNATIONAL PROPERTY MAINTENANCE CODE/20062018**

The International Property Maintenance Code, ~~2006~~2018 edition, (“Property Maintenance Code”) be

and the same, is hereby adopted by reference and made part of this Section, subject to modifications

set forth herein, and shall be applicable to the Village.

~~23.21-20~~ **MODIFICATIONS TO THE PROPERTY MAINTENANCE CODE** ~~Amended, 11-0-17~~

The Property Maintenance Code shall be amended as follows:

~~1.~~

~~1.~~ Section [A] 101.1 insert Village of Algonquin.

~~2.~~

~~2.~~ Section [A] 111.1 shall be amended to read as follows:

[A] 111.1 Application for appeal. Any person directly affected by a decision of the Code Official or a notice of order issued under this code shall have the right to appeal to the Village Board, providing that a written application for an appeal is filed within 20 days after the day the decision, notice, or order was served. An application for appeal shall be based on a claim that the true intent of this code, or the rules legally adopted thereunder, have been incorrectly interpreted, the provisions of this code do not apply, or the requirements of this code are adequately satisfied by other means.

~~3.~~

~~3.~~ Section [A] 111.2; Membership of board, shall be deleted in its entirety.

~~4.~~

~~4.~~ Section ~~H2~~[A] 111.3; Notice of meeting, shall be deleted in its entirety.

~~5.~~ Section [A] 111.4 Open hearing, shall be deleted in its entirety.

~~6. Section [A] 111.5- Postponed hearing, shall be deleted in its entirety.~~

~~7. Section [A] 111.6 Board decision, shall be deleted in its entirety.~~

8. Section 302.2 shall be amended to ~~read as follows~~add:

~~Chapter 23, Page 36-4/22/14~~

302.2.1 Sump pump and downspout discharge. The discharge from a sump pump and/or roof drainage downspout shall not discharge directly or indirectly on or over any public street, sidewalk, bike path, or right-of-way; and the outlet of sump pump discharge piping shall not be located within five feet of a property line, shall be orientated to discharge in the direction of the engineered drainage path, and shall not cause standing water on adjacent properties.

~~6.~~

~~9.~~ Section 302.4, 8 inches shall be inserted.

~~7.~~

10. Section 302.8 shall be amended to read as follows:

302.8 Motor and recreational vehicles. All motor and recreational vehicles, including but not limited to cars, vans, trucks, construction/excavating/landscape equipment, motorized bikes/motorcycles, boats, watercraft, snowmobiles, campers, aircraft, all-terrain vehicles, and trailers, shall be parked on an approved surface of four inches of concrete over a four-inch compacted gravel base or two inches of asphalt over a six-inch compacted base, or paving bricks designed for motor vehicle traffic, installed in accordance with manufacturer's installation instructions, or completely enclosed in a structure designed and approved for such purpose. Motor vehicles, recreational vehicles, and equipment parked on an approved surface shall be accessible without maneuvering over lawn, grass, curbs, or any unpaved surface. No more than two recreational vehicles shall be visible on a zoning lot. No part of any motor or recreational vehicle, when parked, shall encroach over a public sidewalk or bike path, and in no case shall equipment or a recreational vehicle be parked on public property. No vehicle shall, at any time, be in a state of major disrepair, disassembly, or in the process of being stripped or dismantled.

Exception: A vehicle of any type is permitted to undergo major repair provided that such work is performed inside an enclosed structure designed and approved for such purpose.

~~8.~~

11. Section 304.14 shall be amended to insert April 15 to November 1.

~~9. Section 307.2 shall be amended to read as follows:~~

~~307~~

12. Section 307.2 shall be amended to read as follows:

308.2 Disposal of rubbish. Every occupant of a structure shall dispose of all rubbish and recycling in a clean and sanitary manner pursuant to Chapter 13 of this Code and by placing such rubbish and items intended for recycling in approved containers and stored in a location with minimal exposure to the public view.

Exception: Rubbish and recycling may be placed on the right-of-way after 5:00 p.m. the day prior to the scheduled rubbish collection day, and all rubbish and recycling containers shall be removed from the right-of-way by 11:00 p.m. the day of rubbish collection.

10.

13. Section 308.2 shall be amended add:

~~1. Section 307.2 shall be amended to read as follows:~~

307.2.3 Special pick-up. Items requiring a special pick-up, such as refrigerators, water heaters, stoves, ovens, cook tops, furniture, carpeting, and construction material, shall not remain on the right-of-way for more than 48 hours.

11.

14. Chapter 3 shall be amended to add a new section, which shall read as follows:

~~Chapter 23, Page 37-4/22/14~~

SECTION ~~309~~310 YARDWASTE COMPOSTING.

309

310.1 Compost piles and bins. Compost piles and bins shall comply with the following requirements:

1.- Compost piles and bins shall be located in side or rear yards.

2.- Compost piles and bins shall not exceed four feet in height and in diameter.

3.- Compost piles and bins shall not be placed or tended in such a way as to allow materials to be wind-blown.

4.- Compost piles and bins shall not emit odorous matter in such quantities as to be readily detectable at any point along any lot line, or to otherwise produce a public nuisance or hazard beyond any lot line.

5.- Compost piles or bins shall be located not less than five feet from any lot line and out of any easement.

309

310.2 Composting material. Compost material shall be comprised of approximately an equal mixture of carbon-rich (brown) material and nitrogen-rich (green) material.

309

310.2.1 Carbon-rich material. The following examples are acceptable carbon-rich (brown) material:

1.- Leaves

2.- Pine needles

3.- Small twigs and branches

4.- Wood chips and shavings

5.- Bark pieces

6.- Straw

309

310.2.2 Nitrogen-rich material. The following examples are acceptable nitrogen-rich (green) material:

- 1.- Grass clippings
- 2.- Weeds
- 3.- Spent flowers and plants
- 4.- Vine and other soft prunings from the garden
- 5.- House plant trimmings

309

310.2.3 Improper compost material. The following examples are improper composting materials and shall not be permitted:

- 1.- Animal and dairy products
- 2.- Meats
- 3.- Fats, oils and grease
- 4.- Animal feces

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309

310.3 Compost maintenance. Compost piles shall be maintained neatly and not allowed to sprawl. Piles of grass clippings and/or large branches are not considered composting and shall not be permitted.

~~12.~~

~~15.~~ Section 602.3, insert September 15 to May 15.

~~13.~~

~~16.~~ Section 602.4, insert September 15 to May 15.

~~14.~~

~~17.~~ The following section shall be added:

SECTION 801- DRIVEWAYS

801.1 Driveways. All driveways and off-street parking areas shall be paved with a surface

of not less than four inches of concrete over a four-inch compacted base course or not less than two inches of asphalt over a six-inch compacted base course or paving bricks designed for motor vehicle traffic, installed in accordance with manufacturer's installation

instructions. Gravel driveways and off-street parking areas are not permitted.

Any nonconforming gravel driveway or off-street parking area shall be paved in accordance with this code no later than December 1, 2009.

~~15.~~

~~18.~~ The following sections shall be added:

SECTION 802-706 SALT STORAGE

802

706.1 Salt Storage. In the interest of limiting pollution to our environment and waterways and ultimately preventing contamination of our groundwater resources, all properties which store bulk rock salt for winter snow or ice removal operations shall comply with these regulations. Prior to the installation of any salt storage, a permit, which is valid November through April, shall be obtained from the Community Development Department. The permit fee is found in Appendix B of this Code. The permit application shall include the amount of salt to be stored, a site plan that includes the location and dimensions of the storage site, as well as any storm sewer drains within 125 feet of the storage

site, the amount of salt to be stored, the method by which the salt will be covered and additional measures that will be undertaken to minimize visual impact to public ways and/or adjacent residential uses.

Properties not in compliance with the salt storage requirements shall be fined pursuant to Appendix B of this Code until the storage is brought into compliance. Those properties containing a salt pile without a valid permit shall be fined pursuant to Appendix B of this Code and required to obtain a permit or remove the salt pile.

Salt storage shall comply with the following requirements:

1. The maximum amount of storage allowed shall not exceed four storm events.

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~~2.~~

The salt within the salt storage location shall be covered with a water-resistant tarp or similar protective cover, which shall be adequately secured to prevent damage from wind and/or water at all times.

~~3.~~

3. The location shall be not less than 100 feet from any storm sewer drain.

~~4.~~

4. The location shall be uphill and away from snow piles.

~~5.~~

The location shall be in an area that minimizes visual impact to public ways and/or adjacent residential uses.

~~6.~~

The salt pile and area used for truck loading and unloading shall be diligently swept and maintained free of loose salt and debris at all times. The area shall be kept in a clean, workmanlike manner at all times.

~~7.~~

7. All unused salt and the site shall be cleaned up no later than April 15th.

~~23.22-21~~ **ILLINOIS ACCESSIBILITY CODE/19972018**

The Illinois Accessibility Code, effective date ~~April 24, 1997~~October 23, 2018, (71 Illinois Administrative Code

400) (“Accessibility Code”) be and the same, is hereby adopted by reference and made part of this Section and shall be applicable to the Village. In the event of a conflict between the provisions

of the Illinois Accessibility Code and the International Building Code, the most restrictive provisions shall apply.

23.22 INTERNATIONAL SWIMMING POOL AND SPA CODE/2018

The International Swimming Pool and Spa Code, 2018 edition, (“Swimming Pool and Spa Code”)

be and the same, is hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23-.23 MODIFICATIONS TO THE SWIMMING POOL AND SPA CODE

The Swimming Pool and Spa Code shall be amended as follows:

1. Section [A] 101.1 insert Village of Algonquin.

2. Section [A] 108.1 shall be amended to read as follows:

[A] 108.1 Application for appeal. Any person directly affected by a decision of the Code Official or a notice of order issued under this code shall have the right to appeal to the Village Board, providing that a written application for an appeal is filed within 20 days after the day the decision, notice, or order was served. An application for appeal shall be based on a claim that the true intent of this code, or the rules legally adopted thereunder, have been incorrectly interpreted, the provisions of this code do not apply, or the requirements of this code are adequately satisfied by other means.

3. The following sections shall be deleted in their entirety

- Section [A] 108.2 Membership of board
- Section [A] 108.2.1 Qualifications
- Section [A] 108.2.2 Alternate members
- Section [A] 108.2.3 Chairman
- Section [A] 108.2.4 Disqualification of member
- Section [A] 108.2.5 Secretary
- Section [A] 108.2.6 Compensation of members
- Section [A] 108.3 Notice of meeting
- Section [A] 108.4 Open hearing
- Section [A] 108.5 Postponed hearing
- Section [A] 108.6 Board decision
- Section [A] 108.6.1 Resolution
- Section [A] 108.6.2 Administration

4. Section 305.5 Onground residential pool structure as a barrier, shall be amended to read as follows:

Onground residential pool structure as a barrier. Where an onground pool structure is used as a barrier, an additional barrier shall be mounted on top of the pool structure. The maximum vertical clearance between the top of the pool and the bottom of the barrier shall be four inches. The minimum vertical height of the barrier above the top of the pool shall be 18 inches and in no case shall the top of barrier be less than 48 inches above grade for the entire perimeter of the pool and comply with the requirements of Section 305.2. Where the barrier is mounted on top of the pool structure and means of access is a ladder or steps:

1. The ladder or steps shall be designed and manufactured to meet the barrier requirements of Section 305.2; or

2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section 305.2.

23.24 PERMIT FEE SCHEDULE

Permit fees are found in Appendix B of this Code.

23.24-25 KANE COUNTY ROAD IMPROVEMENT IMPACT FEE

All developers of new development in Kane County, as defined in Kane County Ordinance No. 04-22, Kane County Road Improvement Impact Fee Ordinance, are required to submit, with their building permit application, a copy of their receipt of payment reflecting payment of the Kane County Road Improvement Impact Fee.

23.25-26 IDENTIFICATION OF LOCAL BUILDING CODE NOT ADOPTED

Notwithstanding the provisions of 20 ILCS 3918/55, the Village shall not provide the identification of a new building code or amendment thereto, its title and edition, to the State of Illinois Capital Development Board, or its successor, for placement on the Internet through the State of Illinois worldwide website.

Changes

The changes proposed to Chapter 23 include the adoption of the following Codes, with local amendments:

- 23.02 International Residential Code/2018
- 23.03 Modifications to the Residential Code
- 23.04 International Building Code/2018
- 23.05 Modifications to the Building Code
- 23.06 International Fire Code/2018
- 23.07 Modifications to the Fire Code
- 23.08 International Mechanical Code/2018
- 23.09 Modifications to the Mechanical Code
- 23.10 International Fuel Gas Code/2018
- 23.11 Modifications to the Fuel Gas Code
- 23.12 National Electrical Code/2017
- 23.13 Modifications to the Electrical Code
- 23.14 Illinois State Plumbing Code/2014
- 23.15 International Energy Conservation Code/2018
- 23.16 Modifications to the Energy Conservation Code
- 23.17 International Existing Building Code/2018
- 23.18 Modification to the Existing Building Code
- 23.19 International Property Maintenance Code/2018
- 23.20 Modifications to the Property Maintenance Code
- 23.21 Illinois Accessibility Code/2018
- 23.22 International Swimming Pool and Spa Code/2018
- 23.23 Modifications to Swimming Pool and Spa Code

The most significant changes between the 2006 and the 2018 I-Codes can be found in the International Residential Code (IRC). The 2018 edition of the IRC requires a fire sprinkler system to be installed in new one and two-family attached dwellings. Residential fire sprinkler systems have been a requirement in the model codes since the 2012 I-Code series, and have received a lot of pushback from professionals in the industry. Since that time, the IRC text has evolved to provide alternatives to the fire sprinkler requirement.

To that result, staff is recommending that the IRC Code Sections requiring a fire sprinkler system in new single family detached houses be amended out of the Code. As a result, a new single-family house would not need to be sprinkled. A Two-family attached dwelling (duplex) would still need to be sprinkled. Staff is comfortable eliminating the sprinkler requirement because of the approved fire-resistant construction methods for houses that do not have a fire sprinkler system. For example, if a house is not sprinkled, the basement side of engineered floor joists (TJI & truss) will have to be covered with sheetrock.

Other changes in the IRC are specific to exterior deck construction. For example, the minimum concrete pier diameter would be increased to 12” from 8” and the manner in which the ledger is mechanically attached to the house is more restrictive.

The proposed revisions to Chapter 23 include significantly limiting the number of amendments to the Illinois State Plumbing Code (ISPC). The reason is that the 2014 edition of the (ISPC) recently published by the Illinois Department of Public Health, specifies that local municipalities shall not amend the Plumbing Code. As a result, a plumber is now allowed to use CPVC or PEX pipe for potable water distribution rather than strictly copper.

Another change between the 2006 and 2018 I-Codes can be found in the International Energy Conservation Code (ECC). For example, the 2018 edition of the ECC specifies additional insulation and more efficient heating and cooling equipment be installed in buildings.

The Village of Algonquin Electrical Commission met on multiple occasions to discuss the adoption of the 2017 edition of the National Electrical Code (NEC). The Electrical Commission have unanimously recommended the proposed update with amendments to the NEC.

Updates to Appendix B

Most of the fees listed in the Permit Fee Schedule with in Appendix B of the Municipal Code are proposed to be increased. The increase of fees will help to compensate for the amount of inflation experienced since the last time the Permit Fee Schedule was updated and help to cover the cost of conducting inspections. Additionally, in an effort to provide better service to residents, the Community Development Department recently started accepting credit cards for Permit fee payment. The increase in Permit fees will also help to offset the cost of accepting credit cards.

The Proposed updates to the Permit Fee Schedule include increasing the minimum Permit fee amount for a residential improvement to \$45.00 from \$40.00 and increasing the minimum non-residential (commercial) improvement to 85.00 from \$75.00. The Permit fee to replace a water heater is proposed to remain the same, at \$10.00

Additionally, an option to calculate a Permit fee pursuant to area of construction (square footage) rather than strictly by construction cost is proposed.

With the proposed Permit fee increase, the Village of Algonquin’s Permit fees will be consistent with surrounding communities or in many instances, will be less than other communities.

Recommendation

Consensus to move the updates to Chapter 23 and Appendix B of the Village of Algonquin Municipal Code forward to the Board for approval is recommended.

Chapter 23
BUILDING CODES

- 23.01 Definitions
- 23.02 International Residential Code/2018 Adopted
- 23.03 Modifications to the Residential Code
- 23.04 International Building Code/2018 Adopted
- 23.05 Modifications to the Building Code
- 23.06 International Fire Code/2018 Adopted
- 23.07 Modifications to the Fire Code
- 23.08 International Mechanical Code/2018 Adopted
- 23.09 Modifications to the Mechanical Code
- 23.10 International Fuel Gas Code/2018 Adopted
- 23.11 Modifications to the Fuel Gas Code
- 23.12 National Electrical Code/2017 Adopted
- 23.13 Modifications to the Electrical Code
- 23.14 Illinois State Plumbing Code/2014 Adopted
- 23.15 International Energy Conservation Code/2018 Adopted
- 23.16 Modifications to the Energy Conservation Code
- 23.17 International Existing Building Code/2018 Adopted
- 23.18 Modification to the Existing Building Code
- 23.19 International Property Maintenance Code/2018 Adopted
- 23.20 Modifications to the Property Maintenance Code
- 23.21 Illinois Accessibility Code/2018 Adopted
- 23.22 International Swimming Pool and Spa Code/2018
- 23.23 Modifications to Swimming Pool and Spa Code
- 23.24 Permit Fee Schedule
- 23.25 Kane County Road Improvement Impact Fee
- 23.26 Identification of Local Building Code Not Adopted

23.01 DEFINITIONS

In addition to those terms defined in Appendix A of this Code, for purposes of this Chapter, any reference to Code Official and Building Official shall mean the Building Commissioner; any reference to a specific chapter, other than Chapter, shall mean the applicable chapter in the applicable building code; and any reference to a code, other than Code, shall mean that particular building code of that section.

23.02 INTERNATIONAL RESIDENTIAL CODE/2018

The International Residential Code, 2018 edition, and appendices B, C, D, F, J and K (“Residential Code”), are hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.03 MODIFICATIONS TO THE RESIDENTIAL CODE

The Residential Code shall be amended as follows:

1. Section R101.1 insert Village of Algonquin.

2. Section R105.1 shall be amended to read as follows:

R105.1 Required. Any owner or authorized agent who intends to construct, enlarge, alter, replace, repair, including the installation of roof coverings, siding, patios, decks, gazebos, porches, detached accessory buildings or structures, sidewalk, driveways, fences, and swimming pools; retaining walls; use of a shipping container for temporary storage, if on site for more than 14 consecutive days and in no case shall the shipping container be on site for more than 90 consecutive days; move, demolish, or change the occupancy of a building or structure; install or replace any electrical gas, mechanical, or plumbing system, the installation of which is regulated by this Code, or to cause any such work to be done, shall first make application to the Building Official and obtain the required permit(s).

3. Section R105.2 shall be amended to read as follows:

R105.2 Work exempt from permit. Permits shall not be required for the following. Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinance of the Village.

Building:

1. Prefabricated swimming pools that are not capable of holding 24 inches (610 mm) or more of water.
2. Retaining walls that are not over two feet (610 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
3. Painting, papering, tiling, carpeting, countertops, and similar finish work.
4. Swings and other playground equipment accessory to a one- or two-family dwelling.
5. Prefabricated storage containers less than 100 cubic feet in volume, accessory to a one- or two-family dwelling, located in the rear yard and outside any easements.

Electrical: No change.

Gas: No change.

Mechanical: No change.

4. Section R105.2.2 Insert new Sections:

R105.2.2.1 Fence Repair. The repair or replacement of up to two (2) fence panel sections and/or three (3) support posts.

R105.2.2.2 Siding and Roof Repair. The repair or replacement of up to an aggregate total of 200 square feet of roofing material or siding material.

5. Section R105.5 shall be amended to add:

The work authorized by permit shall be completed and a final inspection conducted within 180 days after its issuance.

Exceptions: The following work authorized by permit shall be completed and a final inspection conducted within one year after its issuance.

1. Single-family dwellings
2. Two-family dwellings
3. Townhouse dwellings
4. Dwelling unit additions and/or alterations

6. Section R106.1 shall be amended to read as follows:

R106.1 Submittal documents. Construction documents for new single-family dwellings, two-family dwellings, townhouse dwellings, duplex dwellings, additions to dwelling units above the first floor, modifications which alter existing bearing walls or beams, modifications which alter the existing roof of a dwelling unit, retaining walls that are five (5) feet in height or taller measured from the footing to the top of the wall, unless supporting a surcharge and alterations, repairs, expansion, additions, and/or modifications to a dwelling unit of a substantial scope as determined by the Building Official shall be sealed and signed by an Illinois licensed architect or structural engineer.

7. Section R106.2 shall be amended to read as follows:

R106.2 Site plan. The construction documents submitted with the permit application shall be accompanied by a plat of survey prepared by an Illinois licensed professional engineer or land surveyor showing the size and location of new construction, existing structures, any floodplain or wetland areas, and easements on the site and distances from lot lines. A plat of survey submitted for the construction of a new single-family, two-family, duplex, or townhouse dwelling shall specify the top of foundation elevation proposed for the building based on the approved engineering plan for the subdivision in which the building will be located. In the event there is not an approved engineering plan for the subdivision in which the building will be located, the proposed top of foundation elevation shall be determined using best engineering practices.

8. Section R106.2.1 shall be amended to add the following:

R106.2.1 As-built plan. An as-built survey prepared by an Illinois licensed professional engineer or land surveyor shall be completed after the foundation for a single-family dwelling, two-family dwelling, duplex, or townhouse dwelling has been placed and submitted to the Village for review and approval. The as-built survey shall show the location of the foundation, distances from property lines, the proposed top of foundation elevation, and the actual top of foundation elevation. Construction past the first floor deck shall not continue until the as-built survey has been reviewed and approved by the Building Official.

9. Add a new Section R106.2.2, which shall read as follows:

R106.2.2 Final as-built & grading plan. A final as-built survey and grading plan prepared by an Illinois licensed professional engineer or land surveyor shall be completed after the construction of a single-family, two-family, duplex, or townhouse dwelling has been completed. The survey shall be submitted to the Village for review and approval prior to the issuance of a Certificate of Occupancy. The final as-built and grading plan shall indicate the location of all construction, site improvements, and final grading on the lot.

10. Section R112 shall be amended to read as follows:

112.1 General. In order to hear and decide appeals of orders, decisions, or determinations made by the Building Official relative to the application and interpretation of this code, an appeal may be made to the Village Board.

11. New Section R115 shall be added, to read as follows:

R115 SITE REQUIREMENTS

R115.1 Construction site access. Access to construction sites and lots shall be by means of a paved roadway(s) capable of supporting a vehicle weighing at least 85,000 pounds.

R115.2 Street identification. All streets and roadways leading to construction site(s) shall be identified by their name, on signs clearly visible from the right-of-way with characters not less than three inches in height.

R115.3 Lot identification. All construction sites and lots shall be identified by their address, on signs clearly visible from the right-of-way with numbers and letters not less than three inches in height. Once a structure is in place, the address shall be applied legibly to the portion of the structure that faces the right-of-way and remain in place throughout the construction process.

R115.4 Roadway maintenance. All roadways, streets, sidewalks, and bike paths shall remain free of mud/dirt and debris at all time.

R115.5 Construction driveways. The designated areas for driveways shall, at a minimum, be gravel or crushed stone from the back of the curb or end of the paved right-of-way up to the structure.

R115.6 Sanitation facilities. Approved portable sanitation facilities in sufficient quantities shall be provided and maintained on construction sites and located within 200 feet of construction activity.

12. Section R202: The following definition shall be added:

DUPLEX (TWO-FAMILY DWELLING). A building not more than three stories in height, consisting of two attached single-family dwelling units in which each unit extends from foundation to roof. Each unit has a separate means of egress and each unit has open space on three sides.

13. Table R301.2(1), insert the following:

Ground Snow Load	30 pounds per square foot
Wind Speed (three second gust)	115
Topographic effects	No
Special Wind Region	No
Windborne Debris Zone	No
Seismic Design Category	B
Weathering	Severe
Frost Line Depth	42 inches minimum below grade
Termite	Moderate
Winter Design Temperature	-4 degrees Fahrenheit
Ice Barrier Underlayment Required	Yes
Flood Hazards	reference Flood Insurance Rate Map for Algonquin 11/16/2006 & Chapter 44
Air Freezing Index	1745
Mean Annual Temperature	47.8 degrees Fahrenheit
Elevation	700
Latitude	42.251264
Winter Heating	-4 degrees Fahrenheit
Summer Cooling	89 degrees Fahrenheit
Altitude correction factor	0.0
Indoor design temperature	72 degrees Fahrenheit
Heating temperature difference	76 degrees Fahrenheit [72-(-4)]
Cooling temperature difference	14 degrees Fahrenheit [89-75]
Wind velocity heating	8.4 miles per hour
Wind velocity cooling	5.7 miles per hour
Coincident wet bulb	74 degrees Fahrenheit
Daily range	M
Winter humidity	30%
Summer Humidity	50%

14. Table R301.5: Substitute the following line items:

USE	LIVE LOAD
Sleeping rooms	40

15. Table R301.7: Substitute the following line item:

STRUCTURAL MEMBER	ALLOWABLE DEFLECTION
Floors	L/480

16. Section R302.5.1 shall be amended to add the following:

Doors shall have a net clear opening of not less than 34 inches.

17. Section R302.6 shall be amended to read as follows:

R302.6 Dwelling-garage fire separation. All garages attached to a dwelling shall have 5/8-inch Type X gypsum board or equivalent applied to all walls and ceilings. Attachment

of gypsum board shall comply with Table R702.3.5.

18. Add a new Section R309.6, which shall read as follows:

R309.6 Garage exit. Not less than one exit conforming to Section R311 shall be provided from any attached or detached garage.

19. Section R311.2 shall be amended to read as follows:

R311.2 Egress door. Not less than two egress doors shall be provided for each dwelling unit. One egress door shall be side-hinged and shall provide a clear width of not less than 32 inches (813 mm) where measured between the face of the door and the stop, with the door open 90 degrees. The clear height of the door opening shall be not less than 78 inches (1981 mm) in height measured from the top of the threshold to the bottom of the stop. The second required egress door may be a sliding type door, with a net clear opening of not less than 32 inches. Other doors shall not be required to comply with these minimum dimensions. Egress doors shall be readily openable from the inside the dwelling without the use of a key or special knowledge or effort.

20. **Section R313.2 One- and two-family dwellings automatic fire sprinkler systems.** Shall be deleted in its entirety.

21. Section R401 shall be amended to read as follows:

R401.4. A soil test shall be conducted to determine the soil's characteristics in the ultimate bearing strata prior to the placement of footings for all one-family, duplex, two-family, and townhouse dwellings. Additionally, in areas likely to have expansive, compressive, shifting, or other unknown soil characteristics, a soil test shall be conducted prior to the placement of footings for additions to dwellings or detached accessory structures. These tests shall be made by an approved agency using an approved method. A copy of the soil report shall be submitted to the Community Development Department prior to the approval of the footing inspection.

22. Chapter 4: All references to wood foundations and rubble stone masonry foundations shall be deleted.

23. Section 403.1 shall be amended to read as follows:

R403.1 General. All exterior walls for one-family, duplex, two-family, and townhouse dwellings and additions to dwelling units shall be supported in their entirety on a continuous concrete spread footing and foundation of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill. Concrete footing shall be designed and constructed in accordance with the provisions of Section R403 or in accordance with ACI 332. Any structure attached to a dwelling unit containing any glazing including but not limited to glass, Lexan, Plexiglas, plastic, or other similar material shall be considered an addition and shall conform to the requirements of this Chapter.

Exceptions:

1. Exterior walls for one-family, duplex, two-family, and townhouse dwellings, additions to dwelling units, and dwelling unit separation wall assemblies may be supported in their entirety on a continuous concrete bank poured (trench) foundation not less than 16 inches in width, with the base of the foundation placed at or below the frost line.
 2. Single-story additions to a dwelling unit with a total area of 400 square feet or less may be supported by a continuous concrete bank poured (trench) foundation not less than 12 inches in width, with the base of the foundation placed at or below the frost line with 24-inch #5 reinforcing bars doweled six inches into the existing foundation, 12 inches on center vertically, where the foundation for the addition abuts the existing foundation.
 3. Exterior stairs having three or more risers shall have stringers pressure treated to prevent decay and shall be supported by solid concrete piers not less than eight inches in diameter with the base of the pier placed at or below the frost line.
24. Section R403.1.1, Minimum size, shall be amended to add the following:
- In no case shall the footing size be less than 16 inches in width and less than eight inches in thickness.
25. Section R404.1.3, Concrete foundation walls, shall be amended to add the following:
- All foundation walls with a basement shall have not less than two continuous #4 reinforcing bars tied in place within 12 inches of the top and bottom of the wall and no splices shall be made within 18 inches of a corner.
26. Section R404.1.5 shall be amended to add the following:
- In no case shall the foundation wall thickness be less than eight inches.
27. Section 405.2.3, Drainage system, shall be amended to add the following:
- All basement window wells shall be provided with drainage consisting of a vertical drain pipe connected to the foundation drainage system with an approved "T"-type connector.
28. Section R407.3, Structural requirements, shall be amended to add the following:
- The amount of exposed loose shims used to support a column or girder shall not exceed one inch in height.
29. Section R408.6, Finish grade, shall be amended to add the following:
- The under-floor grade within a crawl space shall be covered with an approved vapor barrier and a slush-coat of concrete not less than two inches thick.

30. Section R502.3.1 shall be amended to read as follows and delete Table R502.3.1(1):
31. **R502.3.1 Sleeping areas and attic joists.** Table R502.3.1(2) shall be used to determine the maximum allowable span of floor joists that support sleeping areas and attics that are accessed by means of a fixed stairway in accordance with Section R311.5, provided that the design live load does not exceed 40 psf and the design dead load does not exceed 20 psf. The allowable span of ceiling joists that support attics used for limited or no storage shall be determined in accordance with Section R802.5.
32. **Section R504 Pressure Preservative-Treated Wood Floors (On Ground)** Shall be deleted in its entirety.
33. Section R506.2.2 shall be amended to read as follows and add Section R506.2.2.1:
- R506.2.2 Base.** A base course not less than four inches thick consisting of a compactible gravel aggregate, such as CA-6 or equivalent, shall be placed on the prepared sub-grade of any slab on grade, not confined on all edges by a footing, foundation, or other permanent structure, and compacted to not less than 95 percent modified proctor density. Any slab on grade confined on all edges may use a four-inch minimum base course of clean graded sand, gravel, crushed stone, or washed stone.
34. **R506.2.2.1 Slab reinforcement.** Two continuous #4 reinforcing bars shall be placed mid-slab the entire length of all service walks and doweled six inches into abutting stoops. Two continuous #4 reinforcing bars shall be placed mid-slab in any portion of a public walk which crosses over a backfilled excavation. Six-inch by six-inch #10 welded wire fabric shall be placed in the top one-third of all basement slabs, garage slabs, concrete driveways, and concrete patios with more than 100 square feet of total area. Fiber reinforced concrete, with fiber content of not less than 1.5 pounds per cubic yard (0.9 kg per cubic meter) of concrete may be used in place of welded wire fabric.
35. Section R506.2.3, Vapor retarder, Exception 1, shall be amended to read as follows:
- Exception:** 1. From detached garages, detached utility buildings, and other detached unheated accessory structures.
36. Section R507.3 shall be amended to read as follows:
- Section 507.3 Piers.** Decks shall be supported on top of concrete piers. Deck piers shall be sized to carry the imposed loads from the deck structure to the ground. The base of the concrete pier shall be at a depth in accordance with Section R403.1.4.
Delete Figure R507.3 Deck Posts to Deck Footing Connection.
Delete Exception.
37. Section R507.3.1 shall be amended to read as follows:

R507.3.1 Minimum size. The minimum size of a concrete pier shall be not less than 12 inches (305 mm) in diameter.

Delete Table R401.4.1 Minimum Footing size for Decks.

38. Section R507.3.2. Delete Exceptions

39. Table R507.4 Deck Post Height. Replace maximum heights with the following:

Deck Post Size	Maximum Height
4 x 4	6 Feet
4 x 6	8 Feet
6 x6	10 Feet
8 x8	14 Feet

40. Section R507.4.1 shall be amended to read as follows:

R507.4.1 Deck post to deck pier connection. Deck posts shall bear on the center of the concrete piers. The attachment of the deck post to the concrete pier shall be made by approved manufactured connectors to provide lateral and uplift restraint.

