

**VILLAGE OF VERNON HILLS  
ORDINANCE 2021-121**

**AN ORDINANCE APPROVING AN INTERGOVERNMENTAL MASTER AGREEMENT FOR  
TRAFFIC SIGNAL OPERATION AND MAINTENANCE WITH THE STATE OF ILLINOIS**

**WHEREAS**, the Village of Vernon Hills, County of Lake, State of Illinois ("*the Village*") is a duly organized and existing municipality and unit of local government created under the provisions of the laws of the State of Illinois, and is operating under the provisions of the Illinois Municipal Code; and

**WHEREAS**, the Village of Vernon Hills has an agreement with the Illinois Department of Transportation for preventative maintenance and repairs to the traffic signals on State highways; and

**WHEREAS**, the Village of Vernon Hills participates in the costs associated with the maintenance of traffic signals where Village streets intersect state highways; and

**WHEREAS**, the Illinois Department of Transportation has prepared an intergovernmental agreement as outlined in Exhibit A that apportions the maintenance and energy costs; and

**WHEREAS**, the agreement term is from July 1, 2021 to June 30, 2031.

**NOW THEREFORE BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF VERNON HILLS, LAKE COUNTY, ILLINOIS, AS FOLLOWS:**

**SECTION 1: AUTHORIZATION:** The Village Manager is authorized to sign and the Village Clerk to attest the traffic signal master intergovernmental agreement between the State of Illinois and the Village of Vernon Hills subject to Village Attorney approval.

**SECTION 2: EFFECTIVE DATE:** This Ordinance shall be in full force and effect from its passage and approval.

**SECTION 3: ORDINANCE NUMBER:** This Ordinance shall be known as Ordinance Number 2021-121.

Dated the 19<sup>th</sup> of October 2021

Adopted by roll call votes as follows:

AYES: 6 - Oppenheim, Takaoka, Koch, Forster, Marquardt, Byrne

NAYS: 0 - None

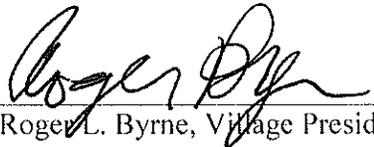
ABSENT AND NOT VOTING: 1 - Schenk

PASSED: 10/19/2021

APPROVED: 10/19/2021

ATTEST: 10/19/2021

  
Kevin Timony, Village Clerk

  
Roger L. Byrne, Village President



**EXHIBIT A**

*INTERGOVERNMENTAL MASTER AGREEMENT FOR TRAFFIC SIGNAL  
OPERATION AND MAINTENANCE WITH THE STATE OF ILLINOIS*

## INTERGOVERNMENTAL AGREEMENT

This Interagency Agreement is entered into between the Village of Vernon Hills ("GOVERNMENTAL BODY") and the Department of Transportation ("DEPARTMENT") pursuant to the "Intergovernmental Cooperation Act" (5 ILCS 220) and in accordance with The DEPARTMENT's rules at 92 Ill. Adm. Code 544.

1. Governmental Body and the DEPARTMENT have a mutual interest in and the maintenance and apportionment of energy costs for traffic control devices located on State highways within or near the Governmental Body as shown on the attached Exhibit A, which is hereby made a part of this agreement.
2. In furtherance of said interests of, the entities agree:
  - a. **Cost.** The DEPARTMENT and the GOVERNMENTAL BODY agree to the maintenance responsibility and to the division of energy costs, for the traffic signals and other traffic control devices listed on the attached Exhibit A.
  - b. **Maintenance.** Modernization of traffic control devices is not covered under this agreement. It is agreed that the actual maintenance will be performed by the DEPARTMENT indicated on Exhibit A, either with its own forces or through contractual agreements
  - c. **Maintenance Level.** It is agreed that the signals and devices shall be maintained to at least the level of maintenance specified in the attached Exhibit B, which is hereby made a part of this agreement. It is understood this will meet the minimum requirements of the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways. Additional provisions regarding maintenance may be incorporated in this document (Exhibit B) upon agreement by both parties.
  - d. **Interconnect & Timing.** The DEPARTMENT agrees to maintain all signal equipment and interconnects associated with interconnected signal systems or Advanced Traffic Management System and interconnects with at-grade railroad crossings, at DEPARTMENT maintained locations. The DEPARTMENT shall determine the signal timing to coordinate and regulate the flow of traffic. No signal timing shall be changed at any state system intersection without prior DEPARTMENT approval. The GOVERNMENTAL BODY shall submit to the DEPARTMENT any changes proposed in signal timings.
  - e. **Interconnections; Installation & Damage.** The DEPARTMENT is not responsible for the cost of installing or maintaining traffic signals not on (but interconnected to traffic signals on) U.S. or State routes. Any damage done to State traffic signals in the attempt to connect local traffic signals shall be repaired to the DEPARTMENT's satisfaction and shall be the responsibility of the GOVERNMENTAL BODY.
  - f. **Master Monitoring Costs.** Master controllers installed on State intersections for the coordination of traffic signals are primarily used for the traffic signals located on U.S. or

