



RETURN WITH BID

NOTICE TO BIDDERS

County Lake
Local Public Agency Gurnee
Section Number N/A
Route Route 21

Sealed proposals for the improvement described below will be received at the office of Village of Gurnee,
325 N. O'Plaine Road until 10:30 AM on November 30, 2021

Sealed proposals will be opened and read publicly at the office of the Village Engineer
325 N. O'Plaine Road at 10:30 AM on November 30, 2021

DESCRIPTION OF WORK

Name Route 21 & Manchester Dr Flashing Beacon Project # 8421 Length: 600.00 feet ( miles)
Location Intersection of Route 21 & Manchester Drive in the Village of Gurnee, Lake County, Illinois.
Proposed Improvement Installation of new flashing beacon traffic signals, underground raceways, handholes,
emergency vehicle priority system line sensor, and all other work necessary to complete the improvements

- 1. Plans and proposal forms will be available in the office of Village of Gurnee - 325 N. O' Plaine Road, Gurnee, IL, 60031 for a Non-Refundable cost of \$25 or on the Village's website on the Transparency Portal under Bid/RFP
2. Prequalification
3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals.
4. The following BLR Forms shall be returned by the bidder to the Awarding Authority:
5. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished according to the contract.
6. Submission of a bid shall be conclusive assurance and warranty the bidder has examined the plans and understands all requirements for the performance of work.
7. The bidder shall take no advantage of any error or omission in the proposal and advertised contract.
8. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Agency and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents.
9. Permission will be given to a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

RETURN WITH BID

PROPOSAL

County Lake
Local Public Agency Gurnee
Section Number N/A
Route Route 21

- 1. Proposal of ... for the improvement of the above section by the construction of ... Including but not limited to: Installation of new flashing beacon traffic signals, underground raceways, handholes, emergency vehicle priority, system line sensor, and all other work necessary to complete the improvements.
a total distance of 600.00 feet, of which a distance of 600.00 feet, ( 0.000 miles) are to be improved.
2. The plans for the proposed work are those prepared by Village of Gurnee Engineering Division and approved by the Department of Transportation on ...
3. The specifications referred to herein are those prepared by the Department of Transportation and designated as "Standard Specifications for Road and Bridge Construction" and the "Supplemental Specifications and Recurring Special Provisions" thereto, adopted and in effect on the date of invitation for bids.
4. The undersigned agrees to accept, as part of the contract, the applicable Special Provisions indicated on the "Check Sheet for Recurring Special Provisions" contained in this proposal.
5. The undersigned agrees to complete the work within - working days or by 05/01/2022 unless additional time is granted in accordance with the specifications.
6. A proposal guaranty in the proper amount, as specified in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals, will be required. Bid Bonds will be allowed as a proposal guaranty. Accompanying this proposal is either a bid bond if allowed, on Department form BLR 12230 or a proposal guaranty check, complying with the specifications, made payable to: Village of Gurnee Treasurer of ...
The amount of the check is for 5% of the submitted bid ( ).
7. In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties, which would be required for each individual proposal. If the proposal guaranty check is placed in another proposal, it will be found in the proposal for: Section Number N/A.
8. The successful bidder at the time of execution of the contract will be required to deposit a contract bond for the full amount of the award. When a contract bond is not required, the proposal guaranty check will be held in lieu thereof. If this proposal is accepted and the undersigned fails to execute a contract and contract bond as required, it is hereby agreed that the Bid Bond or check shall be forfeited to the Awarding Authority.
9. Each pay item should have a unit price and a total price. If no total price is shown or if there is a discrepancy between the product of the unit price multiplied by the quantity, the unit price shall govern. If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price.
10. A bid will be declared unacceptable if neither a unit price nor a total price is shown.
11. The undersigned submits herewith the schedule of prices on BLR 12200a covering the work to be performed under this contract.
12. The undersigned further agrees that if awarded the contract for the sections contained in the combinations on BLR 12200a, the work shall be in accordance with the requirements of each individual proposal for the multiple bid specified in the Schedule for Multiple Bids below.



**Illinois Department  
of Transportation**

**SCHEDULE OF PRICES**

County Lake  
 Local Public Agency Gurnee #8421  
 Project N/A  
 Route Route 21

**Schedule for Multiple Bids**

Combination Letter	Sections Included in Combinations	Total

**Schedule for Single Bid**

(For complete information covering these items, see plans and specifications)

Bidder's Proposal for making Entire Improvements

Item No.	Items	Unit	Quantity	Unit Price	Total
1	SIGN PANEL - TYPE 1	SQ FT	46		
2	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1		
3	METAL POST - TYPE B	FOOT	20		
4	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	443		
5	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	175		
6	HANDHOLE	EACH	5		
7	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	266		
8	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	676		
9	ELECTRIC CABLE IN CONDUIT, EQPT. GROUND. CONDUCTOR, NO. 6 1C	FOOT	437		
10	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	2		
11	CONCRETE FOUNDATION, TYPE A	FOOT	12		
12	FLASHING BEACON INSTALLATION	EACH	2		
13	LIGHT DETECTOR	EACH	1		
14	EMERGENCY VEHICLE PRIORITY SYTM. LINE SENSOR CABLE, NO. 20 3/C	FOOT	266		
15	EXPLORATORY EXCAVATION	FOOT	10		
16	TRAFFIC CONTROL AND PROTECTION, COMPLETE	EACH	1		
17	TOPSOIL PLACEMENT 4", SEEDING AND BLANKET	SY	120		

**PAGE 1 TOTAL :**

**BIDDER'S PROPOSAL FOR ENTIRE IMPROVEMENTS:**

RETURN WITH BID

CONTRACTOR CERTIFICATIONS

County	<u>Lake</u>
Local Public Agency	<u>Gurnee</u>
Section Number	<u>N/A</u>
Route	<u>Route 21</u>

The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

1. **Debt Delinquency.** The bidder or contractor or subcontractor, respectively, certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue unless the individual or other entity is contesting, in accordance with the procedures established by the appropriate revenue Act, its liability for the tax or the amount of tax. Making a false statement voids the contract and allows the Department to recover all amounts paid to the individual or entity under the contract in a civil action.

2. **Bid-Rigging or Bid Rotating.** The bidder or contractor or subcontractor, respectively, certifies that it is not barred from contracting with the Department by reason of a violation of either 720 ILCS 5/33E-3 or 720 ILCS 5/33E-4.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

3. **Bribery.** The bidder or contractor or subcontractor, respectively, certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois or any unit of local government, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm.

4. **Interim Suspension or Suspension.** The bidder or contractor or subcontractor, respectively, certifies that it is not currently under a suspension as defined in Subpart I of Title 44 Subtitle A Chapter III Part 6 of the Illinois Administrative Code. Furthermore, if suspended prior to completion of this work, the contract or contracts executed for the completion of this work may be cancelled.

RETURN WITH BID

SIGNATURES

County Lake  
Local Public Agency Gurnee  
Section Number N/A  
Route Route 21

(If an individual)

Signature of Bidder \_\_\_\_\_  
Business Address \_\_\_\_\_  
\_\_\_\_\_

(If a partnership)

Firm Name \_\_\_\_\_  
Signed By \_\_\_\_\_  
Business Address \_\_\_\_\_  
\_\_\_\_\_

Inset Names and Addressed of All Partners



\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(If a corporation)

Corporate Name \_\_\_\_\_  
Signed By \_\_\_\_\_  
Business Address \_\_\_\_\_  
\_\_\_\_\_

President

Inset Names of Officers



President  
Secretary  
Treasurer

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attest: \_\_\_\_\_  
Secretary

**VILLAGE OF GURNEE**  
**NOTICE TO BIDDERS**

Municipality: **VILLAGE OF GURNEE**

Road District **NA**

County **LAKE**

Project No. **8421**

**TIME AND PLACE OF OPENING OF BIDS:**

Sealed proposals for the improvement described below will be received at the office of the **Village of Gurnee, Engineering, 325 N. O'Plaine Road, Gurnee, Illinois 60031**, until **10:30 A.M., November 30<sup>th</sup>, 2021**.

