

**VILLAGE OF DOBBS FERRY
WESTCHESTER COUNTY, N.Y.**

**PROPOSAL,
CONTRACT FORMS AND
TECHNICAL SPECIFICATIONS**

**PEDESTRIAN IMPROVEMENTS AT THE
INTERSECTION OF ASHFORD AVENUE
& GRANDVIEW AVENUE/STORM
STREET**

SEPTEMBER 2023

Village of Dobbs Ferry

112 Main Street

Dobbs Ferry, New York 10522

www.dobbsferry.com

PREPARED BY:
 **NELSON+POPE**

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NOTICE TO BIDDERS
**IMPROVEMENTS TO THE INTERSECTION OF ASHFORD AVENUE, STORM STREET &
GRANDVIEW
VILLAGE OF DOBBS FERRY
WESTCHESTER COUNTY, NEW YORK**

NOTICE IS HEREBY GIVEN that sealed bids for performing the work herein described will be received by the Village of Dobbs Ferry, NY, at the Office of the Village Administrator, Village Hall, 112 Main Street, Dobbs Ferry, NY 10522, until **October 2, 2023 at 10:00 AM** and immediately thereafter the bids will be opened and read aloud for the furnishing and/or installing of the following:

Various improvements at the intersection of Ashford Avenue, Storm Street and Grandview to improve existing conditions and pedestrian safety.

No bids will be received or considered after the time stated above.

Specifications and Bid Proposal Forms will be available on **Friday, September 15, 2023**. Bid Package may be obtained at <https://www.dobbsferry.com/home/pages/bids-rfps> or at Village Hall. Please contact Village Clerk Liz Dreaper at ldreaper@dobbsferry.com, if the Bid Package was downloaded online, for any and all updates and addendums that may arise.

A bid bond, certified check or bank check in the amount of 5% of bid must accompany the bid proposal. All bids must be submitted in a sealed envelope bearing the name and address of the bidder and clearly marked “**BID FOR IMPROVEMENTS TO THE INTERSECTION OF ASHFORD AVE, STORM ST. & GRANDVIEW**”.

The Village Administrator reserves the right to accept or reject any or all bids and to waive any informalities at his discretion, and to award contracts in a manner deemed to be in the best interests of the Village of Dobbs Ferry even if such award is to other than the lowest bidder.

All technical questions should be directed to Nelson + Pope, Engineers & Surveyors, (631) 427-5665 (jdeluca@nelsonpope.com) .

Robert Yamuder
Village Administrator
Village of Dobbs Ferry

Date of Publication: September 15, 2023

VILLAGE OF DOBBS FERRY

Proposer Information

Firm: _____

Street Address: _____

Town, State, Zip _____

Telephone: _____

Signature of person authorized to make this proposal and sign contracts as may be required

(Print name) _____ Title _____

Signature _____

Contact Name: _____

Title: _____

Office Telephone: _____

Cell Number: _____

Email Address: _____

Alternate Contact Name: _____

Title: _____

Office Telephone: _____

Cell Number: _____

Email Address: _____

Acknowledgement Receipt of Addenda:

#1 _____

#2 _____

#3 _____

SIGNATURE DIRECTIONS

- (1) Where a bidder is a firm, the bid must be signed in the name of the firm by a member of the firm who must sign his/her own name immediately thereunder as _____, partner.
- (2) Where a bidder is a corporation, the bid must be signed in the name of the corporation by a duly authorized officer or agent thereof having knowledge of the matters stated in the bid and such officer or agent shall also subscribe their own name, the office they hold, and the seal of the corporation must be affixed.
- (3) The bid must be sworn to by the person signing it, using one of the appropriate forms of acknowledgement, which follow.
- (4) The bidders shall date the Form of Affidavit, fill in all blank spaces and complete the "Disclosure Statement," "Questionnaire," "Iranian Investment Activities Certification" and "Commercial Motor Vehicle Driver Drug and Alcohol Testing Program Questionnaire" which follow as part of bid.
- (5) In case of any discrepancy in the bidder's extensions or total, the Village's computation of extensions and totals will govern.

INSTRUCTION TO BIDDERS

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INSTRUCTION TO BIDDERS

1. RECEIPT AND OPENING OF BIDS

The Village of Dobbs Ferry invites bids on the forms herein provided for the project indicated in the Notice to Bidders, at the time, date and place as indicated in the Notice to Bidders.

2. FORM, PREPARATION AND PRESENTATION OF PROPOSAL

In submitting the bid, the bid sheets furnished are to be filled in but not detached from the contract form. In no case is the contract form to be filled in or signed by the bidder. The complete bid for this work shall be enclosed in a sealed envelope properly endorsed. All blank spaces for bid prices must be filled in, in ink, in both words and figures, with a total or gross sum for which the bid is made. Bids that contained an omission, erasure, alteration, addition or items not called for in the itemized bid form or that contain irregularities of any kind may be subject to rejection. In case of discrepancy between the unit price and total amount bid for any item, the unit price, as expressed in words, shall govern.

3. BID SECURITY

(a) Each proposal must be accompanied by either a certified check on a solvent bank or trust company doing business in New York, or an acceptable Bid Bond in an amount equal to not less than five percent (5%) of the total amount bid, made payable to the Village of Dobbs Ferry as assurance that the Contract will be executed if awarded to such bidder.

(b) THE BIDDER IS CAUTIONED THAT ITS BID MAY ONLY BE WITHDRAWN IN ACCORDANCE WITH THE REQUIREMENTS OF GENERAL MUNICIPAL LAW SECTION 103.11(a): In all contracts governed by this section, where a unilateral error or mistake is discovered in a bid, such bid may be withdrawn after a showing of the following: (1) the mistake is known or made known to the awarding officer, board or agency prior to the awarding of the contract or within three days after the opening of the bid, whichever period is shorter; and (2) the price bid was based on an error of such magnitude that enforcement would be unconscionable; and (3) the bid was submitted in good faith and the bidder submits credible evidence that the mistake was a clerical error as opposed to a judgment error; and (4) the error in the bid is actually due to an unintentional and substantial arithmetic error or an unintentional omission of a substantial quantity of work, labor, material, goods or services made directly in the compilation of the bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of the original work paper, documents, or materials used in the preparation of the bid sought to be withdrawn; and (5) it is possible to place the public agency, board, officer, or subdivision in status quo ante. THE BIDDERS WITHDRAWAL OF ITS BID FOR ANY OTHER REASON, OR THE BIDDER'S FAILURE OR REFUSAL TO DELIVER TO THE ATTORNEYS FOR THE VILLAGE THE REQUIRED INSURANCE DOCUMENTS, AND PERFORMANCE AND PAYMENT BONDS AND FULLY EXECUTED AND ACKNOWLEDGED CONTRACT BY THE BIDDER (THE "REQUIRED DOCUMENTS" WITHIN TEN (10) BUSINESS DAYS FROM

THE DATE OF THE VILLAGE'S NOTICE OF ACCEPTANCE OF THE BID, SHALL RESULT IN THE BID SECURITY BEING FORFEITED, UNLESS THAT TIME PERIOD, IN THE SOLE DISCRETION OF THE VILLAGE, IS EXTENDED.

(c) the bid security of the successful bidder will be retained until 10 days after the required documents have been received.

(d) the bid security of unsuccessful bidders shall be returned after the award of the bid contract.

4. QUALIFICATIONS OF BIDDERS

Forms for qualifications of bidders, giving evidence of sufficient facilities, equipment, experience and financial ability shall be not more than thirty days old at the time of submission. If a financial statement is already on file with the Village Clerk, a new one need not be submitted, provided the information contained therein is not more than thirty days old at the time of the opening of bids.

5. REJECTION OF BIDS

(a) The Village of Dobbs Ferry reserves the right to reject any bid if the evidence submitted in the qualifications statement or an investigation of such bidder fails to satisfy the Village that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

(b) The Village of Dobbs Ferry reserves the right to reject any and all bids in whole or in part, to waive any information in any or all bids, to waive any informalities in any or all bids and to accept the bid or part thereof which it deems most favorable to the Village after all bids have been examined and/or checked.

(c) To maintain the integrity of the Bid process, the Village reserves the right to reject any bids that are deemed incomplete, conditional, obscure, or which contain irregularities of any kind including unbalanced bids.

(d) An unbalanced bid is one in which the amount bid for one or more separate items is substantially out of line with current market prices for the materials and/or work covered thereby and wherein the hourly rates are lower than the published Prevailing Wage Rates as established by the New York State Department of Labor specific to the category/class of work required by the bid.

(e) Unbalanced Bids

(i) An unbalanced bid is a bid based upon some unit prices that are significantly less than the true costs for some work ("over valued items") and some unit prices that are significantly higher than the true costs for other work ("under valued items").

(ii) The purpose of providing unit prices for items is to establish the lowest responsible bidder; to equitably determine appropriate progress payments; to establish the amount to be paid to the contractor as items are increased or decreased during a project; and

to eliminate unnecessary issues, problems, and litigation. All of those purposes, and the entire competitive bidding process, are undermined when a contractor submits an unbalanced bid.

(iii) Accordingly, at the sole discretion of the Owner, an unbalanced bid may be rejected as non-responsive to the request for bids if the Owner determines that, if the bid is awarded:

[a] It will not result in the lowest ultimate cost to the Owner;

[b] It may result in frontloading the payments to the bidder, out of proportion to the value of the work that has been performed;

[c] It is probable that there will be a significant overpayment in the final contract price for an increase in actual units of an overvalued item;

[d] It is probable that there will be significant insufficient reduction in the final contract price for a reduction in actual units of an undervalued item;

[e] A payment for an overvalued item would be unconscionable and a waste of the Owner's funds; or

[d] It would significantly undermine the competitive bidding process.

(iv) In the event that an unbalanced bid is accepted, the Owner reserves the right to make progress payments based upon the actual value of the work performed, as a proportion of the entire value of the project, as determined by the Engineer and not on the basis of the unit prices bid.

(v) No change order requests will be approved by the Owner altering any bid unit prices based upon increases or decreases in quantities beyond or below the quantities set forth for the purpose of evaluating bids in the contract documents. The prohibition on such change orders shall govern all requests by the contractor regardless of whether such change order is based upon the Engineer's determination of construction practices or designs that may be altered because of field, or other unforeseen conditions, or merely the reconsideration of the Engineer or the Owner as to what construction is in the best interests of the Owner, and regardless of percentage changes in quantities.

(vi) No change orders will be issued altering any bid unit prices based upon increases or decreases in quantities beyond or below the quantities set forth for the purpose of evaluating bids in the contract documents.

6. BIDDERS RESPONSIBILITY

(a) Bidders are cautioned not to submit bids until after having inspected the site of the proposed project and having made themselves familiar with local conditions. The attention of persons intending to submit bids is specifically called to the paragraph of the Contract which debars a contractor from pleading misunderstanding or deception because of estimated quantities, character, location or other conditions surrounding the same. Special attention is called to the notes on the plans or in the itemized form of bid which are made a part of this contract which may alter or revise the specifications for the particular contract.

No representation is made as to the existence or nonexistence of groundwater which may in any way impede the work proposed to be accomplished. Each bidder shall fully inform himself as to groundwater and sub-surface conditions prior to submitting his/her bid.

(b) The bid shall include the complete cost of furnishing all materials, labor and equipment necessary to complete the work in accordance with the plans and specifications, including all other expenses incidental thereto.

(c) Bidders must examine the contract documents and exercise their own judgment as to the nature and amount of the whole of the work to be done, and for the bid prices, must assume all risks of variance by whomsoever made in computation or statement of amounts or quantities necessary to fully complete the work in strict compliance with the contract documents.

(e) The contractor shall assume all risks and responsibility and shall complete the work in whatever material and under whatever conditions it may encounter or create, without extra cost to the Village.

(f) No pleas of ignorance or misunderstanding of conditions that exist or that may hereafter exist, or of conditions of difficulties that may be encountered in the execution of the work under this contract as a result of failure to make the necessary examinations and investigations, will be a basis for the Contractor not to fulfill in every detail all of the requirements of the contract documents or will be accepted as a basis for any claims whatsoever for extra compensation, or for an extension of time.

7. CONSTRUCTION TERMS AND CONDITIONS

The successful bidder is warned that the work specified in this Bid Packet and instructions of the Village of Dobbs Ferry or its duly authorized representative will be rigidly enforced.

8. SECURITY FOR FAITHFUL PERFORMANCE

The successful bidder shall be required to execute a Performance and Payment Bond equal to one hundred percent (100%) of the amount of the contract. A surety company deemed acceptable to the Owner shall execute such bonds. The bonds shall be executed by a surety company authorized to transact business in New York State, with a rating of at least A-. The successful bidder, upon failure to deliver the Required Documents as hereinabove provide within ten (10) days after the date of notice of the acceptance of their bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his/her bid. The Contractor acknowledges that the Owner shall be

paid from the surety company that issued the Performance Bond the amount of any liquidated damages should the Contractor fail to comply with this Contract. No plea of mistake in such accepted bid shall be available to the bidder for the recovery of his/her deposit or as a defense to any action upon an accepted bid except as set forth in General Municipal Law §103(11)(a).

NOTWITHSTANDING ANY CASE LAW OF OTHER LAW TO THE CONTRARY, THE SURETY COMPANY SHALL BE LIABLE ON ITS PERFORMANCE BOND UNTIL FINAL ACCEPTANCE OF THE COMPLETION OF THE PROJECT BY THE OWNER, INCLUDING, BUT NOT LIMITED TO ALL PUNCH LIST ITEMS, EVEN THOUGH THERE MAY ALREADY HAVE BEEN SUBSTANTIAL COMPLETION OF THE CONTRACT.

9. MAINTENANCE BOND

The successful bidder shall furnish a maintenance bond of a surety company for not less than one hundred percent (100%) of the total amount of the contract as shown on the Engineer's Final Payment Certificate for a period of one (1) year commencing from the date of the approval by the Village of the Engineer's Final Payment Certificate.

Said bond shall assure the correction of any imperfection which may arise during the one (1) year period commencing from the date of the approval of the work by the Village of the Engineer's Final Payment Certificate and for an additional period of one year commencing on the date of the completion of any correction during such periods.

10. IRANIAN INVESTMENT ACTIVITIES CERTIFICATION

Each bidder shall be required to complete and submit with its bid an Iranian Investment Activities Certification in the form included as part of this Bid Packet.

11. DRUG AND ALCOHOL TESTING PROGRAM QUESTIONNAIRE

(a) If the bidder will be using any vehicles in the performance of its obligations under the contract for which the Omnibus Transportation Testing Act of 1991 (the "ACT") requires a drug and alcohol testing program, the bidder shall have a drug and alcohol testing program in place for all commercial drivers and shall comply with all of the testing and other requirements of the ACT.

(b) Unless the bidder states with its bid that it will not be using any vehicles in the performance of its obligations under the contract for which the ACT requires a drug and alcohol testing program, the bidder shall complete the Drug and Alcohol Testing Program Questionnaire contained herein to demonstrate compliance with the ACT. Failure to complete the Questionnaire or to state that it will not be using any vehicles in the performance of its obligations under the contract for which the ACT requires a drug and alcohol testing program may result in rejection of the bidder's bid. The Village or its designated representative may contact the Contractor and/or its Third-Party Administrator to determine whether or not the bidder is in compliance with the ACT.

12. FOREIGN CONTRACTORS

Foreign contractors must comply with the provisions of Articles 9A of the Tax Law, prior to submission of a bid for the performance of this work. The certificate of the NYS Tax

Commission to the effect that all taxes have been paid by the foreign contractor shall be conclusive proof of the payment of taxes. The term "foreign contractor" as used in this subdivision means in the case of an individual, a person who is a legal resident of another state or foreign country; and in the case of a foreign corporation one organized under the laws of a state other than the State of New York.

13. LIEN LAW

Attention of all persons submitting bids is specifically called to the provisions of Section 25, Subdivision 5, of the Lien Law, in relation to funds being received by a contractor for a public improvement declared to constitute trust funds in the hands of such Contractor to be applied first to the payment of certain claims.

14. SUBCONTRACTORS AND SUPPLIERS

Within five days after receipt from the Village to begin work, the Contractor will furnish written notice of names of all subcontractors to be employed on the project and the general items of work to be done by them. Simultaneously, the Contractor shall furnish written notice of the names of suppliers of materials to be used on the project. The Owner may disapprove for good cause any subcontractor or material supplier selected by the Contractor by giving written notice of its disapproval within five days after receiving the names of subcontractors and material suppliers to the Contractors who shall thereupon promptly notify the Owner of the names of the subcontractor or material supplier selected in replacement which shall again be subject to approval by the Owner.

15. GENERAL LAW

Attention is called to §764 of the General Business Law as follows:

1. No excavator shall commence or engage in any excavation or demolition unless and until timely notice is served of the location and date of the proposed excavation or demolition as provided in this article to operators who maintain underground facilities in the area in which the excavation or demolition is to take place. The provision of such notice to a one-call notification system is deemed to be compliance with this section; and notice to the one-call notification center is notice to each member. Such notice shall be served in accordance with the rules and regulations adopted by the public service commission pursuant to section one hundred nineteen-b of the public service law.
2. Prior to any excavation or demolition, the excavator shall verify the precise location of the underground facilities in a manner set forth in the rules and regulations adopted by the public service commission pursuant to section one hundred nineteen-b of the public service law.
3. An excavator may proceed with such work if it has received notice from each operator notified by the one-call system that it has no underground facility in or within fifteen feet of the proposed work area or that the operator marked any underground facility located in or within fifteen feet of the proposed work area.
4. An excavator engaged in excavation or demolition shall be responsible for protecting and preserving the staking, marking or other designation by the operator until no longer required for proper and safe excavation or demolition work at or near the underground facility, maintain clearance between the underground facility, and the cutting edge or point of any equipment to avoid damage to the underground facility and provide support

to and prevent damage to any underground facility or its protective coating, in the means and according to the methods set forth in the rules and regulations adopted by the public service commission pursuant to section one hundred nineteen-b of the public service law.