State routes. The GOVERNMENTAL BODY may connect traffic signals to a State-owned master controller or Advanced Traffic Management System for the coordination or operation of non-State-owned traffic signals, for the purpose of synchronizing time or gaining remote access. If the GOVERNMENTAL BODY desires a communications link to their office for monitoring purposes, the GOVERNMENTAL BODY shall pay the entire cost of installing and maintaining such monitoring system.

- g. **Payment for Energy Costs.** The DEPARTMENT will reimburse the GOVERNMENTAL BODY for the DEPARTMENT'S proportionate share of the energy charges.
- h. **Indemnification.** Unless prohibited by State law, the GOVERNMENTAL BODY agrees to hold harmless and indemnify the DEPARTMENT, and its officials, employees, and agents, from any and all losses, expenses, damages (including loss of use), suits, demands and claims, and shall defend any suit or action, whether at law or in equity, based on an alleged injury or damage of any type arising from the actions or inactions of the GOVERNMENTAL BODY and/or the GOVERNMENTAL BODY's employees, officials, agents, contractors and subcontractors, and shall pay all damages, judgments, costs, expenses, and fees, including attorney's fees, incurred by the DEPARTMENT and its officials, employees and agents in connection therewith.

GOVERNMENTAL BODY shall defend, indemnify and hold the DEPARTMENT harmless against a third-party action, suit or proceeding ("Claim") against the DEPARTMENT to the extent such Claim is based upon an allegation that a Product, as of its delivery date under this Agreement, infringes a valid United States patent or copyright or misappropriates a third party's trade secret.

- i. **Emergency Vehicle Preemption Devices.** The costs of installation, timing, phasing, and maintenance of emergency vehicle preemption systems shall be the sole responsibility of the GOVERNMENTAL BODY. Any Governmental Body must notify the DEPARTMENT of any change in the emergency vehicle preemption system. However, the DEPARTMENT reserves the right to approve or reject, at any time, the placement of such systems on its traffic signal equipment.
- j. **Previous Agreements.** All traffic signal and traffic control device maintenance and electrical energy provisions contained in presently existing agreements or understandings between the DEPARTMENT and the GOVERNMENTAL BODY for traffic signals and/or other traffic control devices covered by this Master Agreement shall upon execution of this Master Agreement by the DEPARTMENT be superseded and be of no force or effect.

All parking ordinances and provisions bearing on items other than traffic signal and traffic control device maintenance and energy charges contained in presently existing agreements or letters of understanding between the DEPARTMENT and the GOVERNMENTAL BODY shall remain in full force and effect.

