February 5, 2018

Rick Young
Building Coordinator
6701 South Archer St
Bedford Park, Illinois 60501

RE: IDPH Approval of Plumbing Ordinance – Village of Bedford Park

Dear Mr. Young,

The Illinois Department of Public Health (“IDPH” or the “Department”) has received a certified copy of the Village of Bedford Park (the “Village”) plumbing ordinance adopted on August 10, 2017, attached and referenced here. Pursuant to Sections 36 and 38 of the Illinois Plumbing License Law (the “Law”; 225 ILCS 320) and Section 750.800(b) of the Illinois Plumbing Licensing Code (the “Code”; 78 Ill. Adm. Code 750), units of local government should seek advisement for the adoption of a local plumbing ordinance.

As authorized by the Law and Code, the Department hereby approves the Village of Bedford Park’s adoption of the amendments relative to the following Sections of the Illinois Plumbing Code (77 Ill. Adm. Code 890):

- Section 890.310 Tightness
- Section 890.330 Special Joints
- Section 890.340 Use of Joints
- Section 890.1360 Sanitary Wastes below Sewer
- Section 890.Appendix A, Table A, “Approved Materials for Building Sewer”
- Section 890.Appendix A, Table A, “Approved Materials for Water Service Pipe”
- Section 890.Appendix A, Table A, “Approved Materials for Water Distribution Pipe”
- Section 890.1380 Storm Water Drainage within a Building

These amendments shall be approved until five (5) years after the date of the adoption of the subject ordinance or until the promulgation of subsequent revisions of the amended Sections of the ILPC by the Department. The Department neither approves nor disapproves of administrative language added by the Village in these Sections.

If you have any further questions concerning the Village’s adoption of the Illinois Plumbing Code, please contact the Illinois Plumbing and Water Quality Program at (217) 524-0791 or at dph.plumbing@illinois.gov.

Sincerely,

Brian W. Cox, P.E.
Manager, Plumbing and Water Quality Program
ORDINANCE NO. 17-15410

AN ORDINANCE AMENDING THE BEDFORD PARK PLUMBING CODE, TITLE 7, CHAPTER 7, SECTION 1 OF THE VILLAGE CODE OF THE VILLAGE OF BEDFORD PARK, A HOME RULE UNIT OF GOVERNMENT, COOK COUNTY, ILLINOIS

WHEREAS, the Village of Bedford Park (Village) adheres to the terms and provisions of IL, Plumbing Code 77IL Admin. 890 and incorporated the same by Ordinance; and

WHEREAS, the IL, Plumbing Code 77IL Admin. 890 adequately addresses the public health and safety issues dealing with industrial and commercial facilities; and

WHEREAS, the Village has an extensive and varied industrial, commercial and retain base; and

WHEREAS, it has been determined that it would be in the Village's best interest to continue to follow the requirements of the IL, Plumbing Code 77IL Admin. 890 with certain amendments as described herein.

NOW, THEREFORE, BE IT ORDAINED by the President and Board of Trustees of the Village of Bedford Park, Illinois, a Home Rule Unit of Government, Cook County, Illinois, as follows:

Section One. Preambles. That the preambles above set forth are incorporated herein as if set forth in full.

Section Two. Plumbing Code. That the Village’s current Plumbing Code is hereby amended to include the following amendments:

1. Section 890.110(c) General Regulations. Plumbing and drainage systems in all buildings, public and private, shall be installed in accordance with the provisions of this ordinance by a licensed plumber in accordance with the provisions of the State of Illinois Plumbing License Law. If a plumbing contractor is found to be using unlicensed plumbers, the contractor’s plumbing permit will be revoked.