5. In the event of contact with and/or damage to an underground facility, the excavator shall immediately notify the operator of the facility and no backfilling shall be done by the excavator until inspection and/or repairs have been made by the operator and no repairs shall be undertaken by the excavator until authorized by the operator. In the event of an electrical short or the escape of gas or hazardous fluids endangering life, the excavator shall immediately notify the operator of the electric, gas or hazardous liquid underground facility and all persons who might be endangered and assist in the evacuation of such persons.

16. REFUSAL TO WAIVE IMMUNITY

Pursuant to the provisions of Section 103-a of the General Municipal Law, upon the refusal of a person, when called before a grand jury, head of a state department, temporary state commission or other state agency, the organized crime task force in the department of law, head of a city department, or other city agency, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or with any public department, agency or official of the state or of any political subdivision thereof or of a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract,

(a) such person, and any firm, partnership or corporation of which it is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any municipal corporation or fire district, or any public department, agency or official thereof, for goods, work or services, for a period of five years after such refusal, and to provide also that

(b) any and all contracts made with any municipal corporation or any public department, agency or official thereof on or after the first day of July, nineteen hundred fifty-nine or with any fire district or any agency or official thereof on or after the first day of September, nineteen hundred sixty, by such person and by any firm, partnership, or corporation of which it is a member, partner, director or officer may be cancelled or terminated by the municipal corporation or fire district without incurring any penalty or damages on account of such cancellation or termination, but any monies owing by the municipal corporation or fire district for goods delivered or work done prior to the cancellation or termination shall be paid.

17. ADDENDA AND INTERPRETATIONS

Every request for information or interpretation of the Contract Document or Drawings must be addressed in writing to the Engineer, and to be given any consideration, must be received at least five (5) days prior to the date fixed for the opening of bids. Any such interpretations or supplemental instructions will be in the form of written addenda, and will be mailed to all prospective bidders. The failure of any bidder to receive any such addenda will not relieve the bidder of any obligation under his/her bid as submitted. Any addenda so issued shall become part of the Contract Documents.

18. LIQUIDATED DAMAGES

Liquidated damages in the amount set forth in the Conditions of Contract attached hereto may be assessed for each consecutive calendar day of delay not excusable as provided in the Contract Documents.

19. EXEMPTION FROM SALES AND USE TAXES

In accordance with §1116 of the Tax Law, Contractors entering into this Contract with the Village shall be exempt from payment of sales and use tax as provided in that section. Procedures and forms are available to the Contractor direct from the Instructions and Interpretations Unit, State of New York, Department of Taxation and Finance, State Campus, Albany, New York, 12227.

20. METHOD OF AWARD

All bids will be compared based on the lowest bid price(s) submitted for the work to be done in addition to the qualifications of the bidder. Bidder may be requested to submit additional information such as references. The Village will make the award to the lowest responsible bidder. In cases where two or more responsible bidders submit identical bids as to price, the Village may award the contract to either of such bidders. The Village may reject and declare invalid any or all bids, or waive any information or informalities in the bid and award items as a whole or in part, or re-advertise for new bids in its discretion to the extent permitted by law.

21. SCOPE OF THE WORK

In awarding this Contract, the Village is not bound by the quantities stated in the Bid Form. It is emphasized that the quantities are approximations only. No guarantee is made for any quantities stated nor is a guarantee made for the total bid or alternate total bid. Such total bid or alternate total bid are for the purpose of guidance in awarding the Contract only. Payment shall be on the basis of actual work done at the unit prices quoted.

The Village reserves the right to increase or decrease quantities and to add or delete items that are supplementary and germane to the substance and intent of the bid/contract.

22. TIME FOR COMPLETION

The bidder, when submitting his/her bid, must be prepared to commence work not later than ten (10) days after signing the Contract unless the Village shall authorize a delay. The time for completion of all of the work contemplated under this Contract shall be one hundred sixty calendar days (60) from the Notice to Proceed from the Village. The entire work must be satisfactorily completed and the project improvements available for use within the completion time stipulated.

23. AFFIDAVIT ON COMPLETION

The Contractor, upon completion of the work, shall file with the Village an affidavit to the effect that all persons who did work or furnished materials to him/her under these

Specifications have been fully paid and satisfied, and that no mechanics liens exist against the work.

24. PAYMENTS

Within ten (10) days after the first of each month, while the work is in progress, the engineer will make an approximate estimate in writing of the total amount of work done and materials incorporated in the work to the first of said month, together with his/her written estimate of the value of said work and materials under the terms of the contract. Such estimate may be either by measurement or by estimation or partly by each method. On receipt of this estimate from the Engineer, the Owner shall pay to the Contractor the money or the balance of the money due and unpaid. Upon substantial completion of the work, Contractor may request progress payments subject to the approval of the Engineer. The Village will hold five percent (5%) of the amount approved until final completion. It is also agreed that payment for work or material does not constitute final acceptance, but that defective work or material may be deducted from a subsequent estimate. Upon completion of the work under this Contract, the Contractor shall notify the Engineer of his completion. The Engineer will then make a final inspection and submit to the contractor a "punch list", if required. Upon final acceptance of the work by the Engineer, and after the Contractor submits the necessary papers as may be required, the Contractor shall be paid in full less any previous payments made. Refer to Items 15 and 16 of the Conditions of Contract, contained herein for additional information and requirements.

All monthly verified claim forms, to the extend approved by the Engineer, will be paid by the Village, within five (5) days of the Board of Trustees meeting, next occurring five (5) days after receipt of the Claim form.

25. LABOR LAW

The Contractor and each and every subcontractor performing work at the site of the project to which this Contract relates shall comply with the applicable provisions of the Labor Law. Attention is called to certain provisions of the Labor Law, as set forth in the Conditions of Contract, which are hereby referred to and made of part hereof.

26. WAGE RATES

Federal Wage Rates and New York State Wage Rates – The Contractor is obligated to pay the higher of the two, as both are stated as minimum rates.

Prevailing wage rates pertain to all construction under this contract and are part of the contract herein.

27. INSURANCE REQUIRED BY THE VILLAGE

The successful bidder will be required to procure and pay for the insurance, set forth in the Conditions of Contract.

28. ORDER OF PRECEDENTS

In the event of any inconsistency or conflict in the interpretation among the documents of this bid, said conflict shall be resolved by giving precedence to the documents in the following order:

1. Specific Requirements of Contract
2. General Conditions of Contract
3. Conditions of Contract
4. Instructions to Bidders

The current schedule(s) of the prevailing wage rates and prevailing hourly supplements for this project can be found at the State of New York's Department of Labor Website.

(<https://applications.labor.ny.gov/wpp/showFindProject.do?method=showIt>)

Enter the project's Prevailing Wage Case Number 2023010888)

Kathy Hochul, Governor



Roberta Reardon, Commissioner

Village of Dobbs Ferry

Liz Walker
Nelson + Pope
70 Maxess Road
Melville NY 11747

Schedule Year 2023 through 2024
Date Requested 09/11/2023
PRC# 2023010888

Location Ashford Avenue
Project ID# 23--
Project Type Pedestrian Improvements at Intersection of Ashford/Grandview/Storm

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2023 through June 2024. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.ny.gov. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and /or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

**BID SHEET
LUMP SUM COST**

**VILLAGE OF DOBBS FERRY
WESTCHESTER COUNTY, NEW YORK**

To the Village of Dobbs Ferry:

The undersigned bidder has carefully examined the Contract Documents and the site for the proposed Construction and will provide all necessary labor, materials, equipment and incidentals necessary and called for the by the said Contract Documents in the manner prescribed therein and in said Contract, and in accordance with the requirements of the Engineer at the following unit and/or lump sum prices:

BASE BID TOTAL:

\$ _____

WRITTEN

IN

WORDS: _____

Village of Dobbs Ferry
Pedestrian Improvements at the Intersection of Ashford Ave and Grandview Ave /Storm St.
ITEMIZED PROPOSAL

SEPTEMBER 2023

BASE BID							
ITEM No.	APPROXIMATE VALUES		ITEMS WITH UNIT PRICE IN WORDS	CONTRACTOR'S UNIT BID PRICE		TOTAL COST	
	QUANTITY	UNIT		DOLLARS	CENTS	DOLLARS	CENTS
1	150	CY	UNCLASSIFIED EXCAVATION AND DISPOSAL FOR: _____ DOLLARS CENTS				
2	50	CY	SELECT FILL FOR: _____ DOLLARS CENTS				
3	3	EA	TEMPORARY SEDIMENT FILTER BAG FOR DRAINAGE STRUCTURES FOR: _____ DOLLARS CENTS				
4	15	CY	RCA BASE COURSE FOR: _____ DOLLARS CENTS				
5	10	TONS	HOT MIX ASPHALT CONCRETE TYPE 6 TOP COURSE FOR: _____ DOLLARS CENTS				
6	15	TONS	HOT MIX ASPHALT CONCRETE TYPE 3 BINDER COURSE FOR: _____ DOLLARS CENTS				

Village of Dobbs Ferry
Pedestrian Improvements at the Intersection of Ashford Ave and Grandview Ave /Storm St.
ITEMIZED PROPOSAL

SEPTEMBER 2023

ITEM No.	APPROXIMATE VALUES		ITEMS WITH UNIT PRICE IN WORDS	CONTRACTOR'S UNIT BID PRICE		TOTAL COST	
	QUANTITY	UNIT		DOLLARS	CENTS	DOLLARS	CENTS
7	5	GAL	BITUMINOUS TACK COAT FOR: _____ DOLLARS CENTS				
8	410	LF	SAWCUTTING ASPHALT OR CONCRETE PAVEMENTS FOR: _____ DOLLARS CENTS				
9	50	LF	FURNISH & INSTALL 15" DIAMETER CORRUGATED SMOOTH INTERIOR POLYETHYLENE PIPE FOR: _____ DOLLARS CENTS				
10	1	EA	ALTERING DRAINAGE STRUCTURES, LEACHING BASINS AND MANHOLES FOR: _____ DOLLARS CENTS				
11	1	EA	REBUILDING TOP OF EXISTING DRAINAGE STRUCTURES FOR: _____ DOLLARS CENTS				
12	1	EA	CONNECTIONS TO EXISTING DRAINAGE FACILITIES FOR: _____ DOLLARS CENTS				

Village of Dobbs Ferry
Pedestrian Improvements at the Intersection of Ashford Ave and Grandview Ave /Storm St.
ITEMIZED PROPOSAL

SEPTEMBER 2023

ITEM No.	APPROXIMATE VALUES		ITEMS WITH UNIT PRICE IN WORDS	CONTRACTOR'S UNIT BID PRICE		TOTAL COST	
	QUANTITY	UNIT		DOLLARS	CENTS	DOLLARS	CENTS
13	10	VF	FURNISH AND INSTALL CATCH BASIN TYPE A - MOD FOR: _____ DOLLARS CENTS				
14	3,500	SF	CONCRETE SIDEWALKS AND DRIVEWAYS (REINFORCED) FOR: _____ DOLLARS CENTS				
15	7	SY	EMBEDDED DETECTABLE WARNING UNITS FOR: _____ DOLLARS CENTS				
16	300	LF	CAST-IN-PLACE CONCRETE CURB (GRADING INCLUDED) FOR: _____ DOLLARS CENTS				
17	10	EA	FURNISH & INSTALL GROUND MOUNTED SIGNS & POSTS FOR: _____ DOLLARS CENTS				
18A	1	EA	FURNISH & INSTALL CURBBOX, FRAME AND GRATE FOR: _____ DOLLARS CENTS				

Village of Dobbs Ferry
Pedestrian Improvements at the Intersection of Ashford Ave and Grandview Ave /Storm St.
ITEMIZED PROPOSAL

SEPTEMBER 2023

ITEM No.	APPROXIMATE VALUES		ITEMS WITH UNIT PRICE IN WORDS	CONTRACTOR'S UNIT BID PRICE		TOTAL COST	
	QUANTITY	UNIT		DOLLARS	CENTS	DOLLARS	CENTS
18B	1	EA	FURNISH & INSTALL FLUSH FRAME AND GRATE FOR: _____ DOLLARS CENTS				
19	2	EA	FURNISH & INSTALL MANHOLE FRAME AND COVER FOR: _____ DOLLARS CENTS				
20	4	EA	ADJUST EXISTING UTILITY VALVE/BOX FOR: _____ DOLLARS CENTS				
21	1	EA	ADJUST EXISTING HYDRANT ELEVATION FOR: _____ DOLLARS CENTS				
22W	3,000	LF	WHITE THERMOPLASTIC REFLECTORIZED PAVEMENT STRIPES FOR: _____ DOLLARS CENTS				
22Y	1,250	LF	YELLOW THERMOPLASTIC REFLECTORIZED PAVEMENT STRIPES FOR: _____ DOLLARS CENTS				

Village of Dobbs Ferry
Pedestrian Improvements at the Intersection of Ashford Ave and Grandview Ave /Storm St.
ITEMIZED PROPOSAL

SEPTEMBER 2023

ITEM No.	APPROXIMATE VALUES		ITEMS WITH UNIT PRICE IN WORDS	CONTRACTOR'S UNIT BID PRICE		TOTAL COST	
	QUANTITY	UNIT		DOLLARS	CENTS	DOLLARS	CENTS
23	2	EA	FURNISH & INSTALL SOLAR POWERED RAPID FLASHING BEACON W/SIGNS FOR: _____ DOLLARS CENTS				
24	1	LS	MOBILIZATION FOR: _____ DOLLARS CENTS				
25	1	LS	WORK ZONE TRAFFIC CONTROL FOR: _____ DOLLARS CENTS				
26	1	LS	SURVEY AND STAKE-OUT FOR: _____ DOLLARS CENTS				
TOTAL BASE BID (IN FIGURES): \$ _____							
TOTAL BASE BID MUST BE WRITTEN IN WORDS:							
DOLLARS CENTS							
NOTE: Where a discrepancy exists between a price in words and numbers, the price written in words shall govern.							

PROPOSAL

PLACE: VILLAGE OF DOBBS FERRY
VILLAGE HALL
112 MAIN STREET
DOBBS FERRY, NY 10522

DATE:

PROPOSAL OF

(HEREINAFTER CALLED "BIDDER") (A _____ CORPORATION/ A
PARTNERSHIP / AN INDIVIDUAL DOING BUSINESS AS

TO THE VILLAGE OF DOBBS FERRY, HEREINAFTER CALLED OWNER.

BIDDER:

THE BIDDER, IN COMPLIANCE WITH YOUR INVITATION FOR BIDS FOR THE CONSTRUCTION OF

**Pedestrian Improvements at the Intersection of Ashford Ave and Grandview
Ave/Storm St.
Dobbs Ferry, NY**

Having examined the Bid Documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project, including the availability of materials and labor, hereby proposes to furnish all labor, materials and supplies and to construct the project in accordance with the Bid Documents, within the time set forth therein and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Bid Document, of which this proposal becomes a part thereof.

The Bidder hereby agrees that upon acceptance of this proposal by the Village of Dobbs Ferry, the bidder does bind himself, his/her heirs, successors and lawful assigns, and agrees to deliver the Required Documents as set forth in the Instruction to Bidders not later than ten (10) calendar days from the date of the award; and it shall commence work and complete the contract in the time and within the authorized period specified in written "Notice to Proceed" of the owner.

Contractor acknowledges that the Village is not bound by the quantities stated in the Bid Form. It is emphasized that the quantities are approximations only. No guarantee is made for any quantities stated nor is a guarantee made for the total bid or alternate total bid. Such total bid or alternate total bid are for the purpose of guidance in awarding the Contract only. Payment shall be on the basis of actual work done at the unit prices quoted.

Upon acceptance of this bid, the undersigned binds himself/herself or themselves to enter into written contract with the OWNER and to process the work diligently so as to substantially complete all the work required under the contract.

The Bid Security of the unsuccessful bidders will be returned after the execution of a Contract between the Village and the successful bidder; the certified or bank check or Bid Security of the successful bidder will be retained until 10 days after the Required Documents have been delivered as set forth in the Instructions to Bidders.

PROPOSAL FORM

The undersigned hereby acknowledges receipt of the following Addenda (if any):

Addendum No.

Dated

Signature of person, firm or corporation making this proposal:

Contractor

Title

P.O.