- k. **Modification.** Exhibit A can be modified to add or delete signals or devices, but only by written revision signed by the Regional Engineer, the Engineer of Operations and the authorized representative for the GOVERNMENTAL BODY. The modification shall be effective when fully executed and filed with the Department and the Clerk or Secretary of the GOVERNMENTAL BODY. This provision applies only to modification of Exhibit A.
- l. **Plan Review.** All traffic signal plans prepared by others for installation on State highways within municipal corporate limits, which are to be added to this agreement, must be reviewed and approved by the DEPARTMENT and the GOVERNMENTAL BODY.
- m. **Cost Sharing.** As indicated in Exhibit A, the cost of energy and maintenance of traffic signals, and/or other traffic control devices generally are shared in proportion to the number of approaches maintained by each unit of government, however, other DEPARTMENT policies and practices require cost sharing of energy and maintenance to be based on other criteria besides the number of approaches maintained. The maintenance costs of the interconnect system and related equipment as well as engineering costs for any approved coordination and timing studies shall be shared within the interconnect system, unless otherwise agreed to in a permit or by other agreement.
- n. **Jurisdictionally Transferred.** The GOVERNMENTAL BODY will be responsible for the maintenance costs of all traffic signal and/or other traffic control devices related to a roadway or roadways that has or have been jurisdictionally transferred by the DEPARTMENT to the GOVERNMENTAL BODY in a prior agreement(s).
- o. **Billing.** Bills shall be submitted by the DEPARTMENT on a three (3) month basis. The amount billed shall be the costs incurred less any proceeds from third party damage claims received during the billing period for repair of signals or devices that are the responsibility of the GOVERNMENTAL BODY.
  - i. Any proposed single expenditure in excess of \$10,000 for repair or damage to an installation must be approved by the GOVERNMENTAL BODY before the expenditure is made.
  - ii. The hours, or parts thereof, billed for each maintenance item will be at the actual time directly related to the work task.
  - iii. THE DEPARTMENT costs are composed of labor, equipment, materials and the quantity of each. The cost for labor will be determined by the actual hourly rate for the employee plus a multiplier to include direct and indirect labor related costs, retirement, social security, health, hospitalization and life insurance, holidays, vacation, sick leave and workers compensation. Equipment costs will be as listed in the Schedule of Average Annual Equipment Ownership Expense. Materials will be at cost.

- iv. The cost for contracted work will be the actual cost for the contractor. In District One, maintenance costs are based on the District's Electrical Maintenance Contract's (EMC) related bid cost and may vary from contract to contract. The length of District One's EMC is generally 2 to 3 years.

3. Notice under this agreement shall be as follows:

For The DEPARTMENT:

usa E. Heaven-Baum, Bureau Chief of Traffic Operations  
Name and Title

847-705-4141  
Phone number

usa.Heaven-Baum@illinois.gov  
Email Address

201 W. Center Court  
Schaumburg, IL 60196  
Address

For the GOVERNMENTAL BODY:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Email Address

\_\_\_\_\_  
Address

- 4. **Effective Date.** This Agreement shall be effective from July 1, 2021 through June 30, 2031 and may be terminated prior to that date, by either party, upon 30 days written notice.

FOR THE GOVERNMENTAL BODY:

Signature and Job Title of Authorized Representative	Type or Print Name of Authorized Representative	Date
--	---	------

FOR THE DEPARTMENT:

Jose Rios, Regional Engineer, Division of Highways	Yongsu A. Kim, Chief Counsel	Date
--	------------------------------	------

(Approved as to form)

By: \_\_\_\_\_

Director, Division of Highways, Chief Engineer	Joanne Woodworth, Acting Chief Fiscal Officer	Date
--	---	------

Date: \_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Omer Osman, Secretary of Transportation	Date
---	------

By: \_\_\_\_\_



EXHIBIT A

Following is the list of signalized intersections and locations with traffic control devices along State highways located within or near the Village of Vernon Hills in Lake County that are subject to the provisions of the attached Master Agreement to which this list is an exhibit.