Proposals will be opened and read publicly at that time.

**DESCRIPTION OF WORK:**

**“Route 21 & Manchester Drive Flashing Beacon”**

**LOCATION:**

The project is located at the intersection of Route 21 & Manchester Drive in Gurnee, IL.

**PROPOSED IMPROVEMENT:**

Proposed installation of new flashing beacons with underground raceways, hand-holes, emergency vehicle priority system sensor, and traffic signal posts.

**BIDDERS INSTRUCTIONS:**

1. Plans and proposal forms will be available in the office of the Village of Gurnee, 325 N. O'Plaine Road, Gurnee, Illinois 60031, for a non-refundable cost of \$25 or on the Village's Transparency Portal under Bids/RPFs for free. <https://www.gurnee.il.us/government/transparency-portal/bids-rfps>
2. It will be the bidder's responsibility to verify any addenda via the Village's website. Addenda will be posted to the Village's Transparency Portal.
3. Only the Bid Forms within the bid packet shall be used. Bid forms shall be filled out in their entirety, no carry over bids will be accepted.
4. The awarding authority reserves the right to waive technicalities and to reject any or all proposals as provided in Check Sheet LRS 6 of the "Supplemental Specifications and Recurring Special Provisions," prepared by the Illinois Department of Transportation.
5. Contractor shall not pay less than the prevailing rates of wages to all laborers, workmen, and mechanics performing work under this contract, and shall comply with the requirements of the Illinois Wages of Employees on Public Works Act (820 ILCS 130/1-12).

By Order Of The:

**Village of Gurnee**

(Awarding Authority)

Andy Harris / Village Clerk



Route Route 21
County Lake
Local Agency Gurnee Project # 8421
Section N/A

RETURN WITH BID

PAPER BID BOND

WE \_\_\_\_\_ as PRINCIPAL,
and \_\_\_\_\_ as SURETY,
are held jointly, severally and firmly bound unto the above Local Agency (hereafter referred to as "LA") in the penal sum of 5% of the total bid price, or for the amount specified in the proposal documents in effect on the date of invitation for bids whichever is the lesser sum. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly pay to the LA this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written proposal to the LA acting through its awarding authority for the construction of the work designated as the above section.

THEREFORE if the proposal is accepted and a contract awarded to the PRINCIPAL by the LA for the above designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal contract, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in the "Standard Specifications for Road and Bridge Construction" and applicable Supplemental Specifications, then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the LA determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the LA acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this \_\_\_\_\_ day of \_\_\_\_\_

Principal

(Company Name) (Company Name)
By: (Signature and Title) By: (Signature and Title)

(If PRINCIPAL is a joint venture of two or more contractors, the company names, and authorized signatures of each contractor must be affixed.)

Surety

(Name of Surety) By: (Signature of Attorney-in-Fact)

STATE OF ILLINOIS,
COUNTY OF \_\_\_\_\_,
I, \_\_\_\_\_, a Notary Public in and for said county,
do hereby certify that \_\_\_\_\_

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instruments as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this \_\_\_\_\_ day of \_\_\_\_\_

My commission expires \_\_\_\_\_ (Notary Public)

ELECTRONIC BID BOND

[ ] Electronic bid bond is allowed (box must be checked by LA if electronic bid bond is allowed)

The Principal may submit an electronic bid bond, in lieu of completing the above section of the Proposal Bid Bond Form. By providing an electronic bid bond ID code and signing below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the LA under the conditions of the bid bond as shown above. (If PRINCIPAL is a joint venture of two or more contractors, an electronic bid bond ID code, company/Bidder name title and date must be affixed for each contractor in the venture.)

Electronic Bid Bond ID Code

(Company/Bidder Name)
(Signature and Title) Date



# **GENERAL CONDITIONS OF THE CONTRACT**

## **CONTRACTOR'S INSURANCE**

The CONTRACTOR shall not commence work under this Contract until he has obtained all insurance required under this paragraph and such insurance has been approved by the Owner, nor shall the CONTRACTOR allow any subcontractor to commence work on his Contract until all similar insurance required of the subcontractor has been so obtained and approved.

### **A. Compensation Insurance:**

The CONTRACTOR shall take out and maintain, during the life of this Contract, Workmen's Compensation Insurance for all his employees employed at the site of the project; and, in case any work is sublet, the CONTRACTOR shall require all subcontractors similarly to provide Workmen's Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this Contract at the site of the project are not protected under the Workmen's Compensation Statute, the CONTRACTOR shall provide and shall cause each subcontractor to provide Workmen's Compensation Insurance for the protection of his employees not otherwise protected.

### **B. Public Liability & Property Damage Insurance:**

The CONTRACTOR shall take out and maintain and cause to be taken out and maintained by all subcontractors during the life of this Contract such Public Liability and Property Damage Insurance as shall protect him and all subcontractors performing work covered by this Contract from claims for damages for personal injury, including accidental death, as well as from claims for property damages, which may arise from operations under this Contract, whether such operations be by himself or by a subcontractor or by anyone directly or indirectly employed by either of them and the amounts of such insurance shall be as follows:

General Liability/Property Damage/Bodily Injury limit	\$2 million combined single limit
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Automobile Bodily Injury Liability/Property Damage limit	\$2 million combined single limit
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Such insurance shall name the Owner and the Engineer as insured along with the CONTRACTOR and shall hold harmless the Owner and the Engineer against all suits and claims arising from or as the result of the actions of the CONTRACTOR or his subcontractors.

Such policies shall not be cancelled, permitted to expire, or to be changed without the written consent of the Owner.

## **PROOF OF INSURANCE**

The CONTRACTOR shall furnish the Owner with sufficient documentary evidence of insurance coverage, which evidence shall consist of either such original insurance policy or a certified statement from the insurer listing the details of the policy.

## **CHANGES TO SCOPE OF WORK**

If the Engineer deems it proper or necessary during the execution of the work to make any alteration which will increase or diminish the quantity of labor or material or the expense of the work, even to the elimination of one or more items, such alteration shall not annul or vitiate the Contract hereby entered into. The elimination of any part of the work shall not increase the unit price for any of the remaining work bid on. The value of the work so added shall be based on the rates and prices named in the Contract as bid, when such rates and prices cover the class of work added, otherwise the value shall be determined by mutual written agreement between the Owner and the CONTRACTOR before any such work shall be commenced.

## **EXTRA WORK**

No claim whatsoever will be allowed the CONTRACTOR for changes, extra work, or material not contemplated or necessary for the completion of the work described, or for a greater amount of money than is hereby stipulated to be paid, unless the change in or addition to the work requiring additional outlay by the CONTRACTOR is first ordered in writing by the Engineer and the price herein stipulated to the CONTRACTOR.

## **QUALITY CONTROL OF WORK**

The Engineer shall have power to inspect all work for compliance with the Specifications, and the CONTRACTOR shall perform all of the work herein specified to the Engineer's entire satisfaction, approval, and acceptance.

The CONTRACTOR is responsible for furnishing all labor, materials, and equipment to construct and complete the work in compliance with the Plans, Specifications, and Special Provisions. All material to be incorporated in the work; all labor to be performed; and all equipment, tools, and methods to be used shall be subject to the approval of the Engineer. It is the CONTRACTOR'S responsibility to complete the work and deliver a final product, which meets all the requirements of the Specifications.

The Engineer shall decide all questions relative to measurements, the materials used, the character of the work performed, and as to whether the rate of progress is such as to comply with these Specifications.

If any authorized agent of the Engineer shall discover and notify to the CONTRACTOR of any neglect or disregard of the Specifications, such defects shall at once be remedied and further defective work be at once discontinued; but the right of final acceptance or condemnation of the work will not be waived by reason thereof, nor by any act of the Owner, his officers, or agents.

## **INSPECTION**

The Engineer shall at all times have access for inspection to all branches of the work, on the site of the work, at the place of manufacture, or where materials are stored or to be furnished from, and the CONTRACTOR shall furnish from time to time such samples of each separate ingredient forming the materials to be used in the improvement as may be required by the Engineer.