Address: _____

Phone No: _____ Dated: _____

Fax No: _____

The full names and addresses of all persons interested in the proposal or principals are as follows:

Name

Address

STATEMENT OF NON-COLLUSION

Pursuant to the provisions of General Municipal Law §103-d:

By submission of this bid each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

- (1) The prices in this bid have been arrived at independently arrived at without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
- (2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening directly or indirectly, to any other bidder or to any competitor; and;
- (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

Resolved that _____ be
(Name of Individual)

authorized to sign and submit the bid or proposal of

_____ for this project.

NAME

PROPOSAL FORM

NOTES:

- (1) Where a bidder is a firm, the bid must be signed in the name of the firm by a member of the firm who must sign his/her own name immediately thereunder as _____, Partner.
- (2) Where a bidder is a corporation, the bid must be signed in the name of the corporation by a duly authorized officer or agent thereof having knowledge of the matters stated in the bid and such officer or agent shall also subscribe his/her own name, the office he holds, and the seal of the corporation must be affixed.
- (3) The bid must be sworn to by the person signing it, using one of the appropriate forms of acknowledgement which follow.
- (4) The bidders shall date the Form of Affidavit, fill in all blank spaces and complete the "Disclosure Statement" and "Questionnaire" which follow as part of bid.
- (5) In case of any discrepancy in the bidder's extensions or total, the Village Engineer's computation of extensions and totals will govern.

PROPOSAL FORM

FORM OF AFFIDAVIT WHERE BIDDER IS AN INDIVIDUAL

STATE OF NEW YORK)
) ss:
COUNTY OF)

_____, being duly sworn, deposes and says: I am the person described in and who executed the foregoing bid and the several matters therein stated are in all respects true.

(Signature of person who signed bid)

Subscribed and sworn to before me:

this _____ day of _____ 20_____.
(Notary Public)

PROPOSAL FORM

FORM OF AFFIDAVIT WHERE BIDDER IS A CORPORATION

STATE OF NEW YORK)
)ss:
COUNTY OF)

_____being duly sworn, deposes and says:

I am the _____ of _____, the
above named corporation, whose name is subscribed to and which the
executed the foregoing bid. I reside at _____ in the
_____ of _____, State of _____.

I have knowledge of the several matters therein stated and they are in all respects true.

(Signature of person who signed bid)

Subscribed and sworn to before me

this _____ day of _____ 20_____.
(Notary Public)

PROPOSAL FORM

DISCLOSURE STATEMENT

Pedestrian Improvements at the Intersection of Ashford Ave and Grandview Ave/Storm St., Dobbs Ferry, NY

STATE OF NEW YORK)
)SS:
COUNTY OF NASSAU)

_____, being duly sworn, deposes and says:

1. I am the authorized person for the bidder to submit this bid for the referenced Contract.
2. I make this affidavit for the purposes of complying with the requirements of General Municipal Law Section 809.
3. No officer of the State of New York, and no officer or employee of the County of Westchester, the Town of Greenburgh, or the Village of Dobbs Ferry, and no party officer of any political party, has an interest in this bid within the meaning of General Municipal Law Section 809, except as stated hereinafter (if none, state "NONE"):

Name: _____

Address: _____

Position: _____

Nature of Interest: _____

(Signature)

Sworn to before me this

_____ day of _____ 20_____.

PROPOSAL FORM

DISCLOSURE

Name and Address of Bidder _____

Federal Identification # or Social Security #: _____

Bidders will furnish the following information: List only similar type of work performed:

<u>FOR WHOM PERFORMED</u>	<u>CONTRACT AMOUNT</u>	<u>DATE COMPLETED</u>
---------------------------	------------------------	-----------------------

_____	_____	_____
_____	_____	_____
_____	_____	_____

1. Have you ever failed to complete any work awarded to you? _____

If yes, state where and why _____

2. Has any officer or partner of your organization ever been an officer or partner of some other organization that failed to complete a contract? _____.

If yes, state name of individual, other organization and reason therefore: _____

3. Has any officer or partner of your organization ever failed to complete a contract in his/her own name? _____.

If yes, state name of individual and reason therefore: _____

4. **Within the last ten years**, has any legal action, criminal or civil, ever been commenced by the Village or by any other governmental entity/agency against the organization or against any other legal entity or subsidiary associated with the bidding organization, or has any legal action, criminal or civil, been commenced against any officer, principal, member, partner 1) of the bidding organization, or 2) of the other legal entity/subsidiary associated, presently or within the last ten years, in any manner, with the bidding corporation?

YES _____ NO _____.

If yes – state the nature of the legal action

5. In what other lines of business are you financially interested?

6. The work, if awarded to you, will have the personal supervision of whom?

7. Do you have, or can you obtain, sufficient men, equipment and materials to commence work when required by this Bid Packet? _____

8. Name the surety company to whom you have applied for required bonds.

(Signature and Title)

Sworn to before me this
_____ day of _____ 20__

IRANIAN INVESTMENT ACTIVITIES CERTIFICATION

(To be completed by the Bidder and submitted with the bid)

- A. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the state finance law.
- B. A bid shall not be considered for award nor shall any award be made where the condition set forth in paragraph A of this certification has not been complied with; provided, however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefor. The Village may award a bid to a bidder who cannot make the certification pursuant to paragraph A of this certification on a case-by-case basis if:
- (1) The investment activities in Iran were made before the effective date of this section, the investment activities in Iran have not been expanded or renewed after the effective date of this section, and the person has adopted, publicized, and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or
 - (2) The political subdivision makes a determination that the goods or services are necessary for the political subdivision to perform its functions and that, absent such an exemption, the political subdivision would be unable to obtain the goods or services for which this Contract is offered. Such determination shall be made in writing and shall be a public document.

Dated: _____ 20__

(Name of entity)

_____ (Title) _____

(Name of signature)

UNITED STATES DEPARTMENT OF TRANSPORTATION
COMMERCIAL MOTOR VEHICLE DRIVER
DRUG AND ALCOHOL TESTING PROGRAM
QUESTIONNAIRE

(To be completed by the bidder and submitted with bid)

The United States Department of Transportation (DOT) has issued regulations pursuant to the Omnibus Transportation Employee Testing Act of 1991 which governs the use of drugs and alcohol by commercial motor vehicle drivers, and also requires the Village to use contractors which are in compliance with these regulations. Contractors shall complete this questionnaire to allow the Village to determine whether or not the Contractor is in compliance with these regulations.

1. Does your company have a drug and alcohol testing program as required by the US DOT? _____
2. Is your program self-administered or handled through a Third-Party Administrator (TPA)? _____
3. If handled by a TPA, please complete the following:

TPA Name: _____

Address: _____

Telephone Number: _____

Contact Person: _____

CONDITIONS OF CONTRACT

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CONDITIONS OF CONTRACT

1. CONTRACT DOCUMENTS AND DEFINITIONS

The Bid Packet shall form part of this Contract, and the provisions thereof shall be as binding upon the parties hereto, as if they were herein fully set forth. The table of contents, titles, heading, headlines, and marginal notes contained herein are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light upon the interpretation of the provisions to which they refer. Whenever the term "Contract Documents" is used, it shall mean and include this Bid Packet containing those items listed in the Table of Contents. In case of any conflict or inconsistency between the provisions of the Contract and those of the Specifications, the provisions of this Contract shall govern.

Whenever the following words and expressions are used in the Contract, it is understood that they have the meaning defined below:

CONTRACT: The Contract Documents and all supplemental agreements made or to be made.

CONTRACTOR: The party of the second party hereto, whether corporation, firm or individual, or any combination thereof, and successor, personal representatives, executors, administrators and assigns, and any person, firm or corporation who or which shall at any time be substituted in place of the second part under this Contract.

DIRECTED, REQUIRED, APPROVED, ACCEPTABLE: Whenever they refer to the work or its performance, "directed", "required", "permitted", shall imply the direction, requirement, permission, order, designation or prescription of the Engineer, and "approved", "satisfied", or "satisfactory", "in the judgment of", and words of like import, shall mean approved, or acceptable to, or satisfactory to, or in the judgment of the Engineer.

ENGINEER: Consulting Engineers engaged by the Owner and duly authorized to represent the Owner in the execution of work covered by contract documents.

EXTRA WORK: The term "extra work", as used herein, refers to and includes all work required by the Owner, which in the judgment of the Engineer involves changes in or additions to work required by the Bid Packet and Addenda in their present form and which is not covered by a specific unit price in the form of Bid.

INSPECTOR: An authorized representative of the Owner or his/her Engineer assigned to make any and all necessary inspections of the work performed and the materials furnished by the Contract.

LAWS: The term "Laws" shall include all applicable laws, codes, rules, and regulations of the United States, the state of New York, the County of Westchester, the Town of Greenburgh and the Village of Dobbs Ferry, and each of their departments, agencies, boards, and committees with jurisdiction over the work and the implementation thereof to

be performed pursuant to the Contract. Although some Laws are referred to and/or quoted within the Contract, all applicable Laws shall apply to the Contract, and bidders are referred to the actual laws and not to rely upon the restatement or paraphrasing of those Laws in the Contract, which may not be complete and which may, inadvertently, contain errors. Each and every provision of the Laws required to be inserted in this Contract, shall be deemed to be inserted herein and if through mistake or otherwise, any such provision is not inserted or is not correctly inserted then upon the application of either party the Contract shall forthwith be physically amended to make such insertion.

MATERIALS: Any approved materials acceptable to the Engineer and conforming to the requirements of these Specifications.

NOTICE: The term "notice", as used herein, shall mean and include written notice. Written notice shall be deemed to have been duly served when delivered to, or at last known business address of, the person, firm or corporation for whom intended, or his, their, or its duly authorized agents, representatives, or officer, or when enclosed in a postage prepaid wrapper or envelope addressed to such person, firm or corporation at his, their or its last known business address, certified mail return receipt requested and deposited in a United States mailbox operated by USPS in Westchester County and/or by e-mail when receipt is confirmed by the sender's email server.

OWNER and VILLAGE: The terms "Owner" and "Village" are used interchangeably and both mean the Village of Dobbs Ferry.

PLANS: The body of directions, requirements, descriptions, etc. contained in this document, together with all documents of any description and agreement made (or to be made) pertaining to the methods or manner of performing the work and/or to the quantities and quality of materials to be furnished and accepted under this Contract.

SUBCONTRACTOR: The term "subcontractor" shall mean any person, firm, or corporation supplying labor or material for work at the site of the project but not including the parties to this Contract.

WORK: All of the work proposed to be accomplished at the site of the project, and all such other work as is in any manner required to accomplish the complete project. This includes all plant, labor, materials, supplies, equipment and other facilities and acts necessary or proper or incidental to the carrying out and completion of the terms of this Contract. The term "work performed" shall be construed to include the material delivered to and suitably stored at the site of the project.

2. SCOPE OF THE WORK

The Contractor will furnish all labor, materials, supplies, equipment and other facilities and things necessary or proper for, or incidental to, the work contemplated by this Contract as required by, and in strict accordance to, the applicable Plans, Specifications and Addenda prepared by the Engineer and/or required by, such changes as are ordered and approved pursuant to this Contract, and will perform all other obligations imposed on him/her by this Contract. QUANTITIES OF ANY OR ALL ITEMS MAY BE INCREASED,

DECREASED OR ELIMINATED IN THEIR ENTIRETY AT THE OPTION OF THE VILLAGE PRIOR TO OR AFTER AWARD OF THE CONTRACT.

3. COMPENSATION TO BE PAID TO THE CONTRACTOR

(a) Agreed Prices: It is understood and agreed that the Contractor will accept as payment in full the summation of products of the actual quantities in place upon the completion of the work, as determined by the Engineer's measurements, by the unit prices bid, with no allowance being made for anticipated profit or for reasons of variations from the estimated quantities set forth in the Form of Bid.

(b) Extra Work: The Owner may, at any time, by a written order and without notice to the Sureties, require the performance of such extra work or changes in the work as it may find necessary or desirable. The amount of compensation to be paid to the Contractor for any extra work, as so ordered, shall be determined as follows: 1) By such applicable unit prices, if any, as set forth in the Contract; or 2) If no such unit prices are set forth, then by unit price or by a lump sum mutually agreed upon by the Owner and the Contractor; or 3) If no such unit prices are so set forth and if the parties cannot agree upon unit prices or a lump sum; then by actual net cost in money to the Contractor of the materials, permits, wages of applied labor, premiums for Workmen's Compensation Insurance, payroll taxes required by law, rental for plant and equipment used (excluding small tools) to which total cost will be added fifteen (15) percent as full compensation for all other items of profit costs and expenses, including but not limited to administration, overhead, superintendence, insurance, material used in temporary structures, allowances made by the Contractor to Subcontractors, additional premiums upon the performance bond of the Contractor and the use of small tools. **The Village reserves the right to increase or decrease quantities and to add or delete items that are supplementary and germane to the substance and intent of the bid/contract.**

4. COMMENCEMENT OF WORK

The Contractor agrees that no work shall commence until after receiving a fully executed contract and written notice to proceed from the Village of Dobbs Ferry. Upon receipt of same, the Contractor agrees to commence work immediately on and not later than 10 days thereafter.

5. TIME OF COMPLETION

The time of substantial completion of the entire contract work shall be in compliance with the schedule of construction submitted by the Contractor (as required under Article 17 of these Conditions of Contract) and accepted by the Village. The completion date accepted by the Village will be specified in the written Notice to Proceed from the Village. The date of such completion shall be the date of the Certificate of Completion hereinafter specified. The entire work must be satisfactorily completed so that the project improvements are available to the Village for use. The Owner reserves the right to order the Contractor to suspend operations when, in the opinion of the Engineer improper weather conditions make such action advisable, and to order the Contractor to resume operations when weather and ground conditions permit. The days during which such suspension of work is in force are not chargeable against the specified completion time.

6. LIQUIDATED DAMAGES FOR DELAY

THE TIME LIMIT BEING ESSENTIAL TO AND OF THE ESSENCE OF THIS CONTRACT, the Contractor hereby agrees that the Owner shall be, and is hereby authorized to deduct and retain out of the money which may be due or may become due to said contractor under this agreement, the sum of \$1,000.00 per day, which amount is hereby agreed upon, fixed and determined by the parties hereto as the liquidated damages, including overhead charges, services, inspector's wages and interest on the money each and every day during which the aforesaid work may be incomplete over and beyond the time herein stipulated for its completion, provided however, that the Owner shall have the right to extend the time for the completion of said work.

7. EXTENSIONS OF TIME. NO WAIVER

If the Contractor shall be delayed in the completion of his/her work by reason of unforeseeable causes beyond his/her control and without his/her fault or negligence, including but not restricted to, acts of God or of the public enemy, fires, floods, epidemics, quarantine restrictions, strikes, riots, civil commotions or freight embargoes, the period herein above specified for completion of his/her work shall be extended by such time as shall be fixed by the Owner. Contractor shall notify the Engineer of any claim for delay based upon this provision within 15 days after the end of the delay or it shall be deemed waived. Time is of the essence with regard to such notice.

8. WEATHER

During unsuitable weather, all work must stop when such work would be subject to injury and the Contractor shall transfer his/her men and materials to those parts of the work where weather conditions will not have any affect on the workmanship or to any damages on account of such damages or suspension, and it must protect any work that might be injured by the elements and make good any work that is injured. Any such stoppage shall be documented by the Engineer and added to the required time for completion.

At the request of the Village, the Engineer may direct the Contractor to suspend work on certain religious holidays so as not to significantly impact the religious observance of residents of the Village. Any such suspension shall be documented by the Engineer and added to the required time for completion.

In the event of temporary suspension of work or during inclement weather or whenever the Engineer shall direct, the Contractor will, and will cause his/her subcontractors to protect carefully his/her and their work and materials against damage or injury from the weather. If in the opinion of the Engineer any work or material shall have been damaged or injured by reason or failure on the part of the Contractor or any of his/her subcontractors to protect his/her or their work, such work and materials shall be removed and replaced at the expense of the Contractor.

9. ADDITIONAL OR SUBSTITUTE BOND

If at any time a Surety shall no longer be authorized to issue the required bonds or to transact business in the state of New York and/or have a rating of at least A-, Owner may require the Contractor within five (5) days after notice from the Owner to substitute an acceptable bond from a Surety that meets such qualifications. The premiums on such bonds shall be paid until the new surety shall have been qualified.

10. LAWS AND ORDINANCES

In the execution of the Contract, the Contractor will be required to observe and obey all Laws relating to the performance of the Contract including, but not limited to, the labor employed thereon, materials supplied, obstructing streets and highways, maintaining signals, storing, handling and use of explosives and all other general ordinances and state statutes affecting him/her or his employees or his/her work hereunder in his/her relations with the Village or any other persons, and also all laws, rules and regulations, including compliance with all federal rules and regulations regarding controlled substances and alcohol use and testing, where applicable, codes, ordinances controlling or limiting the Contractor while engaged in executing the work under the Contract. As a condition of the Contract, the Contractor shall and does hereby agree to comply with all requirements of the labor laws of the State of New York. The Contractor shall comply with the provisions of Sections 291-299 of the Executive Law and the Civil Rights Law, shall furnish all information and reports deemed necessary by the State Commission for Human Rights, the Attorney General and the Industrial Commissioner for purposes of investigation to ascertain compliance with such sections of the Executive Law and Civil Rights Law. The Contract may be forthwith cancelled, terminated or suspended, in whole or in part, by the contracting agency upon the basis of a finding made by the State Commission for Human Rights that the Contractor has not complied with these laws. The Contractor hereby expressly agrees to comply with all the provisions of the Labor Law and any and all amendments thereto, insofar as the same are applicable to this Contract.

