CITY COUNCIL
COMMITTEE OF THE WHOLE MEETING
AUGUST 28, 2019 | 6:00 PM
CITY COUNCIL CHAMBERS

Call to Order

Roll Call

Approval of Minutes of Previous Meetings – August 14, 2019

Special Presentations and Reports

All items listed in section “Special Presentations and Reports” are for informational purposes only. As such, the city council is not expected to take action at this time on any item listed below.

A. Police Officer and Firefighters Pension Funds Actuarial Review
   Kevin Cavanaugh of Lauterbach & Amen, LLP will provide an actuarial review of the City of Elgin Police and Firefighters Pension Funds.

Initiatives and Other Items

B. Consideration of Advance 2020 Funding for the Police and Fire Pension Funds ($4,000,000 - $2,000,000 Police Pension Fund; $2,000,000 – Fire Pension Fund)
   Objective: Provide the police and fire pension funds with advance financing as a means of enhancing current funding levels in order to accommodate future benefit payments and mandated funding levels.

C. Consideration of Contract with JG Uniforms for the Purchase of Police Dress Uniforms ($42,703)
   Objective: Provide police officers with dress uniforms while maintaining fiscal responsibility.

D. Consideration of Contract with the Kane County Child Advocacy Center for Services Relating to the Investigation of Sensitive Crimes Involving Children ($35,000)
   Objective: Provide investigative and victim services for cases involving children who have been victimized by sexual or serious physical abuse.

E. Consideration of Tyler Creek Watershed Streambank Stabilization Program Agreement with Wing Park Apartments ($23,500)
   Objective: Facilitate restoration in the Tyler Creek watershed to mitigate the streambank damage and prevent further erosion.

F. Consideration of Gifford 300 Industrial Development Phase 1 Plat of Dedication and Easement Grant (No Cost)
   Objective: Obtain rights-of-way and easements for the installation of infrastructure improvements within Gifford 300 Industrial Development Phase.
G. Consideration of Adoption of Amendments to the Kane County Stormwater Management Ordinance (No Cost)
Objective: Fulfill the City’s obligation to provide stormwater management and water quality improvements for the businesses and residents.

Announcements from Council

Announcements from Staff

Executive Session

H. Discussion of Minutes of Meetings Lawfully Closed Under This Act - Exempt Under Section 120/2(c)(21) of the Open Meetings Act

I. Appointment, Employment, Compensation, Discipline, Performance or Dismissal of Specific Employees of the Public Body - Exempt Under Section 120/2(c)(1) of the Open Meetings Act

Adjournment

PLEASE NOTE: The City of Elgin is subject to the requirements of the Americans with Disabilities Act of 1990. Individuals with disabilities who plan to attend this meeting and who require certain accommodations in order to allow them to observe and/or participate in this meeting, or who have questions regarding the accessibility of the meeting or the facilities, are requested to contact the Human Resources Department at (847) 931-6076 or TT/TDD (847) 931-5616 promptly to allow the City of Elgin to make reasonable accommodations for those persons.
AGENDA ITEM:  A
MEETING DATE:  August 28, 2019

POLICE OFFICER AND FIREFIGHTER PENSION FUNDS ACTUARIAL REVIEW

Kevin Cavanaugh of Lauterbach & Amen, LLP will provide an actuarial review of the City of Elgin Police and Firefighters Pension Funds.

NO MATERIALS
AGENDA ITEM:  B
MEETING DATE:  August 28, 2019

ITEM:
Advance 2020 Funding for the Police and Fire Pension Funds
($4,000,000: $2,000,000 Police Pension Fund; $2,000,000 Fire Pension Fund)

OBJECTIVE:
Provide the police and fire pension funds with advance financing as a means of enhancing current funding levels to accommodate future benefit payments and mandated funding levels.

RECOMMENDATION:
Authorize the transfer of $4,000,000 from General Fund reserves to the police and fire pension funds to advance funding for the required contributions in 2020.

City contributions to public safety pension funds are determined by an actuarial valuation that is completed each year by an enrolled actuary. The City’s contribution is based on many factors including current plan assets, contributions by employees, demographic data and assumptions regarding retirements, mortality and investment rates of return.

The City’s required contribution for 2020 has increased by approximately $4 million. A recommendation to advance fund a portion of the required contributions, using General Fund reserves is being recommended to maintain a flat, 2019 property tax levy for public safety pensions.

BACKGROUND

The Illinois Pension Code mandates that any city, village or town of 5,000 residents that employs at least one full-time police officer or firefighter must institute and administer a corresponding pension fund. To comply with Illinois law, the Elgin Police Pension Plan was established in 1909 and the Elgin Firefighters Pension Plan was created in 1919. As of December 31, 2018, the Police Pension Plan membership was comprised of 150 retirees and beneficiaries and 182 active employees. The participants of the Firefighters Pension Plan as of December 31, 2018 included 114 retirees and beneficiaries and 130 active employees.

With regard to funding, Public Act 96-1495 requires police and fire pension funds receive annual contributions with a goal of attaining a 90 percent funding ratio by 2040. Eligible employees are required by law to contribute 9.91 percent and 9.455 percent of their base salary to the Police Pension Plan and Firefighters Pension Plan, respectively. The City is required to contribute the
remaining amounts necessary to fund the administrative costs and benefit payments of these plans as actuarially determined by an enrolled actuary. The City has financed its annual contributions to the pension funds primarily with the property tax levy and partially with personal property replacement tax receipts received from the state.

As of December 31, 2018, the Police Pension Fund held assets with an actuarial value of $120.9 million dollars. The actuarial value of the assets of the Fire Pension Fund totaled $87.9 million. The funded ratios, as of December 31, 2018, are 50.78 percent and 48.89 percent for the police and fire pensions, respectively. The funded ratio is the actuarial value of the plan assets as a percentage of the actuarial accrued liability.

OPERATIONAL ANALYSIS

Each year an independent actuary calculates the annual required contribution (ARC) that will enable the police and fire pension funds to achieve a 90 percent funding ratio by 2040. This calculation is specific to the fund and is based on the demographics of all retired and current employees. Integral to the calculation are assumptions regarding investment rate of return, salary increases, retirement age, employee turnover, mortality rates and disability probabilities.

The ARC calculated for 2019 were $8,524,140 and $6,413,430 for the police and fire pension funds, respectively. The 2019 adopted budgets for each of these pension funds included allocations from the property tax levy in an amount equal to each ARC.

The latest contribution calculation to be funded in the 2020 budget incorporates changes in demographic data, assumption changes related to mortality, retirement, disability and termination rates and a funding policy change. Specifically, the police pension ARC for 2020 increased by approximately $1,929,790 to $10,453,930 and the fire pension ARC increased by $1,940,300 to $8,353,730.

INTERESTED PERSONS CONTACTED

Lauterbach & Amen Actuary, Police Pension Board, Firefighters Pension Board.

FINANCIAL ANALYSIS

At this time, a recommendation is being made to transfer an additional $4,000,000 in 2019 to advance fund the required contributions to the police and fire pension plans for 2020. If the council should choose to make this supplemental payment in 2019, the City could maintain a flat property tax levy, for police and fire pension contributions for tax year 2019 collected in 2020. This recommended payment would be financed by General Fund reserves.

The General Fund for 2018 exceeded budgeted and estimated expectations due to favorable increases in several revenue streams and cost containment on the expenditure side. The following chart depicts 2018 General Fund results.
Actual revenues in 2018 of $123.7M exceeded estimated revenues of $118.6M by $5.1M in large part due to sales tax revenues reaching an all-time high in 2018. Sales tax revenues totaled $27.8M compared to $24.6M in the prior year. Revenues in 2018 were also impacted by increases in income tax receipts, ambulance revenues, investment income and permit fees.

The 2019-2021 adopted three year plan for the General Fund incorporated the estimated addition to fund reserves of $3.7 million. The actual addition to General Fund reserves of $8.3 million for 2018 exceeded estimates by $4.6 million. Staff’s recommends using this surplus to advance fund 2020 required contributions to the police and fire pension funds. As previously noted, the actuarial required contributions to be levied for tax year 2019, collected and contributed in 2020, are approximately $4 million higher than the current year levy. Advance funding this increase from 2018 surplus revenues would allow the City to keep this increase off the property tax levy and provide for a flat levy for police and fire pension contributions for 2020.

In addition to the effects the advance funding would have on the 2019 tax levy, putting the funding to work within the pension funds investment portfolios will generate additional investment earnings beyond what the City would receive from its investment portfolio. State statutes regarding investments for the pension funds allow more diversification and associated investment gain and loss. Through July 31, 2019, the police and fire pension funds have earned 11.8 percent and 13.3 percent respectively, compared to the City's investments which returned 2.3 percent.

**BUDGET IMPACT**

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<th>FUND(S)</th>
<th>ACCOUNT(S)</th>
<th>PROJECT #(S)</th>
<th>AMOUNT BUDGETED</th>
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<td>From General</td>
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<td>Fund Reserves</td>
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**LEGAL IMPACT**

None.
ALTERNATIVES

1. The city council may choose to not advance fund the 2020 required contributions of the police and fire pension funds.

2. The city council may choose to supplement the 2020 advance funding of the police and fire pension funds in an amount less or more than the $4,000,000.

NEXT STEPS

1. Transfer $2 million in additional funds to the police pension fund in September, 2019.

2. Transfer $2 million in additional funds to the fire pension fund in September, 2019.

Originators: Debra Nawrocki, Chief Financial Officer

Final Review: William A. Cogley, Corporation Counsel/Chief Development Officer
Richard G. Kozal, City Manager

ATTACHMENTS

A. City of Elgin Police Pension Fund Actuarial Valuation Report for the Year Beginning January 1, 2019 and Ending December 31, 2019

B. City of Elgin Firefighters Pension Fund Actuarial Valuation Report for the Year Beginning January 1, 2019 and Ending December 31, 2019
Actuarial Funding Report

ELGIN POLICE PENSION FUND

Actuarial Valuation
as of January 1, 2019

For the Contribution Year January 1, 2019 to December 31, 2019

LAUTERBACH & AMEN, LLP
ELGIN POLICE PENSION FUND

Contribution Year Ending: December 31, 2019
Actuarial Valuation Date: January 1, 2019
Utilizing Data as of December 31, 2018

Submitted by:
Lauterbach & Amen, LLP
668 N. River Road
Naperville, IL 60563
630.393.1483 Phone
www.lauterbachamen.com

Contact:
Todd A. Schroeder
Director
April 8, 2019

LAUTERBACH & AMEN, LLP
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTUARIAL CERTIFICATION</td>
<td>1</td>
</tr>
<tr>
<td>MANAGEMENT SUMMARY</td>
<td>3</td>
</tr>
<tr>
<td>- Contribution Recommendation</td>
<td>4</td>
</tr>
<tr>
<td>- Funded Status</td>
<td>4</td>
</tr>
<tr>
<td>- Management Summary – Comments and Analysis</td>
<td>5</td>
</tr>
<tr>
<td>- Actuarial Contribution Recommendation - Reconciliation</td>
<td>12</td>
</tr>
<tr>
<td>VALUATION OF FUND ASSETS</td>
<td>13</td>
</tr>
<tr>
<td>- Market Value of Assets</td>
<td>14</td>
</tr>
<tr>
<td>- Market Value of Assets (Gain)/Loss</td>
<td>15</td>
</tr>
<tr>
<td>- Development of the Actuarial Value of Assets</td>
<td>16</td>
</tr>
<tr>
<td>- (Gain)/Loss on the Actuarial Value of Assets</td>
<td>16</td>
</tr>
<tr>
<td>- Historical Asset Performance</td>
<td>17</td>
</tr>
<tr>
<td>RECOMMENDED CONTRIBUTION DETAIL</td>
<td>19</td>
</tr>
<tr>
<td>- Actuarial Accrued Liability</td>
<td>20</td>
</tr>
<tr>
<td>- Funded Status</td>
<td>20</td>
</tr>
<tr>
<td>- Development of the Employer Normal Cost</td>
<td>21</td>
</tr>
<tr>
<td>- Normal Cost as a Percentage of Expected Payroll</td>
<td>21</td>
</tr>
<tr>
<td>- Contribution Recommendation</td>
<td>21</td>
</tr>
<tr>
<td>- Actuarial Methods – Recommended Contribution</td>
<td>22</td>
</tr>
<tr>
<td>ILLINOIS STATUTORY MINIMUM CONTRIBUTION</td>
<td>23</td>
</tr>
<tr>
<td>- Statutory Minimum Contribution</td>
<td>24</td>
</tr>
<tr>
<td>- Funded Status – Statutory Minimum</td>
<td>24</td>
</tr>
<tr>
<td>- Actuarial Methods – Illinois Statutory Minimum Contribution</td>
<td>26</td>
</tr>
<tr>
<td>ACTUARIAL VALUATION DATA</td>
<td>27</td>
</tr>
<tr>
<td>- Active Employees</td>
<td>28</td>
</tr>
<tr>
<td>- Inactive Employees</td>
<td>28</td>
</tr>
<tr>
<td>- Summary Of Benefit Payments</td>
<td>28</td>
</tr>
<tr>
<td>ACTUARIAL FUNDING POLICIES</td>
<td>29</td>
</tr>
<tr>
<td>- Actuarial Cost Method</td>
<td>30</td>
</tr>
<tr>
<td>- Financing Unfunded Actuarial Accrued Liability</td>
<td>30</td>
</tr>
<tr>
<td>- Actuarial Value of Assets</td>
<td>31</td>
</tr>
<tr>
<td>ACTUARIAL ASSUMPTIONS</td>
<td>32</td>
</tr>
<tr>
<td>- Nature of Actuarial Calculations</td>
<td>33</td>
</tr>
<tr>
<td>- Actuarial Assumptions in the Valuation Process</td>
<td>33</td>
</tr>
<tr>
<td>- Assessment of Risk Exposures</td>
<td>34</td>
</tr>
<tr>
<td>- Limitations of Risk Analysis</td>
<td>34</td>
</tr>
<tr>
<td>- Actuarial Assumptions Utilized</td>
<td>35</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>--------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>SUMMARY OF PRINCIPAL PLAN PROVISIONS</td>
<td>37</td>
</tr>
<tr>
<td>Establishement of the Fund</td>
<td>38</td>
</tr>
<tr>
<td>Administration</td>
<td>38</td>
</tr>
<tr>
<td>Employee Contributions</td>
<td>38</td>
</tr>
<tr>
<td>Regular Retirement Pension Benefit</td>
<td>38</td>
</tr>
<tr>
<td>Regular Retirement Pension Benefit - Continued</td>
<td>39</td>
</tr>
<tr>
<td>Early Retirement Pension Benefit</td>
<td>39</td>
</tr>
<tr>
<td>Surviving Spouse Benefit</td>
<td>40</td>
</tr>
<tr>
<td>Termination Benefit – Vested</td>
<td>41</td>
</tr>
<tr>
<td>Disability Benefit</td>
<td>42</td>
</tr>
<tr>
<td>GLOSSARY OF TERMS</td>
<td>43</td>
</tr>
<tr>
<td>Glossary of Terms</td>
<td>44</td>
</tr>
</tbody>
</table>
ACTUARIAL CERTIFICATION

This report documents the results of the Actuarial Valuation of the Elgin Police Pension Fund. The information was prepared for use by the Elgin Police Pension Fund and the City of Elgin, Illinois for determining contribution requirements, under the selected Funding Policy and under Statutory Minimum guidelines, for the contribution year January 1, 2019 to December 31, 2019. It is not intended or suitable for other purposes. Determinations for purposes other than meeting the Employer’s actuarial contribution recommendations may be significantly different from the results herein.

The results in this report are based on information and data submitted by the City of Elgin, Illinois, consisting of member census data, financial information, and may include studies and reports performed by prior actuaries. We did not prepare the Actuarial Valuations for the years prior to January 1, 2019. Those valuations were prepared by other actuaries whose reports have been furnished to us, and our disclosures are based upon 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 the valuation. The accuracy of the results is dependent upon 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 forward-looking assumptions, market conditions, and events that may never materialize as assumed. For this reason, certain assumptions and results in the future could be materially different than those presented in this report (please see Management Summary for a more detailed discussion of Defined Benefit Plan Risks as well as limitations of this Actuarial Valuation in assessing those risks). We are not aware of any events subsequent to the Valuation Date, which are not reflected in this report, which should be valued and could materially impact these results.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The City of Elgin, 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 of Lauterbach & Amen, LLP, is an Associate of the Society of Actuaries and an Enrolled Actuary, and meets the Qualification Standards of the American Academy of Actuaries to render this Actuarial Opinion. There is no relationship between the City of Elgin, Illinois and Lauterbach & Amen, LLP that impairs our objectivity.

Respectfully Submitted,

LAUTERBACH & AMEN, LLP

Todd A. Schroeder, ASA, FCA, EA, MAAA
MANAGEMENT SUMMARY

Contribution Recommendation
Funded Status
Management Summary – Comments and Analysis
Actuarial Contribution Recommendation - Reconciliation
## CONTRIBUTION RECOMMENDATION

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<thead>
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<td>Contribution Requirement as a Percent of Expected Payroll</td>
<td>46.02%</td>
<td>53.94%</td>
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Recommended Contribution has Increased $1,929,792 from Prior Year.

## FUNDED STATUS

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<td>Percent Funded</td>
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<tr>
<td>Actuarial Value of Assets</td>
<td>50.24%</td>
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<tr>
<td>Market Value of Assets</td>
<td>52.38%</td>
<td>48.11%</td>
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</table>

Funded Percentage has Increased by 0.54% on an Actuarial Value of Assets Basis.

*Prior Valuation Completed by Timothy W. Sharpe, Actuary.
Management Summary – Comments and Analysis

Contribution Results
The Contribution Recommendation is based on the funding policies and procedures that are outlined in the Actuarial Funding Policies section of this report.

The State of Illinois statutes for pension funds contain parameters that should be used to determine the minimum amount of contribution to a public pension fund. Those parameters and the resulting minimum contribution can be 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, this can occur when actual contributions are not made in accordance with the Plan’s Funding Policy, or when future experience deviates materially from what is assumed today. While it is essential for the Actuary and Plan Sponsor to collaborate to implement a sound and financially feasible Funding Policy, it is important to note that actuaries are not required, and are not in the position to, evaluate the ability or willingness of a Plan Sponsor to make the required contributions when due under their chosen Funding Policy.

As a result, while Contribution Risk may be a significant source of risk for any Fund, this Actuarial Valuation makes no attempt to assess the impact of future contributions falling short of those required under the selected Funding Policy. Notwithstanding the above, see the Actuarial Contribution Recommendation – Reconciliation section of this report for the impact on the current year’s Recommended Contribution for any contribution shortfalls or excesses from the prior year.

Defined Benefit Plan Risks

Asset Growth:
Pension funding involves preparing plan assets to pay benefits for the Members when they retire. During their working careers, assets need to build with contributions and investment earnings, and then the Pension Fund distributes assets during retirement. Based on the Fund’s current mix of employees and Funded Status, the Fund should be experiencing positive asset growth on average if requested contributions are made and expected investment earnings come in. In the current year, the Fund asset growth was negative by approximately $3.5 million.

Asset growth is important long-term. Long-term cash flow out of the Pension Fund is primarily benefit payments. Expenses make up a smaller portion. The Fund should monitor the impact of expected benefit payments and the impact on asset growth in the future. In the next 5 years, benefits payments are anticipated to increase 50-55%, or approximately $4.4 million. In the next 10 years, the expected increase in benefit payments is 105-110%, or approximately $9.5 million.

Furthermore, plans with a large number of Members currently in pay status have an increased “Longevity Risk”. Longevity Risk is the possibility that retirees may live longer than projected by the Plan’s mortality assumption. As shown above, benefit payments are expected to increase in the next 5-year and 10-year
horizons. These projected increases assume current retirees pass away according to the Plan’s mortality assumption. To the extent that current retirees live longer than expected, the future 5-year and 10-year benefit projections may be larger than the amounts disclosed above. Higher levels of benefit payments, payable for a longer period of time, may cause a significant strain to the Plan cash flows, future contribution requirements, 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 an Unfunded Liability exists, the Fund is losing potential investment returns due to the financial shortfall. Contributions toward Unfunded Liability pay for the lost investment earnings, as well as the outstanding unfunded amount. If payments are not made, the Unfunded Liability will grow.

In the early 1990s, many pension funds in Illinois adopted an increasing payment to handle Unfunded Liability due to a change in legislation. The initial payments decreased, and payments were anticipated to increase annually after that. In many situations, payments early on may be less than the interest on Unfunded Liability, which means Unfunded Liability may be expected to *increase* even if contributions are at the recommended level.

The current Contribution Recommendation includes a payment to Unfunded Liability that is approximately $120,000 less than interest on the Unfunded Liability. All else being equal and contributions being made, Unfunded Liability would be expected to increase. The Employer and the Fund should anticipate currently that improvement in the funded percentage will be mitigated in the short-term. The Employer and the 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 five-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 contribution recommendations 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 $6.4 million 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.

**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 Funded Percentage.
For example, two different pension funds could have the same Funded Percentage, but have completely different risk profiles. One fund might mostly cover active employees with little to no benefits in pay status, whereas a second fund might mostly cover retirees 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, Funded Percentage over time.

It is also 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 Funded Percentage will decline, while future contribution requirements will increase.

For this Plan, the Market Value of Assets is less than the Actuarial Accrued Liability for inactive participants. This means, there is not enough money in the Plan to cover the benefits payable to the current retiree population, and there will not be any money left for any of the active Members to receive a benefit when they retire. Significant Cash Flow Risk exists in the Plan Sponsor’s ability to pay retirement benefits in the future. Without additional funding and the establishment of a Formal Funding Policy, the Plan is at risk of becoming insolvent.

**Benefit Payment Risk:**

Ideally, a plan in good financial standing will have the ratio of annual benefits payments to the Market Value of Assets to be less than the Expected Return on Investments assumption (i.e. 7.00%). Theoretically, in this case it can be considered that investment returns will fully cover the annual benefit payments, and therefore, all Employer and Employee Contributions made to the Fund will be used to pay for future benefit accruals and pay down the existing Unfunded Liability. To the extent the ratio of the annual benefit payments to the Market Value of Assets increases to above the Expected Rate of Return 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 Elgin Police Pension Fund has a ratio of benefit payments to the Market Value of Assets of 7.67%. In this case, a portion of the Employer Contributions are being used to pay the annual benefit payments creating Benefit Payment Risk and Cash Flow Risk. The Funded Percentage of the Plan may not grow as quickly as expected under the current Funding Policy, since the amortization payment towards the Unfunded Liability is not being fully realized. As shown in the *Asset Growth* section in this report, the 5-year and 10-year horizons of future benefit payments are expected to increase. The Plan Sponsor should monitor the percentage of annual benefit payments to the Market Value of Assets and consider to change the Funding Policy if this ratio continues to increase.
Plan 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.

The current Fund assets are audited.

The Actuarial Value of Assets under the Funding Policy is equal to the fair 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 Funding Policy section of this report.
Demographic Data
Demographic factors can change from year to year within the Pension Fund. Changes in this category include hiring new employees, employees retiring or becoming disabled, retirees 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 employee changes do not meet our long-term expectation. For example, if no employees become disabled during the year, we would expect a liability gain. If more employees become disabled than anticipated last year, we would expect a liability loss. Generally, we expect short-term fluctuations in demographic experience to create gains or losses of up to 3% of the Actuarial Accrued Liability in any given year, but to balance out in the long-term.

“Demographic Risk” occurs when Plan census 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 participants in the Plan, the Recommended Contribution has a low risk of having a significant increase due to demographic experience. For example, 1 new disabled member would typically generate an increase to the Actuarial Accrued Liability. However, due to the size of the Plan, there is an appropriate means to absorb demographic losses without causing a significant increase to the Recommended Contribution.

In the current report, the key demographic changes were as follows:

New hires: The Fund added 13 new active Members in the current year through hiring, 2 of whom terminated employment within the current year. When a new 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 for new Fund Members is approximately $26,000.

Retirement: There were 4 members of the Fund who retired during the year. When a Fund 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 $38,000.

Deferred Annuitants: There were 4 vested members of the Fund who terminated employment during the year. The Fund may be obligated to pay a benefit to the members in the future. The decrease in the
Recommended Contribution in the current year due to the termination experience is approximately $92,000.

Termination: There was 1 vested Member of the Fund who terminated employment during the year and elected to receive a refund of contributions instead of a retirement benefit. 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 $84,000.

Mortality: There was 1 retiree who passed away during the year, with an eligible surviving spouse. When a retiree passes away, the Fund liability will decrease as the Pension Fund no longer will make future payments to the retiree. If there is an eligible surviving spouse, the Fund liability will increase to represent the value of the expected payments that will be made to the spouse. In addition, as the inactive population ages and continues to collect benefits, the Fund liability will also increase. In the current year, there were 131 inactive participants who maintained their benefit collection status throughout the year. The net increase in the Recommended Contribution in the current year due to the mortality experience is approximately $30,000.

Assumption Changes
In the current valuation, the demographic assumptions were changed to the tables shown in the Actuarial Assumptions section of this report. The changes were made based on a study of Police Officers and Police Pension Funds in Illinois. The assumptions impacted include:

- Mortality Rates
- Mortality Improvement Rates
- Retirement Rates
- Disability Rates
- Termination Rates

We have also updated the mortality assumption to include mortality improvements as stated in the most recently released MP-2016 table. In addition, the rates are being applied on a fully-generational basis. See the Actuarial Assumptions section of this report for more details on the specific mortality updates made. We have also updated the spouse age difference, duty disability, and duty death assumptions.

In the current valuation, certain economic assumptions were changed to the rates shown on the previous page. The individual pay scale assumption has been updated based on review of the settled bargaining agreement between the City of Elgin, Illinois and the Policemen’s Benevolent and Protective Association, Unit #54, for the period January 1, 2017 through December 31, 2019. We have also updated the projected increase in total payroll assumption.

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.
Funding Policy Changes
The Funding Policy was changed from the prior year. In the current year, the Recommended Contribution has been updated to include interest through the end of the year to account for Employer contribution timing. See the Actuarial Funding Policies section of this report for more details on the current Funding Policy and the table on the following page for the impact of these changes on the current valuation.
Actuarial Contribution Recommendation - Reconciliation

Actuarial Accrued Liability is expected to increase each year for both interest for the year and as active employees earn additional service years towards retirement. Similarly, Actuarial Accrued Liability is expected to decrease when the Fund pays benefits to inactive employees.

Contributions are expected to increase as expected pay increases under the Funding Policy for the Fund.

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 Unfunded Liability increases or decreases unexpectedly, the contribution towards Unfunded Liability will also change unexpectedly.

<table>
<thead>
<tr>
<th>Actuarial Liability</th>
<th>Contribution Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary Increase Greater than Expected</td>
<td>$45,304</td>
</tr>
<tr>
<td>Demographic Changes</td>
<td>(193,337)</td>
</tr>
<tr>
<td>Assumption Changes</td>
<td>8,840,448</td>
</tr>
<tr>
<td>Funding Policy Changes - Contribution Timing</td>
<td>-</td>
</tr>
<tr>
<td>Asset Return Less than Expected *</td>
<td>-</td>
</tr>
<tr>
<td>Contributions Less than Expected</td>
<td>-</td>
</tr>
<tr>
<td>Total Actuarial Experience</td>
<td>$8,692,415</td>
</tr>
</tbody>
</table>

Current Valuation: $238,199,303, $10,453,934

*The impact on contribution due to asset performance is based on the Actuarial Value of Assets.

Key demographic changes, assumption changes, and funding policy changes were discussed in the prior section.
VALUATION OF FUND ASSETS

Market Value of Assets
Market Value of Assets (Gain)/Loss
Development of the Actuarial Value of Assets
(Gain)/Loss on the Actuarial Value of Assets
Historical Asset Performance
## Market Value of Assets

### Statement of Assets

<table>
<thead>
<tr>
<th></th>
<th>Prior Valuation</th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Cash Equivalents</td>
<td>$2,247,885</td>
<td>$212,691</td>
</tr>
<tr>
<td>Money Market</td>
<td>5,399,966</td>
<td>3,595,285</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>33,718,905</td>
<td>36,921,130</td>
</tr>
<tr>
<td>Insurance Co Contracts - Separate</td>
<td>9,765,222</td>
<td>13,887,079</td>
</tr>
<tr>
<td>Stock Equities</td>
<td>11,177,634</td>
<td>6,530,563</td>
</tr>
<tr>
<td>Mutual Funds</td>
<td>55,612,652</td>
<td>53,229,468</td>
</tr>
<tr>
<td>Receivables (Net of Payables)</td>
<td>162,013</td>
<td>223,808</td>
</tr>
<tr>
<td><strong>Net Assets Available for Pensions</strong></td>
<td><strong>$118,084,277</strong></td>
<td><strong>$114,600,024</strong></td>
</tr>
</tbody>
</table>

The Total Value of Assets has Decreased Approximately $3,484,000 from Prior Valuation.

### Statement of Changes in Assets

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Market Value - Prior Valuation</strong></td>
<td><strong>$118,084,277</strong></td>
</tr>
<tr>
<td>Plus - Employer Contributions</td>
<td>8,604,338</td>
</tr>
<tr>
<td>Plus - Employee Contributions</td>
<td>1,936,667</td>
</tr>
<tr>
<td>Plus - Return on Investments</td>
<td>(4,967,620)</td>
</tr>
<tr>
<td>Less - Benefit and Related Payments</td>
<td>(8,970,327)</td>
</tr>
<tr>
<td>Less - Other Expenses</td>
<td>(87,311)</td>
</tr>
<tr>
<td><strong>Total Market Value - Current Valuation</strong></td>
<td><strong>$114,600,024</strong></td>
</tr>
</tbody>
</table>

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 beginning and ending 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.
### MARKET VALUE OF ASSETS (GAIN)/LOSS

Current Year (Gain)/Loss on Market Value of Assets

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Market Value - Prior Valuation</td>
<td>$118,084,277</td>
</tr>
<tr>
<td>Contributions</td>
<td>10,541,005</td>
</tr>
<tr>
<td>Benefit Payments</td>
<td>(8,970,327)</td>
</tr>
<tr>
<td>Expected Return on Investments</td>
<td>8,320,873</td>
</tr>
<tr>
<td>Expected Total Market Value - Current Valuation</td>
<td>127,975,828</td>
</tr>
<tr>
<td>Actual Total Market Value - Current Valuation</td>
<td>114,600,024</td>
</tr>
<tr>
<td>Current Market Value (Gain)/Loss</td>
<td>$13,375,804</td>
</tr>
</tbody>
</table>

The (Gain)/Loss on the Market Value of Assets has been determined based on the Expected Return on Investments as shown in the *Actuarial Assumptions* section of this report.
### DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

<table>
<thead>
<tr>
<th>Adjustment for Prior (Gains)/Losses</th>
<th>Full Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Preceding Year</td>
<td>$13,375,804</td>
</tr>
<tr>
<td>Second Preceding Year</td>
<td>(8,246,924)</td>
</tr>
<tr>
<td>Third Preceding Year</td>
<td>(1,311,214)</td>
</tr>
<tr>
<td>Fourth Preceding Year</td>
<td>5,639,535</td>
</tr>
<tr>
<td><strong>Total Deferred (Gain)/Loss</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initial Actuarial Value of Assets - Current Valuation</th>
<th>$120,955,934</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Contributions for the Current Year and Interest</td>
<td>-</td>
</tr>
<tr>
<td>Less Adjustment for the Corridor</td>
<td>-</td>
</tr>
</tbody>
</table>

**Actuarial Value of Assets - Current Valuation**

| $120,955,934 |

### (GAIN)/LOSS ON THE ACTUARIAL VALUE OF ASSETS

<table>
<thead>
<tr>
<th>Total Actuarial Value - Prior Valuation</th>
<th>$113,266,034</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plus - Employer Contributions</td>
<td>8,604,338</td>
</tr>
<tr>
<td>Plus - Employee Contributions</td>
<td>1,936,667</td>
</tr>
<tr>
<td>Plus - Return on Investments</td>
<td>6,206,533</td>
</tr>
<tr>
<td>Less - Benefit and Related Payments</td>
<td>(8,970,327)</td>
</tr>
<tr>
<td>Less - Other Expenses</td>
<td>(87,311)</td>
</tr>
</tbody>
</table>

**Total Actuarial Value - Current Valuation**

| $120,955,934 |

The Actuarial Value of Assets incorporates portions of gains and losses over multiple years.

**The Actuarial Value of Assets is Equal to the Fair Market Value of Assets with Unanticipated Gains/Losses Recognized over 5 Years. The Actuarial Value of Assets is Currently 106% of the Market Value.**

**The Rate of Return on Investment on the Actuarial Value of Assets for the Fund was Approximately 5.4% Net of Administrative Expenses.**
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.

<table>
<thead>
<tr>
<th></th>
<th>Market Value</th>
<th>Actuarial Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Preceding Year</td>
<td>(4.3%)</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

The historical Rates of Return on Investments shown above were calculated based on the annual Return on Investment for the year, as a percentage of the average value of the assets for the year.

For purposes of determining the average value of assets during the year, the ending Market Value of Assets has been adjusted to net out to the portion related to the investment returns themselves. All other cash flows are included.

For purposes of determining the annual Return on Investment 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 adjustment we make is for actuarial reporting purposes only. By netting out Administrative Expenses and capturing investment returns that are available to pay benefits, it provides us a comparison to the Expected Return on Investments, but does not provide a figure that would be consistent with the return rates that are determined by other parties. Therefore, this calculated rate of return should not be used to analyze investment performance of the Fund or the performance of the investment professionals.
Expected Return on Investments Assumption
The Expected Return on Investments for this valuation is 7.00%. “Investment Risk” is the potential that actual Return on Investments will be different from what is expected. The selected Expected 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 Return on Investments assumption may be dependent on the State of 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 Return on Investments, actuarial losses will be produced, thus increasing the Plan’s Unfunded Liability and, subsequently, future contribution requirements.

“Asset/Liability Mismatch” risk is a similar concept as Investment Risk, as it relates to setting the Expected 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 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 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 Funded Percentage. 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 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
Contribution Recommendation
Actuarial Methods – Recommended Contribution
## Actuarial Accrued Liability

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Employees</td>
<td>$103,859,375</td>
</tr>
<tr>
<td>Inactive Employees</td>
<td></td>
</tr>
<tr>
<td>Terminated Employees - Vested</td>
<td>8,866,690</td>
</tr>
<tr>
<td>Retired Employees</td>
<td>104,181,067</td>
</tr>
<tr>
<td>Disabled Employees</td>
<td>10,426,742</td>
</tr>
<tr>
<td>Other Beneficiaries</td>
<td>10,865,429</td>
</tr>
<tr>
<td><strong>Total Inactive Employees</strong></td>
<td><strong>134,339,928</strong></td>
</tr>
<tr>
<td><strong>Total Actuarial Accrued Liability</strong></td>
<td><strong>$238,199,303</strong></td>
</tr>
</tbody>
</table>

The Total Actuarial Liability has Increased from Prior Valuation (See Management Summary).

## Funded Status

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Actuarial Accrued Liability</td>
<td>$238,199,303</td>
</tr>
<tr>
<td>Total Actuarial Value of Assets</td>
<td>120,955,934</td>
</tr>
<tr>
<td>Unfunded Actuarial Accrued Liability</td>
<td>$117,243,369</td>
</tr>
<tr>
<td>Total Market Value of Assets</td>
<td>$114,600,024</td>
</tr>
<tr>
<td>Percent Funded</td>
<td></td>
</tr>
<tr>
<td>Actuarial Value of Assets</td>
<td>50.78%</td>
</tr>
<tr>
<td>Market Value of Assets</td>
<td>48.11%</td>
</tr>
</tbody>
</table>

Funded Percentage as of the Valuation Date is Subject to Volatility on Assets and Liability in the Short-Term.
**DEVELOPMENT OF THE EMPLOYER NORMAL COST**

<table>
<thead>
<tr>
<th></th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Normal Cost</td>
<td>$ 4,134,816</td>
</tr>
<tr>
<td>Estimated Employee Contributions</td>
<td>(1,920,641)</td>
</tr>
<tr>
<td>Employer Normal Cost</td>
<td>$ 2,214,175</td>
</tr>
</tbody>
</table>

*Employer Normal Cost Contribution includes interest through the end of the year.

**NORMAL COST AS A PERCENTAGE OF EXPECTED PAYROLL**

<table>
<thead>
<tr>
<th></th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Payroll</td>
<td>$ 19,380,834</td>
</tr>
<tr>
<td>Employee Normal Cost Rate</td>
<td>9.910%</td>
</tr>
<tr>
<td>Employer Normal Cost Rate</td>
<td>11.42%</td>
</tr>
<tr>
<td>Total Normal Cost Rate</td>
<td>21.33%</td>
</tr>
</tbody>
</table>

*Ideally, the Employer Normal Cost Rate will Remain Stable.*

**CONTRIBUTION RECOMMENDATION**

<table>
<thead>
<tr>
<th></th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer Normal Cost*</td>
<td>$ 2,369,167</td>
</tr>
<tr>
<td>Amortization of Unfunded Accrued Liability/(Surplus)</td>
<td>$ 8,084,767</td>
</tr>
<tr>
<td>Funding Requirement</td>
<td>$ 10,453,934</td>
</tr>
</tbody>
</table>

*Employer Normal Cost Contribution includes interest through the end of the year.*

---

At a 100% Funding Level, the Normal Cost Contribution is Still Required.

The Recommended Contribution has Increased from Prior Valuation (See Management Summary).
## ACTUARIAL METHODS – RECOMMENDED CONTRIBUTION

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuarial Valuation Date</td>
<td>January 1, 2019</td>
</tr>
<tr>
<td>Data Collection Date</td>
<td>December 31, 2018</td>
</tr>
<tr>
<td>Actuarial Cost Method</td>
<td>Entry Age Normal (Level % Pay)</td>
</tr>
<tr>
<td>Amortization Method</td>
<td>Level % Pay (Closed)</td>
</tr>
<tr>
<td>Amortization Target</td>
<td>100% Funded over 22 years</td>
</tr>
<tr>
<td>Asset Valuation Method</td>
<td>5-Year Smoothed Market Value</td>
</tr>
</tbody>
</table>

The contributions and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the Actuarial Cost Methods described. The Actuarial Cost and Amortization Methods allocate the projected obligations of the plan over the working lifetimes of the plan participants.

The Recommended Contribution amount shown in this report is based on the methods summarized above. The *Actuarial Funding Policies* section of the 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
Methods and Assumptions
### STATUTORY MINIMUM CONTRIBUTION

<table>
<thead>
<tr>
<th>Minimum Contribution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution Requirement</td>
<td>$9,070,659</td>
</tr>
<tr>
<td>Expected Payroll</td>
<td>$19,380,834</td>
</tr>
<tr>
<td>Contribution Requirement as a Percent of Expected Payroll</td>
<td>46.80%</td>
</tr>
</tbody>
</table>

### FUNDED STATUS – STATUTORY MINIMUM

<table>
<thead>
<tr>
<th>Minimum Contribution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Cost</td>
<td>$5,042,892</td>
</tr>
<tr>
<td>Market Value of Assets</td>
<td>$114,600,024</td>
</tr>
<tr>
<td>Actuarial Value of Assets</td>
<td>$120,955,934</td>
</tr>
<tr>
<td>Actuarial Accrued Liability</td>
<td>$226,720,952</td>
</tr>
<tr>
<td>Unfunded Actuarial Accrued Liability</td>
<td>$105,765,018</td>
</tr>
<tr>
<td>Percent Funded</td>
<td></td>
</tr>
<tr>
<td>Actuarial Value of Assets</td>
<td>53.35%</td>
</tr>
<tr>
<td>Market Value of Assets</td>
<td>50.55%</td>
</tr>
</tbody>
</table>
The Statutory Minimum Contribution is based on Actuarial Funding Methods and funding parameters in the Illinois statutes for pension funding. The resulting contribution is lower than the Recommended Contribution for the current plan 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. **Beneficiaries** – 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 employees

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 contribution requirements that are less likely to be manageable.
ACTUARIAL METHODS – ILLINOIS STATUTORY MINIMUM CONTRIBUTION

<table>
<thead>
<tr>
<th>Actuarial Valuation Date</th>
<th>January 1, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection Date</td>
<td>December 31, 2018</td>
</tr>
<tr>
<td>Actuarial Cost Method</td>
<td>Projected Unit Credit (Level % of Pay)</td>
</tr>
<tr>
<td>Amortization Method</td>
<td>Level % Pay (Closed)</td>
</tr>
<tr>
<td>Remaining Amortization Period</td>
<td>90% Funded over 22 years</td>
</tr>
<tr>
<td>Asset Valuation Method</td>
<td>5-Year Smoothed Market Value</td>
</tr>
</tbody>
</table>

The contribution and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the Actuarial Cost Methods described. The Actuarial Cost and Amortization methods allocate the projected obligations of the plan over the working lifetimes of the plan participants.

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 Employees
Inactive Employees
Summary of Benefit Payments
### Active Employees

<table>
<thead>
<tr>
<th></th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vested</td>
<td>130</td>
</tr>
<tr>
<td>Nonvested</td>
<td>52</td>
</tr>
<tr>
<td>Total Active Employees</td>
<td>182</td>
</tr>
<tr>
<td>Total Payroll</td>
<td>$19,070,931</td>
</tr>
</tbody>
</table>

### Inactive Employees

<table>
<thead>
<tr>
<th></th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminated Employees - Vested</td>
<td>12</td>
</tr>
<tr>
<td>Retired Employees</td>
<td>97</td>
</tr>
<tr>
<td>Disabled Employees</td>
<td>13</td>
</tr>
<tr>
<td>Other Beneficiaries</td>
<td>28</td>
</tr>
<tr>
<td>Total Inactive Employees</td>
<td>150</td>
</tr>
</tbody>
</table>

### Summary of Benefit Payments

<table>
<thead>
<tr>
<th></th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminated Employees - Vested</td>
<td>$51,749</td>
</tr>
<tr>
<td>Retired Employees</td>
<td>$592,703</td>
</tr>
<tr>
<td>Disabled Employees</td>
<td>$53,821</td>
</tr>
<tr>
<td>Other Beneficiaries</td>
<td>$100,281</td>
</tr>
<tr>
<td>Total Inactive Employees</td>
<td>$798,553</td>
</tr>
</tbody>
</table>

Benefits shown for Terminated Employees under deferred retirement are not currently in pay status.
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 participants.

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 participant’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 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 upon 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 the remaining 22 years. See the Actuarial Methods – Recommended Contribution section of this report for more detail.

We believe additional consideration should be given to reducing the amortization period so that the amortization payment can become more effective in reducing the Unfunded Liability.

**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. 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
Actuarial Assumptions Utilized
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 participant 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 information furnished, using the Actuarial Cost Methods described in the previous section.

The principal areas of financial risk which require assumptions about future experience are:

- Long-term Expected Return on Investments
- Patterns of pay increases for Members
- Rates of Mortality among Members and Beneficiaries
- Rates of Withdrawal of Active Members
- Rates of Disability among Members
- Age patterns of actual retirement

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 Contribution Recommendation.

Details behind the selection of the actuarial assumptions can be found in the Assumptions 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.
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 demographic assumptions
- Highlight the impact of demographic experience over the past year, as well as other sources of change and volatility in the Actuarial Contribution Recommendation – Reconciliation section of this report
- Detail year-over-year changes in contribution levels, assets, liabilities, and Funded Status in the Contribution Recommendation and Funded Status sections of the Management Summary of this report
- Review any material changes in the covered population as summarized in the Actuarial Valuation Data section of this report
- Provide and discuss a separate written Assumptions Summary document highlighting the rationale for each key economic and demographic assumption chosen by the Plan Sponsor
- Identify potential cash flow risks by highlighting expected benefit payments over the next 5-year and 10-year periods in the Asset Growth section of the Management Summary in this report
- Describe the impact of any assumption, method, or policy change in the Management Summary
- Utilize supplemental information, such as the GASB discount rate sensitivity disclosures to understand, for example, what impact an alternative Expected 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 Elgin Police Pension Fund and/or City of Elgin, Illinois should contact the Actuary if they desire a more detailed assessment of any of these forward-looking risk exposures.
**ACTUARIAL ASSUMPTIONS UTILIZED**

**Expected Return on Investments**  
7.00% net of administrative expenses.

**CPI-U**  
2.50%

**Total Payroll Increases**  
3.25%

**Individual Pay Increases**  
4.00% - 12.48%

Individual salary increases include a long-term average increase for inflation, average annual increases for promotions, and any additional increases for a step program. Sample rates as follows:

<table>
<thead>
<tr>
<th>Service</th>
<th>Rate</th>
<th>Service</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12.48%</td>
<td>8</td>
<td>4.00%</td>
</tr>
<tr>
<td>1</td>
<td>9.37%</td>
<td>9</td>
<td>4.00%</td>
</tr>
<tr>
<td>2</td>
<td>6.69%</td>
<td>10</td>
<td>4.00%</td>
</tr>
<tr>
<td>3</td>
<td>8.16%</td>
<td>15</td>
<td>4.00%</td>
</tr>
<tr>
<td>4</td>
<td>4.00%</td>
<td>20</td>
<td>4.00%</td>
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<tr>
<td>5</td>
<td>4.00%</td>
<td>25</td>
<td>4.00%</td>
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<tr>
<td>6</td>
<td>4.00%</td>
<td>30</td>
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</tr>
<tr>
<td>7</td>
<td>4.00%</td>
<td>35</td>
<td>4.00%</td>
</tr>
</tbody>
</table>

**Retirement Rates**  
100% of the L&A Assumption Study Cap Age 65 for Police 2016. Sample rates as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
<th>Age</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>0.117</td>
<td>53</td>
<td>0.139</td>
</tr>
<tr>
<td>51</td>
<td>0.124</td>
<td>54</td>
<td>0.147</td>
</tr>
<tr>
<td>52</td>
<td>0.131</td>
<td>55</td>
<td>0.156</td>
</tr>
</tbody>
</table>
ACTUARIAL ASSUMPTIONS

Withdrawal Rates

100% of the L&A Assumption Study for Police 2016. Sample rates as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
<th>Age</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>0.041</td>
<td>40</td>
<td>0.027</td>
</tr>
<tr>
<td>30</td>
<td>0.039</td>
<td>45</td>
<td>0.014</td>
</tr>
<tr>
<td>35</td>
<td>0.036</td>
<td>50</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Disability Rates

100% of the L&A Assumption Study for Police 2016. Sample rates as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
<th>Age</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>0.0005</td>
<td>40</td>
<td>0.0028</td>
</tr>
<tr>
<td>30</td>
<td>0.0010</td>
<td>45</td>
<td>0.0043</td>
</tr>
<tr>
<td>35</td>
<td>0.0018</td>
<td>50</td>
<td>0.0064</td>
</tr>
</tbody>
</table>

Mortality Rates

Active Mortality follows the Sex Distinct Raw Rates as developed in the RP-2014 Study, with Blue Collar Adjustment. These rates are improved generationally using MP-2016 Improvement Rates.

Retiree Mortality follows the L&A Assumption Study for Police 2016. These rates are experience weighted with the Raw Rates as developed in the RP-2014 Study, with Blue Collar Adjustment and improved generationally using MP-2016 Improvement Rates.

Disabled Mortality follows the Sex Distinct Raw Rates as developed in the RP-2014 Study for Disabled Participants. These rates are improved generationally using MP-2016 Improvement Rates.

Spouse Mortality follows the Sex Distinct Raw Rates as developed in the RP-2014 Study. These rates are improved generationally using MP-2016 Improvement Rates.

Married Participants

80% of Active Participants are assumed to be married. Female Spouses are assumed to be 4 Years younger than Male Spouses.
SUMMARY OF PRINCIPAL PLAN PROVISIONS

Establishment of the Fund
Administration
Employee Contributions
Regular Retirement Pension Benefit
Early Retirement Pension Benefit
Surviving Spouse Benefit
Termination Benefit – Vested
Disability Benefit
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.

EMPLOYEE CONTRIBUTIONS

Employees 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 higher 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.
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 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. Annual salary for this purpose will not exceed the salary cap, indexed by the lesser of 3% or ½ of 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 ½ 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 ½ 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 retirement 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 ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.
SURVIVING SPOUSE BENEFIT

Hired Prior to January 1, 2011

Eligibility: Married to an active police officer with at least 8 years of creditable service or disabled pensioner at the time of death or married to 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 Employee with 20+ Years of Service: An eligible surviving spouse is entitled to the police officer’s benefit at the time of death.

Active Employee with 10-20 Years of Service: An eligible surviving spouse is entitled to receive 50% of the police officer’s pro-rated pensionable salary attached to rank 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 or disabled pensioner at the time of death or married to 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 rank held on the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner, Active Employee with 20+ Years of Service, and Active Employee with 10-20 Years of service: An eligible surviving spouse is entitled to receive 66 ⅔% of the police officer’s pension benefit 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.
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 higher 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 on 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.
DISABILITY BENEFIT

Hired Prior to January 1, 2011

Eligibility: Duty or Non-Duty Disability.

Benefit: For a duty disability, 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.

Benefit: For a duty disability, 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

**Actuarial Accrued Liability** – The actuarial present value of future benefits based on employees’ 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 participants.

**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 sponsor meet their goal of working in the best interest of the plan participant.

**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 employees 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.
Actuarial Funding Report

ELGIN FIREFIGHTERS’ PENSION FUND

Actuarial Valuation
as of January 1, 2019

For the Contribution Year January 1, 2019 to December 31, 2019

LAUTERBACH & AMEN, LLP
ELGIN FIREFIGHTERS’ PENSION FUND

Contribution Year Ending: December 31, 2019
Actuarial Valuation Date: January 1, 2019
Utilizing Data as of December 31, 2018

Submitted by:
Lauterbach & Amen, LLP
630.393.1483 Phone
www.lauterbachamen.com

Contact:
Todd A. Schroeder
Director
April 8, 2019

LAUTERBACH & AMEN, LLP
TABLE OF CONTENTS

SUMMARY OF PRINCIPAL PLAN PROVISIONS .............................................................. 38
  Establishment of the Fund ...................................................................................... 39
  Administration ......................................................................................................... 39
  Employee Contributions ........................................................................................ 39
  Regular Retirement Pension Benefit ..................................................................... 39
  Regular Retirement Pension Benefit - Continued ..................................................... 40
  Early Retirement Pension Benefit .......................................................................... 40
  Surviving Spouse Benefit ...................................................................................... 41
  Termination Benefit – Vested .................................................................................. 42
  Disability Benefit .................................................................................................. 43

GLOSSARY OF TERMS ............................................................................................ 44
  Glossary of Terms ................................................................................................ 45
ACTUARIAL CERTIFICATION

This report documents the results of the Actuarial Valuation of the Elgin Firefighters’ Pension Fund. The information was prepared for use by the Elgin Firefighters’ Pension Fund and the City of Elgin, Illinois for determining contribution requirements, under the selected Funding Policy and under Statutory Minimum guidelines, for the contribution year January 1, 2019 to December 31, 2019. It is not intended or suitable for other purposes. Determinations for purposes other than meeting the Employer’s actuarial contribution recommendations may be significantly different from the results herein.

The results in this report are based on information and data submitted by the City of Elgin, Illinois, consisting of member census data, financial information, and may include studies and reports performed by prior actuaries. We did not prepare the Actuarial Valuations for the years prior to January 1, 2019. Those valuations were prepared by other actuaries whose reports have been furnished to us, and our disclosures are based upon 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 the valuation. The accuracy of the results is dependent upon 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 forward-looking assumptions, market conditions, and events that may never materialize as assumed. For this reason, certain assumptions and results in the future could be materially different than those presented in this report (please see Management Summary for a more detailed discussion of Defined Benefit Plan Risks as well as limitations of this Actuarial Valuation in assessing those risks). We are not aware of any events subsequent to the Valuation Date, which are not reflected in this report, which should be valued and could materially impact these results.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The City of Elgin, 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 of Lauterbach & Amen, LLP, is an Associate of the Society of Actuaries and an Enrolled Actuary, and meets the Qualification Standards of the American Academy of Actuaries to render this Actuarial Opinion. There is no relationship between the City of Elgin, Illinois and Lauterbach & Amen, LLP that impairs our objectivity.

Respectfully Submitted,

LAUTERBACH & AMEN, LLP

Todd A. Schroeder, ASA, EA, FCA, MAAA
MANAGEMENT SUMMARY

Contribution Recommendation
Funded Status
Management Summary – Comments and Analysis
Actuarial Contribution Recommendation - Reconciliation
## CONTRIBUTION RECOMMENDATION

<table>
<thead>
<tr>
<th></th>
<th>Prior Valuation*</th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution Requirement</td>
<td>$6,413,430</td>
<td>$8,353,732</td>
</tr>
<tr>
<td>Expected Payroll</td>
<td>$13,369,957</td>
<td>$13,702,282</td>
</tr>
<tr>
<td>Contribution Requirement as a Percent of Expected Payroll</td>
<td>47.97%</td>
<td>60.97%</td>
</tr>
</tbody>
</table>

Recommended Contribution has Increased $1,940,302 from Prior

## FUNDED STATUS

<table>
<thead>
<tr>
<th></th>
<th>Prior Valuation*</th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Cost</td>
<td>$2,822,697</td>
<td>$3,177,062</td>
</tr>
<tr>
<td>Market Value of Assets</td>
<td>$87,045,501</td>
<td>$83,039,067</td>
</tr>
<tr>
<td>Actuarial Value of Assets</td>
<td>$83,384,662</td>
<td>$87,952,373</td>
</tr>
<tr>
<td>Actuarial Accrued Liability</td>
<td>$162,734,049</td>
<td>$179,901,016</td>
</tr>
<tr>
<td>Unfunded Actuarial Accrued Liability</td>
<td>$79,349,387</td>
<td>$91,948,643</td>
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<tr>
<td>Percent Funded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actuarial Value of Assets</td>
<td>51.24%</td>
<td>48.89%</td>
</tr>
<tr>
<td>Market Value of Assets</td>
<td>53.49%</td>
<td>46.16%</td>
</tr>
</tbody>
</table>

Funded Percentage has Decreased by 2.35% on an Actuarial Value of Assets Basis.

*Prior Valuation Completed by Timothy W. Sharpe, Actuary.
MANAGEMENT SUMMARY – COMMENTS AND ANALYSIS

Contribution Results
The Contribution Recommendation is based on the funding policies and procedures that are outlined in the *Actuarial Funding Policies* section of this report.

The State of Illinois statutes for pension funds contain parameters that should be used to determine the minimum amount of contribution to a public pension fund. Those parameters and the resulting minimum contribution can be 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, this can occur when actual contributions are not made in accordance with the Plan’s Funding Policy, or when future experience deviates materially from what is assumed today. While it is essential for the Actuary and Plan Sponsor to collaborate to implement a sound and financially feasible Funding Policy, it is important to note that actuaries are not required, and are not in the position to, evaluate the ability or willingness of a Plan Sponsor to make the required contributions when due under their chosen Funding Policy.

As a result, while Contribution Risk may be a significant source of risk for any Fund, this Actuarial Valuation makes no attempt to assess the impact of future contributions falling short of those required under the selected Funding Policy. Notwithstanding the above, see the *Actuarial Contribution Recommendation – Reconciliation* section of this report for the impact on the current year’s Recommended Contribution for any contribution shortfalls or excesses from the prior year.

Defined Benefit Plan Risks

*Asset Growth:*
Pension funding involves preparing plan assets to pay benefits for the Members when they retire. During their working careers, assets need to build with contributions and investment earnings, and then the Pension Fund distributes assets during retirement. Based on the Fund’s current mix of employees and funded status, the Fund should be experiencing positive asset growth on average if requested contributions are made and expected investment earnings come in. In the current year, the Fund asset growth was negative by approximately $4.0 million.

Asset growth is important long-term. Long-term cash flow out of the Pension Fund is primarily benefit payments. Expenses make up a smaller portion. The Fund should monitor the impact of expected benefit payments and the impact on asset growth in the future. In the next 5 years, benefits payments are anticipated to increase 50-55%, or approximately $3.6 million. In the next 10 years, the expected increase in benefit payments is 95-100%, or approximately $6.8 million.

Furthermore, plans with a large number of Members currently in pay status have an increased “Longevity Risk”. Longevity Risk is the possibility that retirees may live longer than projected by the Plan’s mortality assumption. As shown above, benefit payments are expected in increase over the next 5-year and 10-year
horizons. These projected increases assume current retirees pass away according to the Plan’s mortality assumption. To the extent that current retirees live longer than expected, the future 5-year and 10-year benefit projections may be larger than the amounts disclosed above. Higher levels of benefit payments, payable for a longer period of time, may cause a significant strain to the Plan cash flows, future contribution requirements, 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 an Unfunded Liability exists, the Fund is losing potential investment returns due to the financial shortfall. Contributions toward Unfunded Liability pay for the lost investment earnings, as well as the outstanding unfunded amount. If payments are not made, the Unfunded Liability will grow.

In the early 1990s, many pension funds in Illinois adopted an increasing payment to handle Unfunded Liability due to a change in legislation. The initial payments decreased, and payments were anticipated to increase annually after that. In many situations, payments early on may be less than the interest on Unfunded Liability, which means Unfunded Liability may be expected to increase even if contributions are at the recommended level.

The current Contribution Recommendation includes a payment to Unfunded Liability that is approximately $96,000 less than interest on the Unfunded Liability. All else being equal and contributions being made, Unfunded Liability would be expected to increase. The Employer and the Fund should anticipate currently that improvement in the funded percentage will be mitigated in the short-term. The Employer and the 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 five-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 contribution recommendations 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 $4.9 million 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.

**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 Funded Percentage.
For example, two different pension funds could have the same Funded Percentage, but have completely different risk profiles. One fund might mostly cover active employees with little to no benefits in pay status, whereas a second fund might mostly cover retirees 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, Funded Percentage over time.

It is also 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 Funded Percentage will decline, while future contribution requirements will increase.

For this Plan, the Market Value of Assets is less than the Actuarial Accrued Liability for inactive participants. This means, there is not enough money in the Plan to cover the benefits payable to the current retiree population, and there will not be any money left for any of the active Members to receive a benefit when they retire. Significant Cash Flow Risk exists in the Plan Sponsor’s ability to pay retirement benefits in the future. Without additional funding and the establishment of a Formal Funding Policy, the Plan is at risk of becoming insolvent.

**Benefit Payment Risk:**

Ideally, a plan in good financial standing will have the ratio of annual benefits payments to the Market Value of Assets to be less than the Expected Return on Investments assumption (i.e. 7.00%). Theoretically, in this case it can be considered that investment returns will fully cover the annual benefit payments, and therefore, all Employer and Employee Contributions made to the Fund will be used to pay for future benefit accruals and pay down the existing Unfunded Liability. To the extent the ratio of the annual benefit payments to the Market Value of Assets increases above the Expected Rate of Return 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 Elgin Firefighters’ Pension Fund has a ratio of benefit payments to the Market Value of Assets of 8.60%. In this case, a portion of the Employer Contributions are being used to pay the annual benefit payments creating Benefit Payment Risk and Cash Flow Risk. The Funded Percentage of the Plan may not grow as quickly as expected under the current Funding Policy, since the amortization payment towards the Unfunded Liability is not being fully realized. As shown in the *Asset Growth* section in this report, the 5-year and 10-year horizons of future benefit payments are expected to increase. The Plan Sponsor should monitor the percentage of annual benefit payments to the Market Value of Assets and consider to change the Funding Policy if this ratio continues to increase.
Plan 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.

The current Fund assets are audited.

The Actuarial Value of Assets under the Funding Policy is equal to the fair 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 Funding Policy section of this report.
Demographic Data
Demographic factors can change from year to year within the Pension Fund. Changes in this category include hiring new employees, employees retiring or becoming disabled, retirees 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 employee changes do not meet our long-term expectation. For example, if no employees become disabled during the year, we would expect a liability gain. If more employees become disabled than anticipated last 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 census 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 participants in the Plan, the Recommended Contribution has a low risk of having a significant increase due to demographic experience. For example, 1 new disabled member would typically generate an increase to the Actuarial Accrued Liability. However, due to the size of the Plan, there is an appropriate means to absorb demographic losses without causing a significant increase to the Recommended Contribution.

In the current report, the key demographic changes were as follows:

New hires: The Fund added 5 new active Members in the current year through hiring. When a new 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 for new Fund Members is approximately $34,000.

Retirement: There were 4 members of the Fund who retired during the year. When a Fund 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 $30,000.

Disability: There were 2 members of the Fund who became disabled during the year. When a member becomes disabled, the Fund will often experience a decrease in Normal Cost, but an increase in Unfunded
Liability. The increase in the Recommended Contribution in the current year for the new disabilities was approximately $29,000.

Deferred Annuities: There was 1 vested member of the Fund who terminated employment during the year. The Fund may be 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 $7,000.

Mortality: There were 2 retirees who passed away during the year, 1 of whom had an eligible surviving spouse. There was also 1 disabled member who passed away during the year. When a beneficiary passes away, the Fund liability will decrease as the Pension Fund no longer will make future payments to the beneficiary. If there is an eligible surviving spouse, the Fund liability will increase to represent the value of the expected payments that will be made to the spouse. The net decrease in the Recommended Contribution in the current year due to the mortality experience is approximately $80,000.

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 $5,000. A portion of this decrease was offset by applying 2.50% COLA increases to all active Members, in anticipation of retroactive pay increases upon contract settlement.

Assumption Changes
In the current valuation, the demographic assumptions were changed to the tables shown in the Actuarial Assumptions section of this report. The changes were made based on a study of Firefighters and Fire Pension Funds in Illinois. The assumptions impacted include:

- Mortality Rates
- Mortality Improvement Rates
- Retirement Rates
- Disability Rates
- Termination Rates

We have also updated the mortality assumption to include mortality improvements as stated in the most recently released MP-2016 table. In addition, the rates are being applied on a fully-generational basis. See the Actuarial Assumptions section of this report for more details on the specific mortality updates made. We have also updated the spouse age difference, spousal increase, duty disability, and duty death assumptions.

In the current valuation, certain economic assumptions were changed to the rates shown on the previous page. The individual pay scale assumption has been updated based on review of the settled bargaining agreement between the City of Elgin and the Local #439 International Association of Firefighters, for the period January 1, 2014 through December 31, 2017. We have also updated the projected increase in total payroll assumption.
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.

**Funding Policy Changes**
The Funding Policy was changed from the prior year. In the current year, the Recommended Contribution has been updated to include interest through the end of the year to account for Employer contribution timing. See the *Actuarial Funding Policies* section of this report for more details on the current Funding Policy and the table on the following page for the impact of these changes on the current valuation.
**ACTUARIAL CONTRIBUTION RECOMMENDATION - RECONCILIATION**

Actuarial Accrued Liability is expected to increase each year for both interest for the year and as active employees earn additional service years towards retirement. Similarly, Actuarial Accrued Liability is expected to decrease when the Fund pays benefits to inactive employees.

Contributions are expected to increase as expected pay increases under the Funding Policy for the Fund.

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 Unfunded Liability increases or decreases unexpectedly, the contribution towards Unfunded Liability will also change unexpectedly.

<table>
<thead>
<tr>
<th>Actuarial Liability</th>
<th>Contribution Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary Increase Less than Expected</td>
<td>$ (61,974)</td>
</tr>
<tr>
<td>Demographic Changes</td>
<td>996,129</td>
</tr>
<tr>
<td>Assumption Changes</td>
<td>9,806,406</td>
</tr>
<tr>
<td>Funding Policy Changes - Contribution Timing</td>
<td>-</td>
</tr>
<tr>
<td>Asset Return Less than Expected *</td>
<td>-</td>
</tr>
<tr>
<td>Contributions Less than Expected</td>
<td>-</td>
</tr>
<tr>
<td>Total Actuarial Experience</td>
<td>$ 10,740,561</td>
</tr>
</tbody>
</table>

Current Valuation | $ 179,901,016 | $ 8,353,732 |

*The impact on contribution due to asset performance is based on the Actuarial Value of Assets.