Delete Exception.

41. Section R703.1 Exterior covering general, shall be amended to add the following:

Any enclosed, attached, or detached accessory structure constructed of canvas, nylon, plastic, or other pliable material supported by air, cables, tubing, metal, or wood framework shall be prohibited. The provisions of this Section shall not apply to awnings or canopies which provide weather protection or decoration.

42. Section R801.3, Roof drainage, shall be amended to read as follows:

R801.3 Roof drainage. All dwellings shall have a controlled method of water disposal from roofs that will collect and discharge all roof drainage to the ground surface at least two feet from foundation walls or to an approved drainage system. Upper roof surfaces shall not be permitted to discharge onto lower roof surfaces. In areas where expansive or collapsible soils are known to exist, all dwellings shall have a controlled method of water disposal from roofs that will collect and discharge drainage to the ground surface at least five feet from foundation walls or to an approved drainage system.

43. The following chapters shall be deleted in their entirety:

- Chapter 25, Plumbing Administration
- Chapter 26, General Plumbing Requirements
- Chapter 27, Plumbing Fixtures
- Chapter 28, Water Heaters
- Chapter 29, Water Supply and Distribution
- Chapter 30, Sanitary Drainage
- Chapter 31, Vents

Chapter 32, Traps
Chapter 34, Electrical General Requirements
Chapter 35, Electrical Definitions
Chapter 36, Services
Chapter 37, Branch Circuits and Feeder Requirements
Chapter 38, Wiring Methods
Chapter 39, Power and Lighting Distribution
Chapter 40, Devices and Luminaries
Chapter 41, Appliance Installation
Chapter 42, Swimming Pools
Chapter 43, Class2 Remote-Control, Signaling and Power-Limiting Circuits

44. All plumbing installations, materials, and fixtures shall comply with the Illinois Plumbing Code, 2014 edition, promulgated by the Illinois Department of Public Health.
45. All electrical installations, materials, fixtures, and devices shall comply with the National Electrical Code, 2017 edition, promulgated by the National Fire Protection Association, as amended by the Village.

23.04 INTERNATIONAL BUILDING CODE/2018

The International Building Code, 2018 edition, (“Building Code”) is hereby adopted by reference and made part of this Section, subject to the modifications set forth herein, and shall be applicable to the Village.

23.05 MODIFICATIONS TO THE BUILDING CODE

The Building Code shall be amended as follows:

1. Section [A] 101.1, insert: Village of Algonquin
2. Section [A] 101.4.4 shall be amended to read as follows:

[A] 101.4.4 Plumbing. The provisions of the Illinois State Plumbing Code, 2014 edition, shall apply to the installation, alteration, repair, and replacement of plumbing systems, including equipment, appliances, fixtures, fittings, and appurtenances.

3. Section [A] 101.4. Add new Section:

[A] 104.4.8 Electrical. The provisions of the National Electrical Code, 2017 edition, promulgated by the National Fire Protection Association, as amended by the Village shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

4. Section [A] 105.1, Required, shall be amended to read as follows:

[A] 105.1 Required. Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure; or to erect, install, enlarge, alter, repair, remove, convert, or replace any electrical, gas, mechanical, plumbing, or fire protection system; the installation of communication towers or antennas; the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the Building Official and obtain the required permit.

5. Section [A] 107.3, Examination of documents, shall be amended to read as follows:

[A] 107.3 Examination of documents. The Building Official shall examine or cause to be examined the accompanying construction documents and fire protection shop drawings and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this Code and other pertinent laws or ordinances. The Building Official is authorized to submit the construction documents and fire protection shop drawings to a third-party plan review agency chosen by the Building Official. The property owner or owner's agent shall be responsible for the reimbursement to the Village of all fees associated with the review of documents by any third-party plan review agency, and all fees shall be paid in full prior to the issuance of the permit.

6. Section [A] 110.4, Inspection agencies, shall be amended to read as follows:

[A] 110.4 Inspection agencies. The Building Official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability. The Building Official is authorized to engage a third-party inspection agency for inspections of a technical nature in addition to the inspections required in Section 1704. The property owner or the owner's agent shall be responsible for the reimbursement to the Village of all fees associated with inspections conducted by any third-party inspection agency and shall be paid in full prior to the issuance of a Certificate of Occupancy.

7. Section [A] General, 113.1 shall be amended to read as follows:

[A] 113.1 General. In order to hear and decide appeals of order, decisions, or determinations made by the Building Official relative to the application and interpretation of this code, an appeal may be made to the Village Board.

8. Section [A] 113.3, Qualifications, shall be deleted in its entirety.

9. Section 310.3, Residential Group R-2, shall be amended to add the following:

Buildings with more than two dwelling units where any portion of any individual dwelling unit does not extend from the foundation to the roof, regardless of egress arrangement, shall be classified as R-2.

10. Section 310.4, Residential Group R-3, shall be amended to add the following:

Buildings with not more than two dwelling units where any portion of any individual dwelling unit does not extend from the foundation to the roof, regardless of egress arrangement, shall be classified as R-3.

11. Section [F] 903.2 shall be amended to read as follows:

[F] 903.2 Where required. An approved automatic sprinkler system shall be provided throughout all new buildings and structures regardless of Group or fire area and in locations described in the Section.

Delete Exception.

12. Section [F] 903.2.1 shall be amended to read as follows:

[F] 903.2.1. Group A. An automatic sprinkler system shall be provided for in Group A-1 occupancies.

13. Section [F] 903.2.1.1 shall be amended to read as follows:

[F] 903.2.1.1 Group A-1. An automatic sprinkler system shall be provided for in Group A-1 occupancies.

14. Section [F] 903.2.1.2 shall be amended to read as follows:

[F] 903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for in Group A-2 occupancies.

15. Section [F] 903.2.1.3 shall be amended to read as follows:

[F] 903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for in Group A-3 occupancies.

Exception: Areas used exclusively as participant sports areas where the main floor area is located at the same level as exit discharge of the main entrance and exit.

16. Section [F] 903.2.1.4 shall be amended to read as follows:

[F] 903.2.1.4 Group A-4. An automatic sprinkler system shall be provided for in Group A-4 occupancies.

Exception: Areas used exclusively as participant sports areas where the main floor is located at the same level as exit discharge of the main entrance and exit.

17. Section [F] 903.2.1.5 shall be amended to read as follows:

[F] 903.2.1.5 Group A-5. An automatic sprinkler system shall be provided in all Group A-5 occupancies in the following areas: concession stands, retail areas, press boxes, and all other accessory use areas.

18. Section [F] 903.2.2 shall be amended to read as follows:

[F] 903.2.2 Ambulatory care facilities. An automatic sprinkler system shall be provided

in any area containing an ambulatory care facility.

19. Section [F] 903.2.3 shall be amended to read as follows:

[F] 903.2.3 Group E. An automatic sprinkler system shall be provided throughout all buildings containing a Group E occupancy.

20. Section [F] 903.2.4 shall be amended to read as follows:

[F] 903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a F-1 occupancy.

21. Section [F] 903.2.4.1 shall be amended to read as follows:

[F] 903.2.4.1 Woodworking operations. An automatic sprinkler system shall be provided throughout all Group F-1 occupancies that contain woodworking operations.

22. Section [F] 903.2.5.3 shall be amended to read as follows:

23. **[F] 903.2.5.3 Pyroxylin plastics.** An automatic sprinkler system shall be provided throughout buildings where cellulose nitrate film or pyroxylin plastics are manufactured, stored, or handled.

24. Section [F] 903.2.6
Delete exceptions.

25. Section [F] 903.2.7 shall be amended to read as follows:

[F] 903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy.

26. Section [F] 903.2.9 shall be amended to read as follows:

[F] 903.2.9 Group S-1. An automatic sprinkler system shall be provided throughout buildings containing a Group S-1 occupancy.

27. Section [F] 903.2.9.1 shall be amended to read as follows:

[F] 903.2.9.1 Repair garages. An automatic sprinkler system shall be provided throughout buildings used as repair garages in accordance with Section 406.

28. Section [F] 903.2.9.2 shall be amended to read as follows:

[F] 903.2.9.2 Bulk storage of tires. Buildings and structures used for the storage of tires

shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1

29. Section [F] 903.2.10.1 shall be amended to read as follows:

[F] 903.2.10.1 Commercial parking garages. An automatic sprinkler system shall be provided throughout buildings used for the storage of commercial motor vehicles.

30. Section [F] 903.2.11.1 shall be amended to read as follows:

[F] 903.2.11.1 Stories without openings. An automatic sprinkler system shall be installed throughout every story or basement of all buildings.

31. Section [F] 903.2.11.3, Buildings over 55 feet in height, delete exceptions.

32. Section 903 shall be amended to add the following section:

[F] 903.2.13 Group B. An automatic sprinkler system shall be provided throughout buildings containing a Group B occupancy.

33. Section 903 shall be amended to add the following section:

[F] 903.2.14 Group F-2. An automatic sprinkler system shall be provided throughout buildings containing a Group F-2 occupancy.

34. Section 903 shall be amended to add the following sections:

[F] 903.2.15 Group U. An automatic sprinkler system shall be provided throughout buildings containing a Group U occupancy.

[F] 603.2.16 Discontinuation of use. An automatic sprinkler system shall be provided throughout a building containing any occupancy specified in Section 903 that has been unoccupied for more than 365 consecutive days.

[F] 603.2.17 Substantial improvement. An automatic sprinkler system shall be provided throughout a building containing any occupancy specified in Section 903 when the building or structure is substantially improved. Substantial improvement is defined when any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started.

35. Section [F] 903.3.1.1, Exempt locations, delete 2, 3, and 4.

36. Section [F] 903.3.5, Water supplies, shall be amended to read as follows:

[F] 903.5 Water Supplies. Water supplies for automatic sprinkler systems shall comply with this Section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of the Illinois Plumbing Code. A minimum 10% but less than 5 pounds per square inch safety factor shall

be provided in the fire protection system hydraulic calculations. The system demand shall be a minimum of 5 pounds per square inch below the seasonal low water flow test supply. Hydrant water flow data used for the design of any sprinkler system shall be no more than one year old.

37. Section [F] 903.3.6, Hose threads, shall be amended to add the following sections:

[F] 903.3.6.1 Algonquin–Lake in the Hills Fire Protection District. The fire department connection on buildings constructed within the Algonquin-Lake in the Hills Fire Protection District shall be based on the fire protection system demand as follows:

1. 400–999 GPM: One four-inch locking Storz FDC with cap.
2. Greater than 1000 GPM: Two four-inch locking Storz FDC’s with caps. The FDC’s shall be remotely located on the building.

[F] 903.3.6.2 Huntley Fire Protection District. The fire department connection on buildings constructed within the Huntley Fire Protection District shall be a single five-inch locking Storz FDC with cap.

[F] 903.3.6.3 Carpentersville Fire Protection District. The fire department connection on buildings constructed within the Carpentersville Fire Protection District shall be one 2.5-inch x 2.5-inch x 4-inch NST double-clappered Siamese FDC and one four-inch locking Storz FDC with a check valve in the piping between the connections.

[F] 903.3.7 Fire Department Connections. Fire department connections shall be visible and unobstructed on a street front, parking lot, fire lane, or other accessible location approved by the Building Official and appropriate fire protection district. A fire hydrant shall be located within 100 feet of fire department connections. A blue weatherproof 75-candela exterior strobe light shall be installed on the exterior of the building above each fire department connection and shall be activated by water flow only.

38. Section 903 shall be amended to add the following section:

[F] 903.3.9 Fire pump test header. An outside test header shall be provided on all fire pump installations. An OS&Y control valve with a tamper switch shall be provided on all fire pump test headers.

39. Section 903 shall be amended to add the following section:

[F] 903.3.10 Riser check valve. Provide a check valve in each sprinkler riser.

40. Section 903 shall be amended to add the following section:

[F] 903.3.11 Hydraulic placard information. A reproduction of each hydraulic placard shall be included on the design drawings near the corresponding hydraulically calculated area.

41. Section 903 shall be amended to add the following section:

[F] 903.3.12 Sprinkler room access. Where fire sprinkler risers or fire pumps are located in a separate room, a minimum of a 36-inch side-swinging door complying with Section 715.4 shall be installed to provide direct access into the room from inside and outside of the building. Where the fire sprinkler risers are not located in a separate room, a minimum of a 36-inch side-swinging door complying with Section 715.4 shall be installed in an exterior wall, in an approved location, to provide access to the vicinity of the sprinkler risers from the outside of the building. A sign shall be provided on the exterior of the door(s) with minimum four-inch high letters stating, “SPRINKLER CONTROL VALVES” and/or “FIRE PUMP ROOM,” as applicable.

42. Section [F] 903.4.2 shall be amended to read as follows:

[F] 903.4.2 Alarms. A fire alarm shall monitor all automatic sprinkler systems. Approved audible and visual devices shall be connected to every automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Actuation of the automatic sprinkler system shall actuate the building fire alarm system flow alarm, sprinkler bells, and water flow indicating appliances over the fire protection district direct connection. Visual alarm devices shall be arranged so the flashing light beam can be seen at the required level of intensity from all common use areas. Visual alarm appliances shall be provided as directed in Section [F] 907.5.2.3 and in restrooms. Audible alarms shall be arranged so the alarm can be heard in all areas of the building.

43. Section [F] 903.4.3 shall be amended to read as follows:

[F] 903.4.3 Floor control valves. Approved, supervised indicating floor control valves with water flow switches shall be provided at the point of connection to the riser on each floor in multiple story buildings, including all floor levels below grade.

44. Section [F] 903 shall be amended to add the following section:

[F] 903.6. Yard Hydrants. Fire hydrants shall be provided around the perimeter of a building in 300 foot increments.

45. Section [F] 905.3 shall be amended as follows:

[F] 905.3 Required Installations. Class I standpipe systems shall be installed where required by Sections 905.3.1 through 905.3.7 and in locations indicated in Sections 905.4. Standpipe systems are permitted to be combined with automatic sprinkler systems unless otherwise noted. Exception: Standpipe systems are not required in buildings and structures regulated by the International Residential Code in accordance with Section 101.2, Exception 1.

46. Section [F] 905.301 shall be amended as follows:

[F] 905.3.1 Height. Class I standpipe systems shall be installed throughout all buildings and portions of buildings: 1. With more than two stories above the lowest level of fire de-

partment vehicle access. 2. With more than two stories below the highest level of fire department vehicle access. 3. Where there is a floor level located more than 30 feet above the lowest level of fire department vehicle access, including mezzanines. 4. Where there is a floor level located more than 30 feet below the highest level of fire department vehicle access, including mezzanines. 5. Where any portion of the building floor area, including mezzanines, is more than 400 feet of travel from the nearest point of fire department vehicle access.

47. Section [F] 905.3 shall be amended to add the following Section:

Section [F] 905.3.9 High-piled combustible storage. Buildings or portions of buildings with high-piled combustible storage shall be equipped with a Class I automatic wet standpipe system. Standpipe hose connections shall be located in high-piled combustible storage areas where storage exceeds 12 feet in height. Hose connections shall be located at each door to the high-piled combustible storage area. Where the travel distance between hose connections exceeds 200 feet, the Building Official is authorized to require additional hose connections be provided in approved locations. The standpipe system shall be: 1. A separate riser piping system. 2. Hydraulically calculated for a minimum of 250 gallons per minute at 75 pounds Chapter 23, Page 19 4/22/14 per square inch to the most hydraulically remote fire hose valve. 3. Where system pressures exceed 100 pounds per square inch, a reduced pressure field-adjustable type hose valve shall be provided.

48. Section [F] 905.4 shall be amended to add:

7. In Group A-1 and A-2 occupancies with occupant loads of more than 1,000, hose connections shall be located on each side of any stage, on each side of the rear of the auditorium, on each side of the balcony, and on each tier of dressing rooms.

49. Section [F] 905.4 shall be amended to add the following to the list of locations of Class I standpipe hose connections:

7. In Group A-1 and A-2 occupancies with occupant loads of more than 1,000, hose connections shall be located on each side of any stage, on each side of the rear of the auditorium, on each side of the balcony, and on each tier of dressing rooms.

50. Section [F] 905.4 shall be amended to add the following section:

[F] 905.4.3 Hose connection threads. Each Class I standpipe hose connection shall be equipped with a 2.5-inch NST male hose valve, with a removable 2.5-inch female to 1.5-inch male adapter, which shall be permanently chained to the hose connection.

51. **Section [F] 905.5 Locations of Class II standpipe hose connections.** Shall be deleted in its entirety.

52. **Section [F] 905.6 Location of Class III standpipe hose connections.** Shall be deleted in its entirety.

53. Section [F] 907.1.3, Equipment, shall be amended to read as follows:

[F] 907.1.3. Equipment. All fire alarm systems shall be of the addressable type. Systems

and their components shall be listed and approved for the purpose for which they are installed.

54. Section [F] 907.2, Where required, shall be amended to read as follows:

[F] 907.2 Where required. An approved manual, automatic, or manual and automatic fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in accordance with Section 907.2.1 through 907.2.23, as amended, and provide occupant notification in accordance with Section 907.9. An approved manual fire alarm system shall be provided in all Groups. An approved automatic fire detection system installed in accordance with NFPA 72 shall be provided in all non-sprinklered Groups. Where automatic sprinkler protection, installed in accordance with Section 903.1.1 or 903.1.2, is provided and connected to the building fire alarm system, automatic heat detection required by this Section shall not be required. Devices, combinations of devices, appliances, and equipment shall comply with Section 907.1.2. The automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms where, during normal operation, products of combustion are present in sufficient quantity to activate a smoke detector. All fire alarm control panels of full function annunciator panels shall be installed within 10 feet of the main entrance or in a location approved by the fire protection district.

55. Section [F] 907.2.1, Group A, delete the exception.

56. Section [F] 907.2.2, Group B, delete the exception.

57. Section [F] 907.2.3, Group E, delete exception 2.

58. Section [F] 907.2.4, Group F, delete the exception.

59. Section [F] 907.2.7, Group M, delete exception 2.

60. Section [F] 907.2.8.1, Manual fire alarm system, shall be amended to read as follows:

[F] 907.2.8.1 Manual fire alarm system. A manual fire alarm system shall be installed in accordance with NFPA 72 in all Group R-1 occupancies.

Delete Exceptions 1 and 2.

61. Section [F] 907.2.9, Group R-2, shall be amended to read as follows:

[F] 907.2.9.1 Group R-2. A manual fire alarm system shall be installed in accordance with NFPA 72 in all Group R-2 common areas. An automatic fire detection system shall be installed in accordance with NFPA 72 in all Group R-2 common areas.

Delete Exceptions 1, 2, and 3

62. Section [F] 907.2.12, High-rise buildings, all exceptions shall be deleted.

63. Section [F] 907.6.4, Zones, shall be amended to read as follows:
64. **[F] 907.6.4 Zones.** Each floor shall be zoned separately and a zone shall not exceed 22,500 square feet. The length of any zone shall not exceed 300 feet in any direction. Multi-tenant buildings shall ring by tenant space.
65. Chapter 29, Plumbing Systems and the Illinois State Plumbing Code shall govern the erection, installation, alterations, repairs, relocation, replacement, addition to, use, or maintenance of plumbing equipment and systems. Plumbing systems and equipment shall be constructed, installed, and maintained in accordance with the Illinois State Plumbing Code.

23.06 **INTERNATIONAL FIRE CODE/2018**

The International Fire Code, 2018 edition, and appendices B, C, and D, (“Fire Code”), be and the same are hereby adopted by reference and made a part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.07 **MODIFICATIONS TO THE FIRE CODE**

The Fire Code shall be amended as follows:

1. For the purpose of this code, any Fire Code sections repeated within the International Building Code and modified therein shall also be considered modified accordingly within the Fire Code.
2. Section 101.1, insert Village of Algonquin.
3. Section 109.1 shall be amended to read as follows:

109.1 Board of appeals established. In order to hear and decide appeals of order, decisions, or determinations made by the fire code/building code official relative to the application and interpretation of this code, an appeal may be made to the Village Board.
4. Section 109.3, Qualifications, shall be deleted in its entirety.
5. Open Burning and Recreational Fires shall be deleted in its entirety (refer to Section 43.08 of the Village of Algonquin Municipal Code)

23.08 **INTERNATIONAL MECHANICAL CODE/2018**

The International Mechanical Code, 2018 edition, (“Mechanical Code”) be and the same is hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.09 **MODIFICATIONS TO THE MECHANICAL CODE**

The Mechanical Code shall be amended as follows:

1. Section [A] 101.1, insert Village of Algonquin.

2. Section [A] 106.5.2, insert Appendix B of the Village of Algonquin Municipal Code.

3. Section [A]106.5.3 shall be amended to read as follows:

[A] 106.5.3 Fee refunds. Refunds for mechanical permits shall be in accordance with Appendix B of the Village of Algonquin Municipal Code

4. Section [A] 108.4, insert Appendix B of the Village of Algonquin Municipal Code.

5. Section [A] 108.5, insert Appendix B of the Village of Algonquin Municipal Code.

6. Section [A] 109.1 shall be amended to read as follows:

[A] 109.1 Application of appeal. A person shall have the right to appeal a decision of the Code Official to the Village Board. An appeal shall be based on a claim that the intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed.

7. The following sections shall be deleted in their entirety:

- Section [A] 109.2 Membership of board.
- Section [A] 109.2.2 Alternate members.
- Section [A] 109.2.3 Chairman.
- Section [A] 109.2.4 Disqualification of member.
- Section [A] 109.2.5 Secretary.
- Section [A] 109.2.6 Compensation of members.
- Section [A] 109.3 Notice of meetings.
- Section [A] 109.4 Open hearings.
- Section [A] 109.4.1 Procedure.
- Section [A] 109.5 Postponed hearing
- Section [A] 109.6 Board decision
- Section [A] 109.6.1 Resolution
- Section [A] 109.6.2 Administration

23.10 INTERNATIONAL FUEL GAS CODE/2018

The International Fuel Gas Code, 2018 edition, (“Fuel Gas Code”) be and the same is hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.11 MODIFICATIONS TO THE FUEL GAS CODE

The Fuel Gas Code shall be amended as follows:

1. Section [A] 101.1, insert Village of Algonquin.
2. Section [A] 106.6.2, insert Appendix B of the Village of Algonquin Municipal Code.

3. Section [A] 106.6.3 shall be amended to read as follows:

[A] 106.6.3 Fee refunds. Refunds for permit fees shall be in accordance with Appendix B of the Village of Algonquin Municipal Code.

4. Section [A] 108.4, insert Appendix B of the Village of Algonquin Municipal Code.

5. Section [A] 108.5, insert Appendix B of the Village of Algonquin Municipal Code.

6. Section [A] 109.1 shall be amended to read as follows:

[A] 109.1 Application of appeal. A person shall have the right to appeal a decision of the Code Official to the Village Board. An appeal based on a claim that the intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed.

7. The following sections shall be deleted in their entirety:

Section [A] 109.2 Membership of board
Section [A] 109.2.2 Alternate members
Section [A] 109.2.3 Chairman
Section [A] 109.2.4 Disqualification of member
Section [A] 109.2.5 Secretary
Section [A] 109.2.6 Compensation of members
Section [A] 109.3 Notice of meeting
Section [A] 109.4 Open hearing
Section [A] 109.5 Postponed hearing
Section [A] 109.6 Board decision
Section [A] 109.6.1 Resolution
Section [A] 109.6.2 Administration

8. Section 401.5 Identification shall be amended to add the follows:

Exterior gas piping shall be coated to protect the piping from corrosion. Exterior gas piping located on the roof shall be painted yellow. All other exterior gas piping shall be painted to match the exterior of the building.

23.12 NATIONAL ELECTRICAL CODE/2017

The National Electrical Code, 2017 edition, promulgated by the National Fire Protection Association, (“Electrical Code”) be and the same is hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.13 MODIFICATIONS TO THE NATIONAL ELECTRICAL CODE

The Electrical Code shall be amended as follows:

1. Article 110.2 shall be amended to add the following:

All electrical devices, conductors, and equipment shall be listed by a recognized and approved testing laboratory, or by express written approval from the Electrical Inspector.

2. Article 110.12 shall be amended to add the following:

110.12(C). All accessible temporary and/or abandoned wiring conductors, conduit systems, raceways, junction boxes, electrical materials, and electrical equipment shall be completely removed, unless express written approval is obtained from the Electrical Inspector.

3. Article 110.34 shall be amended to add the following:

(G) Utility sinks, water hose bibs, drinking fountains, and similar fixtures shall not be installed in a dedicated electric panel or switch gear room in commercial or industrial buildings. In a non-dedicated electric panel or switch gear room, utility sinks, water hose bibs, drinking fountains, and similar fixtures shall not be installed within six (6) feet of electric service panels or switch gear.

4. Article 210.8(A)(1) shall be amended to add the following:

No less than one 20-ampere GFCI-protected duplex outlet shall be provided for every vanity sink installed in a residential occupancy.

5. Article 210.8(A)(7) shall be amended to add the following:

Not less than one GFCI-protected duplex outlet shall be provided for every wet bar sink.

6. Article 210.8(B) shall be amended to add the following:

(4) All outdoor outlets in all residential, commercial and industrial construction shall be GFCI-protected.

(5) All indoor receptacles in residential, commercial and industrial construction shall be GFCI-protected, if within six feet of sinks, water hose bibs, drinking fountains, any equipment with exposed or accessible water, open water, or similar fixtures.

7. Article 210.10(C) shall be amended to add the following:

(5) All required smoke detectors shall be 110-volt with battery backup, interconnected and supplied by a general lighting circuit. Where smoke detectors are installed adjacent to unconditioned spaces, conduit shall be connected to the side of the junction box or an approved sealant to the top of the junction box entries.

Exception. Existing non-modified structures shall have wireless battery-powered interconnected smoke detectors, at locations where required.

8. Article 210.11(A) shall be amended to add the following:

(1) All sump pumps and ejector pumps shall each be supplied by a separate circuit..

- (2) All furnaces and air conditioners shall each be supplied by a separate circuit.
9. Article 220.10 shall be amended to add the following:
- In no case shall the electric service size for a single-family detached dwelling unit be less than 200 ampere, with a 40-circuit panel; or
- Less than 200 ampere electric service with a 40-circuit panel for single-family attached dwelling units with 1,400 square feet or more of living space; or
- Less than 100 ampere electric service with a 20-circuit panel for single-family attached dwelling units with 1,399 square feet or less of living space; or
- Less than 400 ampere electric service with an 80-circuit panel for single-family dwelling units with 4,000 or more square feet of living space.
10. Article 230.70(A) shall be amended to add the following:
- Service disconnecting means shall be located outside of the building or within five feet of the point in which the service conductors enter the building.
11. Article 2240 shall be amended to add the following:
- Circuit breakers. Only one conductor per screw terminal shall be permitted on full size single-pole, 2-pole and 3-pole circuit breakers. Mini-circuit breakers and double/single-pole combination circuit breakers shall not be installed in any service panel, sub-panel or disconnect enclosure of any size or type.
12. Article 250.34 shall be amended to add the following:
- A permit shall be obtained from the Community Development Department prior to the use of a portable generator of 10,000 watts or more in size; a separate permit may be issued each day of operation.
13. Article 310.10 shall be amended to read as follows:
- All conductor material shall be copper.
14. Article 348.10 shall be amended to add the following:
- Flexible metal conduit: Type FMC (Greenfield) can be used in enclosed areas with a proper sized equipment grounding conductor in compliance with Article 250.122.
15. Article 358.10(A) shall be amended to add the following:
1. Interior above slab wiring: All 110-volt and higher voltage conductors shall be enclosed in EMT (Electrical Metallic Tubing), or IMC (Intermediate Metal Conduit) or RMC (Rigid Metal Conduit) installed in accordance with this Code shall be used for interior above slab wiring.

2. Exterior above grade exposed wiring: All exterior above grade exposed wiring shall be enclosed in IMC (Intermediate Metal Conduit) or RMC (Rigid Metal Conduit) and installed in accordance with the Code.
 3. Under slab and below grade wiring: Rigid PVC and RTRC (Reinforced Thermo-setting Resin Conduit) or RMC (Rigid Metal Conduit) installed in accordance with this code may be used below grade and under slab wiring. Direct burial wiring shall be used for underground service entrance conductors.
 4. Other raceways and wireways may be permitted by express written approval by the Electrical Inspector.
16. Article 404.2 shall be amended to add the following:
- A three-way switch or interior motion sensing switching device or photocell device shall be provided for interior lighting in all screen rooms, sunrooms, and additions classified as three-season rooms, constructed off an exterior door.
17. Article 404.4 shall be amended to add the following:
- (D) Switches shall be located at least five feet measured horizontally, from the inside walls of a bathtub, whirlpool tub, hot tub, spa, hydro-massage bathtub, tub/shower combination, shower stall or shower enclosure.
18. Article 406.9(C) shall be amended to add the following:
- (D) Receptacles shall be located at least six feet measured horizontally, from the inside walls of a bathtub, whirlpool tub, hot tub, spa, hydro-massage bathtub, tub/shower combination, shower stall or shower enclosure.
19. Article 410.10 shall be amended to add the following:
- (G) Ceiling mounted, open or exposed, glass tube fluorescent luminaires shall be provided with fall protection for the light bulbs.
20. Article 410.30 (B) (3) shall be amended to add the following:
- A 5/8 inch by eight foot, copper-clad ground rod shall be provided for all light pole bases; the ground rod shall be properly terminated and accessible from the hand hole.
21. Article 422.16 (B) shall be amended to add the following:
- (5) All dishwashers and food waste disposals installed in residential occupancies shall be hard-wired and shall be equipped with a disconnect located within sight of the appliance.
- Exception: Appliances equipped with factory-installed power cords.
22. Article 700.12.12 IV shall be amended to add the following:

Emergency systems shall be properly identified.

23. Article 700.16 shall be amended to add the following:

Emergency lighting consisting of not less than two lamps shall be provided in all non-residential bathrooms, connected to the bathroom lighting circuit.

24. Article 760 shall be amended to add the following:

Accessible fire alarm cable, conduit, and junction boxes shall be the color red in their entirety.

- 26 Requirements for Electrical Contractors:

It shall be unlawful for any person to engage in the business of electrical contracting without being a licensed Electrical Contractor. If such person is licensed for the current year in another City or Village within the State of Illinois, in conformity with the State Statutes, such Electrical Contractor shall be required to show proof of such license. The term "Licensed Electrical Contractor" as used in Section shall be understood to mean any person installing or altering electric equipment for the utilization of electricity supplied for light, heat or power; not including radio apparatus or equipment for wireless reception of sounds and signals, conductors and other equipment installed under the jurisdiction of the Illinois Commerce Commission, for use in their operation as Public Utilities; but the term "Licensed Electrical Contractor" does not include employees of an electrical contractor who perform and supervise work. The Corporate Authorities, by virtue of the Illinois Compiled Statutes, requires candidates for electrical contracting to successfully complete a written examination administered by any Illinois Municipality that administers written examinations.

23.14 ILLINOIS STATE PLUMBING CODE/2014

The Illinois State Plumbing Code, 2014 edition, (State of Illinois Plumbing License Law, Plumbers Licensing Code and Plumbing Code) ("Plumbing Code") be and the same, is hereby adopted by reference and made part of this Section, subject to the modifications set forth herein and shall be applicable to the Village. No plumbing work, unless modified by this Chapter, shall be undertaken prior to the issuance of a permit by the Building Commissioner. The application for a permit shall be made on forms provided by the Building Commissioner and shall be accompanied by the prescribed permit fees as set forth in Appendix B.

23.15 INTERNATIONAL ENERGY CONSERVATION CODE/2018

The International Energy Conservation Code, 2018 edition, ("Energy Conservation Code") be and the same, is hereby adopted by reference and made part of this Section, subject to the modifications set forth herein, and shall be applicable to the Village.

23.16 MODIFICATIONS TO THE ENERGY CONSERVATION CODE

The Energy Conservation Code shall be amended as follows:

1. Section C101.1, insert Village of Algonquin
2. Section C109 shall be amended to add the following:

C 109.1 General. In order to hear and decide appeals of orders, decisions, or determinations made by the Code Official relative to the application and interpretation of this code, an appeal may be made to the Village Board.