The Labor Law, as amended, provides, in part, in substance, that no laborer, workman or mechanic in the employ of the Contractor, subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by this Contract, shall be permitted or required to work more than eight (8) hours in any one (1) calendar day, except in cases of extraordinary emergency caused by fire, flood or danger to life or property; that no such person shall be employed more than eight (8) hours in any day or more than five (5) days in any week except in such emergency; that the wages to be paid for a legal day's work as hereinbefore defined, to laborers, workmen or mechanics upon the work called for under this Contract or upon any material used upon, or in connection therewith, shall not be less than the prevailing rate for a day's work in the same trade or occupation in the locality within the state where such work is to be done and each laborer, workman or mechanic employed by the Contractor, subcontractor or other person about or upon the work shall be paid the wages herein provided.

Any person or corporation that willfully pays, after entering into such Contract, less than such stipulated minimum hourly wage scale shall be guilty of a misdemeanor and upon conviction, shall be punished for a first offense by a fine of Five Hundred Dollars (\$500.00) or by imprisonment for not more than thirty (30) days, or both by fine and imprisonment; for a second offense by a fine of One Thousand Dollars (\$1,000.00) and in addition thereto, the Contract on which the violation has occurred shall be forfeited, and no such person or corporation shall be entitled to receive any sum nor shall any officer, agent or employee of the State pay the same or authorize its payment from the funds under his charge or control to any person or corporation for work done upon any contract, on which the Contractor has been convicted of second offense in violation of the provisions of this

section. The minimum wage rates established by the Industrial Commissioner, State of New York, for this Contract are set forth hereinabove as part of "Instruction to Bidders".

11. PAYROLL RECORDS/RETENTION BY VILLAGE

Every contractor and subcontractor shall submit to the Village of Dobbs Ferry, within thirty (30) days after the issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payroll record, in accordance with New York State Labor Law 220, subscribed and affirmed as true under the penalties of perjury. Failure to comply with this contract provision and submit payroll records as required will result in the withholding of Village payments until such time as the required payroll records are produced to the Village. Additionally, failure to comply with this contract provision shall result in the Village notifying the New York State Department of Labor of the Contractor's and/or subcontractor's failure to submit the certified payroll records as required pursuant to New York State Labor Law.

12. QUALIFICATIONS FOR EMPLOYMENT

No person under the age of sixteen (16) years and no person currently serving sentence in a penal or correctional institution shall be employed to perform any work on the project under this Contract. No person whose age or physical condition is such as to make his/her employment dangerous to his/her health or safety or to the health and safety of others, shall be employed to perform any work on this project; provided, however, that such restrictions shall not operate against the employment of physically handicapped persons, otherwise employable, where each person may be safely assigned to work which they can ably perform, or otherwise in violation of the Americans with Disabilities Act.

13. NON-DISCRIMINATION

There shall be no discrimination by the Contractor or any of its subcontractors or suppliers of material, or other entities otherwise performing any work or providing any materials or services pursuant to this contract because of an individual's age, race, creed, color, national origin, sexual orientation, military status, sex, disability, predisposing genetic characteristics, familial status, marital status, or domestic violence victim status, or other legally protected status, to refuse to hire or employ or to bar or to discharge from employment such individual or to discriminate against such individual in compensation or in terms, conditions or privileges of employment. There may be deducted from the amount payable to the Contractor by the Owner under this Contract a penalty of One Hundred Dollars (\$100.00) for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of this paragraph; provided that for a second or any subsequent violation of the terms of this paragraph, this Contract may be cancelled or terminated by the Owner and all monies due or to become due hereunder may be forfeited.

14. PAYMENT OF EMPLOYEES

The Contractor and each of his/her subcontractors shall pay each of its employees engaged in work on the project under this Contract in full (less deductions made mandatory by law) in cash, unless otherwise agreed in writing by the employee, and not less often than once each week. The Contractor and his/her subcontractors shall not

employ any labor or means whose employment or utilization during the course of this contract, may tend to, or in any way cause, or result in, strikes, work stoppages, delays, suspension of work or similar troubles by workers employed by the contractor or subcontractor or by any of the trades working in or about the job site where work is being performed under this Contract or any other Contract on the job site. Any violation of this requirement by the contractor may be considered as proper and sufficient cause for canceling and terminating this Contract.

15. ESTIMATES AND PAYMENTS

The making of any such estimate or payment made thereon shall not be taken or construed as an acceptance by the Owner.

- (a) Measurement for Payment: The Engineer shall make due measurements of work done during the progress of the work and his/her estimate shall be final and conclusive evidence of the amounts of work performed by the Contractor under, and by virtue of, this agreement and shall be taken as full measure of compensation to be received by the Contractor. When requested by the Contractor, the Engineer shall measure, re-measure or re-estimate any portion of the work, but the expense of such re-measurement or re-estimating shall, unless material error by Engineer be proved, be paid for by the Contractor.
- b) No payments will be made for materials delivered to the site which have not been incorporated into the work.
- (c) Final Estimate: One month after the completion and acceptance of the work specified (and contracted for) the Engineer will make a final estimate of all the work done. Thereafter, upon receipt of the required Maintenance Bond, the Owner will pay the full amount, less prior payments, less any money paid by the Owner by reasons of said Contractor having failed to carry out faithfully and completely all the obligations and requirements herein contained. Upon final settlement, according to the conditions herein specified and not until such settlement shall have been made, will the Contractor be relieved from the obligations assumed in the Contract.

16. ACCEPTANCE OF FINAL PAYMENT CONSTITUTES RELEASE

The acceptance by the Contractor of the final payment shall be, and shall operate as a release to the Owner from all claims and all liabilities to the Contractor for all the things done or furnished in connection with this work and for every act and neglect of the Owner and others relating to or arising out of, this work, excepting the Contractor's claims for interest upon the final payment, if this payment be improperly delayed. No payment, however, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under this Contract or the Maintenance Bond.

17. CONSTRUCTION REPORTS

The Contractor shall submit to the Engineer, for the Engineer's approval, prior to commencing any work under this Contract, a detailed schedule and plan of operations indicating the manner in which the Contractor proposes to prosecute the work and a time schedule therefor. Such schedules are not intended to bind the Contractor to a predetermined plan or procedure, but rather to enable the Engineer to coordinate the

work of the Contractor with work required of, and to be performed by others. The detailed schedule shall include a list of the subcontractors and material suppliers it proposes to use on the work. The Contractor shall furnish the Engineer with periodical estimates for partial payments as required elsewhere in the Contract Documents, and in addition thereto will furnish the Engineer with a detailed estimate for final payment. Prior to being eligible to receive the final payment under this Contract, the Contractor shall furnish the Engineer with substantial proof that all bills for services rendered and materials supplied have been paid.

The enumeration of the above reports in no way relieves the Contractor of his responsibility under existing Laws of filing such other reports as may be required.

18. INSPECTION AND TESTS

All material and workmanship shall be subject to inspection, examination and test by the Engineer at any time during the construction and at any and all places where manufacturing of materials used and/or construction is carried on. Without additional charge, Contractor shall furnish promptly all reasonable facilities, labor and materials necessary to make any tests required by the Engineer and/or required by the Specifications. If at any time before final acceptance of the entire work, the Engineer considers necessary or advisable an examination of any portion of the work already completed, by removing or tearing out the same, the Contractor shall upon request, furnish promptly all necessary facilities, labor and materials for such examination. If such work is found to be defective in any material respect, due to the fault of the Contractor or any subcontractor, or if any work shall be covered over without the approval or consent of the Engineer, whether or not the same shall be defective, the Contractor shall be liable for the expense for such examination and of satisfactory reconstruction. If, however, such approval and consent shall have been given and such work is found to meet the requirements of this Contract, the Contractor shall be recompensed for the expense of such examination and reconstruction in the manner herein provided for the payment of cost of extra work. The selection of laboratories and/or agencies for the inspection and tests of supplies, materials or equipment shall be subject to the approval of or designated by the Owner. Satisfactory documentary evidence that the material has passed the required inspection and tests must be furnished to the Engineer prior to the incorporation of the material in the work. Any rejected work will be removed from the site of the project completely at the expense of the Contractor.

19. PLANS AND SPECIFICATIONS: INTERPRETATIONS

The Contractor shall keep at the site of the work one copy of the Plans and Specifications signed by the Engineer. Anything shown on the Plans and not mentioned in the Specifications or mentioned in the Specifications and not shown in the Plans shall have the same effect as if shown or mentioned in both. In case of any conflict or inconsistency between the Plans and Specifications, the Specifications shall govern. Any discrepancy between the figures and drawings shall be submitted to the Engineer whose decision thereon shall be conclusive.

20. SUBSURFACE CONDITIONS FOUND DIFFERENT

Should the Contractor encounter subsurface conditions at the site materially differing from those shown on the Plans or indicated in the Specifications, it shall immediately give

notice to the Engineer of such conditions, before they are disturbed; the Engineer shall thereupon promptly investigate the conditions and if it finds that they materially differ from those shown on the Plans or indicated on the Specifications, it shall at once make such changes in the Plans and/or Specification as it may find necessary. Any increase or decrease of cost resulting from such changes will be adjusted in the manner provided herein for adjustment as to extra and/or additional work and changes.

21. CONTRACTOR'S TITLE TO MATERIALS

No materials or supplies for the work shall be purchased by the Contractor or any subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that it has good title to all materials and supplies used by his/her in the work.

22. SUPERINTENDENCE BY CONTRACTOR

At the site of the work, the Contractor shall give his/her constant, personal attention to the work or employ a construction superintendent or foreman who shall have full authority to act for the Contractor. It is understood that such representative shall be acceptable to the Engineer and shall be one who can be continued in that capacity for the particular job involved unless it ceases to be on the Contractor's payroll. The Contractor's superintendent and foreman must be able to read and fluently speak the English language.

In the event that the Engineer determines that a construction superintendent is not properly fulfilling his/her role in the supervision of the work or in responding to the Engineer or is otherwise acting in a manner inappropriate to Village employees or the public, upon 5-days' notice the Contractor shall replace the superintendent with someone approved by the Engineer.

In the event that the Engineer determines that the foreman or any other employee of the Contractor or a Subcontractor is acting in an illegal or inappropriate manner to any Village Office or Employee or to the public, the Contractor shall warn such person to discontinue such behavior and, if it is repeated, the Contractor shall remove such person from the Project.

23. PROTECTION OF WORK, PERSONS AND PROPERTY

Precaution shall be exercised at all times for the proper protection of all persons, property and work. The Contractor shall give notice to the owners of utilities which may serve the area and request their assistance in predetermining the location and depth of various pipes, conduits, manholes, and other underground facilities. The safety provisions of applicable laws, building and construction codes, shall be observed. Machinery, equipment and all hazards shall be guarded or eliminated in accordance with the safety provisions of the Manual of Accident Prevention in Construction published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable law. The Contractor shall furnish entirely at his/her own expense any and all additional safety measures deemed necessary by the Owner or his/her Engineer to adequately safeguard the traveling public. The Contractor shall, at all hours of the day, safely guard and protect his/her own work and adjacent property from any damage and shall replace or make good any such damage, loss or injury, unless

such be caused directly by errors contained in the Contract Documents, or by the Owner or its duly authorized representatives.

The Contractor shall provide and maintain such watchmen, flagmen, barriers, lights, flares and other signals at his/her own expense, as will effectively prevent any accident in consequence of his/her work for which the Owner might be liable. The Contractor shall be liable for all injuries or damage caused by his/her employees. The Contractor shall take particular care to avoid the blocking of fire hydrants, fire alarm boxes, letter boxes, traffic signals or other visible devices maintained for the use of the public.

24. REPRESENTATIONS OF CONTRACTOR

(a) That it is financially solvent and that it is experienced in, and competent to, perform the type of work involved under this Contract and able to furnish the plant, materials, supplies and/or equipment to be furnished for the work; and

(b) That it is familiar with all Laws, which may in any way affect the work of those employed hereunder, including but not limited to any special acts relating to the work; and

(c) That such work required by these Contract Documents as is to be done by him/her can be satisfactorily constructed and used for the purpose for which it is intended and that such construction will not injure any person or damage any property; and

(d) That it has carefully examined the Contract Documents and the site of the work, and that from his/her own investigations it has satisfied himself/herself as to the nature and location of the work, the character, location, quality and quantity of surface and subsurface materials, structures and utilities likely to be encountered, the character of equipment and other facilities needed for the performance of the work, the general local conditions which may in any way affect the work or its performance.

25. PATENT RIGHTS

As part of his/her obligation hereunder and without any additional compensation, the Contractor will pay for any patent fees or royalties required in respect to the work or any part thereof and will fully defend and indemnify the Owner and its Engineer from any claim and for any loss on account of any infringement of patent rights unless prior to his/her use in the work a particular process or a product of a particular manufacturer it notifies the Engineer in writing that such process or product is an infringement or a patent.

26. AUTHORITY OF THE ENGINEER

In the performance of the work, the Contractor shall abide by all orders and directions and requirements of the Engineer, at such time and places, by such methods, and in such manner and sequence as it may require. The Engineer shall determine the amount, quality, acceptability, and fitness of all parts of the work, shall interpret the Contract and any extra work orders and shall decide all other questions in connection with the work. Upon request, the Engineer shall confirm in writing any oral orders, directions, requirements or determinations. The enumeration herein or elsewhere in the Contract of particular instance in which the opinion, judgment, discretion or determination of the Engineer shall control or in which work shall be performed to his/her satisfaction or subject

to his/her approval or inspection, shall not imply that only matters similar to those enumerated shall be so governed and performed, but without exception all the work shall be governed and so performed.

27. CHANGES AND ALTERATIONS

The Engineer reserves the right to make alterations in location, line, grade, plan, form or dimension of the work, or any part thereof, either before or after the commencement of construction. If such alterations diminish the amount of work to be done, no claim for damages or anticipated profits will be warranted on the work which may be dispensed with. If such alterations increase the amount of work, such increases shall be paid for according to the quantity of work actually done and at the prices for such work as contained in the schedule of prices or, if not provided in such schedule, as otherwise provided in paragraph 3 hereof.

28. CORRECTION OF WORK

All work and all materials whether incorporated into the work or not, all processes of manufacture and all methods of construction shall be at all times and places subject to inspection of the Engineer who shall be the final judge of quality, materials, processes of manufacture and methods of construction suitable for the purpose for which they are used. Should they fail to meet his/her approval, they shall be forthwith reconstructed, made good and replaced and/or corrected as the case may be, by the Contractor, at his/her own expense. If, in the opinion of the Engineer, it is not desirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the Contract Documents, the compensation to be paid to the Contractor hereunder shall be reduced by such amount as in the judgment or the Engineer shall be equitable. The Contractor expressly warrants that his/her work shall be free from any defects in materials or workmanship and agrees to correct any defects which may appear within one year following the final completion of the work and for additional periods of one year from the correction of any such defects. Neither the acceptance of the completed work nor payment therefore shall operate to release the Contractor or his/her sureties from any obligations under or upon this Contract, the Performance Bond or the Maintenance Bond.

29. THE OWNER'S RIGHT TO WITHHOLD PAYMENTS

The Owner may withhold from the Contractor so much of any approved payments due his/her as may, in the judgment of the Owner, be necessary: (a) To assure the payment of just claims then due and unpaid of any persons supplying labor or materials or the work; (b) To protect the Owner from loss due to defective work not remedied; or (c) To protect the Owner from loss due to injury to persons or damage to the work or property of other contractors or subcontractors, caused by the act or neglect of the Contractor or any of his/her subcontractors. The Owner shall have the right as agent for the Contractor to apply such amounts so withheld in such manner as the Owner may deem proper to satisfy such claims or to secure such protection. Such applications of such money shall be deemed payment for the account of the Contractor.

30. THE OWNER'S RIGHT TO STOP WORK/SUSPEND OR TERMINATE CONTRACT

If during the course of a contract, the Bidder/Contractor or Supplier/Subcontractor is not in compliance with the requirements of this bid, or the Laws, the Contractor hereby

acknowledges that the Village may immediately suspend work upon twenty-four hours' notice or terminate the contract ten (10) days from the receipt of Notice of Warning.

Notwithstanding the above, the Owner at its sole discretion reserves the right, and the Contractor hereby acknowledges that the Owner shall have the right, to either suspend work or terminate the contract without such prior notice upon:

- (a) Any alleged malfeasance or indictment or criminal charges on the part of the Contractor arising out of or in connection with the subject bid and/or any municipal bid or contract, the Owner at its sole discretion reserves the right to suspend or terminate the contract until such time as there is a final determination on the issue of any alleged malfeasance or indictment or criminal charge(s); or
- (b) The Contractor shall be adjudged bankrupt or make an assignment for the benefit of creditors; or
- (c) A receiver or liquidator shall be appointed for the Contractor for any of his property and shall not be dismissed within 20 days after such appointment, or the proceedings in connection therewith shall not be stayed on appeal within the said 20 days; or
- (d) The Contractor shall refuse or fail, after Notice or Warning from the Engineer, to supply enough properly skilled workmen or proper materials; or
- (e) The Contractor shall refuse or fail to prosecute the work or any part thereof with such diligence as will insure its completion within the period herein specified or any duly authorized extension thereof) or shall fail to complete the work within said period; or
- (f) The Contractor shall fail to make prompt payments to persons supplying labor or materials for the work; or
- (g) The Contractor shall fail or refuse to regard the Laws or the instructions of the Engineer or otherwise be guilty of a substantial violation of any provisions of this Contract.