As of 9/1/21

Page 1 of 2

LOCATION	TS#	% OF MAINTENANCE RESPONSIBILITY			% OF ENERGY CHARGES RESPONSIBILITY			AGENCY PERFORMING MAINT.
		STATE	LOCAL	OTHER	STATE	LOCAL	OTHER	
US 45 at Buffalo Grove/Fairway Dr	TS6658	75	25		75	25		STATE
US 45 at Butterfield Rd	TS6640	100			100			STATE
US 45 at Deerpath Rd	TS6655	66 2/3	33 1/3		66 2/3	33 1/3		STATE
US 45 at Evergreen Dr	TS21070	66 2/3	33 1/3		66 2/3	33 1/3		STATE
US 45 at Metra/Ranney	TS6657		100			100		STATE
US 45 at Oakwood Rd	TS6641	66 2/3	33 1/3		66 2/3	33 1/3		STATE
US 45 at Port Clinton Rd	TS6598	50	50		50	50		STATE
IL 21 (Milwaukee) at IL 60 (Townline)	TS6700	100			100			STATE
IL 21 (Milwaukee) at American Hotel Acc Dr	TS21409		100			100		STATE
IL 21 (Milwaukee) at CDW/Market So Ent	TS22052		100			100		STATE
IL 21 (Milwaukee) at Corporate Woods	TS21410		100			100		STATE
IL 21 (Milwaukee) at Executive Way Dr	TS22050			100 VERNON HILLS LTD.			100 VERNON HILLS LTD.	STATE
IL 21 (Milwaukee) at Hawthorne/Mildy Firm (#6)	TS6720		100	Permit 1-T-17-0272				STATE
IL 21 (Milwaukee) at Hawthorne/Mildy Firm (#7)	TS6725		100	Permit 1-T-17-0272				STATE
IL 21 (Milwaukee) at Hawthorn II/River Tree	TS11615			100 RVR TREE CT. PRTRN			100 RVR TREE CT. PRTRN	STATE
IL 21 (Milwaukee) at Jamestown/Port Clinton	TS21412	50	50					STATE
IL 21 (Milwaukee) at No Artaius/Gregg Pkwy	TS14018	50	25	25 Libertyville	50	25	25 Libertyville	STATE
IL 21 (Milwaukee) at North Hollister	TS6718		100					STATE
IL 21 (Milwaukee) at So Artaius	TS14013		100					STATE
IL 21 (Milwaukee) at Woodlands Prkwy	TS21411		100					STATE

LOCATION	TS#	% OF MAINTENANCE RESPONSIBILITY			% OF ENERGY CHARGES RESPONSIBILITY			AGENCY PERFORMING
		STATE	LOCAL	OTHER	STATE	LOCAL	OTHER	
IL 60 (Townline) at Aspen	TS6900	50	50			100		MAINT.
IL 60 (Townline) at Butterfield Rd	TS6865	100			100			STATE
IL 60 (Townline) at Deerpath Dr	TS6870	66 2/3	33 1/3		66 2/3	33 1/3		STATE
IL 60 (Townline) at Hawthorn Dr #1	TS6875	50	50			100		STATE
IL 60 (Townline) at Hawthorn Dr #3	TS6880		25	50 JMB/25 PPRENTISS		50	50 JMB	STATE
IL 60 (Townline) at Hawthorn Dr #4	TS6885			100 HAWTHORNE CTR.			100 HAWTHORNE CTR.	STATE
IL 60 (Townline) at Hawthorn Dr #5	TS6890			50 HWTWNE CTR/50 FASHION SQ			50 HWTWNE CTR/50 FASHION SQ	STATE
IL 60 (Townline) at Melody Farm	TS6702		100	Permit 1-T-17-0272		100		STATE
IL 60 (Townline) at St Mary's	TS6895	100			100			STATE
IL 83 at Westmoreland Dr	TS6992	66 2/3	33 1/3		66 2/3	33 1/3		STATE

EXHIBIT B  
SHORT FORM  
TRAFFIC SIGNAL MAINTENANCE PROVISIONS

**A. GENERAL PROVISIONS**

**1. CABINET PACK**

Wiring diagrams, phase diagrams, and manuals that are required to be in each traffic signal controller cabinet at the time of construction completion shall remain in the cabinet. Written documentation of all traffic signal timing changes shall be provided in the cabinet. All entries shall be written in a clear and concise manner. The agent of the maintaining agency making any entries shall provide his/ her signature and date of entry. These shall be kept in the cabinet to assist the DEPARTMENT on emergency call outs.