2. Section 890.120 “Plumbing Code”. The Illinois Plumbing Code, 77 Ill.Admin.Code 890 et seq., as adopted and amended by the Village, shall be known as the Plumbing Code of the Village of Bedford Park. As used in the Illinois Plumbing Code, 77 Ill.Admin.Code 890 et seq., as adopted and amended by the Village, the terms “Part” or “this code” shall mean the Plumbing Code of the Village of Bedford Park. As used in the ordinances and codes published by the Village, the term “this code” shall mean and the Plumbing Code of the Village of Bedford Park shall be called the “Plumbing

1. Potable Water. Type LAG/TY K UG copper piping shall be used for potable water 3” and smaller construction.

2. NO Hub DWV Couplings; ONLY Heavy duty 4 band couplings shall be used with no hub soil pipe.

3. PVC System Primer; primer shall be used on all PVC piping.

Section Three. Water Service Installation Repair. That any water service installation repairs shall adhere to the following requirements:

1. Water Service. For all new construction, including additions and substantial remodeling a minimum 1 inch copper water service is required.

2. Any Water Service construction shall comply with meter/backflow ordinance of the Village of Bedford Park in compliance with any current IEPA standards; codes; regulation mandates by governing authority requiring Village of Bedford Park Compliance.

3. All water service construction shall provide minimum of 5’ bury cover for any installation/repair.

4. Any water service that requires repair, reconstruction and/or alteration by maintenance or construction shall be of specified materials by applicable code. Any lead/asbestos system shall be required to be completely replaced.

Section Four. Existing Building Condition. That any non-conforming plumbing installation or materials discovered during any phase of remodeling, renovating or other alteration projects shall be corrected to comply with the provisions of this Code including the following:

Inspections.

a. Inspections Required. All plumbing work shall be done by licensed plumbers and shall be subject to the inspection and approval by the plumbing inspector under the supervision of the building department.

The plumbing contractor shall be on site when the rough plumbing inspection is conducted.

b. Testing by Plumbing contractor shall require inspection during all such performance. All plumbing work shall be tested by the plumbing contractor, in accordance with this code, while all pipes are uncovered in every part. A water test shall be applied to the drainage system in its entirety, or in sections, as completed. A water pressure test for plumbing work shall be applied by closing the
lower end of the vertical pipes and filling the pipes to the highest opening above the roof with water. Special provision shall be made to include all joints and connections to the finished line or face of floors or side walls, so that all vents or regents, including lead work, may be tested with the main stacks. The house drain inside any building shall be tested by closing up the drain at the point where it leaves the building, using the clean out way provided for, and filling the pipes inside the building with water to a height of at least five feet above the highest point of the drainage system.

c. Water Supply for Testing. Licensed plumbers will be allowed to leave the water turned on to pipes for forty-eight (48) hours after completing any work for the purpose of testing the same, at the end of which time they shall immediately shut off the supply. Plumbers are prohibited from turning water on from any service pipe for any other purpose, except on the order of or permission from the Building Department.

d. Additional Inspections. All plumbing work shall be subject to such further inspections and tests as shall be required by the rules and regulations of the Village plumbing inspector.

**Overhead Sewers and Other Similar Devices.**

Any buildings construction or improvement below ground including but not limited to basement improvements, floor reconstruction, rooms or occupancy areas below grade and served by a public or private sewer system shall have overhead plumbing with ejector pumps.

Section 890.1360 – Sanitary wastes below sewer: b) Design: add at end subsection no sump or ejector basin shall be less than 18" diameter; 30" deep with minimum; shall provide minimum 14" sump below inlet pipe invert or of approved design specified by the manufacturer.

**Section Five. Prohibited Materials.** The following provisions of the Illinois Plumbing Code 77 Ill/Admin. Code 890 et seq. are excluded from adoption by the Village. The exclusion shall include all sections and subsections within the specified range.

**Prohibited Materials Village of Bedford Park**

A) **Code Exclusions:** The following provisions of the Illinois Plumbing Code 77 Ill/Admin. Code 890 et seq., are excluded from adoption by the Village. Where a range of sections is listed, the exclusion includes all sections and subsections within the specified range.