If the unpaid balance of the compensation to be paid the Contractor hereunder shall exceed the expense of so completing the work (including compensation for additional managerial, administrative and inspection services and any damages for delay), such excess shall be paid to the Contractor, unless the Owner deems it necessary to withhold payment as provided under the paragraph entitled "Owner's Right to Withhold Payments". If such expense shall exceed such unpaid balance, the Contractor and his/her sureties shall be liable to the Owner for such excess. If the right of the Contractor to proceed with the work is so terminated, the Owner may take possession of and utilize in completing the work, such materials, appliances, supplies, plant and equipment as may be on the site of the work and necessary thereof. If the Owner does not so terminate the right of the Contractor to proceed, the Contractor shall continue to work.

31. OWNER'S RIGHT TO SUSPEND OR TERMINATE FOR CONVENIENCE OR NECESSITY

The Owner upon seven (7) days' notice may suspend or terminate this Contract for convenience or necessity as follows: (i) if the Work is discontinued, cancelled or terminated for any reason by the Owner, or (ii) when the Owner for any reason, with or without cause, or otherwise deems it in the best interest of the Village. In such event of such suspension or termination, the Owner shall pay the Contractor the costs for the Work incurred by the Contractor up to the effective date of termination, unless the Owner deems

it necessary to withhold payment as provided in paragraph 30, Owner's Right to Withhold Payments. Notwithstanding anything to the contrary, in the event that the Village suspended the work, Contractor shall resume the work on the date as advised by the Village.

32. CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

If the work shall be stopped by order of the Village or any Court or other public authority with jurisdiction for a period of three (3) months without act or fault of the Contractor or any of his/her agents, servants, employees or subcontractor, the Contractor may, upon ten (10) days' notice to the Owner, discontinue his performance of the work and/or terminate the Contract. In which event, in the paragraph immediately preceding, the Contractor shall not be obligated to pay to the Owner any excess of the expense of completing the work over the unpaid balance of compensation to be paid the Contractor hereunder.

33. RESPONSIBILITY FOR WORK

The Contractor agrees to be responsible for the entire work embraced in this Contract until its completion and final acceptance, and that any unfaithful or imperfect work, or work that may become damaged from any cause either by act of commission or omission to properly guard and protect the work that may be discovered at any time before the completion and acceptance shall be removed and replaced by good and satisfactory work without any charge to the Owner, and that such removal and replacement will be performed immediately on the requirement of the Engineer, notwithstanding the fact that it may have been overlooked by the proper inspector, and partial payment made thereon. It is fully understood by the Contractor that the inspection of the work shall not relieve him/her of any obligation to do sound and reliable work as herein prescribed, and that any omission to disapprove any work by the Engineer at or before the time of partial payment or other estimate shall not be construed to be acceptance of any defective work.

34. USE OF PREMISES AND REMOVAL OF DEBRIS

The Contractor expressly undertakes at his/her own expense:

- (a) To store his/her apparatus, materials, supplies and equipment in such orderly fashion at the site of the work as will not unduly interfere with the progress of his/her work or the work of any of his/her subcontractor;
- (b) To frequently, but in no event less than once a day at the end of each work day, clean up all refuse, rubbish, scrap materials and debris caused by the operations to the end that at all times, the site of the work shall present a neat, orderly and workmanlike appearance;
- (c) Before final payment hereunder to remove all surplus material, temporary structures, plants of any description and debris of every nature resulting from his/her operations.

35. INDEMNIFICATION

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Village and its Mayor, Board of Trustees, and all of its other elected and appointed officials, employees, agents, representatives, and authorized volunteers, from and against

all claims, damages, losses, costs, and expenses, including, but not limited to, attorneys and expert witnesses' fees, arising out of or resulting from the Contractor's performance of the Contract, or otherwise purportedly pursuant to the Contract, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease, or death or the injury to or destruction of real, personal, or mixed property, including the loss of use resulting therefrom, regardless of whether or not it is caused, in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or to otherwise reduce any other right or obligation of indemnity which would otherwise exist to any party or person described in this paragraph. Nothing herein shall be deemed to provide indemnification which is otherwise prohibited by Article 5 of the General Obligations Law.

The Contractor shall provide the defense of any claims brought against the Village Indemnitees by selecting counsel of the Contractor or its insurance carrier's choice to defend the claim, subject to the consent of the Village Indemnitees, which shall not be unreasonably withheld. Nothing herein shall be deemed to prevent the Village Indemnitees from cooperating with the Contractor and participating in the defense of any litigation by their own counsel at their own cost and expense, provided however, that after consultation with the Village Indemnitees, the Contractor shall have the right to defend, settle, or compromise any claim or action arising hereunder, and the Contractor shall have the authority to decide the appropriateness and the amount of any such settlement. In the event that the terms of any such proposed settlement includes a full, complete and unconditional release of the Village Indemnitees and the Village Indemnitees do not consent to the terms of any such settlement or compromise, the Contractor shall not settle the claim or action but its obligation to indemnify the Village Indemnitees shall in no event exceed the amount of such settlement.

In any and all claims against the Village, its Mayor, Board of Trustees, or any of its other elected and appointed officials, employees, agents, representatives, or authorized volunteers, by any employee of the Contractor or one of its subcontractors or materialmen, anyone directly or indirectly employed it, or anyone for whose acts it may be liable, the indemnification obligation pursuant to this Agreement shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or one of its subcontractors or materialmen under any workers compensation acts, disability acts, or other employee benefit acts.

36. POWER OF THE CONTRACTOR TO ACT IN AN EMERGENCY

In case of an emergency which threatens loss or injury to property and/or safety of life, the Contractor will be permitted to act as it sees fit without previous instructions from the Engineer. The Contractor shall notify the Engineer thereof immediately and any compensation claimed by the Contractor due to extra work made necessary because of his/her acts in such emergency shall be submitted to the Engineer for approval. Where the Contractor has not taken action but has notified the Engineer of an emergency indicating injury to persons or damage to adjoining property or to the work being accomplished under this Contract, then upon authorization from the Engineer to prevent such threatened injury or damage, it shall act as instructed by the Engineer. The amount of reimbursement claimed by the Contractor on account of any such action shall be determined in the manner provided herein for the payment of extra Work.

37. SUBLETTING, SUCCESSOR AND ASSIGNS

The Contractor shall not sublet any part of the work under this Contract nor assign any money due his/her hereunder without first obtaining the written consent of the Owner. This Contract shall inure the benefit of and shall be binding upon the parties hereunder and upon their respective successors and assigns, but neither party shall assign or transfer his/her interest herein in whole or in part without consent of the other.

38. GRADES, LINES, LEVELS, AND SURVEYS

The Engineer shall furnish the Contractor with the basic horizontal and vertical controls from which the Contractor shall transfer and stake his/her lines and grades and for their accuracy. The Engineer will establish the basic horizontal and vertical controls at the start of the work and it shall be the responsibility of the Contractor to safeguard such controls and if in the opinion of the Engineer these controls are damaged or destroyed either in whole or in part, the Contractor shall pay the cost of having the damaged controls verified, checked, corrected or replaced.

39. HANDLING OF ASBESTOS-AMENDMENTS

If any part of the work to be performed under any amendment to this Contract involves the installation, removal, encapsulation, application or enclosure of any asbestos or asbestos material, or the disturbance of friable asbestos, a copy of a valid asbestos handling license deemed suitable by the New York State Commissioner of Labor shall, if not previously submitted under this Contract, as amended, be submitted by the Contractor to the Village of Dobbs Ferry prior to the amendment to this Contract.

40. INSURANCE REQUIREMENTS

PROOF OF CARRIAGE INSURANCE

The Contractor shall furnish the Village of Dobbs Ferry, Village Hall, 112 Main Street, Dobbs Ferry, NY 10522 Attn: Village Clerk, with certificates of each insurance company, insuring the contractor or any subcontractor permitted under this Contract.

All certificates and the insurance policies shall bear the policy numbers, the expiration date of the policy, and the limits of liability thereunder. Both the certificates and the policies shall be endorsed to provide the Village Clerk, Village of Dobbs Ferry, 112 Main street, Dobbs Ferry, NY 10522, with any notice of cancellation at least 20 days prior to the actual date of such cancellation. **FAILURE TO MAINTAIN INSURANCE DURING THE TERM OF THE CONTRACT, SHALL BE GROUNDS FOR TERMINATION FOR DEFAULT.**

Said certificates and policies shall name the Village of Dobbs Ferry, its officers and employees as additional insureds, except for the owners and contractors protective liability policy, which shall name the Village of Dobbs Ferry as the sole insured. **THE VILLAGE MUST BE NAMED AS ADDITIONAL INSURED ON THE POLICIES AND CERTIFICATES OF INSURANCE AS FOLLOWS: VILLAGE OF DOBBS FERRY, BOARD OF TRUSTEES OF THE VILLAGE OF DOBBS FERRY, INDIVIDUALLY AND AS A BOARD, AND ALL OTHER ELECTED AND APPOINTED OFFICIALS, EMPLOYEES, AGENTS, REPRESENTATIVES, AND AUTHORIZED VOLUNTEERS**

OF THE VILLAGE OF DOBBS FERRY, WHILE ACTING IN THE SCOPE OF THEIR DUTIES AS SUCH INCLUDING NON-REMUNERATED AUTHORIZED VOLUNTEERS WHILE PERFORMING SERVICES FOR THE VILLAGE.

COMMERCIAL AUTOMOBILE POLICY - Commercial automobile coverage shall be required by the Village of Dobbs Ferry with limits of not less than \$2,000,000 coverage for bodily injury and property damage. The policy and certificate shall provide coverage for "any auto", "hired auto" and "non owned auto" with symbols 1, 8 & 9 reflected on the certificate of insurance.

COMMERCIAL GENERAL LIABILITY - Comprehensive general liability shall be required by the Village of Dobbs Ferry with limits of no less than \$2,000,000 general aggregate (for both bodily injury and property damage), \$2,000,000 per occurrence. Coverage shall be issued on a per location or per project basis. In addition, said policy is to provide coverage for (a) premises operations (b) completed operations/products liability, (c) explosion, collapse and underground (when required for work to be performed underground), (d) independent contractors, (e) broad form property damage, (f) contractual liability, (g) personal injury liability.

The following endorsements shall be provided as part of the forgoing coverage: (i) cross suit exclusion endorsement must be eliminated on primary and excess liability policies; (ii) CG2010 must be endorsed to delete "ongoing" so as to provide additional insured completed operations coverage for a period of not less than 2 years after the completion date of the work performed and (iii) wording on additional insured endorsement shall state that **"no valid and collectible insurance and/or self insurance of the additional insured should be considered anything other than excess of the named insured, its contractors, subcontractors or sub-subcontractors"**.

OWNERS & CONTRACTORS PROTECTIVE LIABILITY - An OCP policy shall be required by the Village of Dobbs Ferry in limits of \$2,000,000 combined single limit, each occurrence, \$5,000,000 general aggregate. Coverage shall be issued on a per location and per project basis. This insurance must fully cover the legal liability of the Village of Dobbs Ferry as Owner. The named insured shall be **VILLAGE OF DOBBS FERRY, BOARD OF TRUSTEES OF THE VILLAGE OF DOBBS FERRY, INDIVIDUALLY AND AS A BOARD, AND ALL OTHER ELECTED AND APPOINTED OFFICIALS, EMPLOYEES, AGENTS, REPRESENTATIVES, AND AUTHORIZED VOLUNTEERS OF THE VILLAGE OF DOBBS FERRY, WHILE ACTING IN THE SCOPE OF THEIR DUTIES AS SUCH INCLUDING NON-REMUNERATED AUTHORIZED VOLUNTEERS WHILE PERFORMING SERVICES FOR THE VILLAGE.**

Said policy must specifically provide that the premiums are to be paid by the Contractor.

WORKERS COMPENSATION INSURANCE - Proof of workers compensation insurance on form C-105.2 must be submitted to the Village of Dobbs Ferry as required under New York Law. The contractor shall take out and maintain during the life of this contract, workers compensation for all his/her employees employed at the site of the project, and in case of any of the work being sublet the contractor shall require the subcontractor similarly to provide workers compensation insurance for all of the latter's employees, unless such employees are covered by the protection afforded by the contractor.

DISABILITY BENEFITS LIABILITY INSURANCE - Proof of disability benefits liability insurance must be submitted to the Village of Dobbs Ferry as required by New York Law.

41. SEXUAL HARASSMENT PREVENTION

The Village is committed to maintaining a workplace free from sexual harassment. Sexual harassment is a form of workplace discrimination. All employees and contractors are required to work in a manner that prevents sexual harassment in the workplace. Sexual harassment is against the law and all employees and non-employees (which includes individuals working for contractors) have a legal right to a workplace free from sexual harassment and employees and non-employees are urged to report sexual harassment by filing a complaint internally with the Village. Employees and non-employees can also file a complaint with a government agency or in court under federal, state, or local antidiscrimination laws. This provision provides some of the basic aspects of the Village Policy. The full Village Policy may be obtained from the Village Clerk.

POLICY

The Village Policy applies to all employees, applicants for employment, interns, whether paid or unpaid, contractors, and persons conducting business, regardless of immigration status, with the Village. In the remainder of this document, the term “employee” refers to this collective group.

Sexual harassment will not be tolerated. Any employee covered by this policy who engages in sexual harassment or retaliation will be subject to remedial and/or disciplinary action (e.g., counseling, suspension, termination).

Retaliation Prohibition: No person covered by this Policy shall be subject to adverse action because the employee reports an incident of sexual harassment, provides information, or otherwise assists in any investigation of a sexual harassment complaint. The Village will not tolerate such retaliation against anyone who, in good faith reports or provides information about suspected sexual harassment. Any employee of the Village who retaliates against anyone involved in a sexual harassment investigation will be subjected to disciplinary action, up to and including termination. All employees working within the Village who believe they have been subject to such retaliation should inform the Village Clerk, or, if the Village Clerk is the alleged harasser and/or retaliator, the Mayor or the Village Counsel. All employees who believe they have been a target of such retaliation may also seek relief in other available forums.

WHAT IS “SEXUAL HARASSMENT”?

Sexual harassment is a form of sex discrimination and is unlawful under federal and state law. Sexual harassment includes harassment on the basis of sex, sexual orientation, self-identified or perceived sex, gender expression, gender identity, and the status of being transgender.

Sexual harassment includes unwelcome conduct, which is either of a sexual nature, or is directed at an individual because of that individual's sex when:

- Such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive work environment, even if the reporting individual is not the intended target of the sexual harassment;
- Such conduct is made either explicitly or implicitly a term or condition of employment; or
- Submission to or rejection of such conduct is used as the basis for employment decisions affecting an individual's employment.

A sexually harassing hostile work environment includes, but is not limited to, words, signs, jokes, pranks, intimidation, or physical violence, which are of a sexual nature, or which are directed at an individual because of that individual's sex. Sexual harassment also consists of any unwanted verbal or physical advances, sexually explicit derogatory statements, or sexually discriminatory remarks made by someone, which are offensive or objectionable to the recipient, which cause the recipient discomfort or humiliation, or which interfere with the recipient's job performance.

Sexual harassment also occurs when a person in authority tries to trade job benefits for sexual favors. This can include hiring, promotion, continued employment, or any other terms, conditions, or privileges of employment. This is also called "*quid pro quo*" harassment.

Any employee or individual working for a contractor who feels harassed should report so that any violation of this policy can be corrected promptly. Any harassing conduct, even a single incident, can be addressed under this policy.

42. UNITED STATES ENVIRONMENTAL PROTECTIONS AGENCY REQUIREMENT

By entering into this agreement, the Contractor certifies under penalty of law that it understands and agrees to comply with the terms and conditions of the Village's stormwater management program and agrees to implement any corrective actions identified by the Village or a representative. It also understands the Village must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System general permit for stormwater discharges from the Municipal Separate Storm Sewer Systems and that it is unlawful for any person to directly or indirectly cause or contribute to a violation of water quality standards. Further, the contractor understands that any non-compliance by the Village will not diminish, eliminate, or lessen its own liability.

GENERAL CONDITIONS

INDEX

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1. STANDARDS OF WORKMANSHIP

The apparent silence of the Specifications as to any detail or an apparent omission from the Specifications of a detailed description concerning any work to be done and materials to be furnished shall be regarded as meaning that only the best general practice observed in the latest current construction work is to prevail and that only material and workmanship of first quality is to be used in this connection and all interpretations of these Specifications shall be made upon this basis.

2. SAMPLES

The Contractor shall furnish for approval, all samples as directed. The work shall be in accordance with approved samples.

Samples shall be submitted in ample time so as to prevent delay in fabrication or ordering of materials, allowing for a reasonable time for the Engineer to consider the samples submitted and, if necessary, to permit a resubmission of samples to the Engineer until approval is given.

Work and material shall be furnished and executed in accordance with approved samples, in every aspect. Each sample shall be labeled, bearing material, and name and quality, Contractor's name, date and other pertinent data. Unless otherwise specified, samples shall be in duplicate and of adequate size to show quality, type, color, range and finish and texture of material. Materials shall not be ordered until approval is received in writing from Engineer.