**2. HARDWARE SPECIFICATIONS**

All equipment and material used shall comply with the requirements of the DEPARTMENT's Standard Specifications for Road and Bridge Construction and the district special provisions.

**3. HIGHWAY LIGHTING**

For maintenance involving combination traffic signal and lighting unit mast arm assemblies and poles, the foundation, traffic signal mast arm assembly, pole lighting arm, luminaire and lighting cable and all signal cable shall be considered part of the traffic signal system and are the responsibility of the DEPARTMENT.

The highway lighting system components of each combination mast arm assembly and pole shall be tested for proper operation and physical condition during the intersection cabinet inspection. All costs of repairing or replacing damaged or missing non-standard IDOT highway lighting system equipment is the responsibility of the GOVERNMENTAL BODY.

**4. EMERGENCY VEHICLE PREEMPTION SYSTEM**

Test Emergency Vehicle Preemption System (EVPS) equipment for proper operation and physical condition during the intersection cabinet inspection. All program settings and each sequence of operation must be verified to be correct during each inspection. All cost of inspection and maintaining the EVPS equipment, including the light detectors, light detector amplifiers, radio transmitters and receivers, antennas, confirmation lights, and cables and related components, is the responsibility of the GOVERNMENTAL BODY. In addition to regular inspection and maintenance, all cost of repairing or replacing damaged or missing EVPS equipment is the responsibility of the GOVERNMENTAL BODY.

**5. RAILROAD PREEMPTION**

At all locations with railroad/traffic signal interconnects, respond to any and all emergency and all red flash alarms in a timely manner and notify the Illinois Commerce Commission and the GOVERNMENTAL BODY of the malfunction.

None of the traffic signal railroad preempt parameters including but not limited to the phase timings, phase sequences and pedestrian and vehicular clearance intervals can be modified without prior approval from the Illinois Commerce Commission.

Maintain unique spare controller data modules or sets of data chips containing the final railroad preemption parameters for each location.

Cooperate in any inspection as deemed necessary by the DEPARTMENT or the Illinois Commerce Commission.

The DEPARTMENT shall provide contact personnel available at all times to who railroad preemption malfunctions must be reported.

#### 6. DAMAGE REPAIRS

Repair or replace any and all standard DEPARTMENT equipment damaged by any cause whatsoever. Equipment owned by a third party, such as EVP, lighted street name signs, TSP, and the like are the responsibility of others.

#### 7. ACCIDENT DAMAGE

Be responsible to make recovery for damage to any part of the installation or system from the party causing the damage.

Whenever third-party claims cannot be recovered, the GOVERNMENTAL BODY shall share in the loss.

#### 8. TEMPORARY TRAFFIC CONTROL

Provide temporary traffic control during a period of equipment failure or for when the controller must be disconnected. This may be accomplished through the installation of a spare controller, placing the intersection on flash, manually operating the controller, manually directing traffic through the use of proper authorities, or installing temporary stop signs which will be removed once the signal is in working condition.

#### 9. EMERGENCY PERSONNEL

Provide skilled maintenance personnel who will be available to respond without delay to emergency calls. This may be provided by agency forces, contract, or maintenance agreement. Controller failure, lights out, knockdowns, or two (2) red lights out at intersection are considered emergencies.

### **B. AS REPORTED OR OBSERVED**

#### 1. LAMP REPLACEMENT

Replace burned out lamps for all red signal indications within twenty-four (24) hours of notification of burnout or on the next business day following the notification. However, if two or more red indications for an approach are burned out, these lamps must be replaced as soon as possible, and under no circumstances longer than twenty-four (24) hours after notification. Replace all other burned out lamps within forty-eight (48) hours or next business day of notification of burnout. Lamp changes shall always include a lens cleaning.

#### 2. SIGNAL ALIGNMENT

Keep signal heads properly adjusted, including plumb, and tightly mounted. All controller cabinets, signal posts and controller pedestals should be tight on their foundations and in alignment.

#### 3. CONTROLLER PROBLEMS

Check the controllers, relays, and detectors after receiving complaints or calls to ascertain that they are functioning properly and make all necessary repairs and replacement.