Key demographic changes, assumption changes, and funding policy changes were discussed in the prior section.
VALUATION OF FUND ASSETS

Market Value of Assets
Market Value of Assets (Gain)/Loss
Development of the Actuarial Value of Assets
(Gain)/Loss on the Actuarial Value of Assets
Historical Asset Performance
MARKET VALUE OF ASSETS

Statement of Assets

<table>
<thead>
<tr>
<th></th>
<th>Prior Valuation</th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Cash Equivalents</td>
<td>$1,156,675</td>
<td>$289,649</td>
</tr>
<tr>
<td>Money Market</td>
<td>2,025,437</td>
<td>2,068,229</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>27,167,832</td>
<td>28,861,382</td>
</tr>
<tr>
<td>Insurance Co Contracts - Separate</td>
<td>3,865,304</td>
<td>4,622,205</td>
</tr>
<tr>
<td>Stock Equities</td>
<td>8,127,966</td>
<td>7,621,884</td>
</tr>
<tr>
<td>Mutual Funds</td>
<td>44,553,555</td>
<td>39,424,002</td>
</tr>
<tr>
<td>Receivables (Net of Payables)</td>
<td>148,732</td>
<td>151,716</td>
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<tr>
<td>Net Assets Available for Pensions</td>
<td>$87,045,501</td>
<td>$83,039,067</td>
</tr>
</tbody>
</table>

The Total Value of Assets has Decreased Approximately $4,006,000 from Prior Valuation.

Statement of Changes in Assets

<table>
<thead>
<tr>
<th></th>
<th>Prior Valuation</th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Market Value - Prior Valuation</td>
<td>$87,045,501</td>
<td>$83,039,067</td>
</tr>
<tr>
<td>Plus - Employer Contributions</td>
<td>6,193,093</td>
<td></td>
</tr>
<tr>
<td>Plus - Employee Contributions</td>
<td>1,266,642</td>
<td></td>
</tr>
<tr>
<td>Plus - Return on Investments</td>
<td>(4,261,425)</td>
<td></td>
</tr>
<tr>
<td>Less - Benefit and Related Payments</td>
<td>(7,138,654)</td>
<td></td>
</tr>
<tr>
<td>Less - Other Expenses</td>
<td>(66,090)</td>
<td></td>
</tr>
<tr>
<td>Total Market Value - Current Valuation</td>
<td>$83,039,067</td>
<td></td>
</tr>
</tbody>
</table>

The Rate of Return on Investment on the Market Value of Assets for the Fund was Approximately (5.0%) Net of Administrative Expenses.

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 beginning and ending 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.
# Market Value of Assets (Gain)/Loss

## Current Year (Gain)/Loss on Market Value of Assets

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Market Value - Prior Valuation</td>
<td>$87,045,501</td>
</tr>
<tr>
<td>Contributions</td>
<td>$7,459,735</td>
</tr>
<tr>
<td>Benefit Payments</td>
<td>$(7,138,654)</td>
</tr>
<tr>
<td>Expected Return on Investments</td>
<td>$6,104,423</td>
</tr>
<tr>
<td>Expected Total Market Value - Current Valuation</td>
<td>$93,471,005</td>
</tr>
<tr>
<td>Actual Total Market Value - Current Valuation</td>
<td>$83,039,067</td>
</tr>
<tr>
<td>Current Market Value (Gain)/Loss</td>
<td>$10,431,938</td>
</tr>
</tbody>
</table>

The (Gain)/Loss on the Market Value of Assets has been determined based on the Expected Return on Investments as shown in the Actuarial Assumptions section of this report.

The Return on the Market Value of Assets was Lower than Expected Over the Most Recent Year.
DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

Total Market Value - Current Valuation  $ 83,039,067

Adjustment for Prior (Gains)/Losses

<table>
<thead>
<tr>
<th>Full Amount</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>First Preceding Year</td>
<td>$ 10,431,938</td>
</tr>
<tr>
<td>Second Preceding Year</td>
<td>(7,282,046)</td>
</tr>
<tr>
<td>Third Preceding Year</td>
<td>149,714</td>
</tr>
<tr>
<td>Fourth Preceding Year</td>
<td>4,385,489</td>
</tr>
<tr>
<td>Total Deferred (Gain)/Loss</td>
<td></td>
</tr>
</tbody>
</table>

Initial Actuarial Value of Assets - Current Valuation  $ 87,952,373

Less Contributions for the Current Year and Interest -
Less Adjustment for the Corridor -

Actuarial Value of Assets - Current Valuation  $ 87,952,373

(GAIN)/LOSS ON THE ACTUARIAL VALUE OF ASSETS

Total Actuarial Value - Prior Valuation  $ 83,384,662

Plus - Employer Contributions  6,193,093
Plus - Employee Contributions  1,266,642
Plus - Return on Investments  4,312,720
Less - Benefit and Related Payments  (7,138,654)
Less - Other Expenses  (66,090)

Total Actuarial Value - Current Valuation  $ 87,952,373

The Actuarial Value of Assets incorporates portions of gains and losses over multiple years.

The Actuarial Value of Assets is Equal to the Fair Market Value of Assets with Unanticipated Gains/Losses Recognized over 5 Years. The Actuarial Value of Assets is Currently 106% of the Market Value.

The Rate of Return on Investment on the Actuarial Value of Assets for the Fund was Approximately 5.1% Net of Administrative Expenses.
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.

<table>
<thead>
<tr>
<th>First Preceding Year</th>
<th>Market Value</th>
<th>Actuarial Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(5.0%)</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

The historical Rates of Return on Investments shown above were calculated based on the annual Return on Investment for the year, as a percentage of the average value of the assets for the year.

For purposes of determining the average value of assets during the year, the ending Market Value of Assets has been adjusted to net out to the portion related to the investment returns themselves. All other cash flows are included.

For purposes of determining the annual Return on Investment 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 adjustment we make is for actuarial reporting purposes only. By netting out Administrative Expenses and capturing investment returns that are available to pay benefits, it provides us a comparison to the Expected Return on Investments, but does not provide a figure that would be consistent with the return rates that are determined by other parties. Therefore, this calculated rate of return should not be used to analyze investment performance of the Fund or the performance of the investment professionals.
Expected Return on Investments Assumption

The Expected Return on Investments for this valuation is 7.00%. “Investment Risk” is the potential that actual Return on Investments will be different from what is expected. The selected Expected 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 Return on Investments assumption may be dependent on the State of 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 Return on Investments, actuarial losses will be produced, thus increasing the Plan’s Unfunded Liability and, subsequently, future contribution requirements.

“Asset/Liability Mismatch” risk is a similar concept as Investment Risk, as it relates to setting the Expected 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 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 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 Funded Percentage. 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 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
Contribution Recommendation
Actuarial Methods – Recommended Contribution
### ACTUARIAL ACCRUED LIABILITY

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Employees</td>
<td>$77,621,072</td>
</tr>
<tr>
<td>Inactive Employees</td>
<td></td>
</tr>
<tr>
<td>Terminated Employees - Vested</td>
<td>1,447,169</td>
</tr>
<tr>
<td>Retired Employees</td>
<td>81,085,084</td>
</tr>
<tr>
<td>Disabled Employees</td>
<td>13,780,367</td>
</tr>
<tr>
<td>Other Beneficiaries</td>
<td>5,967,324</td>
</tr>
<tr>
<td><strong>Total Inactive Employees</strong></td>
<td><strong>102,279,944</strong></td>
</tr>
<tr>
<td><strong>Total Actuarial Accrued Liability</strong></td>
<td><strong>$179,901,016</strong></td>
</tr>
</tbody>
</table>

The Total Actuarial Liability has Increased from Prior Valuation (See Management Summary).

### FUNDED STATUS

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Actuarial Accrued Liability</td>
<td>$179,901,016</td>
</tr>
<tr>
<td>Total Actuarial Value of Assets</td>
<td>$87,952,373</td>
</tr>
<tr>
<td>Unfunded Actuarial Accrued Liability</td>
<td>$91,948,643</td>
</tr>
<tr>
<td>Total Market Value of Assets</td>
<td>$83,039,067</td>
</tr>
<tr>
<td>Percent Funded</td>
<td></td>
</tr>
<tr>
<td>Actuarial Value of Assets</td>
<td>48.89%</td>
</tr>
<tr>
<td>Market Value of Assets</td>
<td>46.16%</td>
</tr>
</tbody>
</table>

Funded Percentage as of the Valuation Date is Subject to Volatility on Assets and Liability in the Short-Term.
## Development of the Employer Normal Cost

<table>
<thead>
<tr>
<th></th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Normal Cost</td>
<td>$3,177,062</td>
</tr>
<tr>
<td>Estimated Employee Contributions</td>
<td>(1,295,551)</td>
</tr>
<tr>
<td>Employer Normal Cost</td>
<td>$1,881,511</td>
</tr>
</tbody>
</table>

**At a 100% Funding Level, the Normal Cost Contribution is Still Required.**

## Normal Cost as a Percentage of Expected Payroll

<table>
<thead>
<tr>
<th></th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Payroll</td>
<td>$13,702,282</td>
</tr>
<tr>
<td>Employee Normal Cost Rate</td>
<td>9.455%</td>
</tr>
<tr>
<td>Employer Normal Cost Rate</td>
<td>13.73%</td>
</tr>
<tr>
<td>Total Normal Cost Rate</td>
<td>23.19%</td>
</tr>
</tbody>
</table>

**Ideally, the Employer Normal Cost Rate will Remain Stable.**

## Contribution Recommendation

<table>
<thead>
<tr>
<th></th>
<th>Current Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer Normal Cost*</td>
<td>$2,013,217</td>
</tr>
<tr>
<td>Amortization of Unfunded Accrued Liability/(Surplus)</td>
<td>$6,340,515</td>
</tr>
<tr>
<td>Funding Requirement</td>
<td>$8,353,732</td>
</tr>
</tbody>
</table>

*Employer Normal Cost Contribution includes interest through the end of the year.

**The Recommended Contribution has Increased from Prior Valuation (See Management Summary).**
ACTUARIAL METHODS – RECOMMENDED CONTRIBUTION

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuarial Valuation Date</td>
<td>January 1, 2019</td>
</tr>
<tr>
<td>Data Collection Date</td>
<td>December 31, 2018</td>
</tr>
<tr>
<td>Actuarial Cost Method</td>
<td>Entry Age Normal (Level % Pay)</td>
</tr>
<tr>
<td>Amortization Method</td>
<td>Level % Pay (Closed)</td>
</tr>
<tr>
<td>Amortization Target</td>
<td>100% Funded over 22 years</td>
</tr>
<tr>
<td>Asset Valuation Method</td>
<td>5-Year Smoothed Market Value</td>
</tr>
</tbody>
</table>

The contributions and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the Actuarial Cost Methods described. The Actuarial Cost and Amortization Methods allocate the projected obligations of the plan over the working lifetimes of the plan participants.

The Recommended Contribution amount shown in this report is based on the methods summarized above. The Actuarial Funding Policies section of the 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
Methods and Assumptions
### STATUTORY MINIMUM CONTRIBUTION

<table>
<thead>
<tr>
<th>Minimum Contribution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution Requirement</td>
<td>$7,287,122</td>
</tr>
<tr>
<td>Expected Payroll</td>
<td>$13,702,282</td>
</tr>
<tr>
<td>Contribution Requirement as a Percent of Expected Payroll</td>
<td>53.18%</td>
</tr>
</tbody>
</table>

### FUNDED STATUS – STATUTORY MINIMUM

<table>
<thead>
<tr>
<th>Minimum Contribution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Cost</td>
<td>$3,820,623</td>
</tr>
<tr>
<td>Market Value of Assets</td>
<td>$83,039,067</td>
</tr>
<tr>
<td>Actuarial Value of Assets</td>
<td>$87,952,373</td>
</tr>
<tr>
<td>Actuarial Accrued Liability</td>
<td>$171,608,028</td>
</tr>
<tr>
<td>Unfunded Actuarial Accrued Liability</td>
<td>$83,655,655</td>
</tr>
<tr>
<td>Percent Funded</td>
<td></td>
</tr>
<tr>
<td>Actuarial Value of Assets</td>
<td>51.25%</td>
</tr>
<tr>
<td>Market Value of Assets</td>
<td>48.39%</td>
</tr>
</tbody>
</table>
The Statutory Minimum Contribution is based on Actuarial Funding Methods and funding parameters in the Illinois statutes for pension funding. The resulting contribution is lower than the Recommended Contribution for the current plan year. The lower contribution amount is not recommended because it represents 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. Beneficiaries – 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 employees

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 contribution requirements that are less likely to be manageable.
ACTUARIAL METHODS – ILLINOIS STATUTORY MINIMUM CONTRIBUTION

<table>
<thead>
<tr>
<th>Actuarial Valuation Date</th>
<th>January 1, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection Date</td>
<td>December 31, 2018</td>
</tr>
<tr>
<td>Actuarial Cost Method</td>
<td>Projected Unit Credit (Level % of Pay)</td>
</tr>
<tr>
<td>Amortization Method</td>
<td>Level % Pay (Closed)</td>
</tr>
<tr>
<td>Remaining Amortization Period</td>
<td>90% Funded over 22 years</td>
</tr>
<tr>
<td>Asset Valuation Method</td>
<td>5-Year Smoothed Market Value</td>
</tr>
</tbody>
</table>

The contribution and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the Actuarial Cost Methods described. The Actuarial Cost and Amortization methods allocate the projected obligations of the plan over the working lifetimes of the plan participants.

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 Employees
Inactive Employees
Summary of Benefit Payments
### ACTIVE EMPLOYEES

<table>
<thead>
<tr>
<th>Vested</th>
<th>97</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonvested</td>
<td>33</td>
</tr>
<tr>
<td>Total Active Employees</td>
<td>130</td>
</tr>
<tr>
<td>Total Payroll*</td>
<td>$13,483,180</td>
</tr>
</tbody>
</table>

*Total Payroll for the current year includes assumed 2.50% COLA increases for all active Members, in anticipation of retroactive pay increases upon contract settlement.

### INACTIVE EMPLOYEES

| Terminated Employees - Vested | 2 |
| Retired Employees             | 73 |
| Disabled Employees            | 16 |
| Other Beneficiaries           | 23 |
| Total Inactive Employees      | 114 |

### SUMMARY OF BENEFIT PAYMENTS

| Terminated Employees - Vested | $6,970 |
| Retired Employees             | 462,673 |
| Disabled Employees            | 73,452 |
| Other Beneficiaries           | 67,629 |
| Total Inactive Employees      | $610,724 |

Benefits shown for Terminated Employees under deferred retirement are not currently in pay status.
ACTUARIAL FUNDING POLICIES

Actuarial Cost Method
Financing Unfunded Actuarial Accrued Liability
Actuarial Value of Assets
**ACTUARIAL COST METHOD**

The Actuarial Cost Method allocates the projected obligations of the plan over the working lifetimes of the plan participants.

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 participant’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 projected 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 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 upon 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 the remaining 22 years. See the Actuarial Methods – Recommended Contribution section of this report for more detail.

We believe additional consideration should be given to reducing the amortization period so that the amortization payment can become more effective in reducing the Unfunded Liability.
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. 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
Actuarial Assumptions Utilized
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 participant 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 information furnished, using the Actuarial Cost Methods described in the previous section.

The principal areas of financial risk which require assumptions about future experience are:

- Long-term Expected Return on Investments
- Patterns of pay increases for Members
- Rates of Mortality among Members and Beneficiaries
- Rates of Withdrawal of Active Members
- Rates of Disability among Members
- Age patterns of actual retirement

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 Contribution Recommendation.

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).

Details behind the selection of the actuarial assumptions can be found in the Assumptions 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.
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 demographic assumptions
- Highlight the impact of demographic experience over the past year, as well as other sources of change and volatility in the *Actuarial Contribution Recommendation – Reconciliation* section of this report
- Detail year-over-year changes in contribution levels, assets, liabilities, and Funded Status in the *Contribution Recommendation* and *Funded Status* sections of the Management Summary of this report
- Review any material changes in the covered population as summarized in the *Actuarial Valuation Data* section of this report
- Provide and discuss a separate written Assumptions Summary document highlighting the rationale for each key economic and demographic assumption chosen by the Plan Sponsor
- Identify potential cash flow risks by highlighting expected benefit payments over the next 5-year and 10-year periods in the *Asset Growth* section of the Management Summary in this report
- Describe the impact of any assumption, method, or policy change in the Management Summary
- Utilize supplemental information, such as the GASB discount rate sensitivity disclosures to understand, for example, what impact an alternative Expected 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 Elgin Firefighters’ Pension Fund and/or City of Elgin, 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 Return on Investments 7.00% net of administrative expenses.

CPI-U 2.50%

Total Payroll Increases 3.25%

Individual Pay Increases 4.00% - 8.77%

Individual salary increases include a long-term average increase for inflation, average annual increases for promotions, and any additional increases for a step program. Sample rates as follows:

<table>
<thead>
<tr>
<th>Service</th>
<th>Rate</th>
<th>Service</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>8.77%</td>
<td>8</td>
<td>4.00%</td>
</tr>
<tr>
<td>1</td>
<td>8.44%</td>
<td>9</td>
<td>4.00%</td>
</tr>
<tr>
<td>2</td>
<td>8.03%</td>
<td>10</td>
<td>4.00%</td>
</tr>
<tr>
<td>3</td>
<td>7.76%</td>
<td>15</td>
<td>4.00%</td>
</tr>
<tr>
<td>4</td>
<td>4.00%</td>
<td>20</td>
<td>4.00%</td>
</tr>
<tr>
<td>5</td>
<td>4.00%</td>
<td>25</td>
<td>4.00%</td>
</tr>
<tr>
<td>6</td>
<td>4.00%</td>
<td>30</td>
<td>4.00%</td>
</tr>
<tr>
<td>7</td>
<td>4.00%</td>
<td>35</td>
<td>4.00%</td>
</tr>
</tbody>
</table>

Retirement Rates 100% of the L&A Assumption Study Cap Age 65 for Firefighters 2016. Sample rates as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
<th>Age</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>0.068</td>
<td>53</td>
<td>0.111</td>
</tr>
<tr>
<td>51</td>
<td>0.080</td>
<td>54</td>
<td>0.132</td>
</tr>
<tr>
<td>52</td>
<td>0.094</td>
<td>55</td>
<td>0.155</td>
</tr>
</tbody>
</table>
Withdrawal Rates

100% of the L&A Assumption Study for Firefighters 2016. Sample rates as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
<th>Age</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>0.046</td>
<td>40</td>
<td>0.010</td>
</tr>
<tr>
<td>30</td>
<td>0.034</td>
<td>45</td>
<td>0.002</td>
</tr>
<tr>
<td>35</td>
<td>0.022</td>
<td>50</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Disability Rates

100% of the L&A Assumption Study for Firefighters 2016. Sample rates as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
<th>Age</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>0.0001</td>
<td>40</td>
<td>0.0030</td>
</tr>
<tr>
<td>30</td>
<td>0.0003</td>
<td>45</td>
<td>0.0055</td>
</tr>
<tr>
<td>35</td>
<td>0.0013</td>
<td>50</td>
<td>0.0092</td>
</tr>
</tbody>
</table>

Mortality Rates

Active Mortality follows the Sex Distinct Raw Rates as developed in the RP-2014 Study, with Blue Collar Adjustment. These rates are improved generationally using MP-2016 Improvement Rates.

Retiree Mortality follows the L&A Assumption Study for Firefighters 2016. These rates are experience weighted with the Raw Rates as developed in the RP-2014 Study, with Blue Collar Adjustment and Improved Generationally using MP-2016 Improvement Rates.

Disabled Mortality follows the Sex Distinct Raw Rates as developed in the RP-2014 Study for Disabled Participants. These Rates are improved generationally using MP-2016 Improvement Rates.

Spouse Mortality follows the Sex Distinct Raw Rates as developed in the RP-2014 Study. These rates are improved generationally using MP-2016 Improvement Rates.

Married Participants

80% of Active Participants are assumed to be married. Female Spouses are assumed to be 4 Years younger than Male Spouses.
SUMMARY OF PRINCIPAL PLAN PROVISIONS

Establishment of the Fund
Administration
Employee Contributions
Regular Retirement Pension Benefit
Early Retirement Pension Benefit
Surviving Spouse Benefit
Termination Benefit – Vested
Disability Benefit
ESTABLISHMENT OF THE FUND

The Firefighters’ Pension Fund is established and administered as prescribed by “Article 4 – Firefighters’ Pension Fund – Municipalities 500,000 and Under” of the Illinois Pension Code.

ADMINISTRATION

The Firefighters’ 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.

EMPLOYEE CONTRIBUTIONS

Employees contribute 9.455% 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, pro-rated monthly, and not to exceed 75% of final salary. “Final salary” is based on the firefighters’ pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: A firefighter 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.
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 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. Annual salary for this purpose will not exceed the salary cap, indexed by the lesser of 3% or ½ of 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 ½ 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 ½ of 1% for each month that the firefighters’ 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 retirement 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 ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.
SURVIVING SPOUSE BENEFIT

Hired Prior to January 1, 2011

Eligibility: Married to an active firefighter with at least 10 years of creditable service or disabled pensioner at the time of death or married to a retired pensioner at least 12 months prior to the time of death.

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the firefighters’ final pensionable salary attached 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 greater of the pensioner’s benefit at the time of death or 54% of the pensioner’s final pensionable salary attached to rank held on the last day of service.

Active Employee with 20+ Years of Service: An eligible surviving spouse is entitled to receive the greater of the firefighters’ benefit at the time of death or 54% of the firefighters’ final pensionable salary attached to rank held on the last day of service.

Active Employee with 10-20 Years of Service: An eligible surviving spouse is entitled to receive 54% of the firefighters’ final pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: None.

Hired on or After January 1, 2011

Eligibility: Married to an active firefighter with at least 10 years of creditable service at the time of death or married to a disabled or retired pensioner at least 12 months prior to the time of death.

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the firefighters’ final pensionable salary attached to rank as of the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner, Active Employee with 20+ Years of Service, and Active Employee with 10-20 Years of Service: An eligible surviving spouse is entitled to receive 66 ⅔% of the firefighter’s pension benefit 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.
TERMINATION BENEFIT – VESTED

Hired Prior to January 1, 2011

Eligibility: Age 60 with at least 10 but less than 20 years of creditable service.

Benefit: An accrual factor times final salary for each year of service. “Accrual factor” is a factor of 1.5% at 10 years of service, increasing ratably up to 2.4% at 19 years of service. “Final salary” is based on the firefighters’ pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: A firefighter 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 on 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.
DISABILITY BENEFIT

Hired Prior to January 1, 2011

*Eligibility:* Duty Disability or Non-Duty Disability with at least 7 years of creditable service.

*Benefit:* For a duty disability, a firefighter 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 with at least 7 years of creditable service, a firefighter is entitled to receive 50% of final salary. “Final salary” is based on the firefighters’ pensionable salary attached to rank held on the last day of service.

*Annual Increase in Benefit:* A firefighter 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 Disability or Non-Duty Disability with at least 7 years of creditable service.

*Benefit:* For a duty disability, a firefighter 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 firefighter is entitled to receive 50% of final salary. “Final salary” is based on the firefighters’ pensionable salary attached to rank held on the last day of service.

*Annual Increase in Benefit:* A firefighter 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 first day of the month 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

Actuarial Accrued Liability – The actuarial present value of future benefits based on employees’ 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 participants.

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 sponsor meet their goal of working in the best interest of the plan participant.

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 employees 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.
AGENDA ITEM: C
MEETING DATE: August 28, 2019

ITEM:
Contract with JG Uniforms for the Purchase of Police Dress Uniforms ($42,703)

OBJECTIVE:
Provide police officers with dress uniforms while maintaining fiscal responsibility.

RECOMMENDATION:
Approve the contract with JG Uniforms to provide the police department with dress uniforms in the amount of $42,703.

Dress uniforms for sworn police officers present a positive image of the police department. Currently, only police supervisors and members of the police honor guard have dress uniforms which are worn for formal and ceremonial occasions. The police department requested additional funds in the 2019 budget to support the purchase of dress uniforms for every sworn officer. The addition of these dress uniforms allows members of the police department to display their professionalism through their appearance.

BACKGROUND

The police department currently only issues members of the sworn supervisory staff and police honor guard with dress uniforms. Historically, sworn police officers have only been provided with a tie and five-star cap to wear as their dress uniform. In 2019, the police department requested additional funds in order to outfit every sworn officer with a dress uniform. This enables employees at the rank of police officer to appear more formal and professional when attending ceremonial events.

OPERATIONAL ANALYSIS

The purchase of dress uniforms will allow personnel to present a more professional appearance at important ceremonial events. The department strives to always present itself in a professional manner and this purchase will provide the mechanism for officers to enhance their professional image. Three vendors responded to the Request for Proposal (RFP). Their submissions were reviewed for compliance with the RFP requirements which all three met. The pricing between JG Uniforms and Galls LLC was within $500, while the pricing from the Ray O’Herron Company was
higher than the other two. Due to their pricing, the police department is not recommending the Ray O’Herron Company. The police department has used or currently is using the services of the two remaining vendors and through past experiences is recommending JG Uniforms as the vendor for this RFP. The police department believes that JG Uniforms would best serve the needs of the department due to turnaround time to receive items, fitting options and that representatives of the vendor are local and would be able to meet any needs in an expeditious manner. The police department believes all three vendors would provide a quality product, but JG Uniforms has shown to be capable of adapting to the needs of the department and will provide the best value to the city.

**INTERESTED PERSONS CONTACTED**

None.

**FINANCIAL ANALYSIS**

The police department anticipates purchasing 120 dress uniforms. Under the terms of the agreement with JG Uniforms, the cost of these dress uniforms would be $42,703. Funding for the dress uniforms was added to the 2019 budget to accommodate the purchase.

**BUDGET IMPACT**

<table>
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<th>FUND(S)</th>
<th>ACCOUNT(S)</th>
<th>PROJECT #(S)</th>
<th>AMOUNT BUDGETED</th>
<th>AMOUNT AVAILABLE</th>
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<td>N/A</td>
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</table>

**LEGAL IMPACT**

The RFP was posted on the City’s website and published in the April 11, 2019 issue of the *Daily Herald*. Three timely proposals were received and opened on May 7, 2019.

**ALTERNATIVES**

The city council may choose to not award the contract and instruct staff to rebid and delay the purchase.

**NEXT STEPS**

Finalize the contract with JG Uniforms.
Originators: Dave Zierk, Training Coordinator
              Ana Lalley, Police Chief

Final Review: Debra Nawrocki, Chief Financial Officer
              William A. Cogley, Corporation Counsel/Chief Development Officer
              Rick Kozal, City Manager

ATTACHMENTS

A. JG Uniforms Contract
B. RFP 19-033 Tabulation of Bids
C. RFP 19-033 Specifications
CITY OF ELGIN AGREEMENT FOR
RFP Number: 19-033 for: Police Uniforms Dress

This Agreement is made and entered into this _ day of ____________, 2019 by and between the City of Elgin ("the CITY"), a municipal corporation organized and existing under the laws of the State of Illinois and JG Uniforms, incorporated in the state of Illinois and having a principal place of business at 5949 W. Irving Park Road, Chicago, Illinois 60634 ("the VENDOR").

ARTICLE I. DEFINITION. "THIS CONTRACT" as used herein shall mean this Agreement, the Request for Proposal (RFP) including all documents referenced therein and the Vendor's response (proposal) thereto incorporated by reference herein and made a part hereof. The VENDOR agrees to provide the goods and/or services all in accordance with the RFP and VENDOR'S Proposal. In the event there is a conflict between this Agreement and the proposal documents, the proposal documents shall supersede this Agreement.

ARTICLE II. SCOPE OF WORK. The VENDOR shall provide the goods or services described in the RFP and proposal response, at the prices and terms contained therein.

ARTICLE III. TIME OF PERFORMANCE. The VENDOR shall provide the goods or services upon receipt of purchase order; and the CITY shall pay to VENDOR the total sum of $42,785.75. Prices quoted will be firm for the first two years of the contract, from the date of award. The City shall have three 1 year options to renew. Yearly increases for years 3, 4 and 5 shall not exceed the Consumer Price Index increase for Chicago-Gary-Kenosha area in the All Item's category. There will be no minimum dollar amount per shipment.

ARTICLE IV. TERMINATION. The following shall constitute events of default under THIS CONTRACT: a) any material misrepresentation made by the VENDOR to the CITY, b) any failure by the VENDOR to perform any of its obligations under THIS CONTRACT including, but not limited to, the following: (i) failure to commence performance of THIS CONTRACT at the time specified in THIS CONTRACT due to a reason or circumstance within the VENDOR'S reasonable control, (ii) failure to perform THIS CONTRACT with sufficient personnel and equipment or with sufficient material to ensure the completion of THIS CONTRACT within the specified time due to a reason or circumstance within the VENDOR'S reasonable control, (iii) failure to perform THIS CONTRACT in a manner reasonably satisfactory to the CITY, (iv) failure to promptly re-perform within reasonable time the services that were rejected by the CITY as erroneous or unsatisfactory, (v) failure to comply with a material term of THIS CONTRACT, including, but not limited to the Affirmative Action requirements, and (vi) any other acts specifically and expressly stated in THIS CONTRACT as constituting a basis for termination for cause. The CITY may terminate THIS CONTRACT for its convenience upon fourteen (14) days prior written notice.

ARTICLE V. DAMAGES. From any sums due to the VENDOR'S for services, the CITY may keep for its own the whole or any part of the amount for expenses, losses and damages as directed by the Purchasing Director, incurred by the CITY as a consequence of procuring services as a result of any failure, omission or mistake of the VENDOR in providing the goods and services as provided in THIS CONTRACT.

ARTICLE VI. GOVERNING LAWS AND ORDINANCES. This CONTRACT is made
subject to all the laws of the State of Illinois and the ordinances of the CITY and if any such clause herein does not conform to such laws or ordinances, or in the event any of the terms or provisions herein are deemed to be void or otherwise unenforceable for any reason, such clause shall be void (the remainder of the contract shall not be affected) and the laws or ordinances shall be operative in lieu thereof. Venue for the resolution of any disputes or the enforcement of any rights arising out of or in connection with this CONTRACT shall be in the Circuit Court of Kane County, Illinois.

ARTICLE VII. AFFIRMATIVE ACTION. The VENDOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, ancestry, national origin, place of birth, age or physical handicap which would not interfere with the efficient performance of the job in question. The VENDOR will take affirmative action to comply with the provisions of Elgin Municipal Code Section 3.12.100 and will require any subcontractor to submit to the CITY a written commitment to comply with those provisions. The VENDOR will distribute copies of this commitment to all persons who participate in recruitment, screening, referral and selection of job applicants and prospective subcontractors. The VENDOR agrees that the provisions of Chapter 3.12 of the Elgin Municipal Code, 1976, are hereby incorporated by reference, as if set out verbatim.

ARTICLE VIII. ASSIGNABILITY. The CONTRACTOR shall not assign, sell or transfer any interest in THIS CONTRACT without prior written consent of the CITY.

ARTICLE IX. AMENDMENTS. There shall be no modification of the CONTRACT, except in writing and executed with the same formalities of the original.

ARTICLE X. NOTICES. Any notice given under this CONTRACT shall be in writing and shall be deemed to have been given when hand delivered or deposited in the U.S. mail, certified or registered, return receipt requested, addressed, if to VENDOR, at the address set forth above to the attention of the project manager or undersigned representative, and if to the City, to the attention of the City Manager, 150 Dexter Court, Elgin, IL 60120 or to such other address and/or authorized representatives as either party shall designate in writing to the other in the manner herein provided.

ARTICLE XI. INDEMNIFICATION. To the fullest extent permitted by law, Contractor agrees to and shall indemnify, defend and hold harmless the City, its officers, employees, boards and commissions from and against any and all claims, suits, judgments, costs, attorney fees, damages or any and all other relief or liability arising out of or resulting from or through or alleged to arise out of any acts or negligent acts or omissions of Contractor or Contractor’s officers, employees, agents or subcontractors in the performance of this CONTRACT, including but not limited to, all goods delivered or services or work performed hereunder. In the event of any action against the City, its officers, employees, agents, boards or commissions covered by the foregoing duty to indemnify, defend and hold harmless, such action shall be defended by legal counsel of the City’s choosing.

ARTICLE XII. PUBLICITY. The VENDOR may not use, in any form or medium, the name of the City of Elgin for public advertising unless prior written permission is granted by the CITY.

ARTICLE XIII. APPROPRIATIONS. The fiscal year of the CITY is the 12 month period ending December 31. The obligations of the CITY under any contract for any fiscal year are subject to and contingent upon the appropriation of funds sufficient to discharge the obligations which accrue in that fiscal year and authorization to spend such funds for the purposes of the contract.

If, for any fiscal year during the term of the CONTRACT, sufficient funds for the discharge of the
CITY’S obligations under the contract are not appropriated and authorized, then the CONTRACT shall terminate as of the last day of the preceding fiscal year, or when such appropriated and authorized funds are exhausted, whichever is later, without liability to the CITY for damages, penalties or other charges on account of such termination.

**ARTICLE XIV. NO AGENCY.** This CONTRACT shall not be construed so as to create a joint venture, partnership, employment or other agency relationship between the parties hereto, except as may be specifically provided for herein.

**ARTICLE XV. CONFLICT.** In the event of any conflict between the terms provided in any attachments hereto and the body of this CONTRACT, the terms and provisions of this CONTRACT shall control.

**ARTICLE XVI. ENTIRE AGREEMENT.** This CONTRACT embodies the whole agreement of the parties. There shall be no promises, terms, conditions or obligations other than those contained therein; and this CONTRACT shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties.

**ARTICLE XVII. COMPLIANCE WITH LAWS.** Notwithstanding any other provision of this CONTRACT it is expressly agreed and understood that in connection with the performance of this CONTRACT that the VENDOR shall comply with all applicable Federal, State, City and other requirements of law, including, but not limited to, any applicable requirements regarding prevailing wages, minimum wage, workplace safety and legal status of employees. Without limiting the foregoing, VENDOR hereby certifies, represents and warrants to the CITY that all VENDOR’S employees and/or agents who will be providing products and/or services with respect to this CONTRACT shall be legal residents of the United States. VENDOR shall also at its expense secure all permits and licenses, pay all charges and fees and give all notices necessary and incident to the due and lawful prosecution of the work, and/or the products and/or services to be provided for in this CONTRACT. The CITY shall have the right to audit any records in the possession or control of the CONTRACTOR to determine VENDOR’S compliance with the provisions of this section. In the event the CITY proceeds with such an audit the VENDOR shall make available to the CITY the VENDOR’S relevant records at no cost to the CITY. VENDOR shall pay any and all costs associated with any such audit.

This agreement may be executed in counterparts, each of which shall be an original and all of which shall constitute one and the same agreement. For the purposes of executing this agreement, any signed copy of this agreement transmitted by fax machine or e-mail shall be treated in all manners and respects as an original document. The signature of any party on a copy of this agreement transmitted by fax machine or e-mail shall be considered for these purposes as an original signature and shall have the same legal effect as an original signature. Any such faxed or e-mailed copy of this agreement shall be considered to have the same binding legal effect as an original document. At the request of either party any fax or e-mail copy of this agreement shall be re-executed by the parties in an original form. No party to this agreement shall raise the use of fax machine or e-mail as a defense to this agreement and shall forever waive such defense.

Without limiting the foregoing, VENDOR hereby certifies, represents and warrants to the CITY that all CONTRACTORS employees and/or agents located in the United States, who will be providing products and/or services with respect to this CONTRACT, shall be legal residents of the United States.
The person signing THIS CONTRACT certifies that s/he has been authorized by the VENDOR to commit the VENDOR contractual and has been authorized to execute THIS CONTRACT on its behalf.

IN WITNESS WHEREOF the parties have hereto set their hands the day and year first above written:

VENDOR

Name and Title
City Manager
FEIN NO. 36-3538722

CITY OF ELGIN

Richard G. Kozal
### Police Dress Uniforms

**TABULATION OF BIDS**  
**CITY OF ELGIN**  
Invitation to Bid: #19-033  
Date of Opening: 5/7/19  
Department: Police

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty</th>
<th>Unit Price</th>
<th>Extended Price</th>
<th>Unit Price</th>
<th>Extended Price</th>
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<th>Extended Price</th>
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<tbody>
<tr>
<td>Thorogood Item#531-6303 Women's Hi-gloss oxford, smooth black surface with non-slip soles</td>
<td>20</td>
<td>$96</td>
<td>$1,920</td>
<td>$108</td>
<td>$2,160</td>
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<td>Thorogood Item# 831-6027 Men's Hi-gloss oxford, smooth black surface with non-slip soles</td>
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<td>$96</td>
<td>$9,600</td>
<td>$108</td>
<td>$10,800</td>
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**TOTAL FOOTWEAR**  
$11,520  
$12,960  
$11,205

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<th>Extended Price</th>
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<tbody>
<tr>
<td>Elbeco Item# 9814LCN Men's &amp; Women's long sleeve, White - TexTrop 2</td>
<td>120</td>
<td>$36</td>
<td>$4,320</td>
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<td>$37.50</td>
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**DEVIATION: Elbeco**  
Item#310 Mens & Ladies TexTrop2 White LS Shirts  
120  
$42  
$5,040

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<td>Flying Cross Item#34880 Lined Navy Dress Coat Men's and Women's</td>
<td>120</td>
<td>$138</td>
<td>$16,560</td>
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**DEVIATION: Flying Cross**  
Item#38800 Mens & Ladies 100% Poly Dress Blouse  
120  
$132  
$15,840

Galls, LLC  
1340 Russell Cave Drive  
Lexington, KY 40505

JG Uniforms  
5949 W. Irving Park Road  
Chicago, IL 60634

Ray O'Herron Company, Inc.  
3549 N. Vermilion Street  
Danville, IL 61832
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<th>Description</th>
<th>Qty</th>
<th>Unit Price</th>
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<td>$165.75</td>
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<td>Flying Cross Item#38200 Pants to match above jacket – Men’s and Women’s cut</td>
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<td>$38</td>
<td>$4,560</td>
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<td>$45.00</td>
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<td>Galls Item# 90111 Breakaway Tie, Navy Blue</td>
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<td><strong>TABULATION OF BIDS</strong></td>
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<td>Invitation to Bid: #19-033 Date of Opening: 5/7/19 Department: Police</td>
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<tr>
<td>DEVIMATION: Valenti Item# 188 Clip-on Tie/ Navy Polyester</td>
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<td>Gould &amp; Goodrich Item# B52-28 Garrison Style Belt – Smooth Leather Silver Buckle</td>
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<td>Midway Item# 5-SWNV 5 Star midnight blue hat with long visor</td>
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<td>$1,150</td>
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<td>$10</td>
<td>$250</td>
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<td>$8.50</td>
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<tr>
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<td>Ludmar Item#M/0322 Gold &quot;snake&quot; Cap Strap- Expandable</td>
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<td><strong>TOTAL HEADWEAR</strong></td>
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<td><strong>$393.55</strong></td>
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</table>
Items Highlighted in Yellow are the items that will be purchased.
CITY OF ELGIN, ILLINOIS, REQUEST FOR PROPOSALS
INSTRUCTIONS TO VENDORS

The City of Elgin requests proposals for the Police Dress Uniforms. This proposal process and award of the contract are made in conformance with Elgin Municipal Code Title 5. The City of Elgin reserves the right to reject any or all proposals, or any part thereof, or to accept any proposal or any part thereof, or to waive informalities in any proposal, if deemed to be in the best interest of the City. PLEASE SUBMIT ONE PROPOSAL and ONE CD IN A SEALED ENVELOPE with the proposal number and name, time of opening, and company name clearly marked on the envelope to the City of Elgin Purchasing Department, 150 Dexter Court, Elgin, IL 60120-5555.

Prior to proposal opening, a Vendor may correct, modify or withdraw its proposal by making the request in writing prior to the time and date for the proposal opening. All corrections and modifications must be delivered to the Purchasing Department in a sealed envelope with a notation on the envelope indicating that it contains a modification or correction to the original proposal submitted, and identifying the proposal by name, number and opening date.

Proposal awards made by the City Council of the City of Elgin may be corrected or amended in the sole discretion of the City Council prior to the city’s execution and delivery of a signed agreement to a Vendor.

Proposals must be signed by an authorized official of the contractor’s organization, and the name of the official and title typed below the signature. Proposals must be sealed in an envelope clearly marked with proposal name and due date written thereon. Faxed proposals will not be accepted. No proposal may be withdrawn after the scheduled closing time for receipt of proposals for 60 days. Award shall be made within 60 days unless award date is extended.

Purchases made by the City of Elgin are exempt from the payment of federal excise tax and State of Illinois sales tax and any such taxes must not be included in the proposal prices. Unless otherwise indicated, deliveries are FOB destination Elgin, Illinois.

In the case of a conflict between unit price and extended price, unit price shall take precedence. If goods are not delivered or services are not performed within the time frame specified in the Request for Proposal (or where no time is specified, within a reasonable time frame) the City of Elgin reserves the right to cancel the order or any part thereof.

If required in the specifications, the Vendor must submit with its proposal a certified check or bid bond in the amount of five percent (5%) of the total base proposal, or other amount indicated herein, payable to the City of Elgin, as a guarantee that the selected Vendor will sign a contract and provide any required bonds or insurance within fifteen days of receiving the contract. The proceeds of the proposal guarantee shall become the property of the City if, for any reason, the selected Vendor withdraws its proposal before its expiration or cannot provide a signed contract, bonds and/or insurance within ten days after award.

Proposals will be considered on goods complying substantially with specifications provided each deviation or alternative is identified and described in an attachment to the proposal. The City of Elgin reserves the right to determine whether such deviations or alternatives are acceptable. Brand names that may be mentioned in specifications as used only as a reference to the type and quality of goods desired unless otherwise indicated.

The selected Vendor(s) must comply with all laws, rules and regulations pertaining to public contracts as adopted by the State of Illinois and the City of Elgin, including but not limited to the payment of prevailing wages.

Proposals must contain:
1. A signed Tax/Collusion/Debarment Affidavit
2. A signed Agreement. If awarded a contract, a frilly executed copy will be sent to you.
3. A completed Bidder’s Employee Utilization Form (if you employ 5 or more persons).
4. A signed Sexual Harassment Form.
5. Any other information or materials required in the specifications.

Bid announcements can be found on the City of Elgin Home Page
www.cityofelgin.org/bids.aspx
UNIFORMS

1. Prices quoted shall be delivered price to the Elgin Police Department, which will include shipping, alterations, and sewing on of emblems. Emblems will be provided by the city if needed.

2. Items will be delivered within seven (7) calendar days from the receipt of the order.

3. In the unusual circumstance that items are backordered, these items shall be delivered within thirty (30) days upon receipt of the order. The only exception to this will be those items which have to be custom made due to their size. Said exception must be authorized by the city. Tracking of all backorders shall be the responsibility of the proposer, who shall supply the city with weekly updates on the fulfillment of all backorders. This proposed item shall be strictly adhered to, and will be considered a violation of terms of the proposal.

4. Prices quoted will be firm for the first two years of the contract, from the date of award. The City shall have three 1 year options to renew. Yearly increases for years 3, 4 and 5 shall not exceed the Consumer Price Index increase for Chicago-Gary-Kenosha area in the All Item s category. There will be no minimum dollar amount per shipment.

5. If the vendor is not located within the city limits of Elgin, then the vendor shall come to the Elgin Police Department to measure and fit employees on an as needed basis. There will be a need to fit approximately 120 individuals immediately after the agreement is finalized. There must be a representative dedicated to the City of Elgin for this.

6. Vendors agree to stock sufficient quantities of all items covered in this proposal, enabling the vendor to immediately outfit five (5) officers with all uniform items at any given time.

7. The name brand specifications are intended to describe apparel of a certain quality with certain features. Proposals for other manufacturer's equivalent models of apparel will be considered. Any deviations from specifications must be listed on a separate sheet and submitted with the proposal. Complete product literature and specifications for the manufacturer's model being proposal must be included with the proposal.

8. The vendor shall not specify clothing items which are known to fade excessively, such as high cotton content blends, unless those blends are specified herein. Should articles fade prematurely, those items shall be replaced by the vendor at no cost to the city.

9. On items proposal, there will be some need for oversize item s. Oversize charges shall be limited to a maximum of 20% for shirts, trouser s, and sweaters (sizes larger than 2XL in shirts and 48 waist in pants); 30% for jackets; and 40% for leather good s (sized larger than 48). If there is a need to custom tailor clothing for extremely large sizes, the vendor shall submit the cost for approval.

10. The successful vend or(s) shall supply the city with a point of contact, and shall keep that point of contact up to date at all times to ensure an open line of communication.

11. Upon request from the city, vendors may be required to provide samples of proposal items for the purposes of evaluation by the Elgin Police Department's Uniform Committee and Command Staff. These samples shall be at no cost to the city.
12. Orders shall be made on an as needed basis. No minimum order is guaranteed. Quantities are estimates.

13. Please refer to the itemized list at the end of this bid for specific items.
CITY OF ELGIN AGREEMENT FOR
RFP Number: 14-043 for: Police Uniforms Dress

This Agreement is made and entered into this ___ day of ____________, 2019 by and between the City of Elgin ("the CITY"), a municipal corporation organized and existing under the laws of the State of Illinois and ________________, incorporated in the state of __________________ and having a principal place of business at __________________________("the VENDOR").

ARTICLE I. DEFINITION. "THIS CONTRACT" as used herein shall mean this Agreement, the Request for Proposal (RFP) including all documents referenced therein and the Vendor's response (proposal) thereto incorporated by reference herein and made a part hereof. The VENDOR agrees to provide the goods and/or services all in accordance with the RFP and VENDOR'S Proposal. In the event there is a conflict between this Agreement and the proposal documents, the proposal documents shall supersede this Agreement.

ARTICLE II. SCOPE OF WORK. The VENDOR shall provide the goods or services described in the RFP and proposal response, at the prices and terms contained therein.

ARTICLE III. TIME OF PERFORMANCE. The VENDOR shall provide the goods or services upon receipt of purchase order; and the CITY shall pay to VENDOR the total sum of $__________. Prices quoted will be firm for the first two years of the contract, from the date of award. The City shall have three 1 year options to renew. Yearly increases for years 3, 4 and 5 shall not exceed the Consumer Price Index increase for Chicago-Gary-Kenosha area in the All Item's category. There will be no minimum dollar amount per shipment.

ARTICLE IV. TERMINATION. The following shall constitute events of default under THIS CONTRACT: a) any material misrepresentation made by the VENDOR to the CITY, b) any failure by the VENDOR to perform any of its obligations under THIS CONTRACT including, but not limited to, the following: (i) failure to commence performance of THIS CONTRACT at the time specified in THIS CONTRACT due to a reason or circumstance within the VENDOR'S reasonable control, (ii) failure to perform THIS CONTRACT with sufficient personnel and equipment or with sufficient material to ensure the completion of THIS CONTRACT within the specified time due to a reason or circumstance within the VENDOR’S reasonable control, (iii) failure to perform THIS CONTRACT in a manner reasonably satisfactory to the CITY, (iv) failure to promptly re-perform within reasonable time the services that were rejected by the CITY as erroneous or unsatisfactory, (v) failure to comply with a material term of THIS CONTRACT, including, but not limited to the Affirmative Action requirements, and (vi) any other acts specifically and expressly stated in THIS CONTRACT as constituting a basis for termination for cause. The CITY may terminate THIS CONTRACT for its convenience upon fourteen (14) days prior written notice.

ARTICLE V. DAMAGES. From any sums due to the VENDOR’S for services, the CITY may keep for its own the whole or any part of the amount for expenses, losses and damages as directed by the Purchasing Director, incurred by the CITY as a consequence of procuring services as a result of any failure, omission or mistake of the VENDOR in providing the goods and services as provided in THIS CONTRACT.

ARTICLE VI. GOVERNING LAWS AND ORDINANCES. This CONTRACT is made
subject to all the laws of the State of Illinois and the ordinances of the CITY and if any such clause herein does not conform to such laws or ordinances, or in the event any of the term s or provisions herein are deemed to be void or otherwise unenforceable for any reason, such clause shall be void (the remainder of the contract shall not be affected) and the laws or ordinances shall be operative in lieu thereof. Venue for the resolution of any disputes or the enforcement of any rights arising out of or in connection with this CONTRACT shall be in the Circuit Court of Kane County, Illinois.

ARTICLE VII. AFFIRMATIVE ACTION. The VENDOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, ancestry, national origin, place of birth, age or physical handicap which would not interfere with the efficient performance of the job in question. The VENDOR will take affirmative action to comply with the provisions of Elgin Municipal Code Section 3.12.100 and will require any subcontractor to submit to the CITY a written commitment to comply with those provisions. The VENDOR will distribute copies of this commitment to all persons who participate in recruitment, screening, referral and selection of job applicants and prospective subcontractors. The VENDOR agrees that the provisions of Chapter 3.12 of the Elgin Municipal Code, 1976, are hereby incorporated by reference, as if set out verbatim.

ARTICLE VIII. ASSIGNABILITY. The CONTRACTOR shall not assign, sell or transfer any interest in THIS CONTRACT without prior written consent of the CITY.

ARTICLE IX. AMENDMENTS. There shall be no modification of the CONTRACT, except in writing and executed with the same formalities of the original.

ARTICLE X. NOTICES. Any notice given under this CONTRACT shall be in writing and shall be deemed to have been given when hand delivered or deposited in the U.S. mail, certified or registered, return receipt requested, addressed, if to VENDOR, at the address set forth above to the attention of the project manager or undersigned representative, and if to the City, to the attention of the City Manager, 150 Dexter Court, Elgin, IL 60120 or to such other address and/or authorized representatives as either party shall designate in writing to the other in the manner herein provided.

ARTICLE XI. INDEMNIFICATION. To the fullest extent permitted by law, Contractor agrees to and shall indemnify, defend and hold harmless the City, its officers, employees, boards and commissions from and against any and all claims, suits, judgments, costs, attorney’s fees, damages or any and all other relief or liability arising out of or resulting from or through or alleged to a rise out of any acts or negligent acts or omissions of Contractor or Contractor’s officers, employees, agents or subcontractors in the performance of this CONTRACT, including but not limited to, all goods delivered or services or work performed hereunder. In the event of any action against the City, its officers, employees, agents, boards or commissions covered by the foregoing duty to indemnify, defend and hold harmless, such action shall be defended by legal counsel of the City's choosing.

ARTICLE XII. PUBLICITY. The VENDOR may not use, in any form or medium, the name of the City of Elgin for public advertising unless prior written permission is granted by the CITY.

ARTICLE XIII. APPROPRIATIONS. The fiscal year of the CITY is the 12 month period ending December 31. The obligations of the CITY under any contract for any fiscal year are subject to and contingent upon the appropriation of funds sufficient to discharge the obligations which accrue in that fiscal year and authorization to spend such funds for the purposes of the contract.

If, for any fiscal year during the term of the CONTRACT, sufficient funds for the discharge of the
CITY’S obligations under the contract are not appropriated and authorized, then the CONTRACT shall terminate as of the last day of the preceding fiscal year, or when such appropriated and authorized funds are exhausted, whichever is later, without liability to the CITY for damages, penalties or other charges on account of such termination.

**ARTICLE XIV. NO AGENCY.** This CONTRACT shall not be construed so as to create a joint venture, partnership, employment or other agency relationship between the parties hereto, except as may be specifically provided for herein.

**ARTICLE XV. CONFLICT.** In the event of any conflict between the terms provided in any attachments hereto and the body of this CONTRACT, the terms and provisions of this CONTRACT shall control.

**ARTICLE XVI. ENTIRE AGREEMENT.** This CONTRACT embodies the whole agreement of the parties. There shall be no promises, terms, conditions or obligations other than those contained herein; and this CONTRACT shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties.

**ARTICLE XVII. COMPLIANCE WITH LAWS.** Notwithstanding any other provision of this CONTRACT it is expressly agreed and understood that in connection with the performance of this CONTRACT that the VENDOR shall comply with all applicable Federal, State, City and other requirements of law, including, but not limited to, any applicable requirements regarding prevailing wages, minimum wage, workplace safety and legal status of employees. Without limiting the foregoing, VENDOR hereby certifies, represents and warrants to the CITY that all VENDOR’S employees and/or agents who will be providing products and/or services with respect to this CONTRACT shall be legal residents of the United States. VENDOR shall also at its expense secure all permits and licenses, pay all charges and fees and give all notices necessary and incident to the due and lawful prosecution of the work, and/or the products and/or services to be provided for in this CONTRACT. The CITY shall have the right to audit any records in the possession or control of the CONTRACTOR to determine VENDOR’S compliance with the provisions of this section. In the event the CITY proceeds with such an audit the VENDOR shall make available to the CITY the VENDOR’S relevant records at no cost to the CITY. VENDOR shall pay any and all costs associated with any such audit.

This agreement may be executed in counterparts, each of which shall be an original and all of which shall constitute one and the same agreement. For the purposes of executing this agreement, any signed copy of this agreement transmitted by fax machine or e-mail shall be treated in all manners and respects as an original document. The signature of any party on a copy of this agreement transmitted by fax machine or e-mail shall be considered for these purposes as an original signature and shall have the same legal effect as an original signature. Any such faxed or e-mailed copy of this agreement shall be considered to have the same binding legal effect as an original document. At the request of either party any fax or e-mail copy of this agreement shall be re-executed by the parties in an original form. No party to this agreement shall raise the use of fax machine or e-mail as a defense to this agreement and shall forever waive such defense.

Without limiting the foregoing, VENDOR hereby certifies, represents and warrants to the CITY that all CONTRACTORS employees and/or agents located in the United States, who will be providing products and/or services with respect to this CONTRACT, shall be legal residents of the United States.
The person signing THIS CONTRACT certifies that s/he has been authorized by the VENDOR to
commit the VENDOR contractual and has been authorized to execute THIS CONTRACT on its
behalf.

IN WITNESS WHEREOF the parties have hereto set their hands the day and year first above
written.

VENDOR

Name and Title
City Manager
FEIN NO.

CITY OF ELGIN

Richard G. Kozal
City of Elgin, Illinois
Certification Requirements

Please submit all required forms and documentation, fully completed and signed, with your proposal. **No proposal will be accepted without this information.**

1. To assure compliance with the City of Elgin’s Affirmative Action Ordinance, all contractors and vendors. Herein referred to as “bidders”, are requested to submit the following information:
   A. Workforce analysis using the enclosed Bidder’s Employee Utilization form.
   B. Provide the information required in Item #3 on the employee utilization form if the answer to Question # 2 on the form is “Yes”.
   C. Provide a written commitment outlining the steps that the bidder plans to take in the area of recruitment and promotion of minorities and females to assure equal employment opportunity. (A copy of the bidder’s affirmative action plan may be submitted in lieu of this requirement.)

2. To assure compliance with the City of Elgin’s Sexual Harassment Ordinance, all bidders must submit a signed sexual harassment form enclosed with the Invitation to Bid.

3. The undersigned certifies that the offerer is not delinquent in the payment of any tax administered by the Illinois Department of Revenue unless there is a pending proceeding contesting the tax.

4. The undersigned certifies that the offerer is not barred from offering on this solicitation as a result of a conviction for the violation of State law prohibiting bid-rigging or bid-rotating.

5. The successful bidder agrees that upon acceptance by the City of Elgin, the executed Invitation to Bid along with all instructions, conditions, and specifications attached thereto constitute a binding contract which may be enforced by the city.

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City of Elgin, Illinois

Equal Employment Written Commitment Guideline

The written commitment required in Item #4 of the Bidder’s Employee Utilization Form shall:

Set out the name and phone number of the bidder’s Equal Employment Officer.

Clearly identify the bidder’s recruitment area and the percentage of minorities and females in the area’s population and labor force.

Set out what the bidder has done and has set as a goal to ensure the recruitment of minority and female employees.

Set out the bidder’s specific goals to recruit minorities and females for training programs or other similar opportunities available through the bidder’s organization.

Indicate bidder’s consent to submit to the City of Elgin, upon request, statistical data concerning its employee composition and recruitment efforts anytime during the term of the contract.

Show bidder’s consent to distribute copies of the written commitment to all persons who participate in recruitment, screening, referral, and selection and hiring of job applicants for the bidder.

Clearly show that the bidder shall require all subcontractors, if any, to submit a written commitment complying with the above requirements of their affirmative action plan to the City of Elgin.

Clearly state the bidder agrees that:

"Bidder (company name) shall not discriminate against any employee or applicant on the basis of race, color, religion, sex, national origin, age, place of birth, ancestry, marital status, or disability (physical or mental) which will not interfere with the performance of the job in question."

Description of Groups for Classification Purposes

White: all persons having origins in Europe, North America, or the Middle East

Black: all persons having origins in any of the Black racial groups of Africa

Hispanic: all persons of Mexican, Puerto Rican, Cuban, Central South American, or other Spanish culture or origin, regardless of race

Asian American: all persons having origins in the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands

American Indian: all persons having origins in any of the original peoples of North America and who maintain cultural identification through tribal affiliation or community recognition
City of Elgin, Illinois
Sexual Harassment - - Policies and Programs

Effective July 1, 1993, every party to any contract with the City of Elgin and every eligible bidder is required to have written sexual harassment policies that include, at a minimum, the following information:

- the illegality of sexual harassment
- the definition of sexual harassment under state law
- a description of sexual harassment, utilizing examples
- a vendor’s internal complaint process including penalties
- the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights, and the Illinois Human Rights Commission
- directions on how to contact the department and commission
- protection against retaliation as provided by Section 6-101 of the Human Rights Act

I hereby affirm that the organization which I represent has in place sexual harassment policies which include the required information set forth above, and I hereby agree to furnish the City of Elgin - Human Resources Department with a copy of these policies if they so request.

Signature/Title _______________________
Company _______________________
Date _______________________

Sexual harassment is defined as follows:
“Sexual harassment” means any unwelcome sexual advances or requests for sexual favors or any conduct of a sexual nature when (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual’s employment, (2) submission to or rejection of such conduct by an individual is used as a basis for employment decisions affecting such individual, or (3) such conduct has the purpose or effect of substantially interfering with an individual’s work performance or creating an intimidating, hostile, or offensive working environment.

Any questions by contracting parties or eligible bidders concerning compliance with these requirements should be directed to the City of Elgin - Human Resources Department at (847) 931-5607.

I hereby agree to fully indemnify and hold the City of Elgin harmless from any and all liability, loss or damage including costs of defense or claim, demands, costs of judgment against it arising from any sexual harassment complaint resulting from the act of any member of my organization in the performance of this contract.

Signature/Title _______________________
Company _______________________
Date _______________________
City of Elgin, Illinois
BIDDER'S EMPLOYEE UTILIZATION FORM

This report is required by the City of Elgin and must be submitted before the contract can be awarded.

Chapter 3.12.1000 Affirmative Action - City Contracts

1. Name and Address of Bidder

2. Description of Project

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<th>Whites</th>
<th>Blacks</th>
<th>Hispanics</th>
<th>Asians or Pacific Islanders</th>
<th>American Indians</th>
<th>Minority (M &amp; F)</th>
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<td>%</td>
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<td>18</td>
<td>3 / 5</td>
<td>3 / 2</td>
<td>4 / 0</td>
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<td>(10/18)</td>
<td>(8/18)</td>
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TOTALS

Signature of Company Official

Title

Telephone Number

Date Signed

Page ___ of ___

2. Have you ever been awarded a bid by the City of Elgin?
   ___ Yes   ___ No

3. If the answer to question #2 is yes, please submit a copy of the Employee Utilization Form that was submitted with your last successful bid along with a fully completed copy of this form.

4. Please submit, according to the guideline provided in the attached document, a written commitment to provide equal employment opportunity. An Employee Utilization Form is required for any subcontractors.

NOTE: In the event that a contractor or vendor, etc., fails to comply with the fair employment and affirmative action provisions of the City of Elgin, the City amongst other actions may cancel, terminate, or suspend the contract in whole or in part.
CITY OF ELGIN, ILLINOIS
TAX/COLLUSION/DEBARMENT/PREVAILING WAGE/LEGAL STATUS OF EMPLOYEES
AFFIDAVIT

State of ________________ ss.

County of ________________

__________________________, being first duly sworn, hereby deposes and states:

(1) That s/he is the ____________________ of the party making the foregoing bid.

(2) That the bidder is not barred from contracting with any unit of local government for any reason, including but not limited to debarment as a result of a violation of 720 Illinois Compiled Statutes, Section 5/33E-3 or 5/33E-4, as amended.

(3) That no collusion or agreement among other bidders or prospective bidders to bid a fixed price or otherwise restrain competition by agreement has taken place.

(4) That the bidder is not delinquent in the payment of any tax administered by the Illinois Department of Revenue unless there is a pending proceeding contesting any such tax.

(5) That the bidder hereby certifies: [check all that apply]

- __________  Bidder has not received any notices of violations of the Illinois Prevailing Wage Act (820 ILCS 130/0.01 et seq.)
- __________  In the event any such notice has been received by bidder, a copy of any such notice is attached hereto.
- __________  In the event that bidder has received such a notice, any documentation demonstrating the resolution of any such notice is attached hereto.
- __________  For each such notice received by bidder, the matter has been resolved as follows: ________
(6) That the bidder hereby certifies that it shall comply with the provisions of the Prevailing Wage Act (820 ILCS 130/0.01 et seq.).

(7) That the bidder hereby certifies, represents and warrants that all of bidder’s employees and/or agents who will be providing products and/or services with respect to the subject bid and contract are and shall be legal residents of the United States, are and shall be legally authorized to perform any such applicable work and/or services.

Signature of Bidder, if an individual:

__________________________

Signature of Bidder, if a partnership:

Partner (indicate General or Limited) before

Signature of Bidder, if a corporation:

President

Secretary

Signature of Bidder, if a limited liability company:

Member or Manager

Subscribed and sworn to me this _____ day of ___ 20

My commission expires: _______________________

13
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<tr>
<th>Manufacturer</th>
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<td>Women’s Hi-gloss oxford, smooth black surface with non-slip soles</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Vender Option</td>
<td></td>
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<td>Thorogood</td>
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<td>Flying Cross</td>
<td>120</td>
<td>34880</td>
<td>Lined Navy Dress Coat Men’s and Women’s</td>
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<td>120</td>
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<td>Pants to match above jacket – Men’s and Women’s cut.</td>
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<td><strong>TOTAL HEADWEAR</strong></td>
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TO: Interested Bidders

FROM: City of Elgin

RE: Addendum #1 to RFP 19-033 Police Dress Uniforms

DATE: April 17, 2019

The following amends the above referenced Bid.

1) Your bid calls for a Flying Cross dress blouse men's and women's style #34880 and trouser style # 38200. I am unable to determine the female style jacket as this number pertains only to the male version. The same holds true for the trousers. Are we correct in assuming the women are going to wear the men's uniform? Unfortunately in trying to make it simple we left out the Style #’s. We do offer the women’s cut in all of the items. On the bid we would be looking for the same exact dress blouse, White Shirt, and pants, but all of them in the women’s cut as well.

END OF ADDENDUM #1
TO: Interested Bidders
FROM: City of Elgin
RE: Addendum #2 to RFP 19-033 Police Dress Uniforms
DATE: April 29, 2019

The following amends the above referenced Bid.

1) The due date has been moved from May 1, 2019 to May 7, 2019.
2) Because the dress jacket 34880 does not match the pants item number 38200, please quote the poly wool option and the polyester option in both the pants and coat.

END OF ADDENDUM #2
AGENDA ITEM: D
MEETING DATE: August 28, 2019

ITEM:
Contract with the Kane County Child Advocacy Center for Services Relating to the Investigation of Sensitive Crimes Involving Children ($35,000)

OBJECTIVE:
Provide investigative and victim services for cases involving children who have been victimized by sexual or serious physical abuse.

RECOMMENDATION:
Approve the contract with the Kane County Child Advocacy Center for investigative and victim services related to serious crimes against children in the amount of $35,000.

The Kane County Child Advocacy Center (KCCAC) is a division of the Kane County State’s Attorney’s office that investigates and prosecutes serious physical and sexual abuse against children. Last year, 117 Elgin cases were investigated by KCCAC. With this significant caseload, KCCAC either requires a police officer assigned to its division or financial assistance from the City to support investigations pertaining to Elgin cases.

Assigning a police officer to the KCCAC in a dedicated role (the former practice) would cost the City approximately $158,330. KCCAC has been providing investigative services to the city since 2000 for the annual cost of $35,000. The police department is recommending the continuation of this agreement.

BACKGROUND

KCCAC is a division of the Kane County State’s Attorney’s office. It was established in 1994 to investigate and prosecute sexual abuse and/or serious physical abuse against children. The investigations are a cooperative effort between prosecution, police and the Illinois Department of Children and Family Services (DCFS). When KCCAC began, the department assigned an officer to assist with Elgin’s cases. In 1999, this practice was discontinued and the officer was reassigned to other departmental duties; however, the need for services provided by KCCAC continued. This need has been addressed by a continuous agreement, since the year 2000, between the Elgin police department and KCCAC. In this agreement, KCCAC has agreed to provide investigative services for sexual abuse and/or serious physical abuse cases involving children. Their facility is
equipped to manage victim sensitive interviews, including videotaping, and provide services or resources for children who have been victims of a serious crime.