3. MANUFACTURED MATERIALS

Where several materials are specified by name, the Engineer shall have the right, before execution of the Contract, to require any and all bidders to state the materials upon which they based their bid. Where any materials are specified by name or trade name, or by catalog number of a company or companies, the Contractor shall furnish the article mentioned unless approval of the Engineer is obtained in writing for a substitution. Should the Contractor desire to substitute another material for one or more specified by name, he shall apply in writing for such permission and state credit or extra involved. He shall also provide supporting data and samples for Engineer's consideration. Unless particularly specified otherwise, all manufactured articles, materials and equipment shall be applied, assembled, installed, connected, erected, used, cleaned and conditioned as directed by the manufacture and including the necessary preparation to properly install the work. Where reference is made to manufacturer's directions, the Contractor shall submit such directions to the Engineer as required. The materials used in construction shall be disposed as not to endanger the work, and so that full access may at all times be had to partly completed work and structures and they shall be so disposed as to cause no injury to those having access to the work or any of the units. All labor shall be performed in the best and most workmanlike manner by mechanics skilled in their respective trades. Standards of work required throughout shall be of such grades as will bring results of first class only. The type of labor employed by the Contractor shall be such as will insure; the uninterrupted continuity of the entire work, without conflict of any kind.

4. SHOP DRAWINGS

The Contractor shall submit to the Engineer, four (4) copies of all shop drawings and schedules and no work shall be fabricated until his approval has been given. All shop drawing submitted to the Engineer must bear the Contractor's stamp of approval evidencing that the drawings have been checked. The Contractor will make any corrections in the drawings required by the Engineer and will file with the Engineer four corrected copies. Approval by the Engineer of such drawings or schedules shall not relieve the Contractor from responsibility for (a) errors of any sort in shop or setting drawings or schedules; or (b) deviations from Plans and Specifications unless the Contractor, at the time of submission of said drawings and schedules, has given notice to the Engineer of any such deviations.

5. PLANS AND SPECIFICATIONS:

The Contractor will be furnished with five sets of Plans and Specifications giving all the details and dimensions necessary for carrying out the work. One copy of Plans and Specifications furnished to the Contractor must be kept constantly on the site. Anything shown on the Plans and not mentioned in the Specifications, or mentioned in the Specifications and not shown on the Plans and all the work and materials necessary for the completion of the work according to the intent and meaning of the contract shall be furnished, performed and done as if the same were both mentioned in the Specifications and shown on the Drawings. Any conflict or inconsistency between the Plans and Specification or any discrepancy between the figures and scale of Drawings shall be submitted by the Contractor to the Engineer, whose decision thereon shall be conclusive. In the event the meaning of any portion of the Specifications or Drawings or any supplementary drawings or instructions of the Engineer is doubtful, the same shall be understood to call for the best type of construction, both as to materials and workmanship, which reasonably can be interpreted. All materials and workmanship must be strictly in accordance with the Specifications. The plans show approximate size, arrangement and location of the proposed work. The Engineer will give base lines, grades, shapes and dimensions and the Contractor shall construct the work exactly in accordance with such instructions of the Engineer subject, however, to change as provided for under the headings "Changes and Alterations" and "Compensation to be Paid to the Contractor". Additional copies of Plans and Specifications, when requested, will be furnished to the Contractor at cost of reproduction. The Contractor shall furnish to each of the subcontractors and materialmen such copies of the Contract Documents as may be required for their work.

6. CUTTING, PATCHING AND DIGGING

The Contractor shall do all cutting, fitting or patching of his/her work that may be required to receive or be received by work of other contractors shown upon or reasonably implied by drawings and Specifications for the completed structure, and the Contractor shall ensure that the work is properly completed as directed by the Engineer. Any cost caused by defective or ill-timed work shall be borne by the party responsible therefore. The Contractor shall not endanger any work by cutting, digging or otherwise, and shall not cut or alter the work of any other contractor save with the consent of the Engineer.

7. ERRORS, OMISSIONS AND DISCREPANCIES

- a) If any errors, omissions or discrepancies appear in the drawings, Specifications or other documents, the Contractor shall, within ten days from receiving such Drawings, Specification or Documents, notify the Engineer in writing of such errors or omissions. In the event of the Contractor's failing to give such notice, it will be held responsible for the results of any such errors or omissions and the cost of rectifying the same.
- b) If, in the opinion of the Contractor, any work is shown on Drawings, or details, or is specified in such a manner as will make it impossible to produce a first class piece of work, or should discrepancies appear between the Drawing and/or Specifications, it shall refer the same to the Engineer for interpretation before proceeding with the work. If the Contractor fails to make such references to the Engineer, no excuse will thereafter be entertained for failure to carry out the work in satisfactory manner as directed.
- c) Should a conflict occur in or between the Drawings and Specifications and/or existing conditions, the Contractor shall be deemed to have estimated on the more expensive way of doing the work, unless the Contractor shall have asked for and obtained a decision in writing for the Engineer, before the submission of bids, as to which method or material will be required. The Engineer will determine which method or material will produce the results to the best interest of the Village.

8. PROPER METHOD OF WORK AND PROPER MATERIALS

The Engineer shall have the power in general to direct the order and sequence of the work, which shall be such as to permit the entire work under this contract to be begun and to proceed as rapidly as possible and such as to bring the several parts of the work to a successful completion at about the same time. If at any time before the commencement or during the progress of the work the materials and appliances used or to be used appear to the Engineer as insufficient or improper for assuring the quality of the work required, or the required rate of progress, it may order the Contractor to increase their efficiency or to improve their character, and the failure of the Engineer to demand any increase of such efficiency or improvement shall not release the Contractor from his/her obligation to secure the quality of work or the rate of progress specified. During freezing or inclement weather, no work shall be done except such as can be done satisfactorily and in a manner to secure first-class construction throughout. All work shall be done in such manner as will properly protect and support existing permanent structures, pipe lines, etc.

9. INSPECTION

Inspectors shall be authorized to inspect all work done on materials furnished. Such inspections may extend to all parts of the work and to the preparation or manufacture of the materials to be used. In case of any dispute arising between the Contractor and the Inspector as to materials furnished or the manner of performing the work, the Inspector shall have the authority to reject material or suspend the work until the question at issue shall be referred to and decided by the Engineer. The inspector shall not be authorized to revoke, alter, enlarge, relax or release any requirements of these Specifications, nor to approve or accept any portion of the work, or to issue instruction contrary to the Plans and Specifications. The Inspector shall in no case act as foreman or perform other duties

for the Contractor or interfere with the management of the work by the latter. Any advice which the Inspector may give the Contractor shall in no way be construed as binding the Engineer or the Owner in any way nor releasing the Contractor from the fulfillment of the terms of the Contract. The Contractor shall be conclusively presumed to be acquainted with all existing conditions and to guarantee that all work and materials shall, upon final completion of the work, be turned over to the Owner in a complete and perfect condition and The Contractor shall be responsible for the proper care, maintenance and protection of all work and material until his/her entire Contract is completed and all work and materials found in good condition and accepted. The Contractor will be held responsible for the entire work until completed and accepted by the Engineer and the Owner. The Contractor shall, at all times, provide the Owners, Engineer, assistants and inspectors under his/her with necessary facilities for determining both on the work and at the places of manufacture, that all work being performed and all materials being manufactured are strictly in accord with the Contract. Until acceptance of work by the Owner, the Contractor shall be responsible for all damages to the work including action of the elements or any other cause whatsoever, other than the willful or negligent acts of the Owner. The Contractor shall continuously and adequately protect the work against damage from any cause.

10. WAIVER

Neither the inspection by the Owner or Engineer or any of their employees nor any order, measurement or certificate by the Engineer nor any order by the Owner for the payment of any money nor any payment for or acceptance of, the whole or any part of the work by the Engineer or the Owner nor any extension of time nor any possession taken by the Owner or its employees shall operate as a waiver of any provision of this Contract or of any power herein reserved to the Owner or any right to damages herein provided; nor shall any waiver of any breach of the Contract constitute a waiver of any subsequent breach. Any remedy provided in this Contract shall be construed as cumulative; that is in addition to each and every remedy herein provided.

11. WATER AND ELECTRIC POWER

All water and electric power supply for construction purposes must be provided by the Contractor. The cost shall be borne by the Contractor.

12. MACHINERY AND EQUIPMENT

All machinery, equipment, trucks and vehicles used in the prosecution of the work or in connection therewith, shall at all times be in proper working condition. The Contractor shall be responsible for curtailing noise, smoke, fumes or any other nuisance resulting from his/her operations. The Contractor shall, upon written notification from the Engineer, make any repairs, replacements, adjustments, additions and furnish mufflers when necessary to fulfill these requirements.

13. MAINTENANCE

If, within the one-year period after the date of issuance of the Final Certificate, any portion of the work shall, in the opinion of the Owner, require repairing, replacing, or rebuilding, the Contractor shall start such repairs within five (5) days after the receipt of notice from the Owner, and if the Contractor shall fail or neglect to start such repairs within the said

five (5) days, the Owner may employ such other person or persons as they deem proper to make such repairs and pay the expense thereof out of any sum retained by them, provided nothing herein contained shall limit the liability of the Contractor or his/her surety to the Owner for nonperformance of the Contractor's obligations at any time. In the event that any such repair, replacement, or rebuilding is required within said one year period, this provision and the obligations of the Contractor shall continue for additional periods of one year after each such repair, replacement, or rebuilding as to such repair, replacement, or rebuilding.

14. RIGHT TO USE WORK

The Owner may enter upon and use the whole or any portion of the work which may be in condition to use any time previous to its final acceptance by the Owner. Such use shall not constitute or be evidence of acceptance by the Owner or the Engineer of the whole or any part of the material furnished or work performed under the Contract.

15. NOTICE OF WARNING

In addition to such other rights of termination available to the Owner in the Contract, and not as a limitation thereof, if the Contractor shall fail to make prompt payment to persons supplying labor or materials for the work, or refuse or fail to supply enough properly skilled workmen or proper materials or refuse or fail to prosecute the work or any part thereof with such diligence as will insure its completion within the period herein specified (or any duly authorized extension thereof) or fail to complete the work within said period or fail or refuse to regard laws, ordinances, codes, instructions of the Engineer, then the Engineer shall forward by certified mail return receipt requested or registered mail to the Contractor, at the address given in the Contract, a Notice of Warning, and in the event the Contractor fails to comply with said Notice of Warning within ten (10) days from receipt thereof, the Owner shall have the right to terminate the Contract.

16. ACCIDENT PREVENTION

During the performance of the work, the Contractor shall exercise all reasonable precautions for the protection of persons and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery, equipment and all other physical hazards shall be guarded in accordance with the safety provisions of the Manual of Accident Prevention in Construction published by the Associated General Contractors of America to the extent that such provisions are not inconsistent with Federal, State or Municipal laws and regulations. If any operation, practice or condition is deemed by the Engineer to be unsafe, they shall notify the Contractor in writing to take corrective action, and such operation, practice or condition shall be promptly discontinued such corrective remedial action shall be taken by the Contractor before the operation, practice or condition is resumed. The Owner reserves the right to remedy any neglect on the part of Contractor as regards the protection of the work which may come to its attention, after 24 hours' notice in writing; except that in cases of emergency it shall have the right to remedy any neglect without notice, and in either case to deduct the cost of such remedy from money due the Contractor. Nothing in the foregoing paragraphs shall be construed as relieving the Contractor from full responsibility at all times for safe prosecution of the work.

17. DAMAGES

As a clarification and addition to the indemnification and hold harmless provisions in the Contract and not as a limitation thereof, the Contractor shall pay and make good all losses or damages arising out of any cause connected with the Contract and shall defend and indemnify and save harmless the Owner from any and all Claims and any and all liability or responsibility of every nature and kind for any loss, damage or injury which may be brought against the Owner or any of its officers or agents, by reason of, or connected with the work or materials furnished under the Contract and shall pay all costs and expenses of every kind, character, and nature whatever, occurring upon or arising out of the Contract.

18. MAINTENANCE OF TRAFFIC

All work under this Contract is to be completed within the time indicated in the Contract agreement or as extended by the Owner. If in the meantime it should become necessary, because of the lateness of the season, or any other reason to stop the work, the Contractor shall at his/her own expense, open proper drainage ditches, erect temporary structures where necessary, prepare the roads so there will be minimum interference with traffic, set up and maintain a competent organization as directed by the Engineer, to keep the highways in first class condition for traffic, and take every precaution to prevent any damage or unreasonably deterioration of the work during the time it is closed.

19. FINAL SITE CLEARING

Before final payment will be approved, the Contractor shall prepare the construction areas as follows: All basins, manholes and pipe as constructed shall be cleaned free from accumulated construction dirt, silt, form work, etc., and all proper restoration as called for in the items of the Specifications shall be complete in every detail. The Contractor shall clean all construction areas free from accumulated forms, excavation fill, construction materials and construction shanties. All areas shall be completed in every detail and shall be broom cleaned from excess dirt and materials.

20. PROTECTION OF LAND MARKERS, TREES, SHRUBS, AND PROPERTY

Wherever in the conduct of the work, a monument marking a point of public or private survey is encountered or brought to view by excavation, the fact shall at once be communicated to the Engineer. In no case shall the Contractor remove the same until the location for resetting shall have been made by the Engineer. All monuments or land markings exposed to view when the work is first undertaken shall be carefully preserved and the greatest care exercised to prevent injury to or disturbance of position of the same. The unit price of all items shall include the cost of restoring to its former condition any sidewalks or curbs, as well as restoring any trees, shrubs or lawns that may be damaged during this construction. No additional payment will be made. The Contractor is required at his/her own expense to obtain any and all permits for use of private property if they use such property for storage, transportation or accomplishment of the work under the Contract. Private property shall be cleaned up neatly and damage repaired and premises restored to their original condition.

21. PROTECTION OF UTILITIES

The Contractor shall familiarize himself with the existence of structures of municipal and other public utility corporations on or adjoining the site of the work, and give reasonable opportunity to and cooperation with the owners of these utilities in the work of reconstructing or altering them. Such reconstruction and alteration shall be so conducted as to delay or interfere as little as practicable with the work of the Contractor. Any additional cost of various items of work because of these utilities shall be included in the price bid for these items. The Engineer shall direct the public utility corporations to shift or remove those utility structures that may be necessary to permit the Contractor to carry out the work in accordance with the Plans. The Contractor shall not remove or cause to be removed, any structure or part of a structure owned by a public utility corporation without the approval of the Engineer. The Contractor shall cooperate with the public utility corporation whose structures (aerial, surface or subsurface) are within the limits of or along the outside of the right-of-way, to make it possible for them to maintain uninterrupted service. The Contractor shall conduct its operations in such a way as to delay or interfere as little as practicable with the work of the utility corporation.

22. NO DAMAGES FOR DELAY

Notwithstanding any other provision to this Contract, the Contractor agrees to make no claim for damages for delay in the performance of this Contract occasioned by any act of the Village of Dobbs Ferry or any of its representatives, and agrees that any such claim shall be fully compensated for by an extension of time to complete performance of the work as provided herein. This provision shall not apply to any act or omission to act of the Village of Dobbs Ferry or any of its representatives, wherein the same is done in bad faith and with deliberate intent to delay the Contractor in the performance of this Contract.

Contractor shall notify the Engineer of any claim for delay based upon this provision within 15 days after the end of the delay or it shall be deemed waived. Time is of the essence with regard to such notice.

FORM OF CONTRACT

CONTRACT # _____ DATED _____, 20____, BY AND BETWEEN THE
VILLAGE OF DOBBS FERRY (HEREIN CALLED THE "OWNER"
AND _____ (HEREIN CALLED THE CONTRACTOR")

WITNESSETH, that the Owner and the Contractor, in consideration of the premises and of the mutual covenants, consideration and agreements contained therein, it is agreed as follows: The BID PACKET, together with any addenda, shall form part of this Contract, and the provisions thereof shall be as binding upon the parties hereto as if they were herein fully set forth. The table of contents, title, heading, headlines and marginal notes contained herein are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light upon the interpretation of the provision to which they refer. Whenever the term "Contract Documents" is used, it shall mean and include the BID PACKET and any addenda. In case of any conflict or inconsistency between the provisions of the Conditions of Contract and those of the Specifications, the provisions of the conditions of this contract shall govern.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals, and such of them as are corporations have caused these presents to be signed by their duly authorized officer.

TOTAL BID

_____ DOLLARS \$ _____
(WRITTEN IN WORDS) (WRITTEN IN FIGURES)

CONTRACTOR:

VILLAGE OF DOBBS FERRY:

NAME

MAYOR

TITLE

CORPORATE SEAL:

VILLAGE SEAL:

FORM OF CONTRACT

Acknowledgement of Village of Dobbs Ferry

STATE OF NEW YORK)
) SS:
COUNTY OF)

On this _____ day of _____, 20____ before me
personally appeared _____

MAYOR

Vincent Rossillo, the duly elected and qualified Mayor of the Village of Dobbs Ferry, the corporation described in and which executed the foregoing instrument, to me known and known to me to be such Mayor of the Village of Dobbs Ferry; and he being by me duly sworn did depose and say; that he is the Mayor of the Village of Dobbs Ferry; that he resides in the Village of Dobbs Ferry, Westchester County, New York; and that he executed the same as such Mayor for the purpose therein mentioned.

NOTARY PUBLIC

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FORM OF CONTRACT

Acknowledgement by a Contractor if an Individual

STATE OF NEW YORK)
)SS:
COUNTY OF _____)

On this _____ day of _____ 20____ before me personally appeared
_____ to me known to be the person
described in and who executed the foregoing instrument and who acknowledged
to me that he executed the same.

NOTARY PUBLIC

Acknowledgement by Contractor if a Partnership

STATE OF NEW YORK)
) SS
COUNTY OF _____)

On this _____ day of _____ 20____ before me personally appeared
_____ to me known and known to me
to be a member of _____ the firm described in and
NAME OF FIRM

which executed the foregoing instrument and he acknowledged to me that he subscribed
the name of said firm thereto on behalf of said firm for that purpose therein
mentioned.