3. Section C109.3 Qualifications, shall be deleted in its entirety

23.17 INTERNATIONAL EXISTING BUILDING CODE/2018

The International Existing Building Code, 2018 edition, (“Existing Building Code”) be and the same, is hereby adopted by reference and made part of the Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.18 MODIFICATIONS TO THE EXISTING BUILDING CODE

The Existing Building Code shall be amended as follows:

1. Section [A] 101.1, insert Village of Algonquin
2. Section [A] 101.2 shall be amended to read as follows:

[A]101.2 Scope. The provisions of the Existing Building Code shall apply to the repair, alteration, change of occupancy, addition, and relocation of existing, non-residential, and mixed-use occupancy buildings. New buildings or a building or portion of a building that has not been previously occupied or used for its intended purpose shall comply with the provisions of the Building Code for new construction. Repairs, alterations, change of occupancy, existing buildings to which additions are made, historic buildings, and relocated buildings complying with the provisions of the Building Code, Mechanical Code, Plumbing Code, Electrical Code, and Residential Code, as applicable, shall be considered in compliance with the provisions of the code.

3. Section [A] 105.2, Work exempt from permit, delete: 1, 3, 4, and 5.
4. Section [A] 112.1 shall be amended to read as follows:

[A] 112.1 General. In order to hear and decide appeals of orders, decisions, or determinations made by the Code Official relative to the application and interpretation of this code, an appeal may be made to the Village Board.

5. Section [A] 112.3, Qualifications, shall be deleted in its entirety.

23.19 INTERNATIONAL PROPERTY MAINTENANCE CODE/2018

The International Property Maintenance Code, 2018 edition, (“Property Maintenance Code”) be and the same, is hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.20 MODIFICATIONS TO THE PROPERTY MAINTENANCE CODE

The Property Maintenance Code shall be amended as follows:

1. Section [A] 101.1 insert Village of Algonquin.
2. Section [A] 111.1 shall be amended to read as follows:

[A] 111.1 Application for appeal. Any person directly affected by a decision of the Code Official or a notice of order issued under this code shall have the right to appeal to the Village Board, providing that a written application for an appeal is filed within 20 days after the day the decision, notice, or order was served. An application for appeal shall be based on a claim that the true intent of this code, or the rules legally adopted thereunder, have been incorrectly interpreted, the provisions of this code do not apply, or the requirements of this code are adequately satisfied by other means.
3. Section [A] 111.2 Membership of board, shall be deleted in its entirety.
4. Section [A] 111.3 Notice of meeting, shall be deleted in its entirety.
5. Section [A] 111.4 Open hearing, shall be deleted in its entirety.
6. Section [A] 111.5 Postponed hearing, shall be deleted in its entirety.
7. Section [A] 111.6 Board decision, shall be deleted in its entirety.
8. Section 302.2 shall be amended to add:

302.2.1 Sump pump and downspout discharge. The discharge from a sump pump and/or roof drainage downspout shall not discharge directly or indirectly on or over any public street, sidewalk, bike path, or right-of-way; and the outlet of sump pump discharge piping shall not be located within five feet of a property line, shall be orientated to discharge in the direction of the engineered drainage path, and shall not cause standing water on adjacent properties.
9. Section 302.4, 8 inches shall be inserted.
10. Section 302.8 shall be amended to read as follows:

302.8 Motor and recreational vehicles. All motor and recreational vehicles, including but not limited to cars, vans, trucks, construction/excavating/landscape equipment, motorized bikes/motorcycles, boats, watercraft, snowmobiles, campers, aircraft, all-terrain vehicles,

and trailers, shall be parked on an approved surface of four inches of concrete over a four-inch compacted gravel base or two inches of asphalt over a six-inch compacted base, or paving bricks designed for motor vehicle traffic, installed in accordance with manufacturer's installation instructions, or completely enclosed in a structure designed and approved for such purpose. Motor vehicles, recreational vehicles, and equipment parked on an approved surface shall be accessible without maneuvering over lawn, grass, curbs, or any unpaved surface. No more than two recreational vehicles shall be visible on a zoning lot. No part of any motor or recreational vehicle, when parked, shall encroach over a public sidewalk or bike path, and in no case shall equipment or a recreational vehicle be parked on public property. No vehicle shall, at any time, be in a state of major disrepair, disassembled, or in the process of being stripped or dismantled.

Exception: A vehicle of any type is permitted to undergo major repair provided that such work is performed inside an enclosed structure designed and approved for such purpose.

11. Section 304.14 shall be amended to insert April 15 to November 1.

12. Section 307.2 shall be amended to read as follows:

308.2 Disposal of rubbish. Every occupant of a structure shall dispose of all rubbish and recycling in a clean and sanitary manner pursuant to Chapter 13 of this Code and by placing such rubbish and items intended for recycling in approved containers and stored in a location with minimal exposure to the public view.

Exception: Rubbish and recycling may be placed on the right-of-way after 5:00 p.m. the day prior to the scheduled rubbish collection day, and all rubbish and recycling containers shall be removed from the right-of-way by 11:00 p.m. the day of rubbish collection.

13. Section 308.2 shall be amended add:

308.2.3 Special pick-up. Items requiring a special pick-up, such as refrigerators, water heaters, stoves, ovens, cook tops, furniture, carpeting, and construction material, shall not remain on the right-of-way for more than 48 hours.

14. Chapter 3 shall be amended to add a new section, which shall read as follows:

SECTION 310 YARDWASTE COMPOSTING.

310.1 Compost piles and bins. Compost piles and bins shall comply with the following requirements:

1. Compost piles and bins shall be located in side or rear yards.
2. Compost piles and bins shall not exceed four feet in height and in diameter.
3. Compost piles and bins shall not be placed or tended in such a way as to allow materials to be wind-blown.
4. Compost piles and bins shall not emit odorous matter in such quantities as to be

readily detectable at any point along any lot line, or to otherwise produce a public nuisance or hazard beyond any lot line.

5. Compost piles or bins shall be located not less than five feet from any lot line and out of any easement.

310.2 Composting material. Compost material shall be comprised of approximately an equal mixture of carbon-rich (brown) material and nitrogen-rich (green) material.

310.2.1 Carbon-rich material. The following examples are acceptable carbon-rich (brown) material:

1. Leaves
2. Pine needles
3. Small twigs and branches
4. Wood chips and shavings
5. Bark pieces
6. Straw

310.2.2 Nitrogen-rich material. The following examples are acceptable nitrogen-rich (green) material:

1. Grass clippings
2. Weeds
3. Spent flowers and plants
4. Vine and other soft prunings from the garden
5. House plant trimmings

310.2.3 Improper compost material. The following examples are improper composting materials and shall not be permitted:

1. Animal and dairy products
2. Meats
3. Fats, oils and grease
4. Animal feces

310.3 Compost maintenance. Compost piles shall be maintained neatly and not allowed to sprawl. Piles of grass clippings and/or large branches are not considered composting and shall not be permitted.

15. Section 602.3, insert September 15 to May 15.
16. Section 602.4, insert September 15 to May 15.
17. The following section shall be added:

SECTION 801 DRIVEWAYS

801.1 Driveways. All driveways and off-street parking areas shall be paved with a surface

of not less than four inches of concrete over a four-inch compacted base course or not less than two inches of asphalt over a six-inch compacted base course or paving bricks designed for motor vehicle traffic, installed in accordance with manufacturer's installation instructions. Gravel driveways and off-street parking areas are not permitted. Any nonconforming gravel driveway or off-street parking area shall be paved in accordance with this code no later than December 1, 2009.

18. The following sections shall be added:

SECTION 706 SALT STORAGE

706.1 Salt Storage. In the interest of limiting pollution to our environment and waterways and ultimately preventing contamination of our groundwater resources, all properties which store bulk rock salt for winter snow or ice removal operations shall comply with these regulations. Prior to the installation of any salt storage, a permit, which is valid November through April, shall be obtained from the Community Development Department. The permit fee is found in Appendix B of this Code. The permit application shall include the amount of salt to be stored, a site plan that includes the location and dimensions of the storage site, as well as any storm sewer drains within 125 feet of the storage site, the amount of salt to be stored, the method by which the salt will be covered and additional measures that will be undertaken to minimize visual impact to public ways and/or adjacent residential uses.

Properties not in compliance with the salt storage requirements shall be fined pursuant to Appendix B of this Code until the storage is brought into compliance. Those properties containing a salt pile without a valid permit shall be fined pursuant to Appendix B of this Code and required to obtain a permit or remove the salt pile.

Salt storage shall comply with the following requirements:

1. The maximum amount of storage allowed shall not exceed four storm events.
2. The salt within the salt storage location shall be covered with a water-resistant tarp or similar protective cover, which shall be adequately secured to prevent damage from wind and/or water at all times.
3. The location shall be not less than 100 feet from any storm sewer drain.
4. The location shall be uphill and away from snow piles.
5. The location shall be in an area that minimizes visual impact to public ways and/or adjacent residential uses.
6. The salt pile and area used for truck loading and unloading shall be diligently swept and maintained free of loose salt and debris at all times. The area shall be kept in a clean, workmanlike manner at all times.

7. All unused salt and the site shall be cleaned up no later than April 15th.

23.21 ILLINOIS ACCESSIBILITY CODE/2018

The Illinois Accessibility Code, effective date October 23, 2018, (71 Illinois Administrative Code 400) (“Accessibility Code”) be and the same, is hereby adopted by reference and made part of this Section and shall be applicable to the Village. In the event of a conflict between the provisions of the Illinois Accessibility Code and the International Building Code, the most restrictive provisions shall apply.

23.22 INTERNATIONAL SWIMMING POOL AND SPA CODE/2018

The International Swimming Pool and Spa Code, 2018 edition, (“Swimming Pool and Spa Code”) be and the same, is hereby adopted by reference and made part of this Section, subject to modifications set forth herein, and shall be applicable to the Village.

23.23 MODIFICATIONS TO THE SWIMMING POOL AND SPA CODE

The Swimming Pool and Spa Code shall be amended as follows:

1. Section [A] 101.1 insert Village of Algonquin.
2. Section [A] 108.1 shall be amended to read as follows:

[A] 108.1 Application for appeal. Any person directly affected by a decision of the Code Official or a notice of order issued under this code shall have the right to appeal to the Village Board, providing that a written application for an appeal is filed within 20 days after the day the decision, notice, or order was served. An application for appeal shall be based on a claim that the true intent of this code, or the rules legally adopted thereunder, have been incorrectly interpreted, the provisions of this code do not apply, or the requirements of this code are adequately satisfied by other means.

3. The following sections shall be deleted in their entirety

Section [A] 108.2 Membership of board
Section [A] 108.2.1 Qualifications
Section [A] 108.2.2 Alternate members
Section [A] 108.2.3 Chairman
Section [A] 108.2.4 Disqualification of member
Section [A] 108.2.5 Secretary
Section [A] 108.2.6 Compensation of members
Section [A] 108.3 Notice of meeting
Section [A] 108.4 Open hearing
Section [A] 108.5 Postponed hearing
Section [A] 108.6 Board decision
Section [A] 108.6.1 Resolution
Section [A] 108.6.2 Administration

4. Section 305.5 Onground residential pool structure as a barrier, shall be amended to read as follows:

Onground residential pool structure as a barrier. Where an onground pool structure is used as a barrier, an additional barrier shall be mounted on top of the pool structure. The maximum vertical clearance between the top of the pool and the bottom of the barrier shall be four inches. The minimum vertical height of the barrier above the top of the pool shall be 18 inches and in no case shall the top of barrier be less than 48 inches above grade for the entire perimeter of the pool and comply with the requirements of Section 305.2. Where the barrier is mounted on top of the pool structure and means of access is a ladder or steps:

1. The ladder or steps shall be designed and manufactured to meet the barrier requirements of Section 305.2; or
2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section 305.2.

23.24 PERMIT FEE SCHEDULE

Permit fees are found in Appendix B of this Code.

23.25 KANE COUNTY ROAD IMPROVEMENT IMPACT FEE

All developers of new development in Kane County, as defined in Kane County Ordinance No. 04-22, Kane County Road Improvement Impact Fee Ordinance, are required to submit, with their building permit application, a copy of their receipt of payment reflecting payment of the Kane County Road Improvement Impact Fee.

23.26 IDENTIFICATION OF LOCAL BUILDING CODE NOT ADOPTED

Notwithstanding the provisions of 20 ILCS 3918/55, the Village shall not provide the identification of a new building code or amendment thereto, its title and edition, to the State of Illinois Capital Development Board, or its successor, for placement on the Internet through the State of Illinois worldwide website.

Section 23.23 Permit Fee Schedule

A. The building permit fee for the construction of new buildings, additions and interior build-outs, not including electrical, plumbing, mechanical or other fees required by this Section shall be calculated as follows:

1. Residential, one-family detached & attached

a. With basement or crawlspace:	\$0.84 per square foot of living area; plus \$0.30 per square feet of garage area
b. Without basement or crawlspace:	\$0.72 per square foot of living area; plus \$0.30 per square feet of garage area

2. Non-residential

a. New building:	\$0.99 per square foot
b. Interior build-out in existing building:	\$0.75 per square foot

3. Residential detached garage:

	\$0.30 per square foot of area \$50.00 minimum
--	--

4. The greater of 23.23.A.1, 23.23.A.2, 23.23.A.3 or .75% of the construction cost indicated on the Building Permit Application.

B. Alterations, remodeling or repairs not associated with the construction of new buildings, additions, or interior buildouts, not including electrical, plumbing, mechanical and other fees required by this section shall be calculated as follows:

Residential, one-family detached & attached:	.75% of construction cost \$45.00 minimum.
Non-residential:	.75% of construction cost \$85.00 minimum

C. Permit fee amounts shall be rounded up to the next greater dollar.

Plumbing:

Installation of new plumbing fixture	\$25.00 per fixture; \$45.00 minimum
Replacement of water heater	\$10.00 per unit
Water or sewer connection (new, replacement, repair)	\$75.00
Landscape irrigation	\$0.80 per head; \$90.00 minimum

HVAC:

Installation of new heating equipment	\$100.00 for the first 100,000 BTUs Plus \$25.00 per each additional 100,000 BTUs or fraction thereof
Installation of new cooling equipment	\$100.00 for the first three tons Plus \$25.00 per each additional three tons or fraction thereof.
Installation of new natural gas piping	\$25.00 per gas fired appliance; \$45.00 minimum
Replacement of heating or cooling equipment	\$45.00 per residential appliance; \$95.00 per non-residential appliance.

Installation of new exhaust equipment	\$50.00 for the first 500 CFM Plus \$25.00 each additional 500 CFM or fraction thereof
Commercial kitchen hood & duct	\$200.00 per hood

Electrical

Electric Service (new, replacement, temporary):

0-100 amperes	\$100.00
101-200 amperes	\$175.00
201-400 amperes	\$225.00
401-1,000 amperes	\$275.00
1,001-4,000 amperes	\$400.00
4,001-10,000 amperes	\$550.00
Over 10,000 amperes	\$550.00 plus \$125.00 per each additional 1,000 amperes or fraction thereof.

Electrical installation for new residential detached & attached

0-1,400 square feet of living area	\$225.00 plus electric service
1,402-4,000 square feet of living area	\$450.00 plus electric service
Over 4,000 square feet of living area	\$575.00 plus electric service

Electric installations for new non-residential Buildings, additions, alterations and interior build-outs

	20% of the permit fee as calculated in Section 23.23.A plus electric service. Minimum \$85.00
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Electric installations for residential one-family detached and attached additions and alterations.

	\$0.30 per square feet of area; Minimum \$45.00
--	---

Emergency whole house generator

	\$100.00
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Temporary generator; over 10,000 watts (10kw)

	\$100.00 for each seven days of operation or fraction thereof
--	---

Rooftop Photovoltaic residential one-family installation

	\$100.00
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Rooftop Photovoltaic Non-residential Installation

	Convert total electric generated into amperes; calculate fee in accordance with new Electric Service Section of this Chapter. Minimum \$100.00
--	--

Wind turbine generator, one-family installation

	\$100.00
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Wind turbine generator, non-residential installation

	Convert total electric generated into amperes; calculate fee in accordance with new Electric Service Section of this Chapter. Minimum \$100.00
--	--

Fire Protection Systems:

Sprinkler system, new installation

1-20 heads	\$210.00
21-100 heads	\$435.00
101-200 heads	\$580.00
201-300 heads	\$665.00
305-500 heads	\$980.00
Over 500 heads	\$980 plus \$1.10 per each additional head

Additions and alterations to existing sprinkler system

	50% of new installation; \$85.00 minimum
--	--

Residential one-family detached & attached sprinkler system

	\$190.00
--	----------

Complete fire alarm system, new installation

	\$0.215 per square foot of building area; \$200 minimum
--	---

Partial fire alarm system or alteration of existing alarm system

	\$0.011 per square foot of building area; \$200 minimum
--	---

Commercial hood & duct suppression

	\$200.00 per hood
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Fee for fire protection system reviewed by consultant

	Equal to 10% of the invoiced review fee; \$85.00 minimum
--	--

Plan Examination:

New one-family detached & attached	\$95.00 dwelling unit
Residential one-family addition, alteration, remodeling	10% of the permit fee, calculated per Section 23.23.A.1; \$45.00
Non-residential additions, alterations, remodeling	10% of permit fee, calculated per Section 23.23.A.2; \$85.00 minimum
<i>New buildings:</i>	
1-60,000 cubic feet	\$375
60,001-80,000 cubic feet	\$450
80,001-100,000 cubic feet	\$500
100,001-150,000 cubic feet	\$575
Over 150,000 cubic feet	\$750 + \$7.50 per each additional 10,000 cubic feet or fraction thereof
Mechanical Code review	25% of Building Code review fee; \$95 minimum
Plumbing Code review	25% of Building Code review fee; \$95 minimum

Electrical Code review	50% of Building Code review fee; \$95 minimum
Accessibility Code review	25% of Building Code review fee; \$95 minimum
Building plans reviewed by consultant	Equal to the invoiced review fee plus \$50.00

Miscellaneous:

Certificate of Occupancy, one-family detached & attached	\$75.00 dwelling unit
Certificate of Occupancy, non-residential	\$20.00 per 1,000 square feet of area or fraction thereof; minimum \$100.00
Temporary Certificate of Occupancy, residential one-family	\$100.00 per dwelling unit
Temporary Certificate of Occupancy, non-residential	\$200.00
Christmas Tree sales lot	\$175.00 per season
Deck, gazebo, dock/pier	\$85.00 for the first 150 square feet of area plus \$20 for each additional 150 square feet of area or fraction thereof.
Demolish or relocate entire residential one-family detached structure	\$300.00
Demolish or relocate entire non-residential structure	\$500.00
Limited demolition, residential one-family detached & attached	\$40.00
Limited demolition, non-residential	\$85.00
Elevator, escalator, dumbwaiter	\$300.00 per car or escalator
Biannual elevator inspection	\$75.00
Fence, dog run	\$45.00
Fireplace	\$45.00
Patio (concrete or pavers)	\$45.00
Public walk, private walk, approach, driveway	\$45.00
Roofing, new & re-roof, residential one-family	\$45.00 per dwelling
Roofing, new & re-roof, non-residential	\$1.50 per 100 square feet of roof area or fraction thereof; \$85.00 minimum
Window, door replacement	\$10.00 per window; minimum \$45.00
Storage shed	\$45.00
Shipping container for temporary storage	On site over 14 consecutive days and no more than 90 consecutive days, \$150.00
Hot tub, spa	\$45.00
Storable, temporary swimming pool	\$45.00 per season
On-ground swimming pool	\$150.00
In-ground swimming pool	\$300.00
Telecommunication/data transmission freestanding tower	\$750.00
Telecommunication/data transmission antenna	\$150.00 per antenna
Fuel dispensing tank installation	\$0.11 per gallon capacity of tank; \$150. Minimum
Underground storage tank removal	\$95.00 per tank
Temporary structure	\$150.00 for the first 90 days plus \$50.00 for each additional 30 days or fraction thereof

Special event (fair, carnival, sidewalk/outdoor sales)	\$95.00 per day
Reinspection	\$45.00 per inspection

Permits, miscellaneous	
<i>Permit extension (Note: All requests for a permit extension shall be made in writing.)</i>	
First 6-month extension	25% of permit fee; \$45 minimum
Second 6-month extension	50% of permit fee; \$45 minimum
Third 6-month extension	100% of permit fee; \$45 minimum
Withdrawn permit	In the event a permit application is reviewed, approved and issued, and the work for which the permit was issued has not been started within six months of issuance, the permit shall be voided. If a permit is withdrawn by the applicant or is revoked or voided by the Village, a portion of the permit fee may be refunded pursuant to a written request from the applicant, the plan review portion of the permit shall be retained by the Village and not refunded, and in no case shall the amount retained be less than \$45.
Work performed without a permit	Penalty of 100% of the permit shall be added to the cost of a permit if construction is started without first obtaining an approved permit.

Chapter 29, Sign Code:

	Fee
Section 29.16-B, Permit Fees	
Ground and Freestanding Signs	\$75 base permit fee plus \$2 per square foot of sign face
Wall and Projecting Signs	\$75 per sign
Illuminated Signs	Additional \$60 electrical permit fee per sign
Temporary Signs and Flag Poles	\$40
Section 29.17-E, Confiscated Signs	
Storage	\$25 per sign
Section 29.17-G, Penalties for Erecting Off-Site Subdivision Identification Sign	
Penalty	\$500
Section 29.18, Variations	
Review fee	\$100



VILLAGE OF ALGONQUIN
GENERAL SERVICES ADMINISTRATION

- M E M O R A N D U M -

DATE: October 26, 2020

TO: Tim Schloneger, Village Manager

FROM: Michael Kumbera, Assistant Village Manager
Susan Skillman, Comptroller

SUBJECT: *Audit Services 2021 - 2025 Proposal*

Attached is a proposal from Sikich, LLP to perform audit services for the Village for the next five (5) fiscal years. Sikich has been our Village auditor for the past five (5) years and has performed very well in that capacity.

Sikich's proposal for the preparation of the Comprehensive Annual Financial Report (CAFR/Audit), Tax Increment Financing (TIF) Report, and the Illinois Comptroller's Report is detailed below and represents an approximate 2 percent average increase per year over the contract. Additional expenses for the "Yellow Book" audit and Single audit will be incurred if the Village's proportion of State and Federal funds exceeds certain thresholds. The proposed rates do include the implementation costs of new Governmental Accounting Standards Board (GASB) pronouncements that are issued.

FY	Audit	TIF Report	IL Comptroller Report	TOTAL	% Change
2021	\$ 35,160.00	\$ 2,160.00	\$ 540.00	\$ 37,860.00	0.0%
2022	\$ 35,860.00	\$ 2,200.00	\$ 550.00	\$ 38,610.00	1.9%
2023	\$ 36,580.00	\$ 2,240.00	\$ 560.00	\$ 39,380.00	2.0%
2024	\$ 37,680.00	\$ 2,310.00	\$ 580.00	\$ 40,570.00	2.9%
2025	\$ 38,810.00	\$ 2,380.00	\$ 600.00	\$ 41,790.00	2.9%

Recommendation: Staff recommends the Committee of the Whole forward this municipal audit services agreement with Sikich to the Village Board for approval by resolution at their meeting on November 17.



1415 West Diehl Road, Suite 400
Naperville, IL 60563
630.566.8400

SIKICH.COM

October 20, 2020

The Honorable President
Members of the Board of Trustees
Village of Algonquin
2200 Harnish Drive
Algonquin, Illinois 60102

Ladies and Gentlemen:

Sikich LLP appreciates being considered for reappointment as independent auditors for the Village of Algonquin. We believe that we have provided a high level of service for the Village during our term as auditors and we will continue to make every effort to maintain the level of audit services that the Village is entitled to and expects.

Our proposed fees for conducting the audit of the Village's financial statements for the fiscal years ended April 30, 2021 – 2025 are listed on the following page.

We appreciate the opportunity to submit this proposal and look forward to continuing to serve the Village.

Sincerely,

A handwritten signature in black ink that reads 'James R. Savio'.

James R. Savio, CPA, MAS
Partner

FEE PROPOSAL

VILLAGE OF ALGONQUIN
 AUDITING SERVICES
 TOTAL COST SUMMARY

	Audit*	TIF Compliance Report	Annual Report for the State of Illinois Comptroller	Report issued in Accordance with <i>Government Auditing Standards – “Yellow Book”</i> (if required)	Single Audit (if required)
2021	\$ 35,160	\$ 2,160	\$ 540	\$ 1,620	\$ 3,240
2022	35,860	2,200	550	1,650	3,300
2023	36,580	2,240	560	1,680	3,370
2024	37,680	2,310	580	1,730	3,470
2025	38,810	2,380	600	1,780	3,570

*CAFR, Management Letter, and Board Communication Report

APPENDIX TO SCHEDULE OF AUDIT AND PROFESSIONAL FEES

These fees also include the cost to implement any new GASB pronouncements during the duration of the proposal, except for GASB Statement No. 87, *Leases*. We expect this fee to be approximately \$2,000.

These fees assume that the Village of Algonquin will provide the auditors with electronic copies of adjusted trial balances by individual funds, a year-to-date general ledger with details of postings to all accounts, subsidiary ledgers that agree or are reconciled to the general ledger, and will prepare certain schedules of account analysis and confirmations of account balances.

We invoice our clients on a monthly basis as services are provided. Payments for all services are due within 60 days of receipt of an invoice. Invoices not paid within 60 days are assessed a finance charge of 1 percent per month (12 percent annually).



VILLAGE OF ALGONQUIN
GENERAL SERVICES ADMINISTRATION

- M E M O R A N D U M -

DATE: October 28, 2020

TO: Tim Schloneger, Village Manager

FROM: Michael Kumbera, Assistant Village Manager

SUBJECT: Municipal Compliance Report

Pursuant to House Bill 5088, attached please find the Municipal Compliance Report for the Algonquin Police Pension Fund. The Police Pension Board is required to report annually to the Board of Trustees on the condition of the pension fund at the end of each fiscal year for tax levy purposes.

Recommendation:

Staff recommends the Committee of the Whole forward this item to the Village Board for acceptance by resolution at their meeting on November 17.

C: Susan Skillman, Comptroller

THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND

PUBLIC ACT 95-0950
MUNICIPAL COMPLIANCE REPORT

FOR THE FISCAL YEAR ENDED
APRIL 30, 2020



October 9, 2020

Members of the Pension Board of Trustees
Algonquin Police Pension Fund
Algonquin, Illinois

Enclosed please find a copy of your Municipal Compliance Report for the Algonquin Police Pension Fund for the fiscal year ended April 30, 2020. We have prepared the report with the most recent information available at our office. Should you have more current information, or notice any inaccuracies, we are prepared to make any necessary revisions and return them to you.

The President and Secretary of the Pension Fund are required to sign the report on page 3. If not already included with the enclosed report, please also include a copy of the Pension Fund's most recent investment policy.

The signed Public Act 95-0950 - Municipal Compliance Report must be provided to the Municipality before the tax levy is filed on the last Tuesday in December. We are sending the report via email to promote an environmentally-friendly work atmosphere.

If you have any questions regarding this report, please contact your Client Manager or PSA.

Respectfully submitted,

Lauterbach & Amen, LLP

LAUTERBACH & AMEN, LLP

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2020**

The Pension Board certifies to the Board of Trustees of the Village of Algonquin, Illinois on the condition of the Pension Fund at the end of its most recently completed fiscal year the following information:

- 1) The total cash and investments, including accrued interest, of the fund at market value and the total net position of the Pension Fund:

	<u>Current Fiscal Year</u>	<u>Preceding Fiscal Year</u>
Total Cash and Investments (including accrued interest)	<u>\$33,385,068</u>	<u>\$31,773,197</u>
Total Net Position	<u>\$33,382,101</u>	<u>\$31,767,438</u>

- 2) The estimated receipts during the next succeeding fiscal year from deductions from the salaries of police officers and from other sources:

Estimated Receipts - Employee Contributions	<u>\$479,200</u>
Estimated Receipts - All Other Sources	
Investment Earnings	<u>\$2,253,500</u>
Municipal Contributions	<u>\$2,279,056</u>

- 3) The estimated amount required during the next succeeding fiscal year to (a) pay all pensions and other obligations provided in Article 3 of the Illinois Pension Code, and (b) to meet the annual requirements of the fund as provided in Sections 3-125 and 3-127:

(a) Pay all Pensions and Other Obligations	<u>\$1,764,200</u>
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- (b) Annual Requirement of the Fund as Determined by:

Illinois Department of Insurance	<u>N/A</u>
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Private Actuary - Lauterbach & Amen, LLP

Recommended Municipal Contribution	<u>\$2,279,056</u>
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Statutory Municipal Contribution	<u>\$1,420,354</u>
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**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2020**

- 4) The total net income received from investment of assets along with the assumed investment return and actual investment return received by the fund during its most recently completed fiscal year compared to the total net income, assumed investment return, and actual investment return received during the preceding fiscal year:

	Current Fiscal Year	Preceding Fiscal Year
Net Income Received from Investment of Assets	\$572,165	\$2,117,431
Assumed Investment Return		
Illinois Department of Insurance	N/A	6.50%
Private Actuary - Lauterbach & Amen, LLP	6.75%	6.75%
Actual Investment Return	1.76%	7.03%

- 5) The total number of active employees who are financially contributing to the fund:

Number of Active Members	47
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- 6) The total amount that was disbursed in benefits during the fiscal year, including the number of and total amount disbursed to (i) annuitants in receipt of a regular retirement pension, (ii) recipients being paid a disability pension, and (iii) survivors and children in receipt of benefits:

	Number of	Total Amount Disbursed
(i) Regular Retirement Pension	16	\$1,208,059
(ii) Disability Pension	4	\$161,383
(iii) Survivors and Child Benefits	0	\$0
Totals	20	\$1,369,442

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2020**

7) The funded ratio of the fund:

	<u>Current Fiscal Year</u>	<u>Preceding Fiscal Year</u>
Illinois Department of Insurance	<u>N/A</u>	<u>68.89%</u>
Private Actuary - Lauterbach & Amen, LLP	<u>68.94%</u>	<u>67.80%</u>

8) The unfunded liability carried by the fund, along with an actuarial explanation of the unfunded liability:

Unfunded Liability:

Illinois Department of Insurance	<u>N/A</u>
Private Actuary - Lauterbach & Amen, LLP	<u>\$15,572,782</u>

The accrued liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and the actuarial assumptions employed in the valuation. The unfunded accrued liability is the excess of the accrued liability over the actuarial value of assets.

9) The investment policy of the Pension Board under the statutory investment restrictions imposed on the fund.

Investment Policy - See Attached.

Please see Notes Page attached.

CERTIFICATION OF MUNICIPAL POLICE
PENSION FUND COMPLIANCE REPORT

The Board of Trustees of the Pension Fund, based upon information and belief, and to the best of our knowledge, hereby certify pursuant to §3-143 of the Illinois Pension Code 40 ILCS 5/3-143, that the preceding report is true and accurate.

Adopted this _____ day of _____, 2020

President _____ Date _____

Secretary _____ Date _____

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2020**

INDEX OF ASSUMPTIONS

- 1) Total Cash and Investments - as Reported at Market Value in the Audited Financial Statements for the Years Ended April 30, 2020 and 2019.

Total Net Position - as Reported in the Audited Financial Statements for the Years Ended April 30, 2020 and 2019.

- 2) Estimated Receipts - Employee Contributions as Reported in the Audited Financial Statements for the Year Ended April 30, 2020 plus 4.76% Increase (Actuarial Salary Increase Assumption) Rounded to the Nearest \$100.

Estimated Receipts - All Other Sources:

Investment Earnings - Cash and Investments as Reported in the Audited Financial Statements for the Year Ended April 30, 2020, times 6.75% (Actuarial Investment Return Assumption) Rounded to the Nearest \$100.

- 3) (a) Pay all Pensions and Other Obligations - Total Non-Investment Deductions as Reported in the Audited Financial Statements for the Year Ended April 30, 2020, plus a 25% Increase, Rounded to the Nearest \$100.

(b) Annual Requirement of the Fund as Determined by:

Illinois Department of Insurance - No April 30, 2020 Actuarial Valuation available at the time of this report.

Private Actuary - Lauterbach & Amen, LLP:

Recommended Amount of Tax Levy as Reported by Lauterbach & Amen, LLP in the April 30, 2020 Actuarial Valuation.

Statutorily Required Amount of Tax Levy as Reported by Lauterbach & Amen, LLP in the April 30, 2020 Actuarial Valuation.

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2020**

INDEX OF ASSUMPTIONS - Continued

- 4) Net Income Received from Investment of Assets - Investment Income (Loss) net of Investment Expense, as Reported in the Audited Financial Statements for the Years Ended April 30, 2020 and 2019.

Assumed Investment Return:

Illinois Department of Insurance - Preceding Fiscal Year Interest Rate Assumption as Reported in the April 30, 2019 Actuarial Valuation. No April 30, 2020 Actuarial Valuation available at the time of this report.