1. Table A, “Approved Materials for Building Sewers” is amended by deleting the following items:
   a. 2) Asbestos Cement Pipe
   b. 5) Concrete Pipe
   c. 8) Vitrified Clay Pipe
   d. 9) Solder
2. Table A, “Approved Materials for Water Service Pipe” is amended by deleting the following items:
   a. 1) ABS Pipe
   b. 4) CPVC Pipe

3. Table A, “Approved Materials for Water Distribution Pipe” is amended by deleting the following items 2, 7 and 8:
   a. 2) CPVC Pipe
   b. 7) Poly Butylene Pipe
   c. 8) PVC Pipe

B) Amendments Specifics: The following provisions of the Illinois Plumbing Code 77 Ill. Admin. Code 890 et seq., are amended for adoption by the Village:

5. Section 890.330(c) shall be amended to delete the reference to CPVC for potable water applications.

6. Soldered and/or braised fittings shall not be installed below grade.

Section Six. Material Requirements. That the following amendments to the Illinois Plumbing Code 77 Ill. Admin. Code 890 et seq., will be in effect:

1. Section 890.310 shall be amended to add at the end of the section the following words: “All copper water tubing, when installed underground shall be a minimum of Type K, and when above grade shall be a minimum of Type L.”

3. Section 890.340 f) Copper water tube is to be amended to add the following language at the end of the subsection:
   a. Flared joint adapter shall be required at all water service supply lines two (2) inch or less with full port ball valve upstream of water meter.

Section Seven. Plumbing Permit Requirements. That the following requirements with respect to plumbing permits shall be in effect:

Work Permit:

a. No plumbing work whether new construction or alteration shall be undertaken by any person, firm or corporation unless a permit has been issued therefor. The plumbing permit may be included on the Village Building Permit.

b. A plumbing permit shall only be issued to a licensed plumbing contractor, except as specified herein.

Permitting for homeowner/occupant in case of a single family residence; plumbing permit may be issued to
the owner/occupant of said residence ONLY. Further, such owner/occupant or owner/occupant shall only employ a licensed plumber per code as applicable.

Application:

Application for a plumbing permit shall be made on the forms provided by the Village Building Department. Said application shall be accompanied by the fees established by Ordinance.

Issuance of Permit:

No plumbing permit shall be issued until after plans and specifications showing the proposed plumbing work have been submitted, reviewed and approved by the Village Building Department. If a plumbing permit is denied, the applicant shall submit revised plans and specifications. When it is found necessary to make any change in the plumbing from the plans and specifications on which a permit has been issued, amended plans and specifications shall be submitted to the Village Building Department for approval prior to actual making of any change in the plumbing system.

Section Eight. Storm Water Management. That all roof drain / sub-soil construction shall comply with codes latest VBP Code amendments.

Storm Drainage:
The provisions of this article shall govern the materials, design, construction and installation of storm drainage. Storm water shall not be drained into sewers intended for sewage only.

The conductors and the building storm drain shall be tested in accordance IDPH plumbing code drainage requirement; air /water compliance.

The size of a drainage pipe shall not be reduced in the direction of the flow.

All connections and changes in direction of the storm drainage system shall be made with approved drainage-type fittings in accordance with IDPH plumbing code per drainage compliance. The fittings shall not obstruct or retard flow in the system.

The roof of a structure shall be designed for the storage of water where the storm drainage system is engineered for controlled flow. The controlled flow roof drain system shall be an engineered system in accordance with the design, submittal, approval, inspection and testing requirements compliant with VBP Building code.

In lieu of the conventional downspout requirements, controlled flow roof drainage may be used.