If at any time during the progress of the work, any material is rejected or if any of the work is wholly or in part improperly constructed, then the CONTRACTOR, at his own expense, shall immediately remove all rejected material and shall reconstruct all work improperly done. In case the CONTRACTOR shall neglect or refuse, after twenty-four (24) hours written notice, to remove or replace said rejected work or material, the work shall be removed by the Owner and the Owner's cost of labor, material, and supervision thereof deducted from any money due the CONTRACTOR.

## **MATERIAL INSPECTION**

All materials incorporated in this contract are to be inspected according to the Project Procedures Guidelines (PPG).

The Local Agency shall be responsible for the cost of the quality assurance field inspection. Job site quality assurance inspection shall be done by the Local Agency. A minimum of forty-eight (48) hours in advance notification shall be required prior to placement of any of these materials, notice shall be given to the Local Agency's material inspector for the project and the Resident Engineer.

## **CONTRACTOR'S EMPLOYEES**

The CONTRACTOR shall employ skilled foremen and laborers and shall, if directed by the Engineer, discharge from the site of the work any incompetent, abusive, or disorderly employees. None but person's expert in their respective branches of work shall be employed by the CONTRACTOR.

## **OBSTRUCTION OF STREETS AND RIGHTS OF WAY**

The CONTRACTOR shall arrange to keep public ways open for traffic at their own expense. Convenient access to driveways, houses, and buildings along the improvement must be maintained by the CONTRACTOR. The CONTRACTOR shall remove all surplus materials and debris from the work area on a daily basis as the work progresses so that there is a minimum amount of disruption to public property as possible.

## **SALVAGED MATERIAL**

All material of whatever kind encountered on the site is the property of the Owner. When approved for removal from the site of the work, said material shall become the property of the CONTRACTOR and shall be disposed of, in a timely fashion, as specified.

## **PERMITS**

Before beginning work the Owner & Contractor shall obtain necessary permits for all work to be done under this Contract. The Contractor shall abide by all permit requirements as indicated on permits associated with this project and as directed by the Owner. A contract bond, Certificate of Insurance (COI), and any other related information will need to be submitted by the Contractor to the Illinois Department of Transportation (IDOT) for work within the State's Right-Of-Way. Once the State's permit is acquired, the contractor can begin work. All cost associated with acquiring IDOT's permit will be incidental to the project. Inspections for compliance shall be made by the Owner or Owners' representatives.

## **ORDINANCES**

The CONTRACTOR shall observe all ordinances in relation to obstructing streets or driveways, maintaining signs and signals, keeping open passageways and protecting same where exposed, and to observe all laws and ordinances controlling or limiting those engaged in public work, which ordinances and laws are made a part of these Specifications. The CONTRACTOR shall provide and maintain such sanitary accommodations for the use of his employees as may be necessary to comply with the State and Local Board of Health requirements.

## **DAMAGE**

All loss or damage arising out of the nature of the work to be done, or from any delay or unforeseen or unusual obstructions, or from difficulties which may be encountered in the prosecution of the work or arising from the action of the elements, shall be sustained at the CONTRACTOR'S expense.

The CONTRACTOR shall be held responsible for any and all damage to any and all water, gas or drain pipes, conduits, trees, sidewalks, pavements and all structures, etc., and to interruption of service to same.

The CONTRACTOR shall, without extra charge, erect, maintain, and remove strong and suitable barriers which, during the night time, will prevent any accident or harm to life, limb, or property in consequence of such excavation, use or occupancy of any streets, avenues, highways, or public grounds.

The CONTRACTOR shall protect, restore, and make good, as may be necessary, all buildings, foundations, and fences injured in the progress of the work, at the CONTRACTOR'S expense. The CONTRACTOR shall protect all private and corporate property, such as gas mains, telephone lines, telephone or telegraph poles or conduits, etc. interfering with the work, notifying the several owners of the work to be done, and arranging for the future disposition of their property. The CONTRACTOR agrees to hold the Owner and the Engineer harmless from any such claims or demands of any kind, arising from their performing the work on this Contract.

## **CLAIMS**

The CONTRACTOR agrees to save and hold harmless the Owner and the Engineer from all claims, demands, suits, judgement decrees, including costs, expenses and attorney fees on account of, or arising out of, the use of the streets or sidewalks, or resulting from the excavations, openings,

obstructions, or defects that may be made or left in the streets or sidewalks by the CONTRACTOR or their several agents, or any other person engaged in the performance of this Contract.

The CONTRACTOR shall save the Owner and the Engineer harmless from all claims, demands, suits, judgement decrees, including costs, expenses and attorney fees on account of, or arising out of, any infringement of any patent rights or royalties claimed by any one on account of machinery, instrument tools, materials, principals, or processes used by them or about said work.

### **FORFEITURE**

The work herein specified shall be prosecuted with such forces as the Engineer may deem adequate for its completion within the time specified for completion. If the rate at which the work is performed is, in the judgement of the Engineer, not such as to insure its progress and completion in the time and manner herein specified, or if, at any time, the CONTRACTOR refuses or neglects to prosecute the work with forces sufficient for its completion within the specified time, or if in any event, the CONTRACTOR fails to proceed with the work in accordance with the requirements and conditions of the Specifications, the Owner shall have full right and authority after giving three (3) days written notice to the CONTRACTOR of its intention to do so, to take the work out of the hands of the CONTRACTOR and/or to re-let the same to other contractors. In so doing, the Owner may use or authorize the use of such materials and supplies as may be the property of the CONTRACTOR, or on the ground, without rental or other charge for the use thereof, except that all such materials so used in completing the work shall be credited to said CONTRACTOR at their fair reasonable market price, as of the date same were delivered on the work, but in no case will the CONTRACTOR be credited with more than the cost of said materials delivered to the CONTRACTOR. The cost of fully completing all the work and all expense of every kind incurred by the Owner in connection herewith shall be charged to the CONTRACTOR and shall be deducted and paid by the Owner out of such moneys as may be due, or may at any time thereafter become due, or may at any time thereafter become due to said CONTRACTOR under this Contract, or any part thereof, so far as the same shall suffice therefore, and any deficiency shall be paid to the Owner by the CONTRACTOR forthwith, and the bondsmen will be held liable for any such deficiency.

Should it become necessary for the Owner to declare the work forfeited, such forfeiture shall in no case relieve the CONTRACTOR or his bondsmen of any of the conditions of the Contract. In case the CONTRACTOR shall abandon or in any manner fail to complete the work, the Owner shall have the full right and authority to pay to any person, firm, or entity who may have been employed by the CONTRACTOR upon the work, out of any fund due or unpaid the CONTRACTOR at the time the

Owner shall declare said CONTRACTOR in default, any and all sums of money which may be found to be due and owing to said CONTRACTOR under this Contract and upon giving five (5) days written notice by mail to said CONTRACTOR of the intention so to do.

The Owner shall have the full right and authority to ascertain the amount or amounts so due and owed by the CONTRACTOR to such person, firm, or entity and in such manner and upon such proof as it may deem sufficient, and the amount or amounts so found by it to be due and owing to

such person, firm, or entity, shall be conclusive as against said CONTRACTOR, and may thereafter make payment to the said person, firm or entity.

### **SUBLETTING OF CONTRACT**

No part of the work herein specified shall be assigned, subcontracted, or sublet without the written consent of the Owner.

The CONTRACTOR may be permitted to sublet a portion thereof, but shall perform with the CONTRACTOR'S own organization, work amounting to not less than fifty percent (50%) of the total contract cost, and with materials purchased or produced by the CONTRACTOR. Second tier subcontracting will not be allowed.

All requests to subcontract any work shall include a certified copy of the executed subcontract agreement signed by both the General CONTRACTOR and the Subcontractor. All subcontract agreements shall list and itemize what work is being subcontracted and the amounts and/or basis of payment for such work. All subcontract agreements shall contain the required Federal and State Equal Employment Opportunity provisions and Labor Compliance provisions, including contract minimum wage requirements.