Private Actuary - Current and Preceding Fiscal Year Interest Rate Assumption as Reported in the Lauterbach & Amen, LLP, April 30, 2020 and 2019 Actuarial Valuations.

Actual Investment Return -Net Income Received from Investments as Reported Above as a Percentage of the Average of the Beginning and Ending Balances of the Fiscal Year Cash Investments, Excluding Net Investment Income, Gains, and Losses for the Fiscal Year Return Being calculated, as Reported in the Audited Financial Statements for the Fiscal Years Ended April 30, 2020 and 2019.

- 5) Number of Active Members - Illinois Department of Insurance Annual Statement for April 30, 2020 - Schedule P.
- 6) (i) Regular Retirement Pension - Illinois Department of Insurance Annual Statement for April 30, 2020 - Schedule P for Number of Participants and Expense page 1 for Total Amount Disbursed.
- (ii) Disability Pension - Same as above.
- (iii) Survivors and Child Benefits - Same as above.

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2020**

INDEX OF ASSUMPTIONS - Continued

7) The funded ratio of the fund:

Illinois Department of Insurance - Preceding Fiscal Year Net Present Assets as a percentage of Total Assets as Reported in the April 30, 2019 Actuarial Valuation. No April 30, 2020 Actuarial Valuation available at the time of this report.

Private Actuary - Current and Preceding Fiscal Year Net Present Assets as a percentage of Total Assets as Reported in the Lauterbach & Amen, LLP, April 30, 2020 and April 30, 2019 Actuarial Valuations.

8) Unfunded Liability:

Illinois Department of Insurance - Deferred Asset (Unfunded Accrued Liability) - No April 30, 2020 Actuarial Valuation available at the time of this report.

Private Actuary - Deferred Asset (Unfunded Accrued Liability) as Reported by Lauterbach & Amen, LLP in the April 30, 2020 Actuarial Valuation.

VILLAGE OF ALGONQUIN

POLICE PENSION FUND INVESTMENT POLICY

1.0 **Policy:**

It is the policy of the Algonquin Police Pension Fund to invest pension funds in a manner which will preserve the actuarial soundness of the plan, while meeting the cash flow demands of the fund and conforming to all state statutes governing the investment of police pension funds.

2.0 **Scope:**

This investment policy applies to the assets of the Police Pension Fund of the Village of Algonquin.

3.0 **Prudence:**

Investments shall be made with care, skill, prudence and diligence that a prudent person acting in like capacity and familiar with such matters would use in the conduct of an enterprise of like character with like aims. (Prudent Expert Rule)

Investment officers acting in accordance with written procedures and the investment policy and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are reported in a timely fashion and appropriate action is taken to control adverse developments.

4.0 **Investment Principles:**

- A. Investments shall be made solely in the interest of the beneficiaries of the Fund.
- B. Assets shall be invested in proportion to the present value of the Fund's liabilities.
- C. Investments shall be diversified to minimize the risk of large losses, unless under the circumstances it is clearly prudent to not do so.
- D. The Fund may employ one or more investment managers of varying styles and philosophies to attain the Fund's objectives.
- E. Cash is to be employed productively at all times, by investment in short term cash equivalents to provide safety, liquidity and return.

5.0 **Investment Objectives:**

In order to meet its needs, the investment strategy of the Fund is to emphasize total return; that is, the aggregated return from capital appreciation and dividend and interest income.

The Fund seeks long term growth of principal while avoiding excessive market risk. Short term volatility will be tolerated in as much as it is consistent with the volatility of a comparable market index.

6.0 **Asset Allocation:**

The following policy shall govern the overall equity/fixed commitment of the Fund:

Acceptable Ranges of Equity Commitment

Minimum	Target	Maximum
<u>45%</u>	<u>65%</u>	<u>65%</u>

Acceptable Ranges of Corporate Bonds within the Fixed Income Portfolio

Minimum	Target	Maximum
<u>0%</u>	<u>None</u>	<u>50%</u>

The balance to be in Fixed Income and cash equivalents. Guidelines describing permissible types of equities and fixed income investments are provided in Sections 10, 11 and 14 to follow.

6.1 **Specific Investment Goals:**

Over a 5-year investment horizon, it is the goal for the Plan to meet or exceed the return of a blend of benchmark indices that reflect the asset allocation of the Pension Fund Portfolio.

The above goals are the objectives of the aggregate Fund, and are not meant to be imposed on each investment account. The goal of each investment and or manager over the investment horizon, shall be to: Meet or exceed the market index or blended market index selected and agreed upon by the Trustees that most closely corresponds to the style of management.

6.2 **Portfolio Rebalancing:**

The portfolio will be reviewed quarterly and rebalanced at least annually using the market value of the portfolio.

7.0 **Delegation of Authority:**

Authority to manage the Village of Algonquin Police Pension Fund's investment program is derived from the following:

The establishment of investment policies is the responsibility of the Police Pension Board shall establish written procedures for the operation of the investment program consistent with this investment policy. Procedures should include references to: safekeeping, delivery vs. payment, investment accounting, wire transfer agreements and collateral/depository agreements. Such procedures shall include explicit delegation of authority to persons responsible for investment transactions. No person may engage in an investment transaction except as provided under the terms of this policy and the procedures established by the Board. The Board shall be responsible for all transactions undertaken and shall establish a system of controls to regulate the activities of subordinate officials. The Board may from time to time amend the written procedures in a manner not inconsistent with this policy or with state statutes.

8.0 **Ethics and Conflicts of Interest:**

Officers and employees involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions. Employees and investment officials shall disclose any material interests in financial institutions with which they conduct business. They shall further disclose any personal financial/investment positions that could be related to the performance of the investment portfolio. Officers shall refrain from undertaking personal investment transaction with the same individual with whom business is conducted on behalf of their entity.

9.0 **Authorized Financial Dealers and Institutions:**

The Village Treasurer will maintain a list of financial institutions authorized to provide investment services. In addition, a list will also be maintained of approved security broker/dealers selected by credit worthiness. All authorized firms must be “primary” dealers or regional dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule). No public deposit shall be made except on a qualified public depository as established by state statutes.

Unless transacted by the Investment Manager, all financial institutions and broker/dealers who desire to become qualified bidders for investment transactions must supply the Treasurer with the following:

- audited financial statements
- proof of Financial Industry Regulatory Agency (FINRA) certification
- proof of state registration
- completed broker/dealer questionnaire
- certification of having read the Village’s investment policy
- depository contracts

An annual review of the financial condition and registration of qualified bidders will be conducted by the Treasurer.

A current audited financial statement is required to be on file for each financial institution and broker/dealer in which the village invests.

10.0 **Investment Guidelines:**

Investments of the Fund shall be made with a firm authorized to provide investment services (Section 9).

No more than 20% of the portfolio shall be invested in any issuer to the exclusion of U.S. Treasury Securities.

10.1 **Liquidity:**

The investment portfolio shall remain sufficiently liquid to meet all cash flow requirements that may be reasonably anticipated.

11.0 Authorized and Suitable Investments:

The Fund may invest in any type of security allowed for in Illinois Compiled Statutes (40 ILCS 5/1-113.1-1-113.4a) regarding the investment of pension funds. Approved investments include:

- A. Interest bearing direct obligations of the United States of America.
- B. Interest bearing obligations to the extent that they are fully guaranteed or insured as to payment of principal and interest by the United States of America.
- C. Interest bearing bonds, notes, debentures, or other similar obligations of agencies of the United States of America. For the purposes of this Section, “agencies of the United States of America” includes:
 - (i) The Federal National Mortgage Association
 - (ii) Federal land banks, federal intermediate credit banks, federal farm credit banks, and any other entity authorized to issue direct debt obligations of the United States of America under the Farm Credit Acts of 1971 or amendments to that Act
 - (iii) Federal home loan banks and the Federal Home Loan Mortgage Corporation; and
 - (iv) Any agency created by Act of Congress that is authorized to issue direct debt obligations of the United States of America.
- D. Interest bearing savings accounts or certificates of deposit, issued by federally chartered banks or savings and loan associations, to the extent that the deposits are insured by agencies or instrumentalities of the federal government.
- E. Interest bearing savings accounts or certificates of deposit, issued by State of Illinois chartered banks or savings and loan associations, to the extent that the deposits are insured by agencies or instrumentalities of the federal government.
- F. Investments in credit unions, to the extent that the investments are insured by agencies or instrumentalities of the federal government.
- G. Pooled interest bearing accounts managed by the Illinois Public Treasurer’s Investment Pool (Illinois Funds) in accordance with the Deposit of State Moneys Act and interest bearing funds or pooled accounts of the Illinois Metropolitan Investment Funds, or funds managed, operated, and administered by banks, subsidiaries of banks, or subsidiaries of bank holding companies in accordance with the laws of the State of Illinois.
- H. Interest bearing bonds or tax anticipation warrants of any county, township, or municipal corporation of the State of Illinois.
- I. Direct obligations of the State of Israel, subject to the conditions and limitations of item (5.1) of Section 1-113.
- J. Money market mutual funds managed by investment companies that are registered under the federal Investment Company Act of 1940 and the Illinois Securities Law of 1953 and are diversified, open-ended management investment companies; provided that the portfolio of the money market mutual fund is limited to the following:
 - (i) Bonds, notes certificates of indebtedness, treasury bills, or other securities that are guaranteed by the full faith and credit of the United States of America as to principal and interest.
 - (ii) Bonds, notes debentures, or other similar obligations of the United States of America or its agencies.
 - (iii) Short term obligations of corporations organized in the United States with assets exceeding \$400,000,000, provided that (A) the obligations mature no later than 180 days from the date of purchase, (B) at the time of purchase, the obligations are rated by at least 2 standard national rating services at one of their 3 highest classifications, and (C) the

obligations held by the mutual fund do not exceed 10% of the corporation's outstanding obligations.

- K. General accounts of life insurance companies authorized to transact business in Illinois.
- L. Any combination of the following, not to exceed 50% as of July 1, 2011 and 55% as of July 1, 2012, of the pension fund's net assets:
 - (i) Separate accounts that are managed by life insurance companies authorized to transact business in Illinois and are comprised of diversified portfolios consisting of common or preferred stocks, bonds, or money market instruments.
 - (ii) Separate accounts that are managed by insurance companies authorized to transact business in Illinois, and are comprised of real estate or loans upon real estate secured by first or second mortgages.
 - (iii) Mutual Funds that meet the following requirements: (a) the mutual fund is managed by an investment company and registered under the Federal Investment Company Act of 1940 and registered under the Illinois Securities Law of 1953; (b) the mutual fund has been in operation for at least 5 years; (c) the mutual fund has total net assets of \$250 million or more, and; (d) the mutual fund is comprised of diversified portfolio of common or preferred stocks, bonds, or money market instruments.
 - (iv) Through an appointed investment advisor, as defined under Sections 1- 101.4 and 1- 113.5, may, through that investment adviser, invest an additional portion of its assets in common and preferred stocks and mutual funds. The stocks must meet all of the following requirements: (a) the common stocks must be listed on a national securities exchange or board of trade (as defined in the Federal Securities Exchange Act of 1934 and set forth in paragraph G of Section 3 of the Illinois Securities Law of 1953) or quoted in the National Association of Securities Dealers Automated Quotation System National Market System; (b) the securities must be of a corporation in existence for at least 5 years; (c) The market value of stock in any one corporation may not exceed 5% of the cash and invested assets of the pension fund, and the investments in the stock of any one corporation may not exceed 5% of the total outstanding stock of that corporation; (d) The straight preferred stocks or convertible preferred stocks must be issued or guaranteed by a corporation whose common stock qualifies for investment by the board; and (e) ADR's are excluded.
- N. Corporate bonds managed through an investment advisor must meet all of the following requirements:
 - i) The bonds must be rated as investment grade by one of the two largest rating services at the time of purchase.
 - ii) If subsequently downgraded below investment grade, the bonds must be liquidated by the manager from the portfolio within 90 days after being downgraded.

The fund's total investment in separate accounts and mutual funds shall not exceed 65% of the market value of the pension fund's net present assets stated in its most recent annual report on file with the Illinois Department of Insurance.

Except for pecuniary interests permitted under subsection (f) of Section 3-14-4 of the Illinois Municipal Code or under Section 3.2 of the Public Officer Prohibited Practices Act, no person acting as treasurer or financial officer or who is employed in any similar capacity by or for a public agency may do any of the following:

- have any interest, directly or indirectly, in any investments in which the agency is authorized to invest.
- have any interest, directly or indirectly, in the sellers, sponsors, or managers of those investments.
- receive, in any manner, compensation of any kind from any investments in which the agency is authorized to invest.

Any public agency may also invest any public funds in a Public Treasurers' Investment Pool (Illinois Funds) created under Section 17 of the State Treasurer Act. Any public agency may also invest any public funds in a fund managed, operated, and administered by a bank, subsidiary of a bank, or subsidiary of a bank holding company or use the services of such an entity to hold and invest or advise regarding the investment of any public funds.

To the extent a public agency has custody of funds not owned by it or another public agency and does not otherwise have authority to invest such funds, the public agency may invest such funds as if they were its own. Such funds must be released to the appropriate person at the earliest reasonable time, but in no case exceeding 31 days, after the private person becomes entitled to the receipt of them. All earnings accruing on any investments or deposits made pursuant to the provisions of this Act shall be credited to the public agency by or for which such investments or deposits were made, except as provided otherwise in Section 4.1 of the State Finance Act or the Local Governmental Tax Collection Act, and except where by specific statutory provisions such earnings are directed to be credited to and paid to particular fund.

Investment advisers and consultants shall be fiduciaries, as defined in Section 1-101.2, with respect to the Pension Fund, and comply with the provisions of 40 ILCS 5/1-113.5.

Sustainability Factors: Pursuant to 40 ILCS 5/1-113.6 and 1-113.17, the Algonquin Police Pension Fund will include material, relevant, and decision-useful sustainability factors that may be considered by the Pension Bond within the bounds of financial and fiduciary prudence, in evaluating investment decisions.

These factors consist of but are not limited to:

- a. Corporate governance and leadership factors
- b. Environmental factors
- c. Social capital factors
- d. Human capital factors
- e. Business model and innovation factors

12.0 **Collateralization:**

It is the policy of the Fund and in accordance with the GFOA's Recommended Practices on the Collateralization of Public Deposits, the Fund requires that funds on deposit in excess of FDIC limits be secured by some form of collateral. The Fund will accept any of the following assets as collateral:

- Government Securities
- Obligations of Federal Agencies
- Obligations of Federal Instrumentalities

(The Fund reserves the right to accept/reject any form of the above-named securities.)

The Fund also requires that all depositories that hold the Fund's deposits in excess of the FDIC limit must provide and sign a Collateralization Agreement.

The amount of collateral provided will not be less than 110% of the fair market value of the net amount of public funds secured. The ratio of fair market value of collateral to the amount of funds secured will be reviewed monthly, and additional collateral will be required when the ratio declines below the level required and collateral will be released if the fair market value exceeds the required level. Pledged collateral will be held in safekeeping, by an independent third-party depository, or the Federal Reserve Bank of Chicago, designated by the Fund and evidenced by a safekeeping agreement. Collateral agreements will preclude the release of the pledged assets without an authorized signature from the Fund.

13.0 **Safekeeping and Custody:**

When possible, security transactions entered into by the Fund shall be conducted on a delivery-verses-payment (DVP) basis. Securities will be held by a third-party custodian or qualified broker/dealer as defined by 40 ILCS 5/1-113.7 (A), be designated by the Fund and evidenced by safekeeping receipts and/or itemized statements.

14.0 **Diversification:**

In order to reduce the risk of default, the investment portfolio of the Fund shall not exceed the following diversification limits unless specifically authorized by the Board of Trustees:

- Monies deposited at a financial institution shall not exceed 75% of the capital stock and surplus of that institution.
- Commercial paper shall not exceed 10% of the Fund's investment portfolio.
- Deposits in the Illinois Public Treasurer's Investment Pool shall not exceed 50% of the Fund's investment portfolio.
- Brokered certificates of deposit shall not exceed 25% of the Fund's investment portfolio.

15.0 **Maximum Maturities:**

The Fund will attempt to match its investments with anticipated cash flow requirements and future liabilities.

16.0 **Internal Controls:**

The Treasurer is responsible for establishing and maintaining an internal control structure designed to ensure that the assets of the Fund are protected from loss, theft or misuse. The internal control structure shall be designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that (1) the cost of the control should not exceed the benefits likely to be derived; and (2) the valuation of costs and benefits require estimates and judgments by management.

Accordingly, the Treasurer shall establish a process for annual independent review by an external auditor to assure compliance with policies and procedures. The internal controls shall address the following points:

- Control of collusion
- Separation of transaction authority from accounting and record keeping
- Custodial safekeeping
- Avoidance of physical delivery securities
- Clear delegation of authority to subordinate staff members.
- Written confirmation of telephone transactions for investments and wire transfers
- Development of a procedure for making wire transfers

17.0 **Investment Manager Performance Review and Evaluation:**

Performance reports generated by the Investment Consultant shall be compiled at least quarterly and communicated to the Trustees for review. The investment performance of total portfolios as well as asset class components will be measured against commonly accepted performance benchmarks. Consideration shall be given to the investment objectives, goals and guidelines as set forth in this statement. The Trustees intend to evaluate the portfolio(s) over at least a three-year period, but reserve the right to terminate a manager for any reason including the following:

- Investment performance which is significantly less than anticipated given the discipline employed and the risk parameters established, or unacceptable justification of poor results.
- Failure to adhere to any aspect of this statement of investment policy, including communication and reporting requirements.
- Significant qualitative changes to the investment management organization.

Investment managers shall be reviewed regularly regarding performance, personnel, strategy, research capabilities, organizational and business matters, and other qualitative factors that may impact their ability to achieve the desired investment results.

18.0 **Reporting:**

The Treasurer or designated third party shall prepare an investment report at least quarterly, including a succinct management summary that provides a clear picture of the status of the current investment portfolio. This management summary will be prepared in a manner which will allow the entity to ascertain whether investment activities during the reporting period have conformed to the investment policy. The report should be provided to the Police Pension Board. The report will include the following:

- A listing of individual securities held at the end of the reporting period.
- Listing of investments by maturity date
- The percentage of the total portfolio which each type of investment represents
- The percentage of the total portfolio which each institution is holding
- The percentage of the total portfolio broken down by defined maturity periods
- Principal and type of investment by fund

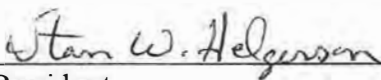
18.1 **Marking to Market:**

A statement of the market value of the portfolio shall be issued at least quarterly. This will ensure that the minimal amount of review has been performed on the investment portfolio in terms of value and subsequent price volatility. Review should be consistent with the GFOA Recommended Practice on Mark-to-Market Practices for State and Local Government Investment Portfolios and Investment Pools.

19.0 **Investment Policy Adoption:**

The Fund's investment policy shall be adopted by resolution of the Algonquin Police Pension Fund. This policy shall be reviewed on an annual basis by the President and any modifications made thereto must be approved by the Police Pension Board.

Amended: 04/29/2020



President
Village of Algonquin Police Pension



VILLAGE OF ALGONQUIN
GENERAL SERVICES ADMINISTRATION

- M E M O R A N D U M -

DATE: October 28, 2020

TO: Tim Schloneger, Village Manager

FROM: Michael Kumbera, Assistant Village Manager

SUBJECT: Police Pension Fund Tax Levy Request

Background:

The Algonquin Police Pension Fund Board of Trustees is requesting that the Village Board levy an amount \$2,279,056 (\$2,280,000 rounded) in accordance with the actuarial valuation results for the year beginning May 1, 2020. This is an increase of \$211,486 from last year's levy. A copy of the request and actuarial valuation from Lauterbach and Amen is attached.

The fund is 68.94 percent funded (up 1.14 percent) from the prior year and the amortization target remains 100 percent by 2033 (14 years). This recommendation has been tentatively placed in the 2020 tax levy resolution that the Committee of the Whole will consider on November 10.

Recommendation:

Staff recommends the Committee of the Whole forward this item to the Village Board for acceptance by motion at their meeting on November 17.

C: Susan Skillman, Comptroller

MEMORANDUM

TO: Village President and Board of Trustees
FROM: Stan W. Helgerson, President, Police Pension Fund
DATE: July 27, 2020
RE: 2020 Tax Levy Request

The Police Pension Fund Board is hereby requesting that the Village Board levy \$2,279,056 for the Police Pension Fund. The amount was determined by an actuary that was jointly hired by the Village and the Pension Board.

Thank you for your consideration.

cc: Algonquin Police Pension Board

Actuarial Funding Report



ALGONQUIN POLICE
PENSION FUND

Actuarial Valuation
as of May 1, 2020

For the Contribution Year May 1, 2020 to April 30, 2021

LAUTERBACH & AMEN, LLP

Actuarial Valuation – Funding Recommendation



Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS

ALGONQUIN POLICE PENSION FUND

Contribution Year Ending: April 30, 2021

Actuarial Valuation Date: May 1, 2020

Utilizing Data as of April 30, 2020

Submitted by:

Lauterbach & Amen, LLP
668 N. River Road
Naperville, IL 60563
Phone: 630.393.1483
www.lauterbachamen.com

Contact:

Todd A. Schroeder
Director
September 1, 2020

LAUTERBACH & AMEN, LLP



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ACTUARIAL CERTIFICATION

This report documents the results of the Actuarial Valuation for the Algonquin Police Pension Fund. The information was prepared for use by the Algonquin Police Pension Fund and the Village of Algonquin, Illinois for determining the Recommended Contributions, under the selected Funding Policy and Statutory Minimum guidelines, for the Contribution Year May 1, 2020 to April 30, 2021. It is not intended or suitable for other purposes. Determinations for purposes other than the Employer's Actuarial Recommended Contribution may be significantly different from the results herein.

The results in this report are based on the census data and financial information submitted by the Village of Algonquin, Illinois, and may include results from the prior Actuary. We did not prepare the Actuarial Valuations for the years prior to May 1, 2016. Those valuations were prepared by the prior Actuary whose reports have been furnished to us, and our disclosures are based on those reports. An audit of the prior Actuary's results was not performed, but high-level reviews were completed for general reasonableness, as appropriate, based on the purpose of this valuation. The accuracy of the results is dependent on the precision and completeness of the underlying information.

In addition, the results of the Actuarial Valuation involve certain risks and uncertainty as they are based on future assumptions, market conditions, and events that may never materialize as assumed. For this reason, certain assumptions and future results may be materially different than those presented in this report. See the *Management Summary* section of this report for a more detailed discussion of the Defined Benefit Plan Risks, as well as the limitations of this Actuarial Valuation on assessing those risks. We are not aware of any known events subsequent to the Actuarial Valuation Date, which are not reflected in this report but should be valued, that may materially impact the results.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The Village of Algonquin, Illinois selected certain assumptions, while others were the result of guidance and/or judgment from the Plan's Actuary or Advisors. We believe that the assumptions used in this valuation are reasonable and appropriate for the purposes for which they have been used. The selected assumptions represent our best estimate of the anticipated long-term experience of the Plan, and meet the guidelines set forth in the Actuarial Standards of Practice.





To the best of our knowledge, all calculations are in accordance with the applicable funding requirements, and the procedures followed and presentation of results conform to generally accepted actuarial principles and practices as prescribed by the Actuarial Standards Board. The undersigned consultants of Lauterbach & Amen, LLP, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render this Actuarial Certification. There is no relationship between the Village of Algonquin, Illinois and Lauterbach & Amen, LLP that impairs our objectivity.

Respectfully Submitted,
LAUTERBACH & AMEN, LLP

Todd A. Schroeder, ASA, FCA, EA, MAAA

Robert L. Rietz, Jr., FCA, EA, MAAA





MANAGEMENT SUMMARY

Recommended Contribution
Funded Status
Management Summary – Comments and Analysis
Actuarial Recommended Contribution – Reconciliation



MANAGEMENT SUMMARY

RECOMMENDED CONTRIBUTION

	Prior Valuation	Current Valuation
Recommended Contribution	\$2,067,570	\$2,279,056
Expected Payroll	\$4,327,911	\$4,455,051
Recommended Contribution as a Percent of Expected Payroll	47.77%	51.16%

The Recommended Contribution has Increased by \$211,486 from the Prior Valuation.

FUNDED STATUS

	Prior Valuation	Current Valuation
Normal Cost	\$1,018,221	\$1,115,148
Market Value of Assets	\$31,767,438	\$33,382,101
Actuarial Value of Assets	\$31,843,584	\$34,561,373
Actuarial Accrued Liability	\$46,967,010	\$50,134,155
Unfunded Actuarial Accrued Liability	\$15,123,426	\$15,572,782
Percent Funded	67.80%	68.94%
Actuarial Value of Assets	67.64%	66.59%
Market Value of Assets		

The Percent Funded has Increased by 1.14% on an Actuarial Value of Assets Basis.



MANAGEMENT SUMMARY

MANAGEMENT SUMMARY – COMMENTS AND ANALYSIS

Contribution Results

The Recommended Contribution is based on the selected Funding Policy and methods that are outlined in the *Actuarial Funding Policies* section of this report.

The Illinois State Statutes for Pension Funds contain parameters that are used to determine the Statutory Minimum Contribution to a public Pension Fund. Those parameters and the resulting Statutory Minimum Contribution are found in the *Illinois Statutory Minimum Contribution* section of this report.

“Contribution Risk” is defined by the Actuarial Standards of Practice as the potential for actual future contributions to deviate from expected future contributions. For example, when actual contributions are not made in accordance to the Plan’s Funding Policy, or when future experience deviates materially from assumed. While it is essential for the Actuary and Plan Sponsor to collaborate on implementing a sound and financially feasible Funding Policy, it is important to note that the Actuary is not required, and is not in the position to, evaluate the ability or willingness of the Plan Sponsor to make the Recommended Contribution under the selected Funding Policy.

As a result, while Contribution Risk may be a significant source of risk for the Plan, this Actuarial Valuation makes no attempt to assess the impact of future contributions falling short of those recommended under the selected Funding Policy. Notwithstanding the above, see the *Actuarial Recommended Contribution – Reconciliation* section of this report for the impact on the current Recommended Contribution of any contribution shortfalls or excesses from the prior year.

Defined Benefit Plan Risks

Asset Growth:

Pension funding involves preparing Fund assets to pay for benefits when Members retire. During their working careers, assets grow with contributions and investment earnings; and then, the Pension Fund distributes assets in retirement. Based on the Plan’s current mix of Members and Funded Status, the Plan should experience positive asset growth, on average, if the Recommended Contributions are made and expected investment earnings come in. In the current year, the Fund asset growth was positive by approximately \$1,600,000.

Asset growth is important in the long-term. Long-term cash flow out of the Pension Fund is primarily benefit payments, and expenses are a smaller portion. The Plan should monitor the impact of expected benefit payments on future asset growth. In the next 5 years, benefit payments are anticipated to increase 50-55%, or approximately \$700,000. In the next 10 years, the expected increase in benefit payments is 130-135%, or approximately \$1,800,000. The estimated increases in benefit payments are based on the benefits paid to inactive Members during the current year, and does not include any refunds of Member Contributions.

MANAGEMENT SUMMARY

Furthermore, Plans' with a large number of inactive Members have an increased "Longevity Risk". Longevity Risk is the possibility that inactive Members may live longer than projected by the Plan's mortality assumption. As shown in the previous paragraph, benefit payments are expected to increase over the next 5-year and 10-year horizons. The projected increases assume that current inactive Members pass away according to the Plan's mortality assumption. To the extent that current inactive Members live longer than expected, the future 5-year and 10-year benefit projections may be larger than the amounts disclosed in the previous paragraph. Higher levels of benefit payments, payable for a longer period of time, may cause a significant strain to the Plan's cash flow, future Recommended Contributions, and may lead to Plan insolvency.

Unfunded Liability:

Unfunded Liability represents the financial shortfall of the Actuarial Value of Assets compared to the Actuarial Accrued Liability. To the extent that Unfunded Liability exists, the Plan is losing potential investment earnings due to the financial shortfall. Contributions towards Unfunded Liability pay for the lost investment earnings, as well as the outstanding unfunded amount. If payments towards Unfunded Liability are not made, the Unfunded Liability will grow.

In the early 1990s, many Pension Funds in Illinois adopted an increasing payment towards Unfunded Liability due to a change in legislation. The initial payment decreased, and future payments are anticipated to increase annually after that. In many situations, payments early on were less than the interest on Unfunded Liability, which means that Unfunded Liability increased even though contributions were made at the recommended level.

The current Recommended Contribution includes a payment towards Unfunded Liability that is approximately \$510,000 greater than the interest on Unfunded Liability. All else being equal, and contributions being made, Unfunded Liability is expected to decrease. The Employer and Fund should anticipate that improvement in the current Percent Funded will be mitigated in the short-term. The Employer and Fund should understand this impact as we progress forward to manage expectations.

Actuarial Value of Assets:

The Pension Fund smooths asset returns that vary from expectations over a 5-year period. The intention over time is that asset returns for purposes of funding recommendations are a combination of several years. The impact is intended to smooth out the volatility of Recommended Contributions over time, but not necessarily increase or decrease the level of contributions over the long-term.

When asset returns are smoothed, there are always gains or losses on the Market Value of Assets that are going to be deferred for current funding purposes, and recognized in future years. Currently, the Pension Fund is deferring approximately \$1,200,000 in losses on the Market Value of Assets. These are asset losses that will be recognized in upcoming periods, independent of the future performance of the Market Value of Assets.



MANAGEMENT SUMMARY

Cash Flow Risk:

Assets, liabilities, and Funded Status are good metrics to monitor over time to assess the progress of the Funding Policy. However, these metrics may provide limited forward-looking insights. Specifically, the maturity of a Pension Fund can pose certain risks that often cannot be assessed with a point-in-time metric such as Percent Funded.

For example, two different Pension Funds could have the same Percent Funded, but have completely different risk profiles. One Fund might mostly cover active Members with little to no Members in pay status, whereas a second Fund might mostly cover inactive Members with a significant level of annual benefit payments. The latter Fund has a greater “Cash Flow Risk”, i.e. a more significant chance that negative cash flows could lead to a deteriorating, rather than improving, Percent Funded over time.

It is important to note that, in general, positive net cash flows are good, but also need to be sufficient to cover the growth in the liabilities (i.e. the Normal Cost as well as interest on the Actuarial Accrued Liability). Typically, when cash flows are assumed to be insufficient to cover the growth in liabilities, the Percent Funded will decline, while future Recommended Contributions will increase.

Benefit Payment Risk:

Ideally, Plans’ in a sound financial position will have the ratio of annual benefits payments to the Market Value of Assets to be less than the Expected Rate of Return on Investments assumption (i.e. 6.75%). Theoretically, in this case it can be considered that investment returns will fully cover the annual benefit payments, and therefore, all Employer and Member Contributions made to the Fund will be used to pay for future benefit accruals and pay down the existing Unfunded Liability. To the extent that the ratio of the annual benefit payments to the Market Value of Assets increases to above the Expected Rate of Return on Investments assumption, the Plan may experience some additional risks, such as the need to keep assets in more liquid investments, inability to pay down Unfunded Liability, and may lead to Plan insolvency.

As of the Valuation Date, the Algonquin Police Pension Fund has a ratio of benefit payments to the Market Value of Assets of 4.10%. In this case, the Plan is currently in a sound financial position and has a reduced amount of Benefit Payment Risk and Cash Flow Risk. It would be expected that adherence to the current Funding Policy would lead to an increasing Percent Funded.

Fund Assets

The results in this report are based on the assets held in the Pension Fund. Assets consist of funds held for investment and for benefit payments as of the Actuarial Valuation Date. In addition, assets may be adjusted for other events representing dollars that are reasonably expected to be paid out from the Pension Fund or deposited into the Pension Fund after the Actuarial Valuation Date as well.



MANAGEMENT SUMMARY

The current Fund assets are audited.

The Actuarial Value of Assets under the Funding Policy is equal to the Market Value of Assets, with unexpected gains and losses smoothed over 5 years. More detail on the Actuarial Value of Assets can be found in the *Actuarial Funding Policies* section of this report.

*The Fund
Assets Used in
this Report
are Audited.*



MANAGEMENT SUMMARY

Demographic Data

Demographic factors can change from year to year within the Pension Fund. Changes in this category include hiring new Members, Members retiring or becoming disabled, inactive Members passing away, and other changes. Demographic changes can cause an actuarial gain (contribution that is less than expected compared to the prior year) or an actuarial loss (contribution that is greater than expected compared to the prior year).