During the calendar year of 2018, 117 Elgin cases were investigated by KCCAC. Each case is estimated to involve approximately twenty hours of an investigator’s time, translating into 2,340 hours, or over 28 five-day work weeks of what would have otherwise been an Elgin officer’s time. As this is a significant caseload, KCCAC either requires a police officer assigned to their division or financial assistance from the City to support investigations pertaining to Elgin cases.

OPERATIONAL ANALYSIS

Demands upon City staff and fiscal resources are greatly reduced if the service agreement between KCCAC and the department remains intact. A case that is investigated by the KCCAC requires an estimated twenty hours of time. This time is currently absorbed by the KCCAC investigator and not by an Elgin officer. The sensitive nature of investigations involving children requires expertise in interviewing techniques, collecting relevant and pertinent evidence that can require coordination and cooperation among several agencies, along with providing safety plans for victims. Cases investigated by the KCCAC translate into substantial hours of work for the investigator involved. If the service agreement was not in place, these hours of investigation would become the responsibility of an Elgin officer, thus reducing the current operational abilities within the police department. Assigning an officer to the KCCAC in a dedicated role would cost approximately $158,330 (estimated using a senior police officer’s salary and benefits). The KCCAC service agreement requires financial assistance in the amount of $35,000, which provides a significant cost savings advantage to the City.

Aside from City personnel and cost advantages, the victims they serve have particularly sensitive needs that will continue to benefit from KCCAC’s expertise and highly trained staff. The quality of services provided by KCCAC to Elgin’s special victims and their families minimizes trauma and provides a multi-disciplinary approach that involves counseling, support and advocacy. Finally, these services are an asset to the community, assuring that all sexual abuse and/or serious physical abuse cases involving children are handled in a consistent manner with the protection and safety of the children as a top priority.

INTERESTED PERSONS CONTACTED

Police investigative personnel, social services and command staff discussed the cost and benefits of maintaining this agreement and KCCAC was consulted. DCFS is an important stakeholder in this agreement as well.

FINANCIAL ANALYSIS

KCCAC has requested financial assistance in the amount of $35,000 to provide investigative services in 2019. This funding level has remained unchanged since the original agreement in 2000.
Assigning an officer to the KCCAC in a dedicated role would cost approximately $158,330 (estimated using a senior police officer’s salary and benefits). Funds have been appropriated in the 2019 general fund budget to award this contract.

**BUDGET IMPACT**

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<th>PROJECT #(#S)</th>
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<th>AMOUNT AVAILABLE</th>
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**LEGAL IMPACT**

None.

**ALTERNATIVES**

The city council may elect not to enter into a contract with KCCAC/State’s Attorney’s Office, returning the investigation of serious crimes involving children to Elgin police officers.

**NEXT STEPS**

Finalize contract with KCCAC/State’s Attorney’s Office.

<table>
<thead>
<tr>
<th>Originators:</th>
<th>Colin Fleury, Deputy Chief of Police</th>
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<tr>
<td></td>
<td>Ana Lalley, Chief of Police</td>
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<tr>
<th>Final Review:</th>
<th>Debra Nawrocki, Chief Financial Officer</th>
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<tr>
<td></td>
<td>William A. Cogley, Corporation Counsel/Chief Development Officer</td>
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<tr>
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<td>Richard G. Kozal, City Manager</td>
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</table>

**ATTACHMENTS**

A. 2019 Kane County Child Advocacy Center Agreement
2019 AGREEMENT

THIS AGREEMENT is made and entered into this 1st day of January, 2019, by and between the City of Elgin, Illinois, a municipal corporation, (hereinafter referred to as “City”) and the Kane County Child Advocacy Center by and through the Kane County State’s Attorney, (hereinafter referred to as “State’s Attorney”).

WHEREAS, City is a municipal corporation organized and existing under the authority of the Illinois Municipal Code of 1961, 65 ILCS 5/1-1-1 et seq., and predecessor statutes and having those home rule powers granted pursuant to Article VII, Section 6 of the 1970 Illinois Constitution; and

WHEREAS, State’s Attorney and City have each determined it to be in their best interests and the best interests of the citizens of City and Kane County for State’s Attorney and City to cooperate in the investigation and prosecution of certain crimes as delineated herein,

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. The Kane County State’s Attorney’s Office, shall assign a full-time investigator to investigate all cases arising from within the geographic boundaries of City, who is specifically trained to investigate and assist in the prosecution of cases subject to the Kane County Protocol
for Cases of Sexual Abuse of Children, (hereinafter referred to as “Protocol”) as may be revised from time to time, a copy of which is attached hereto and made a part hereof as Attachment “A”. Such investigator shall be exclusively employed, supervised and directed by State’s Attorney and/or his assign. State’s Attorney will also provide a bi-lingual investigator when circumstances require such language skills.

2. City shall pay to the Office of the State’s Attorney the sum of $35,000.00 (Thirty-Five Thousand Dollars). Such payment of $35,000.00 (Thirty-Five Thousand Dollars) shall be payable in the amount of $26,250.03 (Twenty-Six Thousand Two Hundred-Fifty Dollars and 03/100) on or before October 1, 2019; and thereafter three monthly installments in the amount of $2,916.67 (Two Thousand nine Hundred-Sixteen and 67/100) payable on October 30, 2019; November 30, 2019; and December 30, 2019.

3. The term of this Agreement shall terminate on December 31, 2019.

4. This Agreement shall not be construed so as to create a joint venture, partnership, or employment relationship of any kind between the parties hereto.

5. In the event any of the terms or conditions of this Agreement are deemed to be void or otherwise unenforceable for any reason, the remainder of this Agreement shall remain in full force and effect.

6. This Agreement represents the entire Agreement between the parties hereto. No oral representations, promises, terms or Agreements have been made, and any such representations, promises, terms or Agreements shall be of no force and effect.

7. If any of the terms of this Agreement conflict with any of the terms of any other written Agreement between the parties, hereto, the terms of this Agreement shall apply.

8. This Agreement shall be subject to and governed by the laws of the State of Illinois.
9. All notices delivered hereunder shall be in writing and shall be served upon the parties at the following addresses:

To States Attorney: Joseph H. McMahon  
Kane County State’s Attorney  
37W777 Rt. 38  
St. Charles, IL 60175

To City: Ana Lalley, Chief of Police  
City of Elgin  
150 Dexter Court  
Elgin, Illinois 60120

10. This Agreement may be terminated by either party hereto upon 60 days written notice. In the event this Agreement is terminated by City for any reason, City shall not be required to make any further payments but shall be required to make all payments up to and including the date of termination, prorated to such date. Such termination shall be without penalty and shall not be construed so as to entitle either party to damages or other compensation. Upon such termination, State’s Attorney shall not be obligated to provide the investigators and services as described in paragraph 1 above.

CITY OF ELGIN  
By ____________________________  
Title: City Manager

Attest:

______________________________
Title: City Clerk

KANE COUNTY STATE’S ATTORNEY  
By ____________________________  
Title: Kane County State’s Attorney
1. Kane County Protocol
For Allegations of Sexual Abuse of Children

I. Statutory Basis and Authority

The Child Center Advisory Board shall adopt, by a majority of the members, a written child abuse protocol. The protocol shall be filed with the Illinois Department of Children and Family Services, Children's Advocacy Centers of Illinois, and a copy shall be furnished to each agency in the county, which has any involvement with cases of abused children. The protocol shall be a written document outlining in detail the procedures to be used in investigating and prosecuting cases arising from alleged child sexual abuse and in coordinating treatment referrals for the child and his or her family. 55 ILCS 80/3(c) (2000).

II. Purpose of Protocol

The purpose of the protocol shall be to ensure coordination and cooperation among all agencies involved in child sexual abuse cases so as to increase the efficiency and effectiveness of those agencies, to minimize the stress created for the child and his or her family by the investigatory and judicial processes, and to ensure that effective treatment is provided to the child and his or her family. 55ILCS 80/3(d) (2000). This protocol ensures that all agencies clearly commit to the multi-disciplinary team approach of the Child Advocacy Center.

III. County-wide Jurisdiction and Case Criteria

The Kane County Child Advocacy Center (hereinafter referred to as the "CAC") shall have primary investigative responsibility for all cases of incidents occurring in Kane County as described below:

A. SEXUAL ABUSE

a. All cases of sexual abuse and/or sexual assault to a child under 13 years of age where the accused is age ten or over.

b. Cases of sexual abuse and/or sexual assault to children under 18 years of age by a family member, caretaker or person in a position of authority where the accused is age ten or over.

   1. Allegations of sex abuse include, but are not limited to: Sexual penetration, sexual molestation, and sexually transmitted disease present in underage children concurrent with lab confirmation or disclosure

   c. Cases of Sexual abuse and/or assault to children between the ages of 13 and 17 by non-family members where there is:

      1. A substantial element of force or

      2. More than five (5) years age difference between victim and offender AND the accused is age ten or over.
Cases involving alleged consensual sexual acts between participants less than ten years apart in age will be investigated by the police agency with jurisdiction. However, all cases involving the suspect as a family member, caretaker or persons in position of trust or authority shall be referred to the CAC.

d. Children under the age of 10 who have been accused of engaging in sexual acts will not be accepted for criminal investigation by the Child Advocacy Center. It is not the policy of the CAC to accept the investigations of these children as perpetrators. The CAC will, upon request by the referring jurisdiction, screen these children for adult involvement and make service referrals as appropriate.

e. The local law enforcement department shall have exclusive jurisdiction to investigate cases of sex exploitation of a child, and indecent solicitation of a child in Kane County. However, these investigations may benefit from a child forensic interview being conducted by the CAC and should be considered in those types of investigations. The CAC will assist with child forensic interviews requests from other agencies for sex exploitation of a child, and indecent solicitation of a child upon requests.

f. The Director shall have the discretion to accept cases other than those specified herein when, in the judgment of the Director, a determination is made that a forensic interview would be appropriate and should be conducted.

g. All other criminal investigations involving child victims or witnesses can be reviewed by the Director and/or the First Assistant of the State's Attorney's Office to determine whether or not the case requires a forensic interview be conducted. When so deemed, CAC personnel shall conduct the necessary child forensic interviews.

h. In those instances where a perpetrator has committed offenses in addition to sexual and physical abuse, i.e. abduction, kidnapping, etc., the Assistant State's Attorney's assigned to prosecute CAC cases will have prosecutorial responsibility for the additional charges as appropriate.

B. PHYSICAL ABUSE

a. The local law enforcement department shall have exclusive jurisdiction to investigate severe physical abuse to children in Kane County. The CAC may offer any assistance requested by local law enforcement jurisdictions to assist in these severe physical abuse cases of children. The CAC may assist in these cases by conducting forensic interviews of children in their capacity as either a victim or witness in these cases if requested by the local law enforcement or DCFS agencies. In cases of severe physical abuse to children that the CAC assists in the investigation, the CAC shall also assist in coordinating any treatment referrals to the victim and non-offending family members.

IV. Team Approach and Process

The Kane County Child Advocacy Advisory Board adopted a report on the model approach to be used at the CAC in November 1993. The CAC operates on a multidisciplinary team approach with the response team being comprised of the following positions:

A. Criminal Investigator: Law enforcement officers hired by the State's Attorney or assigned by an outside agency to participate in the CAC. The Criminal Investigator
shall have countywide jurisdiction and will possess all of the authority of Peace Officers set forth in the Illinois Compiled Statutes. The Criminal Investigator will participate in the forensic interview and will be responsible for collecting all relevant information and performing all duties necessary to determine the validity of sexual allegations regardless of referral source.

B. Child Protection Investigator: Illinois Department of Children and Family Services personnel assigned to the CAC who will work in partnership with the Criminal investigator. The Child Protection Investigator will participate in the forensic interview and will be responsible for collecting all relevant information and performing all duties necessary to determine the validity of sexual abuse allegations regardless of referral source. The Child Protection Investigator is also responsible for developing plans to assure the safety of the abused child.

C. Case Manager: A victim/witness advocate, hired by the State's Attorney to provide support services to children and families. These services include: crisis intervention, medical and legal advocacy, referral and linkage to counseling and other needed social services and assistance in obtaining Orders of Protection and victim/witness compensation.

D. Assistant State's Attorney: Assigned full-time and has offices at the CAC. This prosecutor will be available to answer legal questions during the investigation of the case. He/she be responsible for charging decisions both juvenile and criminal. The Assistant State's Attorney will be responsible for handling all criminal cases from charging through trial and sentencing and any juvenile court cases through disposition.

E. Medical providers: Specialized medical examinations are provided through approved medical facilities, participating medical staff at Edward's Hospital or CAC approved sites, and medical staff from the MERIT program from University of Illinois. Medical personnel are responsible for completing the specialized examination including photographic documentation. All medical records remain the property of the medical facility. The treating physician or treating medical provider shall prepare a report of the examination which will be provided to the CAC.

F. Mental health providers are responsible for providing services to victims as needed and as detailed in the CAC Counseling Program and to be available to answer team questions in any areas of concern to the investigative/prosecutorial team. They will also be available to provide pre-testimonial clinical support for trial.

Each multi-disciplinary team will meet on a regularly scheduled basis to discuss the status of each case, thereby facilitating coordination between the agencies.

V. Vertical Prosecution

The Assistant State's Attorneys assigned to CAC shall handle, through disposition, all court action involving any child whose case is being handled by the CAC. This will include actions that are criminal (the offender is an adult or a juvenile), juvenile (the offender is a juvenile charged with a juvenile delinquency petition), or assisting with juvenile abuse/neglect.
VI. Procedures for Referral of Cases by DCFS

The Department of Children and Family Services shall transmit to the Center any report of sexual abuse/assault that it receives from the Child Abuse Hotline in Springfield as enumerated in Section III-B and Section III-E (2). Transmittal to the CAC will be confirmed via telephone or pager. DCFS Field office personnel and CAC assigned personnel will rotate the after-hours on-call. Field office staff shall receive CAC protocol, along with afterhours contact information.

VII. Procedures for Referral of Cases by Police Departments

All police departments or other referring sources shall use the following procedure when they receive a complaint or allegation involving a victim as set forth in Section III, A-G:

A. Ensure the safety of the child.

B. Obtain all information possible for the CAC referral from sources other than the victim. DO NOT INTERVIEW THE CHILD.

C. Determine the primary language of any of the involved parties (victim, victim's family, witnesses and suspect) and any translation needs.

D. During normal business hours (8:30 am to 4:30 pm): prepare a CAC Referral Form and submit it along with all pertinent reports by fax to 630-208-5159 or email kanecac@co.kane.il.us; in family member/caretaker cases you are mandated to call the DCFS Hotline at 1-800-25-ABUSE in addition to your referral to the CAC.

E. Outside normal business hours: contact the CAC After Hour’s Pager # 630-218-3995. At this time, CAC staff will coordinate a response with the referring agency.

F. Follow all requirements of the Sexual Assault Incident Procedure Act – Public Act 099-0801

In any situation when an officer is uncertain if a case meets CAC protocol guidelines, or believes that a case needs special handling, the CAC may be contacted by phone at 630-208-5160 during daytime hours or though the pager system after hours, for a preliminary review of the facts by the Center Director.

VIII. Victim Interviews

Interviews of victims of any of the offenses as set forth in section III shall, whenever possible, be conducted at the CAC during normal business hours as safety and other case considerations permit. Members of the CAC team assigned to the case shall conduct all interviews of victims using a child forensic interview approach incorporating generally accepted standards of practice.

A. CAC staff will receive ongoing training in such areas as investigative techniques, forensic interviewing, child development and cultural diversity awareness. Assistant State's Attorney's assigned to the CAC will also receive specialized training in the areas of trial preparation, and litigation regarding child abuse prosecution.
B. Parents or other caretakers are not permitted to be present or to observe child victim interviews.

C. All victim interviews conducted at the CAC will be digitally recorded in accordance with the CAC Forensic Interview Policy revised and adopted 01/13/09 (attached hereto for reference) copy maintained and DVD kept in master file.

D. Following each interview, a single report of the interview will be prepared.

IX. Interviews of Suspects

CAC personnel shall, whenever possible, conduct any interview of the suspect in a CAC case. If case circumstances dictate an immediate or alternate response, other law enforcement or DCFS personnel may conduct the suspect interview after consultation and coordination with CAC staff.

A. Suspects may be interviewed in the CAC Annex building on the first floor in the room designated for that purpose.

B. Adult suspects shall NOT be interviewed at the CAC, nor permitted at the CAC for any reason.

C. At the Director's discretion, a juvenile suspect may be interviewed at the CAC. However, in no event shall a juvenile suspect be at the CAC when the victim is present.

X. Coordination in Investigation and Prosecution

The CAC, local law enforcement agencies, and the Department of Children and Family Services Field Office staff will cooperate and coordinate the investigation and prosecution of cases when requested to do so. It is anticipated that assistance will be most needed in the areas of emergency/after-hours response, crime scene processing, evidence collection, arrests of suspects, execution of search warrants and location and transport of witnesses.

XI. Physical Examinations

An expert medical examination by a physician or other medical personnel trained in the area of child abuse and trauma shall be arranged for any victim of abuse alleging sexual penetration.

A. In cases of alleged sexual penetration outside a 72-hour window this examination may be instituted at any time subsequent to the initial interview of the victim.

B. In cases of alleged sexual penetration in the preceding 72 hour period, the victim shall be examined in the emergency room and sexual assault kit evidence collected.

XII. Mental Health Counseling

Case Managers will refer victims and their families for mental health counseling if appropriate. Victims may also be referred for specialized assessments if appropriate.
XIII. Case Review

The CAC will hold weekly Team Review Meetings at which CAC personnel will review case activity and make recommendations for protective issues, medical referrals, the treatment and social service needs of the victim and family, as well as, appropriate legal disposition. These meetings will be held every Tuesday at 2pm at the CAC.

XIV. Mass Molestation

Mass molestation will be defined as any case of sexual abuse to multiple children in a non-family setting, including but not limited to day care centers, baby sitters, institutions, group homes, schools, athletic associations or other volunteer groups, etc.,.

In such mass molestation cases, the Director shall assign one or more investigative teams as the number of children to be interviewed and the situation may warrant. If necessary, the Director shall request assistance from other agencies or jurisdictions.

XV. Program Goals

The goals of the Kane County Child Advocacy Center shall be to:

A. Minimize the trauma to victims of child abuse and their families as they turn to the justice system for protection.

B. Provide a coordinated multidisciplinary approach to child abuse investigations and intervention.

C. Identify child abusers and hold them accountable to their victims and the community by means of the judicial process.

D. Insure victims receive support and advocacy throughout the judicial process.

E. Insure that victims and their families receive appropriate treatment and social services to assist them in their healing.

F. Assure that all cases involving child sexual abuse in Kane County are handled in a consistent and child sensitive manner based on the protection and safety of, and respect for, the child and his or her family.

XVI. Evaluation of the Protocol

The Kane County Protocol for Child Sexual Abuse shall be reviewed annually, at which time the implementation and effectiveness of the protocol shall be evaluated. The Child Advocacy Advisory Board shall make any amendments deemed appropriate.

A copy of the amended protocol shall be forwarded to the Children's Advocacy Centers of Illinois (CACI) for comment. Comments may be considered for further revision if the Advisory Board deems appropriate.

The newly amended version of the protocol, if any, shall then be filed with the county's local DCFS office and with the DCFS office in Springfield. In addition, the newly amended protocol may be forwarded to each agency in the county that has any involvement with cases of sexual and physical abuse of children.
XVII. Formal Adoption of the Kane County Protocol

The foregoing protocol for cases of sexual abuse is hereby approved, passed, and adopted by the Kane County Child Advocacy Advisory Board this January 15, 2019.

______________________________
Kane County State’s Attorney

______________________________
Kane County Sheriff’s Office

______________________________
Illinois Department of Children & Family Services

______________________________
Kane County Diagnostic Center

______________________________
Kane County Chiefs of Police

______________________________
Regional Office of Education

______________________________
CASA Director

______________________________
Elgin Police Department

______________________________
Aurora Police Department

______________________________
Provena Mercy Medical Center

______________________________
Director of Kane County Child Advocacy Center
AGENDA ITEM: E
MEETING DATE: August 28, 2019

ITEM:
Tyler Creek Watershed Streambank Stabilization Program Agreement with Wing Park Apartments ($23,500)

OBJECTIVE:
Facilitate restoration in the Tyler Creek watershed to mitigate the streambank damage and prevent further erosion.

RECOMMENDATION:
Approve the Tyler Creek Watershed Streambank Stabilization Program Agreement with Wing Park Apartments in an amount up to $23,500.

The Tyler Creek Fund was created to provide funding for a regional stormwater detention area for the Valley Creek subdivision and surrounding properties when they were originally developed beginning in 1978. The U.S. Army Corps of Engineers never granted approval for the regional detention area. The Tyler Creek Fund has since been utilized to finance streambank stabilization projects benefiting landowners affected by the erosion along the streambanks of Tyler Creek.

The Tyler Creek Fund program guidelines enable landowners to receive up to 50 percent of the qualifying expenses for streambank stabilization projects as a grant with the remaining 50 percent used as a loan for repayment over a ten year period. This initiative will provide financial assistance to the Wing Park Apartments for streambank stabilization on their property. In this instance, the Wing Park Apartments will be receiving a maximum grant of $23,500 and will be paying their 50 percent up front instead of receiving a loan. Grant funds will be distributed to the Wing Park Apartments upon completion, inspection and approval of the work by the City along with documentation that contractors have been paid in full.
BACKGROUND

The Valley Creek Subdivision was annexed into the City in 1978. A condition of the annexation agreement required the developer to pay into a regional detention basin fund in lieu of providing stormwater detention for the subdivision. Detention basins provide temporary storage of storm water runoff to reduce downstream flooding by slowly releasing the storm water into the receiving stream, which in this instance is Tyler Creek. Regional detention basins function much the same way except they incorporate many smaller basins from various developments into one larger facility which provides for a better utilization of land. Regional detention basins, however, are more difficult to incorporate into developments because they require coordination of many property owners and developers to both identify suitable property and then construct the basin.

Construction of the Valley Creek regional detention basin required Army Corp of Engineers (ACOE) approval and permit. The U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency and the Illinois Department of Conservation argued against the regional detention basin due to concerns that the proposed use of the area as a regional storm water detention facility would negatively impact the high quality wetlands on the site, lead to the degradation of Tyler Creek and severely impact the wildlife species that use the area as nesting and foraging habitat. The ACOE ultimately agreed so the plan was rejected and the basin was never constructed.

Because the regional stormwater detention basin could not be constructed, the impact of downstream flooding from several developments that did not construct site-specific detention basins had become problematic. The City retained a consultant to examine the impact on the downstream flood plain from the developments without site-specific stormwater detention basins. The study determined there was no impact to the 100 year floodplain, but there were negative impacts to the smaller, two year to ten year floodplains.

A floodplain is defined by its frequency to flood based on historical data. By example, a two year flood occurs on average once every two years; a ten year flood once every ten years. More frequent, minor flooding causes increased erosion, streambank destabilization and ecological degradation. To address these adverse impacts, the City retained another consultant to identify and design projects that would stabilize the Tyler Creek streambanks and provide various ecological improvements. That plan was completed in 1997.

This 1997 Tyler Creek Management Plan identifies stormwater management strategies for future development, stormwater retrofit projects, stream corridor restoration/stabilization projects and wetland banks as part of a plan to improve water quality and reduce flooding. The Tyler Creek Fund is used to finance these various projects with three projects having been completed to date. The program being considered fits well with the Tyler Creek Management Plan. It provides financial assistance to property owners along Tyler Creek to complete eligible streambank stabilization projects using the Tyler Creek Fund.
OPERATIONAL ANALYSIS

The City has previously provided financial assistance through the Tyler Creek Watershed Streambank Stabilization Program for the following projects:

- Eagle Heights Streambank Stabilization
- Spring Cove Streambank Stabilization
- Garden Quarter Townhome Association Streambank Stabilization

The City financed the costs of these three projects from the Tyler Creek Fund; 50 percent in the form of a loan and 50 percent as the commitment to the Tyler Creek Management Plan. In all cases, the property owners or homeowners associations were able to borrow from the Tyler Creek Fund for a period of up to ten years, with the first three years being interest free.

INTERESTED PERSONS CONTACTED

The Wing Park Apartments and the Tyler Creek Watershed Coalition.

FINANCIAL ANALYSIS

The City has accumulated money in the Tyler Creek Fund that has been received as “fee in lieu” for stormwater detention in the Tyler Creek Watershed. As such, the funds are restricted from being used for other City or general corporate purposes. The funds have been set aside for assistance in implementation of the Tyler Creek Watershed Plan. This agreement will facilitate the execution of the plan.
The agreement with the Wing Park Apartments includes work to be done by the following companies:

<table>
<thead>
<tr>
<th>Company</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homer Tree Care, Inc.</td>
<td>$10,000</td>
</tr>
<tr>
<td>Biotechnical Erosion Control Ltd.</td>
<td>$32,000</td>
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<tr>
<td>Trotter &amp; Associates, Inc.</td>
<td>$5,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$47,000</td>
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</table>

For this project, the Wing Park Apartments will be receiving a maximum grant of $23,500 and will be paying their 50 percent up front instead of receiving a loan. Tyler Creek Funds will be distributed to the Wing Park Apartments upon completion, inspection and approval of the work by the City along with documentation that contractors have been paid in full. The Wing Park Apartments agreement with the City requires it to maintain the funded improvements for a minimum of fifteen years from the date on which funds are distributed. The Tyler Creek fund currently has a fund balance of approximately $700,000, set aside for qualifying projects.

**BUDGET IMPACT**

<table>
<thead>
<tr>
<th>FUND(S)</th>
<th>ACCOUNT(S)</th>
<th>PROJECT #(S)</th>
<th>AMOUNT BUDGETED</th>
<th>AMOUNT AVAILABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyler Creek</td>
<td>378-0000-795.92-32</td>
<td>378002</td>
<td>$23,500</td>
<td>$23,500</td>
</tr>
</tbody>
</table>

**LEGAL IMPACT**

None.

**ALTERNATIVES**

The city council may choose to reject the Tyler Creek Watershed Streambank Stabilization Program Agreement with Wing Park Apartments, however, additional direction to staff will then be necessary to determine alternatives to utilize the remaining Tyler Creek Funds within the Tyler Creek Watershed for water quality and soil erosion control improvements.

**NEXT STEPS**

1. Execute agreement with the Tyler Creek Watershed Streambank Stabilization Program Agreement with Wing Park Apartments.
2. Complete and inspect the work along Tyler Creek.
3. Reimburse the Wing Park Apartments per the agreement.
Originators:  Ronald Rudd, City Engineer
           Eric B. Weiss, Water Director

Final Review:  Debra Nawrocki, Chief Financial Officer
                  William A. Cogley, Corporation Counsel/Chief Development Officer
                  Richard G. Kozal, City Manager

ATTACHMENTS

A.  Tyler Creek Watershed Stabilization Program Guidelines
B.  Tyler Creek Fund Streambank Assistance Program Wing Park Apartments Application
C.  Tyler Creek Stabilization Wing Park Apartments Agreement
D.  Tyler Creek Streambank Stabilization Plans
E.  Tyler Creek Stabilization Wing Park Apartments - Proposal - Homer $10,000
F.  Tyler Creek Stabilization Wing Park Apartments - Proposal - BECL $32,000
G.  Tyler Creek Stabilization Wing Park Apartments - Proposal - Trotter $5,000
TYLER CREEK WATERSHED STABILIZATION PROGRAM

I. Eligible Properties
II. Application Process
III. Financing Mechanisms

I. ELIGIBLE PROPERTIES

To be eligible for this program, applicants MUST own a property adjacent to Tyler Creek that has been identified for streambank stabilization in the Tyler Creek Management Plan and has the support of the Tyler Creek Watershed Coalition. The applicant also must submit evidence demonstrating that the property would benefit from the proposed streambank stabilization improvements. The City of Elgin will determine if this criterion has been met. Appropriate evidence includes, but is not limited to:

- Photographs;
- Information based on location and confirmed through meeting with City representative.

All applications received will be considered on a first-come, first-serve basis until funds are exhausted.

II. APPLICATION PROCESS AND PROGRAM OVERVIEW

1. Contact Ron Rudd in the Engineering Department to discuss best streambank stabilization improvement options for property.
2. Obtain at least two (2) written proposals from responsible contractors for the proposed work.
3. Fill out and submit application.
4. Receive approval from City for project in the form of an agreement.
5. Complete work.
6. Arrange to have work inspected and approved by City.
7. Submit invoice from completed work for payment. Once the invoice is processed, the City will provide a check to the contractor for payment of work completed, as provided for in the agreement.

Attach supporting documentation to the application form including the following:

- Verification of Property Ownership, which includes one (1) or more of the following:
  - Property Warranty Deed;
  - Title Insurance Policy;
  - Land Contract recorded with the County.

  Note: In the event applicant’s interest in the property is as the purchaser under a land
contract, the record owner of the property shall be required to execute a lien against
the property as provided for in the agreement.
☐ Two detailed cost estimates provided by licensed contractors.
☐ Photographs of existing conditions.

Additionally, eligible program participants must:
- Obtain all required permits prior to beginning any work.
- Comply with all applicable City ordinances, including stormwater ordinances.
- Have all improvements inspected and approved by the City.

Those residents who do not comply with the above criteria may be subject to a denial of
application or withdrawal of funding.

III. FINANCING MECHANISMS

This program has finite funding; funds will be allocated on a first-come, first-serve basis. The
financing structure is as follows:

Option 1: EPA 319 grants received
- The 319 grant will provide funding for 60% of the project.
- City provides funding for 40% of the project cost to property owner or homeowner’s
  association, as follows:
  – 20% of total project cost as a grant;
  – 20% of total project cost as 10-yr loan.
- To encourage quicker repayment the first 3 years of the loan will be interest free.
- In subsequent years, the interest rate will be set by the “Bond Buyer 20-Bond Index” rate.

Option 2: NO EPA 319 grant funds received
- City provides funding for 100% of cost to property owner or homeowner’s association, as
  follows:
  – 50% of total project cost as a grant;
  – 50% of total project cost as a 10-yr loan.
- To encourage quicker repayment the first 3 years of the loan will be interest free.
- In subsequent years, the interest rate will be set by the “Bond Buyer 20-Bond Index” rate.

On receipt of the application form, the property and proposed work will be evaluated by City
staff.

Please note that grant funds received are considered taxable income and the grant recipient will
receive a 1099G Form.

Additional Information
Call the City of Elgin, Engineering Department (847) 931-6081 for information.
Tyler Creek Fund Streambank Assistance Program
2018 GRANT APPLICATION

Name of Applicant  Crown Properties, Inc. – Matthew Lefkowitz

Property Address  6 Tivoli Place  Zip Code  60123

Applicant’s Address  15 Watts Street, Fifth Floor

City  New York  State  NY  Zip Code  10013

Phone Numbers:  Home  212-257-0147  Work  212-257-0147  Cell  202-256-3964

Email Address  mlefkowitz@crownproperties.com

I/We hereby represent that the information contained in this application and documentation provided is true and correct to the best of my/our knowledge.

________________________________________  __________________________

Applicant(s)  Date

________________________________________  __________________________

Richard G. Kozal  Date
City of Elgin
Tyler Creek Fund Streambank Assistance Program  
APPLICATION (Continued)

Please attach the following items to your completed application.

1. Proof of ownership of the Subject Property.
   - Property Warranty Deed, mortgage statement or title insurance document.

2. Copy of current Rental License (if applicable).
   - Not applicable.

3. Summary and description of proposed scope of work.

   There is significant erosion and scouring along Tyler Creek at Wing Park Apartment Complex, to where there is a potential large impact, extreme safety hazard, and encroachment of the creek on the existing parking lot at Wing Park Apartment Complex. The streambank stabilization of Tyler Creek at Wing Park Apartments, 6 Tivoli Place, Elgin, IL includes the area at the southeast corner of the streambank at the bend near the existing parking lot area. This includes approximately 200 lineal feet of rock stabilization along the southern bank of Tyler Creek at the subject location.

4. Two (2) estimates from responsible contractors for scope of work.

5. Photographs of existing conditions.
   - View the attached photos on the following pages.
**Transaction History available 24/7 at www.key.com/key2cre**

**THIS IS FOR INFORMATIONAL PURPOSES ONLY.**

<table>
<thead>
<tr>
<th>LOAN INFORMATION</th>
<th>PAYMENT INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Principal Balance</td>
<td>Past Due Principal</td>
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<tr>
<td>Current Interest Rate</td>
<td>Past Due Interest</td>
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<tr>
<td>Interest Paid YTD</td>
<td>Past Due Escrow</td>
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<td>Days in Billing Cycle</td>
<td>Past Due Late charge</td>
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<td>Tax Escrow Balance</td>
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<td>Past Due Misc. Amount Due</td>
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<td>Other Escrow Balance</td>
<td>CURRENT PRINCIPAL DUE</td>
</tr>
<tr>
<td>Other Escrow Disbursed YTD</td>
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</tr>
</tbody>
</table>

**DEFAULT INTEREST/LATE CHARGE INFORMATION**

| Default Interest | .00 |
| Late Charge From Last Month | .00 |
| Late Charge | 4,152.70 |
| TOTAL | 83,054.07 |

**TOTAL PAYMENT DUE**

| Date Payment Due | 08/01/2018 |

**PLEASE COMPLETE THIS SECTION IF MAKING OTHER THAN THE TOTAL PAYMENT DUE**

| REGULAR PAYMENT | $ |
| ADDITIONAL PRINCIPAL | $ |
| ADDITIONAL ESCROW | $ |
| LATE CHARGE | $ |
| TOTAL | $ |

**Loan Number**

| 01-0183288 |

**Date Payment Due**

| 08/01/2018 |

**Past Due Amount**

| Current Amount Due | Total Payment Due |
| 83,054.07 | 83,054.07 |

**Customer Service 1-888-979-1200**

*Please note: If your mailing address has changed, please print your new address on your payment stub.*

---

KEYBANK REAL ESTATE CAPITAL
PO BOX 145404
CINCINNATI, OH 45250

CT Elgin, LLC
Attn: Matthew G Lefkowitz
15 Watts Street, Fifth Floor
New York, NY 10013

**DO NOT PAY.**

YOUR PAYMENT WILL BE AUTOMATICALLY DEDUCTED FROM YOUR ACCOUNT.
Encroachment of the creek on the existing parking lot at Wing Park Apartment Complex

Erosion and scouring along Tyler Creek at Wing Park Apartment Complex
Photograph 3
An exposed yellow gas line

Photograph 4
Tyler Creek at the Wing Apartment Complex
THIS AGREEMENT is made and entered into this ________ day of ______________, 2019, by and between the City of Elgin, an Illinois municipal corporation, (hereinafter referred to as the “City”) and CT Elgin, LLC, a Delaware limited liability company (hereinafter referred to as the “Applicant”).

W I T N E S S E T H

WHEREAS, the Applicant is the owner of the property commonly known as Wing Park Apartments, 6 Tivoli Place, Elgin, Illinois (hereinafter referred to as the “Subject Property”); and,

WHEREAS, the Applicant has made an application to the City for funding assistance pursuant to the City’s Tyler Creek Watershed Streambank Stabilization Program (hereinafter referred to as the “Program”), to be used for streambank stabilization improvements at the Subject Property; and,

WHEREAS, the City has established a fund to be utilized for watershed protection efforts within the Tyler Creek Watershed (hereinafter the “Tyler Creek Fund”); and,

WHEREAS, the City has determined the streambank stabilization improvements at the Subject Property would further watershed protection within the Tyler Creek Watershed and are an appropriate use of the Tyler Creek Fund; and,

WHEREAS, the City has agreed to provide funding assistance to the Applicant for the work described herein on the Subject Property, pursuant to the terms and conditions of this Agreement; and,

WHEREAS, the City of Elgin is a home rule unit of local government which may exercise any power and perform any function pertaining to its government and affairs; and,

WHEREAS, providing financial assistance to facilitate the installation of improvements as described herein will promote the public welfare of the community and pertains to the government and affairs of the City.

NOW, THEREFORE, for and in consideration of the mutual promises and undertakings contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby mutually acknowledged, the parties hereto agree as follows:

1. The foregoing recitals are incorporated into this Agreement in their entirety.

2. The Applicant represents and warrants that it complies with the applicant eligibility guidelines for the Program, including the following:
a. The Applicant owns the Subject Property and is at least eighteen (18) years of age, or has been designated and authorized by the owner of the Subject Property to commit the changes proposed on the Subject Property.

b. The Subject Property is located with the corporate limits of the City of Elgin.

c. To Applicant’s knowledge, the Subject Property is located within the Tyler Creek Watershed.

d. To Applicant’s knowledge, the streambank stabilization project on the Subject Property has been identified in the Tyler Creek Management Plan and has the support of the Tyler Creek Watershed Coalition.

3. The Applicant shall complete all work proposed under this Agreement in conformance with all applicable codes, ordinances, and laws and in conformance with the Tyler Creek Watershed Streambank Stabilization Program guidelines. Notwithstanding anything to the contrary in this Agreement, it is expressly agreed and understood by the Applicant that in the performance of this Agreement the Applicant shall comply with all applicable federal, state, city and other requirements of law. The Applicant shall also at his/her expense secure all permits and licenses, pay all charges and fees and give all notices necessary and incident to the due and lawful prosecution of the work as described in this Agreement.

4. The Applicant warrants and represents that it has obtained at least two (2) written estimates from responsible contractors for the proposed work, and has provided copies of the same to the City. In the event that the proposed work will require more than one (1) contractor, the Applicant warrants and represents that it has obtained at least two (2) written estimates from contractors for each discrete and separate aspect of the proposed work, and has provided copies of the same to the City. The Applicant shall select the lowest written estimate submitted by a responsible contractor for the total Work or for each discrete and separate aspect of the proposed Work, subject to approval by the City. The lowest cost estimate(s) and scope(s) of work submitted by responsible contractors for the work to be performed under this Agreement and approved by the City is(are) attached hereto as Attachment A and made a part hereof by this reference (hereinafter referred to as the “Work”). No change shall be made to the cost estimate(s) and/or the scope(s) of work unless approved in writing by the City.

5. The Applicant shall obtain all necessary permits prior to beginning any Work. The Applicant shall begin the work within thirty (30) days of the date of execution of this Agreement. The Applicant shall complete all of the Work within a period of two hundred forty (240) days after the date of execution of this Agreement. The Work shall be performed in compliance with all applicable City codes and ordinances. The Applicant shall arrange to have the Work inspected at such times as may be required by the City and after the completion of the Work. No funds shall be disbursed prior to an inspection and final approval of the Work by the City, or, in the case of multiple contractors, prior to an inspection and final approval of any discrete and separate aspect of the Work, such
inspection and approval constituting a condition precedent to the disbursement of any funds under this Agreement.

6. Following completion, inspection and approval of the Work by the City or, in the case of multiple contractors, following completion, inspection and approval of any discrete and separate aspect of the Work, the Applicant shall provide payment for the approved Work to the contractor(s). Applicant shall then present the City with a paid invoice, receipt, or other payment documentation from the contractor(s) demonstrating that the contractor has received full and complete payment for the Work.

7. Within thirty (30) days of the receipt of payment documentation from the Applicant described in Paragraph 6, above, the City shall disburse funds to the Applicant in the amount of fifty percent (50%) of the actual cost of the Work, but in no event shall such amount exceed fifty percent (50%) the total cost of the Work provided for in Attachment A or, in the case of multiple contractors, the cost of any discrete and separate aspect of the Work provided for in Attachment A (the total amount of funds to be disbursed by the City on behalf of the Applicant pursuant to this Agreement is hereinafter referred to as the Program Funds). The Program Funds shall constitute a grant to the Applicant, for which no repayment shall be required unless otherwise provided for in this Agreement. The total amount of the Program Funds paid to the Applicant under this Agreement shall not exceed Twenty-Three Thousand Five Hundred Dollars ($23,500.00). In no event shall any payment be made by the City prior to the final completion, inspection and approval of the Work by the City or, in the case of multiple contractors, prior to completion, inspection and approval of any discrete and separate aspect of the Work, nor shall any payment be made by the City prior to its receipt of documentation demonstrating that the contractor or contractors have been paid in full for the Work. Any payments under this Agreement shall be conditioned upon the Subject Property being brought into compliance with all applicable codes and ordinances, and all other conditions and requirements of this Agreement having been satisfied.

8. The Applicant further warrants and agrees that it will keep and maintain the streambank stabilization improvements that are the subject of the Work for a minimum of fifteen (15) years from the date on which the Program Funds are disbursed. Any failure of the Applicant to adequately maintain the streambank stabilization improvements, in the sole discretion of the City, shall constitute a breach of this Agreement.

9. In the event the Applicant breaches or otherwise fails to perform any of the terms or provisions of this Agreement, the available remedies to the City shall include, but not be limited to, the immediate termination of this Agreement and the forfeiture by the Applicant of any Program Funds. In the event of such termination and forfeiture, the Applicant shall repay to City any Program Funds paid by the City to the Applicant, or to a contractor on the Applicant’s behalf, upon thirty (30) days written demand. In addition, the forfeiture and/or repayment of such funds by the Applicant shall not be construed as to constitute a waiver or relinquishment of any other rights which may be available to City at law or equity. This provision shall survive any termination of this Agreement, and shall not be construed as a limitation on any other of the City’s rights under law or equity.
10. Notwithstanding any other provision of this Agreement it is expressly agreed and understood that in connection with the performance of this Agreement that the Applicant shall comply with all applicable Federal, State, City and other requirements of law, including, but not limited to, any applicable requirements regarding prevailing wages, minimum wage, workplace safety and legal status of employees. Without limiting the foregoing, Applicant hereby certifies, represents and warrants to the City that, to Applicant’s knowledge, all Applicant’s contractors and/or agents who will be providing products and/or services with respect to this Agreement shall be legal residents of the United States. Applicant shall also at its expense secure all permits and licenses, pay all charges and fees and give all notices necessary and incident to the due and lawful prosecution of the work, and/or the products and/or services to be provided for in this Agreement. The City shall have the right to audit any records in the possession or control of the Applicant to determine Applicant’s compliance with the provisions of this section. In the event the City proceeds with such an audit the Applicant shall make available to the City the Applicant’s relevant records at no cost to the City.

11. The Applicant and any other entity which has obligations under this Agreement waive the rights of Presentment and Notice of Dishonor (“Presentment” means the right to require the City to demand payment of amounts due. “Notice of Dishonor” means the right to require the City to give notice to other persons that amounts due have not been paid.)

12. The failure by the City to enforce any provisions of this Agreement against the Applicant shall not be deemed a waiver of the right to do so thereafter.

13. In the event funding for the Program from any federal, state or other source is withdrawn, reduced, or limited in any way after the effective date of this Agreement and prior to normal completion, the City may terminate this Agreement, reduce funding to the Applicant, or renegotiate the Agreement subject to such new funding conditions, at the City’s sole option and discretion and without liability to the City, except for the payment of Program Funds for Work that has already been approved and performed at the Subject Property pursuant to this Agreement and prior to any such termination.

14. In the event the Applicant fails to commence the Work within thirty (30) days from the date of execution of this Agreement, or fails to complete the Work within two hundred forty (240) days from the date of execution of this Agreement, the City shall have the right, in the City’s sole option and discretion, to immediately terminate this Agreement without liability to the City. In the event the City terminates the Agreement for the reasons set forth herein, the Applicant shall refund to the City any Program Funds paid by the City to the Applicant, or paid by the City to any contractor on behalf of the Applicant, upon thirty (30) days written demand. The repayment of such funds by the Applicant shall not be construed so as to constitute a waiver or relinquishment of any other rights which may be available to City at law or equity. This provision shall survive any termination of this Agreement, and shall not be construed as a limitation on any other of the City’s rights under law or equity.
15. This Agreement is and shall be deemed and construed to be a joint and collective work product of the City and the Applicant, and, as such, this Agreement shall not be construed against the other party, as the otherwise purported drafter of same, by any court of competent jurisdiction in order to resolve any inconsistency, ambiguity, vagueness or conflict, if any, in the terms and provisions contained herein.

16. This Agreement shall be binding on the parties hereto and their respective successors and permitted assigns. This Agreement and the obligations of the Applicant herein may not be assigned without the express written consent of the City, which consent may be withheld at the sole discretion of the City.

17. This Agreement shall not be deemed or construed to create an employment, partnership, joint venture, or other agency relationship between the parties hereto.

18. The Applicant shall to the fullest extent permitted by the law, indemnify and hold harmless the City, its officials, employees, agents and all other related organizations and persons from all loss, cost, claims damages, expenses of whatever kind arising out of any liability, or claim of liability for any injury or damage to persons or property or claimed to have been sustained by anyone whomsoever by reason of the proposed improvements to be made to the Subject Property. In the event of any action against the City, its officers, employees, agents, boards or commissions covered by the foregoing duty to indemnify, defend and hold harmless, such action shall be defended by legal counsel of the City’s choosing. The provisions of this paragraph shall survive any termination and/or expiration of this Agreement.

19. Anything to the contrary in this Agreement notwithstanding, no action shall be commenced by the Applicant, and in no event shall the City be liable for monetary damages to the Applicant, for any reason, including, but not limited to, compensatory, consequential, indirect or incidental damages of any kind, or attorneys’ fees, with the sole exception of the payment of Program Funds for Work that has already been approved and performed at the Subject Property pursuant to this Agreement. Any action brought by the Applicant for the payment of Program Funds arising out of or in connection with this Agreement must be filed within one year of the date the alleged cause of action arose or such action will be time-barred. The provisions of this paragraph shall survive any expiration, completion and/or termination of this Agreement.

20. No official director, officer, agent or employee of the City shall be charged personally or held contractually liable under any term or provision of this Agreement or because of their execution, approval or attempted execution of this Agreement.

21. The terms of this Agreement shall be severable. In the event any of the terms or provisions of this Agreement are deemed to be void or otherwise unenforceable for any reason, the remainder of this Agreement shall remain in full force and effect.

22. Unless applicable law requires a different method, any notice or other communication provided for herein or given hereunder shall be in writing and shall be given in person, by
overnight courier, or by mail (registered or certified mail, postage prepaid, return-receipt requested) to the respective parties as follows:

As to the City:               As to the Applicant:

City of Elgin               Matthew Lefkowitz
1900 Holmes Road            Crown Properties Inc.
Elgin, IL 60123             15 Watts Street, 5th Floor
Attn: City Engineer         New York, NY 10013

With a copy to:

City of Elgin               Jeffery D. Hoffenberg
150 Dexter Court            Levenfeld Pearlstein, LLC
Elgin, IL 60120-5555        2 N. LaSalle Street, Suite 1300
Attn: Corporation Counsel   Chicago, IL 60602

23. The Applicant shall supervise and monitor the performance of the Work in order to ensure compliance with all grant program requirements and all applicable City codes and ordinances.

24. This Agreement represents the entire agreement between the parties hereto. There are no other agreements, either oral or implied, between the parties hereto regarding the subject matter of this Agreement. This Agreement may not be modified or amended without the written agreement of the parties hereto.

25. The terms of this Agreement shall be severable. In the event any of the terms or provisions of this Agreement are deemed to be void or otherwise unenforceable for any reason, the remainder of this Agreement shall remain in full force and effect.

26. This Agreement shall be subject to and governed by the laws of the State of Illinois. The sole and exclusive venue for the resolution of any disputes or the enforcement of any rights arising out of or in connection with this Agreement shall be in the Circuit Court of Kane County, Illinois.

27. Applicant, on behalf of itself and its respective successors, assigns and grantees of the Subject Property, hereby acknowledges the propriety, necessity and legality of all of the terms and provisions of this Agreement, and does hereby further agree and does waive any and all rights to any and all legal or other challenges or defenses to any of the terms and provisions of this Agreement, and hereby agrees and covenants on behalf of itself and its successors, assigns and grantees of the Subject Property, not to sue the City or maintain any legal action or other defenses against the City with respect to any challenges of the terms and provisions of this Agreement. Notwithstanding the foregoing, Applicant may maintain an action against the City for the payment of Program Funds pursuant to Paragraph 19 of this Agreement, and may further assert defenses required to be filed by Applicant arising out of any suit filed by the City in connection with this Agreement,
provided that any such actions or defenses may not assert any legal challenges to the propriety, necessity, or legality of the terms and provisions of this Agreement.

28. This Agreement may be executed in counterparts, each of which shall be an original and all of which shall constitute one and the same agreement. For the purposes of executing this agreement, any signed copy of this Agreement transmitted by fax machine or e-mail shall be treated in all manners and respects as an original document. The signature of any party on a copy of this Agreement transmitted by fax machine or e-mail shall be considered for these purposes as an original signature and shall have the same legal effect as an original signature. Any such faxed or e-mailed copy of this Agreement shall be considered to have the same binding legal effect as an original document. At the request of either party any fax or e-mail copy of this Agreement shall be re-executed by the parties in an original form. No party to this Agreement shall raise the use of fax machine or e-mail as a defense to this agreement and shall forever waive such defense.

SIGNATURE PAGE FOLLOWS
IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date following their respective signatures.

<table>
<thead>
<tr>
<th>CITY OF ELGIN</th>
<th>CT ELGIN, LLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richard G. Kozal</td>
<td>Matthew G. Lefkowitz</td>
</tr>
<tr>
<td>City Manager</td>
<td>Name (Print)</td>
</tr>
<tr>
<td></td>
<td>Date</td>
</tr>
<tr>
<td></td>
<td>Date</td>
</tr>
</tbody>
</table>

Aug 6, 2019
ATTACHMENT A

COST ESTIMATE(S) AND SCOPE(S) OF WORK

- Proposal by Homer Tree Care, Inc., dated March 26, 2019 (Total Cost $10,000)
- Proposal by Biotechnical Erosion Control Ltd., dated November 19, 2016 (Total Cost $32,000)
- Proposal by Trotter & Associates, Inc., dated October 22, 2018 (Total Cost $5,000)
Tyler Creek Streambank Stabilization
Garden Quarter Development
Garden Crescent Drive
Elgin, Illinois

Client:
Garden Quarter I Townhome Assoc.
Don Rage
1450 Plymouth Lane
Elgin, Illinois 60123

Elgin Properties Limited, LP.
Edward Streit
2000 West Galena,
Suite 202
Aurora, Illinois 60506

Engineer:
Hey and Associates, Inc.
26375 West Commerce Drive, Suite 601
Volo, Illinois 60073
Office (847) 740-2888
Fax (847) 740-2888

Contractor:
BioTechnical Erosion Control Ltd.
10015 Wright Road
Harvard, Illinois 60033
(815) 648-2253

Benchmark:
PK Nail in northeast corner of parking lot next to curb
Elevation = 776.11 (NAVD 1988)
As established by survey performed on 8/10/2015.

Sheet Index:
1. C1.0 Cover Sheet
2. C1.1 General Notes
3. C1.2 General Notes
4. C2.0 Existing Conditions
5. C3.0 Proposed Plan
6. C4.0 Details

The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The Contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto.

This document shall not be considered a valid technical submittal unless it bears an original seal and signature.

Call J.U.L.I.E. 1-800-892-0123 at least 48 hours before start of construction with the following:
County: Kane
City or Township: Elgin
Sec, Range & Section: T41N, R8E, Sec. 10

Supplemented by Kane Co. 2-ft Topo Base Survey Information provided by:
Engineer: Garden Quarter I Townhome Assoc.
Client: Don Rage
1450 Plymouth Lane
Elgin, Illinois 60123

Copyright © 2015 Hey and Associates, Inc.
Sedimentation and Erosion Control Notes


1. Soil disturbance shall be conducted in such a manner as to minimize erosion. Soil stabilization measures shall consider the time of year, site conditions and the use of temporary or permanent measures.

2. Soil erosion and sediment control features shall be constructed prior to soil disturbance.

3. Temporary soil stabilization shall be applied to disturbed areas within 14 calender days of the end of the active hydrologic disturbance. Permanent stabilization shall be completed within 7 days after the completion of final grading of the soil to areas where temporary stabilization does not occur.

4. All watercourse facilities that are or will be discharging during construction shall be protected and otherwise treated to prevent erosion.

5. All temporary erosion and sediment control measures shall be removed within 30 days after final stabilization is achieved or after temporary measures are no longer needed. Treated sediment and other disturbed soil areas shall be permanently stabilized.

6. All temporary and permanent erosion control measures must be maintained and repaired as needed. The general contractor will be responsible for inspection and repair during construction. The owner will be responsible for erosion control as directed by the engineer or governing agency.

7. All erosion control measures indicated on the plans are the minimum requirements. Additional measures may be required as directed by the engineer or governing agency.

8. All erosion control measures must be inspected weekly and after each 0.5" rain event.

9. Stockpiles of soil and other building materials to remain in place more than three (3) days shall be furnished with erosion and sediment control measures (i.e. perimeter silt fence). The owner shall be responsible if erosion control is required after the contractor has completed the project.

10. Any sideslope disturbance due to excavation activities will require the installation of erosion control blanket.
Friday, March 01, 2019

BioTechnical Erosion Control Ltd.

100015 Wright Rd
Harvard, IL 60033

Job Name: 153849
Worksite: 100015 Wright Rd
Harvard, IL 60033
Phone: 815-648-2253 Randy
Email: rjstowe@gmail.com
Arborist: Richard Reposh

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Description</th>
<th>Qty</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Various Tree Work</td>
<td>Please find enclosed our bid proposal for tree work to be completed at Tyler Creek in Elgin, IL.</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Remove all trees and brush that overhang the South bank of Tyler Creek in Wing Park Apartment Complex.
Trees and brush shall be removed as shown on marked up image provided.
Vegetation shall be cut near ground level (2 inches in most cases) with material removed from site.
Stumps shall be treated with Herbicide that is water friendly mixed with appropriate dye.
* Access will be required to parking lot and lawn for work completion

Primary area - Base bid : $5,000.00
Optional area - While on site: $5,000.00

* This project has not been bid as certified payroll or prevailing wage

Thank you for the opportunity to bid on this project with you. If you have any questions, please don’t hesitate to contact us.

Respectfully submitted,
Richard Reposh
Certified Arborist, IL-0567

Subtotal: $0.00
Tax: $0.00
Total: $0.00

Your signature is required prior to the start of any work and indicates acceptance of the terms & conditions on the reverse side of this document. All normal work operations to be performed according to ANSI A-300 standards. NOTE: ALL WORK TO BE PAID UPON COMPLETION.
November 19th, 2016

Matthew G. Lefkowitz  
Crown Properties, Inc.  
15 Watts Street, 5th Floor  /New York, NY 10013

Re: Tyler Creek Streambank Stabilization – Wing Park Apartments, Elgin, Illinois

Dear Mr. Lefkowitz,

Per your request, BioTechnical Erosion Control Ltd. (BECL) is pleased to submit this proposal under which BECL will supply the materials, equipment, and labor necessary to install the above referenced project in general accordance with the approved project plan set, as prepared by Hey & Associates and BECL (dated December 4th, 2015), as well as in compliance with the associated regulatory permits.

**Proposed Budget:**

BECL proposes to conduct the stated tasks for the lump-sum, not-to-exceed cost of $32,000 based on an approximate cost breakdown presented below:

<table>
<thead>
<tr>
<th>Wing Park Apartments Project Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONSTRUCTION PHASE</strong></td>
</tr>
<tr>
<td>1 Mobilization / Demobilization</td>
</tr>
<tr>
<td>2 Soil Erosion and Sediment Control</td>
</tr>
<tr>
<td>3 Streambank Stabilization</td>
</tr>
<tr>
<td>4 Rock Stockpile Area Restoration</td>
</tr>
<tr>
<td><strong>Total Project Cost</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task #</th>
<th>Task Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mobilization / Demobilization</td>
<td>1</td>
<td>Lump Sum</td>
<td>$5,000.00</td>
<td>$5,000</td>
</tr>
<tr>
<td>2</td>
<td>Soil Erosion and Sediment Control</td>
<td>1</td>
<td>Lump Sum</td>
<td>$1,000.00</td>
<td>$1,000</td>
</tr>
<tr>
<td>3</td>
<td>Streambank Stabilization</td>
<td>200</td>
<td>LF</td>
<td>$125.00</td>
<td>$25,000</td>
</tr>
<tr>
<td>4</td>
<td>Rock Stockpile Area Restoration</td>
<td>1</td>
<td>Lump Sum</td>
<td>$1,000.00</td>
<td>$1,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total Project Cost</strong></td>
<td></td>
<td></td>
<td>$32,000</td>
<td></td>
</tr>
</tbody>
</table>
Terms and Conditions:

1. BECL will schedule the work, establish a project timetable, and coordinate a pre-construction meeting when all of the issued regulatory permits have been updated and authorized. Any additional permit fees required by regulatory or review agencies shall be paid by Client.

2. It is recognized that time is of the essence, however, BECL reserves the right to delay any or all elements of the project to best coincide with seasonal conditions, anticipated stream flow levels, or other factors in order to minimize potential Soil Erosion and Sediment Control issues; ensure optimal growth of the proposed vegetation; or otherwise ensure the successful completion of the project.

3. Any required removal / trimming of brush or small trees (< 6inch dbh) shall be handled by BECL under the existing proposal. Any additional removal of larger trees required to facilitate construction or otherwise improve streambank stability, shall be performed by others.

4. The proposed project is solely intended to provide reasonable protection from existing streambank erosion problems. No warranty is provided or implied as to the future structural stability of the treated streambanks or their future ability to continue supporting adjacent existing structural / utility improvements.

5. BECL will submit monthly invoices to the Client during those periods in which work occurs on the project. The Client will advise BECL of any specific invoice submittal timeframes needed to best comply with Client payout approval cycles.

6. Payment to BECL by the Client shall be expected within thirty (30) days of invoice submittal by BECL.

7. Upon request, BECL will provide a Certificate of Insurance (COI) to Crown Properties, or other designee, Any specific language proposed to be included on the COI by any party shall be provided to BECL for review and approval by the insurance carrier of BECL. The cost of providing any landowner / City requested COI language / coverages beyond what is normally carried by BECL shall be billed as an additional cost.

8. BECL will, upon request, provide partial and final waivers for the payments received.

9. Any other financial arrangements regarding individual landowner cost-share contributions or cost-share arrangements with the City of Elgin Tyler Creek Fund shall be handled under separate contracts / agreements between those parties, fully outside of this contract.

Please review this information carefully and do not hesitate to contact me if you have any questions. If none, please execute the following pages (where indicated), and return a fully executed copy of the entire contract to us.

Sincerely yours,

Randolph J. Stowe
President
(815) 382-7927 Cell
Contract Accepted By:

BIOTECHNICAL EROSION CONTROL LTD.

_________________________________
Signature

Randolph J. Stowe
Typed Name

President
Title

10015 Wright Road
Address

Harvard, IL  60033
City / State / Zip

(815) 648-2253
Telephone

November 19th, 2018
Date

CROWN PROPERTIES

_________________________________
Signature

_________________________________
Typed Name

______________
Title

______________
Address

______________
City / State / Zip

______________
Telephone

______________
Date
October 22, 2018

Mr. Matt Lefkowitz
Crown Properties, Inc.
15 Watts Street
5th Floor
New York, NY 10013

Re: Wing Park Apartments, Elgin, IL – Tyler Creek Bank Stabilization
Professional Services Agreement

Dear Mr. Lefkowitz,

We sincerely appreciate this opportunity to offer our services. Enclosed for your review is the engineering services agreement for the referenced project. Please contact us if there are any questions or changes to the listed scope of services. If you would like to proceed with the contract, please sign and return one copy of the agreement.

Sincerely,

TROTTER & ASSOCIATES, INC.

Susan Novak, P.E., CFM
Project Engineer
October 22, 2018

Mr. Matt Lefkowitz
Crown Properties, Inc.
15 Watts Street
5th Floor
New York, NY 10013

Re: Wing Park Apartments, Elgin, IL – Tyler Creek Bank Stabilization
   Professional Services Letter Agreement and Exhibits

Dear Mr. Lefkowitz,

Trotter and Associates, Inc. (ENGINEER) is pleased to provide professional services to Matt Lefkowitz of Crown Properties, Inc. (CLIENT) for the Wing Park Apartments, Elgin, IL – Tyler Creek Bank Stabilization (hereinafter referred to as the “PROJECT”).

Project Understanding
The Wing Park Apartments are located in the City of Elgin in the lower portion of the Tyler Creek Watershed. This reach of the Tyler Creek is located 2.2 miles upstream of the confluence with the Fox River. A portion of the property of the Wing Park Apartment Complex along Tyler Creek has been subjected to excessive streambank erosion. The Client desires to stabilize the eroded streambank before conditions deteriorate further. The stabilization on the property includes approximately 160 feet of streambank along Tyler Creek.

The Tyler Creek Watershed Coalition (TCWC) was formed to initiate and manage the green infrastructure recommendations that came from the Tyler Creek Watershed Plan. TCWC is the advocate for those in need of help to get funding for the projects. The grant funds are facilitated locally by the City of Elgin. The grant is available for use with bioengineering stabilization methods (stone toe & native vegetation). These funds are 50/50 match and can be utilized for construction improvement purposes.

Project Schedule
Project schedule to be determined based on conversation with local contractors and governing agencies.

Scope of Services
Our services will consist of customary civil engineering services and related engineering services incidental thereto, based on the approved Permitting Plans for “Tyler Creek Streambank Stabilization Garden Quarter Development” as prepared by Hey and Associates and dated January 8, 2016:
**Permitting** - Trotter and Associates will complete the following services relative to the permitting phase.

1) Review all governing permit agencies and permit status.

2) Update all applications to the regulatory agencies (U.S. Army Corps of Engineers, IL Dept of Natural Resources, U.S. Fish & Wildlife Service, IL Historical Preservation Agency, City of Elgin, Kane County Soil and Water Conservation, etc.). Client will be responsible for obtaining required signatures and applicable permit fees.

3) Complete revisions or changes to the permit applications and facilitate any contingencies that need to be added to the construction phases (i.e. soil and sediment erosion control).

4) Attend necessary meetings with the City and / or agencies regarding project review.

TAI will not perform any geotechnical investigations, field survey, or design changes for the proposed scope of services.

Changes to the scope of services outlined in this agreement shall be authorized through execution of an Exhibit D - Contract Addendum.

**Compensation**

A Lump Sum amount of **$5,000** based on the following assumed distribution of compensation:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permitting</td>
<td>$5,000</td>
</tr>
<tr>
<td>Bidding Phase</td>
<td>Not Included</td>
</tr>
<tr>
<td>Construction Phase</td>
<td>Not Included</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$5,000</strong></td>
</tr>
</tbody>
</table>

ENGINEER may alter the distribution of compensation between individual phases noted herein to be consistent with services rendered but shall not exceed the total Lump Sum amount unless approved in writing by the CLIENT. The Lump Sum includes compensation for ENGINEER’s services and services of ENGINEER’s Consultants, if any. Appropriate amounts have been incorporated in the Lump Sum to account for labor, overhead, profit, and Reimbursable Expenses. The portion of the Lump Sum amount billed for ENGINEER’s services will be based upon ENGINEER’s estimate of the proportion of the total services completed during the billing period to the Lump Sum.

**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:

Crown Properties, Inc.

By: Matthew Lefkowitz

Title:________________________

Effective Date:________________

Address for giving notices:
15 Watts Street, 5th Floor
New York, NY 10013

Designated Representative
Matthew G. Lefkowitz

Title:________________________

Phone Number: (212) 257-0147 x 114
Facsimile Number: (212) 409-8839
E-Mail Address: mlefkowitz@crownproperties.com

Trotter and Associates, Inc.:

By: James M. McKenzie, P.L.S.

Title: Vice President

Date Signed: October 22, 2018

Address for giving notices:
40W201 Wasco Road, Suite D
St. Charles, IL 60175

Designated Representative
Susan M. Novak, P.E., CFM
Project Engineer
Trotter and Associates, Inc.

Phone Number: (630) 587-0470
Mobile Number: (630) 885-7392
E-Mail Address: jmckenzie@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
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.

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**ARTICLE 5 - OPINIONS OF COST**

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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): $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.

6.13 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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## EXHIBIT B
### SCHEDULE OF HOURLY RATES AND REIMBURSABLE EXPENSES

### 2018 Schedule of Hourly Rates

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<th>Classification</th>
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<th>2018 Reimbursable Expenses</th>
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**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.**

### 2018 Reimbursable Expenses

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<th>Item</th>
<th>Unit</th>
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EXHIBIT C
SUPPLEMENTAL CONDITIONS

NONE AT THIS TIME

************************************************************************
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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:
[                         ]  TROTTER AND ASSOCIATES, INC.
SIGNED:

____________________________________________  ________________________________

____________________________________________  ________________________________

Title  Title
ITEM:
Gifford 300 Industrial Development Phase 1 Plat of Dedication and Easement Grant
(No cost)

OBJECTIVE:
Obtain rights-of-way and easements for the installation of infrastructure improvements within Gifford 300 Industrial Development Phase 1.