All work permitted to be subcontracted is conditional upon the timeliness and satisfactory performance of the Subcontractor and coordination of the CONTRACTOR. The Engineer may order the CONTRACTOR to remove a Subcontractor who is not performing satisfactory work or who is not performing work in a timely manner. Upon the Engineer's written direction, the CONTRACTOR shall comply at once and shall not employ the Subcontractor for any further work under this contract.

### **SUSPENSION OF WORK**

Should the CONTRACTOR, with the approval of the Engineer, stop work or should the weather conditions in the opinion of the Engineer be such that the work could not be properly and safely be performed, then the Engineer may suspend the work until such time as weather conditions shall permit proper construction. In case of stoppage of work, the CONTRACTOR shall, at his own expense, store and be responsible for material, street restoration, and protection of the work and be responsible for all accidents as though the work was in progress. Should the work be delayed or suspended with the approval of the Engineer, the time of delay or suspension may be added to the time set for completion of the work.

### **WAIVERS OF LIEN REQUIRED**

It is expressly understood that the Engineer reserves the right to direct that no payment be made to the CONTRACTOR should he have reason to believe that said CONTRACTOR has failed for any reason to make just payment to any employee, subcontractor, or material supplier used or employed by the CONTRACTOR in the prosecution of the work, until the Engineer is satisfied that full and proper payment has been made. The CONTRACTOR shall secure and file with the

Owner progress and final waivers of lien for all materials incorporated into and labor and equipment employed on the work before payment requests are processed.

### **PARTIAL AND FINAL ACCEPTANCE OF THE WORK**

Work on this Contract is not subject to partial inspection and acceptance. The entire work shall be made in a neat and workmanlike manner and all requirements shall be complied with in detail. The mere fact that some particular part or portion of the work may have been previously inspected, cleaned, and set in order will not excuse the CONTRACTOR from again cleaning any and all portions so that the entire system of work shall be in proper condition and subject to final inspection by the Engineer and complying with the use intended at the time of acceptance by the Owner. The date of final acceptance of work on this Contract is the date that the CONTRACTOR is issued final payment by the Owner.

### **PAYMENT FOR COMPLETED WORK**

The work to be constructed may vary in actual units on quantities from those given in the Bid Documents, but no additions or deductions in the unit prices bid by the CONTRACTOR will be made because of this fact. The total bid and contract unit prices shall include all cost of the work to be constructed.

Any payments made to the CONTRACTOR during the progress of the work shall in no way lessen the total and final responsibility of the CONTRACTOR, nor in any manner whatever waive any of the terms, conditions, covenants, or requirements of the Contract, nor be considered a ratification of any act on the part of the Engineer, agents, or representatives of the Owner which in any manner may contravene any of the requirements or provisions of the Contract. During the course of the improvement, if the rate of progress is satisfactory to the Engineer, and it appears that all claims for labor and materials are satisfied, progress payment may be requested by the CONTRACTOR to the Engineer for payment by the Owner.

The CONTRACTOR and Engineer shall certify in writing to the amounts of work completed, on forms prepared by the Engineer, prior to presentation to the Owner for payment. The Owner will retain ten percent (10%) of the progress payments for work completed and approved to date and the final contract amount until all work is given final approval by the Engineer and all other requirements of the Contract have been completed to the satisfaction of the Owner.

### **J.U.L.I.E.**

The Contractor is to call J.U.L.I.E. (1-800-892-0123) forty-eight (48) hours prior to excavating for field locations of existing utilities. A minimum of forty-eight (48) hours notice shall be given to the Village Engineer prior to starting work.

### **PROTECTION OF EXISTING UTILITIES AND FACILITIES**

#### **EXISTING UTILITIES:**

- A. The location of utilities shown on the Drawings are approximate only. OWNER and ENGINEER disclaim responsibility for the accuracy or completeness of any such information or data.

B. The CONTRACTOR shall have full responsibility for locating all underground facilities in work areas, whether shown or not shown on the Drawings, for coordination of the WORK with the owners of such underground facilities during construction, for the safety and

protection thereof, and repairing any damage thereto resulting from the WORK; the cost of which shall be included in the Contract Unit Price of the improvements specified.

C. Rules, regulations, and codes governing the respective utilities which may be encountered shall be observed in executing all WORK.

### **EXISTING FACILITIES:**

The CONTRACTOR shall protect from damage all parts of curbs, sidewalks, catch basins, manholes, drains, pavement, utilities, and all other improvements liable to injury by his operations and shall, at his own expense, make good all such damages to the satisfaction of the Owner.

The CONTRACTOR shall clean and maintain all roadways adjoining the project site free from all construction debris, dirt and/or mud at all times. The CONTRACTOR is also responsible for the immediate removal of dirt and/or mud and or debris from adjacent highways caused by construction traffic entering or leaving the project site. In dry weather, the CONTRACTOR shall spray dusty areas daily with water, or as directed by the Resident Engineer, in order to control dust. This work shall be considered incidental to the improvement.

It shall be the CONTRACTOR'S responsibility to arrange for the relocation or bracing of existing power poles that may be within the working limits of this contract. It is expressly understood that all work and costs connected with the maintenance of these power poles, temporary relocation, etc., will be the responsibility of the CONTRACTOR. This work shall be considered incidental to the cost of the improvement.

The CONTRACTOR shall restore all parkways and driveways that are disturbed by the construction. All parkways and driveways shall be restored to the same or better condition as existed prior to construction.

All trees shall be protected from damage by all contractors. The CONTRACTOR shall be responsible for any negligence or willful damage to these trees and/or their root system. The CONTRACTOR shall not remove any trees unless requested to do so in writing by the Village Engineer, or if they are marked on the plans for removal.

### **NOTICE OF STARTING WORK**

The CONTRACTOR shall notify the Village Engineer forth-eight hours before beginning any work on this Contract, or of his intentions so to do, and in case of temporary suspension of the work, shall give a similar notice for resuming same.

### **WARRANTY PERIOD**

The CONTRACTOR shall warrant all work performed for a period of one (1) year from the date of final acceptance in writing by the Village Engineer. In case of acceptance of a part of the work



for use or occupancy prior to final acceptance of the entire work, the guarantee for the part so accepted shall be for a period of one (1) year from the date of such partial acceptance, in writing, by the Village Engineer.

### **MATERIAL DELAYS**

The CONTRACTOR shall notify the Owner of any material delays that could impact the deadline of the project. The CONTRACTOR will be required to install, build, or construct as much of the work as possible with the materials available within the time frame of the original approved schedule. If material delays are encountered the CONTRACTOR will submit a new reasonable schedule for the owner to review and approve, if necessary. The CONTRACTOR will not be penalized due to excessive material delays.

## **INSTRUCTIONS TO BIDDERS**

### **SCOPE OF WORK**

The CONTRACTOR shall furnish and provide all labor, materials, tools, equipment, and machinery necessary to perform and complete, in a good and workmanlike manner, the work required for:

### **ROUTE 21 & MANCHESTER DRIVE FLASHING BEACON PROJECT NO. 8421**

### **SPECIFICATIONS**

The Specifications for this project are the General Conditions of the Contract, "State of Illinois Standard Specifications for Road and Bridge Construction" Adopted April 1, 2016 (SSRB); "Supplemental Specifications and Recurring Special Provisions" Adopted January 1, 2017; "Standard Specifications for Water and Sewer Main Construction in Illinois" (SSWS); "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD), Village of Gurnee "Municipal Code" and Illinois Building Code and Ordinance as amended by the Village of Gurnee by Ordinance, latest editions effective upon the date of the bid opening, which are made part of these documents by reference. In case of conflict between these Specifications, the most restrictive requirement shall be binding.