Demographic gains and losses occur when the assumptions over the one-year period for Member changes do not meet our long-term expectation. For example, if no Members become disabled during the year, we would expect a liability gain. If more Members become disabled than anticipated during the year, we would expect a liability loss. Generally, we expect short-term fluctuations in demographic experience to create gains or losses of 1%-3% of the Actuarial Accrued Liability in any given year, but to balance out in the long-term.

“Demographic Risk” occurs when Plan demographic experience differs significantly from expected. Similar to Longevity Risk discussed previously, additional risk is created when demographic experience differs from the assumed rates of disability, retirement, or termination. Under the chosen assumptions, actuarial gains and/or losses will always occur, as the assumptions will never be exactly realized. However, the magnitude of the gain and/or loss and its influence on the Recommended Contribution largely depends on the size of the Plan.

Based on the number of active Members in the Plan, the Recommended Contribution has a moderate risk of having a significant increase due to demographic experience. For example, 1 new disabled Member would typically generate a substantial increase to the Actuarial Accrued Liability, which in turn, may increase the Recommended Contribution.

In the current report, the key demographic changes were as follows:

New Hires: There were 4 Members of the Fund who were hired during the year. When a Member is admitted to the Pension Fund, the Employer Contribution will increase to reflect the new Member. The increase in the Recommended Contribution in the current year due to the new Member experience is approximately \$20,000.

Retirement: There were 2 Members of the Fund who retired during the year. When a Member retires, the Normal Cost will decrease. Any change in the Actuarial Accrued Liability will be considered when determining the amount to pay towards Unfunded Liability each year. The decrease in the Recommended Contribution in the current year due to the retirement experience is approximately \$28,000.

Termination: There was 1 non-vested Member of the Fund who terminated employment during the year. The Member did not take a refund of contributions. The Fund is no longer obligated to pay a benefit to the Member in the future. The decrease in the Recommended Contribution in the current year due to the termination experience is approximately \$11,000.





Plan Changes
In the current valuation, we have updated the Plan benefit changes under PA-101-0610 (SB 1300), which went into effect on January 1, 2020. These legislative changes reflect modifications to the Tier II Plan Provisions. A summary of the changes is available upon request. The *Summary of Principal Plan Provisions* section of this report has the updated Plan Provisions.

Funding Policy Changes
The Funding Policy was not changed from the prior valuation.

The above stated assumption changes were made to better reflect the future anticipated experience of the Fund. See the table on the following page for the impact of these changes on the current valuation.

In the current valuation, we have updated the marital assumption for retiree and disabled Members to the actual spousal data.

- Inflation Rate (CPI-U)
- Individual Pay Increases
- Retirement Rates
- Termination Rates
- Disability Rates
- Mortality Rates
- Mortality Improvement Rates
- Marital Assumptions

Assumption Changes
We performed a comprehensive study of Police Officers and Police Pension Funds in Illinois. We reviewed the results of the study as well as the demographic experience of the Fund. The actuarial assumptions were changed in the current valuation to the rates shown in the *Actuarial Assumptions* section of this report. The assumptions impacted include:

Salary Increases: Salary increases were less than anticipated in the current year. Most active Members received an increase of 3.00% or less. This caused a decrease in the Recommended Contribution in the current year of approximately \$30,000.



MANAGEMENT SUMMARY

ACTUARIAL RECOMMENDED CONTRIBUTION – RECONCILIATION

Actuarial Accrued Liability is expected to increase each year for both interest for the year and as active Members earn additional service years towards retirement. Similarly, Actuarial Accrued Liability is expected to decrease when the Fund pays benefits to inactive Members.

Contributions are expected to increase as expected pay increases under the Funding Policy for the Fund.

Actuarial	Prior Valuation
Liability	
\$ 46,967,010	
2,921,472	Expected Changes
\$ 49,888,482	Initial Expected Current Valuation
Recommended	
Contribution	
\$ 2,067,570	
62,027	
\$ 2,129,597	

Other increases or decreases in Actuarial Accrued Liability (key changes noted below) will increase or decrease the amount of Unfunded Liability in the Plan. To the extent that Unfunded Liability increases or decreases unexpectedly, the contribution towards Unfunded Liability will also change unexpectedly.

Actuarial	Recommended
Liability	Contribution
\$ (260,254)	\$ (30,247)
325,856	30,628
(32,162)	5,022
212,233	95,731
-	44,480
-	3,845
Contributions Less than Expected	
Asset Return Less than Expected*	
Total Actuarial Experience	
\$ 245,673	\$ 149,459
Current Valuation	
\$ 50,134,155	\$ 2,279,056

*The impact on the Recommended Contribution due to asset return is on an Actuarial Value of Assets basis. Key demographic changes were discussed in the *Demographic Data* section of this report.



VALUATION OF FUND ASSETS

Market Value of Assets
Market Value of Assets (Gain)/Loss
Development of the Actuarial Value of Assets
Actuarial Value of Assets (Gain)/Loss
Historical Asset Performance



RECOMMENDED CONTRIBUTION DETAIL

MARKET VALUE OF ASSETS

Statement of Assets

	Prior Valuation	Current Valuation
Cash and Cash Equivalents	\$ 680,347	\$ 831,818
Money Market	311,820	562,104
Fixed Income	10,537,161	12,014,718
Stock Equities	3,271,128	1,919,187
Mutual Funds	16,872,448	17,962,632
Receivables (Net of Payables)	94,534	91,642
Total Market Value of Assets	\$ 31,767,438	\$ 33,382,101

The Total Market Value of Assets has increased by Approximately \$1,615,000 from the Prior Valuation.

Statement of Changes in Assets

Total Market Value of Assets - Prior Valuation	\$ 31,767,438
Plus - Employer Contributions	1,985,000
Plus - Member Contributions	468,893
Plus - Return on Investments	572,165
Less - Benefit Payments and Refunds	(1,378,454)
Less - Other Expenses	(32,941)
Total Market Value of Assets - Current Valuation	\$ 33,382,101

The Rate of Return on Investments on a Market Value of Assets Basis for the Fund was Approximately 1.67% Net of Administrative Expense.

The Rate of Return on Investments shown above has been determined as the Return on Investments from the Statement of Changes in Assets, as a percent of the average of the prior and current Market Value of Assets. The Rate of Return on Investments is net of Other Expenses, and has been excluded from the Total Market Value of Assets at the end of the Fiscal Year for this calculation.



RECOMMENDED CONTRIBUTION DETAIL

MARKET VALUE OF ASSETS (GAIN)/LOSS

Current Year (Gain)/Loss on Market Value of Assets

Total Market Value of Assets - Prior Valuation	\$ 31,767,438
Employer and Member Contributions	2,453,893
Benefit Payments and Refunds	(1,378,454)
Expected Return on Investments	2,180,598
Expected Total Market Value of Assets - Current Valuation	35,023,475
Actual Total Market Value of Assets - Current Valuation	33,382,101
Current Market Value of Assets (Gain)/Loss	\$ 1,641,374
Expected Return on Investments	\$ 2,180,598
Actual Return on Investments (Net of Expenses)	539,224
Current Market Value of Assets (Gain)/Loss	\$ 1,641,374

The Actual Return on Investments on a Market Value of Assets Basis was Less than Expected for the Current Year.

The (Gain)/Loss on the current Market Value of Assets has been determined based on the Expected Rate of Return on Investments as shown in the *Actuarial Assumptions* section of this report.



RECOMMENDED CONTRIBUTION DETAIL

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

Total Market Value of Assets - Current Valuation	\$ 33,382,101
Adjustment for Prior (Gains)/Losses	
Full Amount	
FYE 2020	\$ 1,641,374
FYE 2019	(119,471)
FYE 2018	101,310
FYE 2017	(513,338)
Total Deferred (Gain)/Loss	1,179,272
Initial Actuarial Value of Assets - Current Valuation	\$ 34,561,373
Less Contributions for the Current Year and Interest	-
Less Adjustment for the Corridor	-
Total Actuarial Value of Assets - Current Valuation	\$ 34,561,373

The Actuarial Value of Assets is Equal to the Market Value of Assets with Unanticipated (Gains)/Losses Recognized Over 5 Years. The Actuarial Value of Assets is 103.53% of the Market Value of Assets.

ACTUARIAL VALUE OF ASSETS (GAIN)/LOSS

Total Actuarial Value of Assets - Prior Valuation	\$ 31,843,584
Plus - Employer Contributions	1,985,000
Plus - Member Contributions	468,893
Plus - Return on Investments	1,675,291
Less - Benefit Payments and Refund	(1,378,454)
Less - Other Expenses	(32,941)
Total Actuarial Value of Assets - Current Valuation	\$ 34,561,373

The Rate of Return on Investments on an Actuarial Value of Assets Basis for the Fund was Approximately 5.07% Net of Administrative Expense.

The Actuarial Value of Assets incorporates portions of gains and losses over multiple years.



HISTORICAL ASSET PERFORMANCE

The chart below shows the historical Rates of Return on Investments for both Market Value of Assets and Actuarial Value of Assets.

	Market Value of Assets	Actuarial Value of Assets
FYE 2020	1.67%	5.07%
FYE 2019	7.16%	5.75%
FYE 2018	6.36%	5.56%
FYE 2017	8.99%	5.44%
FYE 2016	(0.44%)	4.89%

The historical Rates of Return on Investments shown above were calculated based on the annual Return on Investments, as a percentage of the average value of the assets for the year.

For purposes of determining the average value of assets for the year, the ending Market Value of Assets has been adjusted to net out to the portion related to the Return on Investments themselves. All other cash flows are included.

For purposes of determining the annual Return on Investments we have adjusted the figures shown on the preceding pages. The figures shown on the preceding pages are net of Investment Expenses. We have made an additional adjustment to net out Administrative Expenses. Netting out Administrative Expenses allows us to capture returns for the year that can be used to make benefit payments as part of the ongoing actuarial process.

The adjustments we made are for actuarial reporting purposes only. By netting out Administrative Expenses and capturing Return on Investments that are available to pay benefits, it provides us a comparison to the Expected Rate of Return on Investments, but does not provide a figure that would be consistent with the rates of return that are determined by other parties. Therefore, this calculated Return on Investments should not be used to analyze investment performance of the Fund or the performance of the investment professionals.

RECOMMENDED CONTRIBUTION DETAIL

Expected Rate of Return on Investments Assumption

The Expected Rate of Return on Investments for this valuation is 6.75%. Lauterbach & Amen, LLP does not provide investment advice. We look at a variety of factors when reviewing the Expected Rate of Return on Investments assumption selected by the Board. These factors include: historical Rates of Return on Investments, capital market projections performed by the Fund's investment advisors, the Fund's investment policy, capital market forward-looking benchmark expected returns by independent investment companies, rates used by comparable pension systems, and other factors identified in the Actuarial Standards of Practice.

Generally speaking, the ideal assumption for Expected Rate of Return on Investments is one that has a 50% chance of being met over the long-term. If actual returns going forward come in less than expected, the pension system risks deferring contributions to the future that should be made today, and creating additional contribution volatility.

“Investment Risk” is the potential that actual Return on Investments will be different from what is expected. The selected Expected Rate of Return on Investments assumption is chosen to be a long-term assumption, producing a return that, on average, would produce a stable rate of return over a long-term horizon. Actual asset returns in the short-term may deviate from this long-term assumption due to current market conditions. Furthermore, establishing the Expected Rate of Return on Investments assumption may be dependent on the Illinois State Statutes pertaining to the limitations on types of investments Plan Sponsors may use. If the actual annual rates of return are less than the Expected Rate of Return on Investments, actuarial losses will be produced, thus increasing the Plan's Unfunded Liability and, subsequently, future Recommended Contributions.

“Asset/Liability Mismatch” risk is a similar concept as Investment Risk, as it relates to setting the Expected Rate of Return on Investments assumption compared to the actual Return on Investments achieved. The Interest Rate used to discount future Plan liabilities is set equal to the Expected Rate of Return on Investments. It is expected that the selected Interest Rate be a rate that is reasonably expected to be achieved over the long-term. To the extent that the selected Interest Rate to value Plan liabilities is unreasonable, or significantly different than the actual Return on Investments earned over an extended period of time, additional Interest Rate risk is created. For example, determining Plan liabilities at an Interest Rate higher than what is expected to be achieved through investment returns results in Unfunded Liability that is not a true representation of the Plan's condition and Percent Funded. As a result, the Actuarial Accrued Liability determined is an amount smaller than the liability that would be produced with an Interest Rate more indicative of future Expected Rate of Return on Investments. Therefore, the Recommended Contributions under the established Funding Policy may not be sufficient to appropriately meet the true pension obligations.





RECOMMENDED CONTRIBUTION DETAIL

Actuarial Accrued Liability
Funded Status
Development of the Employer Normal Cost
Normal Cost as a Percentage of Expected Payroll
Recommended Contribution
Schedule of Amortization – Unfunded Actuarial Accrued Liability
Actuarial Methods – Recommended Contribution



RECOMMENDED CONTRIBUTION DETAIL

ACTUARIAL ACCRUED LIABILITY

	Prior Valuation	Current Valuation
Active Members	\$ 23,527,013	\$ 23,956,714
Inactive Members		
Terminated Members - Vested	815,758	887,774
Retired Members	19,576,000	22,259,339
Disabled Members	3,048,239	3,030,328
Other Beneficiaries	-	-
Total Inactive Members	23,439,997	26,177,441
Total Actuarial Accrued Liability	\$ 46,967,010	\$ 50,134,155

The Total Actuarial Accrued Liability has increased by approximately \$3,167,000 from the Prior Valuation.

FUNDED STATUS

	Prior Valuation	Current Valuation
Total Actuarial Accrued Liability	\$ 46,967,010	\$ 50,134,155
Total Actuarial Value of Assets	31,843,584	34,561,373
Unfunded Actuarial Accrued Liability	\$ 15,123,426	\$ 15,572,782
Total Market Value of Assets	\$ 31,767,438	\$ 33,382,101
Percent Funded	67.80%	68.94%
Actuarial Value of Assets	67.64%	66.59%
Market Value of Assets		

The Percent Funded as of the Actuarial Valuation Date is Subject to Volatility on Assets and Liability in the Short-Term.



RECOMMENDED CONTRIBUTION DETAIL

DEVELOPMENT OF THE EMPLOYER NORMAL COST

	Prior Valuation	Current Valuation
Total Normal Cost	\$ 1,018,221	\$ 1,115,148
Estimated Member Contributions	(428,896)	(441,496)
Employer Normal Cost	\$ 589,325	\$ 673,652

At a 100% Funding Level, the Normal Cost Contribution is Still Required.

NORMAL COST AS A PERCENTAGE OF EXPECTED PAYROLL

	Prior Valuation	Current Valuation
Expected Payroll	\$ 4,327,911	\$ 4,455,051
Member Normal Cost Rate	9.910%	9.910%
Employer Normal Cost Rate	13.62%	15.12%
Total Normal Cost Rate	23.53%	25.03%

Ideally, the Employer Normal Cost Rate will Remain Stable.

RECOMMENDED CONTRIBUTION

	Prior Valuation	Current Valuation
Employer Normal Cost*	\$ 629,104	\$ 719,124
Amortization of Unfunded Accrued Liability/(Surplus)	1,438,465	1,559,932
Recommended Contribution	\$ 2,067,570	\$ 2,279,056

The Recommended Contribution has Increased by 10.23% from the Prior Valuation.

*Employer Normal Cost Contribution includes interest through the end of the Fiscal Year.



RECOMMENDED CONTRIBUTION DETAIL

SCHEDULE OF AMORTIZATION – UNFUNDED ACTUARIAL ACCRUED LIABILITY

Below is the schedule of remaining amortization balances for the Unfunded Liability.

Unfunded Liability Base	Initial Balance	Date Established	Current Balance	Years Remaining	Payment
Investment (Gain)/Loss	\$ 492,433	4/30/2020	\$ 492,433	15	\$ 44,480
Actuarial (Gain)/Loss	194,951	4/30/2020	194,951	15	17,609
Contribution Experience	(463)	4/30/2020	(463)	15	(42)
Assumption Changes	(32,162)	4/30/2020	(32,162)	15	(2,905)
Plan Changes	212,233	4/30/2020	212,233	15	19,170
Investment (Gain)/Loss	242,080	4/30/2019	236,554	14	22,523
Actuarial (Gain)/Loss	63,697	4/30/2019	62,242	14	5,926
Contribution Experience	(9,282)	4/30/2019	(9,071)	14	(864)
Investment (Gain)/Loss	320,616	4/30/2018	304,617	13	30,724
Contribution Experience	(992)	4/30/2018	(942)	13	(95)
Actuarial (Gain)/Loss	(325,744)	4/30/2018	(309,489)	13	(31,216)
Initial Unfunded Liability	\$ 15,466,613	4/30/2017	\$ 14,421,879	13	\$ 1,454,620
Total	\$ 16,623,979		\$ 15,572,782		\$ 1,559,932

The Actuarial (Gain)/Loss can be attributable to several factors including demographic changes, Employer Contribution timing, Member Contribution experience, benefit payment experience, and salary increase experience compared to expectation.

The equivalent single amortization period based on the layered amortization of Unfunded Liability is 13.11 years for the current valuation.

RECOMMENDED CONTRIBUTION DETAIL

ACTUARIAL METHODS – RECOMMENDED CONTRIBUTION

Actuarial Valuation Date	May 1, 2020
Data Collection Date	April 30, 2020
Actuarial Cost Method	Entry Age Normal (Level % Pay)
Amortization Method	Level % Pay (Closed)
Amortization Target	Layered - See Previous Page
Asset Valuation Method	5-Year Smoothed Market Value

The contributions and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census data furnished, using the Actuarial Cost Method described. The Actuarial Cost and Amortization Methods allocate the projected obligations of the Plan over the working lifetimes of the Plan Members.

The Recommended Contribution amount shown in this report is based on the methods summarized above. The *Actuarial Funding Policies* section of this report includes a more detailed description of the Actuarial Funding Methods being used.

The Actuarial Funding Methods are meant to provide a systematic process for determining contributions on an annual basis. The methods do not impact the expectation of future benefit payments. The methods only impact the way contributions are made towards future benefit payments.

Different Actuarial Funding Methods may achieve funding goals with differing levels of success. Certain methods are more efficient and more stable on an annual basis.





ILLINOIS STATUTORY MINIMUM CONTRIBUTION

Statutory Minimum Contribution
Funded Status – Statutory Minimum
Actuarial Methods – Illinois Statutory Minimum Contribution

ILLINOIS STATUTORY MINIMUM CONTRIBUTION

STATUTORY MINIMUM CONTRIBUTION

	<u>Current Valuation</u>
Statutory Minimum Contribution	\$1,420,354
Expected Payroll	\$4,455,051
Statutory Minimum Contribution as a Percent of Expected Payroll	31.88%

FUNDED STATUS – STATUTORY MINIMUM

	<u>Current Valuation</u>
Normal Cost	\$1,256,192
Market Value of Assets	\$33,382,101
Actuarial Value of Assets	\$34,561,373
Actuarial Accrued Liability	\$46,737,569
Unfunded Actuarial Accrued Liability	\$12,176,196
Percent Funded	
Actuarial Value of Assets	73.95%
Market Value of Assets	71.42%



ILLINOIS STATUTORY MINIMUM CONTRIBUTION

The Statutory Minimum Contribution is based on Actuarial Funding Methods and funding parameters in the Illinois State Statutes for pension funding. The resulting contribution is lower than the Recommended Contribution for the current year. The lower contribution amount is not recommended because it represents only a deferral of contributions when compared to the Recommended Contribution method.

Actuarial Funding Methods for pensions are best applied to provide a balance between the long-term goals of a variety of stakeholders:

1. Members – the Members are interested in benefit security and having the funds available to pay benefits when retired
2. Employers – cost control and cost stability over the long-term
3. Taxpayers – paying for the services they are receiving from active Members

The Statutory Minimum Contribution methods are not intended to provide a better system in any of the above categories long-term. The parameters are not recommended for a long-term funding strategy.

The Statutory Minimum methods put into place in 2011 were intended to provide short-term budget relief for Employer Contributions. An Employer using the Statutory Minimum parameters for current funding should view the contributions as short-term relief. Our recommendation in this situation is for a Pension Fund and an Employer to work towards a long-term funding strategy that better achieves the long-term funding goals, over a period that does not exceed 3-5 years.

The Securities and Exchange Commission in 2013 used the phrase “Statutory Underfunding” to describe situations where contributions appear to be more manageable in the short-term, but set up future Recommended Contributions that are less likely to be manageable.



ILLINOIS STATUTORY MINIMUM CONTRIBUTION

ACTUARIAL METHODS – ILLINOIS STATUTORY MINIMUM CONTRIBUTION

Actuarial Valuation Date	May 1, 2020
Data Collection Date	April 30, 2020
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level % Pay (Closed)
Amortization Target	90% Funded Over 20 Years
Asset Valuation Method	5-Year Smoothed Market Value

The contribution and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census data furnished, using the Actuarial Cost Method described. The Actuarial Cost and Amortization methods allocate the projected obligations of the Plan over the working lifetimes of the Plan Members.

The Actuarial Funding Methods are meant to provide a systematic process for determining contributions on an annual basis. The methods do not impact the expectation of future benefit payments. The methods only impact the way contributions are made towards future benefit payments.

Different Actuarial Funding Methods may achieve funding goals with differing levels of success. Certain methods are more efficient and more stable on an annual basis.





ACTUARIAL VALUATION DATA

Active Members
Inactive Members
Summary of Monthly Benefit Payments



Monthly benefits shown for Terminated Employees under deferred retirement are not currently in pay status.

	Prior Valuation	Current Valuation
Terminated Members - Vested	\$ 6,770	\$ 6,860
Retired Members	90,266	104,847
Disabled Members	13,440	13,440
Other Beneficiaries	-	-
Total Inactive Members	\$ 110,475	\$ 125,146

SUMMARY OF MONTHLY BENEFIT PAYMENTS

	Prior Valuation	Current Valuation
Terminated Members - Vested	2	2
Retired Members	14	16
Disabled Members	4	4
Other Beneficiaries	0	0
Total Inactive Members	20	22

INACTIVE MEMBERS

	Prior Valuation	Current Valuation
Vested	33	31
Nonvested	13	16
Total Active Members	46	47
Total Payroll	\$ 4,263,952	\$ 4,389,213

ACTIVE MEMBERS

ACTUARIAL VALUATION DATA



ACTUARIAL FUNDING POLICIES

Actuarial Cost Method
Financing Unfunded Actuarial Accrued Liability
Actuarial Value of Assets

ACTUARIAL FUNDING POLICIES

ACTUARIAL COST METHOD

The Actuarial Cost Method allocates the projected obligations of the Plan over the working lifetimes of the Plan Members.

In accordance with the Pension Fund's Funding Policy the Actuarial Cost Method for the Recommended Contribution basis is Entry Age Normal (Level Percent of Pay). The Entry Age Normal Cost Method is a method under which the Actuarial Present Value of the projected benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age. The portion of this Actuarial Present Value allocated to a valuation year is called Normal Cost. The portion of the Actuarial Present Value not provided at an Actuarial Valuation Date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

The Entry Age Normal method attempts to create a level cost pattern. In contrast to other Actuarial Cost Methods which inherently lead to uneven or less predictable cost patterns, the Entry Age Normal method is generally understood to be less risky in terms of contribution stability from year to year.

The Conference of Consulting Actuaries Public Plans Community produced a "white paper" detailing Funding Policy model practices for public sector pension plans. Under the Level Cost Actuarial Methodology ("LCAM"), one of the principal elements to a Funding Policy is the Actuarial Cost Method. When deciding which Actuarial Cost Method to use, several objectives may be considered, such as the following:

- Each Member's benefit should be funded under a reasonable allocation method by the expected retirement date
- Pay-related benefit costs should reflect anticipated pay at retirement
- The expected cost of each year of service (i.e. Normal Cost) for each active Member should be reasonably related to the expected cost of that Member's benefit
- The Member's Normal Cost should emerge as a level percent of Member compensation
- No gains or losses should occur if all assumptions are met.

Following these criteria, the use of the Entry Age Normal Cost Method (Level Percent of Pay) is a model practice.

FINANCING UNFUNDED ACTUARIAL ACCRUED LIABILITY

The Unfunded Actuarial Accrued Liability may be amortized over a period either in level dollar amounts or as a level percentage of payroll.

When amortizing the Unfunded Actuarial Accrued Liability as a level percentage of payroll, additional risk is incurred since the amortization payments in the early years of the payment period may not be large enough to cover the interest accrued on the existing Unfunded Liability. As a result, the Unfunded



ACTUARIAL FUNDING POLICIES

Liability may increase initially, before the amortization payments grow large enough to cover all interest accruals. Generally speaking, the Plan Sponsor will be required to contribute a larger total contribution amount over the course of the funding period under a level percentage of payroll basis as compared to a level dollar payroll schedule.

The Government Finance Office Association notes that best practices in public pension finance include utilizing amortization periods that do not exceed 20 years. Longer amortization periods elevate the risk of failing to reduce any Unfunded Liability. For example, when the amortization payment in full only covers interest on the Unfunded Liability, but does not reduce the existing Unfunded Liability, the required contribution will increase in future years.

A second principal element under the Level Cost Actuarial Methodology described above is to establish an Amortization Policy that determines the length of time and the structure of the increase or decrease in contributions required to systematically fund the Unfunded Actuarial Accrued Liability. When deciding on the Amortization Policy, several objectives may be considered, such as the following:

- Variations in the source of liability changes (i.e. gains or losses, Plan changes, assumption changes) should be funded over periods consistent with an appropriate balance between the policy objectives of demographic matching and volatility management
- The cost changes in Unfunded Actuarial Accrued Liability should emerge as a level percentage of Member compensation

The LCAM model practices for the Amortization Policy include the following:

- Layered fixed period amortization by source
- Level percent of pay amortization
- An amortization period ranging from 15-20 years for experience gains or losses
- An amortization period of 15-25 years for assumption changes

In accordance with the Pension Fund's Funding Policy for the Recommended Contribution, the Unfunded Actuarial Accrued Liability is amortized by level percent of payroll contributions to a 100% funding target over a layered amortization period of 15 years. See the *Actuarial Methods – Recommended Contribution* section of this report for more detail.

The equivalent single amortization period based on the layered amortization of Unfunded Liability is 13.11 years for the current valuation.

We believe that the amortization period is appropriate for the purposes of this valuation.



ACTUARIAL FUNDING POLICIES

ACTUARIAL VALUE OF ASSETS

The Pension Fund is an ongoing plan. The Employer wishes to smooth the effect of volatility in the Market Value of Assets on the annual contribution. Therefore, the Actuarial Value of Assets is equal to the Market Value of Assets with unanticipated gains/losses recognized over a five-year period.

The Asset Valuation Method is intended to create an Actuarial Value of Assets that remains reasonable in relation to the Market Value of Assets over time. The method produces results that can fall either above or below the Market Value of Assets. The period of recognition is short.

It is intended that the period of recognition is short enough to keep the Actuarial Value of Assets within a decent range of the Market Value of Assets. In the event that the Actuarial Value of Assets exceeds or falls below a 10% corridor of the Market Value of Assets, the additional gain or loss will be recognized immediately.





ACTUARIAL ASSUMPTIONS

Nature of Actuarial Calculations
Actuarial Assumptions in the Valuation Process
Assessment of Risk Exposures
Limitations of Risk Analysis
Actuarial Assumptions Utilized

ACTUARIAL ASSUMPTIONS

NATURE OF ACTUARIAL CALCULATIONS

The results documented in this report are estimates based on data that may be imperfect and on assumptions about future events. Certain Plan Provisions may be approximated or deemed immaterial, and, therefore, are not valued. Assumptions may be made about census data or other factors. Reasonable efforts were made in this valuation to ensure that significant items in the context of the Actuarial Accrued Liability or costs are treated appropriately, and not excluded or included inappropriately.

Actual future experience will differ from the assumptions used in the calculations. As these differences arise, the expense for accounting purposes will be adjusted in future valuations to reflect such actual experience.

A range of results different from those presented in this report could be considered reasonable. The numbers are not rounded, but this is for convenience only and should not imply precision which is not inherent in actuarial calculations.

ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS

The contributions and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census data furnished, using the Actuarial Cost Method described in the *Actuarial Funding Policies* section of this report.

The principal areas of financial risk which require assumptions about future experience are:

- Expected Rate of Return on Investments
- Patterns of Pay Increases for Members
- Rates of Mortality Among Active and Inactive Members
- Rates of Termination Among Active Members
- Rates of Disability Among Active Members
- Age Patterns of Actual Retirements

Actual experience of the Pension Fund will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments to the computed Recommended Contribution.

Details behind the selection of the actuarial assumptions can be found in the Actuarial Assumption Summary document provided to the client upon request. The client has reviewed and approved the assumptions as a reasonable expectation of the future anticipated experience under the Plan.



ACTUARIAL ASSUMPTIONS

ASSESSMENT OF RISK EXPOSURES

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). In addition, Actuarial Standards of Practice require that the Actuary minimally perform a qualitative assessment of key financial and demographic risks as part of the risk assessment process with each annual Actuarial Valuation. The risk assessments we perform include, but are not limited to, the following:

- Periodic demographic experience studies every 3 to 5 years to confirm the ongoing appropriateness of actuarial assumptions
- Highlight the impact of demographic experience over the past year, as well as other sources of change and volatility in the *Actuarial Recommended Contribution – Reconciliation* section of this report
- Detail year-over-year changes in contribution levels, assets, liabilities, and Funded Status in the *Recommended Contribution* and *Funded Status* sections in the *Management Summary* section of this report
- Review any material changes in the census as summarized in the *Actuarial Valuation Data* section of this report
- Provide and discuss the Actuarial Assumption Summary document highlighting the rationale for each key assumption chosen by the Board
- Identify potential Cash Flow Risk by highlighting expected benefit payments over the next 5-year and 10-year periods in the *Asset Growth* section in the *Management Summary* section of this report
- Describe the impact of any assumption, method, or policy change in the *Management Summary* section of this report
- Utilize supplemental information, such as the GASB Discount Rate sensitivity disclosures to understand, for example, what impact an alternative Expected Rate of Return on Investments assumption might have on the estimation of Actuarial Accrued Liability and Funded Status
- Utilize supplemental information, such as the GASB solvency test, to better understand the Cash Flow Risk and long-term sustainability of the Plan.

LIMITATIONS OF RISK ANALYSIS

Since future experience may never be precisely as assumed, the process of selecting funding methods and actuarial assumptions may inherently create risk and volatility of results. A more detailed evaluation of the above risk exposures is beyond the scope and nature of the annual Actuarial Valuation process. For example, scenario tests, sensitivity tests, stress tests, and/or stochastic modeling for multi-year projections to assess the impact of alternative assumptions and methods, or modeling future experience different from the assumptions in these results, are not included in this Actuarial Valuation.

The Algonquin Police Pension Fund and/or the Village of Algonquin, Illinois should contact the Actuary if they desire a more detailed assessment of any of these forward-looking risk exposures.





ACTUARIAL ASSUMPTIONS

ACTUARIAL ASSUMPTIONS UTILIZED

Expected Rate of Return on Investments 6.75% Net of Administrative Expense

CPI-U

2.25%

Total Payroll Increases

3.00%

Individual Pay Increases*

3.75% - 21.26%

Individual pay increases include a long-term average increase for inflation, average annual increases for promotions, and any additional increases for a step program. Sample rates are as follows:

Service	Rate	Service	Rate
0	7.80%	8	3.75%
1	8.14%	9	3.75%
2	7.86%	10	3.75%
3	7.78%	15	3.75%
4	7.98%	20	3.75%
5	7.97%	25	3.75%
6	7.98%	30	3.75%
7	21.26%	35	3.75%

*Individual pay increases for active Members hired at age 40 or older are assumed annual increases at the ultimate rate reduced by 50 basis points, without adjustments in early service years.

Retirement Rates

100% of the L&A Assumption Study for Police 2020 Cap Age 65. Sample rates are as follows:

Age	Rate	Age	Rate
50	11.00%	53	12.73%
51	11.55%	54	13.37%
52	12.13%	55	14.04%



ACTUARIAL ASSUMPTIONS

Termination Rates

100% of the L&A Assumption Study for Police 2020. Sample rates are as follows:

Age	Rate
25	8.00%
30	3.40%
35	2.79%
40	2.17%
45	1.56%
50	0.46%

Disability Rates

100% of the L&A Assumption Study for Police 2020. Sample rates are as follows:

Age	Rate
25	0.00%
30	0.06%
35	0.18%
40	0.38%
45	0.53%
50	0.48%

Mortality Rates

65% of active Members who become disabled are assumed to be in the Line of Duty.