NOTARY PUBLIC

SPECIFIC REQUIREMENTS

1. Reference Specifications and Reference Items

- a.** Certain pay items in the contract refer to other items for standards of workmanship, methods, quality of materials, etc. No additional payment will be made by reason of such reference.
- b.** The absence of any Reference item from the proposal shall signify that the cost of the work of materials referred to shall be included in the prices bid, and no additional payment will be made.
- c.** Unless otherwise noted, the Reference Specifications for this contract shall be the New York State Department of Transportation Standards and Specifications, latest edition.
- d.** The Contractor shall acknowledge that the Village is not bound by the quantities stated in the Bid Form. It is emphasized that quantities are approximate, for bidding purposes only; payment will be based on approved, installed and field measured values only. Contract quantities, for any and all items may be increased, decreased or eliminated at the Village's discretion.
- e.** The anticipated Contract duration to complete the work is sixty (60) days from the Notice to Proceed.

2. Scope of Work – Base Bid

The work under this contract shall include sawcutting of the existing pavement to install new concrete curb and sidewalk, including bump-out sections for three (3) of the four (4) corners of the intersection of Ashford Avenue and Grandview Avenue/Storm Street. As supplement to the newly constructed curb lines, adjacent restoration will be required including, installation of new drainage and adjustments/modifications to the existing drainage; restoration of adjoining concrete sidewalk; construction of ADA complaint pedestrian curb ramps; restoration of the asphalt pavement.

On the west side of the intersection, proposed Rectangular Rapid Flashing Beacons (RRFBs) are to be installed for the pedestrian crossing Ashford Avenue. These RRFB's are to be solar powered with the appropriate pedestrian crossing warning signs for improved pedestrian safety. Additional traffic signs are to be removed and replaced under this contract as well. All new pavement markings shall be provided for the intersection.

3. Special Conditions

Work Zone Traffic Control is included in the proposal as Item 25. The Contractor shall provide the Village with Work Zone Traffic Control plans, specific to the intersection, with respect to shoulder and/or lane closures. The Contractor is encouraged to phase sections of the project to ensure proper accommodation of traffic during construction; a full roadway closure will not be acceptable. A detailed Detour may be acceptable upon review and approval by the Village and/or Engineer in Charge of Construction Inspection.

ITEM 1 – UNCLASSIFIED EXCAVATION AND DISPOSAL

A. DESCRIPTION

The work shall consist of the excavation and disposal of all materials encountered in the course of the construction, unless otherwise specified in the contract documents.

B. MATERIALS None Specified.

C. CONSTRUCTION DETAILS

The Contractor shall remove all soil, rock, and other material, and utilize or dispose of these materials as required by the contract documents. All excavation and embankment work shall be executed to payment lines shown in the contract documents. Suitable materials from the specified excavations may be used in the construction of required fill. The suitability of materials for specific purposes will be determined by the Village's representative.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the number of cubic yards, computed in the original position for excavation within the right-of-way & payment limits shown in the contract documents. No deduction shall be made for any pipes, culverts, structures, or other obstructions, unless these are measured for payment under another contract item. No additional quantity or payment shall be made for losses due to settlement, compaction, erosion or any other causes. Cross-sectioning, for the purpose of determining quantities for payment, will be utilized only where payment lines are not established in the contract documents. Excavation for borrow of suitable materials for embankment construction, shall not be included in the computation for this work. If present in the contract items, excavation and disposal of unsuitable material shall be included under the appropriate item.

Excavation required because of unsuitable conditions resulting from the Contractor's improper construction operations, will not be included for measurement and payment.

E. BASIS OF PAYMENT

The unit price for this item shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work, except where specific costs are designated or included in other pay items of work. No additional payment shall be made for re-handling of the material under this item.

ITEM 2 - SELECT FILL

A. DESCRIPTION

The work shall consist of the furnish and placement of select fill in areas as shown in the contract plans or as directed by the Village's representative.

B. MATERIAL

The select fill material shall be sound, hard, durable stone, run-of bank gravel, sand, cobbles, slag or other acceptable material. The backfill material shall meet the requirements of NYSDOT standards section 733-10 for Select Fill.

The select fill material shall contain no sod, brush, roots, or other unsuitable material. Rock particles larger than 2 inches shall be removed prior to compaction. Select fill shall have a durability of Magnesium Sulfate Soundness loss less than 35% with no presence of RAP.

C. CONSTRUCTION DETAILS

Fill shall not be placed until the required excavation and sub-base preparation has been completed and the sub-base has been inspected and approved by the Village's representative. Fill shall not be placed upon a frozen surface, nor shall snow, ice, or frozen material be incorporated in the fill, and all surfaces shall be free of standing water when fill is placed. It is highly discouraged to provide winter earthwork excavation construction between the months of November 1st thru April 1st, unless otherwise specified in the contract documents or directed by the Village's representative. Additional standards and construction guidelines shall be set forth, if approved to work during the above winter months (refer to New York State Department of Transportation Winter Earthwork section of the Standards and Specifications).

It shall be the Contractor's responsibility to properly place and compact all materials in the road section and other locations specified in the contract documents, and to correct any deficiencies resulting from insufficient or improper compaction of such materials throughout the contract period. The Contractor shall determine the type, size and weight of compactor best suited to the work at hand, select and control the lift (layer) thickness, exert control over the moisture content of the material, and other details necessary to obtain satisfactory results. During the progression of the work, the Village's representative will inspect the Contractor's operations and will permit the work to continue where:

1. Lift thickness is controlled and does not exceed the maximum allowed according to the equipment classifications in subparagraph 2. Compaction Equipment, of this subsection, and the equipment meets all specified class criteria. Thinner lifts and lighter equipment than the maximum allowed may be necessary for satisfactory results on some materials.
2. The compactive effort (number of passes and travel speed) is uniformly applied and not less than that specified for the given equipment class and lift thickness. Higher efforts than the minimum allowed may be necessary for satisfactory results on some materials.

3. The Village's representative concludes from a visual observation that adequate compaction has been attained, with the exception of backfill at structures, culverts, pipes, conduits, and direct burial cables. However, the owner reserves the right to perform density tests at any time. When tests are performed, the results shall indicate that not less than 90% of Standard Proctor Maximum Density is attained in any portion of an embankment, or 95% in a subgrade area, or as specified for other items with a percent maximum density requirement.
4. Significant rutting under the action of the compactor is not observed on the final passes on a lift.

Whenever the Contractor's operations do not conform to the above criteria, or requirements contained in other subparagraphs of this subsection, the Village's Representative will prohibit placement of an overlying lift until the Contractor takes effective corrective action.

Damage to any compacted lift at any time during the course of construction such as rutting under the loads imposed by earth moving equipment, shall be fully repaired by the Contractor at his/her own expense prior to placement of any overlying materials

Hand-compacted fill, including fill compacted by manually-directed power tampers, shall be placed in layers whose thickness before compaction does not exceed 4 inches of fill.

Adjacent to structures, fill shall be placed in a manner, which will prevent damage to the structures and will allow the structures to assume the loads from the fill gradually and uniformly. The height of the fill adjacent to a structure shall be increased at approximately the same rate on all sides of the structure.

Backfill material shall be compacted to a density as directed by the Village's representative. Suitable compaction methods include hand tamping, manually directed power tampers, or plate vibrators. Compaction by means of dropping weights operating from a crane or hoist shall not be permitted.

Compaction of fill adjacent to structures shall not be started until sufficient time has elapsed after placement of the concrete.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the number of cubic yards, measured to the nearest cubic yard, computed in the final compacted position. The volume of select fill shall be measured from the lower limit of excavations to the finished grade, as shown in the contract documents or as directed by the Village's representative. A deduction shall be made for pipes (based on nominal diameters), other payment items or existing facilities when combined the combined cross-sectional area exceeds 1sf or as specified in the contract documents.

E. BASIS OF PAYMENT

The unit price for this item shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work, including the cost for stockpiling, grading and compaction of material; and tests except where specific costs are designated or included in other pay items of work. No additional payment shall be made for re-handling of the material under this item.

ITEM 3 – TEMPORARY SEDIMENT FILTER BAG FOR DRAINAGE STRUCTURES

A. DESCRIPTION

Under this item the Contractor shall furnish, install, periodically clean and remove sediment filter bags at the locations shown on the contract plans or where ordered by the Village's representative.

B. MATERIALS

The sediment filter bag shall be designed to allow the passage of water, while preventing silt and other particles and debris from passing into the drainage structure through the inlet opening. The size of the filter bag shall fit drainage structure grate and be made from a polypropylene fabric which substantially conforms to the following characteristics:

	Units	Test
Permeability Rate	40 gal/min/sq.ft. (1630 L/min/sq.m)	
Grab Tensile Strength	300 Lbf (1.33 kN)	ASTM D-4632
Apparent Opening Size	425 μ m	ASTM D-4751
Seams	Double stitched	

C. CONSTRUCTION DETAILS

The sediment filter bag shall be installed in accordance with the contract plans and manufacturer's printed instructions. Two weeks prior to installation, the Contractor shall submit to the Village's representative two copies of those instructions.

The sediment filter bag shall be installed for existing structures prior to any excavation or filling operations. For new structures, the sediment filter bag shall be installed after setting the new frame in place. The sediment filter bags shall be removed after turf has been established or as ordered by the Village's representative.

When ordered by the Village's representative or at least once every twenty-eight days, the Contractor shall remove and clean the sediment filter bag. The accumulated materials shall be disposed of in accordance with Item "Unclassified Excavation". The sediment filter bag shall then be reinstalled in the structure as per the Manufacturer's specifications unless the Village's representative determines that the sediment filter bag is unfit for reinstallation, then it shall be replaced at no extra cost to the Village.

D. METHOD OF MEASUREMENT

The work will be measured as number of structures which have sediment filter bags installed.

E. BASIS OF PAYMENT

The unit price bid shall include the cost of all labor, materials and equipment necessary to install, clean and remove sediment filter bags, including disposal. No additional payment will be made for new bags used to replace damaged bags.

Payment will be made at half (50%) the price bid for each structure after the sediment filter bag is first installed and half (50%) after the sediment filter bag is removed after no longer being required.

ITEM 4 – RCA BASE COURSE

A. DESCRIPTION

Under the item the supplier shall furnish and place a dense graded aggregate base course to the depth, and in the places called for on the plans, and in accordance with the specifications, or as directed by the owner's representative.

B. MATERIALS

The base course blend shall consist of a Recycled Concrete Aggregate (RCA). The material shall meet the following criteria:

1. **Gradation** – The material shall be well graded and meet the following gradation limits:

Sieve Size	Percent Passing
1-1/2 Inch	100
1-inch	90-100
½ -inch	65-85
3/8-inch	55-75
#4	44-55
#8	30-45
#30	11-27
#200	1-10

2. **Plasticity Index** – The portion of the base blend that is finer than the #40 sieve shall have Plasticity Index of Zero (0), maximum, according to ASTM D424.
3. **Soundness** – The coarse aggregate, when subjected to five (5) cycles of the magnesium soundness test, shall have a weighted loss of 20 percent, according to ASTM C88.
4. **Abrasion Loss** – The maximum wear loss as determined by the Los Angeles Test, ASTM C 131, shall be 45%.
5. **CBR Value** – The laboratory compacted California Breaking Ration, as determined by ASTM D 1883, shall not be less than 10% after 96 hours of soaking.
6. **Sampling and Testing**
All samples shall be taken in accordance with applicable ASTM standards. Final acceptance samples shall represent a lot of material of not more than 2,000 cubic yards for gradation testing, nor more than 8,000 cubic yards for all other testing.

All testing shall be performed by an independent Testing Laboratory, certified by a Licensed Professional Engineer, registered in the State of New York, as approved by the Village's representative.

C. CONSTRUCTION DETAILS

On a previously prepared sub-grade, the Contractor shall construct the base course as follows:

1. The sub-grade surface shall be free of holes, depressions, bumps, waves, corrugations, and loose material. Any unsuitable surface areas shall be repaired by replacement of unsuitable materials.
2. The materials shall be delivered to the job site in a well-mixed unsegregated state. All deliveries shall be accompanied by printed tickets stating the cubic yards delivered.
3. The material shall be spread on the prepared sub-grade to a loose depth required to provide the specified compacted thickness of the base course. Individual layers shall not be less than three (3) inches or more than six (6) inches after compaction. When the base course is constructed in more than one layer, the previously constructed layer shall be cleaned of loose and foreign matter.
4. The base course shall be compacted to a minimum density of not less than 95% of the maximum density of the material as determined by "The Method of Test for Moisture Density Relationship of Soil, using a 10 lb. Rammer and 18 Inch Drop," ASTM D-1557.
5. The compaction may be accomplished by any mechanical means that will not cause segregation and provide a surface that is smooth and within the tolerances of these specifications. The material should be damp or moist but not wet during the compaction operation to promote densification. Compaction between curbs shall be performed by beginning at the curb line and compacting inward toward the center. Flooding or puddling will not be allowed. (See also NYSDOT Standards Section 203.3.03 – Compaction.
6. Segregation occurring during the construction of the base before the wearing surface is placed, shall be corrected by remixing or removing the segregated area and replacing it with non-segregated material. If the subgrade material becomes churned up or mixed with the base course for any reason whatsoever before the wearing course is placed, the base course shall be removed, the sub-grade graded and compacted and clean base course placed in accordance with this specification. The Contractor shall receive no additional compensation for this correction.
7. After compaction, the top surface shall not extend above the theoretical elevation for this course and after testing with a straight edge or parabolic template ten (10) feet in length, any depression over 1 /4 of an inch below the theoretical grade line shall be satisfactorily eliminated.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the number of cubic yards of dense graded aggregate base course computed from pavement lines shown in the contract documents.

E. BASIS OF PAYMENT

The unit price bid for this item shall include furnishing all labor, material, equipment and incidentals necessary to complete the work satisfactorily, including the cost of adding water. No direct payment will be made for losses of material resulting from compaction, foundation settlement, erosion, or any other causes. All deliveries shall be accompanied by the printed tickets stating the cubic yards delivered but will not be used to determine the measured pay quantity.

ITEM 5 – HOT MIX ASPHALT CONCRETE TYPE 6 TOP COURSE
ITEM 6 – HOT MIX ASPHALT CONCRETE TYPE 3 BINDER COURSE

A. DESCRIPTION

This work will consist of providing and placing one or more courses of HMA pavements constructed on the prepared foundation in accordance with these specifications and the specific requirements of the item under contract, and in reasonably close conformance with the lines, grades, thickness, and typical sections shown on the plans or established by the Village's representative.

B. MATERIALS

1. **General** – Use all materials for HMA production such as aggregates, PG Binder, Reclaimed Asphalt Pavement (RAP), mineral filler or any other materials meeting the New York State Department of Transportation's requirements, provisions of NYSDOT section 402-2 materials.
2. **Composition of Mixtures** – The HMA plant mix will generally be composed of a mixture of aggregate, reclaimed Asphalt Pavement (RAP), filler if required, and PG Binder as depicted in Table 1 "Composition of Hot Mix Asphalt Mixtures."

The resultant mixture shall meet the following Marshall Mix Properties:

Mix Property	Type 6F2, 6F3
Air Voids %	3.0 – 5.0
Voids in Mineral Agg (VMA)% min.	14
Voids Filled with Binder (VFB) %	65-78

Produce, deliver to the work site, and incorporate the mixture into the work within 20°F of the temperature specified by the owner's Representative but within the mixing and placing temperature range imposed by Table 1, Composition of Hot Mix Asphalt Mixtures.

The aggregates will be those noted in the job mix formulas. The PG Binder will be accepted on the basis of PG Binder supplier's certification.

Perform quality control tests during HMA production to ensure specification compliance. The plant mixed material will be accepted after blending and mixing at the plant. The pavement courses will be accepted after all paving operations are completed.

3. **Aggregates** – Fine aggregate will consist of materials conforming to the requirements of NYSDOT Section §703-01, Fine Aggregate. In addition, fine aggregate may consist of screenings, free from deleterious materials and manufactured from sources of stone, gravel or slag meeting the requirements of New York State Department of Transportation (NYSDOT) Section Coarse aggregate will consist of crushed stone, crushed gravel or crushed slag conforming to the requirements of NYSDOT Section §703-02, except for gradation.

When aggregates from approved natural fine sand sources are combined with coarse aggregates in the mixture, aggregate particles will meet additional requirements as follows:

- a. Particles in the No. 1A and No. 1 primary sizes will meet the quality requirements of NYSDOT Section §703-02 and will have a minimum of 85 percent by weight, of the particles with at least two fractured faces.
- b. Particles in the No. 2, No. 3 and No. 3A primary sizes will meet the quality requirements of §703-02 and will have a minimum of 75 percent, by weight, of the particles with at least one fractured face.