### **COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS**

The Plans, Specifications, and Special Provisions are intended to describe a complete scope of work and are essential parts of the Contract. A requirement occurring in any of them is binding. In case of discrepancy, measured or calculated dimensions will govern over scaled dimensions; Plans will govern over Specifications; and Special Provisions will govern over both Plans and Specifications. Detailed construction plans will govern over standard plans. The CONTRACTOR shall take no advantage of any apparent error or omission in the Plans and Specifications and the Engineer shall be permitted to make such corrections and interpretations as may be necessary for the fulfillment of the intent of the Plans and Specifications. The decision of the Engineer in the case of any errors or omissions shall be final.

### **EXAMINATION OF SITE AND SPECIFICATIONS**

Bidders shall make a careful examination of the site of the proposed work, Bid Documents, Specifications, and Contract Form before submitting a Proposal. They shall fully inform themselves as to the quality and quantity of materials required and the character of the work, and they shall further investigate the location and make a careful examination of the sources of supply for materials.

The plans are intended to provide a generalized scope of the work to be done and in no way shall be deemed to be complete, comprehensive, or limiting the area of the work to be performed.

The Village of Gurnee, as Owner, and its agents assumes no responsibility whatever in respect to the sufficiency or accuracy of this information and there is no guaranty, either expressed or implied, that the conditions or locations indicated are representative of those existing throughout the work or that unanticipated situations may not occur.

The Owner reserves the right to add, delete, or modify as it deems fit, the locations and amounts of work to be done. If their bid is accepted, they will be responsible for all errors in their Proposal resulting from their failure or neglect to comply with these instructions. The Owner will in no case be responsible for any change in anticipated profits resulting from such failure or neglect.

### **DELIVERY OF PROPOSALS**

Proposals shall be delivered in person to the place and by the time specified in the Notice to Bidders. Bids delivered after the time stated will not be accepted nor opened. Submit each Proposal in a sealed envelope including the bidders' company name and plainly marked:

**“Route 21 & Manchester Drive Flashing Beacon”**  
**“PROJECT # 8421”**

### **FAIR EMPLOYMENT PRACTICES**

In accordance with "An Act to Prohibit Discrimination and Intimidation on Account of Race or Color in Employment under Contracts for Public Buildings or Public Works", approved July 8, 1933, as amended, no person shall be refused or denied employment in any capacity on the grounds of race or color, nor be discriminated against in any manner by reason thereof in connection with the performance of this Contract, nor shall any unfair employment practice as defined in the "Fair Employment Practices Act", approved July 21, 1961, as amended, be committed by the CONTRACTOR, his subcontractors, suppliers of materials or services to the CONTRACTOR or his subcontractors, or any labor organizations furnishing skilled or unskilled labor to the CONTRACTOR or his subcontractors.

## **MUNICIPAL REFERENCES, EQUIPMENT, SUPERINTENDENT, SUBCONTRACTOR, SUPPLIER RESUMES REQUIRED**

Prior to award, the apparent low bidder shall furnish to the Owner the following information:

1. Three (3) municipal references of completed contract work of a similar nature, including the name of the municipality, the dollar value of the work, and names and telephone numbers of the municipal officials in responsible charge of the completed contracts.
2. A complete List of the Bidder's Labor Force to be employed on this Contract, including their construction specialties.
3. The Name of the Full Time Superintendent assigned to this contract to represent the CONTRACTOR.
4. A List of All Subcontractors proposed to be employed for this contract.
5. A complete List of the Equipment owned or currently leased by the bidder to be used in construction of this improvement.
6. A List of all Material Suppliers with addresses, telephone numbers, and contact names.

Failure to submit any of the above items may result in disqualification of the bid as incomplete.

### **SELECTION OF BIDDER**

The Owner reserves the right to govern selection of a bidder in accordance with the work to be done; equipment and qualified labor and superintendence to be furnished; experience; resources; and the lowest priced responsible and complete bid. The Owner reserves the right to waive any or all technicalities, to reject any or all bids, and to make an award in the best interest of the Village.

### **CONTRACT BOND REQUIRED**

The successful bidder, prior to the execution of the Contract by the Owner, shall furnish to the Owner a surety bond in the sum equal to the full amount of the Bid, in the form of a Contract Bond. All proposals shall be submitted on the basis of furnishing this bond executed by a corporate surety company licensed to do business in the State of Illinois. The costs of executing the Contract, furnishing the Contract Bond and Proof of Insurance, and other documents required, including all Notarial fees and expenses, are to be paid by the Bidder to whom the award is made. The cost of same shall be included in the total amount bid, with no extra compensation paid by the Owner.

### **RETURN OF PROPOSAL GUARANTY**

The proposal guaranty of the successful bidder will be retained until the Owner has accepted the CONTRACTOR'S executed Contract, Contract Bond, Proof of Insurance, and executed the Contract. The Proposal guaranties of the two next lowest apparent bidders will also be retained until the Contract has been executed by the Owner.

## **PROJECT SPECIFICATIONS AND SPECIAL PROVISIONS**

### **EMERGENCY FLASHING BEACON INSTALLATION IL ROUTE 21 (MILWAUKEE AVE) AT MANCHESTER DRIVE GURNEE, ILLINOIS**

THE FOLLOWING SPECIAL PROVISIONS SUPPLEMENT THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED APRIL 1, 2016, THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", THE "MANUAL OF TEST PROCEDURES FOR MATERIALS" IN EFFECT ON THE DATE OF INVITATION FOR BIDS AND THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" INDICATED ON THE CHECK SHEET INCLUDED HEREIN WHICH APPLY TO AND GOVERN THE PROPOSED IMPROVEMENTS, AND IN CASE OF CONFLICT WITH ANY PART OR PARTS OF SAID SPECIFICATIONS, THE SAID SPECIAL PROVISIONS SHALL TAKE PRECEDENCE AND SHALL GOVERN.

#### **SERVICE INSTALLATION (TRAFFIC SIGNALS)**

Effective: May 22, 2002

Revised: June 15, 2016

805.01TS

Revise Section 805 of the Standard Specifications to read:

#### Description.

This work shall consist of all materials and labor required to install, modify, or extend the electric service installation. All installations shall meet the requirements of the "District One Standard Traffic Signal Design Details".

#### General.

The electric service installation shall be the electric service disconnecting means and it shall be identified as suitable for use as service equipment.

The electric utility contact information is noted on the plans and represents the current information at the time of contract preparation. The Contractor must request in writing for service and/or service modification within 10 days of contract award and must follow-up with the electric utility to assure all necessary documents and payment are received by the utility. The Contractor shall forward copies of all correspondence between the contractor and utility company to the Village Engineer. The service agreement and sketch shall be submitted for signature to the Village of Gurnee.

## Materials.

- a. General. The completed control panel shall be constructed in accordance with UL Std. 508A, Industrial Control Panel, and carry the UL label. Wire terminations shall be UL listed.
- b. Enclosures.
  1. Pole Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 4X, unfinished single door design, fabricated from minimum 0.080-inch (2.03 mm) thick Type 5052 H-32 aluminum. Seams shall be continuous welded and ground smooth. Stainless steel screws and clamps shall secure the cover and assure a watertight seal. The cover shall be removable by pulling the continuous stainless steel hinge pin. The cabinet shall have an oil-resistant gasket and a lock kit shall be provided with an internal O-ring in the locking mechanism assuring a watertight and dust-tight seal. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 14-inches (350 mm) high, 9-inches (225 mm) wide and 8-inches (200 mm) in depth is required. The cabinet shall be channel mounted to a wooden utility pole using assemblies recommended by the vendor.
  2. Ground Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 3R unfinished single door design with back panel. The cabinet shall be fabricated from Type 5052 H-32 aluminum with the frame and door 0.125-inch (3.175 mm) thick, the top 0.250-inch (6.350 mm) thick and the bottom 0.500-inch (12.70 mm) thick. Seams shall be continuous welded and ground smooth. The door and door opening shall be double flanged. The door shall be approximately 80% of the front surface, with a full length tamperproof stainless steel .075-inch (1.91 mm) thick hinge bolted to the cabinet with stainless steel carriage bolts and nylocks nuts. The locking mechanism shall be slam-latch type with a keyhole cover. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 40-inches (1000 mm) high, 16-inches (400 mm) wide and 15-inches (375 mm) in depth is required. The cabinet shall be mounted upon a square Type A concrete foundation as indicated on the plans. The foundation is paid for separately.
  3. All enclosures shall include a green external power indicator LED light with circuitry as shown in the Electrical Service-Panel Diagram detail sheet. For pole mounted service enclosures, the power indicator light shall be mounted as shown in the detail. For ground mounted enclosures, the power indicator light shall be mounted on the side of the enclosure most visible from the major roadway.
- c. Electric Utility Meter Housing and Riser. The electric meter housing and meter socket shall be supplied and installed by the contractor. The contractor is to coordinate the work to be performed and the materials required with the utility company to make the