Active Mortality follows the Sex Distinct Raw Rates as developed in the Pubs-2010(A) Study. Mortality improvement uses MP-2019 Improvement Rates applied on a fully generational basis.

50% of active Member deaths are assumed to be in the Line of Duty. Retiree Mortality follows the L&A Assumption Study for Police 2020. These rates are experience weighted with the Sex Distinct Raw Rates as developed in the Pubs-2010(A) Study improved to 2017 using MP-2019 Improvement Rates. These rates are then improved fully generationally using MP-2019 Improvement Rates.

Disabled Mortality follows the Sex Distinct Raw Rates as developed in the Pubs-2010 Study for disabled participants. Mortality improvement uses MP-2019 Improvement Rates applied on a fully generational basis.

Spouse Mortality follows the Sex Distinct Raw Rates as developed in the Pubs-2010(A) Study for contingent survivors. For all rates not provided there (ages 45 and younger) the PubG-2010 Study for general employees was used. Mortality improvement uses MP-2019 Improvement Rates applied on a fully generational basis.

ACTUARIAL ASSUMPTIONS

Marital Assumptions

Active Members: 80% of active Members are assumed to be married. Female spouses are assumed to be 3 years younger than male spouses.

Retiree and Disabled Members: Actual spousal data was utilized for retiree and disabled Members.





SUMMARY OF PRINCIPAL PLAN PROVISIONS

Establishment of the Fund
Administration
Member Contributions
Regular Retirement Pension Benefit
Early Retirement Pension Benefit
Surviving Spouse Benefit
Termination Benefit – Vested
Disability Benefit

SUMMARY OF PRINCIPAL PLAN PROVISIONS

ESTABLISHMENT OF THE FUND

The Police Pension Fund is established and administered as prescribed by “Article 3 – Police Pension Fund – Municipalities 500,000 and Under” of the Illinois Pension Code.

ADMINISTRATION

The Police Pension Fund is administered by a Board of Trustees whose duties are to manage the Pension Fund, determine applications for pensions, authorize payment of pensions, establish rules, pay expenses, invest assets, and keep records.

MEMBER CONTRIBUTIONS

Members contribute 9.910% of pensionable salary.

REGULAR RETIREMENT PENSION BENEFIT

Hired Prior to January 1, 2011

Eligibility: Age 50 with at least 20 years of creditable service.

Benefit: 50% of final salary for the first 20 years of service, plus an additional 2.5% of final salary for each year of service beyond 20 years of service, and not to exceed 75% of final salary. “Final salary” is based on the police officer’s pensionable salary attached to rank held on the last day of service, unless the pensionable salary was greater at some point within the year prior to the last day of service. If so, the pensionable salary is averaged over the last 12 months.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 1/12 of 3% of the original monthly benefit for each full month that has passed since the pension began. The initial increase date will be the latter of the first day of the month after the pensioner turns age 55 or the first day of the month after the benefit date anniversary. Subsequent increases of 3% of the current monthly benefit will be granted every January 1st thereafter.





SUMMARY OF PRINCIPAL PLAN PROVISIONS

REGULAR RETIREMENT PENSION BENEFIT - CONTINUED

Hired on or After January 1, 2011

Eligibility: Age 55 with at least 10 years of creditable service.

Benefit: 2.5% of final average salary for each year of service, and not to exceed 75% of final average salary. "Final average salary" is determined by dividing the total pensionable salary during 48 consecutive months of service within the last 60 months of service in which total pensionable salary was the highest, by the number of months of service in that period (or by dividing the total pensionable salary during 96 consecutive months of service within the last 120 months of service in which total pensionable salary was the highest, by the number of months of service in that period, if greater). Annual salary for this purpose will not exceed the salary cap, indexed by the lesser of 3% or the CPI-U for the 12 months ending with the September preceding each November 1st. The salary cap will not decrease.

Annual Increase in Benefit: The initial increase date will be the latter of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or 1/2 of the CPI-U for the 12 months ending with the September preceding each November 1st.

EARLY RETIREMENT PENSION BENEFIT

Hired Prior to January 1, 2011

None.

Hired on or After January 1, 2011

Eligibility: Age 50 with at least 10 years of creditable service.

Benefit: The regular retirement pension benefit reduced by 1/2 of 1% for each month that the police officer's age is between 50 and 55.

Annual Increase in Benefit: The initial increase date will be the latter of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or 1/2 of the CPI-U for the 12 months ending with the September preceding each November 1st.

SUMMARY OF PRINCIPAL PLAN PROVISIONS

SURVIVING SPOUSE BENEFIT

Hired Prior to January 1, 2011

Eligibility: Married to an active police officer with at least 8 years of creditable service, a disabled pensioner at the time of death, or a retired pensioner on the last day of service.

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the police officer's final pensionable salary attached to rank held on the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner: An eligible surviving spouse is entitled to receive the pensioner's benefit at the time of death.

Active Member with 20+ Years of Service: An eligible surviving spouse is entitled to the police officer's eligible benefit at the time of death.

Active Member with 10-20 Years of Service: An eligible surviving spouse is entitled to receive 50% of the police officer's pensionable salary attached to rank held on the last day of service, unless the pensionable salary was greater at some point within the year prior to the last day of service. If so, the pensionable salary is averaged over the last 12 months.

Annual Increase in Benefit: None.

Hired on or After January 1, 2011

Eligibility: Married to an active police officer with at least 8 years of creditable service, a disabled pensioner at the time of death, or a retired pensioner on the last day of service.

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the police officer's final pensionable salary attached to rank held on the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner, Active Member with 20+ Years of Service, and Active Member with 10-20 Years of service: An eligible surviving spouse is entitled to receive the greater of 66⅔% of the police officer's earned pension benefit at the time of death or 54% of the police officer's monthly salary at the time of death.

Annual Increase in Benefit: The initial increase date will be the January 1st after the surviving spouse turns age 60. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.





SUMMARY OF PRINCIPAL PLAN PROVISIONS

TERMINATION BENEFIT – VESTED

Hired Prior to January 1, 2011

Eligibility: Age 60 with at least 8 but less than 20 years of creditable service.

Benefit: 2.5% of final salary for each year of service. "Final salary" is based on the police officer's pensionable salary attached to rank held on the last day of service, unless the pensionable salary was greater at some point within the year prior to the last day of service. If so, the pensionable salary is averaged over the last 12 months.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 1/12 of 3% of the original monthly benefit for each full month that has passed since the pension began. The initial increase date will be the first day of the month after the benefit date anniversary. Subsequent increases of 3% of the current monthly benefit will be granted every January 1st thereafter.

Hired on or After January 1, 2011

None.



SUMMARY OF PRINCIPAL PLAN PROVISIONS

DISABILITY BENEFIT

Hired Prior to January 1, 2011

Eligibility: Duty or Non-Duty Disability or Occupational Disease Disability with at least 5 years of creditable service.

Benefit: For a duty disability or an occupational disease disability with at least 5 years of creditable service, a police officer is entitled to receive the greater of 65% of final salary or the regular retirement pension benefit at the time of disability. For a non-duty disability, a police officer is entitled to receive 50% of final salary. "Final salary" is based on the police officer's pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 3% of the original monthly benefit for each full year that has passed since the pension began. The initial increase date will be the latter of the January 1st after following pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases of 3% of the original monthly benefit will be granted every January 1st thereafter.

Hired on or after January 1, 2011

Eligibility: Duty or Non-Duty Disability or Occupational Disease Disability with at least 5 years of creditable service.

Benefit: For a duty disability or an occupational disease disability with at least 5 years of creditable service, a police officer is entitled to receive the greater of 65% of final salary or the regular retirement pension benefit at the time of disability. For a non-duty disability, a police officer is entitled to receive 50% of final salary. "Final salary" is based on the police officer's pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 3% of the original monthly benefit for each full year that has passed since the pension began. The initial increase date will be the latter of the January 1st after following pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases of 3% of the original monthly benefit will be granted every January 1st thereafter.



GLOSSARY OF TERMS

Glossary of Terms

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Actuarial Accrued Liability – The Actuarial Present Value of future benefits based on Members’ service rendered to the Measurement Date using the selected Actuarial Cost Method. It is that portion of the Actuarial Present Value of Plan benefits and expenses allocated to prior years of employment. It is not provided for by future Normal Costs.

Actuarial Cost Method – The method used to allocate the projected obligations of the Plan over the working lifetimes of the Plan Members.

Actuarial Value of Assets – The value of the assets used in the determination of the Unfunded Actuarial Accrued Liability. The Actuarial Value of Assets is related to Market Value of Assets, with adjustments made to spread unanticipated gains and losses for a given year over a period of several years. Actuarial Value of Assets is generally equally likely to fall above or below the Market Value of Assets, and generally does not experience as much volatility over time as the Market Value of Assets.

Asset Valuation Method – A valuation method designed to smooth random fluctuations in asset values. The objective underlying the use of an Asset Valuation Method is to provide for the long-term stability of Employer Contributions.

Funding Policy – A set of procedures for a Pension Fund that outlines the “best practices” for funding the pension benefits based on the goals of the Plan Sponsor. A Funding Policy discusses items such as assumptions, Actuarial Cost Method, assets, and other parameters that will best help the Plan Sponsor meet their goal of working in the best interest of the Plan Members.

Market Value of Assets – The value of the cash, bonds, securities, and other assets held in the pension trust as of the Measurement Date.

Normal Cost – The present value of future benefits earned by Members during the current Fiscal Year. It is that portion of the Actuarial Present Value of benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

Unfunded Actuarial Accrued Liability – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The Unfunded Actuarial Accrued Liability is amortized over a period either in level dollar amounts or as a level percentage of projected payroll.





Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS



VILLAGE OF ALGONQUIN
GENERAL SERVICES ADMINISTRATION

– M E M O R A N D U M –

DATE: November 5, 2020

TO: Tim Schloneger, Village Manager

FROM: Michael Kumbera, Assistant Village Manager/Treasurer

SUBJECT: *2020 Property Tax Levy*

The attached resolution establishes the amount the Village is requesting for its 2020 property tax levy. State statutes require that the corporate authorities of the Village pass a resolution estimating the amount of tax to be levied not less than 20 days prior to the adoption of the final levy, which is scheduled to be presented at the December 15 Village Board meeting.

Background

For the 2019 tax levy year, the Village’s portion of resident’s tax bill was approximately 6.2 percent (with some minor variations depending on exact location of household). In FY 20/21, property taxes comprise 29 percent of the General Fund revenue, which includes the Road and Bridge tax levy, which is levied by the township level of government. The Village, a home-rule unit of government, is not subject to the Property Tax Extension Limitation Law (PTELL), however, the Village is required to comply with the “Truth in Taxation Law.” The law places requirements on the Village in the adoption of the 2020 property tax levy if the proposed 2020 gross property tax levy is 105 percent greater than the 2019 net property tax extension. Property tax revenues are not used to support business-like activities that are accounted for in enterprise funds, such as the Village’s Water and Sewer Utility.

Recommendation

The recommendation for the 2020 Tax Levy is \$5,812,000. This is an increase of \$212,000 from the 2019 tax levy. The details are shown in Exhibit A which is attached. As the proposed levy is 103.78 percent of last year’s extensions, there is no requirement for a public hearing under the Truth in Taxation Statute. The recommendation does take into consideration several factors that will impact the FY 21/22 financial plan including:

- The actuarial contribution recommendation for the Algonquin Police Pension Fund which exceeds the statutory requirement with a 100 percent funding level by 2033.
- The proportion of state-shared revenues and their stability in the long-term.
- Operational and capital needs for the upcoming period.
- Growth in Equalized Assessed Valuation (EAV) from both property value appreciation and new construction.

Projected EAV

Based on preliminary data obtained from Kane and McHenry County, equalized assessed valuation in the Village is expected to increase for the sixth consecutive year. The estimate of EAV for 2020 is \$1,010,000,000 which is 2.8% more than last year which illustrates appreciation of real estate values and new construction. The assessors in each county use a three year history of property values including sales experience in determining the reassessment or current valuation. Assessments generally lag behind current market pricing by 18 months. The estimated tax rate for 2020 would be 0.57 per \$100 of EAV (refer to Exhibit A for details) which is equal to 2019. A draft resolution reflecting this data is also attached.

Requested Action

Please forward the proposed tax levy information to the Committee of the Whole for review and action.

Attachments

**VILLAGE OF ALGONQUIN
PROPOSED REAL ESTATE TAX LEVY
2020 TAX LEVY**

EQUALIZED ASSESSED VALUATION *	\$1,010,000,000	(2.8% INCREASE)
<u>PURPOSE</u>	<u>ESTIMATED RATE</u>	<u>PROPOSED LEVY</u>
CORPORATE	0.000	\$0
POLICE PENSION	0.226	2,280,000
SOCIAL SECURITY	0.041	412,000
IMRF	0.030	300,000
SCHOOL CROSSING GUARDS	0.000	0
LIABILITY INSURANCE	0.040	400,000
POLICE PROTECTION	0.240	2,420,000
ESDA	0.000	0
TOTAL	=====	=====
	0.575	5,812,000

* *Estimated*

VILLAGE OF ALGONQUIN
SCHEDULE OF PROPERTY TAX RATES & EAV

<u>Tax Levy Year</u>	<u>Rate (\$/\$100)</u>	<u>Levy (\$)</u>	<u>EAV (\$)</u>	<u>% Change EAV</u>
1988	0.600	\$560,450	\$110,909,000	-
1989	0.599	\$693,900	\$135,617,000	22.3%
1990	0.520	\$870,250	\$166,102,000	22.5%
1991	0.554	\$1,099,915	\$192,167,000	15.7%
1992	0.566	\$1,154,155	\$211,172,000	9.9%
1993	0.529	\$1,344,234	\$232,032,000	9.9%
1994	0.556	\$1,439,688	\$269,127,000	16.0%
1995	0.477	\$1,677,581	\$308,854,325	14.8%
1996	0.484	\$1,841,828	\$356,504,156	15.4%
1997	0.486	\$1,873,385	\$419,401,278	17.6%
1998	0.483	\$2,098,213	\$429,661,002	2.4%
1999	0.494	\$2,280,130	\$463,158,850	7.8%
2000	0.489	\$2,350,739	\$513,584,881	10.9%
2001	0.502	\$2,870,821	\$578,127,467	12.6%
2002	0.456	\$3,031,293	\$658,305,942	13.9%
2003	0.484	\$3,613,946	\$747,072,297	13.5%
2004	0.477	\$3,975,083	\$834,437,331	11.7%
2005	0.464	\$4,392,662	\$947,091,750	13.5%
2006	0.464	\$4,829,500	\$1,038,991,569	9.7%
2007	0.470	\$5,242,000	\$1,115,890,792	7.4%
2008	0.485	\$5,601,000	\$1,155,073,386	3.5%
2009	0.484	\$5,601,000	\$1,157,591,396	0.2%
2010	0.523	\$5,601,000	\$1,077,620,673	-6.9%
2011	0.564	\$5,575,000	\$981,280,749	-8.9%
2012	0.621	\$5,481,000	\$887,200,696	-9.6%
2013	0.678	\$5,481,000	\$805,011,458	-9.3%
2014	0.705	\$5,481,000	\$777,811,422	-3.4%
2015	0.716	\$5,731,000	\$800,571,395	2.9%
2016	0.657	\$5,600,000	\$852,365,740	6.5%
2017	0.622	\$5,600,000	\$900,634,801	5.7%
2018	0.588	\$5,600,000	\$951,587,593	5.7%
2019	0.570	\$5,600,000	\$982,740,828	3.3%
2020	0.575	\$5,812,000	\$1,010,000,000	2.8%



VILLAGE OF ALGONQUIN
GENERAL SERVICES ADMINISTRATION

- M E M O R A N D U M -

DATE: September 29, 2020

TO: Tim Schloneger, Village Manager

FROM: Michael Kumbera, Assistant Village Manager

SUBJECT: *2020 Tax Levy Adoption Procedures*

1. The corporate authorities of the Village of Algonquin must determine the estimated amounts of money necessary to be raised by property taxation. The resolution determining the amount to be levied must be approved not less than 20 days prior to the adoption of the aggregate levy. A draft resolution is attached for consideration of the Committee of the Whole on November 10, 2020 and Village Board approval on November 17, 2020.
2. Since the Village intends to levy an aggregate tax less than 105 percent of the previous years' extension, a public hearing is not required.
3. The Village must adopt a tax levy ordinance in order to direct each county (Kane and McHenry) to collect the property taxes. It is recommended that the levy ordinance be considered for approval at the regular Village Board meeting on December 15, 2020.
4. A certified copy of the tax levy must be delivered to each County Clerk before the last Tuesday of December 2020, which falls on December 29, 2020. Due to the holidays, it is recommended that the filing be performed prior to December 22.

c: File

RESOLUTION 2020-R-

**DETERMINING THE AMOUNT OF FUNDS TO BE LEVIED
FOR THE 2020 TAX YEAR THROUGH REAL ESTATE TAXES FOR THE
VILLAGE OF ALGONQUIN, KANE AND McHENRY COUNTIES, ILLINOIS**

**BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE
VILLAGE OF ALGONQUIN, KANE AND McHENRY COUNTIES, ILLINOIS:**

1. That it is determined that the amount of taxes to be levied by the Village of Algonquin, exclusive of election costs, is \$5,812,000, which is less than 105 percent of the prior year's extension.
2. That the amount of taxes proposed to be levied is 103.78 percent of the prior year's extension.
3. That the intent of the Village to levy less than 105 percent does not require an advertisement in the newspaper or a public hearing in accordance with the Truth in Taxation Law (35 ILCS 200/18-55 et seq.).

Debby Sosine, Acting Village President

(SEAL)

Attest: _____
Michelle Weber, Deputy Village Clerk



VILLAGE OF ALGONQUIN
PUBLIC WORKS DEPARTMENT

- M E M O R A N D U M -

DATE: 10/19/2020

TO: Tim Schloneger, Village Manager

CC: Bob Mitchard, Public Works Director

FROM: Steven R. Ludwig, General Services Superintendent
Mike Reif, Internal Services Supervisor

SUBJECT: Vehicles To Be Deemed Surplus

Unit #: 29
Year: 2020
Make: GMC
Model: Sierra
ID/VIN: 1GTR9AEH9LZ228418
Description: Enterprise Lease Turn in

Unit #: 314
Year: 2020
Make: GMC
Model: Sierra
ID/VIN: 1GTR9AEH5LZ228531
Description: Enterprise Lease Turn in

Unit #: 315
Year: 2020
Make: GMC
Model: Sierra
ID/VIN: 1GTR9AEH0LZ229215
Description: Enterprise Lease Turn in

Unit #: 316
Year: 2020
Make: GMC
Model: Sierra
ID/VIN: 1GTR9AEHXLZ230517
Description: Enterprise Lease Turn in

Unit #: 317
Year: 2020
Make: GMC
Model: Sierra
ID/VIN: 1GTRAEHXLZ230517
Description: Enterprise Lease Turn in

Unit #: 105
Year: 2020
Make: GMC
Model: Sierra
ID/VIN: 1GTR9AEH3LZ228849
Description: Enterprise Lease Turn in

Unit #: 609
Year: 2020
Make: GMC
Model: Sierra
ID/VIN: 1GTR9AEH0LZ229554
Description: Enterprise Lease Turn in

Unit #: 615
Year: 2020
Make: GMC
Model: Sierra
ID/VIN: 1GTR9AEH4LZ229251
Description: Enterprise Lease Turn in

Unit #: 826
Year: 2020
Make: GMC
Model: Sierra
ID/VIN: 1GTR9AEH1LZ229868
Description: Enterprise Lease Turn in

Unit #: 956
Year: 2020

Make: GMC

Model: Sierra

ID/VIN: 1GTR9AEH4LZ228746

Description: Enterprise Lease Turn in



VILLAGE OF ALGONQUIN
PUBLIC WORKS DEPARTMENT

– M E M O R A N D U M –

DATE: October 26, 2020

TO: Bob Mitchard, Public Works Director

FROM: Steve Ludwig, General Services Superintendent

SUBJECT: Tele-handler Purchase Recommendation

Attached is the quote for purchase of the tele-handler unit, approved in the budget for \$76,000. The purchase price with attachments, which is sole sourced from our local vendor/franchisee, is \$74,272.

This unit, as you may recall, is recommended as an efficiency improvement in our current processes. It will serve as a year round unit with the versatility and flexibility to replace several units we currently own, and provide further uses to complement our ability to serve. It can utilize all of our current skid steer attachments, will come with new, much needed attachments, and will allow us better agility in our work. It will also increase unit production rates, and provide an impressive array of potential options for service efficiencies.

As a reminder, this purchase will trigger the surplus recommendations for unit 630, 641, and 906, which will have an estimated total auction sale price of approximately \$37,000.

We are very much looking forward to this replacement, which will overwhelmingly improve our processes and capabilities. It is therefore our recommendation to purchase this unit from Atlas Bobcat of Elk Grove Village, IL. in the amount of \$74,272.





Product Quotation

Quotation Number: 34058D034316

Date: 2020-10-20 12:38:48

Ship to	Bobcat Dealer	Bill To
Village of Algonquin Attn: Mike Reif 110 Meyer Drive Algonquin, IL 60102 Phone: (847) 344-9044 Fax: 847.658.2755	Atlas Bobcat, Elk Grove Village, IL 1160 MCCABE AVE ELK GROVE VILLAGE IL 60007 Phone: (847) 678-3633 Fax: (847) 678-3587 ----- Contact: Todd Swartz Phone: 847-678-3633 Fax: 847-678-3587 Cellular: 847-529-1191 E Mail: tswartz@atlasbobcat.com	Village of Algonquin Attn: Mike Reif 110 Meyer Drive Algonquin, IL 60102 Phone: (847) 344-9044 Fax: 847.658.2755

Description	Part No	Qty	Price Ea.	Total
Bobcat V519 74 HP Tier 4 Turbocharged Bobcat D34 3.4L Engine Attachment Control Device (7 Pin connector) Attachment quick-tach mounting system (Bobtach) Auxiliary Hydraulics with coupler release block, selectable flow & case drain Back-up Alarm Boom Float (SN B3YH11235 and above) Eco Mode Enclosed Cab (ROPS/ROPS)with heat and air conditioning; front, rear & roof washer/wipers; dome light; power port; suspension fabric seat; retractable seat belt; tilt steering Front / rear / four-wheel steer Hitch, rear pin type Hydrostatic transmission with 2-speed & Speed Management Control Instrumentation: hour meter; tachometer; engine temperature gauge; fuel gauge; warning lights	M2460	1	\$60,528.00	\$60,528.00
				Lights, Front & Rear (Work & Road) Mirrors, Right & Left Side Reversible cooling fan (S/N B3YH11235 and above) Parking Brake Spark Arrestor exhaust system Wheels: 405/70 - 20 Turn Signals Wheel Fenders Machine Warranty: 12 Months, unlimited hours Bobcat Engine Warranty: Additional 12 Months or total of 2000 hours after initial 12 month warranty

48" Floating Pin Carriage	7140717	1	\$1,431.00	\$1,431.00
--- 48" Highback Floating Forks	6810301	1	\$1,044.00	\$1,044.00
			Total for this Machine	\$63,003.00

Description	Part No	Qty	Price Ea.	Total
80" Industrial Bucket Grapple	7168339	1	\$3,474.00	\$3,474.00
			Total for these items	\$3,474.00

Description	Part No	Qty	Price Ea.	Total
Eterra Cyclone 48" Rotary Brush Cutter		1	\$7,795.00	\$7,795.00

Total of Items Quoted	\$74,272.00
Quote Total - US dollars	\$74,272.00

Notes:

Discount per the Sourcwell - NJPA Contract #040319-CEC. Effective thru 05-31-2023

All prices subject to change without prior notice or obligation. This price quote supersedes all preceding price quotes.

Customer Acceptance:

Purchase Order: _____

Authorized Signature:

Print: _____ **Sign:** _____ **Date:** _____



VILLAGE OF ALGONQUIN
PUBLIC WORKS DEPARTMENT

– M E M O R A N D U M –

DATE: *November 5, 2020*

TO: *Tim Schloneger, Village Manager*
Committee of the Whole

FROM: *Bob Mitchard, Public Works Director*

SUBJECT: *Woods Creek Lift Station Design Services Proposal*

Tim, attached you will find a design services proposal from Trotter Associates, our trusted consultant for sanitary sewer infrastructure design, for the maintenance upgrades and capacity increases necessary for the Woods Creek Lift Station on Algonquin Road, west of Randall Road. As you may be aware, this lift station is historically challenged by peaking flows during wet weather that cause backups in our trunk sewer systems. In addition, it is also the lift station that will be further over-capacitated as homes in Pulte's Trails of Woods Creek begins to come on line.

Therefore, we have proactively hired Trotter to perform a study of the lift station and assess the required upgrades that will be needed to allow the station to function efficiently into the future. We have also been working closely with Baxter and Woodman Engineers to perform flow studies in our tributary systems that feed flow to the Woods Creek Lift Station to determine where our excess wet weather flows originate. Based on these studies, the need is clear and evident that the Village implement a retrofit project of our existing station including larger pumps, different impellers, upgraded electrical controls, and a larger comminutor to handle increase influent flows.

Thus, it is the Public Works Department's recommendation to the Committee of the Whole that they take the necessary action to move the approval of this engineering design proposal with Trotter Associates, in the not to exceed amount of \$31,000.00, on to the full Board of Trustees.



November 3, 2020

Mr. Victor Ramirez
Village of Algonquin
110 Meyer Drive
Algonquin, Illinois 60102

Re: Village of Algonquin
Woods Creek Lift Station Upgrades
Engineering Services Proposal

Dear Mr. Ramirez:

Trotter and Associates, Inc. (ENGINEER) is pleased to provide professional services to the Village of Algonquin (CLIENT) for the Woods Creek Lift Station Upgrades (hereinafter referred to as the "PROJECT").

Project Background

Pulte Home Corporation is scheduled to begin construction Fall 2020 of the Trails of Woods Creek residential subdivision, which is on the former Terrace Hill Golf Course property, located on the south side of Algonquin Road and west of Fairway View Drive. This development contains 278 residential units.

The property is within the Woods Creek Lift Station service area. The Woods Creek Lift Station, located on the northern limits of the Village at 3045 West Algonquin Road, was constructed in 1999 and generally remains in its original condition. The lift station currently serves about 5,830 PE, including from the upstream Square Barn Lift Station (based on water billing data) and is tributary to the Algonquin WWTF.

The lift station consists of a triplex wet pit/dry pit arrangement having 20 hp Aurora immersible pumps equipped with VFDs. A staircase leads down to the influent channel equipped with a 5 hp raw sewage grinder. Bypass pumping capabilities exist but the connection is frequently flooded and thereby not always available for use. A 125 kW on-site generator is housed within the climate-controlled building. The level monitoring system consists of a transducer with float backup, and the station is connected via radio to the SCADA system.

The Trails of Woods Creek development will add approximately 935 PE to the Woods Creek Lift Station service area. This will add approximately 93,500 gpd of flow on an average daily basis and increase the peak flow tributary to the lift station from 935 gpm to 1,124 gpm.

A Lift Station Upgrades Assessment for Future Development completed in April 2020 by Trotter and Associates concluded that there are deficiencies at the lift station that must be addressed in order to properly

serve the existing service area and the Trails of Woods Creek development, including pumping capacity, grinder capacity, and improvements to the force main bypass.

Project Understanding

The Village intends to complete the following upgrades at the Woods Creek Lift Station to address the deficiencies identified in the Lift Station Assessment.

1. Replace existing 20 hp pumps to meet a future peak flow of 1,200 gpm;
2. Replace existing 18” grinder cutter stack with new 24” cutter stack to meet a future peak flow of 1,200 gpm; and
3. New force main bypass vault with sump and sump pump.

Project Scope

Phase 1 Preliminary Design

During the Preliminary Design Phase, Engineer shall:

- A. Hold a Project Kick-off Meeting with Village staff, upon receipt of the Notice to Proceed, to establish project goals & schedule.
- B. Perform site visits as necessary to determine site conditions.
- C. Obtain as-built and equipment information for existing pump station and force mains as needed (Village has provided data prior to this Agreement).
- D. Obtain utility locations, floodplain and floodway information on the existing site and determine site limitations.
- E. The existing site is owned by the Village. Conduct a topographic survey of the site, including property boundaries for design and permitting (Village to locate sanitary sewer and force main).
- F. Review basis of design for pump/system curves for pump sizing and selection. Coordinate with the Village and manufacturers to select new pump equipment. Update design memo prepared during the Lift Station Assessment phase.
- G. Prepare and submit 50% Preliminary Design documents and Engineer’s Opinion of Probable Construction Cost. Preliminary design to include demolition and process sheets for equipment to be replaced..
- H. Attend preliminary design review meeting to address the Village's review comments and concerns.

Phase 2 Final Design

During the Final Design Phase, Engineer shall:

- A. Based on the approved Preliminary Design Phase, prepare 90% Engineering Plans and Specifications to show the scope, extent and character of the work to be furnished and performed by the Contractor for the Improvements. Drawings will include (but not necessarily limited to) the following:
 - i. General Construction Details and Notes;
 - ii. Demolition drawings showing existing structures, equipment and utilities to be removed;

- iii. Civil/Site drawings showing proposed restoration;
 - iv. Process drawings including the equipment layout, valves, meters and process piping;
 - v. Electrical drawings depicting controls and power circuits;
 - vi. Project Specifications with all process equipment selected.
- B. Prepare updated Engineer's Opinion of Probable Construction Cost.
 - C. Hold a meeting with Village staff to review and discuss 90% Engineering Plans and Specifications.
 - D. Submit plans and specifications for IEPA Construction Permit.
 - E. Revise plans in accordance with additional comments and provide 100% complete plans to the Village for review and approval.
 - F. Prepare an opinion of probable cost based on the Final Engineering Plans.
 - G. Make minor revisions to the plans to incorporate changes and additional comments. Prepare electronic documents for distribution for bids.

Phase 3 Bidding

During the Bidding Phase, Engineer shall:

- A. Provide bidding assistance, which will include preparing the bid notice, distributing bid documents, and preparing bid addendums.
- B. Attend a pre-bid conference, if one is deemed necessary.
- C. Respond to questions about the bid documents pertaining to items included within the engineering components.
- D. Assist the Village in reviewing the bids and assembling a bid tabulation and recommendation letter for award of the contract.

Project Schedule

<u>Task</u>	<u>Anticipated Date</u>
Phase 1 Project Kick-off	December 2020
Phase 1 Complete	March 2021
Phase 2 Design Completion	May 2021
Phase 3 Bidding	June 2021

Compensation

The amount equal to the cumulative hours charged to the Project by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Project.

The total compensation for services is estimated to be \$31,000 based on the following assumed distribution of compensation:

Preliminary Design Phase	\$16,600
Final Design Phase	\$9,300
<u>Bidding and Negotiating Phase</u>	<u>\$4,400</u>
Base Engineering Fees	\$30,300
<u>Reimbursable Expenses</u>	<u>\$700</u>
Total Authorized for Design Engineering	\$31,000

ENGINEER's Reimbursable Expenses Schedule and Standard Hourly Rates are attached to this Exhibit B.

ENGINEER may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by CLIENT. The total estimated compensation for ENGINEER's services included in the breakdown by phases incorporates all labor, overhead, profit, Reimbursable Expenses and ENGINEER's Consultant's charges. The amounts billed for ENGINEER's services will be based on the cumulative hours charged to the PROJECT during the billing period by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and ENGINEER's Consultant's charges. The Standard Hourly Rates and Reimbursable Expenses Schedule will be adjusted annually as of January 1st to reflect equitable changes in the compensation payable to ENGINEER.

Miscellaneous

This Agreement constitutes the entire agreement between the parties and supersedes any prior oral or written representations. This agreement may not be changed, modified, or amended except in writing signed by both parties. In the event of any conflict among the exhibits, the exhibit of the latest date shall control.

ENGINEER may have portions of the Services performed by its affiliated entities or their employees, in which event ENGINEER shall be responsible for such services and CLIENT shall look solely to ENGINEER as if ENGINEER performed the Services. In no case shall CLIENT'S approval of any subcontract relieve ENGINEER of any of its obligations under this Agreement. However, ENGINEER is not responsible whatsoever for any obligations its subcontractors might have to its [subcontractors'] employees, including but not limited to proper compensation of its employees.