RECOMMENDATION:
Approve the plat of dedication and easement grant as a condition of the Gifford 300 TIF Agreement.

The ordinances establishing the Bluff City Quarry TIF District require certain property owners to dedicate all required right-of-way for roadways and public utility easement and other collector and/or local roadways as may be designated as "public roadways" at the time of the approval of the final plat(s) of subdivision or final plans(s). Property owners Gifford 300, LLC and Bluff City Materials, Inc. have provided final engineering plans for the development of Phase I and has provided the plat of dedication and easement grant for approval by the city council.

BACKGROUND
The city council previously created the Bluff City Quarry TIF District pursuant to the following Ordinances:

- Ordinance No. S4-11 – An ordinance of the City of Elgin, Kane and Cook Counties, Illinois, approving a tax increment redevelopment plan and redevelopment project for the Bluff City Quarry TIF Redevelopment Project Area adopted on May 11, 2011
- Ordinance No. S5-11 – An ordinance of the City of Elgin, Kane and Cook Counties, Illinois, designating Bluff City Quarry TIF Redevelopment Project Area pursuant to the tax increment allocation redevelopment act adopted on May 11, 2011
- Ordinance No. S6-11 – An ordinance of the City of Elgin, Kane and Cook Counties, Illinois, adopting tax increment allocation financing for Bluff City Quarry TIF Redevelopment Project Area adopted on May 11, 2011
• Ordinance No. G35-12 – An ordinance approving the form of a redevelopment and financing agreement for the City of Elgin Bluff City Quarry TIF Redevelopment Plan and Project adopted June 13, 2012

• Ordinance No. G28-19 – And ordinance approving an amendment to the redevelopment and financing agreement for the City of Elgin Bluff City Quarry TIF District on adopted July 10, 2019

As a condition of these ordinances, the owners, Gifford 300, LLC and Bluff City Materials, Inc., are required to dedicate all required right-of-way for roadways and public utility easements, and other collector and/or local roadways as may be designated as "public roadways" at the time of the approval of the final plat(s) of subdivision or final plans(s). The owner has provided final engineering plans for the development of Phase I and has provided the plat of dedication and easement grant for approval by the city council as required.

OPERATIONAL ANALYSIS

Gifford 300, LLC and Bluff City Materials, Inc. have provided engineering plans for Phase I of their development and are preparing to construct the required improvements consisting of public infrastructure including onsite and off-site public water; sanitary sewer and storm water maintenance; on-site and off-site public roadway improvements; public sidewalk improvements; erosion control including, but not limited to, storm water detention; public street lighting; landscaping on public areas; and extending all necessary off-site utilities to the site.
INTERESTED PERSONS CONTACTED

Representatives of Gifford 300, LLC and Bluff City Materials, Inc.

FINANCIAL ANALYSIS

None.

BUDGET IMPACT

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<tr>
<th>FUND(S)</th>
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LEGAL IMPACT

The owners, Gifford 300, LLC and Bluff City Materials, Inc., are required to dedicate all required right-of-way for roadways and public utility easements.

ALTERNATIVES

None. The dedication is a condition of the Bluff City Quarry TIF District ordinances.

NEXT STEPS

1. Sign the plat of dedication and easement grant by the Mayor and City Clerk.
2. Record the signed plat of dedication and easement grant.
3. Provide an executed digital copy of the plat of dedication and easement grant to the owners.

Originators: Ronald Rudd, City Engineer
Final Review: Debra Nawrocki, Chief Financial Officer
William A. Cogley, Corporation Counsel/Chief Development Officer
Richard G. Kozal, City Manager

ATTACHMENTS

A. Gifford 300 Industrial Development Phase 1 Plat of Dedication and Easement Grant
AGENDA ITEM:  G
MEETING DATE:  August 28, 2019

ITEM:
Adoption of Amendments to the Kane County Stormwater Management Ordinance
(No cost)

OBJECTIVE:
Fulfill the City’s obligation to provide stormwater management and water quality improvements for the businesses and residents.

RECOMMENDATION:
Adopted the proposed Amendments to the Kane County Stormwater Management Ordinance.

Elgin adopted the Kane County Stormwater Management Ordinance in 2001 as required by state law. After adopting the original stormwater management ordinance, the City adopted several other ordinances that related to fees, stormwater freeboard, stormwater storage facilities’ location, basin bounce and slope. The City has been administering these ordinances on all new developments and capital projects with both staff and consulting engineer resources since their adoption.

In 2017, under the direction of the Kane County Water Resources Division, a Stormwater Management Planning Committee was formed, including Mayor Kaptain as a municipal member, along with an Agricultural Subcommittee and a Technical Advisory Committee (TAC) to engage in a comprehensive overall review of the existing Kane County Stormwater Ordinance and amendments. The committees were comprised of elected officials both on the local and county level, municipal engineers, engineering consultants, developers, stormwater drainage district members and farm bureau members among others. Kane County contracted with the engineering consulting firm Engineering Resources Associates (ERA) to lead the process in revising the existing stormwater ordinance and technical manual. ERA was instrumental in developing the first comprehensive, countywide watershed management ordinance for Cook County.

The impetus for revising the existing stormwater ordinance is to incorporate ordinance language from the technical manual, address conflicting language within the ordinance, make the ordi-
nance more user friendly, add requirements for water quality/best management practices, standardize detention triggers, promote redevelopment and provide watershed benefit options that encourage farmland preservation. Kane County also wanted the opportunity to discuss issues that administrators of the ordinance might have in applying it to projects. The revised stormwater ordinance is the result of over two years of work by these committees and will result in a more consistent interpretation of the requirements and will require not only stormwater control but also add requirements for water quality/best management practices which previously were optional requirements.

BACKGROUND

The City of Elgin adopted the Kane County Stormwater Ordinance with amendments via Ordinance G80-01 on December 19, 2001. Subsequent to the adoption of the original ordinance, the City adopted the following amendments:

- Ordinances G37-02 – Fees - June 12, 2002
- Ordinance G84-08 - Freeboard, stormwater storage faculties’ location, basin bounce and slope - December 17, 2008
- Ordinance G12-09 – Flood insurance and floodplain-related - March 41, 2009

In 2017, the Kane County - Water Resources Division embarked on a project to engage in a comprehensive overall review of the existing Kane County Stormwater Ordinance in order to bring it up to date with current standards and requirements that were being implement by communities within Lake, DuPage, Cook and McHenry counties.

A Stormwater Management Planning Committee was formed, consisting of six elected county and municipal members, including Mayor Kaptain as a municipal member, along with an Agricultural Subcommittee and a Technical Advisory Committee to engage in a comprehensive overall review of the existing Kane County Stormwater Ordinance and amendments. The committees were comprised of elected officials both on the local and county level, municipal engineers, engineering consultants, developers, stormwater drainage district members and farm bureau members among others. Kane County contracted with ERA to lead the process in revising the existing stormwater ordinance and technical manual. ERA was instrumental in developing the first comprehensive, countywide watershed management ordinance for Cook County.

The impetus for revising the existing stormwater ordinance was to incorporate ordinance language from the technical manual, address conflicting language within the ordinance, make the ordinance more user friendly, add requirements for water quality/best management practices, standardize detention triggers, promote redevelopment and provide watershed benefit options that encourage farmland preservation. Kane County also wanted the opportunity to discuss issues that administrators of the ordinance might have in applying it to projects and also to compare the requirements to those of neighboring counties.
The revised stormwater ordinance is the result over two years of work by these committees and will result in a more consistent interpretation of the requirements and will require not only stormwater control but also add requirements for water quality/best management practices.

The primary goals of the update were:

- Remove ordinance language from the technical manual and incorporate language, where appropriate, into the stormwater ordinance
- Address conflicting language within the ordinance that has caused difficulties in enforcement and consistency amongst certified communities
- Streamline permit process and organization of ordinance to make the document more user friendly
- Add requirements for water quality/best management practices (rain gardens, bioswales, etc.) to reflect changes at the State level and industry standards
- Reduce regulatory burden and confusion in both the floodplain and wetland sections where conflicts or slight variations from State and Federal requirements exist
- Work with the agriculture community to develop agricultural standards that provide watershed benefits and encourage farmland preservation and protection

The first draft of the revisions was released in November to certified communities and the TAC. The TAC met in January and February to review the comments that were received and made the necessary changes to the draft ordinance.

The major ordinance revisions include the following:

1. Changing the trigger for when stormwater detention is needed based on impervious area rather than a parcel's zoning classification or land use.

   Stormwater doesn’t know what the underlying zoning classification or land use is of the ground it lands on so using impervious area is a more technically sound approach to requiring detention and also provides more consistent implementation countywide.
2. Provide a credit for a net decrease in impervious area for proposed developments.

The current ordinance has no credit for a reduction in impervious area.


The current ordinance only requires BMP for mid/large developments that trigger the stormwater detention requirement where basins are constructed. BMP’s are going to be required for all developments between 5,000 sq. ft. to 24,999 sq. ft. and on some under 5,000 sq. ft. where known flooding or drainage issues exist.
4. **Guidance on downstream impacts and compliance with Illinois Drainage Law.**

The ordinance will require more investigation of downstream agricultural property owners to assure that they are not impacted by the release of storm water. This will bring more awareness on the effects of discharge onto neighboring properties, provide more clarification to the current ordinance language and encourage more collaborative approach to stormwater management. This primarily applies to developments adjacent to agricultural lands.

5. **Modification of substantial damage/improvement language for maintenance items.**

The revisions to the ordinance will allow for additional flexibility for property owners with buildings located within the floodplain to perform typical building maintenance (i.e., hot water heaters, roofs, etc.).

6. **Allowance of existing damaged structures to be rebuilt in the Floodway in accordance with Illinois Department of Natural Resources (IDNR) standards.**

The current ordinance restricts rebuilding in the floodway. Rebuilding within the floodplain will require that the first floor and lowest floor be elevated above the base flood elevation (BFE) which in the case of the Fox River would be three feet.
7. Clarification of buffer definition, addition of requirements for reestablishing buffers, increase in buffer width requirements with allowance for increased flexibility in buffer averaging.

The revisions will increase the current standard for buffer width and will be more consistent with other surrounding counties and US. Army Corps. Conversely, the buffer averaging standard will be reduced allowing more flexibility to establish smaller buffers in some areas and establish a larger buffer in other areas to offset the overall increased width.
OPERATIONAL ANALYSIS

Stormwater runoff from developed sites has long been required to be collected via inlets and catch basins and conveyed to stormwater detention basins where its release is restricted to reduce downstream flooding. The quality of the discharged water has not been addressed in the past and the new ordinance takes steps to not only implement control over the stormwater runoff but to also include water quality/BMP for those who create additional impervious surfaces within a watershed. The biggest impact for the majority of the development applications that the City receives will be the incorporation of these BMP’s into their permit requirements. As a condition of the ordinance revisions, the City has provided a list of “exempt projects” that are already in preliminary or conceptual stage that have based their development on the past ordinance requirements (Attachment B). These applicants will be given the opportunity to use the past ordinance requirements but some cases might choose to use the updated requirements since it provides credit for a net decrease in impervious area for proposed developments.

Another impact to future development is the 50 and 100 year rainfall events occurring on what seems like an annual basis. The Illinois State Water Survey recently did a presentation on the increased rainfalls and updated tables/data will need to be used for any projects with the IDNR Office of Water Resources starting in January of 2020. Kane County in all likelihood will follow their lead and require the use of the updated data and certified communities will be required to use the updated data. In summary, the 100 year 24 hour storm event will go from 7.58 inches to 8.57 inches, a thirteen percent increase, which essentially means that future developments will be required to detain more stormwater, thus utilizing more of their property for detention.

Staff anticipates presenting amendments to the updated ordinance in the near future after staff has a chance to see how it is impacts developments and to amend fee requirements to be more in line with neighboring communities.

INTERESTED PERSONS CONTACTED

None.

FINANCIAL ANALYSIS

There are no direct immediate costs associated with acceptance of the amendments however developments will incur additional cost to implement some of the new requirements into their projects.

BUDGET IMPACT

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LEGAL IMPACT

None.

ALTERNATIVES

The city council may choose to not adopt the new amendments, but will then not be permitted to be a certified community which would result in all stormwater submittals to be reviewed and approved by the Kane County Department of Environmental Management.

NEXT STEPS

1. Approve a resolution adopting the amendments to the Kane County Stormwater Management Ordinance.
2. Update the City’s website.

Originators: Ronald Rudd, City Engineer
Final Review: Debra Nawrocki, Chief Financial Officer
William A. Cogley, Corporation Counsel/Chief Development Officer
Richard G. Kozal, City Manager

ATTACHMENTS

A. KCSWO Stormwater Management Ordinance June 1, 2019
B. Certified Community Compiled Exemption List From June 1, 2019 Revisions to Kane County Stormwater Ordinance
STORMWATER MANAGEMENT ORDINANCE

KANE COUNTY
Effective Date: January 1, 2002
Revision Date: June 1, 2019
Table of Contents

ARTICLE I—AUTHORITY, PURPOSE AND GENERAL PROVISIONS ......................... 6
  9-1  STATUTORY AUTHORITY ........................................................................ 6
  9-2  KANE COUNTY COMPREHENSIVE COUNTYWIDE STORMWATER
       MANAGEMENT PLAN AND EFFECTIVE DATE ORDINANCE .................. 6
  9-3  PURPOSES OF THIS CHAPTER ............................................................ 7
  9-4  SCOPE OF REGULATION .................................................................... 9
  9-5  EXEMPTIONS ...................................................................................... 9
  9-6  AMENDMENTS ................................................................................... 9
  9-7  EFFECTIVE DATE ................................................................................ 10
  9-8 - 9-27 RESERVED ............................................................................... 10

ARTICLE II—REQUIRED SUBMITTALS FOR STORMWATER MANAGEMENT
       PERMITS .............................................................................................. 11
  9-28  GENERAL REQUIREMENTS ................................................................ 11
  9-29  DURATION AND REVISION OF PERMITS ...................................... 12
  9-30  REQUIRED SUBMITTALS ................................................................. 13
  9-31  APPLICATION AND PROJECT OVERVIEW ..................................... 15
  9-32  PLAN SET SUBMITTAL ..................................................................... 16
  9-33  PERFORMANCE SECURITY ............................................................... 18
  9-34  MAINTENANCE SCHEDULE AND FUNDING ................................... 19
  9-35  RECORD DRAWINGS ....................................................................... 19
  9-36  TERMS OF PERMIT/DENIAL—APPEAL ......................................... 19
  9-37 - 9-57 RESERVED ............................................................................... 20

ARTICLE III—REQUIREMENTS FOR EROSION AND SEDIMENTATION CONTROL 21
  9-58  APPLICABILITY ............................................................................... 21
  9-59  EROSION AND SEDIMENT CONTROL .......................................... 21
  9-60 - 9-80 RESERVED ............................................................................... 26

ARTICLE IV—REQUIREMENTS FOR STORMWATER MANAGEMENT ............ 27
  9-81  GENERAL INFORMATION ................................................................. 27
  9-82  GENERAL STORMWATER REQUIREMENTS .................................... 29
  9-83  SITE RUNOFF REQUIREMENTS ....................................................... 30
  9-84  DETENTION STORAGE FACILITY REQUIREMENTS ...................... 36
  9-85  FEE-IN-LIEU OF STORMWATER MANAGEMENT MEASURES .......... 43
  9-86  STORMWATER SUBMITTAL ............................................................. 43
<table>
<thead>
<tr>
<th>Section</th>
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<tr>
<td>9-87 - 9-106</td>
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<td>ARTICLE V</td>
<td>REQUIREMENTS FOR STORMWATER MITIGATION / BEST MANAGEMENT PRACTICES (BMPS) AND WATERSHED BENEFIT MEASURES</td>
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<td>REQUIREMENTS FOR STORMWATER MITIGATION / BMPS</td>
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<td>REQUIREMENTS FOR WATERSHED BENEFIT MEASURES</td>
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<td>PERFORMANCE STANDARDS &amp; MONITORING FOR STORMWATER MITIGATION/BMPS AND WATERSHED BENEFIT MEASURES</td>
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<td>STORMWATER MITIGATION/BEST MANAGEMENT PRACTICE (BMP) AND WATERSHED BENEFIT MEASURE SUBMITTAL</td>
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</tr>
<tr>
<td>9-111 - 9-131</td>
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<td>55</td>
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<td>ARTICLE VI</td>
<td>REQUIREMENTS FOR FLOOD HAZARD AREAS AND BUILDING PROTECTION STANDARDS</td>
<td>56</td>
</tr>
<tr>
<td>9-132</td>
<td>RESERVED</td>
<td>56</td>
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<tr>
<td>9-133</td>
<td>DISCLAIMER</td>
<td>56</td>
</tr>
<tr>
<td>9-134</td>
<td>STATEWIDE AND REGIONAL PERMITS</td>
<td>56</td>
</tr>
<tr>
<td>9-135</td>
<td>FLOODPLAIN MANAGEMENT</td>
<td>56</td>
</tr>
<tr>
<td>9-136</td>
<td>FLOODPLAIN, REGULATORY FLOODPLAIN, BFE AND REGULATORY FLOODWAY LOCATIONS AND STANDARDS</td>
<td>56</td>
</tr>
<tr>
<td>9-137</td>
<td>GENERAL PERFORMANCE STANDARDS</td>
<td>59</td>
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<tr>
<td>9-138</td>
<td>PUBLIC HEALTH PROTECTION STANDARDS</td>
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</tr>
<tr>
<td>9-139</td>
<td>BUILDING PROTECTION STANDARDS</td>
<td>62</td>
</tr>
<tr>
<td>9-140</td>
<td>NON-CONFORMING STRUCTURES</td>
<td>67</td>
</tr>
<tr>
<td>9-141</td>
<td>COMPENSATORY STORAGE VOLUME STANDARDS</td>
<td>68</td>
</tr>
<tr>
<td>9-142</td>
<td>FLOODWAY STANDARDS</td>
<td>71</td>
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<tr>
<td>9-143</td>
<td>NON-DESIGNATED FLOODWAY</td>
<td>75</td>
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<tr>
<td>9-144</td>
<td>BRIDGE AND CULVERT STANDARDS</td>
<td>75</td>
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<td>9-145</td>
<td>FLOODPLAIN SUBMITTAL</td>
<td>76</td>
</tr>
<tr>
<td>9-146 - 9-167</td>
<td>RESERVED</td>
<td>78</td>
</tr>
<tr>
<td>ARTICLE VII</td>
<td>REQUIREMENTS FOR WETLANDS, LINEAR WATERCOURSES, NON-LINEAR WATERBODIES, BUFFERS AND MITIGATION</td>
<td>79</td>
</tr>
<tr>
<td>9-168</td>
<td>GENERAL</td>
<td>79</td>
</tr>
<tr>
<td>9-169</td>
<td>REQUIREMENTS FOR WETLAND DELINEATION</td>
<td>79</td>
</tr>
<tr>
<td>9-170</td>
<td>MITIGATION REQUIRED</td>
<td>81</td>
</tr>
<tr>
<td>9-171</td>
<td>MITIGATION TO BE LOCAL</td>
<td>82</td>
</tr>
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<td>9-172</td>
<td>MITIGATION REQUIREMENTS</td>
<td>82</td>
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<td>9-173</td>
<td>WETLAND MITIGATION AND STREAM RESTORATION PLAN</td>
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<td>9-174</td>
<td>MITIGATION PERFORMANCE STANDARDS</td>
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<td>MITIGATION MONITORING</td>
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<td>NON-PERFORMING MITIGATION REQUIREMENTS</td>
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<td>BUFFER REQUIREMENTS</td>
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<td>9-178</td>
<td>DENIAL OF PERMIT—APPEAL</td>
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<td>FEE IN LIEU OF WETLAND MITIGATION</td>
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<td>WETLAND SUBMITTAL</td>
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<td>- 9-201 RESERVED</td>
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<td>GENERAL SECURITY REQUIREMENTS</td>
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<td>DEVELOPMENT SECURITY</td>
<td></td>
</tr>
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<td>9-204</td>
<td>EROSION AND SEDIMENTATION CONTROL SECURITY</td>
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<td>STORMWATER MITIGATION / BMP AND WATERSHED BENEFIT MEASURE PERFORMANCE SECURITY</td>
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<td>9-206</td>
<td>SPECIAL MANAGEMENT AREA PERFORMANCE SECURITY</td>
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<td>LETTERS OF CREDIT</td>
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<td>- 9-228 RESERVED</td>
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<td>LONG-TERM MAINTENANCE</td>
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<td>TRANSFER TO HOMEOWNER’S OR SIMILAR ASSOCIATION</td>
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<td>CONVEYANCE TO ONE OR MORE PERSONS</td>
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<td>INCORPORATION OF MAINTENANCE OBLIGATIONS IN STORMWATER MANAGEMENT PERMIT</td>
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<td>FUNDING OF LONG-TERM-MAINTENANCE OF STORMWATER FACILITIES</td>
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<td>- 9-255 RESERVED</td>
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<td>PURPOSE</td>
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</tr>
<tr>
<td>9-257</td>
<td>APPLICATION FOR VARIANCE</td>
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<td>APPLICATION FEE</td>
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<td>9-259</td>
<td>PUBLIC HEARING</td>
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<td>GRANTING OF VARIANCES</td>
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<tr>
<td>9-261</td>
<td>RECOMMENDATIONS</td>
<td></td>
</tr>
</tbody>
</table>
9-262 DEcision .................................................................................................................. 115
9-263 CONDITIONS ............................................................................................................. 115
9-264 - 9-284 RESERVED ............................................................................................... 116
ARTICLE XI—ENFORCEMENT AND PENALTIES .............................................................. 117
  9-285 INSPECTION AND MAINTENANCE AUTHORITY .................................................... 117
  9-286 REQUIRED INSPECTIONS .................................................................................... 117
  9-287 OFFENSES ........................................................................................................... 117
  9-288 OFFENSES - PENALTIES AND REMEDIES ....................................................... 117
  9-289 - 9-309 RESERVED ............................................................................................ 118
ARTICLE XII—ADMINISTRATION ...................................................................................... 119
  9-310 RESPONSIBILITY FOR ADMINISTRATION ......................................................... 119
  9-311 DUTIES OF DIRECTOR ....................................................................................... 119
  9-312 DUTIES OF ADMINISTRATOR ........................................................................... 120
  9-313 REPRESENTATIVE CAPACITY ........................................................................... 121
  9-314 OVERSIGHT COMMITTEE ............................................................................... 121
  9-315 DECISION—MAKING AUTHORITY .................................................................... 121
  9-316 SERVICE ............................................................................................................. 122
  9-317 PUBLICATION .................................................................................................... 122
  9-318 PROCEDURES AND USE OF FUNDS FOR FEE-IN-LIEU OF
  STORMWATER MANAGEMENT MEASURES ............................................................. 122
  9-319 PROCEDURES AND USE OF FUNDS FOR FEE-IN-LIEU OF WETLAND
  MITIGATION ............................................................................................................... 122
  9-320 - 9-341 RESERVED ............................................................................................ 123
ARTICLE XIII—CERTIFIED COMMUNITY ENFORCEMENT ............................................. 124
  9-342 ENFORCEMENT AUTHORITY ........................................................................... 124
  9-343 PETITION FOR CERTIFICATION AND WAIVER OF ENFORCEMENT ...... 124
  9-344 FILING AND CONTENTS OF PETITION FOR CERTIFICATION ................. 124
  9-345 COMMITTEE CONSIDERATION OF PETITION FOR CERTIFICATION ..... 125
  9-346 STANDARDS FOR CERTIFICATION .................................................................. 125
  9-347 CERTIFIED COMMUNITY RECORDS ................................................................ 125
  9-348 COMMITTEE REVIEW OF ENFORCEMENT BY CERTIFIED COMMUNITY
  .......................................................................................................................... 126
  9-349 INVESTIGATIONS AND COMPLIANCE .............................................................. 126
  9-350 HEARING ON COMPLAINT ................................................................................. 126
  9-351 COMMITTEE DECISION ...................................................................................... 126
<table>
<thead>
<tr>
<th>Article</th>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XIV</td>
<td>9-373</td>
<td>General</td>
</tr>
<tr>
<td></td>
<td>9-374</td>
<td>Requirements for Qualified Engineers</td>
</tr>
<tr>
<td></td>
<td>9-375</td>
<td>Requirements for Qualified Wetland Specialist</td>
</tr>
<tr>
<td></td>
<td>9-376</td>
<td>Review of Qualifications</td>
</tr>
<tr>
<td></td>
<td>9-377</td>
<td>Investigation and Compliance</td>
</tr>
<tr>
<td></td>
<td>9-378</td>
<td>Hearing on Complaint</td>
</tr>
<tr>
<td></td>
<td>9-379</td>
<td>Committee Decision</td>
</tr>
<tr>
<td></td>
<td>9-380</td>
<td>Appeals</td>
</tr>
<tr>
<td></td>
<td>9-381</td>
<td>Reserved</td>
</tr>
<tr>
<td>XV</td>
<td>9-402</td>
<td>Committee’s Determination of Exemption</td>
</tr>
<tr>
<td></td>
<td>9-403</td>
<td>Community’s List of Proposed Exempt Developments</td>
</tr>
<tr>
<td></td>
<td>9-404</td>
<td>Interpretation</td>
</tr>
<tr>
<td></td>
<td>9-405</td>
<td>Warning and Disclaimer of Liability</td>
</tr>
<tr>
<td></td>
<td>9-406</td>
<td>Choice of Planning Jurisdiction</td>
</tr>
<tr>
<td></td>
<td>9-407</td>
<td>Severability</td>
</tr>
<tr>
<td></td>
<td>9-408</td>
<td>Repealer</td>
</tr>
<tr>
<td></td>
<td>9-409</td>
<td>Reserved</td>
</tr>
<tr>
<td>XVI</td>
<td>9-430</td>
<td>Reference to Watershed Plans</td>
</tr>
<tr>
<td></td>
<td>9-431</td>
<td>Reserved</td>
</tr>
<tr>
<td></td>
<td>9-452</td>
<td>Definitions</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>Watershed Boundaries</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>Qualified Engineer Statement</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>Qualified Wetland Specialist Statement</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>Sample Special Service Area Ordinances</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td>Definitions</td>
</tr>
</tbody>
</table>
CHAPTER 9 STORMWATER MANAGEMENT

ARTICLE I—AUTHORITY, PURPOSE AND GENERAL PROVISIONS

9-1 STATUTORY AUTHORITY

A. This Chapter shall be known, and may be cited, as the KANE COUNTY STORMWATER MANAGEMENT ORDINANCE.

B. The Kane County Board adopts this Chapter pursuant to its authority to regulate stormwater management and govern the location, width, course, and release rate of all stormwater runoff channels, streams, and basins in the County, in accordance with the Kane County Comprehensive Countywide Stormwater Management Plan (Plan). The statutory authority for this Chapter is contained in 55 Illinois Compiled Statutes 5/5-1041, 5/5-1042, 5/5-1049, 5/5-1062, 5/5-1063, 5/5-1104, 5/5-12003 and 5/5-15001 et seq., and 415 Illinois Compiled Statutes 5/43, and other applicable authority, all as amended from time to time.

C. As applicable, the municipalities within the County adopt and enforce this Chapter pursuant to 55 Illinois Compiled Statutes 5/5-1062; 65 Illinois Compiled Statutes 5/1-2-1, 5/11-12-12, 5/11-30-2, 5/11-30-8, and 5/11-31-2; and 615 Illinois Compiled Statutes 5/5 et seq., including 5/18g.

9-2 KANE COUNTY COMPREHENSIVE COUNTYWIDE STORMWATER MANAGEMENT PLAN AND EFFECTIVE DATE ORDINANCE

A. The Plan was recommended by the Kane County Stormwater Management Committee (Committee) and adopted by the County Board, after review by the appropriate agencies and a public hearing, by ordinance 98-251 on October 13, 1998. The Plan is available for public inspection in the office of the Kane County Clerk;

B. The Kane County Stormwater Management Ordinance was originally adopted by the County Board by the passage of Ordinance No. 00-312 on November 14, 2000;

C. The Kane County Stormwater Management Technical Manual was originally adopted by the County Board by the passage of Ordinance No. 01-149 on May 8, 2001; and

D. The Kane County Stormwater Management Ordinance and Technical Manual were revised, and those revisions were adopted by the County Board by the
passage of Ordinance No. 01-338 on October 9, 2001. Ordinance No. 01-338 became effective on January 1, 2002.

9-3 PURPOSES OF THIS CHAPTER

A. The principal purpose of this Chapter is to promote effective, equitable, acceptable and legal Stormwater Management Measures by establishing reasonable rules and regulations for Development. Other purposes of this Chapter include:

1. Managing and mitigating the effects of urbanization on stormwater drainage throughout Kane County through planning, appropriate engineering practices and proper maintenance;

2. Protecting the public health and safety and reducing the potential for loss of human life and property from Flood damage;

3. Protecting the public from the degradation of water quality on a Watershed basis;

4. Preserving and enhancing the natural hydrologic and hydraulic functions and natural characteristics of watercourses and Floodplains to protect water quality, aquatic habitats, reduce Flood damage, reduce soil Erosion, provide recreational and aesthetic benefits and enhance community and economic development;

5. Controlling Sedimentation and Erosion in and from stormwater facilities, Developments, agricultural fields, and construction sites and reducing and repairing stream bank Erosion;

6. Requiring planning for Development to provide for water resource management, taking into account natural features such as vegetation, wildlife, waterways, Wetlands and topography in order to reduce the probability that new Development will create unstable conditions susceptible to Erosion or degrade the quality of ground and surface waters;

7. Protecting environmentally sensitive areas from deterioration or destruction by private or public actions;

8. Protecting and enhancing the quantity and quality of potable Groundwater and potable surface water supplies;

9. Requiring appropriate and adequate provision for Site Runoff control, especially when the land is developed with a large amount of impervious surface;

10. Requiring the design and evaluation of each Site's stormwater management
plan to be consistent with Watershed capacities;

11. Encouraging the use of stormwater storage and infiltration of stormwater in preference to stormwater conveyance;

12. Lessening the taxpayers’ burden for Flood related disasters, repairs to Flood damaged public facilities and utilities, and Flood rescue and relief operations;

13. Meeting the IDNR-OWR Floodway permitting requirements delineated in 615 Illinois Compiled Statutes 5/18g ("an act in relation to the regulation of the rivers, lakes, and streams of the state of Illinois" (1992)), as amended from time to time;

14. Complying with the rules and regulations of the National Flood Insurance Program thereby making federally subsidized flood insurance available to Persons throughout the County;

15. Minimizing conflicts and incompatibilities between agricultural and urban drainage systems and maintaining agriculture as a viable and productive land use;

16. Encouraging cooperation and consistency in stormwater management activities within and between units of government having Floodplain and stormwater management jurisdiction;

17. Restricting Development in the Floodplain to facilities that will not adversely affect the potential for Flood damage;

18. Protecting and improving surface water quality and promoting beneficial uses of Ponds, Lakes, Wetlands, rivers and streams by reducing point source and nonpoint source discharges of pollutants;

19. Requiring regular, planned maintenance of stormwater management facilities;

20. Requiring control of stormwater quantity and quality at the most site-specific or local level and preventing unauthorized or unmitigated discharge of flow off-site;

21. Protecting the quantity and quality of Wetlands;

22. Allowing the use of simple technologies whenever appropriate and realistic, but requiring the use of more sophisticated techniques when necessary to ensure the adequacy of stormwater controls;

23. Providing a procedure by which communities throughout the County may petition the Committee for authority to implement and enforce the provisions of
this Chapter; and

24. Requiring strict compliance with and enforcement of this Chapter.

B. The purposes of this Chapter are consistent with and supersede the Plan.

9-4 SCOPE OF REGULATION

This Chapter applies to all Development within the County and to all Development within the corporate boundaries of any Certified Community, including that under the control of any governmental entity, agency, or authority.

A. Any Person undertaking a Development shall obtain a Stormwater Management Permit from the Permitting Authority within whose boundaries the Development is located;

B. Any Person undertaking a Development having a Wetland Impact shall obtain a permit from the Department (or Administrator in a Community certified to administer Article VII of this Chapter);

C. Any Certified Community undertaking Development in the regulatory Floodway, or regulatory Floodplain where no regulatory Floodway has been designated, shall obtain a permit from IDNR-OWR if required prior to issuance of a Stormwater Management Permit; and

D. All units of local government shall obtain Stormwater Management Permits from the Permitting Authority within whose boundaries the Development is located.

9-5 EXEMPTIONS

A. This Chapter does not apply to:

1. Development which has been substantially completed before January 1, 2002, with the exception of any Structure located in the Floodplain; and

2. Wetland Impacts occurring before the Effective Date.

B. Nonconforming Structures shall not be replaced or enlarged in any manner unless such replacement or enlargement conforms to the requirements of this Chapter.

9-6 AMENDMENTS

A. A minimum of forty-five (45) days prior to the Kane County Board’s consideration of an amendment(s) to the Kane County Stormwater Ordinance, the Director shall notify and provide a copy of said amendment(s) to every Certified Community (the Certified Community’s Administrator and city/village engineer), and the
proposed date said amendment(s) will be presented to the **Committee**.

A. All of the **Communities** in the **County**, **FEMA**, **IDNR-OWR**, **USACE**, **NRCS**, the Kane DuPage Soil and Water Conservation District, the United States Fish and Wildlife Service (**USFWS**), the Illinois Environmental Protection Agency (**IEPA**), and the United States Environmental Protection Agency (**USEPA**) shall be notified of any amendments to this Chapter.

B. **Administrators** or their designees shall be allowed to present oral or written comments to the **Committee** expressing their comments relating to said amendment(s).

C. No amendment may be passed without a public hearing first being held before the **Committee**.

D. Publication for a public hearing shall occur no less than 15 days and no more than 30 days per Section 9-317.

### 9-7 EFFECTIVE DATE

After its passage, approval and publication according to law, the Kane County Stormwater Management Ordinance took effect on January 1, 2002. The **Revision Date** of this Chapter is June 1, 2019. This Chapter replaces Ordinance 01-338 adopted on October 9, 2001 and all revisions thereafter.

### 9-8 - 9-27 RESERVED
ARTICLE II—REQUIRED SUBMITTALS FOR STORMWATER MANAGEMENT PERMITS

9-28 GENERAL REQUIREMENTS

A. A Stormwater Management Permit is required if:

1. The Development is located in the regulatory Floodplain;

2. A Substantial Improvement in the Floodplain;

3. There is any Floodplain within the Site;

4. The Development impacts a Wetland; or

5. The Development has a Detention Storage Facility previously permitted under this Chapter and the Net New Impervious Area is less than five thousand (5,000) square feet and storage for those improvements is not included in that Detention Storage Facility.

6. The Development disturbs more than five thousand (5,000) square feet of ground or two hundred fifty (250) cubic yards of material (earth, soil, clay, gravel, grindings, etc.), unless the Development consists solely of:

   a. The installation, renovation or replacement of a septic system, potable water service line or other utility serving an existing Structure located outside of a Special Management Area;

   b. The installation of a watermain, sanitary sewer, overhead and underground utilities located outside of Special Management Areas;

   c. The maintenance, repair or at grade replacement of existing lawn areas not otherwise requiring a Stormwater Management Permit under this Chapter; or

   d. The maintenance of an existing Stormwater Management Measure, Major and Minor Stormwater Systems, not requiring other state or federal permits or approvals.

B. Certified Communities may develop general permits for certain activities with the approval of the Director.

C. All appropriate stormwater management related approvals and permits, including, without limitation, an IDNR-OWR Floodway / Floodplain construction permit, a USACE 404 permit, and an IDNR-OWR Dam safety permit shall be obtained from all federal, state and regional authorities prior to the issuance of a Stormwater
Management Permit. An IEPA NPDES ILR10 permit, if required, shall be obtained prior to the start of construction.

D. All permit fees shall be paid at the time of application, or according to a schedule determined by the Administrator. Permit fees shall be established by separate ordinance. Fees may be established based upon all costs incurred by the Permitting Authority in the administration of the permit, including, without limitation, the costs of review and inspections both during and after construction within the period for the establishment of permanent cover.

E. The design of stormwater facilities, calculations for the determination of the Regulatory Floodplain and calculations of the impacts of Development shall meet the standards of this Chapter and shall be prepared, signed, and sealed by a Professional Engineer (excluding Category I BMPs). The signature and seal of such Professional Engineer shall stand as his or her opinion that the submittals which accompany the permit application meet the requirements of this Chapter.

1. For projects which include earth embankments which are subjected to a differential water pressure the submittal shall include evidence that the embankment design and construction specifications are adequate for the design conditions. This review shall include consideration of the existing foundation soils for the embankment, the materials from which the embankment is to be constructed, compaction requirements for the embankment and protection of the embankment from failure due to overtopping. Specifications for the construction and materials for all such embankments shall be included. When directed by the Administrator, or when the impounded water pressure differential exceeds three feet (3') or when appropriate considering the volume impounded and water surface elevation differential to which the embankment is subjected, these calculations may be required to be reviewed, signed and sealed by a qualified geotechnical or Registered Structural Engineer.

2. For structures (not including earth embankments) that are subject to a differential water pressure greater than three feet (3') the submittal shall, at a minimum, be reviewed by a Professional Engineer. Such reviews shall include stability of the structure under design conditions considering the protection of downstream life and property in the event of a failure. When directed by the Administrator the calculations submitted for such structures shall be reviewed, signed and sealed by a Registered Structural Engineer.

9-29 DURATION AND REVISION OF PERMITS

A. Permits expire on December 31st of the third year following the date of their issuance.

B. For new Buildings or Substantial Improvements to a Building in the Floodplain, the Start of Construction of the Structure must begin with 180 days from the
date of permit issuance. If Start of Construction of the Structure has not begun within 180 days of permit issuance, the Applicant shall submit to the Administrator proof that the BFE has not changed and that the project is in compliance with any revisions to this Chapter or resubmit a revised application that reflects changes to the BFE or any revisions to this Chapter. If the Administrator determines that the revised plans are in compliance with the then current requirements of this Chapter, an amended permit may be issued.

C. If the permitted activity has begun but is not complete by the expiration date of the permit, the permittee may submit a written request for an extension to the Administrator. Upon receipt of such request, the Administrator may extend the expiration date for up to three (3) years for permitted activities outside Special Management Areas. Expiration dates for permitted activities within Special Management Areas may also be extended for up to three (3) years provided the activity is in compliance with the then current requirements of this Chapter. A permittee may apply for any number of extensions.

D. If the Applicant revises the approved plans after issuance of the permit, the permittee shall submit the revised plans to the Administrator, along with a written request for approval. If the Administrator determines that the revised plans are in compliance with the then current requirements of this Chapter, an amended permit may be issued.

9-30 REQUIRED SUBMITTALS

A. Refer to Table 9-30 of this Section for the submittals required to accompany the permit application based upon the type of Development. The Administrator may, at his or her discretion, modify the submittal requirements on a case by case basis considering the size, complexity and likelihood that a Development will affect the discharge of stormwater Runoff. Such modifications shall be requested and approved in writing. The Administrator’s response shall note the relevant findings and be specific as to what submittal requirements are changed. The Administrator may not modify submittal requirements for any aspect of the Development requiring state or federal permits or approvals, nor for any application in which any variance is requested.
### TABLE 9-30  
PERMIT SUBMITTAL REQUIREMENTS

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9-31 APPLICATION AND PROJECT OVERVIEW

A. The Applicant shall at a minimum, provide the following information on forms or in a format approved by the Administrator:

1. The names and legal addresses of all owners of the Site;

2. The names and legal addresses of the Developer or Developers responsible for completing the Development according to the plans submitted, the terms and conditions of the permit and the requirements of this Chapter;

3. The common address, legal description and parcel identification number (PIN) of all Parcels which comprise the Site;

4. The name of the project, area of the Site in acres, and type of Development;

5. A general narrative description of the Development, existing and proposed conditions and project planning principles considered, including Stormwater Mitigation/ Best Management Practices (BMPs) used;

6. A statement of opinion by a Professional Engineer as to the presence of a Floodplain or Floodway on the Site;

7. A statement of opinion by a qualified wetland specialist as to the presence of Wetlands on or near the Site. This requirement may be waived if the Professional Engineer determines in writing that it is obvious from the nature of the Development or Redevelopment that Wetlands cannot be located on or near the Site;

8. Copies of all other permits or permit applications as required;

9. A survey of the Subsurface Drainage System;

10. An engineer’s estimate of probable construction cost of the Stormwater Management Measures, Major and Minor Stormwater Systems, Subsurface Drainage Systems, Special Management Area and the installation and maintenance of Erosion and Sedimentation Control Practices; and

11. An engineer’s estimate of probable yearly maintenance costs for all Stormwater Management Measures, Major and Minor Stormwater Systems, Stormwater Facilities, and Special Management Areas. The Owner shall provide certification that Association Covenants, Deeds and Restrictions will allow for sufficient funds to be collected based on engineer’s estimate with built in inflation not subject to lot Owner approval. If these areas are to be conveyed to one or more Persons, not a homeowners association, the Owner shall
provide certification that this Person(s) has the means to perform the yearly maintenance based on engineer’s estimate with built in inflation.

B. The application shall be signed by all owners and Developers identified in Subsections 9-31.A.1 and 9.31.A.2 and shall contain their attestation that they have read and understand the provisions of this Chapter and agree to bind themselves to the Permitting Authority to comply therewith. If at any time prior to completion and final inspection and approval of the Development the identity of the Persons required to be disclosed in Subsections 9-31.A.1 and 9-31.A.2 changes, an amended application containing the current information shall be filed and the permit shall be amended accordingly.

9-32 PLAN SET SUBMITTAL

All Applicants for a Stormwater Management Permit shall provide the following basic plan exhibits: site topographical map, general plan view drawing, erosion and sedimentation control plan and a vicinity topographical map. A construction plan set that includes this information or individual plan sheets may be used to meet this requirement. Each exhibit may be on more than one drawing for clarity. The specific information to be included on each exhibit shall be as noted below:

A. Site topographical map:

1. Map scales as one inch equals one hundred feet (1" = 100’) (or less) and accurate to plus or minus 0.5 foot;

2. Existing and proposed contours on-site (one foot (1’) maximum contour interval) and within one hundred feet (100’) of the Site;

3. Existing and proposed drainage patterns and Watershed boundaries;

4. Delineation of pre-Development Regulatory Floodplain and Floodway limits;

5. Delineation of post-Development Regulatory Floodplain and Floodway limits;

6. Location of cross sections and any other hydrologic or hydraulic computer modeled features;

7. The location of all on-site drain tiles in accordance with Subsection 9-83.B.2.a;

8. Boundaries of all Linear Watercourses, Nonlinear Waterbodies, Wetlands, and Buffers, with normal water elevations, if applicable, noted;

9. The existing and proposed Impervious Area and Net New Impervious Area;

10. Location of all existing Buildings and those to remain on the Site noted;
11. Nearest **Base Flood Elevations**;

12. North American Vertical Datum of 1988 (**NAVD 88**) and reference bench marks used; and

13. All contours used in the calculation of **Depressional Storage** highlighted.

**B. General plan view drawing:**

1. Drawing at the same scale as the site topographical map;

2. Existing **Major** and **Minor Stormwater Systems**;

3. Proposed **Major** and **Minor Stormwater Systems**;

4. Design details for **Stormwater Management Measures** (i.e., stormwater structure and outlet work detail drawings, etc.). If **BMPs** and **Watershed Benefit Measures** are proposed, additional drawings shall be provided in accordance with Section 9-110;

5. Scheduled maintenance program for **Stormwater Management Measures, Major and Minor Stormwater Systems**, and **Subsurface Drainage Systems**;

6. Planned maintenance tasks and schedule;

7. Identification of **Persons** responsible for maintenance;

8. Permanent public access maintenance easements granted or dedicated to, and accepted by, a government entity;

9. Proposed **Regulatory Floodplain** and **Floodway** location (with the **Base Flood Elevations** and **Flood Protection Elevations** noted);

10. Existing **Linear Watercourses,** **Nonlinear Waterbodies,** **Wetlands,** and **Buffers**. If impacts are proposed to these areas, additional drawings shall be provided in accordance with Section 9-180;

11. All plan areas at elevations below the high water elevation of **Detention Storage Facilities** highlighted; and

12. Where the two-tenths percent (0.2%) and the one percent (1%) regulatory flood profile are available, the plan limit of the **Floodplain**.

**C. Erosion and sedimentation control plan:**
1. Drawings at the same scale as the Site topographical map;

2. Existing and proposed roadways, Structures, parking lots, driveways, sidewalks and other impervious surfaces;

3. Existing soil types, vegetation and land cover conditions;

4. Limits and acreage of disturbance;

5. Location of all Special Management Areas;

6. Location of all Erosion and Sedimentation Control Practices;

7. Details for all proposed Erosion and Sedimentation Control Practices;

8. List of maintenance tasks for all Erosion and Sedimentation Control Practices;

9. Schedule for implementation and maintenance of Erosion and Sedimentation Control Practices and temporary and permanent stabilization; and

10. The name, address and phone number at which the Person responsible for Erosion and Sedimentation Control Practices may be reached on a twenty-four (24) hour basis.

11. All items identified in Subsection 9-59.H.

D. Vicinity topographical map:

1. Vicinity topographical map identifying the upstream Drainage Area to the Development and downstream receiving Channel (a two foot (2') contour map is preferred at a scale readable by the reviewer but a USGS quadrangle map is acceptable);

2. Watershed boundaries for the Drainage Area through or from the Development;

3. Soil types related to hydrologic soils group, vegetation and land cover affecting Runoff upstream of the Site for any upstream Drainage Area;

4. Location of Site within the major Watershed(s); and

5. Overland Flow Path from the downstream end of the Development to the receiving Channel.

9-33 PERFORMANCE SECURITY
Performance security in accordance with Article VIII of this Chapter shall be required prior to permit issuance.

9-34 MAINTENANCE SCHEDULE AND FUNDING

A completed maintenance schedule for the Stormwater Management Measures, Major and Minor Stormwater Systems, Subsurface Drainage Systems and Special Management Areas in accordance with Article IX of this Chapter shall be submitted along with identification of the Persons responsible for maintenance and funding and backup funding sources for maintenance in accordance with Section 9-233 and 9-234.

9-35 RECORD DRAWINGS

The permittee is required to submit Record Drawings of all permitted Development improvements, including but not limited to: Stormwater Management Measures, Major and Minor Stormwater Systems, Subsurface Drainage Systems, Wetland Mitigation Facilities and stream restoration. The Record Drawings shall be signed and sealed by a Professional Engineer who shall state that the project as constructed is substantially in conformance with the Development as permitted. The Record Drawing shall be referenced to the North American Vertical Datum of 1988 (NAVD88).

9-36 TERMS OF PERMIT/DENIAL—APPEAL

A. Within ten (10) days after being served with the permit or notice that the permit has been denied, the Applicant may appeal the terms or denial of the permit to the oversight committee. The appeal shall be made by filing a notice thereof with the oversight committee specifying the specific provisions appealed from and the grounds therefor. The oversight committee shall conduct a hearing on the appeal not more than sixty (60) days after the filing of the notice of appeal. The hearing shall be de novo. Notice of the hearing shall be served upon the Applicant, the Administrator, the Director and upon all communities within the same Watershed as the Development to which the appeal relates. The hearing may be continued from time to time. The oversight committee may adopt rules for the taking of evidence and conduct of such hearings.

B. Within thirty (30) days of the conclusion of the hearing, the oversight committee shall decide whether to affirm or reverse, in whole or in part, the terms or denial of the permit. The decision of the oversight committee shall be in writing and shall include the specific findings and conclusions supporting its determination. A copy of the decision and order shall be served upon all parties entitled to notice in accordance with Section 9-316.

C. Within ten (10) days of being served with the order of the oversight committee, the
Applicant may (and if the denial of the permit or any of the terms thereof have been reversed, in whole or in part, by the oversight committee, the Administrator shall), further appeal to the decision-making authority. The decision-making authority shall decide the appeal upon the record before the oversight committee. The decision-making authority shall decide the appeal within forty-five (45) days of its receipt thereof. The decision-making authority shall affirm the order of the oversight committee if it is supported by substantial evidence in the record. A copy of the decision and order of the decision-making authority shall be served upon all parties entitled to notice in accordance with Section 9-316.

D. Within ten (10) days of being served with the order of the decision making authority, the Applicant may (and if the effect of the decision making authority's decision is that the denial of the permit or any of the terms thereof have been reversed, in whole or in part, the Administrator shall), further appeal to the Committee. The Committee shall decide the appeal upon the record below. The Committee shall decide the appeal within forty-five (45) days of its receipt thereof. The Committee shall affirm the order of the decision-making authority if it is supported by substantial evidence in the record. A copy of the decision and order of the Committee shall be served upon all parties entitled to notice in accordance with Section 9-316.

E. From a final order of the Committee, the Applicant may appeal to the courts under the Illinois Administrative Review Law.

9-37 - 9-57 RESERVED
ARTICLE III—REQUIREMENTS FOR EROSION AND SEDIMENTATION CONTROL

9-58 APPLICABILITY

All Developments and Redevelopments shall meet the requirements of this Article.

9-59 EROSION AND SEDIMENTATION CONTROL

A. Erosion and Sedimentation control planning shall be part of the initial site planning process. In planning the Development of the Site, the Applicant shall consider the sensitivity of existing soils to Erosion and topographical features such as steep slopes, stream corridors and Special Management Areas which must be protected to reduce the amount of Erosion and Sedimentation which occurs. Where appropriate, existing vegetation shall be protected from disturbance during construction by fencing or other means. In the planning process the Applicant shall also address the following:

1. For projects that involve phased construction, existing land cover for those areas not under current Development shall be addressed. If existing land cover does not consist of an appropriate dense vegetation, then these phases shall be planted temporarily to reduce Erosion from idle land.

2. In planning the Erosion and Sedimentation control strategy, preference shall be given to reducing Erosion rather than controlling Sedimentation. In order to accomplish this, the construction sequence of the phases must be carefully considered so that the amount of land area exposed to erosive forces is the minimum consistent with completing construction.

B. An Applicant with land disturbing activities greater than one (1) acre shall provide, upon receipt, a copy of the Notice of Intent, Stormwater General Permit under Illinois Environmental Protection Agency General NPDES Permit No. ILR 10 (IEPA NPDES ILR10).

C. Standards and specifications for Erosion and Sedimentation Control Practices shall be taken from the current editions of one of the following sources, where the "Illinois Urban Manual" conflicts with the other sources, the Illinois Urban Manual shall prevail:

1. The "Illinois Urban Manual";

2. The Technical Manual;

3. IDOT Standard Specifications for Road and Bridge Projects; and
4. Other design criteria, standards or specifications may be approved by the Administrator.

D. The Runoff from disturbed areas shall not leave the Site without first passing through Sedimentation control practices or devices. This requirement shall apply to all phases of construction and shall include an ongoing process of implementation of practices and maintenance of those practices during both the construction season and any construction shutdown periods.

E. In the hydraulic and hydrologic design of major Erosion and Sedimentation Control Practices (those whose tributary Drainage Area is greater than three (3) acres) such as Sedimentation basins and traps, diversions and the like, the design frequency shall be commensurate with the risk of the design event being exceeded. The following design frequencies shall be regarded as minimum design frequencies for the construction period:

1. If disturbance is estimated to be permanently stabilized in less than six (6) months, the storm event having a fifty percent (50%) (2-year event) chance of being exceeded in any year shall be used for design purposes;

2. If disturbance is estimated to be permanently stabilized in greater than six (6) months but less than one year, the design frequency for major Sedimentation basins shall be a rainfall event with a twenty percent (20%) (5-year event) chance of being exceeded in any one year;

3. If disturbance is estimated to be permanently stabilized in greater than one year, major Sedimentation basins shall be designed for a rainfall event with a ten percent (10%) (10-year event) chance of being exceeded in any one year; and

4. All Sedimentation basins shall be designed for a minimum residence time of ten (10) hours for detained Runoff and draw down the storage within a twenty-four (24) to forty (40) hour period at discharge rates, which at a minimum do not increase over pre-construction conditions for the storm event having a fifty percent (50%) chance (2-year frequency, 24-hour storm event) of being exceeded in any given year. The basin should have a maintenance schedule that restores its original design dimensions once the sediment has accumulated to two thirds the design depth of the dead sediment storage per the Illinois Urban Manual.

F. The erosion and sedimentation control plan shall designate a series of practices which shall be implemented either at the direction of the Applicant or the Applicant’s representative on-site or at the direction of the Administrator should an inspection of the Site indicate a deficiency in soil and Erosion and Sedimentation Control Practices. At a minimum, these practices shall include: Sedimentation basins, sediment traps, diversion swales, silt fences, temporary seeding, and erosion control blankets.
G. The area of disturbance on-site at any one time shall be limited to forty (40) acres. An additional forty (40) acres (a maximum of eighty (80) acres of disturbance at any one time) may be disturbed if necessary to balance cut and fill on-site. The Administrator may approve a larger area of disturbance pursuant to a plan for phased construction or after Development has begun, if the Developer adequately demonstrates the need therefor and the Administrator finds that adequate temporary and permanent Erosion and Sedimentation Control Practices can be maintained and that the Developer is proposing an area of disturbance which at any one time is the smallest practical area consistent with the intent to limit disturbed area and minimize the risk of sediment being introduced into Site Runoff and being carried off-site. No additional area may be disturbed without the permission of the Administrator until the previously disturbed areas have been temporarily or permanently stabilized.

H. Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the Site, or temporarily ceased on any portion of the Site and will not resume for a period exceeding fourteen (14) calendar days. Stabilization of disturbed areas must be initiated within one (1) working day of permanent or temporary cessation of earth disturbing activities and shall be completed as soon as possible but not later than fourteen (14) days from the initiation of stabilization work in an area. Exceptions to these time frames are specified below:

1. Where the initiation of stabilization practices is precluded by snow cover, stabilization practices shall be initiated as soon as practicable.

2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

I. The condition of the construction site for winter shutdown shall be addressed early in the fall growing season so that slopes and other bare earth areas may be stabilized with temporary and/or permanent vegetative cover for proper Erosion and Sedimentation control. All open areas that are to remain idle throughout the winter shall receive temporary Erosion control practices including temporary seeding, mulching and/or erosion control blanket prior to the end of the fall growing season. The areas to be worked beyond the end of the growing season must incorporate soil stabilization practices that do not rely on vegetative cover such as erosion control blanket and heavy mulching.

J. Erosion and sedimentation control plans shall include the following:

1. Detailed construction phasing plan identifying Erosion and Sedimentation Control Practices to be in place for each phase shall be submitted;
2. **Erosion and Sedimentation Control Practices** to be installed initially prior to stripping existing vegetation or **Mass Grading** shall be indicated on the plans;

3. Permanent stabilization practices shall be indicated on a separate plan;

4. The expected 2-year and 10-year **Runoff** rates from all off-site areas draining into the **Site** shall be identified on the plan;

5. Methods for conveying flows through the **Site** during construction shall be indicated. These methods must include the temporary and permanent stabilization practices to be used to reduce velocity and **Erosion** from flow through the construction zone;

6. A maintenance schedule of each practice used shall be indicated on the plan;

7. A note stating that at a minimum, all **Erosion and Sedimentation Control Practices** on-site shall be inspected in accordance with the current IEPA NPDES ILR10 permit, which is weekly or after a one-half inch (1/2") or greater rainfall event, as of the **Revision Date** of this Chapter. Any required repairs shall be made to keep these practices **Functional** as designed; and

8. **Special Management Areas** shall be indicated on the erosion and sedimentation control plan.

K. Temporary stream crossings of **Linear Watercourses** used only for and during construction shall be designed to convey a storm event having a fifty percent (50%) chance of occurrence in any given year (2-year frequency, 24-hour storm event), without overtopping unless a more frequent design event is allowed by the **Administrator** and will not obstruct the portion of the **Channel** carrying the base flow. The entire crossing shall be designed to withstand hydrodynamic and erosive forces up to the **Base Flood** event without washing out. Ephemeral streams may be crossed at temporary at grade crossings provided that the crossing point is stabilized with materials resistant to the erosive forces produced by **Runoff** from the upstream **Drainage Area** and the design is approved by the **Administrator**. All temporary stream crossings shall be completely removed, and the stream restored to its preconstruction condition upon completion of construction. Restoration shall incorporate appropriate native vegetation.

L. To the extent practicable, proposed ditches and waterways that are to convey off-site flows through the **Site** shall be stabilized prior to their use to convey **Flood** flows.

M. **Erosion** control blanket placed along the banks of **Linear Watercourses**, within **Wetlands** or **Buffers** shall be 100% biodegradable or photodegradable, unless otherwise approved by the **Director** (or **Administrator** in a **Community** certified to administer Article VII).
N. Stockpiles of soil and other **Building** materials (sand, limestone, etc.) shall not be located in **Special Management Areas** or **Buffers**, unless otherwise approved by the **Administrator**. If a stockpile is to remain in place for more than three (3) days, **Erosion and Sedimentation Control Practices** shall be provided.

O. Storm sewer inlets shall be protected with sediment trapping and/or filter control devices during construction.

P. Water pumped or which is otherwise discharged from the **Site** during construction dewatering shall be filtered and a means provided to reduce **Erosion** and **Sedimentation**.

Q. Graveled roads, access drives, parking areas of sufficient width and length and vehicle wash down facilities if necessary, shall be provided to prevent soil from being tracked onto public or private roadways. Any soil tracked onto a public or private roadway shall be removed before the end of each workday or sooner as directed by the authority maintaining the roadway or the **Administrator**.

R. On areas of exposed soils, the generation of dust shall be minimized through the appropriate application of water or other dust suppression techniques.

S. The **Applicant** shall design, install, implement, and maintain effective pollution prevention practices to minimize the discharge of pollutants. At a minimum, such practices must be designed, installed, implemented and maintained to:

1. Ensure and demonstrate compliance with applicable state and/or local waste disposal, sanitary sewer or septic system regulations;

2. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;

3. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the **Site** to precipitation and to stormwater;

4. Minimize the exposure of fuel, oil, hydraulic fluid and other petroleum products by storing them in covered areas or containment areas;

5. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures; and

6. Monitor directional drilling operations and have a contingency plan in place to
contain drilling lubricants and restore disturbed areas if a frac-out occurs.

T. For sites that require an IEPA NPDES ILR10 permit, the Applicant shall provide qualified personnel to inspect disturbed areas of the Site for compliance with the plan. Inspections shall be conducted in accordance with the current IEPA NPDES ILR10 permit, which, as of the Revision Date of this Chapter, is at least once every seven calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is one-half inch (1/2") or greater. Areas inaccessible during inspections due to flooding or other unsafe conditions shall be inspected within seventy-two (72) hours of becoming accessible. Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is one-half inch (1/2") or greater precipitation event, or a discharge due to snowmelt occurs.

9-60 - 9-80 RESERVED
ARTICLE IV—REQUIREMENTS FOR STORMWATER MANAGEMENT

9-81 GENERAL INFORMATION

A. All Developments shall meet the requirements of Sections 9-81 and 9-82 and Articles III and VI of this Chapter.

B. The thresholds for requiring Stormwater Management Measures are summarized in Table 9-81.

**TABLE 9-81**
REQUIREMENTS FOR STORMWATER MANAGEMENT MEASURES

<table>
<thead>
<tr>
<th>Development Category</th>
<th>New Impervious Area for Development or Net New Impervious Area for Redevelopment</th>
<th>Detention Storage Facility (Section)</th>
<th>Stormwater Mitigation / BMP (Section)</th>
<th>Watershed Benefit Measure (^1) (Section)</th>
<th>Fee-in-Lieu (^3) (Section)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development or Redevelopment</td>
<td>&lt; 5,000 sq.ft.</td>
<td>X (^2) (9-107.C)</td>
<td>A (9-85)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5,000 sq.ft. – 24,999 sq.ft.</td>
<td>X (9-107.C)</td>
<td>A (9-85)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>≥ 25,000 sq.ft. AND &lt; 1% Site area</td>
<td>X (9-84)</td>
<td>X (9-107.D)</td>
<td>O (9-108)</td>
<td>A (9-85)</td>
</tr>
<tr>
<td></td>
<td>≥ 25,000 sq.ft. AND ≥ 1% Site area</td>
<td>X (9-84)</td>
<td>X (9-107.D)</td>
<td>A (9-85)</td>
<td></td>
</tr>
<tr>
<td>Linear Project (Trails/Roads)</td>
<td>&gt; 1-acre in aggregate for roads and trails that are ≤ AASHTO max. width</td>
<td>X (^1) (9-107.C)</td>
<td>O (9-108)</td>
<td>A (9-85)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; 1-acre in aggregate for roads and trails that are &gt; AASHTO max. width</td>
<td>X (9-84)</td>
<td>X (9-107.D)</td>
<td>A (9-85)</td>
<td></td>
</tr>
<tr>
<td>Total Impervious Area &gt; 50% Site area (for Sites &lt; 1-acre)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrologically Disturbed Area &gt; 3-acres</td>
<td>X (^4) (9-84)</td>
<td>X (9-107.D)</td>
<td>O (9-108)</td>
<td>A (9-85)</td>
<td></td>
</tr>
</tbody>
</table>

X = Required; O = Option for required measure; A = Allowed

\(^1\)A Watershed Benefit Measure may be provided in lieu of the required Detention Storage Facility and Stormwater Mitigation/BMP at the discretion of the Administrator.

\(^2\)Required at the discretion of the Administrator where known flooding or drainage issues are in the immediate vicinity of the project, in areas without Adequate Downstream Stormwater Capacity, or that outlet to a Volume Sensitive Watershed.

\(^3\)Fee-in-lieu requires approval of the Administrator and compliance with the requirements listed under Subsection 9-81.B.4.

\(^4\)Redevelopment with a Net New Impervious Area less than the Impervious Area being removed will not be required to provide a Detention Storage Facility per Subsection 9-81.B.3.a.
1. The Administrator may require Stormwater Management Measures for Developments or Redevelopments in areas where known flooding or drainage issues are in the immediate vicinity of the project, in areas without adequate downstream stormwater capacity, or that outlet to a Volume Sensitive Watershed unless the Applicant demonstrates, to the satisfaction of the Administrator, that the Development or Redevelopment will not result in adverse impacts upstream or downstream of the Site.

2. An exemption from the Detention Storage Facility requirements may be granted by the Administrator in accordance with Table 9-84.A and Table 9-84.B for Redevelopment Sites containing an existing Detention Storage Facility. The Redevelopment may still be required to provide a BMP or Watershed Benefit Measure to meet the requirements of Table 9-81.

3. The following special conditions and cases of Development and Redevelopment are exempt from providing Stormwater Management Measures:

   a. Redevelopment with a Net New Impervious Area less than the Impervious Area being removed will not be required to provide a Detention Storage Facility. The Redevelopment may still be required to provide a BMP to meet any other requirements of Table 9-81, such as Hydrologically Disturbed Area or total Impervious Area;

   b. Bridge and culvert modifications, repairs, and replacements;

   c. Projects whose sole purpose is to install, repair or replace water, sewer and all underground or overhead utility lines within a public right of way or utility easement;

   d. Stream restoration projects;

   e. Restoration of natural areas;

   f. Wetland Mitigation Facilities or Banks; and

   g. Flood-relief projects.

4. The Administrator may waive the requirements of Table 9-81 and approve a Fee-In-Lieu of Stormwater Management Measures if the following conditions are met:
a. The Development will not increase peak discharges from the Site, nor change the existing conveyance of off-site flow:

(1) If the Development produces increased Runoff to a Volume Sensitive Watershed, fee-in-lieu may be allowed if it discharges to an Outfall in accordance with Subsection 9-83.B.1;

(2) If the Development produces increased Runoff to a Volume Sensitive Watershed and it does not discharge to an Outfall in accordance with Subsection 9-83.B.1, then:

(a) The Applicant shall be required to rebuild the Outfall in accordance with Subsection 9-83.B.1 before approval of fee-in-lieu; or

(b) The cost to rebuild the Outfall in accordance with Subsection 9-83.B.1 shall be included in the assessed fee.

b. The Development provides a Net Benefit in Water Quality compared to the existing conditions;

c. The Administrator may waive the requirements of Subsection 9-81.B.3.a. if the Development discharges directly to a perennial stream or river and will not cause an Adverse Hydraulic Impact.