- final connection at the power source. Electric utility required risers, weather/service head and any other materials necessary for connection shall also be included in the pay item. Materials shall be in accordance with the electric utility's requirements. For ground-mounted service, the electric utility meter housing shall be mounted to the enclosure. The meter shall be supplied by the utility company. Metered service shall not be used unless specified in the plans.
- d. Surge Protector. Overvoltage protection, with LED indicator, shall be provided for the 120 volt load circuit by the means MOV and thermal fusing technology. The response time shall be <5n seconds and operate within a range of -40C to +85C. The surge protector shall be UL 1449 Listed.
  - e. Circuit Breakers. Circuit breakers shall be standard UL listed molded case, thermal-magnetic bolt-on type circuit breakers with trip free indicating handles. 120 volt circuit breakers shall have an interrupting rating of not less than 65,000 rms symmetrical amperes. Unless otherwise indicated, the main disconnect circuit breaker for the traffic signal controller shall be rated 60 amperes, 120 V and the auxiliary circuit breakers shall be rated 10 amperes, 120 V.
  - f. Fuses, Fuseholders and Power Indicating Light. Fuses shall be small-dimensional cylindrical fuses of the dual element time-delay type. The fuses shall be rated for 600 V AC and shall have a UL listed interrupting rating of not less than 10,000 rms symmetrical amperes at rated voltage. The power indicating light shall be LED type with a green colored lens and shall be energized when electric utility power is present.
  - g. Ground and Neutral Bus Bars. A single copper ground and neutral bus bar, mounted on the equipment panel shall be provided. Ground and neutral conductors shall be separated on the bus bar. Compression lugs, plus 2 spare lugs, shall be sized to accommodate the cables with the heads of the connector screws painted green for ground connections and white for neutral connections.
  - h. Utility Services Connection. The Contractor shall notify the Utility Company marketing representative a minimum of 30 working days prior to the anticipated date of hook-up. This 30 day advance notification will begin only after the Utility Company marketing representative has received service charge payments from the Contractor. Prior to contacting the Utility Company marketing representative for service connection, the service installation controller cabinet and cable must be installed for inspection by the Utility Company.
  - i. Ground Rod. Ground rods shall be copper-clad steel, a minimum of 10 feet (3.0m) in length, and 3/4 inch (20mm) in diameter. Ground rod resistance measurements to ground shall be 25 ohms or less. If necessary additional rods shall be installed to meet resistance requirements at no additional cost to the contract.

### Installation.

- a. General. The Contractor shall confirm the orientation of the traffic service installation and its door side with the engineer, prior to installation. All conduit entrances into the service installation shall be sealed with a pliable waterproof material.
- b. Pole Mounted. Brackets designed for pole mounting shall be used. All mounting hardware shall be stainless steel. Mounting height shall be as noted on the plans or as directed by the Engineer.
- c. Ground Mounted. The service installation shall be mounted plumb and level on the foundation and fastened to the anchor bolts with hot-dipped galvanized or stainless steel nuts and washers. The space between the bottom of the enclosure and the top of the foundation shall be caulked at the base with silicone.

### Basis of Payment.

The service installation shall be paid for at the contract unit price each for SERVICE INSTALLATION of the type specified which shall be payment in full for furnishing and installing the service installation complete. The CONCRETE FOUNDATION, TYPE A, which includes the ground rod, shall be paid for separately. SERVICE INSTALLATION, POLE MOUNTED shall include the 3/4 inch (20mm) grounding conduit, ground rod, and pole mount assembly. SERVICE INSTALLATION shall include a ground mounted disconnect. Any charges by the utility companies shall be approved by the engineer and paid for as an addition to the contract according to Article 109.05 of the Standard Specifications.

## **UNDERGROUND RACEWAYS**

Effective: May 22, 2002

Revised: July 1, 2015

810.02TS

Revise Article 810.04 of the Standard Specifications to read:

“Installation. All underground conduits shall have a minimum depth of 30-inches (700 mm) below the finished grade.”

Add the following to Article 810.04 of the Standard Specifications:

“All metal conduit installed underground shall be Rigid Steel Conduit unless otherwise indicated on the plans.”

Add the following to Article 810.04 of the Standard Specifications:

“All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or



pedestal shall extend a minimum of 300 mm (12") or the length shown on the plans beyond the structure or duct bank. The end of this extension shall be capped and sealed with a cap designed for the conduit to be capped.

The ends of rigid metal conduit to be capped shall be threaded, the threads protected with full galvanizing, and capped with a threaded galvanized steel cap.

The ends of rigid nonmetallic conduit and coilable nonmetallic conduit shall be capped with a rigid PVC cap of not less than 3 mm (0.125") thick. The cap shall be sealed to the conduit using a room-temperature-vulcanizing (RTV) sealant compatible with the material of both the cap and the conduit. A washer or similar metal ring shall be glued to the inside center of the cap with epoxy, and the pull cord shall be tied to this ring."

## **HANDHOLES**

### Description.

Add the following to Section 814 of the Standard Specifications:

All conduits shall enter the handhole at a depth of 30 inches (762 mm) except for the conduits for detector loops when the handhole is less than 5 feet (1.52 m) from the detector loop. All conduit ends should be sealed with a waterproof sealant to prevent the entrance of contaminants into the handhole.

Steel cable hooks shall be coated with hot-dipped galvanization in accordance with AASHTO Specification M111. Hooks shall be a minimum of 1/2 inch (13 mm) diameter with two 90-degree bends and extend into the handhole at least 6 inches (152 mm). Hooks shall be placed a minimum of 12 inches (305 mm) below the lid or lower if additional space is required.

Precast round handholes shall not be used unless called out on the plans.

The cover of the handhole frame shall be labeled "Traffic Signals" with legible raised letters. Only handholes serving IDOT traffic signal equipment shall have this label. Handhole covers for Red Light Running Cameras shall be labeled "RLRC".

Revise the third paragraph of Article 814.03 of the Standard Specifications to read:

"Handholes shall be constructed as shown on the plans and shall be cast-in-place, or precast concrete units. Heavy duty handholes shall be either cast-in-place or precast concrete units."

Add the following to Article 814.03 of the Standard Specifications:

“(c) Precast Concrete. Precast concrete handholes shall be fabricated according to Article 1042.17. Where a handhole is contiguous to a sidewalk, preformed joint filler of 1/2 inch (13 mm) thickness shall be placed between the handhole and the sidewalk.”

#### Cast-In-Place Handholes.

All cast-in-place handholes shall be concrete, with inside dimensions of 21-1/2 inches (546 mm) minimum. Frames and lid openings shall match this dimension.

For grounding purposes, the handhole frame shall have provisions for a 7/16 inch (11 mm) diameter stainless steel bolt cast into the frame. The covers shall have a stainless-steel threaded stint extended from the eye hook assembly for the purpose of attaching the grounding conductor to the handhole cover.

The minimum wall thickness for heavy duty hand holes shall be 12 inches (305mm).

#### Precast Round Handholes.

All precast handholes shall be concrete, with inside dimensions of 30 inches (762mm) diameter. Frames and covers shall have a minimum opening of 26 inches (660mm) and no larger than the inside diameter of the handhole.