Vertical / Horizontal Drain / Piping Table

<table>
<thead>
<tr>
<th>SIZE OF HORIZONTAL STORM DRAINAGE PIPING</th>
<th>HORIZONTALLY PROJECTED ROOF AREA (square feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE OF HORIZONTAL PIPING (inches)</td>
<td>Rainfall rate (inches per hour)</td>
</tr>
<tr>
<td></td>
<td>1</td>
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<td></td>
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</tbody>
</table>
### Table 1: Unit Vertical in 12 Units Horizontal (1-percent slope)

<table>
<thead>
<tr>
<th>1/4 Unit Vertical in 12 Units Horizontal (1-percent slope)</th>
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<tbody>
<tr>
<td>3</td>
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<td>4</td>
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<td>10</td>
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<tr>
<td>12</td>
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<tr>
<td>15</td>
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</tbody>
</table>

### Table 2: Unit Vertical in 12 Units Horizontal (2-percent slope)

<table>
<thead>
<tr>
<th>1/4 Unit Vertical in 12 Units Horizontal (2-percent slope)</th>
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<tbody>
<tr>
<td>3</td>
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<td>4</td>
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<td>15</td>
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</table>

### Table 3: Unit Vertical in 12 Units Horizontal (4-percent slope)

<table>
<thead>
<tr>
<th>1/4 Unit Vertical in 12 Units Horizontal (4-percent slope)</th>
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<tbody>
<tr>
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<td>12</td>
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<td>15</td>
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</tbody>
</table>

**For SI:** 1 inch = 25.4 mm, 1 square foot = 0.0929 m².

### Table 4: Size of Circular Vertical Conductors and Leaders

<table>
<thead>
<tr>
<th>Diameter of Leader (inches)</th>
<th>Horizontally Projected Roof Area (square feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainfall rate (inches per hour)</td>
<td>1</td>
</tr>
<tr>
<td>2 inches</td>
<td>2,880</td>
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<tr>
<td>3 inches</td>
<td>8,800</td>
</tr>
<tr>
<td>4 inches</td>
<td>18,400</td>
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<tr>
<td>5 inches</td>
<td>34,000</td>
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<tr>
<td>6 inches</td>
<td>54,000</td>
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<tr>
<td>8 inches</td>
<td>116,000</td>
</tr>
</tbody>
</table>

**For SI:** 1 inch = 25.4 mm, 1 square foot = 0.0929 m².

*Sizes indicated are the diameter of circular piping. This table is applicable to piping of other shapes, provided the cross-sectional shape fully encloses a circle of the diameter indicated in this table. For rectangular leaders, see Table 106.2 (2). Interpolation is permitted for pipe sizes that fall between those listed in this table.

### Table 5: Size of Rectangular Vertical Conductors and Leaders

<table>
<thead>
<tr>
<th>Dimensions of Common Leader Sizes with x length (inches)</th>
<th>Horizontally Projected Roof Area (square feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainfall rate (inches per hour)</td>
<td>1</td>
</tr>
<tr>
<td>1 inch</td>
<td></td>
</tr>
</tbody>
</table>
Overflow Drainage:

Dedicated overflow drainage shall be included by design as applicable to any building code drainage requirement. Drains shall discharge indirectly to surface area without restriction in size or flow capacity.

Secondary drainage required. Secondary (emergency) roof drains or scuppers shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason.

Separate systems required. Secondary roof drain systems shall have the end point of discharge separate from the primary system. Discharge shall be above grade, in a location that would normally be observed by the building occupants or maintenance personnel.

Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with Code (IBC TABLE) based on the rainfall rate for which the primary system is sized in Tables 1106.2, 1106.3 and 1106.6 (IBC VB)).

Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7 (IBC VBP). Scuppers shall not have an opening dimension of less than 4 inches. The flow through the primary system shall not be considered when sizing the secondary roof
Cleanouts required

Cleanouts shall be installed in the storm drainage system and shall comply with the provisions of IDPH plumbing code for sanitary drainage pipe cleanouts design standards.

Materials

The materials and methods utilized for the construction and installation of storm drainage systems shall comply with this section and the applicable provisions of code as specified for Sanitary System / House Drainage as amended by Village.

Inside Storm Drainage Conductors

Inside storm drainage conductors installed above ground shall conform to one of the standards listed in Table per applicable building code requirement; per tables specified herein.