9-82 GENERAL STORMWATER REQUIREMENTS

A. No Development shall:

1. Result in any new or additional expense to any person other than the Developer for flood protection; or

2. Increase water surface elevations or decrease conveyance capacity upstream or downstream of the Site.

B. Analysis and design of all Stormwater Management Measures required for a Development shall:

1. Comply with the standards and criteria established in any applicable Watershed Plan or Interim Watershed Plan; and

2. Ensure that the Site is reasonably safe from flooding.

Stormwater Management Measures shall be Functional where practicable
before a building permit is issued for any other construction on a Site and all of its Parcels.

C. The design of any Development shall incorporate the following specific planning principles:

1. **Impervious Areas** are the minimum necessary to satisfy the intended design function. Where requirements of zoning ordinances conflict with this principle, consideration has been given to asking for a zoning variance.

2. Where feasible, allow sufficient right-of-way and easement widths so that stormwater Runoff may be conveyed in vegetated swales. Storm sewers may be used for conveyance of Nuisance Flows and where conveyance in vegetated swales is impractical.

3. Existing Open Channels have been preserved and incorporated into the design.

4. **BMPs** have been used in the Site drainage plan to reduce the volume of stormwater runoff and the quantity of runoff pollutants.

5. Wetlands have been avoided, preserved or enhanced.

**9-83 SITE RUNOFF REQUIREMENTS**

A. The location of the existing Outfall from the Site prior to Development is maintained (unless approved in writing by the Administrator) and in a manner so as not to cause an Adverse Hydraulic Impact downstream. Concentrated discharges from new Developments must enter conveyance systems capable of carrying the design flow rate without increasing Flood elevations, damage, inundation depths or duration, Erosion or maintenance costs to upstream, downstream, or adjacent properties.

B. The following principles and requirements shall be observed in the design:

1. Off-Site Outfall: Surface drainage, Major and Minor Stormwater Systems and Subsurface Drainage Systems shall be evaluated with regard to their capacity and capability to convey Nuisance Flows and the Detention Storage Facility release without damage to downstream Structures and land. The off-site Outfall shall be evaluated to the nearest Open Channel. If the Outfall is located within a publicly owned storm drainage system, it shall be evaluated to the downstream location directed by the Administrator. The following provisions shall apply:

   a. The Applicant or Developer shall notify adjoining, downstream property owners in writing of any proposed modifications to stormwater outlet locations and designs.
b. Discharges from **Outfalls** to downstream agricultural surface drainage systems and steep slope zones (examples are provided in the **Technical Manual**) with no base flow must be conveyed 100% underground within forty-eight (48) hours after a storm event up to and including the one percent (1%) chance storm event.

c. Off-site **Outfalls** shall be located within a public right-of-way or dedicated easement and marked on the **Record Drawings**. The easement language shall clearly define the individual or entity responsible for long term maintenance.

d. Discharge from **Outfalls** to **Volume Sensitive Watersheds** shall not increase **Flood** elevations and shall mitigate for any additional volume produced to ensure the **Flood** duration is not increased.

e. Off-site **Agricultural Subsurface Drainage Systems** shall not be used for surface water discharges including the discharge from the **Control Structure** or **Nuisance Flows** discharges, but may be used for **Stormwater Mitigation/BMP** underdrains in accordance with **Reasonable Use**:

1. The capacity of such systems shall be the lesser of the existing downstream capacity or three thousandths of a cubic foot per second per acre of **Tributary Area** (0.003 cfs/acre) to the **Agricultural Subsurface Drainage System**;

2. Nonagricultural **Subsurface Drainage Systems** may be used for **Nuisance Flows** with the approval of the **Permitting Authority** or owner of the **Subsurface Drainage System**;

3. **Nuisance Flows** must be conveyed in a storm sewer to an **Open Channel** or publicly owned storm drainage system with approval by the **Permitting Authority** if a nonagricultural **Subsurface Drainage System** is not available; and

4. Off-site **Agricultural Subsurface Drainage Systems** may be used for surface water discharges including the discharge from the **Control Structure** or **Nuisance Flows** discharges if there is an agreement between the **Applicant** and the downstream **Owner** specific to capacity and long term maintenance and that agreement is recorded with the property and on a plat.

f. If an off-site **Outfall** is required to be constructed and the downstream property owner refuses to grant access across his or her property, and
construction within a right-of-way or alternate route is not feasible or reasonable, the **Applicant** shall provide the **Administrator** a two (2) year post-development security for the engineer’s estimate of probable construction cost for the off-site **Outfall** plus a ten percent (10%) contingency. If the downstream property owner has not granted access for construction of the improvements within two (2) years following completion of the **Development**, the **Administrator** shall release the security.

g. The **Applicant** shall consider coordinating with adjacent property owners that may develop within the same **Tributary Area** to design and construct a mutually beneficial stormwater management improvement to meet the requirements of this Chapter. Maintenance, construction costs, and responsibilities for the improvement shall be coordinated between the owners by an agreement.

h. Contributions to a recapture fund shall be considered by the **Certified Community** for **Developments** occurring without an off-site **Outfall** that meets the provisions of this Section in an effort to establish the means to construct a mutually beneficial stormwater system.

i. Permit applications are required to be submitted for a fifteen (15) business day review to the following entities prior to issuance of a **Stormwater Management Permit**:

(1) **Drainage Districts**, if the **Development** discharges to a drainage facility owned and maintained by an active **Drainage District** within the County; or

(2) Downstream municipalities (including unincorporated Kane County), if the **Development** discharges outside of the municipal boundary of the **Certified Community** issuing the permit.

2. **On-Site Drainage Systems**: **Agricultural Subsurface Drainage Systems** and other **Subsurface Drainage Systems** shall be evaluated in accordance with Article II of this Chapter and the following provisions:

a. A **Subsurface Drainage Survey** shall be conducted to locate existing farm and storm drain tiles by means of slit trenching or other appropriate methods performed by a qualified subsurface drainage consultant. Any **Subsurface Drainage System** damaged during investigation shall be repaired to its previous working status. A **Subsurface Drainage Survey** shall include the following as applicable on a topographic map:
(1) The location of each slit trench identified to correspond with the investigation report and field staked at no less than fifty (50) foot intervals;

(2) The location of each drain tile with a flow direction arrow, tile size and any connection to adjoining properties;

(3) A summary of the investigation report showing trench identification number, tile size, material and quality, percentage of tile filled with water, percentage of restrictions caused by Sedimentation, depth of ground cover and working status; and

(4) The name, address, phone number and qualifications of the person or consultant responsible for the Subsurface Drainage Survey.

b. Information collected during the Subsurface Drainage Survey shall be used as part of the design and construction of a stormwater management system that meets the requirements of this Chapter. The County’s standard Subsurface Drainage System notes (refer to the Technical Guidance Manual) shall be included on the plans. Subsurface Drainage Systems that service a single Site may be excused from this requirement upon approval from the Administrator.

c. The Administrator may accept a drain tile map prepared by a Drainage District or other reliable source in lieu of a Subsurface Drainage Survey. The survey requirement shall be waived by the Administrator for any Development with less than 5,000 sq. ft. of Net New Impervious Area. The Administrator may waive the survey requirement for other Development, provided the Applicant submits a narrative and supporting evidence indicating to the satisfaction of the Administrator that Subsurface Drainage Systems are not likely present within the Development. This evidence may consist of:

(1) Soil maps;

(2) Historic aerial photographs;

(3) Historic topographic maps; and

(4) Wetland maps.

d. Subsurface Drainage Systems found on-site during design or construction of the Development shall be replaced and incorporated into the new Minor Stormwater System or Subsurface Drainage System. The system or bypass shall be of an equivalent size and
capacity. The capacity shall be determined by either the capacity of the existing tile flowing full, in its original condition, or the existing downstream capacity, whichever is more restrictive. A flow Restrictor shall be required as necessary to achieve the existing discharge requirements.

e. All existing on-site Agricultural Subsurface Drainage Systems not serving a beneficial use shall be abandoned in their entirety by trench removal prior to Development and recorded on Record Drawings. If any existing system continues to serve adjacent properties, the Applicant or his or her representative must maintain drainage service during construction until new storm sewers or a Maintainable Outlet can be installed for a permanent connection.

3. Off-Site Tributary: Existing drainage systems shall be evaluated with regard to existing capabilities and reasonable future expansion capacities of upstream properties. The following provisions shall apply:

a. All existing tributary Subsurface Drainage Systems shall be incorporated into the new Minor Stormwater System or Subsurface Drainage System including Observation Structures located at the limits of the Site. Maintenance access shall be provided through an easement;

b. Subsurface connections serving off-site Tributary Areas shall have a free flow discharge into the drainage system within the Development, where practical, and shall not be subject to head pressure within the storm sewer or surcharge resulting from fluctuating water elevations in a Detention Storage Facility;

c. Sizing of subsurface connections for off-site Tributary Areas shall be based upon the established sizing chart published as part of Illinois Drainage Law to allow for reasonable future subsurface drainage improvements to occur on upstream, tributary farms. A drainage coefficient of three-eighth inches per day (3/8 in/day) shall be assumed for plastic tubing;

d. The Applicant or his or her representative shall consult with the upstream land owner regarding plans for future stormwater improvements. The Applicant or the representative shall provide documentation showing consultation with the upstream owner regarding future drainage improvements; and

e. Tributary surface conveyance from Agricultural Land shall be accepted by the new Development with design consideration given to the natural amount of Erosion, sediment and farm debris present in
agricultural runoff. Highly erodible land in agricultural production shall maintain agricultural Best Management Practices in accordance with NRCS conservation guidelines and standards. The following provisions shall apply:

(1) The Applicant shall work with the Agricultural Land owners to develop a means for a maintainable system, such as a Sedimentation Trap. The proposed system may be provided on the Site or the upstream agricultural property;

(2) If a maintainable system is not provided then the tributary surface conveyance from Agricultural Land shall bypass the Major and Minor Stormwater System and Detention Storage Facility within the Development;

(3) Upstream surface agricultural flows shall be conveyed through the Development within a public right-of-way, outlot, or other commonly owned property. It shall not be conveyed in a drainage easement located on a private, residential property; and

(4) Maintenance costs and responsibility for this system shall be included in the long-term maintenance plan in accordance with Article IX for the Development.

4. Preservation of Existing Systems: New roadway construction shall preserve existing Subsurface Drainage Systems within the right-of-way. Observation Structures shall be placed at the right-of-way and Subsurface Drainage Systems found not to be flowing between structures at the end of construction shall be replaced if damaged.

C. Minor Stormwater Systems shall be sized to convey Runoff from the tributary Watershed under fully developed conditions consistent with the design requirements of the Permitting Authority.

D. Major Stormwater Systems shall be sized to carry the storm with a one percent (1%) chance of occurrence in any one year without causing additional Flood damage.

E. Major and Minor Stormwater Systems shall be located within easements or rights-of-way explicitly providing for public access or maintenance of such facilities.

F. All Developments shall have an Overland Flow Path to the downstream limit of the Site that will pass flow from the storm with a one percent chance (1%) of occurrence in any one year without increasing Flood damage. If the upstream Drainage Area is less than twenty (20) acres, a storm sewer pipe and inlet sized
for the storm with a one percent (1%) chance of occurrence in any one year may be constructed in lieu of providing an Overland Flow Path. Overland Flow Paths internal to the Site shall be considered part of the Major Stormwater System and shall be designed for conveyance of a minimum of one cubic foot per second per tributary acre (1 cfs/acre) without damage to Structures. All Structures adjacent to an Overland Flow Path shall comply with the building protection standards of Section 9-139.

G. Design runoff rates shall be calculated using the event hydrograph methods and the assumptions contained in Subsection 9-84.C of this Article. Design runoff rates for minor conveyance systems may be calculated using the rational method if the tributary Watershed is less than twenty (20) acres.

H. Any design runoff rate calculation method shall use Bulletin 70 northeast sectional rainfall statistics and shall calculate flow from all Tributary Areas upstream of the point of design. Peak discharges for conveyance design purposes shall be based on the one percent (1%) Critical Duration considering the appropriate rainfall distribution.

I. Maximum flow depths for new transverse stream crossings shall not exceed one foot (1') at the crown of the road during the storm with a one percent (1%) chance of occurrence in any one year. The maximum flow depth on a roadway shall not exceed six inches (6") at the crown for flow parallel to the roadway. For flow over a roadway or parallel to a roadway the product of the flow depth (in feet) and velocity (in feet per second) shall not exceed four (4) for the storm with a one percent (1%) chance of occurrence in any one year.

J. Transfers of waters between Watersheds (diversions) shall be prohibited except when such transfers will not violate the provisions of Subsection 9-82.A and are otherwise lawful. Watersheds for the purposes of this Section shall be the major Watershed divides shown in Appendix A.

K. Building protection standards shall be in accordance with Section 9-139.

9-84 DETENTION STORAGE FACILITY REQUIREMENTS

A. The onsite Hydrologically Disturbed Area, area of land cover disturbance, or a combination thereof, whichever encompasses the greatest area of the Site, shall be used to calculate the required detention storage volume. The Tributary Area at the point of discharge shall be used to calculate the Allowable Release Rate of the restrictor for the Detention Storage Facility.

B. Absent any applicable Watershed Plan or Interim Watershed Plan, sufficient detention storage shall be provided such that the probability of the post-development release rate exceeding 0.1 cubic foot per second per acre of Development shall be less than one percent (1%) per year.
1. For Sites where the undeveloped release rate is less than 0.1 cubic feet per second per acre, the developed release rate and corresponding detention storage volume shall be based on the existing undeveloped release rate for the Site.

2. The Applicant shall demonstrate the Allowable Release Rate from the Site, considering all Upstream Tributary Flows, is less than the existing conditions flows from the one percent (1%) Critical Duration Design Storm.

3. The Administrator may allow a higher release rate to accommodate the minimum Restrictor size specified in Subsection 9-84.I provided that the Applicant demonstrates there are no adverse impacts.

C. Runoff volumes shall be calculated using event hydrograph methods (such as EPA-SWMM, HEC-1, HEC-HMS, TR-20, TR-55 or other tabular methods using SCS curve number methodology as approved by the Administrator). Event methods shall incorporate the following assumptions:

1. Antecedent moisture condition equals two (2);

2. Appropriate Huff rainfall distribution except that SCS type II distribution is acceptable with TR-55 tabular method only; and

3. Twenty four (24) hour duration for the storm with a one percent (1%) probability of occurrence in any one year as specified by Bulletin 70 northeast sectional rainfall statistics.

D. When Depressional Storage is present on-site, detention storage volume shall be provided in accordance with Subsections 9-84.A and 9-84.B. A volume equivalent to any filled Depressional Storage shall be provided between the high-water elevation and the elevation of the Emergency Overflow at a one-to-one (1:1) ratio. The Emergency Overflow shall be designed and sized in accordance with Subsection 9-84.G.

E. If there is additional on-site or off-site Tributary Area to the Detention Storage Facility that is routed to the basin, but is not hydrologically disturbed or is off-site to the Development, then:

1. Detention volume shall be provided for the Development according to Subsections 9-84.A and 9-84.B when there is no Depressional Storage on-site. The Restrictor shall be sized independently for a release rate of 0.1 cubic feet per second per acre for the total Tributary Area to the Detention Storage Facility using the computed high-water elevation and assuming appropriate tailwater considerations. The normal water level shall be designed to establish the design head on the reservoir side of the Restrictor. The Emergency
Overflow shall be sized to accommodate the **Upstream Tributary Flow** in accordance with Subsection 9-84.G. Two stage **Restrictors** shall be considered with large, off-site **Tributary Areas**.

2. **Sites** with **Upstream Tributary Flows** and **Depressional Storage** shall provide detention volume for the **Development** in accordance with Subsection 9-84.B and shall replace any lost **Depressional Storage** between the high-water elevation and the elevation of the **Emergency Overflow**. The **Restrictor** shall be sized independently using the high-water elevation used to replace the **Depressional Storage**, and the normal water elevation. The **Restrictor** is sized for a maximum release rate at the new high-water elevation for 0.1 cubic feet per second per acre for the total **Tributary Area**. An **Emergency Overflow** shall be sized to accommodate the **Upstream Tributary Flow** in accordance with Subsections 9-84.D and 9-84.G.

F. **Nuisance Flows** shall be included when calculating the **Allowable Release Rate**. Any **Nuisance Flows** that are not routed through the **Detention Storage Facility** shall be added to the **Allowable Release Rate** assuming a rate of five (5) gallons per minute per structure with sump pumps for the first fifty structures, and assuming three (3) gallons per minute per structure for every structure thereafter.

G. The **Detention Storage Facility** shall have an **Emergency Overflow** set at a minimum elevation required to contain the detention storage volume and any **Depressional Storage** volume in accordance with Subsection 9-84.D. The **Emergency Overflow** shall be sized to convey the flow from the **Allowable Release Rate** for the **Site** for the one percent (1%) **Critical Duration Design Storm**.

H. Hydraulic computations for the release structure must assume appropriate backwater conditions considering the likelihood of concurrent flood events on the **Site** and receiving stream.

I. **Restrictors** such as orifices, weirs and perforated risers shall be located within a **Control Structure** and be designed to prevent tampering and clogging and reduce the need for maintenance. The **Administrator** may adopt a minimum **Restrictor** policy so long as the policy does not have a minimum diameter greater than four (4) inches when a single pipe outlet or an orifice plate is used to restrict the outflow from a **Detention Storage Facility**. The **Administrator** may require a **Restrictor** less than four (4) inches in diameter if it is determined there will be adverse impacts to properties downstream or if it outlets to a **Volume Sensitive Watershed**.

J. **Detention Storage Facilities** shall be designed such that:

1. A minimum **Freeboard** of one (1) foot is provided above the high-water elevation as determined by the flow over the **Emergency Overflow** according
to Subsection 9-84.G.

2. All design detention storage volume shall be provided above the Seasonal High Groundwater Table and the invert elevation of the Restrictor;

3. The impacts of stormwater Runoff on water quality are minimized by incorporating BMPs as described in Article V;

4. The distance between inlets and outlets is maximized to the extent possible;

5. Sedimentation and catchment of floating material is facilitated. Unless specifically approved by the Administrator, concrete lined low flow ditches shall not be used in Detention Storage Facilities;

6. The basin functions without human intervention under tailwater conditions assuming the tailwater conditions for the receiving stream is equal to the Design Storm event with a ten percent (10%) (10-year event) chance of being exceeded in any one year; and

7. Minimum maintenance is required and there is adequate access for maintenance equipment.

K. Detention Storage Facilities located within the Regulatory Floodplain shall:

1. Comply with Article VI of this Chapter;

2. Store the required amount of detention volume to meet the Allowable Release Rate under all stream flow and tailwater conditions up to the Design Storm event with a ten percent (10%) (10-year event) chance of being exceeded in any one year Flood elevation on the adjacent receiving watercourse. The Administrator may approve designs which can be shown by detailed hydrologic and hydraulic analysis to provide a Net Watershed Benefit not otherwise realized by strict application of the requirements set forth in this Subsection; and

3. Provide Compensatory Storage in accordance with Section 9-141.

L. Detention volume provided by enlarging existing Regulatory Floodplain storage (an on-stream Detention Storage Facility) shall be allowed only as a Watershed Benefit Measure.

M. Detention Storage Facilities may be located off-site if:

1. The off-site storage facility meets all the requirements of this Article;

2. Adequate storage capacity in the off-site facility is dedicated to the Development; and
3. The **Development** includes means to convey the one percent (1%) chance **Design Storm** to the off-site storage facility.

N. **Detention Storage Facilities** for **Redevelopment** shall be designed and constructed according to Table 9-84.A and Table 9-84.B with the following characteristics:

1. The required total detention volume for the **Site** shall not be less than the existing volume of the existing **Detention Storage Facility** at the time of application, regardless of the provisions of this Section;

2. Incidental disturbance to an existing **Detention Storage Facility** to provide new required detention volume will not be counted as part of the **Hydrologically Disturbed Area**;

3. The **Redevelopment** provides **Stormwater Mitigation/BMPs** in accordance with Section 9-137, Table 9-81 and Article V; and

4. The **Redevelopment** provides adequate capacity to convey stormwater **Runoff** to the existing **Detention Storage Facility** for all storms up to and including the one percent (1%) **Design Storm**.

O. Structures built across the **Channel** to impound water to meet detention storage requirements shall be prohibited on any perennial stream (i.e. has continuous flow) unless part of a **Public Flood Control Project** with a **Net Watershed Benefit**. Those streams appearing as blue on a USGS quadrangle map shall be assumed to be perennial unless better data is provided by the **Developer**. In all cases it must be demonstrated that all such structures will not cause short term or long-term stream instability. Where such facilities are approved the **Applicant** must also comply with Article VI of this Chapter and obtain an **IDNR-OWR Dam Safety Permit** or letter stating no permit is required prior to the start of such activity.

P. All **Structures** adjacent to a **Detention Storage Facility** shall comply with the building protection standards of Section 9-139.

Q. **Record Drawings** shall be provided for every **Detention Storage Facility** and shall indicate the as-constructed volume and utility information, including the **Control Structure**.

R. Maintenance costs and responsibility for every **Detention Storage Facility** shall be included in the long-term maintenance plan submitted as part of the **Stormwater Management Permit** for the **Development**.
TABLE 9-84.A
PRE-ORDINANCE BASIN (Prior to 2002)

Start

Was the Existing Detention Storage Facility constructed prior to the Effective Date of this Ordinance?

Yes

Submit an As-Built survey to the Administrator verifying the existing volume, restrictor size, invert elevation and release rate of the Existing Detention Storage Facility.

Verified, existing detention volume shall be preserved as Depressional Storage as of the Effective Date.

No

Will the Redevelopment require less than 0.10 acre-feet of additional detention volume?

Yes

The Existing Detention Storage Facility is not required to be modified and no additional detention volume is required.

No

Is the additional volume less than 2% of the existing detention volume?

Yes

Modify the Restrictor such that the volume in the Stormwater Management Measure will be utilized and in accordance with Section 9-84. Verify the flow for the 1% design storm is less than the existing flow using the modified Restrictor.

No

Provide additional detention volume per Sections 9-84.A and 9-84.B such that the volume in the Stormwater Management Measure is equal to the maintained, "Depressional Storage" volume plus the volume Required after the Effective Date.

Start

Will the highwater level elevation be modified to meet Section 9-84?

Yes

No

Does the Redevelopment provide conveyance capacity for the 1% design storm to the Detention Storage Facility?

Yes

No

Modify the conveyance system per Subsection 9-83.F.

Update the maintenance agreement as needed and perform all required maintenance per Article IX. Submit a maintenance report meeting Section 9-283.

Provide BMPs in accordance with Table 9-107 and Article V.

Record a SSA or drainage easement. A Declaration of Restriction and Covenant may be allowed at the discretion of the Administrator. Establish maintenance requirements per Article IX.
TABLE 9-84.B
POST-ORDINANCE BASIN (After to 2002)

Start

Was the Existing Detention Storage Facility constructed prior to the Effective Date of this Ordinance?

Yes

See Pre-Ordinance Basin Flowchart

No

Compare the As-Built drawing from the permit application associated with construction of the Existing Detention Storage Facility and verify retention and detention volumes.

Calculate the required additional detention volume per Section 9-84.A & 9-84.B.

Will the Site’s Runoff Curve Number increase?

Yes

No

The Existing Detention Storage Facility is not required to be modified and no additional detention volume is required as part of this permit.

Is the volume of the Stormwater Management Measures and Depressional Storage greater than the existing detention volume?

Yes

Provide additional detention volume per Section 9-84A & 9-84.B.

No

Confirm the proposed high-water level meets requirements in Section 9-84 and verify building protection standards are met. If not, modify the restrictor to meet building protection standards.

Will the high-water level elevation be modified to meet Section 9-84?

Yes

No

Modify the conveyance system per Subsection 9-83.F.

Does the Redevelopment provide conveyance capacity for the 1% design storm to the Detention Storage Facility?

Yes

No

Update the maintenance agreement as needed and perform all required maintenance per Article IX. Submit a maintenance report meeting Section 9-233.

Provide BMPs in accordance with Table 9-107 and Article V.

Modify drainage easement area if necessary with maintenance requirements in accordance with Article IX.
9-85 FEE-IN-LIEU OF STORMWATER MANAGEMENT MEASURES

A. The Administrator may require, or in the limited circumstances prescribed in Article IV of this chapter an Applicant may request approval of, the payment of a Fee-In-Lieu of Stormwater Management Measures. The fee-in-lieu of shall be the greater of:

1. The sum of the fee for each acre-foot or part thereof of detention volume otherwise required as computed under a schedule adopted for such purpose by the Permitting Authority, the fee for each cubic-foot or part thereof of BMP storage otherwise required as computed under a schedule adopted for such purpose by the Permitting Authority, and the engineer's opinion of probable cost of off-site Major, Minor or Subsurface Drainage System; or

2. The engineer’s opinion of probable cost of otherwise providing the required Stormwater Management Measure and the verifiable off-site Major, Minor or Subsurface Drainage System, including the value of the land required and all construction costs. For this purpose, the land required shall be valued according to the use to which it will ultimately be put if not used to provide the required Stormwater Management Measure.

9-86 STORMWATER SUBMITTAL

The stormwater submittal shall include a narrative discussion and calculations to support a finding by a Professional Engineer that the proposed Development complies with the technical requirements of this Article. The submittal shall consist, at a minimum, of the following materials:

A. A narrative description of the existing and proposed Site drainage patterns and conditions and include a description of off-site conditions which help to identify stormwater considerations in the design;

B. A schedule for implementation of the Site’s stormwater management plan;

C. On-site and off-site Runoff calculations that address the following:

   1. Documentation of the procedures and assumptions used to calculate hydrologic and hydraulic conditions for sizing Major Stormwater Systems and Minor Stormwater Systems;

   2. Cross section data for Open Channels;

   3. Hydraulic grade line and water surface elevations under design flow conditions; and

   4. Hydraulic grade line and water surface elevations under Base Flood flow
D. Detention storage calculations, which address the following:

1. Calculation of existing **Impervious Areas, New Impervious Areas**, and **Net New Impervious Areas**;

2. Documentation of the procedures and assumptions used to calculate hydrologic and hydraulic conditions for determining the **Allowable Release Rate**;

3. Documentation of the procedures and assumptions used to calculate on-site **Depressional Storage**;

4. Documentation of the procedures and assumptions used to calculate hydrologic and hydraulic conditions for determining the detention storage volume;

5. Elevation and storage data and calculations for detention volume; and

6. Elevation and discharge data and calculations specifically related to the **Restrictor** depicted in the engineering drawings.

9-87 - 9-106 RESERVED
ARTICLE V—REQUIREMENTS FOR STORMWATER MITIGATION / BEST MANAGEMENT PRACTICES (BMPS) AND WATERSHED BENEFIT MEASURES

9-107 REQUIREMENTS FOR STORMWATER MITIGATION / BMPS

A. All Development and Redevelopment shall meet the requirements of Sections 9-82 and 9-83 and Articles III and VI of this Chapter.

B. Stormwater Mitigation/BMPs shall be required for all Developments and Redevelopments in accordance with Table 9-107.

**TABLE 9-107**
REQUIREMENTS FOR STORMWATER MITIGATION/BEST MANAGEMENT PRACTICES (BMPS)

<table>
<thead>
<tr>
<th>Development Category</th>
<th>New Impervious Area for Development or Net New Impervious Area for Redevelopment</th>
<th>Stormwater Mitigation / BMP</th>
<th>Fee-in-Lieu²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Category I (Section)</td>
<td>Category II (Section)</td>
</tr>
<tr>
<td>Development or</td>
<td>&lt; 5,000 sq.ft.</td>
<td>X¹ (9-107.C)</td>
<td>A (9-85)</td>
</tr>
<tr>
<td>Redevelopment</td>
<td>5,000 sq.ft. – 24,999 sq.ft.</td>
<td>X (9-107.C)</td>
<td>A (9-85)</td>
</tr>
<tr>
<td></td>
<td>≥ 25,000 sq.ft. AND &lt; 1% Site area</td>
<td>X (9-107.D)</td>
<td>A (9-85)</td>
</tr>
<tr>
<td></td>
<td>≥ 25,000 sq.ft. AND ≥ 1% Site area</td>
<td>X (9-107.D)</td>
<td>A (9-85)</td>
</tr>
<tr>
<td>Linear Project</td>
<td>&gt; 1-acre in aggregate for roads and trails that are ≤ AASHTO max. width</td>
<td>X (9-107.C)</td>
<td>A (9-85)</td>
</tr>
<tr>
<td>(Trails/Roads)</td>
<td>&gt; 1-acre in aggregate for roads and trails that are &gt; AASHTO max. width</td>
<td>X (9-107.D)</td>
<td>A (9-85)</td>
</tr>
<tr>
<td></td>
<td>Total Impervious Area &gt; 50% Site area &lt; 1-acre</td>
<td>X (9-107.C)</td>
<td>A (9-85)</td>
</tr>
<tr>
<td></td>
<td>Hydrologically Disturbed Area &gt; 3-acres</td>
<td>X (9-107.D)</td>
<td>A (9-85)</td>
</tr>
</tbody>
</table>

X = Required; A = Allowed

¹Required at the discretion of the Administrator where known flooding or drainage issues are in the immediate vicinity of the project, in areas without Adequate Downstream Stormwater Capacity, or that outlet to a Volume Sensitive Watershed.
²Fee-in-lieu requires approval of the Administrator and compliance with the requirement listed under Subsection 9-81.B.4.
C. Category I BMPs shall provide Volume Reduction and Water Quality Treatment of one-inch (1.0”) of rainfall over the New Impervious Area. The required Volume Reduction shall be calculated as the product of the New Impervious Area and a one-inch (1.0”) rainfall event with no abstractions.

D. Category II BMPs shall provide Volume Reduction and Water Quality Treatment of the required Volume Reduction. The required Volume Reduction shall be:

1. Calculated as the product of the New Impervious Area and a one-inch (1.0”) rainfall event with no abstractions; or

2. Calculated via continuous simulation so that the post-development infiltration volume shall match ninety percent (90%) of the pre-development infiltration volume, based on the Average Annual Rainfall.

E. The Applicant shall identify the pollutants of concern that may be generated by the Development or Redevelopment and select BMPs that address those pollutants. BMPs shall provide both Water Quality Treatment and Runoff Volume Reduction unless no pollutants are identified, then Applicant may provide a BMP that provides Volume Reduction only.

F. Pretreatment shall be required for Runoff from non-permeable parking lots or roadway areas that will enter an infiltration-based BMP.

1. The pretreatment shall be designed to treat one-inch (1.0”) of rainfall over the New Impervious Areas tributary to the infiltration-based BMP to protect it from clogging prior to scheduled maintenance and to protect Groundwater quality;

2. Pretreatment options include: manufactured BMPs such as hydrodynamic separators, biofiltration, vegetated swales, filter strips, or other pretreatment BMPs, upon approval by the Administrator;

3. For manufactured BMPs, pollutant removal rates shall be 80% removal of hydrocarbons and Total Suspended Solids (TSS), with the TSS being defined as the OK110 Particle Size Distribution (PSD).

G. Infiltration-based BMPs are prohibited on Sites where:

1. Fueling and vehicle maintenance areas are tributary to the BMP;

2. Commercial, industrial and institutional land uses are tributary to the BMP within 400 feet of a known Community water system well, or within 100 feet of a known private well. The Applicant shall identify such zones from available information sources, which include the Illinois State Water Survey, IEPA, USEPA, Kane County Health Department and the local municipality or water agency;
3. Contaminants of concern, as identified by the USEPA or the IEPA prior to Development, are present in the soil through which infiltration would occur. For sites with a No Further Remediation (NFR) letter from the USEPA or IEPA, the Applicant shall determine whether or not structural barriers are part of the Mitigation strategy and account for such measures in the design;

4. Soils on-site that are classified entirely as Hydrologic Soils Group A by the NRCS through which rapid infiltration would occur and alternate locations on-site where more suitable soils are present are not practical;

5. Soils on-site through which infiltration would occur are proven to have low permeability that are not conducive for infiltration-based BMPs and alternate locations on-site where soil permeability is conducive for infiltration-based BMPs are not practical; and

6. The Seasonally High Groundwater Table is within two feet (2’) of the surface where infiltration would occur.

H. Developments and Redevelopments that are prohibited from providing on-site infiltration-based BMPs shall provide BMPs within a native vegetated Detention Storage Facility or the following:

1. Treatment of one-inch (1.0") for all New Impervious Areas within a pretreatment practice identified within Subsection 9-107.F; and

2. A payment of a fee in lieu of providing Stormwater Management Measures in accordance with Section 9-85.

I. Developments and Redevelopments that provide Volume Reduction are eligible to receive credit for detention storage provided the calculated volume is infiltrated and/or evapotranspirated in no less than one (1) day or no greater than five (5) days of the storm event. The Potential Average Daily Evapotranspiration Rate shall be one-tenth inch per day (0.1 in/day), the Applicant may provide site specific calculations to prove an evapotranspiration rate that is different than one-tenth inch per day (0.1 in/day) for review and approval by the Administrator. The Applicant must document that:

1. The infiltration capacity of the subgrade soils of areas where BMPs are proposed are suitable for the intended BMP. This shall be verified by an appropriate geotechnical investigation. An opinion of the soils suitability shall be provided by a Professional Engineer or soil scientist. Verification of soil conditions prior to placement of subsurface storage material or Topsoil may be required by the Administrator. Final approval is at the sole discretion of the Administrator; or
2. That **Subsurface Drainage Systems** and flow control orifices or weirs are incorporated into the design of **BMPs** to meet this requirement.

J. Detention storage credit shall be:

1. The volume of the ponding zone provided it is no greater than twenty-four inches (24") in depth; and

2. The volume of the expected void space (typically no greater than 36%) within the uniformly graded stone, aggregate or sand layer of the **BMP**. Particles less than 1/16 mm may not be used to complete this calculation. The design shall incorporate pretreatment measures to protect the void space from long term deposition of fine sediments. If testing is completed on samples of the proposed material which indicates a higher level of porosity, the **Applicant** may submit the analysis completed on the material along with the storage calculations.

K. The **Applicant** may use the **Technical Manual** as a reference for the design.

L. Native vegetated **BMPs** shall be planted with predominately native deep-rooted vegetation and a **BMP** planting plan shall be submitted in accordance with Section 9-110. Native vegetated **BMPs** shall be appropriately managed and maintained in accordance with Section 9-109.

### 9-108 REQUIREMENTS FOR WATERSHED BENEFIT MEASURES

A. For **Developments** for which the **Administrator** has approved a **Watershed Benefit Measure** per Table 9-81, a **Natural Resources Conservation Services (NRCS)** Conservation Practice, or other approved practice, may be provided in lieu of the required **Detention Storage Facility** and **BMP**, provided:

1. There are no adverse impacts upstream or downstream of the **Development**;

2. The measure provides a benefit to the overall **Watershed** via **Runoff** reduction, increased storage volume, or water quality improvement that meets or exceeds the benefits provided by the minimum requirements of this Chapter;

3. The design considers the guidance provided in the **NRCS** Conservation Practices technical guides;

4. The proposed **Watershed Benefit Measure** meets the other requirements of this Chapter;

5. The **Watershed Benefit Measure** is not a permit requirement under Article VI **Flood Hazard Area** or Article VII **Wetland**; and

6. The **Watershed Benefit Measure** is not required by the Department of
Agriculture as part of a conservation plan in accordance with Food Security Act.

B. For storage-based **Watershed Benefit Measures**, the quantifiable storage provided shall meet or exceed the sum of the calculated volume required in the **Detention Storage Facility** and the **Volume Reduction** required in the **BMP** for the **Development** or **Redevelopment**.

1. The **Detention Storage Facility** volume required may be calculated using the simple methodology outlined in Investigation of Hydrologic Methods for Site Design in Northeastern Illinois (Dreher and Price, 1991).

2. Creation of **Floodplain** storage shall occur between the ten percent (10%) and one percent (1%) probability storms and shall be designed to drain freely and openly to the **Channel**.

3. Vegetated areas of storage-based **Watershed Benefit Measures** may continue to be in agricultural production if they have been in production within the past five (5) years or maintained as turf or landscape areas if they have been so as of the **Effective Date** of this ordinance or previously permitted.

4. Vegetated areas of storage-based **Watershed Benefit Measures** that do not meet Subsection 9-108.B.3 shall be planted with predominately native deep-rooted vegetation and a planting plan shall be submitted in accordance with Subsection 9-110.A.1.e and 9-110.A.4. These areas shall be appropriately managed and maintained in accordance with Section 9-109.

C. For water quality **Watershed Benefit Measures** such as edge of field nitrogen removal practices like bioreactors or saturated **Buffers**, the quantifiable treatment acreage shall meet or exceed the twenty-four (24) hour – one percent (1%) probability flow rate of the **Development** or **Redevelopment**.

1. Peak discharge from the **New Impervious Area** shall be calculated according to the following equation:

\[ Q = c \times i \times A \]

Where:

- \( c \) = rational method coefficient = 0.95 for impervious surfaces
- \( i \) = intensity of the twenty-four (24) hour – one percent (1%) probability storm event = 0.3571 inches per hour (in/hr)
- \( A \) = area of new impervious surfaces in acres
- \( Q \) = peak discharge in cubic feet per second (cfs)

2. Peak Discharge shall be converted to an equivalent **Drainage Area** over a twenty-four (24) hour period according to the following equation:
\[ A_{eq} = Q \left( 86,400 \frac{\text{seconds}}{\text{day}} \right) \left( \frac{1 \text{ acre}}{43,560 \text{ ft}^2} \right) \left( \frac{12 \text{ inches}}{\text{foot}} \right) \div (C_{\text{drainage}}) \]

Where:
Q = peak discharge in cubic feet per second (cfs)
C_{\text{drainage}} = drainage coefficient = 3/8 inches per day (in/day)
A_{eq} = equivalent Drainage Area (acres)

3. Equivalent Agricultural Subsurface Drainage System pipe diameter for the required treatment area shall be calculated according to the following equation:

\[ D_{eq} = \left[ \frac{(10.08 \times n \times Q)}{(1.49 \times \pi \times S^{0.5})} \right]^{3/8} \left( \frac{12 \text{ inches}}{1 \text{ foot}} \right) \]

Where:
n = Manning’s coefficient for corrugated plastic pipe = 0.019
Q = peak discharge in cubic feet per second (cfs)
S = assumed drain tile slope = 0.001 foot per foot (ft/ft)
D_{eq} = equivalent pipe diameter in inches (in). Fractions of equivalent pipe diameter shall be rounded to typical pipe sizes.

D. For linear Watershed Benefit Measures such as (re)establishment of Buffers or grassed waterways:

1. The required square footage for linear Watershed Benefit Measures shall equal or exceed the square footage required for a Detention Storage Facility determined using the simple methodology outlined in Investigation of Hydrologic Methods for Site Design in Northeastern Illinois (Dreher and Price, 1991) and actual Site conditions;

2. Buffer (re)establishment widths shall be required per Section 9-177; and

3. Vegetated areas of linear Watershed Benefit Measures shall be planted with predominately native deep-rooted vegetation and a planting plan shall be submitted in accordance with Subsection 9-110.A.1.e and 9-110.A.4. These areas shall be appropriately managed and maintained in accordance with Section 9-109.

E. For Watershed Benefit Measures that construct or re-establish Wetlands:

1. The volume contained within the Wetland shall meet or exceed the calculated Runoff volume for the twenty-four (24) hours – four percent (4%) probability storm from the Development or Redevelopment;

2. The Upstream Tributary Flow to the Wetland shall be verified to ensure there is sufficient Hydrology to support the Wetland vegetation;

3. The design shall include provisions for Sedimentation and crop debris
management if the **Upstream Tributary Flow** contains cultivated fields; and

4. Vegetated areas of **Wetlands** shall be planted with predominately native deep-rooted vegetation and a planting plan shall be submitted in accordance with Subsection 9-110.A.1.e and 9-110.A.4. These areas shall be appropriately managed and maintained in accordance with Section 9-109.

F. Other **Natural Resources Conservation Services (NRCS)** Conservation Practices may be considered under this Section with approval of the **Administrator**. Proposed practices other than those outlined above shall demonstrate that the proposed **Watershed Benefit Measure** provides a comparable volume, land area or cost that meets or exceeds the required **Detention Storage Facility** and **Volume Reduction**.

9-109 PERFORMANCE STANDARDS & MONITORING FOR STORMWATER MITIGATION/BMPS AND WATERSHED BENEFIT MEASURES

A. Category I **BMPs**, shall:

1. Meet the following performance standards:
   
   a. All proposed vegetated areas shall achieve eighty-five percent (85%) cover;

   b. All proposed native vegetated areas shall not be dominated by or contain cumulatively more than twenty-five percent (25%) cover by non-native or invasive species;

   2. Be maintained in accordance with Article IX of this Chapter, upon acceptance by the **Administrator**; and

   3. Be recorded as Declaration of Restriction and Covenant that acknowledges the presence of **BMPs** on-site, the **Stormwater Management Permit** number, and any associated maintenance requirements.

B. All Category II **BMPs** and **Watershed Benefit Measures**, shall:

1. Meet the following performance standards:

   a. All proposed vegetated areas shall achieve eighty-five percent (85%) cover;

   b. All proposed native vegetated areas shall achieve a minimum **FQI** of ten (10) within the three (3) year monitoring period; and

   c. All proposed native vegetated areas shall not be dominated or contain cumulatively more than ten percent (10%) cover by non-native or invasive
species.

2. Be monitored and managed for three (3) years beginning on the day planting is completed;

3. Be monitored via meander method or transect method in accordance with the procedures set forth in the current Chicago District protocol promulgated by USACE;

4. Provide an annual report to the Administrator by February 15th of each year for every native vegetated BMP and Watershed Benefit Measure under permit;

5. Make a request for the release of the performance security to the Administrator once the native vegetated BMPs and Watershed Benefit Measures meet the performance standards. A release of the performance security may be requested of the Administrator as early as the end of the second full growing season;

6. Be maintained in accordance with Article IX of this Chapter at the end of the three (3) year monitoring and management period, or upon acceptance by the Administrator; and

7. Be shown to be within an appropriate plat of easement that includes the Stormwater Management Permit number and any associated maintenance requirements.

C. At the end of the required monitoring period, or upon an earlier request for the release of the performance security, the Administrator shall evaluate native vegetated Category II BMPs and Watershed Benefit Measures for compliance with the performance standards. The Administrator or Administrator’s qualified wetland specialist may review the annual monitoring reports and/or perform a site visit to make this evaluation. If the Administrator determines that the native vegetated BMP and Watershed Benefit Measures meet the standards he shall release the performance security (this is not required for Category I BMPs). If the Administrator determines that the native vegetated BMP and Watershed Benefit Measures do not meet the standards he shall make an estimate of the probable cost of mitigating for the shortfall in performance. The Administrator shall reduce so much of the performance security to cash as is required to mitigate for the shortfall in performance and shall release the remainder. The amount withheld shall be deposited in the fund created under and expended in the manner described in Section 9-318.

9-110 STORMWATER MITIGATION/BEST MANAGEMENT PRACTICE (BMP) AND WATERSHED BENEFIT MEASURE SUBMITTAL

A. A Stormwater Mitigation/BMP and Watershed Benefit Measure submittal in
accordance with the detailed requirements of this Article shall be required. The submittal shall include:

1. A narrative description documenting:
   a. Compliance with the requirements of this Article.
   b. Anticipated pollutants of concern based upon proposed Development land use;
   c. A listing and discussion of all BMPs or Watershed Benefit Measures to be used and how they will mitigate water quality and quantity impacts of the proposed Development;
   d. A description of soils on-site and the following information where the BMP is proposed:
      (1) Infiltration rates;
      (2) Percentage of clay;
      (3) Proximity to private and community wells; and
      (4) Depth to Seasonal High Groundwater Table, bedrock, or limiting layer.
   e. For native vegetated BMPs or Watershed Benefit Measures the following shall be provided:
      (1) Seeding and planting locations, specifications, and methodology;
      (2) A schedule for installation; and
      (3) Proposed maintenance and monitoring provisions.

2. The following calculations shall be provided:
   a. For Category I BMPs:
      (1) The existing Impervious Area and New Impervious Area;
      (2) The Net New Impervious Area for Redevelopment;
      (3) The required Volume Reduction;
      (4) The quantifiable storage provided in each proposed BMP.
b. For Category II BMPs:

(1) The existing **Impervious Area** and **New Impervious Area**;

(2) The **Net New Impervious Area** for Redevelopment;

(3) The required **Volume Reduction**;

(4) The quantifiable storage provided in each proposed **BMP**;

(5) Calculations to demonstrate that pretreatment **BMPs** will treat the targeted pollutants of concern. For manufactured **BMPs**, documentation to support pollutant removal rates from the manufacturer shall be supplied;

(6) The drawdown time for each **BMP** if detention credit is being sought; and

(7) All calculations shall be prepared by a **Professional Engineer**.

c. For **Watershed Benefit Measures**:

(1) The existing and proposed **Runoff** from the **Site**;

(2) If storage based, the quantifiable storage provided by the **Watershed Benefit Measure** that is equivalent to the calculated volume required in the **Detention Storage Facility** and/or **Volume Reduction** per Subsection 9-108.B;

(3) If water quality based, the quantifiable treatment acreage per Subsection 9-108.C;

(4) If area based, the square footage in accordance with Subsection 9-108.D;

(5) If constructed or reestablished **Wetland**, calculations that document sufficient hydrology is present to support **Wetland** hydrology; and

(6) Calculations to demonstrate no adverse impacts upstream or downstream of the **Development** are proposed.

3. An opinion of probable cost to construct, maintain and monitor the **BMPs** or **Watershed Benefit Measures**.

4. Drawings including:
a. A plan view of each BMP or Watershed Benefit Measure proposed;

b. Cross sections of each BMP or Watershed Benefit Measure proposed;

c. Identification of easement areas for Category II BMPs or Watershed Benefit Measures;

d. If native vegetated BMPs or Watershed Benefit Measures are proposed, the plan shall also contain:

   (1) A planting plan including location and acreage of Plant Communities (e.g., lawn, upland prairie, wet prairie, emergent, etc.) and plant list including scientific and common names, seeding rate, plant quantities and spacing distance; and

   (2) Maintenance and monitoring provisions including an annual work schedule describing each task in detail and time of year when it will be performed.

5. The proposed easement or Declaration of Restriction and Covenant to be recorded upon completion of the project, in accordance with the following:

a. Category I BMPs shall be recorded as a Declaration of Restriction and Covenant that acknowledges the presence of these areas on-site to alert all future owners;

b. Category II BMPs and Watershed Benefit Measures shall be shown to be within an appropriate plat of easement; and

c. The Stormwater Management Permit number and maintenance requirements shall be noted on the plat or included in the Declaration of Restriction and Covenant running with the land in any deed which conveys any portion of these areas.

9-111 - 9-131 RESERVED
ARTICLE VI—REQUIREMENTS FOR FLOOD HAZARD AREAS AND BUILDING PROTECTION STANDARDS

9-132 RESERVED

9-133 DISCLAIMER

Nothing in this Chapter purports to alter or affect the regulatory program administered by IDNR-OWR. Anything in this Chapter to the contrary notwithstanding, if under the rules and regulations administered by IDNR-OWR a submittal need not be made to IDNR-OWR, or a review, approval or permit from IDNR-OWR need not be obtained, then nothing in this Chapter shall be construed to impose a requirement that such a submittal be made or that such a review, approval or permit be obtained from IDNR-OWR. Similarly, if IDNR-OWR has delegated its regulatory authority to another entity, then anything in this Chapter to the contrary notwithstanding, if required by such entity, such submittal shall be made, or such review, approval or permit shall be obtained from such entity.

9-134 STATEWIDE AND REGIONAL PERMITS

Development that qualifies for any of the self-issuing statewide or regional permits administered by IDNR-OWR (statewide permits nos. 1 through 14 and regional permit no. 3) are similarly permitted under this Article. The Developer need only submit to the Administrator such information as shall show the Administrator that the Development qualifies for the particular statewide or regional permit in question under the regulations established by IDNR-OWR for such permit and no further submittal need be made under this Article. All other provisions of this Chapter applicable to such Development, however, continue to apply.

9-135 FLOODPLAIN MANAGEMENT

All Development shall meet the requirements set forth in this Article.

9-136 FLOODPLAIN, REGULATORY FLOODPLAIN, BFE AND REGULATORY FLOODWAY LOCATIONS AND STANDARDS

A. The BFE shall be delineated on the Site topography to establish the Regulatory Floodplain area limits for regulation under this Chapter. Regulatory Floodplains shall be delineated on the Site map from the current FEMA FIRM, FIS or LOMR and include those areas of the SFHA which are not Regulatory Floodplains. The current version of the maps adopted and published by FEMA for regulation under the NFIP together with any amendments, additions, revisions or substitutions
thereto or therefor adopted and published by FEMA at any time in the future are hereby referred to, adopted, and made part hereof as if fully set out in this Chapter. A list of the current regulatory maps for the County to be consulted is maintained by the Department. A list of the current regulatory maps for each Community to be consulted is maintained by the Administrator.

B. The BFE shall be the elevation of the profile shown for the Design Storm with the one percent (1%) chance of occurrence in any given year for the Site on the current Flood Insurance Study.

1. In the case of FEMA delineated AH Zones the elevation noted on the current applicable regulatory map(s) shall be the BFE.

2. In the case of FEMA delineated AO Zones the BFE shall be the depth number shown on the current applicable regulatory map(s) added to the Highest Adjacent Grade, or at least two feet (2’) above the Highest Adjacent Grade if no depth number is provided.

3. When no BFE information exists and the upstream Tributary Area is six hundred forty (640) acres or more, the BFE shall be determined using a site-specific Floodplain study by a Professional Engineer using appropriate hydrologic and hydraulic models as follows:

   a. Hydrologic models: TR-20, HEC-1, HEC-HMS;
   
   b. Hydraulic models: HEC-2, HEC-RAS, WSP-2; or
   
   c. A technique approved by the Administrator and IDNR-OWR.

4. Where a Channel has a tributary Drainage Area of six hundred forty (640) acres or more, the above analyses shall be submitted to IDNR-OWR for approval.

5. For a Nonriverine Regulatory Floodplain where no BFE information exists, a site-specific Floodplain study is required for the purpose of establishing a BFE for the Development.

6. For Floodplains that are not regulatory, are not draining more than six hundred forty (640) acres and for which no BFE has been determined, the Administrator may require a site-specific Floodplain study for the purpose of establishing an FPE for the Development.

7. The Administrator may require the use of a Floodplain study not yet approved by IDNR-OWR and FEMA if its use would establish a higher BFE than the approved study. This provision may necessitate that different analyses be prepared for other agencies having permitting jurisdiction over the Floodplain and Floodway.
8. When none of the above apply but the proposed Development consists of more than fifty (50) lots or more than five (5) acres, a study acceptable to the Administrator shall be provided for determination of a site-specific BFE.

C. The location of the Regulatory Floodway shall be as delineated on the current applicable regulatory map(s). The location of the Regulatory Floodway boundary shall be scaled on the site plan using references common to both the map and the plan (typically the centerlines of adjacent roadways). Where an interpretation is needed to determine the exact location of the Regulatory Floodway boundary, IDNR-OWR should be contacted. If an area of the Site is located in the Regulatory Floodway that is higher than the BFE, that area is subject to the Floodway standards of Section 9-142 and 9-143, including the Appropriate Use criteria, until such time as a LOMA or LOMR receives concurrence from IDNR-OWR and is issued by FEMA.

D. General criteria for analysis of Flood elevations in the Regulatory Floodway are as follows:

1. The Flood profiles, flows and data from the current applicable regulatory map must be used for analysis of the base conditions. If the study data appears to be in error or conditions have changed, FEMA and IDNR-OWR shall be contacted for approval and concurrence on the appropriate base conditions data to use. The same Manning’s "n" value shall be used for both existing and proposed conditions unless a recorded maintenance agreement obligates a public entity to maintain the proposed conditions or the land cover is changing from vegetative to nonvegetative. The Administrator shall be copied on all related correspondence.

2. If the BFE at the Site is affected by backwater from a downstream receiving stream with a larger Drainage Area, the proposed Development shall be shown to meet the requirements of this Section with the receiving stream at both the normal water elevation and BFE.

3. If the Applicant is informed by IDNR-OWR, a local government or a private owner that a downstream or upstream Restrictive Bridge or Culvert is scheduled to be removed, reconstructed or modified, or a Public Flood Control Project is scheduled to be built, removed, constructed or modified within the next five (5) years, the proposed Development shall be analyzed and shown to meet the requirements of this Section for both the existing conditions and the expected Flood profile conditions when the bridge, Culvert or Flood control project is built, removed or modified.

4. If the Development will result in a change in the location of the Regulatory Floodway or an increase in the BFE, the Applicant shall submit the information required for the issuance of a CLOMR to IDNR-OWR and FEMA. A public notice
inviting comment on the proposed change in the BFE or location of the Regulatory Floodway will be published by IDNR-OWR or its designee before a CLOMR is issued. All communities adjacent to a watercourse alteration or revocation shall be notified of the proposed Development. Filling, grading, dredging or excavating may take place upon issuance of a CLOMR issued by FEMA. No further Development activities shall take place in the existing or proposed Floodplain until a LOMR is issued by FEMA. The Administrator shall be copied on all related correspondence.

5. In the circumstances listed below and located in a Regulatory Floodway, at a minimum, the information set forth below shall be submitted to IDNR-OWR for its review and approval:

   a. Analysis of the Flood profile due to a proposed bridge, Culvert crossing or roadway approach;

   b. A Professional Engineer’s determination that an existing bridge, Culvert crossing, or approach road is not a source of Flood damage and the analysis indicating the proposed Flood profile;

   c. A Professional Engineer’s determination that a proposed bridge affected by backwater from a downstream receiving stream may be built with a smaller opening;

   d. Alternative Transition Sections and Hydraulically Equivalent Compensatory Storage;

   e. Stormwater Management Permits issued to local units of government for Regulatory Floodway and Floodplain Development;

   f. BFE determinations where none now exist;

   g. IDNR-OWR will issue permits for any IDNR-OWR projects, Dams and all other state, federal or local unit of government projects, including Community projects;

   h. IDNR-OWR will issue permits for construction and other activities in public bodies of water pursuant to 17 Ill. Admin. Code 3708; and

   i. Permits for organizations which are exempt from this Chapter per Illinois Compiled Statutes (ILCS) including state, federal or local units of government.

9-137 GENERAL PERFORMANCE STANDARDS

The following general performance standards are applicable to all Development in a
Regulatory Floodplain. The standards of this Section apply except when superseded by more stringent requirements in subsequent Sections.

A. No Development shall be allowed in the Regulatory Floodplain that singularly or cumulatively creates any increase in Flood stage or velocity off-site, or a damaging or potentially damaging increase in Flood heights or velocity on-site or a threat to the public health, safety and welfare.

B. For all projects involving a Channel Modification, fill, stream maintenance or a levee, the Floodway Conveyance and storage capacity of the Regulatory Floodplain shall not be reduced.

C. If the proposed Development would result in a change in the Regulatory Floodplain or BFE, the Applicant shall obtain a CLOMR from FEMA. No Buildings may be built in the existing or proposed Regulatory Floodplain until the LOMR is obtained from FEMA unless the Building meets all the Building protection standards of Section 9-139. Proposed changes to the Regulatory Floodway delineation and the BFE must be submitted to IDNR-OWR for approval. If a LOMR is a result of fill FEMA Technical Bulletin 10-01 shall be followed and an engineering report shall be completed by a Professional Engineer or Certified Soil Scientist.

D. If the Development is in the Fox River, a permit must also be received from IDNR-OWR.

E. Prior to the commencement of any construction, modification or removal of a Dam the Developer shall obtain an IDNR-OWR Dam Safety Permit or letter indicating a permit is not required.

F. For Public Flood Control Projects, Sections 9-135 through 9-167 will be deemed met if the Applicant demonstrates to IDNR-OWR and the Committee that the proposed project:

1. By hydraulic and hydrologic modeling will not singularly or cumulatively result in increased Flood heights outside the project Site or that any increases will be contained in easements for all Flood events up to and including the Base Flood;

2. Will be operated and maintained by a public entity; and

3. Will reduce Flood damage to an existing Building or Structure.

G. All activities, defined as Development, such as pools, fences, filling, paving, etc., shall be designed so as not to alter flood flows or increase potential Flood damages. Fences within the Floodplain shall not impede the Base Flood.
H. Drainage paths shall be provided around Structures on sloped ground to guide water away from the Structures.

I. Nothing in this Section precludes the design, engineering, construction or financing, in whole or in part, of a Public Flood Control Project by Persons who are not public entities.

J. If a Development will alter or relocate a watercourse the Administrator shall notify adjacent Communities in writing 30 days prior to the issuance of a permit for the alteration or relocation of the watercourse.

K. All new construction and Substantial Improvements must be adequately anchored to prevent flotation, collapse, or lateral movement of the Building resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

L. All new construction and Substantial Improvements must be constructed with materials resistant to Flood damage.

M. All new construction and Substantial Improvements must be constructed by methods and practices that minimize Flood damage.

N. All new construction and Substantial Improvements must be constructed with electrical, HVAC, plumbing, and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during Flood conditions.

O. If a proposed subdivision or other similar new Development is in a Flood prone area, all public utilities and facilities, such as sewer, gas, electrical, and water systems must be located and constructed to minimize or eliminate Flood damage and adequate drainage must be provided to reduce exposure to Flood hazards.

9-138 PUBLIC HEALTH PROTECTION STANDARDS

A. No Developments in the Floodplain shall include locating or storing chemicals, explosives, buoyant materials, animal wastes, fertilizers, flammable liquids, pollutants, or other hazardous or toxic materials below the FPE unless such materials are stored in a Floodproofed and anchored storage tank or Floodproofed Building and certified by a Professional Engineer.

B. Public utilities and facilities such as sewer, gas and electric shall be located and constructed to minimize or eliminate Flood damage.

C. New and replacement water supply systems, wells and sanitary sewer lines may be permitted if:
1. Constructed to minimize or eliminate infiltration of Flood waters into the systems and discharges from the systems into Flood waters; and

2. All manholes or other above ground openings located below the FPE are watertight.

D. New on-site waste disposal systems, such as septic systems, shall not be constructed within the Regulatory Floodplain.

E. Substantially Improved or replacement wastewater treatment plants shall have watertight openings for those openings located below the FPE. Such facilities should be located to avoid impairment to the facility or contamination of floodwaters during the Base Flood.

F. New or proposed Critical Facilities shall be located outside of the two tenths percent (0.2%) frequency Floodplain.

9-139 BUILDING PROTECTION STANDARDS

This Section applies to all Buildings located in the Regulatory Floodplain. However, most new and replacement Buildings are not Appropriate Uses of the Regulatory Floodway. A summary of the building protection standards is provided in Tables 9-139.A and 9-139.B below:
TABLE 9-139.A
BUILDING PROTECTION STANDARDS FOR SPECIAL FLOOD HAZARD AREAS (SFHA)

<table>
<thead>
<tr>
<th>Type</th>
<th>Type of SFHA</th>
<th>Flood Protection Elevation (feet above BFE)</th>
<th>Lowest Floor&lt;sup&gt;5&lt;/sup&gt; (feet above BFE)</th>
<th>Lowest Opening Elevation (feet above BFE)&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fox River Floodplain</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential Structures/ Additions</td>
<td>Adj. to Floodplain&lt;sup&gt;3&lt;/sup&gt;</td>
<td>3</td>
<td>0.5</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Floodplain</td>
<td></td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Attached Garages</td>
<td>Adj. to Floodplain&lt;sup&gt;3&lt;/sup&gt;</td>
<td>3</td>
<td>0.5</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Floodplain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessory Structure</td>
<td>Floodplain</td>
<td>3</td>
<td>0.5</td>
<td>-</td>
</tr>
<tr>
<td>Small Accessory Structure</td>
<td>Floodplain</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-Residential/ Industrial Structure&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Floodplain</td>
<td>3</td>
<td>3&lt;sup&gt;4&lt;/sup&gt;</td>
<td>-</td>
</tr>
<tr>
<td><strong>Other Floodplains</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Residential Structures/ Additions</td>
<td>Adj. to Floodplain&lt;sup&gt;3&lt;/sup&gt;</td>
<td>2</td>
<td>0.5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Floodplain</td>
<td></td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Attached Garage</td>
<td>Adj. to Floodplain&lt;sup&gt;3&lt;/sup&gt;</td>
<td>2</td>
<td>0.5</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Floodplain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessory Structure</td>
<td>Floodplain</td>
<td>2</td>
<td>0.5</td>
<td>-</td>
</tr>
<tr>
<td>Small Accessory Structure</td>
<td>Floodplain</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-Residential/ Industrial Structure&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Floodplain</td>
<td>2</td>
<td>2&lt;sup&gt;4&lt;/sup&gt;</td>
<td>-</td>
</tr>
</tbody>
</table>

<sup>1</sup>This requirement does not apply to Dry Floodproofed Buildings.
<sup>2</sup>An addition to an existing industrial Building may be constructed at the BFE plus one foot (1') of Freeboard as approved by the Administrator.
<sup>3</sup>"Adjacent to" shall apply to the location of the Structure and shall be established by the FPE and includes LOMR-Fs. The Administrator may reduce this requirement upon review of a soil engineering report prepared by a Professional Engineer or Certified Soil Scientist.
<sup>4</sup>Nonresidential Industrial Structures may be elevated or Dry Floodproofed to the FPE.
<sup>5</sup>The Lowest Floor shall be the bottom of the floor joists or top of slab foundation as applicable for the Structure’s construction.
### TABLE 9-139.B
OTHER BUILDING PROTECTION STANDARDS\(^4\)

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Lowest Opening Elevation (feet above HWL)(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Structures adjacent to(^2) at least one of the following:</td>
<td></td>
</tr>
<tr>
<td>Detention Storage Facility/Pond/Lake/Reservoir</td>
<td>2</td>
</tr>
<tr>
<td>Depressional Storage ≥ 20 acres of Tributary Area(^3)</td>
<td>2</td>
</tr>
<tr>
<td>Overland Flow Path ≥ 20 acres of Tributary Area</td>
<td>2</td>
</tr>
<tr>
<td>Overland Flow Path &lt; 20 acres of Tributary Area</td>
<td>0.5</td>
</tr>
</tbody>
</table>

\(^1\)This requirement does not apply to Dry Floodproofed Buildings.

\(^2\)Adjacent to" shall apply to the location of the Structure and shall be established by the FPE.

\(^3\)When modeling is not provided, the Lowest Opening shall be two feet (2') above the overtopping elevation.

\(^4\)The Lowest Floor may be required to be six inches (6") above the normal water level or Seasonal High Groundwater Table at the discretion of the Administrator.

A. The elevation of the Lowest Floor, including basements and Heating, Ventilation, and Air Conditioning (HVAC) (i.e. electrical, heating, ventilating, plumbing and air conditioning equipment and utility meters), of all new residential Structures, Substantially Improved Structures, and additions shall be elevated at least to the FPE. The elevation of the Lowest Floor of an Attached Garage for a Structure must be elevated at least six inches (6") above the BFE.

1. If placed on fill, the top of the fill for a residential Structure shall be above the FPE. Fill shall be placed following the FEMA guidelines for ensuring Buildings placed on fill (FEMA TB 10-01, or current guidelines) are reasonably safe from flooding.

   a. The top of fill for an Attached Garage shall be at least six inches (6") above the BFE. The fill shall be placed at that elevation for ten feet (10') out from the Building unless the Building design is certified by a Registered Structural Engineer to be protected from damage due to hydrostatic pressures.

   b. The fill shall not settle below the FPE for a residential Structure and not below six inches (6") above the Base Flood for an Attached Garage, and shall be adequately protected against Erosion, scour and differential settlement.

   c. An LOMR shall be obtained from FEMA removing the residential Structure
from the **Floodplain**.

2. If elevated by means of walls, pilings, or other foundation, the **Building’s** supporting **Structure** must be permanently open to floodwaters and not subject to damage by hydrostatic pressures of the **Base Flood** in addition to the following design standards:

   a. The permanent openings shall be no more than one foot (1\'') above existing grade and consist of a minimum of two (2) openings. The openings must have a total net area of not less than one square inch for every one square foot of enclosed area subject to flooding below the **BFE**.

   b. The lowest inside grade must match the lowest existing outside grade adjacent to the **Structure**.

   c. The foundation and supporting members shall be anchored and aligned in relation to flood flows and adjoining **Structures** to minimize exposure to known hydrodynamic forces such as current, waves, ice and floating debris.

   d. All areas below the **FPE** shall be constructed of materials resistant to **Flood** damage.

   e. The elevation of the **Lowest Floor** and HVAC, including the basement, for a residential **Structure** shall be located at or above the **FPE**.

   f. Water and sewer pipes, electrical and telephone lines, submersible pumps and other waterproofed service facilities may be located below the **FPE**.

   g. No area less than two feet (2\'') above the **BFE** shall be used for storage.