For grounding purposes, the handhole frame shall have provisions for a 7/16-inch (11 mm) diameter stainless steel bolt cast into the frame. For the purpose of attaching the grounding conductor to the handhole cover, the covers shall either have a 7/16-inch (11 mm) diameter stainless steel bolt cast into the cover or a stainless-steel threaded stint extended from an eye hook assembly. A hole may be drilled for the bolt if one cannot be cast into the frame or cover. The head of the bolt shall be flush or lower than the top surface of the cover.

The minimum wall thickness for precast heavy-duty hand holes shall be 6 inches (152 mm).

Precast round handholes shall be only produced by an approved precast vendor.

#### Materials.

Add the following to Section 1042 of the Standard Specifications:

“1042.17 Precast Concrete Handholes. Precast concrete handholes shall be according to Articles 1042.03(a)(c)(d)(e).”

**ELECTRIC CABLE**

Effective: May 22, 2002

Revised: July 1, 2015

873.01TS

Delete "or stranded, and No. 12 or" from the last sentence of Article 1076.04 (a) of the Standard Specifications.

Add the following to the Article 1076.04(d) of the Standard Specifications:

Service cable may be single or multiple conductor cable.

**EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C**

Effective: January 1, 2013

Revised: July 1, 2015

873.03TS

This work shall consist of furnishing and installing lead-in cable for light detectors installed at flashing beacon installations as part of an emergency vehicle priority system. The work includes installation of the lead-in cables in existing and/or new conduit. The electric cable shall be shielded and have (3) stranded conductors, colored blue, orange, and yellow with a stranded tinned copper drain wire. The cable shall meet the requirements of the vendor of the Emergency Vehicle Priority System Equipment.

**Basis of Payment.**

This work will be paid for at the contract unit price per foot for EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C, which price shall be payment in full for furnishing, installing and making all electrical connections necessary for proper operations.

**TRAFFIC SIGNAL POST**

Effective: May 22, 2002

Revised: November 01, 2018

875.01TS

Revise Article 1077.01 (c) of the Standard Specifications to read:

- (c) Anchor Rods. The anchor rods shall be a minimum of 5/8 in. in diameter and 16 in. long and shall be according to Article 1006.09. The anchor rods shall be threaded approximately 6 in. at one end and have a bend at the other end. The first 12 in. at the threaded end shall be galvanized. One each galvanized nut and washer shall be furnished with each anchor rod. The washer shall be properly sized to fully engage and sit flush on all sides of the slot of the base plate.

Revise the first sentence of Article 1077.01 (d) of the Standard Specifications to read:

All posts shall be steel and bases shall be cast iron. All posts and bases shall be hot dipped galvanized according to AASHTO M 111. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with 851.01TS TRAFFIC SIGNAL PAINTING Special Provisions.

### **CONCRETE FOUNDATIONS**

Effective: May 22, 2002

Revised: November 01, 2018

878.01TS

Add the following to Article 878.03 of the Standard Specifications:

All anchor bolts shall be according to Article 1006.09, with all anchor bolts hot dipped galvanized a minimum of 12 in. at the threaded end.

No foundation is to be poured until the Resident Engineer gives his/her approval as to the depth of the foundation.

Add the following to the first paragraph of Article 878.05 of the Standard Specifications:

### **LIGHT EMITTING DIODE (LED) SIGNAL HEAD AND OPTICALLY PROGRAMMED LED SIGNAL HEAD**

Effective: May 22, 2002

Revised: July 1, 2015

880.01TS

#### Materials.

Add the following to Section 1078 of the Standard Specifications:

1. LED modules proposed for use and not previously approved by IDOT District One will require independent testing for compliance to current VTCSH-ITE standards for the product and be Intertek ETL Verified. This would include modules from new vendors and new models from IDOT District One approved vendors.
2. The proposed independent testing facility shall be approved by IDOT District One. Independent testing must include a minimum of two (2) randomly selected modules of each type of module (i.e. ball, arrow, pedestrian, etc.) used in the District and include as a minimum Luminous Intensity and Chromaticity tests. However, complete module performance verification testing may be required by the Engineer to assure the accuracy of the vendor's published data and previous test results. Independent test results shall meet current ITE standards and vendor's published data. Any module failures shall require retesting of the module type. All costs associated with the

selection of sample modules, testing, reporting, and retesting, if applicable, shall be the responsibility of the LED module vendor and not be a cost to this contract.

3. All signal heads shall provide 12" (300 mm) displays with glossy yellow or black polycarbonate housings. All head housings shall be the same color (yellow or black) at the intersection. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on. Post top mounting collars are required on all posts, and shall be constructed of the same material as the brackets.
4. The LED signal modules shall be replaced or repaired if an LED signal module fails to function as intended due to workmanship or material defects within the first 7 years from the date of TURN-ON. LED signal modules which exhibit luminous intensities less than the minimum values specified in Table 1 of the ITE Vehicle Traffic Control Signal Heads: Light Emitting Diode (LED) Circular Signal Supplement (June 27, 2005) [VTSCH], or applicable successor ITE specifications, or show signs of entrance of moisture or contaminants within the first 7 years of the date of TURN-ON shall be replaced or repaired. The vendor's written warranty for the LED signal modules shall be dated, signed by a vendor's representative and included in the product submittal to the Village.

(a) Physical and Mechanical Requirements

1. Modules can be manufactured under this specification for the following faces:
  - a. 12 inch (300 mm) circular, multi-section
  - b. 12 inch (300 mm) arrow, multi-section
2. The maximum weight of a module shall be 4 lbs. (1.8 kg).
3. Each module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.), and shall be weather proof after installation and connection.
5. The lens of the module shall be tinted with a wavelength-matched color to reduce sun phantom effect and enhance on/off contrast. The tinting shall be uniform across the lens face. Polymeric lens shall provide a surface coating or chemical surface treatment applied to provide abrasion resistance. The lens of the module shall be integral to the unit, convex with a smooth outer surface and made of plastic. The lens shall have a textured surface to reduce glare.
6. The use of tinting or other materials to enhance ON/OFF contrasts shall not affect chromaticity and shall be uniform across the face of the lens.

7. Each module shall have a symbol of the type of module (i.e. circle, arrow, etc.) in the color of the module. The symbol shall be 1 inch (25.4 mm) in diameter. Additionally, the color shall be written out in 1/2 inch (12.7mm) letters next to the symbol.

(b) Photometric Requirements

4. The LEDs utilized in the modules shall be AllnGaP technology for red and InGaN for green and amber indications, and shall be the ultra bright type rated for 100,000 hours of continuous operation from -40 °C to +74 °C.

(c) Electrical

1. Maximum power consumption for LED modules is per Table 2.
2. Operating voltage of the modules shall be 120 VAC. All parameters shall be measured at this voltage.
3. The modules shall be operationally compatible with currently used controller assemblies (solid state load switches, flashers, and conflict monitors).
4. When a current of 20 mA AC (or less) is applied to the unit, the voltage read across the two leads shall be 15 VAC or less.
5. The LED modules shall provide constant light output under power. Modules with dimming capabilities shall have the option disabled or set on a non-dimming operation.
6. LED arrows shall be wired such that a catastrophic loss or the failure of one or more LED will not result in the loss of the entire module.

(d) Retrofit Traffic Signal Module

1. The following specification requirements apply to the Retrofit module only. All general specifications apply unless specifically superseded in this section.
2. Retrofit modules can be manufactured under this specification for the following faces:
  - a. 12 inch (300 mm) circular, multi-section
  - b. 12 inch (300 mm) arrow, multi-section
3. Each Retrofit module shall be designed to be installed in the doorframe of a standard traffic signal housing. The Retrofit module shall be sealed in the doorframe with a one-piece EPDM (ethylene propylene rubber) gasket.