In the event CLIENT uses a purchase order form or other CLIENT developed document to administer this Agreement, the use of such documents shall be for the CLIENT's convenience only, and any provisions, terms or conditions within the CLIENT developed document shall be deemed stricken, null and void. Any provisions, terms or conditions which the CLIENT would like to reserve shall be added to Exhibit C – Supplemental Conditions and agreed to by both parties.

ENGINEER acknowledges that this project and the scope of work performed thereto will require ENGINEER and all lower tiered subcontractors of ENGINEER to comply with all obligations under and pursuant to the any applicable local, state and/or federal prevailing wage laws (e.g. Davis-Bacon Act, Illinois Prevailing Wage Act, etc.), including but not limited to all wage, notice and/or record keeping requirements to the extent applicable, necessitated and required by law.

If during negotiations or discussion with a Client it becomes clear that Client has determined prevailing wages are not applicable to the work performed by Trotter & Associates, it is best to confirm that understanding in writing with appropriate indemnification language. The following is draft language to consider:

Trotter & Associates' services performed is based on its understanding through the actions, statements and/or omissions of CLIENT that this project [identify] and the work performed relating thereto is professional in nature and not subject to prevailing wage requirements (federal, state or local). If Trotter & Associates' understanding is incorrect, CLIENT agrees and acknowledges that it shall immediately notify Trotter & Associates in writing within forty-eight (48) hours from receiving this notice so that Trotter & Associates may submit a revised proposal and/or invoice reflecting the additional costs associated with applicable prevailing wage laws. If at any time it is determined that this project is or was subject to prevailing wage requirements under federal, state or local law, then CLIENT agrees and acknowledges that it shall reimburse and make whole Trotter & Associates for any back wages, penalties and/or interest owed to its employees or any other third party, including any appropriate governmental agency. CLIENT also agrees that prices, costs and/or applicable fees will also be increased prospectively as required by the increase in wage payments to Trotter & Associates' employees. CLIENT understands and acknowledges that it shall notify Trotter & Associates of any prevailing wage requirements or obligations under applicable laws relating to the work or services performed by Trotter & Associates. CLIENT also agrees to indemnify and hold Trotter & Associates harmless from any error, act or omission on its part with regard to prevailing wage notification that causes any claim, cause of action, harm or loss upon Trotter & Associates, including but not limited to prompt reimbursement to Trotter & Associates of any and all back wages, penalties and/or interest owed to its employees or any other third party, including reasonable attorneys' fees and costs associated with such claim, cause of action, harm or loss.

Contents of Agreement

This Letter Agreement and the Exhibits attached hereto and incorporated herein, represent the entire understanding with respect to the Project and may only be modified in writing signed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

CLIENT:

Village of Algonquin

By: _____

Title: _____

Effective Date: _____

Address for giving notices:

2200 Harnish Drive
Algonquin, IL 60102

Designated Representative

Title:

Phone Number:

E-Mail Address:

ENGINEER:

Trotter and Associates, Inc.

By: Robert Scott Trotter, PE, BCEE

Title: President

Date Signed: November 3, 2020

Address for giving notices:

40W201 Wasco Road, Suite D
St. Charles, IL 60175

Designated Representative: Jillian Kiss, PE

Title: Project Engineer

Phone Number: (630) 587-0470

E-Mail Address: j.kiss@trotter-inc.com

ATTACHMENTS:

EXHIBIT A – STANDARD TERMS AND CONDITIONS

EXHIBIT B – SCHEDULE OF HOURLY RATES AND REIMBURSIBLE EXPENSES

EXHIBIT C – SUPPLEMENTAL GENERAL CONDITIONS

EXHIBIT D – CONTRACT ADDENDUM

CLIENT Initial _____

TAI Initial _____



EXHIBIT A - STANDARD TERMS AND CONDITIONS

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ARTICLE 1 - SERVICES OF ENGINEER

1.01 Scope

A. ENGINEER shall provide the Professional Services set forth herein and in the Letter Agreement.

B. Upon this Agreement becoming effective, ENGINEER is authorized to begin Services.

ARTICLE 2 - CLIENT'S RESPONSIBILITIES

2.01 General

- A. Provide ENGINEER with all criteria and full information as to CLIENT's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which CLIENT will require to be included in the Drawings and Specifications; and furnish copies of CLIENT's standard forms, conditions, and related documents for ENGINEER to include in the Bidding Documents, when applicable.
- B. Furnish to ENGINEER any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.
- C. Following ENGINEER's assessment of initially-available Project information and data and upon ENGINEER's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable ENGINEER to complete its Basic and Additional Services. Such additional information or data would generally include the following:
1. Property descriptions.
 2. Zoning, deed, and other land use restrictions.
 3. Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.
 4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
 5. Environmental assessments, audits, investigations and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas.
 6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.
- D. Give prompt written notice to ENGINEER whenever CLIENT observes or otherwise becomes aware of a Hazardous Environmental Condition or of any other development that affects the scope or time of performance of ENGINEER's services, or any defect or nonconformance in ENGINEER's services or in the work of any Contractor.
- E. Authorize ENGINEER to provide Additional Services as set forth in Exhibit D - Addendum of the Agreement as required.

- F. Arrange for safe access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform services under the Agreement.
- G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by ENGINEER (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as CLIENT deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.
- H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by ENGINEER and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.
- I. Provide, as required for the Project:
 - 1. Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
 - 2. Legal services with regard to issues pertaining to the Project as CLIENT requires, Contractor raises, or ENGINEER reasonably requests.
 - 3. Such auditing services as CLIENT requires to ascertain how or for what purpose Contractor has used the moneys paid.
 - 4. Placement and payment for advertisement for Bids in appropriate publications.
- J. Advise ENGINEER of the identity and scope of services of any independent consultants employed by CLIENT to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructability review.
- K. Furnish to ENGINEER data as to CLIENT's anticipated costs for services to be provided by others for CLIENT so that ENGINEER may make the necessary calculations to develop and periodically adjust ENGINEER's opinion of Total Project Costs.
- L. If CLIENT designates a manager or an individual or entity other than, or in addition to, ENGINEER to represent CLIENT at the Site, the duties, responsibilities, and limitations of authority of such other party shall be disclosed to the ENGINEER and coordinated in relation to the duties, responsibilities, and authority of ENGINEER.
- M. If more than one prime contract is to be awarded for the Work designed or specified by ENGINEER, designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of ENGINEER is to be mutually agreed upon and made a part of this Agreement before such services begin.
- N. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment inspections.
- O. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of Samples, materials, and equipment required by the Contract Documents, or to evaluate the performance of materials, equipment, and facilities of CLIENT, prior to their incorporation into the Work with appropriate professional interpretation thereof.
- P. Provide inspection or monitoring services by an individual or entity other than ENGINEER (and disclose the identity of such individual or entity to ENGINEER) as CLIENT determines necessary to verify:
 - 1. That Contractor is complying with any Laws and Regulations applicable to Contractor's performing and furnishing the Work.
 - 2. That Contractor is taking all necessary precautions for safety of persons or property and complying with any special provisions of the Contract Documents applicable to safety.
- Q. Provide ENGINEER with the findings and reports generated by the entities providing services pursuant to paragraphs 2.01.O and P.

ARTICLE 3 - TIMES FOR RENDERING SERVICES

3.01 General

- A. ENGINEER's services and compensation under this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion. Unless specific periods of time or specific dates for providing services are specified in this Agreement, ENGINEER's obligation to render services hereunder will be for a period which may reasonably be required for the completion of said services.
- B. If in this Agreement specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided, and if such periods of time or dates are changed through no fault of ENGINEER, the rates and amounts of compensation provided for herein shall be subject to equitable adjustment. If CLIENT has requested changes in the scope, extent, or character of the Project, the time of performance of ENGINEER's services shall be adjusted equitably.
- C. For purposes of this Agreement the term "day" means a calendar day of 24 hours.

3.02 Suspension

- A. If CLIENT fails to give prompt written authorization to proceed with any phase of services after completion of the immediately preceding phase, or if ENGINEER's services are delayed through no fault of ENGINEER, ENGINEER may, after giving seven days written notice to CLIENT, suspend services under this Agreement.
- B. If ENGINEER's services are delayed or suspended in whole or in part by CLIENT, or if ENGINEER's services are extended by Contractor's actions or inactions for more than 90 days through no fault of ENGINEER, ENGINEER shall be entitled to equitable adjustment of rates and amounts of compensation provided for elsewhere in this Agreement to reflect, reasonable costs incurred by ENGINEER in connection with, among other

things, such delay or suspension and reactivation and the fact that the time for performance under this Agreement has been revised.

ARTICLE 4 - PAYMENTS TO ENGINEER

4.01 Methods of Payment for Services and Reimbursable Expenses of ENGINEER

- A. *For Basic Services.* CLIENT shall pay ENGINEER for Basic Services performed or furnished under as outlined in the Letter Agreement
- B. *For Additional Services.* CLIENT shall pay ENGINEER for Additional Services performed or furnished as outlined in Exhibit D.
- C. *For Reimbursable Expenses.* CLIENT shall pay ENGINEER for Reimbursable Expenses incurred by ENGINEER and ENGINEER's Consultants as set forth in Exhibit B.

4.02 Other Provisions Concerning Payments

- A. *Preparation of Invoices.* Invoices will be prepared in accordance with ENGINEER's standard invoicing practices and will be submitted to CLIENT by ENGINEER, unless otherwise agreed.
- B. *Payment of Invoices.* Invoices are due and payable within 30 days of receipt. If CLIENT fails to make any payment due ENGINEER for services and expenses within 30 days after receipt of ENGINEER's invoice therefor, the amounts due ENGINEER will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day. In addition, ENGINEER may, after giving seven days written notice to CLIENT, suspend services under this Agreement until ENGINEER has been paid in full all amounts due for services, expenses, and other related charges. Payments will be credited first to interest and then to principal.
- C. *Disputed Invoices.* In the event of a disputed or contested invoice, only that portion so contested may be withheld from payment, and the undisputed portion will be paid.
- D. *Payments Upon Termination.*
 - 1. In the event of any termination under paragraph 6.06, ENGINEER will be entitled to invoice CLIENT and will be paid in accordance with Exhibit B for all services performed or furnished and all Reimbursable Expenses incurred through the effective date of termination.
 - 2. In the event of termination by CLIENT for convenience or by ENGINEER for cause, ENGINEER, in addition to invoicing for those items identified in subparagraph 4.02.D.1, shall be entitled to invoice CLIENT and shall be paid a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with ENGINEER's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit B.
- E. *Records of ENGINEER's Costs.* Records of ENGINEER's costs pertinent to ENGINEER's compensation under this Agreement shall be kept in accordance with generally accepted accounting

practices. To the extent necessary to verify ENGINEER's charges and upon CLIENT's timely request, copies of such records will be made available to CLIENT at cost.

- F. *Legislative Actions.* In the event of legislative actions after the Effective Date of the Agreement by any level of government that impose taxes, fees, or costs on ENGINEER's services or other costs in connection with this Project or compensation therefore, such new taxes, fees, or costs shall be invoiced to and paid by CLIENT as a Reimbursable Expense to which a Factor of 1.0 shall be applied. Should such taxes, fees, or costs be imposed, they shall be in addition to ENGINEER's estimated total compensation.

ARTICLE 5 - OPINIONS OF COST

5.01 Opinions of Probable Construction Cost

- A. ENGINEER's opinions of probable Construction Cost provided for herein are to be made on the basis of ENGINEER's experience and qualifications and represent ENGINEER's best judgment as an experienced and qualified professional generally familiar with the industry. However, since ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, ENGINEER cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by ENGINEER. If CLIENT wishes greater assurance as to probable Construction Cost, CLIENT shall employ an independent cost estimator.

5.02 Designing to Construction Cost Limit

- A. If a Construction Cost limit is established between CLIENT and ENGINEER, such Construction Cost limit and a statement of ENGINEER's rights and responsibilities with respect thereto will be specifically set forth in Exhibit C - Supplemental General Conditions.

5.03 Opinions of Total Project Costs

- A. ENGINEER assumes no responsibility for the accuracy of opinions of Total Project Costs.

ARTICLE 6 - GENERAL CONSIDERATIONS

6.01 Standards of Performance

- A. The standard of care for all professional engineering and related services performed or furnished by ENGINEER under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under similar circumstances at the same time and in the same locality. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.
- B. ENGINEER shall be responsible for the technical accuracy of its services and documents resulting therefrom, and CLIENT shall not be responsible for discovering deficiencies therein. ENGINEER shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in CLIENT-furnished information.

- C. ENGINEER shall perform or furnish professional engineering and related services in all phases of the Project to which this Agreement applies. ENGINEER shall serve as CLIENT's prime professional for the Project. ENGINEER may employ such ENGINEER's Consultants as ENGINEER deems necessary to assist in the performance or furnishing of the services. ENGINEER shall not be required to employ any ENGINEER's Consultant unacceptable to ENGINEER.
- D. ENGINEER and CLIENT shall comply with applicable Laws or Regulations and CLIENT-mandated standards. This Agreement is based on these requirements as of its Effective Date. Changes to these requirements after the Effective Date of this Agreement may be the basis for modifications to CLIENT's responsibilities or to ENGINEER's scope of services, times of performance, or compensation.
- E. CLIENT shall be responsible for, and ENGINEER may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by CLIENT to ENGINEER pursuant to this Agreement. ENGINEER may use such requirements, reports, data, and information in performing or furnishing services under this Agreement.
- F. CLIENT shall make decisions and carry out its other responsibilities in a timely manner and shall bear all costs incident thereto so as not to delay the services of ENGINEER.
- G. Prior to the commencement of the Construction Phase, CLIENT shall notify ENGINEER of any other notice or certification that ENGINEER will be requested to provide to CLIENT or third parties in connection with the Project. CLIENT and ENGINEER shall reach agreement on the terms of any such requested notice or certification, and CLIENT shall authorize such Additional Services as are necessary to enable ENGINEER to provide the notices or certifications requested.
- H. ENGINEER shall not be required to sign any documents, no matter by whom requested, that would result in the ENGINEER's having to certify, guarantee or warrant the existence of conditions whose existence the ENGINEER cannot ascertain. CLIENT agrees not to make resolution of any dispute with the ENGINEER or payment of any amount due to the ENGINEER in any way contingent upon the ENGINEER's signing any such certification.
- I. During the Construction Phase, ENGINEER shall not supervise, direct, or have control over Contractor's work, nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by Contractor, for safety precautions and programs incident to the Contractor's work in progress, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work.
- J. ENGINEER neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.
- K. ENGINEER shall not be responsible for the acts or omissions of any Contractor(s), subcontractor or supplier, or of any of the Contractor's agents or employees or any other persons (except ENGINEER's own employees) at the Site or otherwise furnishing or performing any of the Contractor's work; or for any decision made on interpretations or clarifications of the

Contract Documents given by CLIENT without consultation and advice of ENGINEER.

- L. The General Conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (Document No. 1910-8, 1996 Edition) unless both parties mutually agree to use other General Conditions.

6.02 Authorized Project Representatives

- A. Contemporaneous with the execution of this Agreement, ENGINEER and CLIENT shall designate specific individuals to act as ENGINEER's and CLIENT's representatives with respect to the services to be performed or furnished by ENGINEER and responsibilities of CLIENT under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of each respective party.

6.03 Design without Construction Phase Services

- A. Should CLIENT provide Construction Phase services with either CLIENT's representatives or a third party, ENGINEER's Basic Services under this Agreement will be considered to be completed upon completion of the Final Design Phase or Bidding or Negotiating Phase as outlined in the Letter Agreement.
- B. It is understood and agreed that if ENGINEER's Basic Services under this Agreement do not include Project observation, or review of the Contractor's performance, or any other Construction Phase services, and that such services will be provided by CLIENT, then CLIENT assumes all responsibility for interpretation of the Contract Documents and for construction observation or review and waives any claims against the ENGINEER that may be in any way connected thereto.

6.04 Use of Documents

- A. All Documents are instruments of service in respect to this Project, and ENGINEER shall retain an ownership and property interest therein (including the right of reuse at the discretion of the ENGINEER) whether or not the Project is completed.
- B. Copies of CLIENT-furnished data that may be relied upon by ENGINEER are limited to the printed copies (also known as hard copies) that are delivered to the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by CLIENT to ENGINEER are only for convenience of ENGINEER. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk.
- C. Copies of Documents that may be relied upon by CLIENT are limited to the printed copies (also known as hard copies) that are signed or sealed by the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by ENGINEER to CLIENT are only for convenience of CLIENT. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk.
- D. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days,

after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. ENGINEER shall not be responsible to maintain documents stored in electronic media format after acceptance by CLIENT.

- E. When transferring documents in electronic media format, ENGINEER makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by ENGINEER at the beginning of this Project.
- F. CLIENT may make and retain copies of Documents for information and reference in connection with use on the Project by CLIENT. Such Documents are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the Project or on any other project. Any such reuse or modification without written verification or adaptation by ENGINEER, as appropriate for the specific purpose intended, will be at CLIENT's sole risk and without liability or legal exposure to ENGINEER or to ENGINEER's Consultants. CLIENT shall indemnify and hold harmless ENGINEER and ENGINEER's Consultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting therefrom.
- G. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- H. Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle ENGINEER to further compensation at rates as defined in Exhibit B.

6.05 Insurance

- A. ENGINEER shall procure and maintain insurance as set forth below:
 - 1. Workers Compensation & Employer's Liability
 - a. Each Occurrence: \$1,000,000
 - 2. General Liability
 - a. Each Occurrence: \$1,000,000
 - b. General Aggregate: \$2,000,000
 - 3. Excess or Umbrella Liability
 - a. Each Occurrence: \$5,000,000
 - b. General Aggregate: \$5,000,000
 - 4. Automobile Liability
 - a. Combined Single Limit (Bodily Injury and Property Damage):
Each Accident \$1,000,000
 - 5. Professional Liability
 - a. Each Occurrence: \$2,000,000
 - b. General Aggregate: \$2,000,000
- B. CLIENT shall cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds on any general liability or property insurance policies carried by CLIENT which are applicable to the Project.
- C. CLIENT shall require Contractor to purchase and maintain general liability and other insurance as specified in the Contract Documents and to cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds with respect to

such liability and other insurance purchased and maintained by Contractor for the Project

- D. CLIENT and ENGINEER shall each deliver to the other certificates of insurance evidencing the coverage.
- E. All policies of property insurance shall contain provisions to the effect that ENGINEER's and ENGINEER's Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder.
- F. At any time, CLIENT may request that ENGINEER, at CLIENT's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective. If so requested by CLIENT, with the concurrence of ENGINEER, and if commercially available, ENGINEER shall obtain and shall require ENGINEER's Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by CLIENT.

6.06 Termination

- A. The obligation to provide further services under this Agreement may be terminated:
1. *For cause,*
 - a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.
 - b. By ENGINEER:
 - 1) upon seven days written notice if ENGINEER believes that ENGINEER is being requested by CLIENT to furnish or perform services contrary to ENGINEER's responsibilities as a licensed professional; or
 - 2) upon seven days written notice if the ENGINEER's services for the Project are delayed or suspended for more than 90 days for reasons beyond ENGINEER's control.
 - 3) ENGINEER shall have no liability to CLIENT on account of such termination.
 - c. Notwithstanding the foregoing, this Agreement will not terminate as a result of such substantial failure if the party receiving such notice begins, within seven days of receipt of such notice, to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.
 2. *For convenience,*
 - a. By CLIENT effective upon the receipt of notice by ENGINEER.
- B. The terminating party under paragraphs 6.06.A.1 or 6.06.A.2 may set the effective date of termination at a time up to 30 days later than otherwise provided to allow ENGINEER to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

6.07 Controlling Law

- A. This Agreement is to be governed by the law of the state in which the Project is located.

6.08 Successors, Assigns, and Beneficiaries

- A. CLIENT and ENGINEER each is hereby bound and the partners, successors, executors, administrators and legal representatives of CLIENT and ENGINEER (and to the extent permitted by paragraph 6.08.B the assigns of CLIENT and ENGINEER) are hereby bound to the other party to this

Agreement and to the partners, successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements and obligations of this Agreement.

- B. Neither CLIENT nor ENGINEER may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- C. Unless expressly provided otherwise in this Agreement:
1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by CLIENT or ENGINEER to any Contractor, Contractor's subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them.
 2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of CLIENT and ENGINEER and not for the benefit of any other party. The CLIENT agrees that the substance of the provisions of this paragraph 6.08.C shall appear in the Contract Documents.

6.09 Dispute Resolution

- A. CLIENT and ENGINEER agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to exercising their rights under provisions of this Agreement, or under law. In the absence of such an agreement, the parties may exercise their rights under law.
- B. If and to the extent that CLIENT and ENGINEER have agreed on a method and procedure for resolving disputes between them arising out of or relating to this Agreement, such dispute resolution method and procedure is set forth in Exhibit C, "Supplemental Conditions."

6.10 Hazardous Environmental Condition

- A. CLIENT represents to Engineer that to the best of its knowledge a Hazardous Environmental Condition does not exist.
- B. CLIENT has disclosed to the best of its knowledge to ENGINEER the existence of all Asbestos, PCB's, Petroleum, Hazardous Waste, or Radioactive Material located at or near the Site, including type, quantity and location.
- C. If a Hazardous Environmental Condition is encountered or alleged, ENGINEER shall have the obligation to notify CLIENT and, to the extent of applicable Laws and Regulations, appropriate governmental officials.
- D. It is acknowledged by both parties that ENGINEER's scope of services does not include any services related to a Hazardous Environmental Condition. In the event ENGINEER or any other party encounters a Hazardous Environmental Condition, ENGINEER may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until CLIENT: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or

remove the Hazardous Environmental Condition; and (ii) warrants that the Site is in full compliance with applicable Laws and Regulations.

- E. CLIENT acknowledges that ENGINEER is performing professional services for CLIENT and that ENGINEER is not and shall not be required to become an “arranger,” “operator,” “generator,” or “transporter” of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the Site in connection with ENGINEER’s activities under this Agreement.
- F. If ENGINEER’s services under this Agreement cannot be performed because of a Hazardous Environmental Condition, the existence of the condition shall justify ENGINEER’s terminating this Agreement for cause on 30 days notice.

6.11 Allocation of Risks

A. Indemnification

1. To the fullest extent permitted by law, ENGINEER shall indemnify and hold harmless CLIENT, CLIENT’s officers, directors, partners, and employees from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of ENGINEER or ENGINEER’s officers, directors, partners, employees, and ENGINEER’s Consultants in the performance and furnishing of ENGINEER’s services under this Agreement.
2. To the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER, ENGINEER’s officers, directors, partners, employees, and ENGINEER’s Consultants from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of CLIENT or CLIENT’s officers, directors, partners, employees, and CLIENT’s consultants with respect to this Agreement or the Project.
3. To the fullest extent permitted by law, ENGINEER’s total liability to CLIENT and anyone claiming by, through, or under CLIENT for any cost, loss, or damages caused in part by the negligence of ENGINEER and in part by the negligence of CLIENT or any other negligent entity or individual, shall not exceed the percentage share that ENGINEER’s negligence bears to the total negligence of CLIENT, ENGINEER, and all other negligent entities and individuals.
4. In addition to the indemnity provided under paragraph 6.11.A.2 of this Agreement, and to the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER and its officers, directors, partners, employees, and ENGINEER’s Consultants from and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from a Hazardous Environmental Condition, provided that (i) any such cost, loss, or damage

is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than completed Work), including the loss of use resulting therefrom, and (ii) nothing in this paragraph 6.11.A.4. shall obligate CLIENT to indemnify any individual or entity from and against the consequences of that individual’s or entity’s own negligence or willful misconduct.

5. The indemnification provision of paragraph 6.11.A.1 is subject to and limited by the provisions agreed to by CLIENT and ENGINEER in Exhibit C, “Supplemental Conditions,” if any.

6.12 Notices

- A. Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

6.13 Survival

- A. All express representations, indemnifications, or limitations of liability included in this Agreement will survive its completion or termination for any reason.

6.14 Severability

- A. Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon CLIENT and ENGINEER, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

6.15 Waiver

- A. Non-enforcement of any provision by either party shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

6.16 Headings

- A. The headings used in this Agreement are for general reference only and do not have special significance.

6.16 Definitions

- A. Defined terms will be in accordance with EJCDC No. 1910-1 (1996 Edition)

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CLIENT Initial _____

TAI Initial _____



**EXHIBIT B
SCHEDULE OF HOURLY RATES AND REIMBURSABLE EXPENSES**

2020 Schedule of Hourly Rates		2020 Reimbursable Expenses		
Classification	Billing Rate	Item	Unit	Unit Price
Engineering Intern	\$55.00	Engineering Copies	Sq. Ft.	\$0.29
Engineer Level I	\$110.00	1- 249 Sq. Ft.		
Engineer Level II	\$122.00	Engineering Copies	Sq. Ft.	\$0.27
Engineer Level III	\$134.00	250-999 Sq. Ft.		
Engineer Level IV	\$149.00	Engineering Copies	Sq. Ft.	\$0.25
Engineer Level V	\$168.00	1000-3999 Sq. Ft.		
Engineer Level VI	\$195.00	Engineering Copies	Sq. Ft.	\$0.23
Engineer Level VII	\$205.00	3999 Sq. Ft. & Up		
Engineer VIII	\$233.00	Mylar Engineering Copies	Each	\$8.00
Principal Engineer	\$238.00	up to 24" by 36"		
Technician Level I	\$98.00	Color Presentation Grade	Sq. Ft.	\$5.15
Technician Level II	\$116.00	Large Format Print		
Technician Level III	\$135.00	Comb Binding > 120 Sheets	Each	\$4.75
Technician Level IV	\$147.00	Comb Binding < 120 Sheets	Each	\$3.50
Senior Technician	\$162.00	Binding Strips (Engineering Plans)	Each	\$1.00
GIS Specialist I	\$98.00	5 Mil Laminating	Each	\$1.25
GIS Specialist II	\$111.00	Copy 11" x 17"	Each	\$0.50
GIS Specialist III	\$151.00	- Color		
Clerical Level I	\$64.00	Copy 11" x 17"	Each	\$0.25
Clerical Level II	\$76.00	- Black and White		
Clerical Level III	\$88.00	Copy 8.5" x 11"	Each	\$0.25
Survey Technician Level I	\$66.00	- Color		
Survey Technician Level II	\$79.00	Copy 8.5" x 11"	Each	\$0.12
Survey Crew Chief	\$161.00	- Black and White		
Professional Land Surveyor	\$194.00	Recorded Documents	Each	\$25.00
Department Director	\$192.00	Plat Research		Time and Material
Prevailing Wage Survey Foreman**	\$185.00	Per Diem	Each Day	\$30.00
Prevailing Wage Survey Worker**	\$181.00	Field / Survey Truck	Each Day	\$45.00
Sub Consultants	Cost Plus 5%	Postage and Freight		Cost

***Rates will be escalated for Overtime & Holiday Pay to adjust for Premium Time based on the current Illinois Department of Labor Rules*

Note: On January 1st of each year, the fees and hourly rates may be escalated by an amount not to exceed five (5) percent.

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CLIENT Initial _____

TAI Initial _____



**EXHIBIT C
SUPPLEMENTAL CONDITIONS**

NONE AT THIS TIME

CLIENT Initial _____

TAI Initial _____



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CLIENT Initial _____

TAI Initial _____



**EXHIBIT D
CONTRACT ADDENDUM**

Project Name: _____

Project No. _____

Addendum No. _____

This is an addendum attached to, made part of and incorporated by reference into the Agreement between CLIENT and ENGINEER for modification of scope and compensation for the PROJECT. All other terms and conditions of the original Agreement between CLIENT and ENGINEER are unchanged by this Contract Addendum and shall remain in full force and effect and shall govern the obligations of both CLIENT and ENGINEER, including obligations created by this Contract Addendum.

The contract modifications are described below:

- 1.
- 2.
- 3.

CONTRACT SUMMARY

Original Contract Amount \$ _____

Changes Prior to This Change \$ _____

Amount of This Change \$ _____

Revised Contract Amount: \$ _____

For purposes of expediency, ENGINEER and CLIENT agree that an executed electronic version of this Contract Addendum shall suffice. The original of this Contract Addendum shall be returned to ENGINEER after execution.

CLIENT:

ENGINEER:

VILLAGE OF ALGONQUIN

TROTTER AND ASSOCIATES, INC.

SIGNED:

TITLE

TITLE

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VILLAGE OF ALGONQUIN
PUBLIC WORKS DEPARTMENT

- M E M O R A N D U M -

DATE: 11/04/2020

TO: Robert Mitchard, Public Works Director
Steve Ludwig, General Services Superintendent.

FROM: Michael Reif, Internal Services Supervisor

SUBJECT: Plow Truck Purchases

Attached are two (2) quotes for the purchase of two large plow trucks, approved in the FY21 General Services and Water and Sewer budgets respectively.

In General Services, we will be replacing Vehicle #521 for a total cost of \$195,926 (Budget: \$217,000) using funds from the Vehicle Replacement Fund. In Water and Sewer, we will be replacing Vehicle #822 for a total cost of \$251,316 (Budget: \$250,000) using current operating revenues.

As one of these new trucks will be a hook-lift style and offer additional operating flexibility, we are able to also eliminate Vehicle #524 from our fleet, offering additional recurring savings.

Overall, these two new trucks will replace three aging plow trucks, which all well exceed the APWA standard for replacement. This purchase will lower maintenance costs and increase reliability of the fleet.

These vehicles are being purchase through the state bid, and conform to our fleet model and specifications. Therefore, we are asking to waive the bidding process and single source the purchase.