3. Fully enclosed areas in **New Construction** and **Substantial Improvements** that are subject to flooding and are used solely for parking of vehicles, **Building** access or storage in an area other than a basement shall be:

   a. Designed to automatically equalize hydrostatic **Flood** forces on exterior walls by allowing the entry and exit of floodwaters.

   b. Certified by a **Registered Professional Engineer** or have a minimum of two (2) openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding with the bottom of all openings no higher than one foot (1\'') above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic entry and exit of floodwaters.

   B. The elevation of the **Lowest Floor** and HVAC, including the basement, of all new or **Substantially Improved** nonresidential **Buildings** shall be elevated at least to
the FPE as described above or be Structurally Dry Floodproofed to at least the FPE. A nonresidential Building may be Structurally Dry Floodproofed (in lieu of elevation) provided that a Professional Engineer or Registered Structural Engineer shall certify that the Building has been Structurally Dry Floodproofed below the FPE and the Structure and attendant utility facilities are watertight and capable of resisting the effects of the Base Flood. The Building design shall take into account Flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy and impacts from debris or ice. Floodproofing measures shall be operable without human intervention and without an outside source of electricity. Levees, berms, floodwalls and similar works are not considered Floodproofing for the purpose of this Subsection.

C. Manufactured Homes placed outside a Manufactured Home Park or on a Site in an Existing Manufactured Home Park in which a Manufactured Home has suffered Substantial Damages as a result of a Flood shall be at or above the FPE and shall be anchored to resist flotation, collapse or lateral movement in accordance with the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code § 870 (77 Ill. Adm. Code 870 [1999], as amended). Recreational Vehicles to be installed on a Site for more than one hundred eighty (180) days, unless fully licensed and highway ready (i.e. is ready for use if it’s on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions), shall be at or above the FPE and shall be anchored to resist flotation, collapse or lateral movement in accordance with the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code § 870 (77 Ill. Adm. Code 870 [1999], as amended).

D. Small accessory Structures such as toolsheds and detached garages which are not Substantial Improvements on an existing single-family lot, may be constructed with the elevation of the Lowest Floor below the FPE in accordance with the criteria of this Subsection. Accessory Structures that do not meet all of the requirements below may be constructed if they are Dry Floodproofed or elevated such that the elevation of the finish floor or bottom of floor joints (if constructed on blocks or piers) is at least six inches (6”) above the BFE.

1. The Building shall not be used for human habitation.

2. All areas below the FPE shall be constructed with flood-resistant material. Structures located in a Regulatory Floodway shall meet the Floodway standards of Section 9-143.

3. The Structure shall be anchored to prevent flotation and movement.

4. Service facilities such as electrical and HVAC equipment shall be elevated or Floodproofed to the FPE. Sanitary facilities and plumbing are not allowed.

5. The Building shall be no greater than five hundred seventy-six square feet
(576 sq. ft.) in floor size and cost not more than fifteen thousand dollars ($15,000) to construct.

6. The Building shall meet the requirements of Subsection 9-139.A.2.

7. The Building shall be used only for the storage of vehicles or tools and may not contain other rooms, workshops, greenhouses or similar uses.

E. The elevation of the HVAC of all new industrial Buildings shall be constructed at the BFE plus two feet (2’) unless it is within the Fox River Floodplain, then it shall be constructed at the BFE plus three feet (3’). The elevation of the HVAC of an addition to an existing industrial use may be constructed at the BFE plus one foot (1’) provided this elevation is required by the industrial process as demonstrated by the Applicant and the Administrator approves the elevation in writing.

F. All New Construction and Substantial Improvements shall employ anchoring to prevent flotation, collapse or lateral movement of the Structure, use Flood resistant materials, and be constructed by methods and practices that minimize Flood damages.

G. Where Base Flood elevation data are used within Non-Designated Floodway on the Community’s FIS or FIRM, a record of the following shall be obtained and maintained by the Administrator:

1. The elevation of the Lowest Floor and HVAC (including basement) of all new Structures and Substantially Improved Structures; and
2. The elevation to which the Structure was Floodproofed (if the Structure has been Floodproofed in accordance with Subsections 9-139.A.2, 9-139.B and 9-139.F).

H. In FEMA Zones AO and AH drainage paths shall be provided around Structures on slopes to guide water around and away from proposed Structures.

9-140 NON-CONFORMING STRUCTURES

A. A nonconforming Structure damaged by Flood, fire, wind or other sources may be restored unless the cumulative percentage of damage, improvement, and maintenance since January 1, 2010 is equal to or greater than fifty percent (50%) of the Structure’s fair Market Value in the year prior to damage for that event, in which case it shall conform to Section 9-139.

B. Maintenance of Existing Buildings may occur unless the cumulative percentage of damage, improvement, and maintenance is equal to or greater than fifty percent (50%) of the Structure’s fair Market Value in the year prior to each improvement, in which case it shall conform to Section 9-139. Maintenance will be
recorded cumulatively towards the **Substantial Improvement** of the **Structure**. The cost of maintenance improvements shall be recorded cumulatively over a rolling, ten (10) year period, beginning on January 1, 2010.

C. **Substantial Improvement** does not include any work done to a **Structure** listed on the state or federal historic register provided that the alteration will not preclude the **Structure’s** continued designation as a **Historic Structure**.

**9-141 COMPENSATORY STORAGE VOLUME STANDARDS**

The following standards apply within the **Regulatory Floodplain**:

A. **Hydraulically Equivalent Compensatory Storage** volume will be required for **Development** or **Redevelopment** in a **Riverine Regulatory Floodplain** and at a minimum, shall be equal to the **Regulatory Floodplain Flood** storage volume displaced multiplied by:

1. A factor of one and five tenths (1.5) if no hydraulic modeling is provided;
2. A factor of one and two tenths (1.2) if hydraulic modeling is provided;
3. A factor of one (1) for public roadway, stream restoration or streambank stabilization projects; or
4. A factor of one (1) for **Depressional Storage** and **Nonriverine Regulatory Floodplain**.

B. **Compensatory Storage** shall be provided incrementally such that:

1. The storage volume displaced below the existing ten percent (10%) frequency **Flood** elevation must be replaced below the proposed ten percent (10%) frequency **Flood** elevation.
2. The storage volume displaced above the existing ten percent (10%) existing frequency **Flood** elevation must be replaced above the proposed ten percent (10%) frequency **Flood** elevation and below the existing one percent (1%) frequency **Flood** elevation.
3. The additional **Compensatory Storage** required beyond a one to one (1:1) ratio may be placed below the one percent (1%) frequency **Flood** elevation.
4. Incremental **Compensatory Storage** for public roadway and stream restoration or streambank stabilization projects may be waived, through a written waiver at the discretion of the **Administrator**, provided the storage volume displaced is replaced below the one percent (1%) frequency **Flood** elevation.
C. **Compensatory Storage** volume for **Development** or **Redevelopment** in a **Nonriverine Regulatory Floodplain** area that is also adjacent to a **Lake** shall be equal to the storage volume displaced.

D. **Compensatory Storage** volume requirements for **Development** or **Redevelopment** in a **Nonriverine Regulatory Floodplain** that is not adjacent to a **Lake** shall be replaced in accordance with Subsection 9-141.A.4. If a **Detention Storage Facility** is required and the lost storage is in the same **Tributary Area** then the lost storage shall be replaced in accordance with the requirements for the loss of **Depressional Storage** in Article IV, Subsection 9-84.H.

E. **Compensatory Storage** areas shall be designed to drain freely and openly to the **Channel** and shall be located in a hydraulically equivalent area to the **Development** or **Redevelopment**. This standard does not apply to **Nonriverine Regulatory Floodplain** or the replacement of **Depressional Storage**.

F. **Compensatory Storage** for **Developments** and **Redevelopments** requiring minimal amounts of fill may be waived through a written waiver at the discretion of the **Administrator** provided the **Developer** has verified there are no **Repetitive Loss** areas downstream, and there are no adverse impacts resulting from the following types of **Development**:

1. Replacement of on-site septic systems within the **Floodplain** or **Floodway** provided:
   a. The existing land use is maintained;
   b. The volume of fill is the least amount of fill required to maintain the existing land use;
   c. The number of bedrooms is maintained;
   d. A **Community**’s sanitary system is not located within five hundred feet (500’) of the **Site**; and
   e. The work meets the requirements of Section 9-135.

2. Dredging of ditches in the **Floodplain** and **Non-Designated Floodway** as long as the dredging spoils are evenly dispersed at a depth of no more than two tenths of a foot (0.2’’) adjacent to the dredging operation;

3. **Floodproofing** of an existing, lawfully habitable residential or **Commercial Building** within ten feet (10’’) of the outside face of the **Building** in the **Floodplain** provided the probability of **Flood** damage to other **Buildings** is not increased;
4. Loss of artificially created storage due to a reduction in upstream head loss caused by replacement of a bridge, Culvert, storm sewer, provided there are no increases to the downstream flows or Flood elevation. If increases to the downstream flows or Flood elevation are proposed the following shall be provided:

a. An analysis of the downstream Floodplain shall be conducted to determine whether Structures will be at risk of damage. If Structures are at risk of damage, a detailed hydrologic analysis shall be performed to establish the extent to which the artificial storage decreases flood flows, and the damages that might be incurred as a result of the loss thereof. Compensatory Storage or Mitigation shall be required to the extent necessary to protect the Structures from additional damages; and

b. The Applicant shall document that the downstream regulatory entity or Drainage District has been informed.

5. Building members (including horizontal and vertical members) for decks, fences and accessory Structures meeting Section 9-135 and as constructed within the Floodplain;

6. Top dressing for the purposes of restoring pre-subsidence grade to an area that primarily experiences subsidence due to a documented Flood event. Top dressing is the placement of not more than four (4) inches of Topsoil or gravel within the Regulatory Floodplain. Upon approval of the Administrator, Compensatory Storage shall not be required for top dressing provided that it meets the following:

a. This provision shall not be applicable for new Developments or Redevelopments;

b. Top dressing shall be allowed by permit on a per Parcel basis and not damage or alter adjoining property drainage patterns;

c. Top dressing fill shall comply with Article III and Article VII of this Chapter;

d. The restoration fill shall meet pre-subsidence elevations, and within Riverine areas, the pre-subsidence effective Regulatory Floodplain and Regulatory Floodway conveyance shall be maintained;

e. Proper documentation shall be submitted as part of the stormwater management permit application by the Applicant and shall be either topographic information or photographic documentation of the flooding and resulting subsidence that has occurred on the Site;
f. Upon completion of top dressing, the Applicant shall provide topographic or photographic documentation of completed work; and

g. Repeat top dressing applications are limited to documented Flood events with topographic or photographic evidence of subsidence.

G. Compensatory Storage shall be operational and Functional prior to placement of fill, Structures, or other materials temporarily or permanently placed in the Regulatory Floodplain.

H. A recorded covenant running with the land is required to maintain the Compensatory Storage volume.

9-142 FLOODWAY STANDARDS

The only Development in a Regulatory Floodway or Non-Designated Floodway that will be allowed are Appropriate Uses that will not cause an increase in Flood heights or velocities for all Flood events up to and including the Base Flood. Only those Appropriate Uses listed below will be allowed in the Regulatory Floodway. Development within the Floodway will require an approved IDNR-OWR permit. Appropriate Uses do not include the construction or placement of any new Structures, fill, Building additions, Buildings on stilts, fencing (including landscaping or planting designed to act as a fence), and storage of materials (except as specifically defined below) as an Appropriate Use. If the Development is proposed for the Regulatory Floodway portion of the Regulatory Floodplain, the following standards apply in addition to the standards for the Regulatory Floodplain:

A. Only the construction, modification, repair or replacement of the following Appropriate Uses will be allowed in the Regulatory Floodway:

1. Public Flood Control Projects, structures and private improvements relating to the control of drainage and flooding of existing Buildings, Erosion, water quality or habitat for fish and wildlife;

2. Water Dependent Facilities;

3. Storm and sanitary sewer Outfalls;

4. Replacement of existing septic tanks and fields provided:

   a. All mechanical parts are elevated a minimum of six inches (6”) above the BFE;

   b. The system is placed within the conveyance shadow of an existing Structure when possible for mounded septic fields;
c. The **Applicant** demonstrates to the satisfaction of the **Administrator** that no reasonable alternative location exists on the **Site** outside of the **Floodway**, and that the fill volume is the minimum amount necessary to maintain the existing land use; and

d. The **Applicant** provides proof of an approved **IDNR-OWR** permit.

5. Underground and overhead utilities if sufficiently **Floodproofed**;

6. Recreational facilities such as open space consisting of playing fields, open pavilions, trail systems and fencing that is publicly owned by a governmental agency;

7. Detached garages, storage sheds, boathouses or other non-habitable **Structures** without sanitary facilities that are accessory to existing **Buildings** and will not block flood flows nor reduce **Regulatory** or **Non-Designated** **Floodway** storage;

8. Bridges, **Culverts** and associated roadways, sidewalks and railways, runways and taxiways, required for crossing the **Regulatory Floodway** or for access to other **Appropriate Uses** in the **Regulatory Floodway** and any modification thereto;

9. Parking lots built at or below existing grade provided that either:

   a. The **BFE** is less than one foot (1') above the proposed parking lot; or

   b. The parking lot is accessory to short term outdoor recreational facilities and the **Applicant** agrees to restrict access during periods of inundation and agrees to accept liability for all damage caused by vehicular access during **Flooding** events.

10. **Regulatory Floodway** regrading, without fill, to create a positive nonerosive slope toward a **Channel**;

11. **Floodproofing** activities to protect previously existing lawful **Structures** including the construction of watertight window wells, elevating **Structures** or the construction of floodwalls or berms around residential, **Commercial** or industrial principal **Structures** where the outside toe of the floodwall or berm is no more than ten feet (10') away from the exterior wall of the existing **Structure** and where such activities are not considered to be a **Substantial Improvement** to the **Structure**, unless the **Structure** then meets building protection standards. **Compensatory Storage** will be required for any activities that result in fill in the **Floodway**;

12. The repair, replacement or reconstruction of a damaged **Building** or **Structure**,
provided the **Structure** is not considered **Substantially Damaged** or **Improved** and none of the outside dimensions of the **Building** are increased and such repair, replacement or reconstruction does not constitute a **Substantial Improvement**;

13. The repair, replacement, reconstruction or **Floodproofing** of a **Building** or **Structure** that is **Substantially Damaged** or **Improved** is allowed at its previous location on the **Site** or further outside of the **Regulatory Floodway** provided that:

   a. The **Building** will meet the **Building** Protection Standards in Section 9-139;

   b. The square footage of the portion of the **Structure** below the **Floodplain** elevation is not greater than the existing **Building**;

   c. The width of the **Building** perpendicular to the flow shall be equal to or less than the existing **Building** width; and

   d. If demolished, the construction of a replacement **Building** shall begin within two (2) years of the demolition date. If no construction has begun prior to this date, a replacement **Structure** will not be considered an **Appropriate Use** in accordance with this Section.

14. Modifications to an existing **Building** such as fireplaces, bay windows, decks, patios and second story additions, which do not constitute a **Substantial Improvement**, do not increase the enclosed floor area or livable space of the **Building** below the **BFE** and does not block flood flows; no enclosed floor areas may be built on stilts.

   B. No change shall be made to the list of **Appropriate Uses** without the prior approval of **IDNR-OWR** and the **Committee**.

   C. All **Development** in the **Regulatory Floodway** shall require a **Stormwater Management Permit** and must be in accordance with all provisions of this Chapter.

   D. An **Appropriate Use** may be permitted if the proposed project meets the following engineering and **Mitigation** criteria and is so stated in writing with supporting plans, calculations and data. The **Administrator** may require the submittal to be prepared and signed by a **Professional Engineer**:

   1. All effective **Regulatory Floodway Conveyance** lost due to the **Development** of **Appropriate Uses**, other than bridge or **Culvert** crossings or on-stream structures or **Dams**, shall be replaced at a 1:1 ratio for all **Flood** events up to and including the **Base Flood**.
2. The following expansion and contraction ratios shall be used to determine Transition Sections in calculations of effective Regulatory Floodway Conveyance:

   a. Flowing water will expand no faster than a rate of one foot (1') horizontally for every four feet (4') of the flooded stream’s length.

   b. Flowing water will contract no faster than at a rate of one foot (1') horizontally for every one foot (1') of the flooded stream’s length.

   c. Flowing water will not expand or contract faster than one foot (1') vertically for every ten feet (10') of the flooded stream’s length.

   d. All cross Sections used in the calculations shall be perpendicular to flood flows

   e. Transition Sections must be used to determine the effective Floodway Conveyance areas on adjacent properties.

3. Development of an Appropriate Use will not result in an increase in the Channel or Regulatory Floodway erosive velocities or stage. However, in the case of bridges or Culverts or on-stream structures built for the purpose of backing up water in the stream during normal or flood flows, erosive velocities may be increased at the structure Site if scour, Erosion and Sedimentation will be avoided by the use of riprap or other design measures.

4. In the case of on-stream structures built for the purpose of backing up water during normal or flood flows, the increase in Flood stage when compared to existing conditions for all storm events up to and including the Base Flood Event shall be contained within recorded easements or the Channel banks. On-stream structures may increase the BFE within the limits of the Site, but may not increase the BFE on adjacent or upstream properties. A Dam safety permit or letter indicating a Dam safety permit is not required must be obtained from IDNR-OWR for such structures. All Dams and impoundment structures shall meet the permitting requirements of 17 Ill. Adm. Code Part 3702 (Construction and Maintenance of Dams).

5. If Floodproofing construction is required beyond the outside dimensions of an existing habitable residential or Commercial Building, the outside perimeter of the Floodproofing construction shall be no further than ten feet (10’) from the Building. Compensation for lost storage and Floodway Conveyance will be required for Floodproofing within the ten foot (10’) perimeter provided the probability of Flood damage to other Buildings is not increased.

6. IDNR-OWR will issue permits for all IDNR-OWR, state, federal or Community projects.
9-143 NON-DESIGNATED FLOODWAY

These standards apply to Riverine Regulatory Floodplains with a Non-Designated Floodway. The Applicant shall obtain approval from IDNR-OWR for all Development, any portion of which is located within the Regulatory Floodplain (without a delineated Regulatory Floodway) with a Tributary Area of six hundred forty (640) acres or more.

A. The Development shall not singularly or cumulatively result in an obstruction of flood flows or potential Flood damages outside the Site due to an increase in Flood heights, velocities or loss of Floodplain area storage.

B. A Professional Engineer shall submit a study that:

1. Determines a Floodway which meets the definition of a "Regulatory Floodway" and demonstrates that the proposed Development meets the Floodway standards in Section 9-142 and 9-143;

2. Determines a BFE and demonstrates that the proposed Development will maintain the existing conditions conveyance, will not increase Flood velocities, will not increase Flood profiles and will compensate for any lost Floodplain storage in accordance with Section 9-142; or

3. Shows that the proposed Development will meet the requirements for Regulatory Floodplains in Sections 9-137 and 9-138.

9-144 BRIDGE AND CULVERT STANDARDS

These standards are for the construction, reconstruction or modification of bridges, Culvert crossings and roadway approaches located in the Regulatory Floodplain:

A. A proposed new structure shall not result in an increase of upstream Flood stages greater than one-tenth of a foot (0.1’) when compared to the existing conditions for all Flood events up to and including the Base Flood event unless contained within the Channel banks or recorded easements. The one-tenth of a foot (0.1’) increase is allowed for the margin of error in the model, construction, and survey overall. The evaluation must be submitted to IDNR-OWR for review and issuance of a permit.

B. If the proposed new structure will increase upstream Flood stages greater than one-tenth of a foot (0.1’) the Applicant must contact IDNR-OWR for a Dam Safety Permit or waiver. The Administrator shall be copied on all related correspondence.

C. A Restrictive Bridge or Culvert may be altered to increase the conveyance of the
**Base Flood** if an impact analysis is completed and approved in writing by the Administrator and all other required regulatory approvals are obtained.

D. Velocity increases must be mitigated by use of appropriate measures to avoid scour, Erosion and Sedimentation at the structure.

E. For modification or replacement of existing structures in a Regulatory Floodway, the existing structure must first be evaluated in accordance with IDNR-OWR rules (17 Ill. Adm. Code part 3708) to determine if the existing structure is a source of Flood damage. If the structure is a source of Flood damage, the Applicant’s engineer shall justify allowing the damage to continue and evaluate the feasibility of relieving the structure’s impact. Modifications to or replacement of structures, other than a Restrictive Bridge or Culvert under Subsection 9-144.C, shall not increase Flood stages (0.0 feet) compared to the existing condition for all Flood events up to and including the Base Flood event. The evaluation must be submitted to IDNR-OWR for review and approval before a permit is issued. The Administrator shall be copied on all related correspondence.

F. If any work is proposed in, near or over the Fox River, a permit or letter indicating a permit is not required must be obtained from IDNR-OWR.

G. The hydraulic analysis for the backwater caused by the bridge showing the existing condition and proposed regulatory profile must be submitted to IDNR-OWR for concurrence that a CLOMR is not required.

H. Construction vehicles shall cross streams by the means of existing bridges or Culverts. Where an existing crossing is not available, a temporary crossing, for which a permit or waiver has been issued by IDNR-OWR, shall be constructed in which:

1. The approach roads will be six inches (6") or less above existing grade;

2. The crossing will allow stream flow to pass without backing up the water above the stream bank vegetation line or above any drainage tile or Outfall;

3. The top of the roadway fill in the Channel will be at least two feet (2’) below the top of the lowest bank;

4. Any fill in the Channel shall be nonerosive material, such as riprap or gravel; and

5. The access road and temporary crossings will be removed within one year after installation, unless an extension of time is granted by the Administrator.

**9-145 FLOODPLAIN SUBMITTAL**
The Applicant shall obtain approval from IDNR-OWR and FEMA when required for all new Base Flood and Floodway determinations or as required in Section 9-135. Documentation supporting a finding by the qualified engineer that the proposed Development is compliant with Section 9-135 shall be submitted with the stormwater management permit application. At a minimum, the following materials shall be submitted for approval with the application:

A. Regulatory Floodplain boundary determination:
   1. Provide the source of Flood profile information; and
   2. Provide all hydrologic and hydraulic study information for site-specific Floodplain studies, Non-Designated Floodway elevation determinations, and Floodplain map revisions;

B. Floodway hydrologic and hydraulic analyses for the following conditions:
   1. Existing conditions (land use and stream systems);
   2. Proposed conditions (land use and stream systems);
   3. Tabular summary of the one percent (1%) Design Storm elevations, discharges, and velocities for existing and proposed conditions;
   4. Calculations used for model Development; and
   5. Hydraulic / hydrologic computer model input/output.

C. Floodplain fill and Compensatory Storage calculations for below and above the ten percent (10%) Design Storm elevation up to the Base Flood Elevation:
   1. Tabular summary for below and above the ten percent (10%) Design Storm elevation of fill, Compensatory Storage volumes and Compensatory Storage ratios provided in the proposed plan; and
   2. Cross sections used for the above calculations. AutoCAD and Geographic Information System (GIS) tools may be used to create existing and proposed surfaces, to determine cut and fill, in place of cross sections, at the discretion of the Administrator.

D. Floodproofing measures:
   1. Narrative discussion of Floodproofing measures including material specifications, calculations, design details and operation summary; and
   2. Flood easements when required by this Chapter.
E. Statewide and regional self-issuing permits (statewide permits nos. 1 through 14 and Regional Permit No. 3. Such information as shall show that the Development qualifies for the particular permit in question under the regulations established therefor by IDNR-OWR.

9-146 - 9-167 RESERVED
ARTICLE VII—REQUIREMENTS FOR WETLANDS, LINEAR WATERCOURSES, NON-LINEAR WATERBODIES, BUFFERS AND MITIGATION

9-168 GENERAL

All Developments that have a Wetland Impact, modify a Linear Watercourse, Nonlinear Waterbody, or disturb a Buffer shall comply with this Article. A permit for any Wetland Impact, modification to a Linear Watercourse, Nonlinear Waterbody, or Buffer disturbance shall be obtained from the Director (or Administrator in a Community certified to administer this Article).

9-169 REQUIREMENTS FOR WETLAND DELINEATION

A. Before any Development in or near Linear Watercourses, Nonlinear Waterbodies, or Wetlands is permitted, the Applicant shall submit a written report identifying and evaluating the boundaries, location, area, functions and quality of Linear Watercourses, Nonlinear Waterbodies, Wetlands, and Buffers. The presence and extent of Linear Watercourses, Nonlinear Waterbodies, and Wetlands on the Site shall be determined as the result of an on-site delineation using the following methodology:

1. The Ordinary High Water Mark (OHWM) shall be used to delineate all Linear Watercourses and Nonlinear Waterbodies, that are not Wetlands;

2. All on-site Wetlands shall be delineated in accordance with the current federal wetland delineation methodology; or

3. All on-site Farmed Wetlands in agricultural areas that are in production that are not determined to be Wetlands through the current federal wetland delineation methodology shall be delineated in accordance with the current National Food Security Act Manual methodology. Agricultural Land that has been abandoned for five (5) consecutive years shall be delineated in accordance with the current federal wetland delineation methodology per Subsection 9-169.A.2.

B. The following areas are not considered to be Linear Watercourses, Nonlinear Waterbodies, or Wetlands under this Chapter. Documentation is required to verify the purpose and use of the facility and that the area was excavated or diked in an Upland area. The Director (or Administrator in a Community certified to administer this Article) reserves the right on a case-by-case basis to determine if an area within the categories below shall be regulated under this Chapter:
1. Waste treatment systems, including treatment Ponds or lagoons;

2. Drainage, irrigation, agricultural, and Roadside Ditches excavated in Upland areas;

3. Areas with artificial Hydrology, including but not limited to drain tile breaks, irrigation, or Detention Storage Facility outlets which would revert to Upland if the tile were repaired or irrigation were to cease;

4. Artificial Nonlinear Waterbodies or Wetlands created by excavating and/or diking Upland areas to collect and retain water and which are used exclusively for such purposes as stormwater storage, stock watering, irrigation, industrial cooling systems, settling basins, sediment traps, or primarily aesthetic purposes;

5. Water filled depressions created in Upland areas incidental to construction activity; and

6. Pits or quarries excavated in Upland areas for the purpose of obtaining fill, stone, aggregate, sand, or gravel unless and until the construction or excavation operation is abandoned for a period of five (5) years or more and the resulting body of water meets the definition of Waters of the U.S. or Wetlands.

C. Wetland delineations under this Section shall be valid for five (5) years.

D. Delineations for permitting purposes may be performed outside the growing season when Site conditions allow. FQI assessments made before May 1st or after October 15th shall be considered preliminary.

E. The approximate location, extent and relative quality of off-site Linear Watercourses, Nonlinear Waterbodies and Wetlands within one hundred feet (100') of the Site shall be identified and included in the written report. The location and extent of such, at the time of Development, shall be determined by using the following hierarchy:

1. Site-specific delineation in accordance with the current federal wetland delineation methodology;

2. Wetlands identified in Watershed Plans or ADID studies;

3. Wetlands identified in Interim Watershed Plans; or

4. Wetlands identified on USFWS National Wetlands Inventory maps.

F. The quality of the Wetlands shall be evaluated based upon the FQI. The FQI shall be based solely on the Wetland vegetation. Buffers and adjacent Plant
Communities shall not be included in the calculation.

G. The presence of any federally or state listed threatened and endangered species on-site shall be determined.

9-170 MITIGATION REQUIRED

All Wetland Impacts shall be mitigated as described within this Article with the following exceptions:

A. A Wetland Impact created by the dredging of an isolated Wetland with a FQI of less than seven (7) for the purpose of creating a native vegetated Detention Storage Facility need not be mitigated;

B. A Wetland Impact to Isolated Wetlands less than 0.10 acre (4,356 square feet) in aggregate need not be mitigated, provided that:

1. One tenth of an acre (4,356 square feet) or more of the Wetlands on the Site have not been dredged or filled, cumulatively, since the Effective Date of this Chapter; and

2. The Wetland(s) has a FQI less than twenty-five (25).

C. Development proposing a Temporary Wetland Affect need not be mitigated provided that the impacted Wetland is restored to its pre-existing condition pursuant to Subsection 9-174.A;

D. A Wetland Impact occurring on Agricultural Land administered by any program under the Food Security Act (16 USC Section 3801 et seq.), as amended, need not be mitigated, provided that:

1. It has been enrolled in the program for the previous three (3) years; and

2. It is an approved impact under the program’s conservation plan.

E. A Wetlands Impact to Wetlands identified as having a FQI greater than or equal to twenty-five (25) shall not be allowed as part of any Development unless the application of this Section would:

1. Have the effect of depriving the owner of all economically beneficial use of the Site; or

2. Make the construction or installation of an essential public improvement by a public entity impossible or highly impracticable. The Applicant may apply for a variance from the requirements of this Section under Article X of this Chapter; and
3. If such a variance is granted Mitigation for the Wetland Impact allowed shall be made according to Sections 9-171 and 9-172.

F. Mitigation required for indirect impacts shall be prorated by the percentage of the Tributary Area to the Wetland that is on-site (existing on-site Tributary Area/total existing Tributary Area) multiplied by the Wetland area, excluding any direct impacts via dredge or fill.

9-171 MITIGATION TO BE LOCAL

A. All Mitigation for Wetland Impacts required under a USACE Section 404 permit or under this Chapter shall be provided in this County through:

1. On-site Mitigation meeting the wetland mitigation plan requirements per Section 9-173;

2. Off-site Mitigation meeting the wetland mitigation plan requirements per Section 9-173 within the same major Watershed as the impact within this County;

3. The purchase of credits from a Wetland Mitigation Bank within the same major Watershed as the impact; or

4. Payment of a fee in lieu of Wetland Mitigation per Sections 9-197 of this Chapter.

B. Mitigation outside the County shall be allowed when:

1. Wetland Mitigation is required for Wetland Impacts that occur in any other County;

2. Wetland Mitigation Bank credits are not available within the same major Watershed as the impact in this County, Mitigation via the purchase of credits in a Mitigation bank within the other major Watershed in the County or Mitigation outside the County within the same major Watershed as the impact, upon approval of the Director; or

3. Mitigation required under a USACE Section 404 permit that must occur within a USACE approved bank and credits within a USACE approved bank are not available within the County at the time of the approval, upon approval of the Director.

9-172 MITIGATION REQUIREMENTS

A. If Linear Watercourses are to be completely or partially relocated, Mitigation may be made through stream restoration meeting the stream restoration plan
requirements per Subsection 9-173.B.

B. For all mitigable Wetland Impacts, Mitigation may be made:

1. Within a Wetland Mitigation Facility meeting the wetland mitigation plan requirements per Subsection 9-173.A;

2. Through the purchase of credits from a Wetland Mitigation Bank; or

3. Through the payment of a fee in lieu of Mitigation under Section 9-179.

C. Wetland Mitigation shall be provided at the following ratios:

1. One to one (1:1) for Wetland Impacts upon Wetlands with a FQI of less than seven (7). For purposes of this Section, a Farmed Wetland is assumed to have a FQI less than seven (7);

2. Two to one (2:1) for Wetland Impacts upon Wetlands with a FQI of seven (7) or more but less than sixteen (16);

3. Three to one (3:1) for Wetland Impacts upon Wetlands with a FQI of sixteen (16) or more but less than twenty-five (25);

4. Ten to one (10:1) plus one-half (½) for each point by which the FQI exceeds twenty-five (25) rounded up to the nearest whole number for Wetland Impacts upon Wetlands with a FQI of more than twenty-five (25);

5. Three to one (3:1) unless the FQI dictates a higher Mitigation ratio for Wetland Impacts upon Wetlands inhabited by a threatened or endangered species;

6. Mitigation for Wetland Impacts upon more than one Wetland within a Site shall be mitigated at the ratio of the highest quality Wetland Impacted; and

7. Mitigation requirements based upon preliminary assessments per Subsection 9-169.D shall not be considered final unless a FQI of sixteen (16) is assumed or the Director (or Administrator in a Community certified to administer this Article), accepts such security as he shall deem appropriate to ensure that the required Mitigation will be achieved.

D. The Applicant may provide Wetland Mitigation by enhancing preserved Wetlands with a FQI of seven (7) or less at the ratio of one-fourth to one (0.25:1) per one acre of Wetland enhanced. If this option is chosen, the entire Wetland shall be enhanced even if credit in excess of that required for the Development is generated. The enhanced Wetland shall meet the performance standards of Section 9-174.
E. **Mitigation** for impacts to **Wetlands** with a FQI less than seven (7) may occur within the **Detention Storage Facility**, upon approval of the **Director** (or **Administrator** in a **Community** certified to administer this Article).

F. The **Applicant** may propose an alternative **Mitigation** plan combining **Wetland** creation, purchase of credits from a **Wetland Mitigation Bank**, payment of a fee in lieu of **Wetland Mitigation**, and/or enhancing existing **Wetlands** either on-site or off-site.

### 9-173 WETLAND MITIGATION AND STREAM RESTORATION PLAN

A. If **Wetland Mitigation** is required and is proposed within a **Wetland Mitigation Facility**, a wetland mitigation plan shall be submitted in accordance with Section 9-180. The wetland mitigation plan shall be designed so that:

1. Every **Wetland Mitigation Facility** shall contain at least two (2) **Wetland Plant Communities** (for example, wet prairie, emergent, floating vascular, forested wetland, sedge meadow, or hemimarsh);

2. **Open Water** shall not constitute more than twenty percent (20%) of the entire **Wetland Mitigation Facility**; and

3. It is buffered according to the requirements of Section 9-177. Reductions are allowed in accordance with Subsections 9-177.B.5.c and 9-177.B.6. No **Buffer** is required for that portion of a **Wetland Mitigation Facility** which is adjacent to an existing preserved **Wetland**.

B. If **Linear Watercourses** are modified, a stream restoration plan shall be submitted in accordance with Section 9-180. The stream restoration plan shall be designed so that:

1. If **Linear Watercourses** are completely or partially relocated, the newly created portion must be of equal or greater length than the existing **Linear Watercourse**;

2. It is constructed in a manner which will allow naturalizing to occur (i.e. meandering, pools, riffles, and the like); and

3. It is buffered according to the requirements of Section 9-177. Reductions are allowed in accordance with Subsections 9-177.B.5.c and 9-177.B.6.

### 9-174 MITIGATION PERFORMANCE STANDARDS

A. All **Wetland Mitigation Facilities** shall meet the following performance standards:

1. The proposed **Wetland** acreage within the **Wetland Mitigation Facility** shall
meet the definition of a "Wetland" under this Chapter.

2. All vegetated zones, including the Buffer, within any Wetland Mitigation Facility shall achieve eighty-five percent (85%) cover, with the following exceptions:
   
   a. The emergent Plant Community shall achieve sixty percent (60%) aerial coverage;

   b. The floating vascular Plant Community shall meet twenty-five percent (25%) aerial coverage; and

   c. Open Water shall have zero percent (0%) vegetative coverage.

3. A Wetland Mitigation Facility designed to mitigate for impacts to Wetlands with a FQI of less than seven (7) shall achieve a minimum FQI three (3) points greater than the FQI of the Wetland Impacted within the five (5) year monitoring period.

4. A Wetland Mitigation Facility designed to mitigate for impacts to Wetlands with a FQI of seven (7) or more but less than twenty-five (25) shall achieve a minimum FQI five (5) points greater than the FQI of the Wetland Impacted within the five (5) year monitoring period.

5. A Wetland Mitigation Facility, including the Buffer, shall not be dominated or contain cumulatively more than ten percent (10%) cover by non-native or invasive species.

B. All stream restorations and their Buffers shall meet the following performance standards:

1. All constructed in stream structures (i.e., pools, riffles, bank stabilization, and the like) shall be dynamically stable;

2. No rills or gullies shall be present on stabilized streambanks;

3. The overbank areas of any stream restoration, including the Buffer, shall achieve eighty-five percent (85%) coverage. Proposed vegetated areas in the stream or along the toe shall achieve sixty percent (60%) coverage;

4. The overbank areas of a stream restoration with no associated Wetlands shall achieve a minimum FQI of ten (10) within the three (3) year monitoring period;

5. A stream restoration with associated Wetlands with a FQI of less than seven (7) shall achieve a minimum FQI three (3) points greater than the FQI of the associated Wetlands within the three (3) year monitoring period;
6. A stream restoration with associated Wetlands with a FQI of seven (7) or more but less than twenty-five (25) shall achieve a minimum FQI five (5) points greater than the FQI of the associated Wetlands within the three (3) year monitoring period; and

7. A stream restoration, including the Buffer, shall not be dominated or contain cumulatively more than ten percent (10%) cover by non-native or invasive species.

C. All Buffer (re)establishment areas that are not part of a Wetland Mitigation Facility or stream restoration shall meet the performance standards in Subsection 9-177.C.

9-175 MITIGATION MONITORING

A. All Wetland Mitigation facilities shall:

   1. Be monitored and managed for five (5) years beginning on the day the Wetland planting is completed;

   2. Be monitored in accordance with the procedures set forth in the current Chicago District protocol promulgated by USACE;

   3. Provide an annual report to the Director (or Administrator in a Community certified to administer this Article) by February 15th of each year for every Wetland Mitigation Facility under permit;

   4. Make a request for the release of the performance security to the Director (or Administrator in a Community certified to administer this Article) once a Wetland Mitigation Facility reaches its required FQI and meets the performance standards of Section 9-174. A release of the performance security may be requested of the Director (or Administrator in a Community certified to administer this Article) as early as the end of the third full growing season; and

   5. Be maintained in accordance with Article IX of this Chapter at the end of the five (5) year monitoring and management period, or upon acceptance by the Director (or Administrator in a Community certified to administer this Article).

B. All stream restorations shall:

   1. Be monitored and managed for three (3) years beginning on the day planting is completed;

   2. Be monitored in accordance with the procedures set forth in the current Chicago District protocol promulgated by USACE;
3. Provide an annual report to the Director (or Administrator in a Community certified to administer this Article) by February 15th of each year for the stream restoration under permit;

4. Make a request for the release of the performance security to the Director (or Administrator in a Community certified to administer this Article) once the stream restoration reaches its required FQI and meets the performance standards of Section 9-174. A release of the performance security may be requested of the Director (or Administrator in a Community certified to administer this Article) as early as the end of the second full growing season; and

5. Be maintained in accordance with Article IX of this Chapter at the end of the three (3) year monitoring and management period, or upon acceptance by the Director (or Administrator in a Community certified to administer this Article).

9-176 NON-PERFORMING MITIGATION REQUIREMENTS

At the end of the five (5) year monitoring period for a Wetland Mitigation Facility and the three (3) year monitoring period for a stream restoration, or upon an earlier request for the release of the performance security, the Director (or Administrator in a Community certified to administer this Article) shall evaluate the Wetland Mitigation Facility or stream restoration for compliance with the performance standards of Section 9-174. The Director (or Administrator in a Community certified to administer this Article) may review the annual monitoring reports and/or perform a site visit to make this evaluation. If the Director (or Administrator in a Community certified to administer this Article) determines that the facility meets the standards he shall release the performance security. If the Director (or Administrator in a Community certified to administer this Article) determines that the facility does not meet the standards he shall make an estimate of the probable cost of mitigating for the shortfall in performance. The Director (or Administrator in a Community certified to administer this Article) shall reduce so much of the performance security to cash as is required to mitigate for the shortfall in performance and shall release the remainder. The amount withheld for Mitigation shall be deposited in the fund created under and expended in the manner described in Section 9-179.

9-177 BUFFER REQUIREMENTS

A. Applicability:

1. The requirements of this Section are applicable to:

   a. Areas in conservation or drainage easements that were established under this Chapter for the purpose of protecting, enhancing or reestablishing a Buffer shall be preserved in accordance with
Subsection 9-177.B and if disturbed, shall be re-established;

b. **Developments** that require a **Stormwater Management Permit** per Section 9-28 but do not require a **Detention Storage Facility** per Subsection 9-81.B shall meet Subsection 9-177.B; and

c. **Developments** that require a **Detention Storage Facility** per Subsection 9-81.B shall meet Subsection 9-177.B. If disturbance is proposed within a **Buffer** on the **Site**, the area within the defined width per Subsection 9-177.B that does not currently meet the definition of a **Buffer** shall be assessed for potential **Buffer** functions. Areas that have high potential to provide **Buffer** functions shall be re-established in accordance with Subsection 9-177.C. Such areas include, but are not limited to:

1. **Agricultural Land** within the defined width currently in production that are tributary to the **Linear Watercourse**, **Nonlinear Waterbody**, or **Wetland**;

2. Maintained turf or landscape areas within the defined width that are tributary to the **Linear Watercourse**, **Nonlinear Waterbody**, or **Wetland**;

3. Fallow or unmaintained areas within the defined width dominated by invasive species that are tributary to the **Linear Watercourse**, **Nonlinear Waterbody**, or **Wetland**;

4. **Redevelopment** areas within the defined width that propose removal of **Buildings**, **Structures** or impervious surface in an area that is tributary to the **Linear Watercourse**, **Nonlinear Waterbody**, or **Wetland**; or

5. Areas within the defined width that are not tributary to, but provide ground water recharge, to the **Linear Watercourse**, **Nonlinear Waterbody**, or **Wetland**.

2. The requirements of this Section are not applicable to:

a. **Redevelopment** projects on **Sites** adjacent to the main **Channel** of the Fox River; or

b. **Isolated Wetlands** or **Waters of the U.S.** that, in either case, are below the threshold size limitations for **Mitigation** requirements under the **USACE** Section 404 permit program (currently, less than 0.10 acre);

c. Roadside and agricultural drainage ditches that do not meet the definition
of a **Wetland** or **Waters of the U.S.**;

d. Swales that do not have a defined bed and bank that do not meet the definition of a **Wetland** or **Waters of the U.S.**; and

e. Public roadway crossings and their associated installations.

**B. Buffers:**

1. A **Buffer** shall not constitute a **Linear Watercourse**, **Nonlinear Waterbody** or **Wetland**.

2. **Buffer** widths required as a part of a **USACE** Section 404 permit supersede the widths required in this Section, unless the width required herein is greater. If a **USACE** permit is obtained to permanently fill a portion of a **Wetland** and no **Buffer** is required, the **Buffer** width required by this Chapter immediately adjacent to the area of impact does not apply. "Immediately adjacent" refers to the area within fifteen feet (15') of the area of impact, which may be used to transition from no **Buffer** to the required width. In no case shall additional **Wetland** area be filled to provide **Buffer** required by this Chapter.

3. **Buffer** areas are divided into two (2) types, linear **Buffers** and water body **Buffers**. The **Buffer** area for all **Linear Watercourses** and **Nonlinear Waterbodies**, except **Wetlands**, shall extend from the **OHWM**. The **Buffer** area for **Wetlands** shall extend from the edge of the approved delineated **Wetland** boundary.

4. A **Site** may contain **Buffer** that originates from a **Linear Watercourse**, **Nonlinear Waterbody** or **Wetland** located on another property.

5. **Buffer** widths are to be fifty feet (50’) wide unless otherwise determined using the criteria specified in Section 9-177.

   a. Linear **Buffers** shall be designated along **Linear Watercourses** and associated **Wetlands** (i.e. swales, creeks, streams, rivers, etc.). Refer to Section 9-177 where **Wetlands** are adjacent to and not part of the main **Channel** (i.e., **Floodplain Wetland**, backwater slough, oxbow, bordering **Wetland** complex). The minimum **Buffer** width for all **Linear Watercourses** and associated **Wetlands** shall be:

   (1) Determined utilizing the formula, \( X = (A \times 0.0547) + 30 \), where "X" equals the **Buffer** width in feet and "A" equals the **Drainage Area** in acres when the **Linear Watercourse** has a **Drainage Area** less than six hundred forty (640) acres, measured at the downstream property line. The width calculated by this formula shall be rounded up to the
nearest multiple of five (5). Figure 9-177.1 of this Section may be used to determine Buffer widths provided the resultant width is increased to the nearest multiple of five (5);

(2) Fifty feet (50') when the **Linear Watercourse** has a **Drainage Area** greater than six hundred forty (640) acres, measured at the downstream property line, or is designated as **ADID** because of high habitat value or an adjacent **Wetland** has a calculated FQI greater than sixteen (16); or

(3) One hundred feet (100') when the **Linear Watercourse** is rated A or B for diversity or integrity or is mapped as Biologically Significant by the current edition of “Integrating Multiple Taxa in a Biological Stream Rating System” by the Illinois Department of Natural Resources.

b. **Water body Buffers** shall encompass nonlinear waterbodies meeting the definition of **Waters of the U.S.**, and **Wetlands** that are not part of the main **Channel** of a **Linear Watercourse**. The **Buffer** width shall be based upon the **FQI** of the **Wetland**. **Buffer** requirements based upon preliminary **FQI** assessments per Subsection 9-169.F shall not be considered final unless maximum **Buffer** widths are assumed. The minimum **Buffer** width shall be:

(1) Fifteen feet (15') and a maximum of thirty-five feet (35'), in accordance with Table 9-177.2 of this Section, for all **Wetlands** with a **FQI** of less than seven (7) and nonlinear waterbodies that do not have associated **Wetlands**;

(2) Fifteen feet (15') and a maximum of fifty feet (50'), in accordance with Table 9-177.3 of this Section, for all **Wetlands** with a **FQI** of seven (7) to sixteen (16);

(3) Thirty feet (30') and a maximum of fifty feet (50'), in accordance with Table 9-177.4 of this Section, for all **Wetlands** with a **FQI** greater than sixteen (16) to twenty-five (25); or

(4) One hundred feet (100') for all **Wetlands** with a **FQI** greater than twenty-five (25).

c. If protective measures are installed along the perimeter of a **Buffer**, the width may be reduced by up to ten percent (10%) immediately adjacent to the protective measure. The reduction in width that may be applied due to installation of protective measures may not be applied where **Buffer** width averaging has been used and the **Buffer** would be more than fifty percent (50%) less than originally specified. Protective measures may consist of fencing, native vegetated **Detention Storage**
Facilities, BMPs or other methods approved by the Administrator.

6. Buffer width averaging is acceptable at the discretion of the Director (or Administrator in a Community certified to administer this Article). If Buffer width averaging is proposed:

a. The width may not be more than fifty percent (50%) less, at the narrowest point, than the required width;

b. The width may never be less than fifteen feet (15'); and

c. High potential Buffer function areas may be re-established to meet Buffer averaging requirements for Developments meeting Subsection 9-177.A.1.c, upon approval by the Director (or Administrator in a Community certified to administer this Article).

C. Buffer (Re)Establishment: Buffer (re)establishment includes revegetation of the required Buffer per Subsection 9-177.A using the width determined per Subsection 9-177.B with predominately native deep-rooted vegetation.

1. If Buffer (re)establishment is required, a buffer establishment plan shall be submitted in accordance with Section 9-180.

2. The Buffer shall be appropriately managed and maintained in accordance with the following:

a. Buffer (re)establishment areas less than five thousand (5,000) square feet, cumulatively on-site, shall:

   (1) Meet the following performance standards:

   (a) All proposed vegetated areas shall achieve eighty five percent (85%) cover; and

   (b) All proposed vegetated areas not be dominated by or contain cumulatively more than twenty-five percent (25%) cover by non-native or invasive species.

   (2) Within one (1) year of the completion of the Development a qualified wetland specialist retained by the Developer shall verify compliance with this Section in a report submitted to the Director (or Administrator in a Community certified to administer this Article);

   (3) Make a request for the release of the performance security to the Director (or Administrator in a Community certified to administer this Article) once the Buffer (re)establishment areas meet the performance
standards. A release of the performance security may be requested as early as the end of the first full growing season following planting; and

(4) Be maintained in accordance with Article IX of this Chapter at the end of the monitoring and management period, or upon acceptance by the Director (or Administrator in a Community certified to administer this Article).

b. Buffer (re)establishment areas greater than five thousand square feet (5000 sq. ft.), cumulatively on the Site, shall:

(1) Meet the following performance standards:

(a) All proposed vegetated areas shall achieve eighty five percent (85%) cover;

(b) All proposed vegetated areas shall achieve a minimum FQI of ten (10) within the three (3) year monitoring period; and

(c) All proposed vegetated areas shall not be dominated or contain cumulatively more than ten percent (10%) cover by non-native or invasive species.

(2) Be monitored and managed for three (3) years beginning on the day planting is completed;

(3) Be monitored via meander method or transect method in accordance with the procedures set forth in the current Chicago District protocol promulgated by USACE;

(4) Provide an annual report to the Director (or Administrator in a Community certified to administer this Article) by February 15th of each year for every Buffer (re)establishment area under permit;

(5) Make a request for the release of the performance security to the Director (or Administrator in a Community certified to administer this Article) once the Buffer reaches its required FQI and meets the performance standards. A release of the performance security may be requested as early as the end of the second full growing season; and

(6) Be maintained in accordance with Article IX of this Chapter at the end of the three (3) year monitoring and management period, or upon acceptance by the Director (or Administrator in a Community certified to administer this Article).

3. At the end of the three (3) year monitoring period for a Buffer
(re)establishment area greater than five thousand square feet, or upon an earlier request for the release of the performance security, the Director (or Administrator in a Community certified to administer this Article) shall evaluate the Buffer for compliance with the performance standards. The Director or Administrator may review the annual monitoring reports and/or perform a site visit to make this evaluation. If the Director or Administrator determines that the Buffer (re)establishment area meets the standards he shall release the performance security. If the Director or Administrator determines that the Buffer (re)establishment area does not meet the standards he shall make an estimate of the probable cost of mitigating for the shortfall in performance. The Director or Administrator shall reduce so much of the performance security to cash as is required to mitigate for the shortfall in performance and shall release the remainder. The amount withheld shall be deposited in the fund created under and expended in the manner described in Section 9-179.

D. Stormwater Management Facilities: Stormwater Management Measures shall not require a Buffer but may constitute Buffer. The total width of the Buffer required may not be reduced by the installation of a Stormwater Management Measure unless they can be considered a protective measure, then the width of the Buffer may be reduced as specified in Subsection 9-177.B.5.c.

E. Disturbed During Construction: If a Buffer area is disturbed during construction, the Buffer shall be re-established in accordance with Subsection 9-177.C.

F. Access Allowed When Necessary: Access through Buffer areas shall be allowed when necessary for maintenance purposes. Unless otherwise dedicated for a public purpose, Buffer areas shall remain private property and are not generally accessible to the public.

G. Discharge Through Buffer: Undetained stormwater which has not passed through a Detention Storage Facility shall discharge through a BMP or Buffer before entering a Linear Watercourse, Nonlinear Waterbody or Wetland.

H. Free from Development Once Established:

1. All Buffer areas once established shall be maintained free from Development, except as follows:

   a. A Buffer area may be used for passive recreation (e.g., birdwatching, walking, jogging, bicycling, horseback riding and picnicking) and it may contain pedestrian, bicycle or equestrian trails, provided that the created path is no wider than the width required for the designated use by the AASHTO Guide for Development of Bicycle Facilities, current edition. If the path leads to a Wetland, it must be a winding path to help prevent Erosion;
b. Accessory **Structures** (i.e., toolshed) and impervious surfaces may occupy a maximum of fifteen percent (15%) of the portion of the required **Buffer** that extends onto or is part of a **Site**.

c. Below and above ground utilities shall be allowed provided all other federal, state and local regulations are met;

d. Utility maintenance, and maintenance of drainage facilities and drainage easements shall be allowed provided the maintenance activity meets all other federal, state and local regulations; and

e. Anchoring and placement of boat docks and piers shall be allowed provided the **Structure** meets all other federal, state and local regulations.

2. **Buffer** areas including the protected **Linear Watercourses**, **Nonlinear Waterbodies** and **Wetlands** shall be shown to be within appropriate easements on all new plats. Additionally, the **Stormwater Management Permit** number, and any associated maintenance requirements shall be noted on the plat or included as a covenant running with the land in any deed which conveys any portion of a **Buffer** area.

3. An easement over **Buffer** areas for projects meeting the requirements of Subsection 9-177.C.2.a is not required. A Declaration of Restriction and Covenant that acknowledges the presence of **Linear Watercourses**, nonlinear waterbodies, **Wetlands** and **Buffers** on-site, the **Stormwater Management Permit** number, and any associated maintenance requirements. However, an easement per Subsection 9-177.H.2 may be required at the discretion of the **Administrator**.

I. **Buffer** width calculation Figures and Tables:
FIGURE 9-177.1
BUFFER WIDTH CALCULATION BASED ON DRAINAGE AREA

Buffer Width Calculation Based on Drainage Area

Drainage Area (ac) vs. Buffer Width (ft) graph
TABLE 9-177.2
LOW QUALITY WETLANDS (FQI<7)

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<th>Wetland Area (Acres)</th>
<th>Buffer Width (Feet)</th>
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TABLE 9-177.3
MEDIUM QUALITY WETLANDS (7>FQI<16)

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TABLE 9-177.4
HIGH QUALITY WETLANDS (16>FQI>25)

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9-178 DENIAL OF PERMIT—APPEAL

The denial of a permit under this Article may be appealed in the manner described in Section 9-36.

9-179 FEE IN LIEU OF WETLAND MITIGATION

If a Wetland Mitigation is required under this Chapter and the Applicant chooses to satisfy the Mitigation requirement by paying a fee in lieu of Mitigation, the Applicant shall:

A. Prepare a statement of the estimated probable cost to acquire the land, install, monitor and maintain a Wetland Mitigation Facility for five (5) years (which estimate is subject to the approval of the Director [or Administrator in a Community certified to administer this Article]), as if the Applicant had chosen to satisfy the Mitigation requirement by mitigating within a Wetland Mitigation Facility; and

B. If Mitigation credits are available from any Wetland Mitigation Bank, the Applicant shall also prepare a statement of the estimated probable cost of satisfying the Mitigation requirement through the purchase of credits from a Wetland Mitigation Bank (which estimate is subject to the approval of the Director [or Administrator in
a Community certified to administer this Article]) as if the Applicant had chosen to satisfy the Mitigation requirement in such manner.

C. The fee in lieu of Wetland Mitigation to be paid under this Section shall be the greater of Subsections 9-179.A or 9-179.B.

9-180 WETLAND SUBMITTAL

A. The Applicant shall obtain a permit for all federally regulated activities involving Waters of the U.S. from the appropriate federal authorities. The Applicant shall obtain a permit from the County (or Community certified to administer Article VII of this Chapter), for all Developments having a Wetland Impact or that modify a Linear Watercourse or Nonlinear Waterbody.

B. If the Development proposes a Wetland Impact or modification to a Linear Watercourse or Nonlinear Waterbody, the requirements of this Article shall be met and a wetland submittal shall be required. The submittal shall include all of the following information:

1. A written report containing:
   a. A Wetland delineation report (USACE format);
   b. Calculation of the required Buffer width for each Linear Watercourse, Nonlinear Waterbody, and Wetland (including date the FQI was completed, size and description of the Buffer functions);
   c. Consultation with the Illinois Department of Natural Resources to determine if the Site is inhabited by a state listed threatened or endangered species and obtain a consultation termination letter or other instrument of approval;
   d. An evaluation of the Site in accordance with current USFWS review procedure;
   e. One of the following forms of documentation from the USACE:
      (1) A copy of the written Jurisdictional Determination (JD) from the USACE as to which Linear Watercourses, nonlinear waterbodies and Wetlands on the Site are Waters of the U.S.;
      (2) A copy of a Letter of No Objection (LONO) where no impacts to Waters of the U.S. are proposed; or
      (3) A copy of the USACE permit for the Development.
   f. A narrative describing the proposed Wetland Impacts and means of Mitigation;
   g. Supporting calculations to prove the Development will not cause an indirect impact to Wetlands on-site or within 100 feet of the Site shall be included in the Wetland submittal. An indirect Wetland Impact is determined if a Development activity would result in the Wetland Hydrology falling below 80 percent, or exceeding 150 percent, of the existing condition storm event Runoff volume to the Wetland for the 2-year, 24-hour storm event. The following minimum information shall be submitted
to address this provision:

(1) An exhibit illustrating the existing and proposed tributary Drainage Area to Wetlands;

(2) Existing and proposed condition land use documentation and soil type;

(3) Existing condition and proposed Runoff volume determination;

(4) Where practical, the Development shall include a design for the stormwater management system that maintains or replicates the existing hydrologic condition of the Wetland, unless changes are proposed to enhance the Wetland function;

(5) For proposed Developments that will change the size of a Wetland through direct impacts via dredging or filling, the proposed to existing conditions Runoff volume ratio shall be adjusted according to the change in Wetland size, to determine if the Hydrology threshold has been met;

(6) The requirements of this Section may be waived if the on-site Tributary Area is less than 10% of the total Tributary Area to the Wetland, upon approval of the Director (or Administrator in a Community certified to administer this Article); and

(7) If an indirect impact is proposed, the requirements of Article VII of this Chapter shall be met.

h. If Wetland Impacts will be mitigated within a Wetland Mitigation Facility, the report shall also contain:

(1) The proposed plan including a description of the proposed hydrologic regime, soils and Site geomorphology, where applicable;

(2) Specifications for rough and final grading, soil types, soils placement, plant procurement, water control structures and a planting plan that lists the plant materials by scientific and common name, seeding rate or spacing distance and special planting provisions; and

(3) Maintenance and monitoring provisions including an annual work schedule describing each task in detail and time of year when it will be performed.

i. If Linear Watercourses are modified, the report shall also contain:

(1) Supporting calculations for bank stabilization measures and Channel width, depth, sinuosity, pool and riffle locations, and the like; and

(2) Specifications for bank stabilization measures, in-stream practices and a planting plan that lists the plant materials by scientific and common name, seeding rate or spacing distance and special planting provisions.

j. Cost estimate for installation and required management, monitoring, and reporting
for all Mitigation, restoration, establishment proposed.

2. Plan view drawings including:

a. All Linear Watercourses, nonlinear waterbodies, and Wetlands on-site or within one hundred feet (100’) of the Site;

b. All Buffers with the width labeled;

c. Proposed Wetland and Buffer impacts;

d. A Wetland summary table for all Wetlands including their FQI, acreage, Buffer width, acreage of proposed Wetland and Buffer impacts, Wetland Mitigation ratio, Mitigation acreage required, and Wetland enhancement acreage and Wetland Mitigation Facility acreage;

e. Identification of easement areas;

f. If Wetland Impacts will be mitigated within a Wetland Mitigation Facility, the plan shall also contain:

   (1) Planting plan for Wetlands and Buffers including location and acreage of Plant Communities and plant list including scientific and common names, seeding rate, plant quantities, and spacing distance; and

   (2) Maintenance and monitoring provisions including an annual work schedule describing each task in detail and time of year when it will be performed.

g. If Linear Watercourses are modified, a stream restoration plan shall be submitted in accordance with Subsection 9-174.B. At a minimum the plan shall contain:

   (1) The plan, profile and cross sections of the existing and proposed stream;

   (2) The length of the existing and proposed Linear Watercourse. The newly created portion must be of equal or greater length;

   (3) Location and type of streambank stabilization measures, meanders, pools, riffles, and the like;

   (4) A planting plan for disturbed banks that provides stabilization with native vegetation where appropriate; and

   (5) An appropriately sized Buffer in accordance with Subsection 9-177.B.5.

h. If Buffer averaging or re-establishment will occur on-site, the plan shall also contain:

   (1) Planting plan for Buffers including location and acreage of Plant Communities and plant list including scientific and common names, seeding rate, plant quantities and spacing distance; and

   (2) Maintenance and monitoring provisions including an annual work schedule
describing each task in detail and time of year when it will be performed.

9-181 - 9-201 RESERVED
ARTICLE VIII—PERFORMANCE SECURITY

9-202 GENERAL SECURITY REQUIREMENTS

A. To secure the performance of the Developer’s obligation to complete the construction of the Major and Minor Stormwater Systems, Stormwater Management Measures and Special Management Areas required by the Stormwater Management Permit, and to pay all costs, fees and charges due under this Chapter, and to fully and faithfully comply with all of the provisions of this Chapter, the Applicant shall, prior to the issuance of a Stormwater Management Permit:

1. Post the security provided in Section 9-203;

2. Post the security provided in Section 9-204 if an erosion and sedimentation control plan is required under this Chapter;

3. Post the security provided in Section 9-205 if Stormwater Mitigation/BMPs and Watershed Benefit Measures are required under this Chapter; and

4. Post the security provided in Section 9-206 if Mitigation for a Wetland Impact is required under this Chapter and the applicant chooses to mitigate within a Wetland Mitigation Facility, stream restoration or Buffer (re)establishment is proposed; or

5. The security may be posted as one single security that includes all of the above.

B. The Applicant shall bear the full cost and responsibility of obtaining and maintaining the security required by this Article.

9-203 DEVELOPMENT SECURITY

A. In all cases the Applicant shall post:

1. A schedule, agreed upon by the Applicant and the Administrator, for the completion of any Major and Minor Stormwater Systems, Stormwater Management Measures (excluding Category I BMPs) or Special Management Areas required by the permit;

2. A statement of the estimated probable cost to complete the construction of any Major and Minor Stormwater Systems, Stormwater Management Measures (excluding Category I BMPs) and Special Management Areas required by the permit which estimate is subject to the approval of the Administrator; and

3. An irrevocable letter of credit in favor of the Permitting Authority, or other adequate security upon approval by the Administrator, in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost to complete the construction of any required Major and Minor Stormwater Systems, Stormwater Management Measures (excluding Category I BMPs) and Special Management Areas.

B. The security required by this Section shall be maintained by the Applicant in favor of the Permitting Authority until all Major and Minor Stormwater Systems, Stormwater Management Measures (excluding Category I BMPs), and Special Management Areas...
required by the permit have been completed, all conditions set forth in the permit have
been satisfied and the Applicant has complied with all of the provisions of this Chapter.

C. The Administrator may approve periodic reductions in the amount of the security based
upon the progress of construction. At no time, however, shall more than ninety percent
(90%) of the security be released prior to approval of Record Drawings and final
inspection. A minimum of ten percent (10%) of the original amount of the security shall be
retained for a period of one year after completion of all required stormwater facilities.

9-204 EROSION AND SEDIMENTATION CONTROL SECURITY

A. If an erosion and sedimentation control plan is required under this Chapter the Applicant
shall post:

1. A statement of the estimated probable cost to install and maintain the Erosion and
Sedimentation Control Practices required by the plan which estimate is subject to the
approval of the Administrator; and

2. An irrevocable letter of credit in favor of the Permitting Authority, or other adequate
security upon approval by the Administrator, in an amount equal to one hundred ten percent
(110%) of the approved estimated probable cost to install and maintain the
required Erosion and Sedimentation Control Practices.

B. The security required by this Section shall be maintained by the Applicant in favor of the
Permitting Authority until construction has been completed, vegetation has been
established, sediment has been removed from all Stormwater Facilities and the
Development has been inspected and approved by the Administrator at which time it
shall be released.

9-205 STORMWATER MITIGATION / BMP AND WATERSHED BENEFIT
MEASURE PERFORMANCE SECURITY

A. If Category II Stormwater Mitigation/BMPs or Watershed Benefit Measures are
required under this Chapter, the Applicant shall post:

1. A statement of the estimated probable cost to install, monitor and maintain the native
vegetated Category II BMPs or Watershed Benefit Measures required by the plan for
three (3) years which estimate is subject to the approval of the Administrator; and

2. An irrevocable letter of credit in favor of the Permitting Authority, or other adequate
security upon approval by the Administrator, in an amount equal to one hundred ten percent
(110%) of the approved estimated probable cost.

B. The security required by this Section shall be maintained by the Applicant in favor of the
Permitting Authority, until construction has been completed, vegetation has been
established and the native vegetated Category II BMPs or Watershed Benefit
Measures have been evaluated by the Administrator, and found to meet the
performance standards of Section 9-174 at which time it shall be released.

9-206 SPECIAL MANAGEMENT AREA PERFORMANCE SECURITY
A. If **Mitigation** for a **Wetland Impact** is required under this Chapter and the **Applicant** chooses to mitigate within a **Wetland Mitigation Facility**, the **Applicant** shall post:

1. A statement of the estimated probable cost to install, monitor and maintain the **Wetland Mitigation Facility** required by the plan for five (5) years which estimate is subject to the approval of the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter); and

2. An irrevocable letter of credit in favor of the **County** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), or other adequate security upon approval by the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost.