4. The maximum weight of a Retrofit module shall be 4 lbs. (1.8 kg).
  5. Each Retrofit module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.), and shall be weather proof after installation and connection.
  6. Electrical conductors for modules, including Retrofit modules, shall be 39.4 inches (1m) in length, with quick disconnect terminals attached.
  7. The lens of the Retrofit module shall be integral to the unit, shall be convex with a smooth outer surface and made of plastic or of glass.
- (e) The following specification requirements apply to the 12 inch (300 mm) arrow module only. All general specifications apply unless specifically superseded in this section.
1. The arrow module shall meet specifications stated in Section 9.01 of the Equipment and Material Standards of the Institute of Transportation Engineers (November 1998) [ITE Standards], Chapter 2 (Vehicle Traffic Control Signal Heads) or applicable successor ITE specifications for arrow indications.
  2. The LEDs arrow indication shall be a solid display with a minimum of three (3) outlining rows of LEDs and at least one (1) fill row of LEDs.
- (f) The following specification requirement applies to the 12 inch (300 mm) programmed visibility (PV) module only. All general specifications apply unless specifically superseded in this section.
1. The LED module shall be a module designed and constructed to be installed in a programmed visibility (PV) signal housing without modification to the housing.

#### Basis of Payment.

Add the following to the first paragraph of Article 880.04 of the Standard Specifications:

The price shall include furnishing the equipment described above, all mounting hardware and installing them in satisfactory operating condition.

Revise the second paragraph of Article 880.04 of the Standard Specifications to read:  
If the work consists of retrofitting an existing polycarbonate traffic signal head with light emitting diodes (LEDs), it will be paid for as a SIGNAL HEAD, LED, RETROFIT, of the type specified, and of the particular kind of material, when specified. Price shall be payment in full for removal of the existing module, furnishing the equipment described above including LED modules, all mounting hardware, and installing them in satisfactory operating condition. The type specified will indicate the number of signal faces, the number of signal sections in each signal face and the method of mounting.

## **FLASHING BEACON INSTALLATION, RELOCATION AND REMOVAL**

Effective: January 1, 2007

Revised: July 1, 2015

880.02TS

This work shall consist of furnishing and installing a new flashing beacon installation, solar powered flashing beacon installation, relocation of existing flashing beacon, and/or the removal of the existing flashing beacon installation as shown on the plans and as described herein. The energy charges for the operation of the flashing beacon installation shall be paid for by the Village of Gurnee unless otherwise directed by the Engineer.

The installation, relocation and removal of flashing beacon installation shall be according to the applicable portions of Sections 800 and 1000 of the Standard Specifications for Road and Bridge Construction and District 1 Flashing Beacon Installation Details except as revised herein. LED signal heads shall be as modified in 880.01TS LED SIGNAL HEAD AND OPTICALLY PROGRAMMED LED SIGNAL HEAD Special Provision.

- (a) Flashing Beacon Installation. This item shall consist of installing a post mounted 12 inch (300 mm) L.E.D. section red or yellow flashing beacon on a new or existing post as shown on the plans or as directed by the Engineer. The number of sections (red or yellow) shall be as specified on the plans. This item shall include furnishing and installing a flasher controller in an aluminum cabinet, or integrated within the signal head, 12 inch (300 mm) L.E.D. red or yellow signal sections with a dimmer if required by the Engineer, and all other hardware necessary to complete the installation.
- (b) Solar Powered Flashing Beacon Installation. This item shall consist of installation of a solar powered flashing beacon, post mounted as shown on the plans or as directed by the Engineer. This item shall consist of furnishing and installing a 12 inch (300 mm) red or yellow flashing module on a new or existing post as shown on the plans or as directed by the Engineer. The number of sections (red or yellow) shall be as specified on the plans. This item shall include furnishing and installing a flasher controller that is integrated within the signal head, with discrete solar panels, LED module, battery, electronics, compact housing and be capable of operating 24 hours, 7 days a week. The flasher unit shall be installed on standard wood or metal posts. The flash pattern shall be MUTCD compliant and have alternate flash patterns available. The battery shall have a life span of a minimum of 5 years and be field replaceable. The battery and electronics may be located inside the solar panel housing or signal head. The sections of the flasher unit shall be secured with tamper resistant stainless steel hardware and unless otherwise noted, the housing shall be black in color.
- (c) Relocate Existing Flashing Beacon. Relocation of an existing flashing beacon installation, as shown on the plans or as directed by the Engineer, shall meet the above requirements. This work shall include the complete relocation of the existing flashing beacon installation, the backfilling of the holes created by the removal of the poles, restoration of the surface to match the adjoining area.
- (d) Remove Existing Flashing Beacon Installation Complete. Removal of an existing flashing beacon installation shall be as shown on the plans or as directed by the Engineer and shall be according to applicable portions of Section 895 of the Standard Specifications.



This work shall include a complete removal of an existing flashing beacon installation, backfilling of the holes created by the removal of the poles and restoration of the surface to match the adjoining area. The flashing beacon installation will be removed only after the permanent signal installation is accepted for maintenance, or as directed by the Engineer.

#### Basis of Payment.

This work shall be paid for at the contract unit price each for FLASHING BEACON INSTALLATION; SOLAR POWERED FLASHING BEACON INSTALLATION; RELOCATE EXISTING FLASHING BEACON or REMOVE EXISTING FLASHING BEACON INSTALLATION COMPLETE. The price shall be payment in full for all labor and material necessary to complete the work described above.

### **EXPLORATORY EXCAVATION**

#### General

The contractor shall be responsible for verifying the locations of all existing utilities prior to construction. The contractor shall contact JULIE for utility locates and conduct an exploratory excavation to confirm the location and depth of the existing utilities that may be in conflict with the proposed work. If the contractor determines an existing utility is in conflict with the proposed design, the Contractor shall contact the Engineer immediately for appropriate design modifications.

The contractor shall make the necessary repairs to the disturbed area to ensure a safe surface exists for the general public. The contractor shall be liable for any and all damages incurred due to the exploratory excavation including sod and pavement restoration. This pay item also includes any required traffic control meeting IDOT Highway Standards if the conflicting utility is located in or near the roadway.

#### Basis of Payment

This item will be paid for at the contract unit FOOT for EXPLORATORY EXCAVATION, which price shall be payment in full for furnishing all the labor, materials, and equipment necessary for pre-construction exploratory excavation and repairing the surface to the satisfaction of the Engineer.

### **TRAFFIC CONTROL AND PROTECTION, COMPLETE**

#### Description

This work shall consist of providing traffic control and protection, complete within the work zone in accordance with all applicable IDOT standards for lane closures, sidewalk closures and shoulder closures. The IDOT standards include, but are not limited to, the items listed under STANDARDS below.

**Standards:** 701101, 701602, 701801, 701901

#### Basis of Payment

The work shall be paid for at contract unit price per EACH of TRAFFIC CONTROL AND PROTECTION, COMPLETE.

## **TOPSOIL PLACEMENT 4", SEEDING AND BLANKET**

### General

This work shall consist of furnishing topsoil, placement of topsoil, seeding and placement of an erosion control blanket in compliance with the requirements of Section 211, Section 250 and Section 251 of the Standard Specifications for Road and Bridge Construction. Topsoil shall conform to Article 1081.05(a) and as herein modified.

The contractor shall remove any excess excavation and spread four inches (4") minimum of topsoil, seed and install a blanket on all disturbed areas in accordance with Sections 250 and 251 of the Standard Specifications. Topsoil placement shall be in such a manner to establish positive drainage and conform to the design line and grades to create a smooth transition to the existing grade of the adjacent area. No seed shall be placed until the topsoil placement has been inspected and approved by the Engineer.

Seeding mixture shall be a Class 1 – Lawn Mixture as indicated in Table 1 of Section 250. Fertilizer shall be applied at the rate as indicated in Article 250.04 for the entire area to be seeded. All seeded areas shall be covered with a blanket as specified. The blanket shall be secured with biodegradable stakes placed per the manufactures recommendations.

After the restored areas have gone through one winter, the contractor shall, in early spring, fill any depressions with topsoil and reseed and mulch areas where grass has not taken hold, and repeat such operations until a complete grass cover has been established and approved by the Engineer.

### Basis of Payment

This work described above shall be paid for at the Contract Unit Price per Square Yard for TOPSOIL PLACEMENT 4", SEEDING AND BLANKET which includes furnishing and topsoil placement, seeding, fertilizer nutrients, and blanket as specified.