Roof Drains

Roof drains shall conform to ASME A112.21.2.

Roof drain flashing

The connection between roofs and roof drains which pass through the roof and into the interior of the building shall be made water tight by the use of approved flashing material.

Main Trap

Leaders and storm drains connected to a combined sewer shall be trapped. Individual storm water traps shall be installed on the storm water drain branch serving each conductor, or a single trap shall be installed in the main storm drain just before its connection with the combined building sewer or the public sewer. One trap may serve more than one downspout, and any such trap shall be on the downstream side of the connection to any sanitary sewer or any combined sewer or drain, and shall be set where not subject to frost.

Prohibited
Storm system piping shall not be used as building/house sanitary drainage, waste or vent pipes, and soil, waste or vent pipes shall not be used as conductors.

**Combine Storm / Sanitary Drainage**

The sanitary and storm drainage systems of a structure shall be entirely separate except where combined sewer systems are utilized. Where a combined sewer is utilized, the building storm drain shall be connected per the determination of Village Engineer in review/design of storm water management system in compliance with MWRD requirements applicable.

**Size of Combined Drains and Sewers**

Whenever a combined sewer system is employed, the required size of the combined house sewer shall be determined by adding the total drained area in square feet in accordance with IBC (VBP building code) and equivalent area for the number of fixture units in accordance with best design/engineering practices.

**Roof Drain Vertical Conductors and Leaders.**

Vertical conductors and leaders shall be sized for the maximum projected roof area, in accordance with applicable tables.

**Building Storm Drains and Sewers.**

The size of the building storm drain, building storm sewer and their horizontal branches having a slope of one-half unit or less vertical in 12 units horizontal (4-percent slope) shall be based on the maximum projected roof area in accordance with applicable table. The minimum slope of horizontal branches shall be one-eighth unit vertical in 12 units horizontal (1-percent slope) unless otherwise approved.

**Vertical Walls Sizing**

In sizing roof drains and storm drainage piping, one-half of the area of any vertical wall that diverts rainwater to the roof shall be added to the projected roof area for inclusion in calculating the required size of vertical conductors, leaders and horizontal storm drainage piping.

**Parapet wall Scupper Location**

Parapet wall roof drainage scupper and overflow scupper location shall comply with the requirements of the (VBP) International Building Code.

**Size of Roof Gutters**
The size of semicircular gutters shall be based on the maximum projected roof area in accordance with IBC Applicable Table.

**Sizing of Secondary Drains**

Secondary (emergency) roof drain systems shall be sized in accordance with applicable IBC Table.

**CONTROLLED FLOW ROOF DRAIN SYSTEMS**

**General:**

The roof of a structure shall be designed for the storage of water where the storm drainage system is engineered for controlled flow. The controlled flow roof drain system shall be an engineered system in accordance with this section and the design, submittal, approval, inspection and testing requirements of (VBP) plumbing code. The controlled flow system shall be designed based on the required rainfall rate in accordance with code.

**Roof Drain Control Devices:**

The roof drain control devices shall be installed so that the rate of discharge of water per minute shall not exceed the values for continuous flow as indicated by engineered flow designs standards.

**Drain Strainer Requirements**

Roof drain control devices shall be protected by strainers.

**Minimum number of Roof Drains**

Not less than two roof drains shall be installed in roof areas 10,000 square feet.

**Building Storm Drain Sub-soil**

Underground building sub-soil drainage perforated / non-perforated storm drain pipe shall be of schedule 40 PVC material, 4” minimum diameter pipe and fittings materials.

All Sub-soil drainage construction shall be complaint to provisions of code as specified for Sanitary System / House Drainage per IDPH plumbing Code.
Where the building is subject to backwater, the subsoil drain shall be protected by an accessibly located backwater valve

**Table Subsoil Drain Pipe Materials**

**Material**

*Polyvinyl chloride (PVC) plastic pipe (Schedule 40) or approved alternate equal*

**Pumping System**

The sump pump, pit and discharge piping shall conform to IDPH plumbing code applicable material standards for sanitary system construction.