B. If stream restoration is required under this Chapter, the **Applicant** shall post:

1. A statement of the estimated probable cost to install, monitor and maintain the stream restoration required by the plan for three (3) years which estimate is subject to the approval of the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter); and

2. An irrevocable letter of credit in favor of the **County** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), or other adequate security upon approval by the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost.

C. If **Buffer (re)establishment** is required under this Chapter, the **Applicant** shall post:

1. For **Buffer (re)establishment** areas less than five thousand (5,000) square feet, cumulatively on-site, shall:

   a. A statement of the estimated probable cost to install, monitor and maintain **Buffer (re)establishment** areas required by the plan for one (1) year which estimate is subject to the approval of the **Director** (or **Administrator** in a **Community** certified to administer this Article); and

   b. An irrevocable letter of credit in favor of the **County** (or **Administrator** in a **Community** certified to administer this Article), or other adequate security upon approval by the **Director** (or **Administrator** in a **Community** certified to administer this Article), in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost.

2. For **Buffer (re)establishment** areas greater than five thousand square feet, cumulatively on the **Site**, shall,

   a. A statement of the estimated probable cost to install, monitor and maintain **Buffer (re)establishment** areas required by the plan for three (3) years which estimate is subject to the approval of the **Director**; and
b. An irrevocable letter of credit in favor of the **County** (or **Administrator** in a **Community** certified to administer this Article), or other adequate security upon approval by the **Director** (or **Administrator** in a **Community** certified to administer this Article), in an amount equal to one hundred ten percent (110%) of the approved estimated probable cost.

D. The security required by this Section shall be maintained by the **Applicant** in favor of the **County** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), until construction has been completed, vegetation has been established and the **Wetland Mitigation** facility, stream restoration, or **Buffer** (re)establishment has been evaluated by the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter), and found to meet the performance standards of Section 9-174 at which time it shall be released.

**9-207 LETTERS OF CREDIT**

A. Letters of credit posted pursuant to this Article shall be in a form satisfactory to the **Administrator**.

B. Each letter of credit shall be drawn on an institution:

1. Acceptable to the **Administrator**;
2. Having assets of at least ten million dollars ($10,000,000.00);
3. Having an office in the Chicago metropolitan area;
4. That is a member of the federal deposit insurance corporation; or
5. As required by the **Administrator**.

C. Each letter of credit shall provide that:

1. It is irrevocable;
2. The consent of the **Applicant** is not required prior to its presentment for payment; and
3. If at any time it will expire within forty-five (45) or any lesser number of days, and if it has not been renewed and the renewal submitted to the **Administrator**, and if any obligation of the **Applicant** for which it stands as security remains uncompleted or is unsatisfactory, then the **Administrator** may, without notice and without being required to take any further action of any nature whatsoever, present the letter of credit for payment and thereafter either hold all proceeds as security for the satisfactory completion of all such obligations or employ the proceeds to complete all such obligations and reimburse the **Permitting Authority** for any and all costs and expenses, including legal fees and administrative costs, incurred by the **Permitting Authority**.

D. If the **Administrator** at any time determines that the amount of the letter of credit is not, or may not be, sufficient to pay in full the remaining unpaid cost of the construction of all stormwater facilities or the installation and maintenance of all **Erosion and**
Sedimentation Control Practices, then, within ten (10) days following a demand by the Administrator, the Applicant shall increase the amount of the letter of credit to the amount determined by the Administrator to be sufficient to pay such unpaid costs. Failure to increase the amount of the letter of credit shall be grounds for the Administrator to present the letter of credit for payment.

E. If at any time the Administrator determines that the bank issuing the letter of credit is without assets of at least ten million dollars ($10,000,000.00), is unable to meet any federal or state requirement for reserves, is insolvent, is in danger of becoming any of the foregoing, or is otherwise in danger of being unable to honor such letter of credit at any time during its term, or if the Administrator otherwise reasonably deems the Permitting Authority to be insecure, then the Administrator shall have the right to demand that the Applicant provide a replacement letter of credit from a bank meeting the requirements of this Section. Such replacement letter of credit shall be deposited with the Administrator not less than ten (10) days following such demand. Upon such deposit, the Administrator shall surrender the original letter of credit to the Applicant.

F. If the Applicant fails or refuses to fully meet any of its obligations under this Chapter then the Administrator may, in his or her discretion, present the letter for payment and thereafter either hold all proceeds as security for the satisfactory completion of all such obligations or employ the proceeds to complete all such obligations or otherwise mitigate the effects of such failure or refusal and may reimburse the Permitting Authority for any and all costs and expenses, including legal fees and administrative costs, incurred by the Permitting Authority. If as a result of such default, the remaining amount of the letter of credit is less than the amount otherwise required to be then maintained under this Article, then the Applicant shall, upon demand of the Administrator therefor, immediately deposit with the Administrator such additional funds as the Administrator determines to be required to be then maintained.

9-208 - 9-228 RESERVED
ARTICLE IX—LONG-TERM MAINTENANCE

9-229 LONG-TERM MAINTENANCE

The owner shall maintain all Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas, located upon his land or within easements for off-site Outfalls. With the approval of the Administrator the Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas, or specified portions thereof, may be:

A. Dedicated or otherwise transferred to and accepted by the Permitting Authority or other public entity; or

B. Conveyed or otherwise transferred to and accepted by a homeowners' association, or similar entity, the members of which are to be the owners of all the lots or Parcels comprising the Development; or

C. Conveyed to one or more Persons or in one or more undivided interests to one or more Persons. Except for those portions of the Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas to be dedicated or otherwise transferred to the Permitting Authority or other public entity, included in the application for a stormwater permit shall be a plan for the long-term management, operation and maintenance of the Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas and a description of the sources of funding therefor. Amendments to the plan must be approved by the Administrator.

9-230 TRANSFER TO PERMITTING AUTHORITY OR OTHER PUBLIC ENTITY

If any portion of the Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas are to be dedicated or otherwise transferred to the Permitting Authority or other public entity under Section 9-229, appropriate easements for ingress and egress to and maintenance of such portions shall be reserved for the benefit of such entity on the final plat.

9-231 TRANSFER TO HOMEOWNER’S OR SIMILAR ASSOCIATION

If any portion of the Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas are to be conveyed or otherwise transferred to a homeowners’ or similar association under Section 9-229 then:

A. Appropriate easements for ingress and egress to and maintenance of such portions shall be reserved for the benefit of such association and the Permitting Authority on the final plat;

B. The final plat shall contain a legend imposing the maintenance obligations of this Section upon the association and its successors in interest as a covenant running with the land and incorporating by reference the plan of long-term maintenance set forth in the
application for a Stormwater Management Permit, with approved amendments;

C. The final plat shall contain a legend reserving the right of the Permitting Authority to enter upon the land to perform the maintenance required in this Section if the association does not do so and to place a lien against the land for the cost thereof;

D. The association shall be duly incorporated and a copy of the certificate of incorporation, duly recorded, and bylaws, and any amendment to either of them, shall be delivered to the Administrator;

E. The bylaws of the association shall, at a minimum, contain:

1. A provision acknowledging and accepting the association’s obligation to maintain those portions of the Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas conveyed or otherwise transferred to it under this Chapter;

2. A mechanism for imposing an assessment upon the owners of all of the lots or Parcels comprising the Development sufficient, at a minimum, to provide for the maintenance of those portions of the Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas conveyed or otherwise transferred to it under this Chapter, and the payment of all taxes levied thereon;

3. An engineer’s estimate of probable yearly maintenance costs for all Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas with a certification from the Owner that Association Covenants, Deeds and Restrictions will allow for sufficient funds to be collected based on engineer’s estimate with built in inflation not subject to lot owner approval;

4. A provision adopting the plan of long-term maintenance set forth in the application for a Stormwater Management Permit, with approved amendments;

5. A provision identifying the officer of the association responsible for carrying out the obligations imposed upon the association under this Chapter;

6. A provision requiring the consent of the Permitting Authority to any amendment of the bylaws changing any of the provisions of the bylaws required by this Chapter; and

7. A provision requiring the consent of the Permitting Authority to the dissolution of the association.

F. Any conveyance or other instrument of transfer delivered under Section 9-229 shall include a covenant affirmatively imposing upon the association the obligations set forth in this Section and the association's affirmative acceptance thereof; and

G. The Developer shall, when the homeowner’s association is turned over to property owners, provide two (2) hard copies of the stormwater plan and long-term maintenance plan and one digital copy of both to the homeowner’s association.

9-232 CONVEYANCE TO ONE OR MORE PERSONS
If any portion of the Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas are to be conveyed to one or more Persons under Subsection 9-229.C, then:

A. Appropriate easements for ingress and egress to and maintenance of such portions shall be reserved for the benefit of the Permitting Authority on the final plat;

B. The final plat shall contain a legend imposing the maintenance obligations of this Section upon the grantee and his successors in interest as a covenant running with the land and incorporating by reference the plan of long-term maintenance set forth in the application for a Stormwater Management Permit, with approved amendments;

C. The final plat shall contain a legend reserving the right of the Permitting Authority to enter upon the land to perform the maintenance required in this Section if the owner does not do so and to place a lien against the land for the cost thereof; and

D. Any conveyance delivered under Subsection 9-229.C, and any subsequent conveyance, shall include a covenant affirmatively imposing upon the grantee the obligations, restrictions and provisions set forth in this Section and the grantee's affirmative acceptance thereof.

9-233 INCORPORATION OF MAINTENANCE OBLIGATIONS IN STORMWATER MANAGEMENT PERMIT

A long-term maintenance plan for Stormwater Management Measures, Major and Minor Stormwater Systems, off-site Outfalls, and Special Management Areas shall be included in the Stormwater Management Permit and the Applicant's acceptance of the permit shall be deemed to be the Applicant's acceptance of these obligations. The Stormwater Management Permit and any associated maintenance requirements shall be noted on the plat of easement, if required by this Chapter, or shall be recorded as a Declaration of Restriction and Covenant.

A. The long-term maintenance plan shall include the following:

1. Identification of the Person or party responsible for all long-term maintenance obligations;

2. A list of the Stormwater Management Measures, Major and Minor Stormwater Systems, and Special Management Areas and associated features (e.g. restrictor in a Detention Storage Facility) that are to be inspected and maintained;

3. Identification of maintenance tasks for each of the areas referenced in Subsection 233.A.2 and associated features, including but not limited to:
   a. Removal of debris;
   b. Cleaning and repair of any underground stormwater infrastructure;
   c. Repair and stabilization of any areas experiencing Erosion;
d. Removal of accumulated sediment; 

e. Manufacturer’s maintenance specifications for all proprietary features (e.g. Permeable Pavements, hydrodynamic separators, etc.); 

f. Stewardship of native vegetated areas which may include, but is not limited to: mowing, prescribed burning and herbicide application for the purpose of non-native and invasive species management; 

g. Performance criteria for which the native vegetated areas may not fall below; and 

h. An annual schedule for inspections, implementation and frequency of maintenance tasks, and qualified Persons responsible for each task. 

B. Inspection, maintenance and repairs in accordance with the annual schedule per Subsection 233.A.3.h for the areas referenced in Subsection 233.A.2 shall be completed. A report of the items in Subsection 9-233.A. shall be submitted to the Administrator, at a frequency determined by the Administrator, for all areas referenced in Subsection 233.A.2. except Category I BMPs. The report shall include: the date of the inspection, the name and qualifications of the Persons who performed the inspection, the items inspected, deficiencies noted, maintenance tasks required, and dates maintenance was or is to be completed. 

C. If the Person or party responsible for all long-term maintenance obligations fails to adequately carry out its duties, the Administrator shall levy the special service area (SSA) in accordance with Section 9-234 to perform the required maintenance tasks. 

9-234 FUNDING OF LONG-TERM-MAINTENANCE OF STORMWATER FACILITIES 

Unless: a) A public entity has accepted primary maintenance responsibility for the Stormwater Management Measures (excluding category I BMPs), Major and Minor Stormwater Systems, and Special Management Areas to be constructed, installed or preserved under the permit, or b) a public entity has agreed and so states in the permit, to accept maintenance responsibility in the event the Person designated by the Applicant as having primary maintenance responsibility fails to adequately carry out its duties, the Administrator will require, as a condition of approving any application for a Stormwater Management Permit, the establishment of a special service area pursuant to 35 Illinois Compiled Statutes 200/27-5 et seq., either as the primary means of providing for the long-term maintenance of these areas, or as a backup vehicle in the event the Person designated by the Applicant as having primary maintenance responsibility fails to adequately carry out its duties. If the establishment of a special service area is required, the Administrator shall make a good faith estimate of the tax rate required to produce a tax to be levied upon all taxable property within the area, sufficient for the long term maintenance of these areas and submit the same to the Permitting Authority which shall incorporate such rate into its enactment of the ordinances necessary for the establishment of the area. The ordinances to be enacted by the Permitting Authority shall be substantially in the form set forth in Appendix D. On or before August 1st of each year thereafter, the Administrator shall submit to the Permitting Authority a good faith estimate of the amount of tax required to be levied upon all taxable property within the area for the next fiscal year for the continued
maintenance of the Stormwater Management Measures, Major and Minor Stormwater Systems, off-site Outfalls and Special Management Areas.

9-235 - 9-255 RESERVED
ARTICLE X—VARIANCES

9-256 PURPOSE

To provide a narrowly circumscribed means by which relief may be granted when strict compliance with the requirements of this Chapter is impossible or impracticable, variances from the specific provisions of this Chapter may be granted according to the standards set forth in this Article.

9-257 APPLICATION FOR VARIANCE

An application for a variance, signed by at least one of the Persons identified in Section 9-31 with respect to the Development to which it relates, shall be filed with the Administrator. No application for a variance will be accepted for filing unless it relates to a previously or contemporaneously filed application for a Stormwater Management Permit. Applications for a variance shall be filed in such number of duplicate copies as the Administrator may designate by administrative order. No action will be taken on an application for a variance unless it and the corresponding application for a Stormwater Management Permit to which it relates are complete as determined by the Administrator. The Administrator shall send a copy of the complete application to the Director and to all other communities within the same Watershed. Applications for a variance need not be made upon any specific form, but shall contain the information set forth as follows:

A. Application for Variance: An application for variance shall set forth:

1. The common address(es) and legal description of the Site;

2. The Persons identified in Sections 9-31;

3. The names and addresses of all consultants retained in connection with the application for a variance;

4. The names and addresses of all owners of record of land within two hundred fifty feet (250') of the Site;

5. The specific feature or features of the Development that require a variance;

6. The specific provisions of this Chapter from which a variance is sought and the precise extent of the variance therefrom;

7. A statement of the characteristics of the Development that prevent compliance with the provisions of this Chapter;

8. A statement that the variance requested is the minimum variance necessary to permit the Development; and

9. A statement as to how the variance requested satisfies the standards set forth in Section 9-260.

9-258 APPLICATION FEE
With the filing of the application for a variance, the Applicant shall pay a fee to be prescribed by separate ordinance by the Certified Community.

9-259 PUBLIC HEARING

When the application is complete, the Administrator will so notify the Applicant and will schedule a public hearing on the application before the oversight committee. Notice of the hearing shall be published as provided in Section 9-317 and served as provided in Section 9-316 upon the Applicant, the Director, all owners of record of land within two hundred fifty feet (250') of the Site as disclosed in the application, and upon each Community within the same Watershed as the Development. The notices given under this Section shall set forth the common name, address and legal description of the Development and a brief description of the variance as requested.

9-260 GRANTING OF VARIANCES

A. The oversight committee shall not recommend nor shall the decision-making authority grant a variance from the provisions of this Chapter unless the variance is consistent with the purposes of this Chapter and meets the following standards based upon substantial evidence submitted at the hearing:

1. The variance will not increase the probability of Flood damage or create an additional threat to the public health, safety, and welfare.

2. The variance is the minimum required considering each of the following statements of policy underlying this Chapter and there are no means other than the requested variance by which the demonstrated hardship can be avoided or remedied to a degree sufficient to permit the reasonable continuation of the Development:

   a. Detention Storage Facility shall also contribute to the improvement of the quality of stormwater Runoff.

   b. The volume provided in open air vegetated Detention Storage Facilities is maximized consistent with other Site constraints on land use, including zoning requirements essential for the proposed Development.

   c. Conveyance of stormwater shall not disproportionately absorb the design capacity of existing off-site conveyance facilities for any storm event from the 50 percent (50%) Design Storm to the one percent (1%) Design Storm.

   d. High quality natural areas shall be preserved on the Site, including, without limitation, stands of native trees, existing Wetlands, natural Floodplain storage or other valuable environmental and biological resources.

3. The variance is not requested solely for the purpose of increasing the density of the Development nor Impervious Areas on the Site.

4. The variance is not requested solely as a result of economic hardship.
5. If applicable, the variance is required due to unique, natural topographical features of the Site.

6. The Applicant’s circumstances are not self-imposed.

B. Variances requested in connection with the restoration of a Historic Structure may be granted using criteria more permissive than those set forth above provided that:

1. The repair or rehabilitation is the minimum necessary to preserve the historic character and design of the Historic Structure; and

2. The repair or rehabilitation will not result in the Structure no longer meeting the definition of a "Historic Structure" under this Chapter.

C. No variance shall be granted for any Development in the regulatory Floodway, or Waters of the U.S. or Wetlands, the effect of which would be to create regulations less restrictive than the federal or state minimum standards applicable to Development in such areas.

D. When a variance would lessen the degree of protection to any Structure, the Administrator shall notify the Applicant that the variance, if granted, may result in increased rates for flood insurance.

9-261 RECOMMENDATIONS

A. The Administrator shall review the application for a variance and present his or her written recommendations to the oversight committee at the public hearing.

B. Not more than forty-five (45) days after the close of the hearing, the oversight committee shall forward the application with its written recommendations to the decision-making authority. If the oversight committee fails to act within forty-five (45) days, it shall be deemed to have forwarded the application with no recommendation to the decision-making authority. The written recommendations of the oversight committee, when forwarded, shall be accompanied by written findings of fact with respect to each of the elements set forth in Section 9-260 with citations to the evidence taken at the public hearing.

9-262 DECISION

The decision-making authority shall grant the variance, grant the variance with modifications or conditions, or deny the variance in writing within forty-five (45) days after receipt of the application from the oversight committee. The failure of the decision making authority to act within forty five (45) days, absent the agreement of the Applicant to any extension of the time, shall be deemed to be a decision approving the variance.

9-263 CONDITIONS

A. A variance less than or different from that requested may be granted when the record supports the Applicant’s right to some relief, but not to the relief requested.
B. In granting a variance, the decision-making authority may impose such specific conditions and limitations on the **Applicant** concerning any matter relating to the purposes and objectives of this Chapter as may be necessary or appropriate.

C. Whenever any variance is granted subject to any condition to be met by the **Applicant**, upon meeting such condition, the **Applicant** shall file evidence to that effect with the **Administrator**.

9-264 - 9-284 RESERVED
ARTICLE XI—ENFORCEMENT AND PENALTIES

9-285 INSPECTION AND MAINTENANCE AUTHORITY

Pursuant to the authority granted by 55 Illinois Compiled Statutes 5/5-1104 and 5/5-1062, the County may, upon thirty (30) days’ notice to the owner or occupant, enter upon any lands or waters within the County for the purpose of inspecting and/or maintaining any stormwater facilities or causing the removal of any obstruction to an affected watercourse.

9-286 REQUIRED INSPECTIONS

Any Development constructed pursuant to a Stormwater Management Permit may be periodically inspected by the Administrator or Director to ensure its conformity with this Chapter and the terms and conditions of its permit.

9-287 OFFENSES

A. Any Person who violates, disobeys, omits, neglects, refuses to comply with, or resists the enforcement of any provision of this Chapter (Chapter violation), or any requirement or condition in any permit issued pursuant to this Chapter (permit violation), or any requirement or condition contained in Article VI of this Chapter (Floodplain Violation), and, in the case of a permit violation or a Floodplain Violation, fails to correct such violation, omission or neglect, or cease such disobedience, refusal or resistance after notice and reinspection as provided below, shall be guilty of an offense under this Chapter.

B. Whenever the Administrator or Director, as the case may be, determines that a permit violation exists, he shall serve notice of the violation in the manner prescribed in Section 9-316 on the permittee. Such notice shall state the nature of the violation and fix a date not less than ten (10) days after the date of the notice by which the violation shall be corrected and the Site re-inspected, except in the case of a violation of Article III of this Chapter, in which case the notice may require the correction of the violation and reinspection of the Site within as little as two (2) days.

C. Any person who violates, disobeys, omits, neglects, refuses to comply with or resists the Substantial Improvement/Damage requirements as defined in the NFIP regulations (44 Code of Federal Regulations, 59.1) and fails to relocate, demolish or Floodproof the Structure within the FEMA standard of six (6) years from the date of loss or improvement for which the Substantial Damage/Improvement determination was made.

9-288 OFFENSES - PENALTIES AND REMEDIES

A. The Administrator or Director may pursue any one or more of the following remedies against any Person found by him or her to be guilty of an offense under this Chapter:

1. The Administrator or Director may impose a civil fine upon such Person in an amount not less than twenty-five dollars ($25.00) and not more than seven hundred fifty dollars ($750.00). Each calendar day during which such violation continues to exist shall
constitute a separate offense.

2. The Administrator or Director may revoke any Stormwater Management Permit issued to such Person.

3. The Administrator or Director may issue an order requiring the suspension of any further work on the Site. Such stop work order shall be in writing, shall indicate the reason for its issuance, and shall specify the action, if any, required to be taken in order to resume work. One copy of the stop work order shall be posted on the Site in a conspicuous place and one copy shall be served in the manner prescribed in Section 9-316 upon the permittee, if any, or if none, upon the Person in whose name the Site was last assessed for taxes as disclosed by the records of the Supervisor of Assessments.

4. The Administrator or Director may require that the area impacted be fully restored to its condition existing prior to such Development, disturbance or impact. In the case of a Wetland Impact the area’s preexisting condition shall be determined by reference to a creditable wetland assessment performed within two (2) years of such impact. In the event that a creditable wetland assessment is not available, the FQI of the Wetland Impacted shall be determined by the Director and Mitigation shall be provided accordingly.

5. The Administrator or Director may require the Person to apply "after the fact" for the appropriate permits for an unpermitted Development, disturbance or impact.

B. In order to enforce any of the remedies set forth in the preceding paragraph, the Administrator or the Director may bring any action, legal or equitable, including an action for injunctive relief, deemed necessary. In any such action, in addition to any fine or other relief, the Administrator or the Director may recover all costs and expenses, including reasonable attorney fees, incurred. )

9-289 - 9-309 RESERVED
ARTICLE XII—ADMINISTRATION

9-310 RESPONSIBILITY FOR ADMINISTRATION

A. The oversight committee shall oversee the enforcement of this Chapter.

B. The Director and Administrator shall administer this Chapter. In performing their duties, the Director and the Administrator may delegate routine responsibilities to any named designee.

C. Each Community shall remain solely responsible for its standing in the National Flood Insurance Program, including:

1. The maintenance of all records and the submission of all reports required for eligibility in the program, including Elevation Certificates, Floodproofing Certificates, and Lowest Floor elevations;

2. The notification of the Director, FEMA, IDNR-OWR, USACE, NRCS, the Kane DuPage Soil and Water Conservation District, the USFWS, the IEPA, and the USEPA of any proposed amendment to this Chapter; and

3. The adoption pursuant to Subsection 9-344.A of the most current version of the maps adopted and published by FEMA for regulation under the NFIP and the automatic adoption of any amendments, additions, revisions or substitutions thereto or therefor.

9-311 DUTIES OF DIRECTOR

The Director shall:

A. Supervise the enforcement of this Chapter;

B. Supervise the development, revision and implementation of the Plan for approval by the Committee and the County;

C. Supervise the review of complex Stormwater Management Permits for any Community that requests such assistance;

D. Notify all of the communities in the County, FEMA, IDNR-OWR, USACE, NRCS, the Kane DuPage Soil and Water Conservation District, the USFWS, the IEPA, and the USEPA of any amendments to the Plan or to this Chapter;

E. Administer the qualified engineer and qualified wetland specialist programs;

F. Maintain a current list of all maps considered regulatory under this Chapter;

G. Administer Article VII of this Chapter except in those communities certified under this Chapter to administer Article VII of this Chapter; and

H. The Director shall recommend an appointment of a member of the Department staff to the County Board as Administrator to enforce all of the provisions of this Chapter within
the unincorporated areas of the County, within any portion of an uncertified Community that lies within the County, and, pursuant to an intergovernmental agreement, within any portion of an uncertified Community that lies outside the County.

9-312 DUTIES OF ADMINISTRATOR

A. The Administrator shall:

1. Ensure that all required stormwater related federal, state, regional and County permits and approvals are received prior to issuing any permit under this Chapter;

2. Ascertain whether any Special Management Areas exist on any Site which is the subject of a Stormwater Management Permit under this Chapter;

3. If the Development Site is within a Floodway or in a Floodplain for which a detailed study has not been conducted and which drains more than one (1) square mile, the permit shall be reviewed by a Professional Engineer under the employ or contract of the Community to ensure that the Development meets the provisions of this Chapter;

4. Use of a qualified wetland specialists for the review of permit applications and consider their recommendations in granting or denying any permit under this Chapter, unless the review of the Developer’s qualified wetland specialist indicates that there are no Wetlands on-site in which case the Administrator may rely upon that review without having it independently verified. The review of wetland submittals by a qualified wetland specialist may be waived if all on-site Linear Watercourses, Nonlinear Waterbodies and Wetlands are under the jurisdiction of the USACE and a USACE permit is required;

5. Ensure that the required notice of an application for a variance has been given and published in accordance with Sections 9-316 and 9-317;

6. Notify an Applicant for a variance that such variance may result in increased rates for flood insurance, if applicable;

7. Notify the Director of an application for a CLOMR or LOMR;

8. Provide for inspections of Developments as required by this Chapter, including projects before, during and after construction to assure proper elevation of the Structure and to ensure compliance with the provisions of this Chapter;

9. Investigate complaints of violations of this Chapter within his or her Community;

10. Notify violators within Regulatory Floodplains that failure to comply with the provisions of the National Flood Insurance Program could make them ineligible to receive Flood insurance;

11. Initiate any other requirements necessary to enforce this Chapter within his or her Community;

12. Advise, consult and cooperate with other governmental agencies to promote the purposes of this Chapter;
13. Maintain copies of all applications and submittals, federal and state permits, variances, CLOMR, LOMR, CLOMA, LOMA and all documentation associated with any of the foregoing for public inspection;

14. Maintain documentation and data on the cost of any improvement to a Structure in the Floodplain to enforce the provisions of this Chapter pertaining to Substantial Damage/Improvements to such Structures;

15. Notify adjacent communities and Drainage Districts in writing thirty (30) days prior to the issuance of a Stormwater Management Permit involving the alteration or relocation of a watercourse. Downstream communities and Drainage Districts shall have a fifteen (15) business day review period of any stormwater management permit application prior to its issuance;

16. Ensure that all Wetland Impacts have been mitigated; and

17. Maintain records of the Lowest Floor and Floodproofing elevations for New Construction and Substantial Improvements in Zone A Floodplain where BFE data is not provided in the FEMA Flood Insurance Study.

B. The County Engineer shall enforce all the provisions of this Chapter within all County or township rights-of-way.

9-313 REPRESENTATIVE CAPACITY

In all cases when any action is taken by the Director or the Administrator, or his or her duly appointed designee, to enforce the provisions of this Chapter, such action shall be taken either in the name of the County or the Certified Community, as the case may be, and neither the Director nor the Administrator, nor his or her designee, in so acting shall be rendered personally liable.

9-314 OVERSIGHT COMMITTEE

The corporate authorities of each Certified Community within the County shall establish an oversight committee to oversee the implementation and enforcement of this Chapter within its jurisdiction and to perform the duties assigned to the oversight committee in this Chapter. The oversight committee may be comprised of the corporate authorities or any committee thereof, plan commission, zoning board of appeals, or other existing body, or the corporate authorities may, according to their own rules and procedures, establish a separate oversight committee. The executive committee of the County shall designate the oversight committee for the County. The oversight committee, when considering an appeal or request for a variance under this Chapter, may request an opinion from a qualified engineer or qualified wetland specialist on technical issues.

9-315 DECISION–MAKING AUTHORITY

The corporate authorities of each Certified Community within the County shall by separate resolution designate a decision making authority to perform the duties assigned to the decision making authority in this Chapter. The decision making authority may be comprised
of the corporate authorities or any committee thereof, plan commission, zoning board of appeals, or other existing body, or the corporate authorities may, according to their own rules and procedures, establish a separate decision making authority. The Development Committee of the County Board shall act as the decision making authority for the County. The decision making authority, when considering an appeal or request for a variance under this Chapter, may request an opinion from a qualified engineer or qualified wetland specialist on technical issues.

9-316 SERVICE

Unless otherwise provided herein, service of any notice or other instrument under this Chapter may be made upon any Person:

A. By first class mail, postage prepaid, addressed to address then on file for such Person, if any, or if none, to such Person’s last known address; or

B. By any method prescribed under the Illinois Code of Civil Procedure.

9-317 PUBLICATION

Unless otherwise provided herein, publication of any notice or other instrument under this Chapter shall be made by publishing such notice or other instrument once in a newspaper published within the Community having jurisdiction over the matter to which the publication relates (or, if no newspaper is published within the Community, then a newspaper published in the County and having a general circulation within the Community), such publication being not less than fifteen (15) nor more than thirty (30) days before the hearing or other event to which the publication relates.

9-318 PROCEDURES AND USE OF FUNDS FOR FEE-IN-LIEU OF STORMWATER MANAGEMENT MEASURES

A. An Applicant’s request for approval of the payment of a Fee-In-Lieu of Stormwater Management Measures shall be submitted to the Administrator. The Administrator shall grant or deny the request within forty-five (45) days, unless the Applicant agrees to an extension.

B. The collected Fee-In-Lieu of Stormwater Management Measures shall be deposited by the Certified Community in a separate fund created for such purpose. Provisions shall be made so that all receipts and disbursements of such funds may be accounted for according to the major Watershed in which the Development for which they were paid was located.

C. The collected Fee-In-Lieu of Stormwater Management Measures may be expended to plan, design, construct or improve stormwater management systems within the major Watershed in which the fee was collected.

9-319 PROCEDURES AND USE OF FUNDS FOR FEE-IN-LIEU OF WETLAND MITIGATION

A. An Applicant’s statement of its intention to satisfy the Wetland Mitigation requirement
by the payment of a fee in lieu of **Wetland Mitigation** shall be in writing and filed with the **Director** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter) along with the estimates described in the preceding Section.

B. Fees paid in lieu of **Wetland Mitigation** shall be deposited by **County** (or **Administrator** in a **Community** certified to administer Article VII of this Chapter) in a separate fund created for such purpose. Provisions shall be made so that all receipts and disbursements of such funds may be accounted for according to the individual **Watershed** in which the **Development** for which they were paid was located.

C. Fees paid in lieu of **Mitigation** for **Wetland Impacts** within the **County** shall be expended to plan, design, construct, improve, acquire, create or enhance **Wetlands**, **Wetland Mitigation Facilities** and **Wetland Mitigation Banks**, in accordance with Section 9-171. Fees paid in lieu of **Mitigation** for **Wetland Impacts** within any other **County** may be expended to plan, design, construct, improve, acquire, create or enhance **Wetlands**, **Wetland Mitigation** facilities and **Wetland Mitigation**, within the same major **Watershed** as the impact within such **County** or within this **County**.

**9-320 - 9-341 RESERVED**
ARTICLE XIII—CERTIFIED COMMUNITY ENFORCEMENT

9-342 ENFORCEMENT AUTHORITY

A. The County shall enforce all of the provisions of this Chapter within: the unincorporated areas of the County; the limits of any County highway, County right of way or any highway or right of way upon which the County is constructing or causing to be constructed a highway improvement or appurtenance; in connection with the Development of any Site owned by the County; any portion of an uncertified community that lies within the County; and pursuant to intergovernmental agreement, within any portion of an uncertified community that lies outside the County. For the purposes of this Section the terms "highway" and "right of way" shall have the meanings ascribed to them under the Illinois Highway Code (605 ILCS 5/1-105 et sq).

B. Unless such Community has been certified under this Article to administer Article VII of this Chapter before January 1, 2006, the County shall enforce the provisions of Article VII of this Chapter within that portion of any Certified Community that lies within the County and, pursuant to intergovernmental agreement, within that portion of any Certified Community that lies outside the County.

C. A Community certified under this Article shall enforce all of the provisions of this Chapter within the Community for which it has received certification.

9-343 PETITION FOR CERTIFICATION AND WAIVER OF ENFORCEMENT

Any Community that wishes to enforce the provisions of this Chapter within its borders shall file a petition for certification and waiver of enforcement (petition for certification), on or before January 8, 2002. After January 8, 2002, petitions for certification may be filed during the month of June of each year.

9-344 FILING AND CONTENTS OF PETITION FOR CERTIFICATION

A petition for certification shall be filed with the Director. The petition need not be on any particular form but, at a minimum, shall set forth and be accompanied by:

A. The agreement of the corporate authorities of the Community to adopt, if certified, this Chapter by reference, including in such Chapter language expressing the intent of the corporate authorities of the Community to automatically adopt by reference all amendments to this Chapter adopted by the County at any time in the future, and specifically to automatically adopt by reference the most current version of the maps adopted and published by FEMA for regulation under the NFIP;

B. While amendments to this Chapter are required to be automatically adopted by the Certified Communities as a condition of the certification, if additional action is required by the corporate authorities of the Community to formally recognize the amendment, such action shall occur within 3 months following the effective date of any amendments to this Chapter;
C. The **Community’s** plan for the implementation and enforcement of this Chapter, including proposed staffing;

D. The agreement of the corporate authorities of the **Community** to include in any new annexation agreement a provision requiring every other party to the agreement to affirmatively agree to comply with the provisions of this Chapter, as amended from time to time;

E. The agreement of the corporate authorities of the **Community** that the **Community** will follow the rules and procedures of the **Committee** in any proceeding concerning its certification and be bound by the decision of the **Committee** in granting or failing to grant, or suspending or revoking its certification and reasserting **County** jurisdiction over the enforcement of this Chapter within the boundaries of the **Community**;

F. If a portion of the **Community** lies outside the **County** and the **Community** has not requested, or if requested does not receive, certification to administer Article VII of this Chapter, the agreement of the corporate authorities of the **Community** to enter into, if certified to administer the remaining provisions of this Chapter, an intergovernmental agreement with the **County** providing for the **County’s** enforcement of Article VII of this Chapter within those portions of the **Community** lying outside the **County**;

G. Evidence of the **Community’s** ability to comply with Article XIV of this Chapter pertaining to the use of qualified engineers and qualified wetland specialists; and

H. The list of projects to which this Chapter or some portion of this Chapter do not apply pursuant to the requirements of Article XV of this Chapter.

### 9-345 COMMITTEE CONSIDERATION OF PETITION FOR CERTIFICATION

The **Committee** shall consider each properly filed petition for certification at a regular or special meeting called for such purpose not later than sixty (60) days after the filing of the petition. The meeting may be continued from time to time. The **Committee** may adopt rules for the taking of evidence and conduct of such meetings.

### 9-346 STANDARDS FOR CERTIFICATION

Upon a finding of the **Committee** that the **Community** has complied with Sections 9-343 and 9-344, that the **Community’s** plan for the implementation and enforcement of this Chapter is reasonably feasible, and that the **Community** has demonstrated the ability to comply with Article XIV of this Chapter, the **Committee** shall grant the petition for certification. The **Committee’s** decision shall be in writing, and shall specify the reasons for granting or denying the petition.

### 9-347 CERTIFIED COMMUNITY RECORDS

A. Every **Certified Community** shall maintain adequate records of every **Stormwater Management Permit** issued, and every variance granted under this Chapter for **Development** within its borders.

B. Every **Certified Community** shall retain **Record Drawings** of all improvements made
pursuant to a Stormwater Management Permit issued or variance granted by such Community.

C. The records of each Certified Community maintained under this Chapter may be periodically inspected by the Department.

D. Every Certified Community shall report annually to the Director on forms provided by the Department concerning Stormwater Management Permits issued in the preceding year.

9-348 COMMITTEE REVIEW OF ENFORCEMENT BY CERTIFIED COMMUNITY

The Committee shall periodically review the implementation and enforcement of this Chapter by each Certified Community.

9-349 INVESTIGATIONS AND COMPLIANCE

A. The Director upon his own initiative or at the request of any Person may conduct an investigation into a Certified Community’s implementation and enforcement of this Chapter. Such investigation may include, but is not limited to, an examination of all relevant records maintained by the Community and field inspections of relevant Developments, Structures or Stormwater Facilities. If upon such investigation, the Director determines that the Community has failed in some significant way, or has repeatedly failed, to implement or enforce this Chapter, then he shall prepare a report of his findings along with a complaint for the suspension, revocation or partial revocation of the Community’s certification and file them with the Committee. The complaint shall contain a short and plain statement describing how the Certified Community has failed in some significant way, or has repeatedly failed, to implement or enforce this Chapter.

B. Upon receipt of a written complaint, the Committee shall serve a copy thereof along with a copy of the report of the Director upon the Community named therein in accordance with Section 9-316. A copy of the complaint and report shall also be served upon IDNR-OWR, FEMA, all communities within the same Watershed, and upon any Person who has requested an investigation of the Community’s enforcement of this Chapter by the Director within six (6) months immediately preceding the filing of the complaint. The Community may file a written answer to the complaint within thirty (30) days after being served.

9-350 HEARING ON COMPLAINT

The Committee shall conduct a hearing on the complaint not less than seventy-five (75) nor more than one hundred twenty (120) days after service of the complaint upon the Community. Notice of the hearing shall be served upon the Community and all parties which received a copy of the complaint and published in accordance with Section 9-317. The hearing may be continued from time to time. The Committee may adopt rules for the taking of evidence and conduct of such hearings.

9-351 COMMITTEE DECISION

Within thirty (30) days of the conclusion of the hearing, the Committee shall decide whether
or not to suspend or to revoke in whole or in part the certification of the Community. The decision of the Committee shall be in writing and shall include the specific findings and conclusions supporting its determination. A copy of the decision and order shall be served upon the Community and all parties which received a copy of the complaint in accordance with Section 9-316. The decision of the Committee to suspend or to revoke the certification of the Community in whole or in part is final and may not be appealed to any court. If the Community’s certification is suspended, the Community shall automatically become recertified upon the expiration of the period of suspension. If the Community’s certification is revoked in whole or in part, the Community may reapply for certification at or after such time as the Committee shall specify in its order of revocation.

9-352 - 9-372 RESERVED
ARTICLE XIV—QUALIFIED REVIEW SPECIALISTS

9-373 GENERAL

The review of an application for a Stormwater Management Permit shall be performed by a qualified engineer and a qualified wetland specialist. The qualified engineer and qualified wetland specialist together with the Administrator shall determine whether the permit application meets the requirements of this Chapter. The Department shall maintain a list of qualified engineers and qualified wetland specialists.

9-374 REQUIREMENTS FOR QUALIFIED ENGINEERS

A. In order to be included on the list of qualified engineers, an engineer or engineering firm must be employed by the County or Certified Community or must be under contract with the County or Certified Community to review permit submittals. The engineer or engineering firm must be or employ a Professional Engineer registered in Illinois that has expertise either by training or significant experience in all of the following areas:

1. Design and permitting of Stormwater Management Measures;
2. Identification of Floodplains and Floodways and familiarity with FEMA and IDNR-OWR requirements, policies, and procedures;
3. Erosion and Sedimentation Control Practices and procedures;
4. Construction practices and inspection procedures; and
5. A copy of the contract, letter from the Community or resolution, or proof of employment with the Certified Community.

B. Submit proof of the qualifications above and complete, sign, and professionally seal the qualified Professional Engineer statement in the form included as Appendix B; and

C. File the qualifications and statement (Appendix B) with the Department and pay a fee of fifty dollars ($50.00) for each engineer to a maximum of two hundred fifty dollars ($250.00) for engineering firms, fifty dollars ($50.00) for individual engineers not associated with an engineering firm, or twenty-five dollars ($25.00) if the engineer is employed by a unit of local government.

9-375 REQUIREMENTS FOR QUALIFIED WETLAND SPECIALIST

A. In order to be included on the list of qualified wetland specialists, a wetland specialist must:

1. Complete a USACE approved or other Wetland delineation course approved by the Director; and

2. Be a Professional Wetland Scientist (PWS) certified by the Society of Wetland Scientists Professional Certification Program (SWSPCP); or
3. Have a bachelor’s degree in an earth science, biological science or engineering together with at least one of the following:

   a. Three (3) years' (cumulative) full time experience in the upper midwest region engaged in consulting on Wetland related projects; or

   b. Six (6) years' (cumulative) full time experience engaged in consulting outside the upper midwest region on Wetland related projects; or

   c. The completion of one hundred (100) Wetland delineations in the upper midwest region; or

   d. Three hundred (300) hours spent in field review of Wetland indications in the upper midwest region; and

   e. Have personally been involved with the design of at least ten (10) Wetland Mitigation areas.

B. Submit proof of the qualifications above and complete and sign the qualified wetland specialist statement in the form included as Appendix C; and

C. File the qualifications and statement (Appendix C) with the Department and pay a fee of fifty dollars ($50.00) or twenty-five dollars ($25.00) if the Applicant is employed by a unit of local government.

9-376 REVIEW OF QUALIFICATIONS

A. Within thirty (30) days of filing of the application, the Director will notify the Applicant of his/her or their inclusion on the list of qualified engineers and/or qualified wetland specialists, as the case may be. If the Applicant is not accepted for inclusion in the list, the Director shall specify the reasons for his decision. Within thirty (30) days of his receipt of the decision of the Director, the Applicant may appeal to the Committee by filing a notice thereof with the Department. The Committee shall conduct a hearing on the appeal in the manner prescribed by Section 9-378 from which the Applicant may further appeal in the manner prescribed by Section 9-379.

B. Once accepted, the qualified engineer, engineering firm or qualified wetland specialist, no later than March 31st of each year, shall resubmit the qualified engineer statement and/or qualified wetland specialist statement together with an annual maintenance fee of fifty dollars ($50.00) for each engineer and wetland specialist to a maximum of two hundred fifty dollars ($250.00) for engineering firms, fifty dollars ($50.00) for individual engineers or wetland specialist not associated with an engineering firm, or twenty-five dollars ($25.00) if the engineer or wetland specialist is employed by a unit of local government, in order to maintain his/her or their inclusion on the list.

9-377 INVESTIGATION AND COMPLIANCE

A. In the event that the Committee decides to suspend or to revoke in whole or in part the certification of the Community per Section 9-351 the Committee may also request that the Director conduct an investigation into the qualifications of a qualified engineer,
engineering firm, or qualified wetland specialist, or his/her or their performance of permit reviews under this Chapter. Such investigation may include, but is not limited to, an examination of all relevant records maintained by the Community and field inspections of relevant Developments, Structures or stormwater facilities. If upon such investigation, the Director determines that the qualified engineer, engineering firm, or qualified wetland specialist has failed in some significant way, or has repeatedly failed to conduct such reviews in conformance with this Chapter, then the Director shall prepare a report of his findings along with a complaint for the removal of the qualified engineer, engineering firm or qualified wetland specialist from the qualified engineer or qualified wetland specialist list and file them with the Committee. The complaint shall contain a short and plain statement describing how the qualified engineer, engineering firm, or qualified wetland specialist has failed in some significant way or has repeatedly failed to conduct such reviews in conformance with this Chapter.

B. Upon receipt of a written complaint, the Committee shall serve a copy thereof along with a copy of the report of the Director upon the qualified engineer, engineering firm, or qualified wetland specialist named therein in accordance with Section 9-316. A copy of the complaint and report shall also be served upon every Community for whom the qualified engineer, engineering firm, or qualified wetland specialist has conducted permit reviews. The qualified engineer, engineering firm, or qualified wetland specialist may file a written answer to the complaint within thirty (30) days after being served.

9-378 HEARING ON COMPLAINT

The Committee shall conduct a hearing on the complaint not less than seventy-five (75) nor more than one hundred twenty (120) days after the Committee decision to suspend or to revoke in whole or in part the certification of the Community under Section 9-351. Notice of the hearing shall be served upon the qualified engineer, engineering firm, or qualified wetland specialist and all parties which received a copy of the complaint and published in accordance with Section 9-317. The hearing may be continued from time to time. The Committee may adopt rules for the taking of evidence and conduct of such hearings.

9-379 COMMITTEE DECISION

Within thirty (30) days of the conclusion of the hearing, the Committee shall decide whether to remove the qualified engineer, engineering firm or qualified wetland specialist from the qualified engineer or qualified wetland specialist list. The decision of the Committee shall be in writing and shall include the specific findings and conclusions supporting its determination. A copy of the decision shall be served upon the qualified engineer, engineering firm or qualified wetland specialist and all parties which received a copy of the complaint in accordance with Section 9-316. If the qualified engineer, engineering firm or qualified wetland specialist is removed from the list, he/she/they may appeal the decision in accordance with Section 9-380 or may reapply for inclusion on the list at or after such time as the Committee shall specify in its order of removal.

9-380 APPEALS

A. The qualified engineer, engineering firm or qualified wetland specialist may appeal a final decision of the Committee to the courts under the Illinois Administrative Review Law.
ARTICLE XV—MISCELLANEOUS PROVISIONS

9-402 COMMITTEE’S DETERMINATION OF EXEMPTION

A. Fifteen (15) days prior to the Revision Date, each Community shall submit to the Director a list of proposed exempt Developments prepared and adopted in accordance with Section 9-403. At its next regularly scheduled meeting occurring not less than fifteen (15) days after the Director’s receipt of the list, the Committee shall hear public comment and consider the Developments listed therein. Any member of the Committee may remove a Development from the list for further consideration. After such removals, the Developments remaining on the list shall be determined to be exempt from the changes to this Chapter effective at the Revision Date.

B. With respect to those Developments removed from the list, the Committee shall determine each Development to be exempt from the changes to this Chapter effective at the Revision Date if the stormwater management plan for such Development meets the January 1, 2002 effective ordinance.

C. Notwithstanding the Committee’s determination that a particular Development is exempt from the changes to this Chapter effective at the Revision Date, all mitigable Wetland Impacts from any Development occurring after the Effective Date shall be mitigated.

9-403 COMMUNITY’S LIST OF PROPOSED EXEMPT DEVELOPMENTS

A. A Community may place a Development on its list of proposed exempt Developments only if:

1. The stormwater management plan for such Development meets the January 1, 2002 effective ordinance;

2. A stormwater management plan has been submitted and substantially approved by the Community engineer; or

3. A contractual agreement, specifically exempting the Development from the changes to this Chapter effective at the Revision Date, was entered into before 15 days prior to the Revision Date of this Chapter.

B. The Administrator shall approve the Community’s list of proposed exempt Developments. If required by the Community the list shall be adopted by an official action of the corporate authorities of the Community.

C. Not less than fifteen (15) days prior to the Committee meeting, the Director shall publish in accordance with Section 9-317 of the Chapter a listing of the proposed exempt Developments, the date and time of the meeting at which formal action with respect to the approval of the list will be taken and of the public’s right to appear to be heard prior to such approval.

D. Once submitted, the list may not be changed except that a Developer of a Development inadvertently omitted from the list by the Community may apply directly to the Committee for a determination that the Development meets all of the requirements of
this Article for being exempt.

E. A **Community** shall determine when exemptions expire for **Developments** in their jurisdiction listed on the approved exemption lists. This includes the January 1, 2002 exemption list.

**9-404 INTERPRETATION**

A. This Chapter shall be liberally construed to protect the health, welfare, safety, and the environment of the residents of the **County** and to effectuate the purposes of this Chapter and the enabling legislation.

B. Nothing in this Chapter shall be deemed to consent to license, permit to locate, construct, or maintain any **Structure**, **Site**, facility or operation, or to carry on any trade, industry, occupation, or activity.

C. When provisions of this Chapter differ from any other applicable law, statute, ordinance, rule or regulation, the more stringent provision shall apply.

D. The provisions of this Chapter are cumulative of all other laws, statutes, ordinances, rules and regulations which relate to the subject matter hereof and, except as otherwise expressly provided herein, nothing in this Chapter shall be construed as a limitation upon the application or enforcement of any such law, statute, ordinance, rule or regulation. To the greatest extent possible, the provisions of this Chapter shall be construed to be consistent with the provisions of such other laws, statutes, ordinances, rules or regulations, and with each other, to the end that all such provisions may be given their fullest application.

**9-405 WARNING AND DISCLAIMER OF LIABILITY**

A. The degree of **Flood** protection provided by this Chapter is considered reasonable for regulatory purposes and is based upon engineering experience and scientific methods of study. Increased flooding may result from causes beyond the control of any governmental authority. This Chapter does not, therefore, guarantee that areas outside the **Floodplain** or permitted land uses within the **Floodplain** will be free from flooding and associated damages.

B. Nothing in this Chapter shall be construed or applied in any manner to create liability on the part of or a cause of action against the **County**, any municipality or other governmental authority, or any elected official, or any officer, agent, or employee of any of the foregoing, or any qualified engineer or qualified wetland specialist for any **Flood** damage resulting from reliance on the provisions of this Chapter.

**9-406 CHOICE OF PLANNING JURISDICTION**

Pursuant to 55 Illinois Compiled Statutes 5/5-1062(b), a **Community** that is located in more than one **County** may choose, at the time of the formation of the **Committee**, and based upon **Watershed** boundaries, to participate in the stormwater management planning program of either or both of the counties. Unless the **Community**, at the time of the formation of the **Committee**, has chosen to participate in the stormwater management
planning program of another County, the Committee shall include such Community within the scope of its planning and enforcement jurisdiction.

9-407 SEVERABILITY

A. The provisions of this Chapter shall be severable in accordance with the following rules:

1. If any court of competent jurisdiction shall adjudge any provision of this Chapter to be invalid, such judgment shall not affect any other provision of this Chapter.

2. If any court of competent jurisdiction shall adjudge to be invalid the application of any provision of this Chapter to a particular Parcel of land, a particular Structure, or a particular Development, such judgment shall not affect the application of said provision to any other land, Structure or Development.

9-408 REPEALER

This Chapter repeals the original ordinance or resolution which was adopted to meet the National Flood Insurance Program regulations, but is not intended to replace any ordinance or resolution passed in order to establish initial eligibility for the National Flood Insurance Program.

9-409 - 9-429 RESERVED
ARTICLE XVI—WATERSHED SPECIFIC PROVISIONS

9-430  REFERENCE TO WATERSHED PLANS

A. This Chapter recognizes the integrated nature of the Watershed system and the need to study certain Flood control alternatives and other stormwater management functions on a Watershed wide basis.

B. Individual Watershed Plans or Interim Watershed Plans which recognize the unique attributes of each Watershed may be prepared and periodically updated for the major Watersheds to identify management projects and establish criteria for Development.

C. Watershed Plans or Interim Watershed Plans may be adopted which contain more or less stringent requirements than those of this Chapter. Watershed specific requirements established in such Watershed Plans or Interim Watershed Plans will be set forth in Sections 9-87 through 9-106.

9-431 - 9-451 RESERVED
APPENDIX B—QUALIFIED ENGINEER STATEMENT

I, ______________________________, of ______________________________________, with professional licensure in the State of Illinois, do hereby state that I have read and understand the Kane County Stormwater Ordinance and the Technical Manual which accompanies it, and will obtain, read and abide by any amendments thereto. I affirmatively state that I meet the requirements set forth in Article XIV of the ordinance. I will review projects for compliance with the ordinance using my expertise in Stormwater Management Measure design and permitting, Floodplain and Floodway policies and procedures, Erosion and Sedimentation Control Practices, and construction practices and inspections. I will exercise professional judgment with respect to projects submitted for my review in accordance with the customary standard of care applicable to Persons providing similar services in the same or similar Communities in order to insure substantial conformance with the ordinance. I understand that failure to adequately discharge this obligation may, with due process, result in loss of this status. It is my responsibility to provide the Director with any changes to the information provided.

Signed

P.E. Registration Number/Expiration Date

Telephone:

Fax:

Email:

(Seal) Employer:

Certified Communities and each Community’s contact for whom you perform reviews:

(Attach a one-page summary of your qualifications under Article XIV of the ordinance.)
APPENDIX C—QUALIFIED WETLAND SPECIALIST STATEMENT

I, ______________________________, of ______________________________, do hereby state that I have read and understand the Kane County Stormwater Ordinance and the Technical Manual which accompanies it, and will obtain, read and abide by any amendments thereto. I affirmatively state that I meet the requirements set forth in Article XIV of the ordinance. I will submit permit applications or review projects for compliance with those Sections of the ordinance pertaining to Wetlands, including, without limitation, Wetland delineation and the calculation of Buffer widths. I will use my expertise in Wetland delineations or field identification of Wetland indicators in the Upper Midwest. I will exercise professional judgment with respect to projects submitted for my review in accordance with the customary standard of care applicable to Persons providing similar services in the same or similar Communities in order to insure substantial conformance with the ordinance. I understand that failure to adequately discharge this obligation may, with due process, result in loss of this status. It is my responsibility to provide the Director with any changes to the information provided.

Signed

SWSPCP PWS Number (if applicable)

Telephone:

Fax:

Email:

Employer:

(Attach a one-page summary of your qualifications under Article XIV of the ordinance.)
APPENDIX D—SAMPLE SPECIAL SERVICE AREA ORDINANCES
ORDINANCE NO. ____________

AN ORDINANCE PROPOSING THE ESTABLISHMENT OF THE
____________ SPECIAL SERVICE AREA [or SPECIAL SERVICE AREA
NO. ____________] OF ____________ , ILLINOIS
AND THE LEVY OF TAXES FOR THE PURPOSE OF PAYING THE COST
OF PROVIDING SPECIAL SERVICES IN AN FOR SUCH AREA

ADOPTED BY THE
[MAYOR AND CITY COUNCIL/PRESIDENT AND BOARD OF TRUSTEES]
OF THE
[CITY/VILLAGE] OF ___________________

[DATE]

Published in pamphlet form by authority of the [Mayor and City Council/President and Board of Trustees] of the [City/Village] of ____________, Kane County, Illinois, [Date].
WHEREAS pursuant to the provisions of the 1970 Constitution of the State of Illinois (the Constitution), the [City/Village] of ____________, Kane County, Illinois (the [City/Village]), is authorized to create special service areas in and for the [City/Village]; and

WHEREAS special service areas are established by non-home rule\(^1\) units pursuant to Section 7(6) of Article VII of the Constitution, which provides that-

\[
[M]unicipalities…which are not home rule units shall have…powers…to levy or impose additional taxes upon areas within their boundaries in the manner provided by law for the provision of special services to those areas and for the payment of debt incurred in order to provide those special services;
\]

and are established “in the manner provided by law” pursuant to the provisions of “AN ACT to provide the manner of levying or imposing taxes for the provision of special services to areas within the boundaries of home rule units and non-home rule municipalities and counties,” approved September 21, 1973, as amended, and pursuant to the Revenue Act of 1939 of the State of Illinois, as amended; and

WHEREAS it is in the public interest that the establishment of the area hereinafter described as a special service area for the purposes set forth herein and to be designated as the ____________ Special Service Area [or Special Service Area No. ____________], of the [City/Village] (the Area) be considered; and

WHEREAS the Area is compact and contiguous, totally within the corporate limits of the [City/Village]; and

WHEREAS the Area will benefit specially from the municipal services to be provided by the [City/Village] (the Services), and the Services are unique and in addition to the services provided to the [City/Village] as a whole, and it is, therefore, in the best interests of the [City/Village] that the establishment of the Area be considered; and

WHEREAS it is in the public interest that the levy of a direct annual \textit{ad valorem} tax upon all taxable property within the Area be considered for the purpose of paying the cost of providing the Services; and

WHEREAS the revenue from such tax shall be used solely and only for Services for which the [City/Village] is authorized under the provisions of the Illinois Municipal Code, as amended, to levy taxes or special assessments or to appropriate the funds of the [City/Village], all of the Services to be in and for the Area and all of the necessary construction and maintenance to be

\(^{1}\)Home rule municipalities should alter this language accordingly.
on property now owned or to be acquired by the [City/Village], or property in which the
[City/Village] will obtain an interest sufficient for the provision of the Services; and

WHEREAS said direct annual *ad valorem* tax shall be levied upon all taxable property within
the Area for an indefinite period of time beginning for the year _______ and shall not exceed an
annual rate of __________ of the assessed valuation of each tax parcel within the Area and
shall be in addition to all other taxes permitted by law; and

WHEREAS a public hearing will be held at ______________, on the ____________ day of
____________, ____________, in the [City/Village] Hall, ______________, ____________, Illinois
____________ (the *Hearing*), to consider the establishment of the Area for the purpose of
providing the Services and the levy of an additional direct annual *ad valorem* tax for the purpose
of paying the cost thereof, all as described in the Notice of Public Hearing set forth in Section 2
hereof (the *Notice*); and

WHEREAS the Notice shall be given by publication and mailing. Notice by publication shall be
given by publication on a date, such date being not less than 15 days prior to the Hearing, in a
newspaper published within the [City/Village] [or, of general circulation within the [City/Village],
there being no newspaper published therein]. Notice by mailing shall be given by depositing the
Notice in the United States Mail addressed to the person or persons in whose name the general
taxes for the last preceding year were paid on each lot, block, tract, or parcel of land lying within
the Area. The Notice shall be mailed not less than 10 days prior to the time set for the Hearing.
In the event taxes for the last preceding year were not paid, the Notice shall be sent to the person
last listed on the tax rolls prior to that year as the owner of said property.

NOW, THEREFORE, Be it Ordained by the [Mayor and City Council/President and the Board of
Trustees] of the [City/Village] of ______________, Kane County, Illinois, as follows:

§1. Incorporation of preambles

The preambles of this ordinance are hereby incorporated into this text as if set out herein in
full.

§2. Notice

The [Mayor and City Council/President and Board of Trustees] determine that the Notice is
in the proper statutory form as set forth as follows:
NOTICE OF PUBLIC HEARING

[City/Village] OF ____________, KANE COUNTY, ILLINOIS
____________ SPECIAL SERVICE AREA [or NO. ___________]  

NOTICE IS HEREBY GIVEN that on ____________, at ____________, in the [City/Village] Hall, ______________, ______________, Illinois, a public hearing (the Hearing) will be held by the [Mayor and City Council/President and Board of Trustees] of the [City/Village] of ______________, Kane County, Illinois (the [City/Village]), to consider the establishment of the ______________ Special Service Area [No. ______________], (the Area), of the [City/Village], consisting of the following described territory:

SEE ATTACHED EXHIBIT A

Said territory consists of approximately ___ acres lying [insert general description of location]. An accurate map of said territory is on file in the office of the [City/Village] Clerk and is available for public inspection.

The purpose of the establishment of the Area is to provide the following special services (the Services) to the Area: the operation, maintenance, repair, rehabilitation, replacement and reconstruction of any Stormwater Management Measures, Major or Minor Stormwater System or Special Management Areas; costs of design, engineering and other consulting services, surveying and permits, public liability insurance, and all administrative, legal and other costs or expenses incurred in connection therewith and with the administration of the Area, including the repayment of any loan or debt incurred for the provision of any of such Services, all of the Services to be in and for the Area.

All of the Services are to be on property now owned or to be acquired by the [City/Village], or property in which the [City/Village] will obtain an interest sufficient for the provision of the Services.

The levy of a direct annual ad valorem tax upon all taxable property within the Area for the purpose of paying the cost of the Services will also be considered at the Hearing. The tax shall be levied upon all taxable property within the Area for an indefinite period of time beginning for the year ____________ and shall not exceed an annual rate of ____________ of the assessed valuation of each tax parcel within the Area and shall be in addition to all other taxes permitted by law.

All interested persons affected by the establishment of the Area or tax levy, including all owners of real estate located within the Area, will be given an opportunity to be heard at the Hearing regarding the establishment of the Area and the tax levy and an opportunity to file objections to the establishment of the Area or the tax levy.

At the Hearing, any interested persons affected by the Area may file with the [City/Village] Clerk written objections to and may be heard orally in respect to any issues embodied in this notice. The [Mayor and City Council/President and Board of Trustees] shall hear and determine all protests and objections at the Hearing, and the Hearing may be adjourned to another date without further notice other than a motion to be entered upon the minutes fixing the time and place of its adjournment.
If a petition signed by at least 51% of the electors residing within the Area and by at least 51% of the owners of record of the land included within the boundaries of the Area is filed with the [City/Village] Clerk within 60 days following the final adjournment of the Hearing objecting to the creation of the Area or the levy or imposition of a tax for the provision of the Services to the Area, no such Special Service Area may be created or no tax may be levied or imposed.

By order of the [Mayor and City Council/President and Board of Trustees] of the [City/Village] of ______________, Kane County, Illinois.

DATED this ______ day of __________________, ____________.

/s/ ________________________________
[CITY/VILLAGE] Clerk, [CITY/VILLAGE] of ______________, Kane County, Illinois

§3. Miscellaneous

The [City/Village] agrees to produce or file such forms, statements, proceedings and supporting documents as may be required and in a timely manner in order to establish the Area and levy the taxes and, if deemed necessary or advisable by its officers, to employ and pay fiscal agents, financial advisors, attorneys and other persons to assist the [City/Village] in these endeavors.

§4. Repealer; effective date

All ordinances, orders and resolutions and parts thereof in conflict herewith be and the same are hereby repealed, and this ordinance be in full force and effect forthwith upon its passage, approval and publication as provided by law.

DATED: ______________.

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Approved:

________________________________________
[Mayor/President]

Attested, Filed in my office, and published in pamphlet form on ________________, 20__:

________________________________________
Clerk of the [City/Village] of ________________, Kane County, Illinois
[CITY/VILLAGE] OF ____________

ORDINANCE NO. __________________

AN ORDINANCE ESTABLISHING THE
_________________ SPECIAL SERVICE AREA [OR NO. ______________] 
OF ______________, ILLINOIS
AND PROVIDING FOR THE LEVY OF TAXES FOR THE PURPOSE OF 
PAYING THE COST OF PROVIDING SPECIAL SERVICES 
IN AND FOR SUCH AREA

ADOPTED BY THE
[MAYOR AND CITY COUNCIL/PRESIDENT AND BOARD OF TRUSTEES]
OF THE
[CITY/VILLAGE] OF ____________
[DATE]

Published in pamphlet form by authority of the [Mayor and City Council/President and Board of Trustees] of the 
[City/Village] of _________________, Kane County, Illinois
[Date]
Whereas, pursuant to the provisions of the 1970 Constitution of the State of Illinois (the Constitution), the [City/Village] of ____________, Kane County, Illinois (the [City/Village]), is authorized to create special service areas in and for the [City/Village]; and

Whereas, special service areas are established by non-home rule units pursuant to Section 7(6) of Article VII of the Constitution, which provides that:

municipalities…which are not home rule units shall have only the powers granted to them by law and the powers… (6) to levy or impose additional taxes upon areas within their boundaries in the manner provided by law for the provision of special services to those areas and for the payment of debt incurred in order to provide those special services;

and

Whereas, special service areas are established “in the manner provided by law” pursuant to the provisions of “AN ACT to provide the manner of levying or imposing taxes for the provision of special services to areas within the boundaries of home rule units and non-home rule municipalities and counties,” approved September 21, 1973, as amended (the Act), and pursuant to the provisions of the Revenue Act of 1939 of the State of Illinois, as amended; and

Whereas, it is in the public interest that the area hereinafter described be established as the ____________ Special Service Area [or No. ____________] of the [City/Village] for the purposes set forth herein (the Area); and

Whereas, the Area is compact and contiguous and totally within the boundaries of the [City/Village]; and

Whereas, the Area will benefit specially from the services to be provided by the [City/Village] (the Services), and the Services are unique and in addition to the services provided to the [City/Village] as a whole, and it is, therefore, in the best interests of the [City/Village] that the Area be established; and

Whereas, the cost of providing the Services shall be paid by the levy of a direct annual ad valorem tax upon all taxable property within the Area; and

Home rule units should alter this language accordingly.
WHEREAS, said direct annual tax shall be levied upon all taxable property within the Area for an indefinite period of time beginning for the year ____________ and shall not exceed an annual rate of ____________ of the assessed valuation of each tax parcel within the Area and shall be in addition to all other taxes permitted by law; and

WHEREAS, the establishment of the Area was proposed by the [City Council/Board of Trustees] of the [City/Village] (the [Council/Board]) pursuant to Ordinance No. ____________, entitled:

AN ORDINANCE proposing the establishment of the ____________ Special Service Area [or No. ____________] of ____________, Illinois, and the levy of taxes for the purpose of paying the cost of providing special services in and for such Area.