#### 4. L.E.D. SIGNAL HEAD AND L.E.D. MODULE REPLACEMENT

An L.E.D. module shall be considered failed and shall be replaced if the indication is dark or if the module fails to meet ITE specification on minimum maintained luminous intensity.

Replace failed modules for all red signal indications within twenty-four (24) hours of notification of failure or on the next business day following the notification. However, if two or more red indications for an approach are failed, these modules must be replaced as soon as possible, and under no circumstances longer than twenty-four (24) hours after notification. Replace all other failed modules within forty-eight (48) hours or next business day of notification of failure.

### **C. WEEKLY**

#### **1. MASTER CONTROLLER or ADVANCE TRAFFIC MANAGEMENT SYSTEMS**

At locations that are a part of a closed loop signal or advance traffic management systems maintained by the GOVERNMENTAL BODY, repair any and all malfunctions in a timely manner so that the signals remain under the control of the master at all times.

As needed assist in the implementation of the signal system timing plans.

Maintain the central signal system software on a PC so that the signal system is monitored weekly. Check weekly by phone or location visit for any malfunction. Verify software accuracy to central office software.

### **D. BI-MONTHLY (Every 2 months)**

#### **1. CABINET INSPECTION**

Check the controllers, relays, and detectors to ascertain that they are functioning properly and make all necessary repairs and replacement.

Keep interior of controller cabinet in a clean and neat condition at all times. Replace filters per manufacturer's recommendations.

#### **2. OBSERVE SIGNALS**

Observe the signals at the time of the bi-monthly cabinet inspection. This involves stopping and watching for correct detection and timing operation.

#### **3. DETECTION TESTING**

Test and inspect vehicle detection inductance loops, loop detectors, and pedestrian detection during cabinet visit bi-monthly.

#### **4. VIDEO DETECTION TESTING**

Inspect, maintain, and clean all video detection and surveillance systems bi-monthly or as needed, to achieve clean lenses, and adjust for proper alignment and proper focus. This shall include system camera, lenses, camera housings and hood/shield, pan tilt, and zoom mechanisms and motors, mounting brackets and hardware, poles, microprocessors, controller, cables and communication equipment, and other related components. Maintenance shall include modifications to programmable detection zones.

#### **5. CONTROLLER CHECK**

When controllers malfunction, they shall be removed, repaired, and bench checked. The controllers shall not be removed for annual maintenance inspections.

This bi-monthly check should verify software with central office software and reprint cabinet pack timings sheet. Controller check shall occur during the bi-monthly cabinet inspection.

**6. FUSE AND BREAKER CHECKS**

Fuse and breaker checks should occur during the bi-monthly cabinet inspection. Replace burned out fuses or deteriorated breakers as needed.

**7. CLEARANCE TRIMMING**

Remove any obstruction blocking the line of sight of the traffic signal face to the motorist including trimming trees, bushes or any other form of vegetation blocking said lines of sight.

**E. GENERAL**

**1. ANNUAL HARDWARE INSPECTION**

Inspect all mast arm assemblies, mast arm poles, brackets (or other types of hardware) supporting traffic heads or pedestrian signal heads on an annual basis.

**2. ANNUAL CONFLICT MONITOR AND MMU TEST**

Test all conflict monitors and MMUs once every two years in accordance with manufacturer recommendations.

**3. PAVEMENT MARKINGS**

In District 1, the GOVERNMENTAL BODY shall inspect stop bars, symbols, special pavement treatments and crosswalks and replace as necessary to insure proper motorist and pedestrian guidance;

Whereas, in District 2 through District 9, the cost of pavement markings is shared between the DEPARTMENT and the GOVERNMENTAL BODY according to Exhibit A.

4. The GOVERNMENTAL BODY shall also be responsible for maintenance of the installed street name signs on approaches to a State highway from a local road. Because of the value of street name signs to motorists, the GOVERNMENTAL BODY shall provide such signs at all named State highway intersections.

s:\gen\wpdocs\traffic\yg\2011\2011\_1\reverse master agreement changes accepted exhibit b 3\_9\_2011 (1) (2) final.docx