Rush Truck Center, Springfield

3441 Gatlin Dr
 Springfield, IL 62707
 (217) 523-5631

rushtruckcenters.com

Retail Sales Order

SALES ORDER		Date 10/19/2020															
Please enter my order for the following: <input checked="" type="checkbox"/> New <input checked="" type="checkbox"/> F.E.T. Applicable <input type="checkbox"/> Used <input type="checkbox"/> F.E.T. Exempt		VILLAGE OF ALGONQUIN															
Make International Series HV607 Year 2022 Body Type REFERENCED BELOW Color YELLOW Trim STANDARD		Customer's Name 2200 HARNISH DRIVE ALGONQUIN IL 60102 Street City State Zip (847) 344-9044 Federal Tax ID # Business Phone Fax															
Serial # Stock # To be delivered on or about		Purchaser's Name Street City State Zip Federal Tax ID # Business Phone Fax															
STATE CONTRACT # 19416CMS BOSS-4-P-8607 WAS USED TO PRICE THE FOLLOWING EQUIPMENT		David Mueller By Salesman															
TRUCK CHASSIS SPECIFICATIONS AS LISTED IN SALES PROPOSAL # 15338 DATED 10/06/2020		Truck Will be Titled in <u>McHenry</u> County.															
BODY & MOUNTED EQUIPMENT AS LISTED IN BONNELL INDUSTRIES QUOTE # 0136697 DATED 10/07/2020		LIENHOLDER INFORMATION															
<table style="width:100%; border-collapse: collapse;"> <tr><td>Sales Price</td><td style="text-align: right;">195,604.00</td></tr> <tr><td>Factory Paid F.E.T.</td><td style="text-align: right;">0.00</td></tr> <tr><td>F.E.T. Tire Credit</td><td style="text-align: right;">0.00</td></tr> <tr><td>Total Factory Paid F.E.T.</td><td style="text-align: right;">0.00</td></tr> <tr><td>Optional Extended Warranties</td><td style="text-align: right;">0.00</td></tr> <tr><td>Sub-Total</td><td style="text-align: right;">195,604.00</td></tr> </table>		Sales Price	195,604.00	Factory Paid F.E.T.	0.00	F.E.T. Tire Credit	0.00	Total Factory Paid F.E.T.	0.00	Optional Extended Warranties	0.00	Sub-Total	195,604.00	Date of Lien Lien Holder			
Sales Price	195,604.00																
Factory Paid F.E.T.	0.00																
F.E.T. Tire Credit	0.00																
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Optional Extended Warranties	0.00																
Sub-Total	195,604.00																
<table style="width:100%; border-collapse: collapse;"> <tr><td>Dealer Paid F.E.T. *</td><td style="text-align: right;">0.00</td></tr> <tr><td>Local Taxes</td><td style="text-align: right;">0.00</td></tr> <tr><td>License, Transfer, Title, Registration Fee</td><td style="text-align: right;">158.00</td></tr> <tr><td>Documentary Fee</td><td style="text-align: right;">164.00</td></tr> <tr><td>Total Cash Delivered Price</td><td style="text-align: right;">195,926.00</td></tr> <tr><td>Total Down Payment</td><td style="text-align: right;">0.00</td></tr> <tr><td>Unpaid Cash Balance Due on Delivery</td><td style="text-align: right;">195,926.00</td></tr> </table>		Dealer Paid F.E.T. *	0.00	Local Taxes	0.00	License, Transfer, Title, Registration Fee	158.00	Documentary Fee	164.00	Total Cash Delivered Price	195,926.00	Total Down Payment	0.00	Unpaid Cash Balance Due on Delivery	195,926.00	Draft Through Manufacturer Rebate Total Used Vehicle Allowance * 0.00 Less Total Balance Owed 0.00 Total Net Allowance on Used Vehicle(s) 0.00 Deposit or Credit Balance 0.00 Cash with Order 0.00 ←----- 0.00	
Dealer Paid F.E.T. *	0.00																
Local Taxes	0.00																
License, Transfer, Title, Registration Fee	158.00																
Documentary Fee	164.00																
Total Cash Delivered Price	195,926.00																
Total Down Payment	0.00																
Unpaid Cash Balance Due on Delivery	195,926.00																
A DOCUMENTARY FEE IS NOT AN OFFICIAL FEE. A DOCUMENTARY FEE IS NOT REQUIRED BY LAW, BUT MAY BE CHARGED TO CUSTOMERS FOR HANDLING DOCUMENTS RELATING TO THE SALE. A DOCUMENTARY FEE MAY NOT EXCEED A REASONABLE AMOUNT AGREED TO BY PARTIES. THIS NOTICE IS REQUIRED BY LAW. The Dealer's Inventory Tax charge is intended to reimburse the Dealer for ad valorem taxes on its motor vehicle inventory. The charge, which is paid by the Dealer to the county tax assessor-collector, is not a tax imposed on a Customer by the government, and is not required to be charged by the Dealer to the Customer.		*See Trade-in details on page 4 Customer, by the execution of this Order, offers to purchase the Product(s) described above upon the Terms and Conditions contained herein. Customer acknowledges that Customer has read the Terms and Conditions of this Order on Page 2 and has received a true copy of this Order and the Terms and Conditions.															
*SUBJECT TO ADJUSTMENT - FINAL F.E.T. MAY VARY. ANY F.E.T. VARIANCE RESPONSIBILITY OF DEALER		Customer's Signature Date OFFER RECEIVED BY: <u>David Mueller</u> 10-19-2020 SALES REPRESENTATIVE Date															
NOTICE: THE FOLLOWING ARE IMPORTANT PROVISIONS OF THIS ORDER THIS ORDER CANCELS AND SUPERCEDES ANY PRIOR AGREEMENTS AND, AS OF THE DATE HEREOF, COMPRISES THE COMPLETE AND EXCLUSIVE STATEMENT OF THE TERMS OF THE AGREEMENT BETWEEN THE PARTIES. IF ANY REPRESENTATIONS, SPECIFICATIONS OR OTHER AGREEMENTS ARE RELIED UPON BY CUSTOMER, THEY MUST BE IN WRITING AND SPECIFICALLY IDENTIFIED AND REFERENCED IN THIS ORDER; OTHERWISE, THEY WILL NOT BE BINDING ON OR ENFORCEABLE AGAINST DEALER. THERE ARE NO UNWRITTEN ORAL AGREEMENTS BETWEEN THE PARTIES.		OFFER ACCEPTED BY: _____ AUTHORIZED REPRESENTATIVE Date															



Rush Truck Center, Springfield

3441 Gatlin Dr
Springfield, IL 62707
(217) 523-5631

rushtruckcenters.com

Retail Sales Order

1. Parties to Order; Definitions. As used in this Retail Sales Order ("Order"), the terms: (a) "Dealer" shall mean the Rush Dealer identified at the top of the first page of this Order; (b) "Customer" shall mean the Customer identified on the first page of this Order; (c) "Manufacturer(s)" shall mean the entity or entities that manufactured the Product(s), it being understood by Customer that Dealer is in no respect the agent of Manufacturer(s); and (d) "Product(s)" shall mean the new and/or used vehicle or other components, accessories or products, which are being purchased by Customer, as set forth in this Order.

2. WARRANTY DISCLAIMERS AND LIMITATIONS

NEW PRODUCTS – MANUFACTURER WARRANTIES ONLY. Any warranties on any new Product(s) sold under this Order are limited only to any printed Manufacturers' warranties delivered to Customer with the Product(s). EXCEPT FOR ANY SUCH WARRANTIES MADE BY MANUFACTURERS, THE PRODUCT(S) ARE SOLD WITHOUT ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EACH OF WHICH IS EXPRESSLY DISCLAIMED.

USED PRODUCTS – NO WARRANTIES. All used Product(s) sold under this Order are sold on an "AS IS, WHERE IS" basis, without any warranties by Dealer, provided that Products that are sold by Dealer as "Certified Pre-Owned" are subject to the express written terms and conditions of the Dealer's certified pre-owned program. EXCEPT FOR ANY MANUFACTURERS' WARRANTIES THAT MAY STILL BE IN EFFECT, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED.

LIMITED WARRANTY ON SERVICES. Dealer warrants that all services performed by Dealer for Customer in conjunction with the sale of the Product(s), including if applicable installation, upfitting and conversion services ("Services"), will be performed in a good and workmanlike manner ("Services Warranty"). The Services Warranty is valid for a period of ninety (90) days from the date the Product(s) is delivered to Customer. Customer's sole and exclusive remedy, and Dealer's entire liability, under the Services Warranty is the repair of any nonconforming portion of the Services. DEALER PROVIDES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, CONCERNING ITS SERVICES. The Services Warranty is strictly limited to Services performed by Dealer for Customer. Dealer does not warrant any services provided by any third-party, including but not limited to installation, upfitting or conversion services. Any warranties are solely those that are provided by the third-party service provider.

NO OTHER WARRANTIES. EXCEPT AS SET FORTH ABOVE, DEALER EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED.

3. Reappraisal of Trade-In Vehicle. If the motor vehicle which has been traded in ("Trade-In Vehicle") as a part of the consideration for the Product(s) ordered hereunder is not to be delivered to Dealer until delivery to Customer of the Product(s), the Trade-In Vehicle shall be reappraised at that time and such reappraised value shall determine the allowance made for the Trade-In Vehicle. If the reappraised value is lower than the original allowance shown on the front of this Order, Customer may, if dissatisfied, cancel this Order.

4. Delivery of Trade-In Vehicle by Customer; Customer Warranty of Title. Customer agrees to deliver to Dealer satisfactory evidence of title to the Trade-In Vehicle at the time of delivery of the Trade-In Vehicle to Dealer. Customer warrants the Trade-In Vehicle to be Customer's property free and clear of all liens and encumbrances.

5. Delay or Failure in Delivery; Limitation of Dealer Liability. Dealer shall not be liable for failure to deliver or delay in delivering any Product(s) covered by this Order where such failure or delay is due, in whole or in part, to any cause beyond the reasonable control, or is without the gross negligence or intentional misconduct, of Dealer. Examples of causes beyond Dealer's reasonable control include, but are not limited to, Manufacturers' delay or failure to deliver Product(s) for any reason, earthquake, hurricane or other natural disaster, fire, war, terrorist act, labor dispute, strike, etc.

6. Liability for Taxes. The price for the Product(s) specified on the face of this Order includes reimbursement to Dealer for federal excise taxes paid, but does not include sales or use taxes or occupational taxes based on sales volume (federal, state or local) unless expressly so stated. Customer assumes and agrees to pay, unless prohibited by law, any such sales or use or occupational taxes imposed on or applicable to the transaction covered by this Order, regardless of which party may have primary tax liability thereof.

7. Customer's Deposit. Any Customer's deposit, whether cash or Trade-In Vehicle, shall not be refunded except due to Dealer's failure to deliver the Product(s).

8. Risk of Loss; Insurance. Customer shall assume all risk of loss relating to the Product(s) at the time Customer receives possession of the Product(s), or at the time Customer receives title to the Product(s) if title is conveyed before Customer receives possession. Customer shall obtain insurance for the Product(s) that will be in effect at the time Customer takes possession of the Product(s), or at the time Customer receives title to the Product(s) if title is conveyed before the Customer receives possession. Dealer shall have no responsibility or liability related to the Product(s) after Customer receives either possession or title to the Product(s).

9. Governing Law; Venue; Time to Commence Action. Except to the extent that the laws of the United States may apply or otherwise control this Order, the rights and obligations of the parties hereunder shall be governed by, and construed and interpreted in accordance with, the laws of the state in which Dealer is located, without regard to conflict of law principles. The mandatory venue for any claim, litigation, civil action or any other legal or administrative proceeding ("Action") involving any controversy or claim between or among the parties to this Order, is the state in which Dealer is located. Customer has one (1) year from the accrual of any cause of action arising from the purchase of the Product(s) to commence an Action against Dealer.

10. Limitation of Damages. Customer agrees that in the event of any Action brought by Customer against Dealer, Customer shall not be entitled to recover any incidental or consequential damages as defined in the Uniform Commercial Code, including but not limited to indirect or special damages, loss of income or anticipated profits, or down-time, or any punitive damages.

11. Fees and Expenses of Actions. In any Action, whether initiated by Dealer or Customer, where the Customer has a right, pursuant to statute, common law or otherwise, to recover reasonable attorneys' fees and costs in the event it prevails, Customer agrees that Dealer shall have the same right to recover reasonable attorneys' fees and costs incurred in connection with the Action in the event that Dealer prevails.

12. Execution and Delivery by Electronic Transmission. If this Order or any document executed in connection with this Order is delivered by facsimile, email or similar instantaneous electronic transmission device pursuant to which the signature of or on behalf of such party can be seen, such execution and delivery shall be considered valid, binding and effective for all purposes as an original document. Additionally, the signature of any party on this Order transmitted by way of a facsimile machine or email shall be considered for all purposes as an original signature. Any such faxed or emailed document shall be considered to have the same binding legal effect as an original document. At the request of Dealer, any faxed or emailed document shall be re-executed by Customer in an original form.

13. Waiver; Severability. No waiver of any term of this Order shall be valid unless it is in writing and signed by Dealer's authorized representative. If any provision or part of any provision of this Order shall be deemed to violate any applicable law or regulation, such invalid provision or part of a provision shall be inapplicable, BUT the remaining part of that provision and the remainder of the Order shall continue to be binding and enforceable.

14. No Broker; Manufacturer Incentives. If at any time Dealer determines that the Customer intends to engage in the resale of vehicles for profit, where such resale is not in conjunction with further manufacturing, Dealer reserves the right to cancel this Order. Certain manufacturer incentives are intended to be used for retail customers at the location as identified by the Customer in this Order. Customer represents that they will register the vehicle with their state motor vehicle department and are not purchasing this vehicle with the intent to resell/export the vehicle, except where such resale is in conjunction with further manufacturing. If at any time Dealer determines that the foregoing representations are not true, Dealer has the right to seek repayment of any manufacturer incentives that are paid.

15. Communication Consent. Dealer and any other owner or servicer of this account may use any information Customer gives Dealer, including but not limited to email addresses, cell phone numbers, and landline numbers, to contact Customer for purposes related to this account, including debt collection and marketing purposes. In addition, Customer expressly consents to any such contact being made by the most efficient technology available, including but not limited to, automated dialing equipment, automated messages, and prerecorded messages, even if Customer is charged for the contact.

Customer Initial _____



Rush Truck Center, Springfield

3441 Gatlin Dr
 Springfield, IL 62707
 (217) 523-5631

rushtruckcenters.com

Retail Sales Order

SALES ORDER		Date 10/16/2020	
Please enter my order for the following: <input checked="" type="checkbox"/> New <input checked="" type="checkbox"/> F.E.T. Applicable <input type="checkbox"/> Used <input type="checkbox"/> F.E.T. Exempt		VILLAGE OF ALGONQUIN Customer's Name 2200 HARNISH DRIVE ALGONQUIN IL 60102	
Make International	Series HV607	Street	City State Zip (847) 344-9044
Year 2022	Body Type REFERENCED BELOW	Federal Tax ID #	Business Phone Fax
Color WHITE	Trim STANDARD	Purchaser's Name	
Serial #		Street	City State Zip
Stock #		Federal Tax ID #	Business Phone Fax
To be delivered on or about		By Salesman David Mueller	
STATE CONTRACT # 19416CMS BOSS-4-P-8607		Truck Will be Titled in <u>McHenry</u> County.	
WAS USED TO PRICE THE FOLLOWING EQUIPMENT		LIENHOLDER INFORMATION	
TRUCK CHASSIS SPECIFICATIONS AS LISTED IN		Date of Lien	
SALES PROPOSAL # 15239 DATED 10/06/2020		Lien Holder	
BODY & MOUNTED EQUIPMENT AS LISTED IN			
BONNELL INDUSTRIES QUOTE # 0136698			
DATED 10/07/2020			
Sales Price	250,994.00		
Factory Paid F.E.T.	0.00	Draft Through	
F.E.T. Tire Credit	0.00		
Total Factory Paid F.E.T.	0.00		
Optional Extended Warranties	0.00		
Sub-Total	250,994.00		
Dealer Paid F.E.T. *	0.00	Manufacturer Rebate	
Local Taxes	0.00	Total Used Vehicle Allowance *	
License, Transfer, Title, Registration Fee	158.00	Less Total Balance Owed	
Documentary Fee	164.00	Total Net Allowance on Used Vehicle(s)	
Total Cash Delivered Price	251,316.00	Deposit or Credit Balance	
Total Down Payment	0.00	Cash with Order	
Unpaid Cash Balance Due on Delivery	251,316.00	←-----	
		*See Trade-in details on page 4	
A DOCUMENTARY FEE IS NOT AN OFFICIAL FEE. A DOCUMENTARY FEE IS NOT REQUIRED BY LAW, BUT MAY BE CHARGED TO CUSTOMERS FOR HANDLING DOCUMENTS RELATING TO THE SALE. A DOCUMENTARY FEE MAY NOT EXCEED A REASONABLE AMOUNT AGREED TO BY PARTIES. THIS NOTICE IS REQUIRED BY LAW. The Dealer's Inventory Tax charge is intended to reimburse the Dealer for ad valorem taxes on its motor vehicle inventory. The charge, which is paid by the Dealer to the county tax assessor-collector, is not a tax imposed on a Customer by the government, and is not required to be charged by the Dealer to the Customer.		Customer, by the execution of this Order, offers to purchase the Product(s) described above upon the Terms and Conditions contained herein. Customer acknowledges that Customer has read the Terms and Conditions of this Order on Page 2 and has received a true copy of this Order and the Terms and Conditions.	
*SUBJECT TO ADJUSTMENT – FINAL F.E.T. MAY VARY. ANY F.E.T. VARIANCE RESPONSIBILITY OF DEALER		Customer's Signature Date <i>David Mueller</i> 10-16-2020	
NOTICE: THE FOLLOWING ARE IMPORTANT PROVISIONS OF THIS ORDER THIS ORDER CANCELS AND SUPERCEDES ANY PRIOR AGREEMENTS AND, AS OF THE DATE HEREOF, COMPRISES THE COMPLETE AND EXCLUSIVE STATEMENT OF THE TERMS OF THE AGREEMENT BETWEEN THE PARTIES. IF ANY REPRESENTATIONS, SPECIFICATIONS OR OTHER AGREEMENTS ARE RELIED UPON BY CUSTOMER, THEY MUST BE IN WRITING AND SPECIFICALLY IDENTIFIED AND REFERENCED IN THIS ORDER; OTHERWISE, THEY WILL NOT BE BINDING ON OR ENFORCEABLE AGAINST DEALER. THERE ARE NO UNWRITTEN ORAL AGREEMENTS BETWEEN THE PARTIES.		OFFER RECEIVED BY: SALES REPRESENTATIVE Date OFFER ACCEPTED BY: AUTHORIZED REPRESENTATIVE Date	



Rush Truck Center, Springfield

3441 Gatlin Dr
Springfield, IL 62707
(217) 523-5631

rushtruckcenters.com

Retail Sales Order

1. Parties to Order; Definitions. As used in this Retail Sales Order ("Order"), the terms: (a) "Dealer" shall mean the Rush Dealer identified at the top of the first page of this Order; (b) "Customer" shall mean the Customer identified on the first page of this Order; (c) "Manufacturer(s)" shall mean the entity or entities that manufactured the Product(s), it being understood by Customer that Dealer is in no respect the agent of Manufacturer(s); and (d) "Product(s)" shall mean the new and/or used vehicle or other components, accessories or products, which are being purchased by Customer, as set forth in this Order.

2. WARRANTY DISCLAIMERS AND LIMITATIONS

NEW PRODUCTS – MANUFACTURER WARRANTIES ONLY. Any warranties on any new Product(s) sold under this Order are limited only to any printed Manufacturers' warranties delivered to Customer with the Product(s). EXCEPT FOR ANY SUCH WARRANTIES MADE BY MANUFACTURERS, THE PRODUCT(S) ARE SOLD WITHOUT ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EACH OF WHICH IS EXPRESSLY DISCLAIMED.

USED PRODUCTS – NO WARRANTIES. All used Product(s) sold under this Order are sold on an "AS IS, WHERE IS" basis, without any warranties by Dealer, provided that Products that are sold by Dealer as "Certified Pre-Owned" are subject to the express written terms and conditions of the Dealer's certified pre-owned program. EXCEPT FOR ANY MANUFACTURERS' WARRANTIES THAT MAY STILL BE IN EFFECT, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED.

LIMITED WARRANTY ON SERVICES. Dealer warrants that all services performed by Dealer for Customer in conjunction with the sale of the Product(s), including if applicable installation, upfitting and conversion services ("Services"), will be performed in a good and workmanlike manner ("Services Warranty"). The Services Warranty is valid for a period of ninety (90) days from the date the Product(s) is delivered to Customer. Customer's sole and exclusive remedy, and Dealer's entire liability, under the Services Warranty is the repair of any nonconforming portion of the Services. DEALER PROVIDES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, CONCERNING ITS SERVICES. The Services Warranty is strictly limited to Services performed by Dealer for Customer. Dealer does not warrant any services provided by any third-party, including but not limited to installation, upfitting or conversion services. Any warranties are solely those that are provided by the third-party service provider.

NO OTHER WARRANTIES. EXCEPT AS SET FORTH ABOVE, DEALER EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED.

3. Reappraisal of Trade-In Vehicle. If the motor vehicle which has been traded in ("Trade-In Vehicle") as a part of the consideration for the Product(s) ordered hereunder is not to be delivered to Dealer until delivery to Customer of the Product(s), the Trade-In Vehicle shall be reappraised at that time and such reappraised value shall determine the allowance made for the Trade-In Vehicle. If the reappraised value is lower than the original allowance shown on the front of this Order, Customer may, if dissatisfied, cancel this Order.

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9. Governing Law; Venue; Time to Commence Action. Except to the extent that the laws of the United States may apply or otherwise control this Order, the rights and obligations of the parties hereunder shall be governed by, and construed and interpreted in accordance with, the laws of the state in which Dealer is located, without regard to conflict of law principles. The mandatory venue for any claim, litigation, civil action or any other legal or administrative proceeding ("Action") involving any controversy or claim between or among the parties to this Order, is the state in which Dealer is located. Customer has one (1) year from the accrual of any cause of action arising from the purchase of the Product(s) to commence an Action against Dealer.

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12. Execution and Delivery by Electronic Transmission. If this Order or any document executed in connection with this Order is delivered by facsimile, email or similar instantaneous electronic transmission device pursuant to which the signature of or on behalf of such party can be seen, such execution and delivery shall be considered valid, binding and effective for all purposes as an original document. Additionally, the signature of any party on this Order transmitted by way of a facsimile machine or email shall be considered for all purposes as an original signature. Any such faxed or emailed document shall be considered to have the same binding legal effect as an original document. At the request of Dealer, any faxed or emailed document shall be re-executed by Customer in an original form.

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Customer Initial _____



Village of Algonquin

Police Department

-MEMORANDUM-



DATE: November 3, 2020
TO: Tim Schloneger, Village Manager
FROM: John Bucci, Chief of Police
SUBJECT: Vehicle Purchases

The Department is requesting to purchase three replacement vehicles. Two hybrid SUV's for patrol use and one sedan for administrative use.

Two 2020 Ford Interceptor Hybrid SUV's will be purchased from Morrow Brothers Ford for cost of \$37,880 per vehicle. These SUV's will be utilized for patrol purposes and will be upfitted with equipment that includes consoles, computer mounts, transport seats, partitions, push bars, emergency light/siren control boxes, lighting, sirens and rear storage boxes. The cost of equipment and installation is approximately \$20,000 per vehicle which includes graphics, radios, and radars; however, the majority of the equipment for one vehicle will be provided for free as part of the grand prize for the Illinois Traffic Safety Challenge.

One 2020 Ford Fusion will be purchased from Morrow Brothers Ford for a cost of \$21,770.00. Equipment and upfitting of siren and emergency lights will be provided by Ultra Strobe Communications at a cost of \$2,320.00.

I respectfully request consensus to move this item forward for Village Board approval.



WWW.MORROWBROTHERSFORDINC.COM

1242 Main Street • GREENFIELD IL 62044

(217) 368-3037 • Fax (217) 368-3517 • Toll free 1-877-368-3038

October 15, 2020

Ryan D. Markham
Deputy Chief of Police
Algonquin Police Department
(847) 658-5491

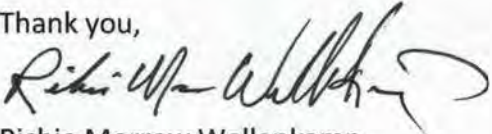
We have figured the following for your consideration.

1-New 2020 Ford Police Interceptor Utility AWD Hybrid

- Exterior Color TBD
- Cloth Front Bucket Seats
- Vinyl Rear Bench Seat
- 18D Hatch Timer Delete
- 68G Rear L/W/H Inoperative
- 60A Grill/Lamp/Speaker Wiring
- 51R Driver's Side LED Spotlight
- 549 Power Heated Mirrors
- 47A Factory Police Engine Idle
- New MP License/Title
- All other standard equipment

2020 Interceptor Utility AWD Illinois Government Price \$37,880.00 *

A limited quantity of units are in stock* at the time of this quote. Units are available first come, first serve. Additional options can be added as required. Let me know if you have any questions.

Thank you,

Richie Morrow Wellenkamp
Government Sales Manager
Morrow Brothers Ford, Inc.

October 15, 2020

Ryan D. Markham

Deputy Chief of Police

Algonquin Police Department

We have figured the below vehicle for your consideration.

Vehicle Description		Price Information	MSRP
FUSION	2020 FUSION 2.5L I4 IVCT 6-SPD AUTO TRANSMISSION	STANDARD VEHICLE PRICE	\$23,170
Standard Equipment INCLUDED AT NO EXTRA CHARGE		Included on this Vehicle	
<p>EXTERIOR</p> <ul style="list-style-type: none"> . GLASS - SOLAR-TINTED . HEADLAMPS - AUTOLAMP . MANUAL FOLD POWER MIRRORS . WIPERS - RAIN-SENSING <p>INTERIOR</p> <ul style="list-style-type: none"> . AUTO-DIM REARVIEW MIRROR . DRIVER, 4-WAY FRONT PASS STORAGE & 2 CUPHOLDERS . POWERPOINTS - 12V (2) . TILT STEERING WHL/ CRUISE . WINDOWS-1-TOUCH UP/DOWN . WINDOWS-GLOBAL OPEN/CLOSE <p>FUNCTIONAL</p> <ul style="list-style-type: none"> . FORD CO-PILOT360 . HOTSPOT TELEMATICS MODEM . PUSH-BUTTON START . REMOTE KEYLESS ENTRY <p>SAFETY/SECURITY</p> <ul style="list-style-type: none"> . AIRBAG-DRIVER/PASS KNEE . AIRBAGS - FRONT SEAT . AIRBAGS - SIDE AIR CURTAIN . PERIMETER ALARM . TPMS - INDIVIDUAL <p>WARRANTY</p> <ul style="list-style-type: none"> . 5YR/60,000 ROADSIDE ASSIST 		<p>EASY FUELÂ® CAPLESS FILLER</p> <p>HEADLAMP COURTESY DELAY (ON/OFF)</p> <p>TAIL LAMPS - LED</p> <p>60/40 SPLIT FOLD REAR SEAT</p> <p>BUCKET SEATS-MANUAL 6-WAY</p> <p>CENTER CONSOLE W/ARMREST, CLOTH SEATING SURFACES</p> <p>ROTARY GEAR SHIFT DIAL & AUDIO CONTROLS</p> <p>FRONT/REAR</p> <p>AM/FM/MP3, 4SPKR</p> <p>FORDPASS CONNECT 4GWI-FI</p> <p>POWER STEERING W/EPAS</p> <p>REAR VIEW CAMERA</p> <p>ADVANCETRAC ESC</p> <p>AIRBAGS - DUAL STAGE FRONT MOUNTED SIDE IMPACT</p> <p>LATCH CHILD SAFETY SYSTEM</p> <p>SECURILOCKÂ® ANTI-THEFT SYS</p> <p>3YR/36,000 BUMPER / BUMPER</p> <p>5YR/60,000 POWERTRAIN</p>	<p>Optional Equipment</p> <p>2020 MODEL YEAR</p> <p>ICONIC SILVER</p> <p>MED LT STONE CLOTH SEATS</p> <p>2.5L I4 IVCT</p> <p>50 STATE EMISSIONS</p> <p>LANE KEEPING SYSTEM</p> <p>BLIS W/CROSS TRAFFIC ALERT</p> <p>FRONT LICENSE PLATE BRACKET</p>
		TOTAL VEHICLE & OPTIONS	23,170
		DESTINATION & DELIVERY	995
		TOTAL MSRP	\$24,165
		ILLINOIS GOVERNMENT PRICE \$21,770.00	

Unit is available for immediate delivery at the time of this quote. Any and all trades are welcome. Let me know if you have any questions and how you would like to proceed.

Thank you,

Richie Morrow Wellenkamp
Government Sales Manager
Morrow Brothers Ford, Inc.



Village of Algonquin

Police Department

-MEMORANDUM-



DATE: November 3, 2020
TO: Tim Schloneger, Village Manager
FROM: John Bucci, Chief of Police
SUBJECT: Electronic Crash & Citation Program Purchase

The department would like to request the approval to purchase a new electronic crash and citation reporting system that was previously approved through the budget process.

Currently, we are using programs provided to us by McHenry County. Due to their poor reporting capabilities, and the inability for them to link to different agencies (i.e. Kane County) we are forced to supply more time processing reports and citations that includes department support staff entering in each item into multiple databases.

The Brazos program will allow us to continue to work electronically in the field, but will also provide us with reporting options, interfaces to both McHenry County and Kane County court systems, as well as the Illinois Department of Transportation.

In addition, the citation portion of the system will be programmed for ordinance violations, including parking tickets. This gives two advantages to the department as a whole. First, it eliminates the need to purchase pre-printed ordinance citations and parking ticket books, and second, department support staff will not have to spend time typing the information into two different databases, freeing up time for required national reporting, FOIA requests, and required expungement processes.

The cost for the program, maintenance, training, and support for the first year, will be approximately \$58,000.00. Subsequent years will have an annual hosting and maintenance cost of approximately \$11,286.00.

I respectfully request consensus to move this item forward for Village Board approval.



Quoted By: Mark Lepley
 Quote Expiration: 11/13/2020
 Quote Name: Algonquin Police-Brazos eCitation and eCrash
 Quote Number: 2019-98297-2
 Quote Description: Brazos eCitation, eWarnings, Local Ordinances and eCrash/Driver Exchange

Sales Quotation For

Algonquin Police Department
 2200 Harnish Dr
 Algonquin , IL 60102-5995
 Phone: +1 (847) 658-2723

Tyler Software and Related Services

Description	License	Impl Hours	Impl Cost	Data Conversion	Module Total	Maintenance
Brazos						
Device Level Interface: TriTech VisiCAD Mobile	\$3,250	0	\$0	\$0	\$3,250	\$683
Interface: Court	\$3,250	0	\$0	\$0	\$3,250	\$683
Interface: TriTech (Vision) Records Mgmt System (2)	\$6,500	0	\$0	\$0	\$6,500	\$1,365
Interface: Tyler Odyssey Court Case Mgmt System	\$0	0	\$0	\$0	\$0	\$0
eCitation - Brazos Rapid Extension Framework - MDC or TABLET (16)	\$13,600	0	\$0	\$0	\$13,600	\$2,856
Interface: eCommerce - Carfax Crash Sales	\$3,250	0	\$0	\$0	\$3,250	\$683
Interface: IDOT - State of Illinois	\$3,250	0	\$0	\$0	\$3,250	\$683
Brazos Crash Reporting (w/ Drawing Tool) (16)	\$7,200	0	\$0	\$0	\$7,200	\$1,512
<i>Sub-Total:</i>	\$40,300		\$0	\$0	\$40,300	\$8,465
<i>Less Discount:</i>	\$4,030					
TOTAL:	\$36,270	0	\$0	\$0	\$36,270	\$8,465

Tyler Software and Related Services - Annual

Description	One Time Fees			Annual Fee
	Impl. Hours	Impl. Cost	Data Conversion	
Brazos Hosting Fee	0	\$0	\$0	\$2,821
<i>Sub-Total:</i>		\$0	\$0	\$2,821
TOTAL:	0	\$0	\$0	\$2,821

Other Services

Description	Quantity	Unit Price	Extended Price	Maintenance
Brazos Project Mgmt (plus per diem as needed if not remote)	1	\$3,000	\$3,000	\$0
Set Up & Config	1	\$10,000	\$10,000	\$0
Set Up Fees - Third Party Hardware	16	\$50	\$800	\$0
Training	1	\$2,000	\$2,000	\$0

Odyssey Interface: Set Up & Configuration	1	\$0	\$0	\$0
Standard Crash Training Package	1	\$1,500	\$1,500	\$0
State Compliant Crash Report Config & Set Up	1	\$2,500	\$2,500	\$0
TOTAL:			\$19,800	\$0

Summary	One Time Fees	Recurring Fees
Total Tyler Software	\$36,270	\$8,465
Total Tyler Annual	\$0	\$2,821
Total Tyler Services	\$19,800	\$0
Total Third Party Hardware, Software and Services	\$0	\$0
Summary Total	\$56,070	\$11,286
Estimated Travel Expenses	\$1,500	

Optional Tyler Software and Related Services

Description	License	Impl Hours	Impl Cost	Data Conversion	Module Total	Maintenance
Brazos						
Interface: Tyler Incode Court Case Mgmt System	\$0	0	\$0	\$0	\$0	\$0
<i>Sub Total:</i>	<i>\$0</i>		<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
TOTAL:	\$0	0	\$0	\$0	\$0	\$0

Optional Other Services

Description	Quantity	Unit Price	Extended Price	Maintenance
Incode Interface: Set Up & Configuration	1	\$0	\$0	\$0
TOTAL:			\$0	\$0

Comments

Subject to the applicable terms of your existing contract with Tyler, and for the fees quoted herein, we grant you: (i) a per-unit license to the software located on the ticket writer hardware provided under this purchase order, and (ii) a per-unit license to access a remote database via the ticket writer hardware, both for your internal business purposes only. We will provide remote database access according to our industry standard hosting terms of service, a copy of which will be provided to you upon your written request. Tyler will invoice Client for the License Fees listed above upon delivery of the software. Maintenance Fees listed above will be invoiced upon one (1) year from the effective date and annually thereafter on the anniversary of that date. The first year's maintenance fees are waived. All payment terms are net thirty (30) days.

Assumptions:

Laptop Configuration (Brazos eCitation and eCrash)

Brazos eCitation Licenses (16 existing MDT's)

Brazos eCrash Licenses (16 existing MDT's)

Traffic Citations (IL UTC)

Local Ordinance Citations

Warning Citations

IDOT Traffic and Pedestrian Stop Forms and Stop Receipt

IDOT Demographic Profile Report

IL 1050 Crash Report

Driver Exchange Form

Citation Records Interface (Central Square - VisionAir)*

Accident Reports Interface (Central Square - VisionAir)*

Mobile Device Interface for eCitation and eCrash (Central Square - VisionAir Mobile)*

McHenry County Court Interface*

Kane County Court Interface (Odyssey)

Crash Sales Interface (CarFax)*

IDOT Crash Interface (Submission of crash reports to IDOT)

All related services for eCitation and eCrash (Project Management, Set Up/Config and Training)

Hardware Setup (16 existing printers)

*3rd party vendor may charge an interface fee, please contact your vendor.