(the Proposing Ordinance), duly adopted on ____________, and was considered at a public hearing (the Hearing) held by the [Council/Board] on ____________; and

WHEREAS, notice of the Hearing was given by publication at least once not less than 15 days prior to the Hearing in ____________, the same being a newspaper published in the [City/Village] [or, of general circulation with the [City/Village], there being no newspaper published therein]; and

WHEREAS, mailed notice of the Hearing was given by depositing notice in the United States mails addressed to the person or persons in whose name the general taxes for the last preceding year were paid on each lot, block, tract or parcel of land lying within the Area not less than 10 days prior to the time set for the Hearing, and in the event taxes for the last preceding year were not paid, the notice was sent to the person or persons last listed on the tax rolls prior to that year as the owner or owners of said property; and

WHEREAS, said notice complied with all of the applicable provisions and requirements of the Act; and

WHEREAS, all interested persons affected by the establishment of the Area or the levy of the tax to pay the cost of providing the Services, including all owners of real estate located within the Area, were given an opportunity to be heard at the Hearing regarding the establishment of the Area and the levy of said tax and an opportunity to file objections to the establishment of the Area or the levy of said tax; and

WHEREAS, at the Hearing, all interested persons affected by the Area were permitted to file with the [City/Village] Clerk written objections to and to be heard orally in respect to any issue embodied in the notice given of the Hearing; and
WHEREAS, the Council/Board has determined and does hereby determine that it is in the public interest and in the interest of the [City/Village] and the Area that the Area be established;

NOW, THEREFORE, Be It Ordained by the [Mayor and City Council/President and Board of Trustees] of the [City/Village] of ________________, Kane County, Illinois, as follows:

§1. Incorporation of preambles

The preambles of this ordinance are hereby incorporated into this text as if set out herein in full.

§2. Final adjournment of Hearing

The Hearing was finally adjourned on ________________.

§3. Establishment of Area

a. The ________________ Special Service Area [or No. __________] of the [City/Village] is hereby established in and for the [City/Village] and shall consist of the territory legally described in Exhibit A attached.

b. Said territory consists of approximately ________________ acres lying [insert a general description of the location of the area] in the [City/Village]. An accurate map of the Area is attached hereto and made a part hereof.

§4. Purpose of the establishing the Area

The purpose of establishing the Area is to provide the Services to the Area, including the operation, maintenance, repair, rehabilitation, replacement and reconstruction of any Stormwater Management Measures, Major or Minor Stormwater System or Special Management Areas; costs of design, engineering and other consulting services, surveying and permits, public liability insurance, and all administrative, legal and other costs or expenses incurred in connection therewith and with the administration of the Area, including the repayment of any loan or debt incurred for the provision of any of such Services, all of the Services to be in and for the Area and all of said construction and improvements to be on property now owned or to be acquired by the [City/Village], or property in which the [City/Village] will obtain an interest sufficient for the provision of the Services.

§5. Tax Levy

The cost of the Services shall be paid by the levy of a direct annual ad valorem tax upon all taxable property within the Area for an indefinite period of time beginning for the year ________________ and shall not exceed an annual rate of ________________ of the assessed valuation of each tax parcel within the Area and shall be in addition to all other taxes permitted by law.
§6. **Filing**

The [City/Village] Clerk is hereby directed to file a certified copy of this ordinance, including an accurate map of the Area, in the office of the Kane County Clerk and in the office of the Kane County Recorder forthwith after its adoption and approval.

§7. **Repealer**

All ordinances, orders and resolutions and parts thereof in conflict herewith be and the same are hereby repealed, and this ordinance be in full force and effect forthwith upon its adoption.

**DATED:** ________________.

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Approved:

__________________________________________  
[Mayor/President]

Attested, Filed in my office, and published in pamphlet form on ________________, 20__.:

__________________________________________  
Clerk of the [City/Village] of ________________, Kane County, Illinois
APPENDIX E—DEFINITIONS

9-452 DEFINITIONS

In this Chapter:

AASHTO: Current publications from the American Association of State Highway and Transportation Officials (AASHTO) providing design guidelines and maximum width dimensions applicable to specific types of proposed linear projects.

ADEQUATE DOWNSTREAM STORMWATER CAPACITY: A stormwater management system shall be considered to have Adequate Downstream Stormwater Capacity if the system can be shown to store or convey stormwater runoff from the storm event having a one percent (1%) chance of occurrence in any given year without increasing damage to adjoining properties or to a point downstream known to the Administrator to a restriction that causes significant backwater.

ADID: Advanced identification of Wetlands and aquatic resources under a study authorized and funded by the USEPA and adopted by the County.

ADMINISTRATOR: The Person designated by the Permitting Authority to administer and enforce this Chapter.

ADVERSE HYDRAULIC IMPACT: An increase of more than 0.10’ to the modeled Flood profile for a given storm event due to a proposed Development activity.

AGRICULTURAL LAND: Land predominantly used for agricultural purposes.

AGRICULTURAL SUBSURFACE DRAINAGE SYSTEM: A subsurface, water management system driven by economic and safety concerns, where the rate at which surplus Groundwater should be removed is determined primarily by the moisture/air requirements of the vegetation. Systems are often referred to as drain tiles and may include Observation Structures or hickenbottom inlets.

ALLOWABLE RELEASE RATE: The maximum post-development release rate from a Development or Redevelopment during the one percent (1%) chance Design Storm as specified in Section 9-84 of this Chapter. The Allowable Release Rate includes the release rate from the Restrictor and the Unrestricted Release from the Development.

APPLICANT: Any person who submits an application for a Stormwater Management Permit under this Chapter.

APPROPRIATE USE: A use of the Regulatory Floodway permitted under Article VI of this Chapter.
ATTACHED GARAGE: A garage attached, adjacent, and connected to a residential Structure. An Attached Garage does not include an enclosed area below an elevated residential Structure to meet the building protection standards.

AVERAGE ANNUAL RAINFALL: The distribution of precipitation recorded during a calendar year with an average amount of precipitation in comparison to historically recorded years. An example Average Annual Rainfall distribution may be found in the Technical Manual.

BASE FLOOD: The Flood having a one percent (1%) probability of being equaled or exceeded in a given year. The Base Flood is also known as the 1% Design Storm or the 100-year Design Storm.

BFE OR BASE FLOOD ELEVATION: The highest water surface elevation that can be expected during the Base Flood.

BMP OR BEST MANAGEMENT PRACTICE: See Stormwater Mitigation/Best Management Practice (BMP)

BUFFER: Predominantly vegetated Upland areas within a defined width adjacent to Wetlands and Waters of the U.S. that provide a function that eliminate or minimize adverse impacts to those areas. Buffer functions include: reducing flood flow rates, velocities and volumes; promoting bank stability; filtration of sediment, nutrients and other pollutants; insulation and moderation of daily water temperatures; and habitat for aquatic and terrestrial fauna and flora. Areas that do not provide Buffer functions include: impervious non-vegetated surfaces, permanent Structures or Buildings, land in agricultural production within the past five (5) years, and maintained turf or landscape areas as of the Effective Date of this ordinance or previously permitted.

BUILDING: A Structure that is principally aboveground and is enclosed by walls and a roof; a Building includes a gas or liquid storage tank, a Manufactured Home or prefabricated Building. This term also includes Recreational Vehicles and travel trailers to be installed on a Site for more than 180 days.


CERTIFIED COMMUNITY: A Community certified under Article XIII of this Chapter.

CHANNEL: Any river, stream, creek, brook, branch, natural or artificial depression, ponded area, flowage, slough, ditch, conduit, Culvert, gully, ravine, wash, or natural or
manmade drainage way which has a definite bed and bank or shoreline, in or into which surface, **Groundwater**, effluent, or industrial discharges flow either perennially or intermittently.

**CHANNEL MODIFICATION**: Alteration of a **Channel** by changing the physical dimensions or materials of its bed or banks, and includes damming, riprapping (or other armoring), widening, deepening, straightening, relocating, lining, and significant removal of bottom or woody rooted vegetation, but does not include the clearing of debris or removal of trash or dredging to previously documented thalweg elevations and side slope.

**CLOMA OR CONDITIONAL LETTER OF MAP AMENDMENT**: A FEMA comment letter on a **Development** proposed to be located in, and affecting only that portion of, the area of **Floodplain** outside the **Regulatory Floodway** and having no impact on the existing **Regulatory Floodway** or **Base Flood Elevations**.

**CLOMR OR CONDITIONAL LETTER OF MAP REVISION**: A letter that indicates that FEMA will revise **Base Flood Elevations**, flood insurance rate zones, **Flood** boundaries or **Floodways** as shown on an effective **FIRM** or **FBFM**, after the **Record Drawings** are submitted and approved.

**COMMITTEE**: The Kane County Stormwater Management Planning Committee.

**COMMUNITY**: The **County** or any municipality within the **County**.

**COMPENSATORY STORAGE**: An excavated, hydrologically and hydraulically equivalent volume of storage created to offset the loss of existing flood storage when fill or **Structures** are placed within the **Floodplain** or when a **Depressional Storage** area is drained or filled.

**COUNTY**: Kane County, Illinois.

**CRITICAL DURATION**: The duration of a storm event that results in the greatest peak **Runoff**.

**CRITICAL FACILITY**: Critical facilities are those that are essential to a **Community’s** ability to quickly and efficiently respond to **Floods**, recover from **Floods**, meet the needs of its citizens and rebuild after **Floods**. Typical **Critical Facilities** include hospitals, fire stations, police stations, storage of critical records, and similar facilities.

**DAM**: Any obstruction, wall embankment, or barrier, together with any abutments and appurtenant works, constructed to store or divert water or to create a pool (not including underground water storage tanks).

**DEMOLITION**: Removal of **Structures**, **Impervious Area**, or utilities that return a **Site** to a natural or vacant state. Demolition must not increase the volume or flow rate, or
affect the drainage pattern, or composition of stormwater. Demolition activities that change the use of the Site or require any fill within a Floodplain or Floodway are considered Development.

**DEPARTMENT**: The Kane County Department that administers the Stormwater Management Ordinance.

**DEPRESSIONAL STORAGE**: The volume contained below a closed contour on a one foot (1’) contour interval topographical map, the upper elevation of which is determined by the invert of a surface gravity outlet. A surface gravity outlet does not include a surface inlet or hickenbottom that connects to a Subsurface Drainage System.

**DESIGN STORM**: A selected storm event, described in terms of the probability of occurring once within a given number of years, for which stormwater or Flood control improvements are designed and built. The Critical Duration storm shall be evaluated unless otherwise specified.

**DETENTION STORAGE FACILITY**: A manmade structure providing temporary storage of stormwater runoff from a Development with a controlled release rate during or immediately after a storm. The Detention Storage Facility includes a stormwater storage basin, Control Structure (or Restrictor), and the basin outlet, Emergency Overflow and inflow pipes.

**DEVELOPER**: Any Person who undertakes Development or certifies Development on such Person’s behalf.

**DEVELOPMENT**: Any manmade change to the land undertaken by private or public entities which includes:

A. The construction, reconstruction, or replacement of a Building or an addition to a Building;

B. The installation of utilities, construction of roads, bridges or similar projects;

C. Dredging, drilling and mining;

D. The construction or erection of levees, walls, fences, dams, or culverts;

E. Channel Modifications, filling, dredging, grading, excavating, paving, or other nonagricultural alterations of the ground surface;

F. The storage of equipment and materials or the deposit of solid or liquid waste;

G. The installation of a Manufactured Home on a Site, the preparation of a Site for a Manufactured Home, or the placement of a Recreational Vehicle on a Site for more than one hundred eighty (180) days;
H. Any **Wetland Impact**;

I. Any other manmade activity that increases the volume, height or velocity of **Flood** or surface water or changes the composition of stormwater, direction, of **Flood** or surface water, including the extensive removal of vegetation; and

J. The alteration, subdivision or change in land use or practice (plat act divisions) in which the proposed use will require a **Stormwater Management Measure**.

**Development**, however, does not include:

A. **Site Maintenance** and repair of existing **Buildings** or facilities located outside of the **Floodplain**;

B. **Site Maintenance** of existing parking lots, pedestrian trails and bikeways outside the **Floodplain** provided that no new **Impervious Areas** are added, there is no increase in peak flows, and there is no change in the location of the stormwater discharge;

C. **Site Maintenance**, including resurfacing of streets and highways outside the **Floodplain**;

D. **Site Maintenance**, including resurfacing of publicly owned streets and highways within the **Floodplain** provided the difference between the elevation of the road surface after resurfacing and the elevation of the road surface on the **Effective Date** is not more than two inches (2”);

E. Maintenance of existing **Stormwater Management Measures** (e.g. sediment removal, shoreline stabilization, etc.), to restore to or improve: 1) the permitted function and condition, or 2) if completed prior to the **Effective Date** of this Chapter, the verifiable constructed function and condition;

F. Paving over an existing permitted or grandfathered **Impervious Area**, provided no change in peak discharge or location of discharge;

G. For agricultural uses, maintenance of existing drainage systems for the limited purpose of maintaining cultivated areas and crop production;

H. For agricultural uses, improvements undertaken pursuant to a written **NRCS** conservation plan provided they are outside of the **Floodplain**; and

I. Plowing, cultivation and similar agricultural practices that do not involve filling, grading or the construction of levees.

**DIRECTOR**: The **Person** designated by the County Board to oversee the administration of the Stormwater Management Ordinance.
DRAINAGE AREA: The land area above a given point that may contribute Runoff flow at that point from rainfall and/or snowmelt.

DRAINAGE DISTRICT: A special district created by petition or referendum and court approval. It has the power to construct and maintain drainage improvements and to pay for the improvements with assessments on the land within the district boundaries. An assessment on the land cannot be greater in value than the benefits of the drainage improvements.

DRY FLOODPROOFED OR DRY FLOODPROOFING: Building protection measures designed according to current FEMA guidelines to keep water out of the Building. Dry Floodproofing measures are among the Floodproofing measures described in the current edition of the following FEMA publications: Engineering Principles and Practices for Retrofitting flood-Prone Residential Structures (FEMA P-259), Homeowner’s Guide to Retrofitting (FEMA P-312), Selecting Appropriate Mitigation Measures for Flood Prone Structures (FEMA 551), Protecting Building Utilities from Flood damage (FEMA 348), Reducing damage from Localized Flooding (FEMA 511), Non-Residential Floodproofing – Requirements and Certification (FEMA TB 3), and Floodproofing Non-Residential Structures (FEMA 102).

EFFECTIVE DATE: January 1, 2002.

ELEVATION CERTIFICATE: A form published by FEMA used to certify the Base Flood Elevation and the lowest elevation of Usable Space to which a Building has been constructed.

EMERGENCY OVERFLOW: Stormwater runoff from the Critical Duration Design Storm with a one percent (1%) chance of occurrence in any one year for the Tributary Area assuming the Detention Storage Facility is empty at the start of the storm and assuming zero release. The Emergency Overflow shall convey this Runoff without increasing Flood heights on upstream, adjoining properties or resulting in Flood damage at the Development.

EROSION: The process whereby soil is detached by the action of water or wind.

EROSION AND SEDIMENTATION CONTROL PRACTICES: A temporary or permanent measure that stabilizes soil by covering and/or binding soil particles to prevent soil particles from becoming detached by the forces of wind, water, or gravity and filters sediment from Runoff.

EXISTING MANUFACTURED HOME PARK: A Development for the placement of Manufactured Homes for which, at a minimum, the installation of utilities, the construction of streets, and either the final Site grading or the pouring of concrete pads was completed before the Effective Date.

EXPANSION OF EXISTING MANUFACTURED HOME PARK: The installation of
utilities, or the construction of streets, or final Site grading, or pouring of concrete pads in connection with the Development of additional lots within an Existing Manufactured Home Park.

FARmed WETLANDS: Wetlands that have been identified as Farmed Wetlands in accordance with the current "National Food Security Act Manual" (NFSAM) methodology and the U.S. Army Corps of Engineers - Chicago district methodology.

FEE IN LIEU OF STORMWATER MANAGEMENT MEASURES: A fee assessed to the Applicant by the Permitting Authority, commensurate with the costs and fee schedules adopted by the County or Certified Community, paid “in-lieu-of” constructing the required Stormwater Management Measures for the Development to meet the Ordinance requirements. Rules and procedures for Fee-in-Lieu of Detention Storage Facilities, Best Management Practices and Watershed Benefit Measures are contained in Section 9-85 and 9-318.


FIRM OR FLOOD INSURANCE RATE MAP: The current version of a map published by FEMA on which FEMA has delineated both the Special Flood Hazard Areas and the risk premium zones applicable to a Community, together with any amendments, additions, revisions or substitutions made thereto or therefor by FEMA at any time.

FIS OR FLOOD INSURANCE STUDY: The current version of an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations (or an examination of Flood related erosion hazards) for a Community adopted and published by FEMA, together with any amendments, additions, revisions or substitutions made thereto or therefor by FEMA at any time.

FLOOD FREQUENCY: A frequency normally expressed as a period of years, based upon a percent chance of occurrence in any given year from statistical analysis, during which a Flood of a stated magnitude may be expected to be equaled or exceeded, as in the 2-year Flood Frequency has a fifty percent (50%) chance of occurrence in any given year and the 100-year Flood Frequency has a one percent (1%) chance of occurrence in any given year.

FLOOD: A general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waves or the unusual and rapid accumulation of Runoff of surface waters from any source.

FLOODPLAIN: That land typically adjacent to a body of water with ground surface elevations at or below the Base Flood including detached Special Flood Hazard Areas, ponding areas and the like. The Floodplain is also known as the Special Flood Hazard Area (SFHA).
FLOODPLAIN VIOLATION: The failure of a Structure or other Development to be in compliance with the Floodplain management regulations of this Chapter, including the failure to have the Elevation Certificate, other certificates, or other evidence of compliance required in Article VI of this Chapter until such time as the required documentation is provided.

FLOODPROOF OR FLOODPROOFING: Any combination of structural and nonstructural additions, changes or adjustments to Structures or property which reduce or eliminate Flood damage to real estate, water and sanitary facilities, Structures and their contents.

FLOODPROOFING CERTIFICATE: A form published by FEMA that is used to certify that a Building has been designed and constructed to be Structurally Dry Floodproofed to the FPE.

FLOODWAY CONVEYANCE: The measure of the flow carrying capacity of the Floodway section and is defined using Manning’s equation, $K=1.49 \frac{AR^{2/3}}{n}$, where "n" is Manning’s roughness factor, "A" is the effective area of the cross section, and "R" is the ratio of the wetted area to the wetted perimeter.

FLOODWAY OR DESIGNATED FLOODWAY: The Channel, including on-stream Lakes, and that portion of the Floodplain adjacent to a stream or Channel, as depicted on the FEMA FIRM, which is needed to store and convey the Critical Duration Base Flood discharge with no more than a one-tenth of a foot increase in Flood stage due to the loss of Floodway Conveyance or storage, and no more than a ten percent (10%) increase in velocities.

FPE OR FLOOD PROTECTION ELEVATION: The elevation to which a Building must be protected from Flood damage, through elevation or Floodproofing. The FPE is the Base Flood Elevation plus a recommended Freeboard.

FQI OR FLORISTIC QUALITY INDEX: The parameter related to the number of native plant species present, as defined by Floyd Swink and Gerald Wilhelm in "Plants of the Chicago Region", 4th edition (1994) and calculated using the Chicago Region Floristic Quality Assessment (FQA) Calculator

FREEBOARD: An increment of height added to the BFE, groundwater table or Base Flood design water surface elevation to provide a factor of safety for uncertainties in calculations, unknown local conditions, wave action and unpredictable effects such as those caused by ice or debris jams.

FUNCTIONAL: Refers to Stormwater Management Measures and Major Stormwater Systems which serve the primary purpose of meeting developed release rate requirements, but does not meet all of the final design conditions. For example, a Detention Storage Facility, which has been excavated but has not, had the side slopes graded, nor the final landscaping placed, may be considered Functional as a Detention
Storage Facility.

**GROUNDWATER**: Water that is located within soil or rock below the surface of the earth.

**HIGHEST ADJACENT GRADE**: The highest natural elevation of the ground surface next to the proposed walls of a **Structure** prior to construction.

**HISTORIC STRUCTURE**: A **Structure** or **Site** that is:

- A. listed individually in the national register of historic places, or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing in the national register;
- B. Certified or preliminarily determined by the Secretary of the Interior as contributing to a historic district or a district preliminarily determined by the Secretary of the Interior to qualify as a registered historic district;
- C. Individually listed on the state inventory of historic places by the Illinois Historic Preservation Agency; or
- D. Individually listed on a local inventory of historic places that has been certified by the Illinois Historic Preservation Agency.

**HYDRAULICALLY EQUIVALENT COMPENSATORY STORAGE**: Compensatory Storage (either adjacent to the **Floodplain** fill or located off-site), which can be shown by **Hydrologic** and **Hydraulic** analysis to be equivalent to **Compensatory Storage** located adjacent to the Development.

**HYDRAULICS**: The science and study of the mechanical behavior of water in physical systems and processes.

**HYDRIC SOIL**: A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

**HYDROLOGICALLY DISTURBED AREA**: An area of land surface cleared, grubbed, excavated, compacted or otherwise modified that changes stormwater **Runoff** volumes or rates.

**HYDROLOGY**: The science of the behavior of water, including its dynamics, composition and distribution in the atmosphere, on the surface of the earth and underground.

**IDNR-OWR**: The Illinois Department of Natural Resources, Office of Water Resources, or its duly authorized designee.
IEPA: The Illinois Environmental Protection Agency.

IMPERVIOUS AREA: Any hard-surfaced, man-made area that does not readily absorb, retain or infiltrate water, including but not limited to Building roofs, non-porous asphalt and concrete, areas of compacted structural clay, limestone riding arenas, compacted graveled areas, sidewalks and paved recreation areas. Graveled surfaces may be counted as pervious provided the aggregate gradation has a high porosity (such as CA-7). Open Water shall be considered impervious (at its normal water elevation), but vegetated Wetlands and constructed Wetland basins shall not be considered impervious. Areas that are designed to promote the infiltration of rainfall into the ground at rates at or above the infiltration rate of naturally vegetated areas (given applicable soil types), such as porous or Permeable Pavement areas, and bioretention areas (rain gardens and bio-swales, composed of an engineered soil mix) shall not be considered impervious.

INTERIM WATERSHED PLAN: A regional study of a Watershed which does not address the entire range of purposes, goals and objectives outlined in the Plan.

ISOLATED WETLAND: A Wetland that does not have an identifiable surface water connection to other Waters of the U.S. as determined by a USACE jurisdictional determination.

LAKE: A body of water two (2) or more acres in size which retains water throughout the year.

LINEAR WATERCOURSE: Ephemeral, intermittent and perennial creeks, streams, rivers, and online impoundments.

LOMA OR LETTER OF MAP AMENDMENT: The official determination by FEMA that a specific Structure is not in a Regulatory Floodplain and amends the effective Flood hazard boundary map, Flood Boundary and Floodway Map, or FIRM.

LOMR OR LETTER OF MAP REVISION: A letter from FEMA that revises the BFE, flood insurance rate zones, Flood boundaries or Floodway as shown on an effective flood hazard boundary map, Flood Boundary and Floodway Map, or FIRM.

LOMR-F: A Letter of Map Revision based on Fill.

LOWEST FLOOR: The Lowest Floor of the lowest enclosed area of a Structure (including basement) but does not include an unfinished or Flood resistant enclosure suitable solely for parking of vehicles, Building access, or storage in an area other than a basement, provided, however, that such enclosure is not built so as to render the Structure in violation of the applicable requirements of Article VI of this Chapter.

LOWEST OPENING: The elevation at which water could enter a Building through any non-watertight opening such as a doorway threshold, a window sill, the top-of-
foundation, or a basement window well.

**MAINTAINABLE OUTLET:** A Major or Minor Stormwater System (such as a storm sewer or Overland Flow Path) that a Stormwater Management Measure may outlet to that provides positive drainage to an Open Channel or stormwater management system. The downstream system shall have adequate stormwater capacity. Stormwater management systems shall be within a recorded drainage easement or right-of-way.

**MAINTENANCE OF EXISTING BUILDINGS:** Activities including keeping spaces, Structures and infrastructure in proper operating condition in a routine, scheduled, or anticipated fashion to prevent failure and/or degradation. These tasks include, but are not limited to: re-roofing; replacement of windows, water heaters and furnaces; the repair of existing plumbing; and the re-wiring of an existing electric service. Maintenance does not include any tasks that increase the outside dimensions of a Building or changes the dimensions of a Structure.

**MAJOR STORMWATER SYSTEM:** All infrastructure including levees, bridges, culverts, flood routes, storm sewer, swales and channels needed to store and convey flows beyond the capacity of the Minor Stormwater System.

**MANUFACTURED HOME:** A Structure transportable in one or more sections which is built on a permanent chassis and is designated for use with or without a permanent foundation when attached to the required utilities and includes park trailers, travel trailers and other similar vehicles on-site for more than one hundred eighty (180) consecutive days but does not include a Recreational Vehicle.

**MANUFACTURED HOME PARK OR SUBDIVISION:** A Site (or contiguous sites) of land divided into two (2) or more Manufactured Home lots for rent or sale.

**MARKET VALUE:** The value of a Structure prior to Substantial Damages and/or Substantial Improvement. FEMA accepts several methods to determine Market Value. The method to determine Market Value shall be one approved by FEMA and the Administrator.

**MINOR STORMWATER SYSTEM:** All infrastructure including curb, gutter, Culverts, Roadside Ditches and swales, and storm sewers intended to convey stormwater Runoff at less than a one percent (1%) Design Storm Flood Frequency.

**MITIGATION:** Measures taken to offset negative impacts from Development in Linear Watercourses, Nonlinear Waterbodies, Wetlands or the Floodplain.

**NET BENEFIT IN WATER QUALITY:** The institution of Best Management Practices as part of a Development that when compared to the predevelopment condition can be judged to reduce downstream sediment or pollutant loadings.

**NET NEW IMPERVIOUS AREA:** The difference between the New Impervious Area
and the existing Impervious Areas on-site to be removed, as a result of the proposed Development, at the time of the stormwater management permit application or other approved date, allowed at the discretion of the Administrator. Net New Impervious Area is tracked cumulatively since the Effective Date. Open Water shall not be included in the Net New Impervious Area calculation.

**NET WATERSHED BENEFIT:** A finding that, when compared to the existing condition, the Development will substantially reduce (more than 10 percent) downstream peak discharges, will reduce downstream Flood stages (more than 0.1 feet), or will reduce downstream damage to Structures occurring in the predevelopment condition and must be demonstrated by detailed hydrologic and hydraulic analysis of Watersheds on a regional scale as approved by the Administrator.

**NEW IMPERVIOUS AREA:** Undetained Impervious Area created by Development or Redevelopment after the Effective Date and Impervious Area defined as Development or Redevelopment that is proposed after the Revision Date. For Redevelopment, the accumulation of New Impervious Area between the Effective Date and the Revision Date will be reassessed to reflect the standards for Impervious Areas as part of this Chapter.

**NEW MANUFACTURED HOME PARK:** A Development for the placement of Manufactured Homes for which the installation of utilities and the construction of streets, and either the final Site grading or the pouring of concrete pads was completed before the Effective Date.

**NFIP OR NATIONAL FLOOD INSURANCE PROGRAM:** The federal program codified in Title 44 Of the Code of Federal Regulations.

**NON-DESIGNATED FLOODWAY:** The Channel, including on-line impoundments, and that portion of the Floodplain adjacent to a stream or watercourse, not specifically identified as a Floodway on the FEMA FIRM, but which has a Tributary Area of 640 acres or more in an urban area or a Tributary Area of 640 acres or more in a rural area. The urban area or rural area designations shall be determined by IDNR/OWR. Non-Designated Floodway is also known as “Zone A.”

**NONLINEAR WATERBODY:** Ponds and Lakes that are not hydraulically connected to surface water that meet the definition of Waters of the U.S.

**NONRIVERINE:** Areas not Riverine in character such as isolated Depressional Storage areas, Ponds and Lakes.

**NRCS:** The United States Department of Agriculture, Natural Resources Conservation Service.

**NUISANCE FLOW:** Primarily a dry weather flow resulting from Groundwater pumped by individual sump pumps, curtain drain systems, French drains not directly related to
rainfall events and surface Runoff.

**OBSERVATION STRUCTURES:** Structures built on an Agricultural Subsurface Drainage System or other Subsurface Drainage System where the pipe inflow and outflow is visible upon removal of a lid.

**OHWM OR ORDINARY HIGH WATER MARK:** The point on the bank or shore up to which the presence and action of surface water is so continuous as to leave a distinctive mark, such as by Erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic.

**OPEN CHANNEL:** A conveyance system with a definable bed and banks carrying the discharge from field tiles and surface drainage including ditches, culverts, streams, creeks, and rivers. An Open Channel does not include grassed swales or cultivated swales within farm fields under agricultural production which are ephemeral in nature.

**OPEN WATER:** Surface water in Lakes, Ponds, Detention Storage Facilities, impoundments and Wetlands devoid of vegetative cover.

**OUTFALL:** Discharge or point of discharge of a culvert or other closed conduit from a Development at which stormwater can be released from the Site without causing scouring, Erosion, flooding, sedimentation or produce any Adverse Hydraulic Impacts to the receiving system.

**OVERLAND FLOW PATH:** A design feature of the Major Stormwater System which carries flows in excess of the Minor Stormwater System design capacity in an Open Channel or swale, or as sheet flow or weir flow over a feature designed to withstand the particular erosive forces involved.

**PARCEL:** A separate tract of land identified by its own legal description.

**PERMEABLE PAVEMENT:** Porous asphalt, pervious concrete, permeable pavers and similar paving materials designed to promote stormwater infiltration. Permeable Pavement is not considered an Impervious Area, if it is constructed over soil which can be shown by Development site-specific soil data to be sufficiently permeable to allow infiltration without a system of underdrains and provided that the full depth of the pavement cross-section is above the elevation of the Seasonal High Groundwater Table and calculations are provided documenting runoff will not occur.

**PERMITTING AUTHORITY:** The Certified Community having jurisdiction under this Chapter to issue permits.

**PERSON:** An individual, partnership, corporation, limited liability company, unincorporated association, trust, municipal corporation, unit of local government or other government agency or authority, or any combination of any of the foregoing.
PLAN: The Kane County Comprehensive Countywide Stormwater Management Plan adopted by the County Board on October 13, 1998, as amended from time to time.

PLANT COMMUNITIES: Groups of plants with similar habitat requirements and planting regimes.

POLLUTANTS OF CONCERN: Common pollutants generated by Development or Redevelopment which include: Total Suspended Solids (TSS); metals and oils; and nutrients consisting of nitrogen and phosphorous.

POND: A body of water less than two (2) acres in size which retains a normal water level year-round.

PROFESSIONAL ENGINEER: A person licensed under the laws of the State of Illinois to practice professional engineering.

PROFESSIONAL LAND SURVEYOR: A person licensed under the laws of the State of Illinois to practice professional land surveying.

PUBLIC FLOOD CONTROL PROJECT: A Flood control project which will be operated and maintained by a public agency or public entity to reduce Flood damage to existing Buildings and Structures which includes a hydrologic and hydraulic study of the existing and proposed conditions of the Watershed. Nothing in this definition shall preclude the design, engineering, construction or financing, in whole or in part, of a Flood control project by Persons or parties who are not public agencies.

PUBLIC FLOOD EASEMENT: An easement acceptable to the appropriate jurisdictional body that meets the regulations of IDNR-OWR, the Department and the Community and provides legal assurances that all areas subject to flooding in the created backwater of the Development will remain open to allow flooding.

REASONABLE USE: Use of land to improve drainage such that the benefits of the improved drainage outweigh the disadvantages to lands receiving additional flow in compliance with Illinois Drainage Law (Uchtmann and Gehris, 1997).

RECORD DRAWINGS: Drawings prepared, signed and sealed by a Professional Engineer or Professional Land Surveyor representing the final record of the actual in place elevations, locations of Structures and topography.

RECREATIONAL VEHICLE: A vehicle that is:

A. Built on a single chassis,

B. Four hundred (400) square feet or less when measured at the largest horizontal projection,
C. Designed to be self-propelled or permanently towable by a light duty truck; and

D. Designed primarily as temporary living quarters for recreational camping, travel or seasonal use and not for use as a permanent dwelling.

**REDEVELOPMENT**: The process of developing land previously developed. The term shall be understood to exclude Site Maintenance.

**REGISTERED STRUCTURAL ENGINEER**: A Person licensed under the laws of the state of Illinois as a structural engineer.

**REGULATORY FLOODPLAIN**: The Floodplain depicted on maps recognized by IDNR-OWR for regulatory purposes.

**REGULATORY FLOODWAY**: Those portions of the Floodplain depicted as Floodway on maps recognized by IDNR-OWR for regulatory purposes.

**REPETITIVE LOSS**: Flood-related damages sustained by a Structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such Flood event, on the average, equals or exceeds twenty-five percent (25%) of the Market Value of the Structure before the damage occurred.

**RESTRICTIVE BRIDGE OR CULVERT**: A bridge or Culvert that crosses a Floodplain and cannot convey the Base Flood without causing increases in the upstream Flood profile.

**RESTRICTOR**: The physical mechanism or means for controlling the rate of stormwater discharge from a Detention Storage Facility or retention basin.

**REVISION DATE**: June 1, 2019

**RIVERINE**: Related to, formed by or resembling a Channel and includes creeks and rivers.

**ROADSIDE DITCH**: A drainage ditch within twenty-five (25) feet from the edge of the outside travel lane or the median of a divided road.

**RUNOFF**: The waters derived from melting snow or rain falling within a tributary drainage basin that exceeds the infiltration capacity of the soils of that basin.

**SEASONAL HIGH GROUNDWATER TABLE**: The upper limits of the soil temporarily saturated with water, being usually associated with spring wetness conditions which may be indicated by soil mottles with a Munsell color of two (2) chroma or less.

**SEDIMENTATION TRAP**: A Structure or area that allows for the temporary deposit and removal or disposal of sediment materials from stormwater runoff.
SEDIMENTATION: The process that deposits hydraulically moved soils, debris and other materials in flowing or standing water.

SFHA OR SPECIAL FLOOD HAZARD AREA: The land in the Floodplain within a Community that is subject the Base Flood and has special Flood, mudslide or mudflow, or Flood related Erosion hazards and is shown on an FBFM or FIRM as zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, V, M or E.

SITE MAINTENANCE: In kind replacement, restoration, or repair of existing infrastructure, pavement, or facilities including, but not limited to, roadways and parking lots such that they will perform the same functions for which they were originally designed and constructed.

SITE: The Parcel or contiguous Parcels contemplated to be part of a single Development, coordinated Development or Redevelopment under single ownership or control.

SPECIAL MANAGEMENT AREA: A Floodplain, Regulatory Floodplain, Floodway, Regulatory Floodway, Linear Watercourse, Nonlinear Waterbody, Wetland, Wetland Mitigation Bank or Facility, or Buffer.

START OF CONSTRUCTION: The actual start means either the first placement of permanent construction of a Structure on a site, such as: the pouring of slab or footings; the installation of piles; the construction of columns or any work beyond the stage of excavation; or placement of a Manufactured Home on a foundation. For a Substantial Improvement, actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a Building whether or not that alteration affects the external dimensions of the Building. Construction of the Structure does not include: land preparation such as clearing, grading and filling; installation of streets and/or walkways; excavation for basement, footings, piers, or foundations or the erection of temporary forms; or the construction of accessory Buildings, such as garages or sheds not occupied as dwelling units or not part of the main Structure.

STORMWATER MANAGEMENT MEASURE: A man-made facility or naturally enhanced area such as Detention Storage Facilities, Stormwater Mitigation/BMPs and Watershed Benefit Measures, implemented to control stormwater runoff with the objectives of providing controlled surface drainage by promoting infiltration, Flood control, enhanced water quality, and pollutant reduction in Runoff.

STORMWATER MANAGEMENT PERMIT: The permit issued under Article II of this Chapter.

STORMWATER MITIGATION / BEST MANAGEMENT PRACTICE (BMP): A measure used to control the adverse stormwater related effects of Development, designed to remove pollutants, reduce Runoff rates and volumes, and protect aquatic habitats.
Example practices include:

A. Infiltration-based BMPs such as infiltration trenches or dry wells, Permeable Pavements, native vegetated rain gardens or bioswales with quantifiable storage, and other BMPs, upon approval by the Administrator; and

B. Storage-based BMPs such as: native vegetated Detention Storage Facilities; native vegetated swales with quantifiable storage behind check dams; and other BMPs, upon approval by the Administrator.

STRUCTURALLY DRY FLOODPROOFED OR STRUCTURAL DRY FLOODPROOFING: Building protection measures designed and certified by a Professional Engineer to make the Building and its attendant utilities watertight and capable of resisting the effects of the Base Flood. The Building design shall take into account Flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy, and impacts from debris or ice. Structural Dry Floodproofing measures shall be operable without human intervention and without an outside source of electricity. Levees, berms, Floodwalls, and similar Building protection measures are forms of Dry Floodproofing which are not Structural Dry Floodproofing.

STRUCTURE: A manmade change to the land constructed on or below the ground, including the construction, reconstruction or placement of a Building or any addition to a Building.

SUBSTANTIAL DAMAGES OR SUBSTANTIALLY DAMAGED: Damage of any origin (which may include but is not limited to Flood, fire, earthquake and wind) sustained by a Building located in the Floodplain or Floodway whereby the cumulative percentage of damages, improvements and Maintenance of Existing Building, taking place on or after January 1, 2010 equals or exceeds 50 percent of the Market Value of the Structure before the damage occurred regardless of actual repair work performed. The Market Value of volunteer labor and materials must be included in this determination. The cumulative total of damages, improvements and Maintenance of Existing Building shall be tied to the property. The term includes Repetitive Loss Buildings.

SUBSTANTIAL IMPROVEMENTS OR SUBSTANTIALLY IMPROVED: Any reconstruction, rehabilitation, addition, or improvement of a Structure located in the Floodplain or Floodway, in which the cumulative percentage of improvements, damages and Maintenance of Existing Building, taking place on or after January 1, 2010, equals or exceeds 50 percent of the Market Value of the Structure before the improvement or repair is started, or increases the floor area by more than twenty percent (20%). The Market Value of volunteer labor and materials must be included in this determination. The cumulative total of damages, improvements and Maintenance of Existing Building shall be tied to the property.

A. Substantial Improvement is considered to occur when the first alteration of any
wall, ceiling, floor, or other structural part of the Building commences, whether or not that alteration affects the external dimensions of the Building. This term includes Structures which have incurred Repetitive Loss or Substantial Damage, regardless of the actual work done.

B. The term does not, however, include either:

1. Any project for improvement of a Structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or

2. Any alteration of a Historic Structure listed on the National Register of Historic Places or the Illinois Register of Historic Places, provided that the alteration will not preclude the Structure’s continued designation as a Historic Structure.

**SUBSURFACE DRAINAGE SYSTEM:** A water management system used to remove excess Groundwater to control water table levels at predetermined elevations for structural, environmental or other reasons in areas already developed or being developed for agricultural, residential, industrial, commercial or recreational uses.

**SUBSURFACE DRAINAGE SURVEY:** An inventory of existing Agricultural Subsurface Drainage Systems and other Subsurface Drainage Systems, typically based upon a field investigation utilizing the slit trench method to locate existing systems.

**TECHNICAL MANUAL:** The manual developed by the County which provides examples and other helpful tools to assist Applicants and Certified Communities in the planning of Developments and application for a Stormwater Management Permit.

**TEMPORARY WETLAND AFFECT:** A disturbance to a Wetland that would result in a short-term loss of Wetland function. Temporary affects do not include relocation of a Wetland, or conversion of a vegetated community to Open Water, unless the conversion is part of an overall Wetland restoration or Wetland Mitigation Facility that is submitted for review and approved. Additionally, for the impact to be considered temporary, Wetland soil profiles shall be able to be restored to a similar pre-disturbance condition and elevation, vegetative communities shall have the capability of being restored to same or higher quality and function, and the restoration must occur within one year of the disturbance.

**TOPSOIL:** The uppermost part of the soil, ordinarily moved in tillage, or its equivalent in uncultivated soils.

**TRANSITION SECTION:** The reaches of the stream or Floodway where water flows from a narrow cross section to a wide cross section, or vice versa.

**TRIBUTARY AREA:** All of the land surface that contributes Runoff to a given point.
**UNRESTRICTED RELEASE:** Stormwater runoff from a Development which is not directed to the Detention Storage Facility is unrestricted or uncontrolled release or flow.

**UPLAND:** Terrain lying above the level where water flows, where flooding occurs, or where soils are not saturated by Groundwater at a frequency and a duration to support Wetland vegetation.

**UPSTREAM TRIBUTARY FLOW:** Stormwater runoff from Tributary Areas upstream of a Development.

**USABLE SPACE:** Space used for dwelling, storage, utilities or other beneficial purposes and includes basements.

**USACE:** The United States Army Corps of Engineers.

**USEPA:** The United States Environmental Protection Agency.

**USFWS:** The United States Fish and Wildlife Service.

**VOLUME REDUCTION:** The volume of stormwater runoff from New Impervious Areas of a Development or Redevelopment that is captured, retained, infiltrated, evapotranspirated or re-used by BMPs.

**VOLUME SENSITIVE WATERSHED:** A Depressional Storage area or an area that retains water due to the lack of an adequate outfall where an increase in the Flood elevation, volume, or duration will result in an Adverse Hydraulic Impact or deny the receiving property owner Reasonable Use of their land.

**WATER DEPENDENT FACILITIES:** Structures or facilities relating to the use of, or requiring direct access to the water, shoreline or Wetlands to accomplish their primary function/purpose, whether it is recreational, commercial or industrial. Examples include, but are not limited to, pumping facilities, modifications to existing wastewater treatment plants and facilities, shoreline protection, boating facilities and improvements, but does not include new wastewater treatment plants or habitable Structures at existing wastewater treatment plants, long-term storage or related manufacturing facilities.

**WATER QUALITY TREATMENT:** Treatment of Pollutants of Concern generated by Development or Redevelopment via physical, biological and chemical removal processes by permanent BMPs.

**WATERS OF THE U.S.:** Is defined by USACE in 33 CFR 328.3 and, for purposes of this Chapter, includes Wetlands, Lakes, rivers, streams, creeks, bogs, fens, and Ponds that are under the jurisdiction of the USACE.
WATERSHED: All land drained by, or contributing water to the same stream, Lake, Stormwater Management Measure, or draining to a point. In Kane County, the major Watersheds shall be defined as the Fox River Watershed and the Kishwaukee Watershed.

WATERSHED BENEFIT MEASURE: A Natural Resources Conservation Services (NRCS) Conservation Practice, or other approved practice, used to mitigate the adverse stormwater related effects of small Development on large tracts of land. These include practices that: stabilize swales, agricultural ditches and streams; reconnect Channels and Wetlands to the Floodplain; create or enhance Wetlands, Buffers and riparian areas; improve and preserve natural Upland areas such as prairies and forest stands; and filter or remove pollutants from Impervious Areas or agricultural practices. Examples of allowable NRCS conservation practices include: Bioreactors, Channel Bed Stabilization, Constructed Wetland, Contour Buffer Strips, Drainage Water Management Plan Implementation, Filter Strips, Grassed Waterway, Riparian Forest Buffer, Riparian Herbaceous Cover, Saturated Buffers, Streambank and Shoreline Protection, Stream Habitat Improvement and Management, Wetland Creation, Wetland Enhancement, and Wetland Restoration.

WATERSHED PLAN: A study and evaluation of an individual drainage basin’s stormwater management, Floodplain management, water quality and Flood control needs capabilities adopted by the County.

WET FLOODPROOFED OR WET FLOODPROOFING: Permanent or contingent measures applied to a Structure or its contents that prevent or provide resistance to damage from flooding while allowing floodwaters to enter the Structure or area. Generally, this includes properly anchoring the Structure, using Flood resistant materials below the Base Flood Elevation (BFE), protection of mechanical and utility equipment, and use of openings or breakaway walls. Wet Floodproofing measures are among the Floodproofing measures described in the current edition of the following FEMA publications: Wet Floodproofing Requirements for Structures Located in Special Flood Hazard Areas (FEMA TB 7-93), Selecting Appropriate Mitigation Measures for Floodprone Structures (FEMA 551), Protecting Building Utilities from Flood Damage (FEMA 348), Reducing Damage from Localized Flooding (FEMA 511), Non-Residential Floodproofing – Requirements and Certification (FEMA TB 3), and Floodproofing Non-Residential Structures (FEMA 102).

WETLAND: Is defined by the current U.S. Army Corps of Engineers Wetland Delineation Manual, or other federally recognized methodology. A Wetland is an area that is inundated or saturated by surface or Groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. A Wetland is delineated based upon these three attributes: 1) Hydrology, 2) Hydric Soil, and 3) hydrophytic vegetation.

WETLAND IMPACT: Conversion of a Wetland to a non-Wetland via:
A. Direct impact caused by the dredging or filling of any **Wetland**; or

B. Indirect **Wetland Impact** caused by a **Development** activity that would result in the **Wetland Hydrology** falling below 80 percent, or exceeding 150 percent, of the existing condition storm event **Runoff** volume to the **Wetland** for the 2-year, 24-hour storm event.

**WETLAND MITIGATION**: The establishment or re-establishment and long-term maintenance of **Wetlands** to offset **Wetland Impacts** from **Development**.

**WETLAND MITIGATION BANK**: One or more **Parcels** approved by **USACE** or the **Director** where **Wetlands** and/or other aquatic resources are established, re-established, enhanced or, in exceptional circumstances, preserved expressly for the purpose of providing compensatory **Mitigation** in advance of authorized impacts to similar resources.

**WETLAND MITIGATION FACILITY**: Land in the **County** specifically dedicated for the establishment and re-establishment, rehabilitation and long term maintenance of **Wetlands** and other aquatic resources. This includes any area designated as a **Compensatory Storage** facility or **Detention Storage Facility** when such area is used for **Wetland Mitigation**.
CERTIFIED COMMUNITY COMPILED EXEMPTION LIST FROM JUNE 1, 2019 REVISIONS TO KANE COUNTY STORMWATER ORDINANCE

AURORA

Alden Superior of Waterford Lot 7
Arbor West Apartments Parking Improvements
Astoria Knolls – 104 lot subdivision
Balaji Homes Multi-phase condominiums
Best Western Premier hotel and parking, Drexel Ave
Butterfield Village Center Lot 6 parking expansion
Cedarwood assisted living, independent living and outlots, Ogden & 75th
CIMA PAS Plaza, building, parking, gas station, car wash, Butterfield and Farnsworth
Cinco de Mayo Retail Center, strip mall and parking, 5th and Hill
Hometown Farnsworth Phase 2 – 240 unit townhome, Hill and Montgomery Road
2290 White Oak Circle, Huron Development industrial building addition
K. Hovnanian Dieter Farm – 63 acre mixed use, Ogden and Farnsworth
Laurelton Place, 41 lots, Hafenrichter & While Thorn Dr
Main Baptist Church, 808 E. Galena
Meadow Ridge townhomes, 75th and Meadowridge
Northstar Credit Union building and parking, Lot 1 of Fox Valley East Unit 53, E New York & Asbury Dr
Pacifica Square Phase 2, Lot 1 & 2 of Yorkshire Plaza, E New York & Rt 59
Popeye’s Chicken, building and parking, 1382 Butterfield
Salvation Army Community Center, building and parking, 550 Redwood
Tollview Apartments, building and parking, 1063-1103 Tollview
Tollway M-8 Maintenance Facility, 351 Mettel Road

BATAVIA

Katherine Court, 3.67 acres north of Main Street and east of Pitz
Landmeier Farm, 65 acres at McKee and Deerpath
280 Belleview
100-300 Oswalt Ave, Bond Dr, Belleview Ln& Beach St AKA Fox Valley Industrial Park
1405 Beach Street, Lot 101 Fox Valley Industrial Park
1 North Washington

ELBURN

Elburn Station, 484 acres, North of Keslinger, South of Rt 38
ELGIN

19-63576 949 S McLean Blvd Titan Storage Building
19-63578 947 S McLean Blvd Titan Storage Building
19-63577 945 S McLean Blvd Titan Storage Building
19-63654 1212 Larkin Ave (Larkin Center) Site Submittal
19-63753 Crow Commerce Center Site Submittal
19-63742 Crow Commerce Center Building A New Building
19-63743 Crow Commerce Center Building B New Building
19-63744 Crow Commerce Center Building C New Building
19-63841 250 Airport Rd New Building
19-62696 2660 Galvin Dr New Building
18-61186 1023 N Randall Rd (The Learning Experience) New Building
19-62419 2451 Bath Rd New Building
19-61998 1755 Britannia Dr New Building
19-61879 819 S Randall Rd New Building
18-61484 1751 Berkley St (R + L Carriers) New Building
18-61696 375 Second St (R + L Carriers) Addition
19-61949 2701 and 2801 Galvin Dr Two New Buildings
Bluff City Materials & Gifford 300 Redevelopment (Industrial Development)
Capital Corporate Center (Commercial and Industrial Development)
City of Elgin City Hall, Hemmens Cultural Arts Center, and Municipal Plaza Redevelopment
City of Elgin Exemption List from Kane County Stormwater Ordinance Revisions
City of Elgin Water Treatment Facilities Expansion
CWM Subdivision (Industrial Development)
Elgin Corporate Center (Industrial Development)
Elgin Math & Science Academy Master Plan (former Fox River Country Day School)
Fox River Business Center and Fox River Business Center South, both including Additions and
Fox Bluff Corporate Center (Industrial Development)
Fox River Water Reclamation District Facilities Expansion and Renovations
Grand Victoria Casino, Pavilion, Festival Park, Parking Facilities, and Grounds Redevelopment
Miller-Davis Research & Industrial Center including Additions and Resubdivisions
North Elgin Industrial Plaza including Additions and Resubdivisions (Industrial Development)
Northwest Business Park (Commercial and Industrial Development)
Northwest Corporate Park (Commercial and Industrial Development)
Highland Woods (Residential Development)
Pingree Creek (Commercial and Residential Development)
River Ridge Business Center (Commercial and Industrial Development)
Trinity Chase and Trinity Commons at Route 20 (Commercial and Residential Development)
Tall Oaks (Residential Development)
Town & Country Shopping Center and Outlot Redevelopment on McLean Boulevard at Route 20 West
Point Gardens (Residential Development)
Waterford (Residential Development)
Edgewater (Residential Development)
Providence (Residential Development)
Elgin Sports Complex and The Highlands Golf Course (City-owned Sports Complex and Golf Course)
Bowes Creek Country Club (City-owned Golf Course)
Wing Park (City-owned Recreation Facility and Golf Course)
Elgin WalMart/Sams Subdivision with Associated Outlots (Commercial Development)
City of Elgin Exemption List from Kane County Stormwater Ordinance Revisions
Meijer Shopping Center and Associated Outlots
Spartan Green Subdivision, Former Lowes (now Farm & Fleet) Shopping Center and Associated Outlots
3451 Bowes Road at Nolan Road aka Milne/Saddle Property (Commercial, Residential Development)
Bowes Creek (Residential Development)
Stonebrook (Residential Development)
Ponds of Stony Creek (Residential Development)
The Glen/Traditions of Fitchie Creek (Residential Development)
Good Shepherd Church Campus at Nesler Road
Harvest Bible Campus at 1000 N. Randall Road
HP I including but not limited to Shoppe Property, Wesemann Property (Residential Development)
High Point Plaza Shopping Center at 1350 E Chicago St (Commercial Development with Outlots)
The Grove (Randall Road, Retail/Commercial Development)
Watermark at the Grove (Randall Road, Multi-Family, including Vacant Property North of Multi-Family)
2600 Mason Road aka Bartels Property and Adjacent Plote Property to the West on Mason Road
Oak Ridge Subdivision (Residential and Commercial Development)
779 Dixon Ave (Monk’s Temple Redevelopment)
900 S. Randall Road aka Randall Commons (Commercial Development)
Channing Square (City of Elgin, Residential Development)
1001-1005 N. Randall Road (Russo Power Landscaping Storage Expansion)
1337-1341 Dundee & Parkway Avenue Commercial Lots
Randall Rose Auto Mall (Commercial and Industrial Development)
Randall Point Business Park (Industrial Development)
Randall Point West (Industrial Development)
Randall Point Executive Center I and II (Industrial Development)
Sanfillippo Campus on Randall Road (Industrial Development)
Sherman Hospital Campus on Randall Road (Approved Master Plan for Hospital Campus)
Sherman Hospital Campus on Slade Avenue and Associated Parking Lots
Slough Business Center at Bath and Britannia (Industrial Development)
St. Joseph Catholic Church (New Sanctuary)
Tyler Creek Plaza Subdivision including All Phases, Additions, and Resubdivisions
Vece Ridge at Rohrszen Road (Residential Development)
Westfield Business Park – Alft Lane (Commercial and Industrial Development)
West Ridge Village Center (Townhouses, Commercial and Church)
Pet 20-19, 21-19; 1019 E Chicago St – School District U46 Redevelopment
Pet 51-18; 848 Summit St -- Dunkin Donuts Wing Stop
Pet 07-18; 1717 Gifford St including 1275 Gasket Drive and 1298 West Bartlett Road
Pet 12-18; 1451 Sheldon – New Industrial Building
Pet 17-18; 670 Stewart – Habitat for Humanity House
Pet 22-18; 1212 Larkin – New Supportive Housing and Redevelopment of Larkin Center with AID
Pet 33-18; 1620 Villa St aka Route 20 – New Carwash, also including 1630 and 1650 Villa Street
Pet 41-18; 484 Villa St – Renovated Community Facility for Old Oaks Estates Mobile Home Community
Pet 06-17; 1502-1506 Villa St – Improvements to Safety-Kleen, Master Plan
Pet 21-17; 1600 Fleetwood Dr. -- Industrial Expansion
Pet 22-17; 411 W River – Footprints to Recovery
Pet 23-17; 654 Wellington Ave – New FRWRD Pump Station
Pet 25-17; 921-927 N State St – Expand Loading Dock Service Area
Pet 33-17; 711 E Chicago St – Hanover Landing (Permanent Supportive Housing
Pet 14-16; 401-423 Hazel Dr – Judson University Expansion, Master Plan
Pet 19-16; 1700 N State St – Pride of Elgin (Commercial Development)
Pet 22-16; 58 acres at NW Randall & Big Timber – Huang Rezoning
Pet 02-15; 3191 Rt 20 – Lazar Gas Station and Route 20 from Nesler Road to Shannon Parkway, including
Elgin Memory Care Subdivision
Pet 18-15; 1040 N McLean – Multifilm Expansion
Pet 10-14; 2601 Mason Rd – David Huang Industrial Park
Pet 11-14; 550 Tollgate Road – Pancor New Industrial Building
Pet 19-14; 825 S Randall – Menards Expansion
Pet 20-13; 899 Jay St – Hanover Township
Pet 29-13; 1500 N Randall – Brilliance Subaru
Pet 35-13; Elgin Community College
Pet. 08-11; 2498 Bushwood Dr – The Grove Warehousing
Pet 25-10; 1280-1300 Summit Street -- Second Baptist Church
Pet. 01-09; 941 S McLean Blvd -- Storage Buildings, Moose Lodge, Cell Tower
Pet. 15-09; 1325 South St – ATT garage
Pet. 01-08; 799 Summit St – Aldi and Adjacent Property
Pet. 10-08; 1151 N State St – Judson University Sports Complex
Pet. 11-08; 1600 N Randall Road -- HRT Medical Offices
Pet. 14-08; 750 S State St, Shorewood Properties
Pet. 36-08; 1760 N Randall Road – Dr. Bangash Office
Pet. 39-08; 1405 Wing Street – New Hope MB Church
Pet 50-08; 960-1000 E Chicago St -- Toyota Lot
Pet. 15-07; 350 Park St – Elgin Academy
Pet. 38-07; 2601 (2751-61) Bowes Rd – City Public Works Barn and Branch Library
Pet. 39-07; 863-877 Bode Rd – Church of Christ
Pet. 42-07; 1550 N Randall Rd – Sports Barn & Grill
Pet. 43-07; Route 20 & Nesler -- Rosatti Retail Center
Pet. 46-07; 335 Locust St – St Edward’s High School
Pet. 50-07; McKay-Nava Parcels, 3303-3305 Route 20
Pet. 71-07; Kane Co FPD Burnidge Eagles Club Property
Pet 33-06; 200 N Grove Ave – Water Street Place
Pet 54-06; 1275 S Randall Rd – Nature’s Crossing Townhouses
Pet 58-06; 1501 Bartlett Road -- Bartlett Spitzer, Bellago Mixed Use Development
Pet 65-06; Henrikson Property, 3301 Route 20
Pet 67-06; 2895 (2401) Weld Rd – Shales/Funk Properties Mixed Use Development
Pet 68-06; 110 N McLean Blvd – BWK Properties Office Conversion
Pet 69-06; 130 N McLean Blvd – Elgin Nursing
Pet 76-06; 1919 Big Timber Rd – Ryan Incorporated
Pet 86-06; Seven Creeks, 3701 W Highland Ave
Pet 03-05; 1280 Bluff City Blvd – IIE Prayer Hall
Pet 55-05; Far West Regional Park
Pet 57-05; Prairie View School
Pet 68-05; 573 N Crystal St – Lowell Naber
Pet 09-04; Elgin Country Club
Pet 16-04; Madison Homes
Pet 40-04; Hercana Place at 691 Eastview – Residential Subdivision
Pet 68-04; Fountain Square on the River (Mixed-Use Development)
Pet 70-04; Life Storage
Pet 85-04; Valley Creek Townhomes
Pet 31-03; 181 S Gifford St – Grand Manor Residential Development
Pet 51-03; 2700 Hopps Rd – Creekside Subdivision
Pet 06-02; 1405 Wing St – New Hope Baptist Church
Pet 13-02; 2700 W Highland – Westminster Christian Church
Pet 47-02; 2200 W Highland Ave – First Assembly of God Retirement Center
Pet 65-02; 1900 Holmes – City Public Works Facility (Jaynes Industrial Park)
Pet 69-02; S. Grove River Park Place

**GENEVA**

Hamilton Place Mixed Use Development
Oberweis Outlot, Fabyan Crossings
Greenhouse Pointe Subdivision
Delnor Community Hospital Campus
MMG Partners Assisted Living Development
UPRR/METRA Third Rail Project

**GILBERTS**

Wade Light Development NW Corner of Tyler & Higgins
Swing Masters (Better Shots) SE of Mason and Tyler
Par Development – Towne Centre – Towne Center Blvd, north of Higgins
Burbulis Development – NW Corner of Creek Dr and Higgins
Zwick Development – SE corner of Tyler and Higgins
The Conservancy Development – NW of Freeman Road & Galligan

**HAMPShIRE**

Oakstead – 511 acre residential subdivision
Prairie Ridge – 1277 acre residential subdivision
Stanley Tool East – commercial building on 4.5 acres – Keyes and Industrial Dr.
Home Gallery Products – Home Gallery Products – 4.6 acres of impervious at 17N590 Rt 20

HUNTLEY

Alden of Huntley
Bakley’s 18th Addition East
Bakley’s 18th Addition West
Bakley’s 19th Addition
Centegra HC Campus Consolidation
Cider Grove
Del Webb Sun City
District 158 Huntley High School Campus
Duke Realty Corporation Huntley DC Subdivision
Lion’s Chase (AKA Fitzgerald Subdivision)
Georgian Place
Grove Street Subdivision
HFPD No. 5 Resubdivision
HFPD Station No. 1
Huntley Crossings
Huntley Crossings Phase 2
Huntley Grove Commercial Subdivision
Huntley Self Storage Subdivision
Huntley Springs
Weber-Stephen Plat of Consolidation

KANE COUNTY DIVISION OF TRANSPORTATION
Dauberman Road Extension – US 30 to Granart Road
Longmeadow Parkway Bridge Corridor
Bliss Road/Fabyan Parkway/Main Street Road Intersection realignment/roundabout
Bunker Road Extension - Keslinger Road to LaFox Road
Kirk Road over UP RR bridge replacement
Orchard Road at US 30 intersection reconstruction
Montgomery Road – IL 25 to Hill Avenue add lanes/reconstruction
Orchard/Jericho (Montgomery) – Ricky Rockets Development
Fabyan/Janet (Batavia) – Windmill Landings Retirement Center

MONTGOMERY

Ricky Rockets Subdivision – 18.1 acres at Orchard and Jericho
Performance Food Group Parking Expansion – Baseline Road
PINGREE GROVE
Burnidge Development 203 Acres, Single-Family and Multi-Family Residential Development

ST. CHARLES
Extreme Clean Car Wash – 1625 W. Main St
Cityview Subdivision – 895 Geneva Road
Crystal Lofts – 214 S. 13th Ave
Parkside Reserves – 1337 Geneva Road
Hillcroft – 1147 Geneva Road
Meijer Outlots – SW corner Randall & 38
Brooke Toria Estates – 32W510 Smith Road
Pride Gas Station – 33W573 Rt 64
60S 14th St 8 Unit Apartments
Prairie Place Lofts – Lot 702 of Pheasant Run Crossing
1812 & 1818 Riverside

SOUTH ELGIN
Bowes Road Subdivision, 100, 205, 600 and 900 Bose
Flower Wagon Property, Senior Complex, 995 W. Spring
Kane Crossing Commercial Resubdivision, 410 McClean Blvd Lot 1, 450 McClean Lot 3, Lot 4, Lot 5
Marison Mill Apartments and Center Street Roadway Imp, 126 Center St
Michaels, 436 Randall
Panton Mill Apartments, bandshell & plaza, 355 N. La Fox, 122 & 125 Prairie & 100,146 & 148 W Spring
Park Pointe Subdivision, SW Corner of Rt 25 & Middle
Retreat on Stony Creek Subdivision
South Elgin & Countryside Fire Protection Station 21, 1090 W. Spring St
South Elgin & Countryside Fire Protection Station 23, 498 South Elgin Blvd and Unit A
South Pointe Subdivision all phases, Middle Street west of Prairie Path
Spectrum Senior Living complex and residential to south, 1901 Silver Glen and 750 S Randall
Springs Apartments
151 S. McClean Blvd
81 S McClean Blvd
383 Joseph Dr
290 S. Randall
219 Gyorr Road
1120 W. Spring St
1010 N. LaFox

SUGAR GROVE
Sugar Grove LLC – 790 acre mixed use residential subdivision
Prairie Glen – 200 acre residential development
Timbercrest Subdivision – 271 acre residential subdivision
Settlers Ridge Subdivision (North Parcel) – 535 acre residential subdivision

UNINCORPORATED KANE COUNTY

Gould Farm pole barn, 49W924 Perry Road, Maple Park
Gould Farmstead SFR and shop, 50W381 Perry Road, Maple Park
17N955 Harmony Road Single Family House, Hampshire
PUD known as Whispering Pines, 6N273 Denker Road, St. Charles
Blackberry Ridge Estates, Smith Road and Thorndon Ridge Rd
Patterson Homesite, Red Gate Road
Mumma Cove, Route 25 and Norton Creek Crossing, St. Charles
Masterson Site Development, Route 25 and Brookwood Lane, St. Charles
Midwest Ground Cover, 48W801 Route 64, Maple Park
Hernandez Site Improvement, 29 Baseline Road, Montgomery
Mason Farm Road, Mason Road and Tyrrell Road, Dundee Twp
Burke Storage Site Remediation Plan, Nessler Road, Elgin
ComEd URD Cable Replacement Re 9132, St. Charles Twp
St. Katharine Drexel Catholic Church, 8S055 Dugan Road, Sugar Grove
Midwest Industrial Funds Geneva Industrial Park, NW Corner of Louis Bork Drive and East Fabyan Pkwy
A&B Sanchez Landscaping, Inc., 40W991 Plank Road, Hampshire
Cinkus Addition, 33W672 Route 38, Geneva
Esparaza Entry Drive and building, U.S. Route 30, Montgomery

VIRGIL

Grain building and shed approx. 6,000 sq ft each north and south of IC Trail, 46W938 IC Trail

WEST DUNDEE

Spring Hills Senior Residences - 939 West Main Street
Casey’s General Store - 700 South Eighth St & Rt 31
SW Corner of Randall & Recreation Drive – Multifamily apartments