No sump or receiving tank shall be less than 18" inch in diameter / 30" inches (762 mm) deep and shall be in an accessible location. The sump pit rim shall be 2" above finished floor elevation.

Pits and pumping systems as applicable for sub-soil drainage shall be per applicable design demands. This per engineering best practice based on sub-soil requirement of geo-logical condition of said areas of drainage install.

**Pump Capacity and Head**

The sump pump shall be of a capacity and head appropriate to anticipated use requirements.

Subsoil drains shall discharge to a trapped area drain, sump, dry well or approved location above ground.

The subsoil sump shall not be required to have either a gas-tight cover or a vent. Unless the system is a radon system; then such system shall be per requirements of building code.
Section Nine. Lawn Sprinklers. Any lawn sprinkler controls, piping or appendages to be installed in the Village shall be placed in public rights-of-way located not less than three (3) feet from any existing or planned public street curb and gutter line. In addition, all lawn sprinkler systems shall be equipped with an approved rain detection device. The Village shall not be responsible for the maintenance of private lawn sprinkler systems within the public rights-of-way. The adjacent property owner assumes all risk involved in choosing to place lawn sprinkler components in the public rights-of-way.

All operation of sprinkler/irrigation system shall be per the requirements established by the water/building department of the Village. The Village of Bedford Park shall not be responsible for the restoration or repair of private sprinkler systems within the public rights-of-way.

All construction shall be pursuant to (17 Ill.Admin.Code 3730.307 4) and subject to the Illinois Plumbing Code (77 Ill.Admin. Code 890) and the Lawn Irrigation Contractor and Lawn Sprinkler System Registration Code (77 Ill.Admin.Code 892), Program. When WaterSense labeled fixtures are available in compliance with Water Sense (Label) such shall be utilized.

Section Ten. Water Conservation.

All new plumbing fixtures/appliances and controllers installed after the effective date of this ordinance shall bear the WaterSense label (as designated by the U.S. Environmental Protection Agency WaterSense program).

Any carwash/auto detailing business facility shall provide reclaim methods in accordance with current industry standards applicable; Village compliance requirements applicable by governmental authority with respect to lake water distribution.
Section Eleven. Failure to Comply. Any person, firm or corporation who fails or refuses to comply with the rules and regulations as set forth in the Village Plumbing Code shall be reported to the Illinois Department of Public Health. The Village shall have the authority to issue “Stop Work Orders” until any outstanding issues are resolved to the satisfaction of the Village.

Section Twelve. Additional Fees. Plumbing permit fees shall be assessed for any re-inspection and/or design construction changes to plans which necessitate additional site inspection visits and/or plan reviews.

Section Thirteen. Repealer. That all Ordinances and/or parts of Ordinances in conflict herewith are expressly repealed and shall be of no effect.

Section Fourteen. Savings Clause. That in the event any portion of this Ordinance is declared to be void, that such other parts or remainder of this Ordinance shall not be adversely effected and shall otherwise remain effective and valid.

Section Fifteen. Adoption Clause. That this Ordinance shall be in full force and effect from and after its approval, adoption and publication as required by law.

APPROVED AND ADOPTED this 10th day of August, 2017.

[Signature]
President of the Board of Trustees
of the Village of Bedford Park,
County of Cook, State of Illinois

ATTEST:

[Signature]
Village Clerk of the Village of
Bedford Park, County of Cook,
State of Illinois
The vote on the foregoing Ordinance was as follows:

AYES: 0
NAYS: 0
ABSENT: 0
ABSTAIN: 0

[Signature]
Village Clerk of the Village of Bedford Park, County of Cook, State of Illinois

Lawrence R. Gryczewski
Village Attorney, Bedford Park
10660 W. 143rd Street, Suite A
Orland Park, IL 60462