Aggregates for all mixtures specified in Table 1, including Type 6 shall meet the requirements of NYSDOT Section §703-02, Coarse Aggregate. In addition, the aggregate requirements for Type 6F2, 6F3 mixtures shall meet one of the following requirements based on the mix type specified in the contract documents.

i. Coarse Aggregate Type F2 Conditions

- Limestone, dolomite or a blend of the two having an acid insoluble residue content of not less than 20.0%.
- Sandstone, granite, chert, traprock, ore tailings, slag or other similar non-carbonate materials.
- Gravel, or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag or other similar materials, meeting the following requirements:
 - Type 6F2 Mixes: Non-carbonate plus 1/8-inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus ¼-inch particles must be non-carbonate.
 - ~~Type 7F2 Mixes: Non-carbonate plus 1/8-inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus ¼-inch particles must be non-carbonate.~~

**TABLE 1
COMPOSITION OF HOT MIX ASPHALT MIXTURES**

Mixture	Base				Binder		Shim		Top ^{3, 4}			
Requirements ¹	Type 1		Type 2		Type 3		Type 5		Type 6, 6F2, 6F3		Type 7, 7F2, 7F3	
Screen Sizes	General Limits % Passing	Job Mix Tolerance %	General Limits % Passing	Job Mix Tolerance %	General Limits % Passing	Job Mix Tolerance %	General Limits % Passing	Job Mix Tolerance %	General Limits % Passing	Job Mix Tolerance %	General Limits % Passing	Job Mix Tolerance %
2-inch	100	-	100	-	-	-	-	-	-	-	-	-
1 ½-inch	90-100	-	75-100	7±	100	-	-	-	-	-	-	-
1-inch	78-95	5±	55-80	8±	95-100	-	-	-	100	-	-	-
½-inch	57-84	6±	23-42	7±	70-90	6±	-	-	95-100	-	100	-
¼-inch	40-72	7±	5-20	6±	48-74	7±	100	-	65-85	7±	90-100	-
1/8-inch	26-57	7±	2-15	4±	32-62	7±	80-100	6±	36-65	7±	45-70	6±
No. 20	12-36	7±	-	-	15-39	7±	32-72	7±	15-39	7±	15-40	7±
No. 40	8-25	7±	-	-	8-27	7±	18-52	7±	8-27	±	8-27	7±
No. 80	4-16	4±	-	-	4-16	4±	7-26	4±	4-16	4±	4-16	4±
No. 200	2-8	2±	-	-	2-8	2±	2-12	2±	2-6	2±	2-6	2±
PGB Content % ²	4.0-6.0	0.4±	2.5-4.5	0.4±	4.5-6.5	0.4±	7.0-9.5	0.4±	5.4-7.0	NA	5.7-8.0	NA
Mixing and Placing ⁵ Temp. Range °F	250-325		225-325		250-325		250-325		250-325		250-325	
Description & Typical Uses	Dense Base: For general use		Open Base: For permeable base layer		Dense Binder: Intermediate Layer for general use		Shim: Fine HMA mixture for shimming ruts and leveling		Top Course: Dense Course for singles course resurfacing of rural, suburban and urban roadways			

Notes:

1. All aggregate percentages are based on the total weight of the aggregate.
2. The asphalt content is based on the total weight of the mix. When using slag aggregates in the mix, increase the PGB content accordingly, a minimum of 25 percent for an all slag mix.
3. 6F2, 6F3, 7F2, 7F3 mix types require friction coarse aggregates, and are required for mainline driving surface courses.
4. For Type 6, 7 and F9 aggregate requirements, Marshall design will not be required. These mix types are suitable where the States' requirements for F9 aggregate apply.
5. Introduce the PG Binder into the pugmill between 230°F and 350°F, or as recommended by the PG Binder supplier.

ii. Coarse Aggregate Type F3 Conditions

- Limestone having an acid insoluble residue content of not less than 20.0%, excluding particles of chert and similar siliceous rocks.
- Dolomite
- Sandstone, granite, chert, traprock, ore tailings, slag or other similar non-carbonate materials.
- Gravel, or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag or other similar materials, meeting the following requirements:
 - Type 6F3 Mixes: Non-carbonate plus 1/8-inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus ¼-inch particles must be non-carbonate.

When coarse aggregates for these mixes are from more than one source or of more than one type of material, proportion and blend them to provide a uniform mixture.

4. **Performance-Graded Binder** – The PG Binder will meet the requirements of NYSDOT Section §401-2.04, Performance Graded Binder. Use PG 64-22, or a PG Binder specified in Table 6-4, Performance Graded Binder Selection, of Chapter 6 of the Comprehensive Pavement Design Manual, or other suitable PG Grade as approved by the Village's representative.
5. **Reclaimed Asphalt Pavement** – Reclaimed Asphalt Pavement (RAP) will meet the requirements as written in Materials Method (MM) 5.16, Superpave Hot Mix Asphalt Mixture Design and Mixture Verification Procedure.

C. CONSTRUCTION DETAILS

The Contractor is responsible for Quality Control (QC). QC is defined as all activities required to produce HMA that meets all specification requirements. The contractor will produce HMA in accordance with the State Approved Control Plan and assume responsibilities for all QC activities as the production facilities.

1. **Conditioning of Existing Surface** – Clean the surface of the existing pavement prior to placing any HMA.

Apply a thin, uniform tack coat to all contact surfaces of existing HMA and Portland Cement Concrete layers including such areas as adjacent pavement edges, curbing, gutters, manholes and other structures, immediately prior to placing the HMA mixture against them.

If the pavement surface is rutted, fill all depressions and wheel path ruts prior to the paving of the truing and leveling course, as directed by the Village's representative. For wheel path ruts ¼-inch or greater, but ¾-inch or less, use Shim Course. Otherwise, for ruts greater than ¾-inch, use a Type 7 mixture or other appropriate mixture.

Place a truing and leveling course of a minimum variable thickness of proper plant mix necessary to bring the surface of the existing pavement to the same transverse slope and longitudinal grade required for the finished pavement surface. For compacted thickness up to 2 inches, use a Type 6 or Type 7 mixture. For compacted thickness in excess of 2 inches, use a Type 3 mixture. Pay special attention to the proper compaction of thin sections.

2. **Compaction** – Immediately after the HMA mixture has been spread, struck off and surface irregularities adjusted, thoroughly and uniformly compact it by rolling. Roll the surface when the mixture is in the proper condition and when the rolling does not cause undue displacement, cracking or shoving. Initially roll all courses with the roller travelling parallel to the centerline of the pavement beginning at each edge and working toward the center. Roll the banked curves starting at the low side edge and working toward the super-elevated edge.

Correct at once any displacement occurring as a result of reversing the direction of the roller, or from other causes, by the use of rakes and addition of fresh mixture as required. Exercise care in rolling so as not to displace the line and grade of the edges of the HMA mixture. To prevent adhesion of the mixture to the drum(s) and pneumatic tires, keep the drum(s) and the pneumatic tires properly moistened with water or water mixed with small quantities of detergent or other approved material. Any petroleum products or solvents having an adverse effect upon the HMA pavement will not be permitted for use.

There shall be no visible defects, such as shallow ruts, ridges, roller marks, cracking, tearing, segregation, or any other irregularities as determined by the owner's Representative, in the pavement when the rolling operation is complete. If these defects are present, correct these defects to the satisfaction of the Village's representative or relay the pavement at no additional cost.

Along forms, curbs, headers, walls and other areas not accessible to the rollers, thoroughly compact the mixture with mechanical tampers as directed by the Village's representative. On depressed areas, use a trench roller or a small vibratory roller with the approval by the Village's representative. Cleated compression strips also may be used under the roller to transmit compression to the depressed area.

Remove and replace any mixture that becomes loose and broken, mixed with dirt, or is in any way defective with fresh HMA mixture which shall be compacted to conform with the surrounding area.

When using vibratory compaction, assume full responsibility for the cost of repairing all damages which may occur to the highway components and adjacent property including buried utility and service facilities.

Use either of the two compaction options listed below except that the shim course must be compacted with a minimum of three passes of a pneumatic rubber tired roller unless

otherwise approved by the owner's Representative for variance. Option B – Vibratory Compaction is not permitted when compacting HMA concrete courses on structural bridge decks, or other structures with less than 2 feet of cover.

- a. **Option A – Three Roller Compaction Train:** Under this option, initially roll all HMA mixtures with an approved steel-wheel roller operating in a static mode. Overlap the previous roller pass by one-half the width of the roller.

Immediately following the initial rolling, roll the mat with an approved steel wheel roller. A minimum of 3 passes of the steel wheel roller will be required. One pass is defined as one movement of the roller over any point of the pavement in either direction. At the contractors option, an approved pneumatic rubber-tired roller can be used as intermediate rolling.

Immediately following the intermediate rolling, finish roll the mat with a steel-wheel roller to remove all shallow ruts, ridges, roller marks, and other irregularities from the surface.

Use this option only when the compacted thickness of the finished mat is 4 inches or less. Unless approved by the Village's representative, the roller speeds shall not exceed 3 mph. When paving multiple lanes simultaneously, increase the required number of rollers proportionately for each additional full lane width unless otherwise permitted by the Village's representative.

- b. **Option B – Vibratory Compaction** – Under this option, use vibratory rollers appearing on the current Approved List – HMA Concrete Vibratory Compaction Equipment. For each project where a vibratory roller is used, furnish a vibrating reed tachometer for the exclusive use of the Village's representative. The vibrating reed tachometer must have a frequency range of 17 Hz to 67Hz with a minimum reed interval of 1 Hz between 17 Hz and 33 Hz and a minimum reed interval of 2 Hz between 33 Hz and 67 Hz.

Operate vibratory rollers at a uniform speed not exceeding 2.5 mph (220 feet per minute) on all pavement courses. Complete all turning of the compaction equipment on material which has had a minimum of one roller pass.

The required number of passes listed in Table 2, Number of Passes, is recommended and may be increased or decreased if, in the opinion of the Village's representative, adequate density can be achieved. Complete all breakdown roller passes before the mat temperature falls below 250°F. One vibratory pass is defined as one movement or one drum of the roller over any point of the pavement in either direction. One static pass is defined as one movement of the roller over any point of the pavement in either direction. Remove all ruts, ridges, roller marks or other irregularities from the surface using static rolling. The Village's representative may alter the compaction procedures for small areas where the specified procedures are not practical.

If the Village's representative determines that unsatisfactory compaction is being obtained or damage to highway components and/or adjacent property is occurring using vibratory compaction equipment, then immediately cease using this equipment and

proceed with the work in accordance with the conventional compaction procedures stipulated under Option A at no additional cost.

When the compaction procedure being used fails to produce results acceptable to the Village's representative, adjust the procedure to obtain the desired results. Rollers will move at a slow and uniform speed. The roller drive roll or wheel will be the nearest the paver.

**TABLE 2
NUMBER OF PASSES**

Pavement Courses	Option A Three Roller Train (Static)		Option B Vibratory Rollers	
	Steel Wheel Roller	Pneumatic Roller	Vibratory Passes	Static Passes
Base (Open Graded Each Lift)	4	3	4	2
Base (Dense-Graded)	4	3	4	2
Binder (Dense-Graded)	2	3	2	2
Top (Dense-Graded All Types)	2	3	2	2

D. METHOD OF MEASUREMENT

The quantity of the HMA placed and compacted will be number of tons deliver to the nearest 0.01 and determined from the delivery ticket.

Each delivery vehicle supplying HMA mixture shall be accompanied with a delivery ticket indicating the total quantity in metric tons being delivered. The quantity on the delivery ticket shall be determined from the automated proportioning system or the delivery vehicle weigh system. The delivery ticket shall contain the following minimum information:

- Ticket Number
- Plant Identification
- Contract Number
- Material Description (including the PG-Binder Grade)
- Quantity of Material in Vehicle
- Date and Time

Make one legible copy of the delivery ticket available to the project inspector prior to the placement of the mixture.

E. BASIS OF PAYMENT

The unit bid price for all pavement courses shall include the cost of all material, labor and equipment necessary to complete the work, including any cleaning the existing surface, cleaning of foreign material from the pavement as a result of construction operations; all necessary repairs to highway components and/or adjacent property caused by construction operations. Tack coat will be paid under the Tack Coat Item.

ITEM 7 – BITUMINOUS TACK COAT

A. DESCRIPTION

This work shall consist of preparing and treating an existing hot mix asphalt surface with tack coat in accordance with the contract documents and as directed by the Village's representative.

B. MATERIALS

The tack coat emulsion shall be agitated or circulated to ensure a homogenous emulsion prior to sampling or application of the material. The consistency of a diluted tack coat shall be appropriate for pumping and uniform in placement application. Tack coat shall not pass thru a sieve greater than 0.10; residue by distillation shall range between 38-50%; oil distillate shall only consist of 2% max; during a residue from distillation, a penetration at 77°, 100g and 5 seconds shall range between 40-90%.

C. CONSTRUCTION DETAILS

- 1. Equipment** – A distributor shall be used for applying tack coat. The distributor shall be capable of applying the tack coat uniformly on variable widths of surface up to 15 feet.

The distributor equipment shall include a quantity measuring system and a thermometer for measuring temperature of tank contents. Prior to being used on a project, this equipment shall be calibrated in accordance with ASTM D 2995, Standard Practice for Estimating Application Rate of Bituminous Distributors or an equivalent calibration procedure acceptable to the Village's representative. The Village's representative will witness the calibration or require the Contractor to provide documentation certifying the calibration.

Distributors shall be equipped with circulation spray bars which shall be adjustable both laterally and vertically. An attached bristle broom that drags on the pavement behind the spray bars may be attached to the distributor. If the broom is used, it shall be adjustable laterally and vertically so that the full width of the applied tack coat is bristled uniformly into the pavement surface.

A bituminous material sampling valve shall be attached to the distributor. The distributor tank shall be equipped with an agitator that is capable of ensuring the tack coat remains homogenous.

Tack coat stored in the distributor tank shall be heated and maintained at a temperature between 85°F and 160°F.

Hand operated spray units will be permitted only in areas where the use of a distributor is impractical.

The Village's representative will determine the final acceptance of all equipment used for applying the tack coat.

- 2. Application of Tack Coat** – The tack coat contained in the distributor tank shall be homogenous.

The tack coat shall be applied to a prepared clean pavement. Material shall be applied uniformly across the width of the designated area.

The tack coat shall not be applied on a wet pavement surface or when the pavement surface temperature is below 40°F.

The application rate shall be as determined in Table 3 Tack Coat Application Rates. These are recommended application rates for tack coat on various surface types and may be modified by the Village's representative.

Table 3 – Tack Coat Application Rates

Surface Type	Application Rate (gal/yd ²)	
	Diluted Tack Coat	Straight Tack Coat
New Hot Mix Asphalt	0.05-0.06	0.03-0.04
Milled Surfaces and Existing Hot Mix Asphalt	0.08-0.10	0.05-0.06
Portland Cement Concrete	0.08-0.10	0.05-0.06
Vertical Surfaces (Curbs, drainage structures and appurtenances)	0.09-0.11	0.06-0.07

* Samples must be provided if requested.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the number of gallons of tack coat used to the nearest gallon.

E. BASIS OF PAYMENT

The unit price bid for this item shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work.

ITEM 8 – SAWCUTTING ASPHALT OR CONCRETE PAVEMENTS

A. DESCRIPTION

Under this item, the Contractor shall cut full-depth existing asphalt roadway, concrete or other materials used in pavements, walks, driveways and aprons, etc., preparatory to its removal where and to the lines shown on the contract plans and/or as directed by the Village's representative.

B. MATERIALS.

All equipment proposed for this work shall be approved by the Village's representative prior to actual use.

C. CONSTRUCTION DETAILS

Field Quality Control – Establish a neat, true joint line of required full depth between the existing asphalt pavement, walk, driveway, driveway apron, etc., retained and the abutting construction to be placed subsequently.

Also included in this item is the clean-up of slurry generated by the sawcut. The existing pavement has to be left in a clean condition as approved by the owner's representative.

Any damage to material not indicated for removal, caused by the Contractor's operations shall be repaired by the Contractor at no cost to the property owner or Village.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the number of linear feet of sawcutting of existing asphalt or other materials actually sawn (regardless of depth) in accordance with contract plans and these specifications.

E. BASIS OF PAYMENT

The unit price bid for this item shall include the cost of all labor, materials, tools, equipment and incidentals necessary to satisfactorily complete the required work including the cleanup of slurry and dust caused by sawcutting.

ITEM 9 - FURNISH AND INSTALL 15" DIAMETER CORRUGATED SMOOTH INTERIOR POLYETHYLENE PIPE

A. DESCRIPTION

Under this Item the Contractor shall furnish and install corrugated polyethylene pipe with a smooth interior and fittings for pipes as indicated on the contract plans and details.

B. MATERIALS

1. Underdrain Pipe

The corrugated polyethylene pipe shall conform to the heavy-duty requirements of AASHTO M252, Plastic and Polyethylene Corrugated Drainage Pipe or Tubing, except as follows:

- a. The pipe and fittings shall be corrugated polyethylene, conforming to ASTM F 405.
- b. The minimum pipe stiffness at 5% and 10% deflection at $23^{\circ} \pm 2^{\circ} \text{ C}$ ($73^{\circ} \pm 4^{\circ} \text{ F}$) shall be 35 lbs/in/in and 30 lbs/in/in, respectively.
- c. Screw split, or snap fittings, as approved by the Village's representative, shall be used.
- d. Pipe shall be as manufactured by Advanced Drainage Systems, Inc (ADS), or approved equal.

C. CONSTRUCTION DETAILS

1. Trenches for drain pipe shall be excavated to the lines, grades and depths as shown on the contract plans and details. The excavation and backfilling shall be included in this item.
2. The pipe shall be placed so that the drainage water is stopped in the correct direction and to a slope no less than 0.015% or as shown in the contract plans or as directed by the Village's representative. Each section of pipe shall be joined only with fittings. Pipe shall not be split to widen it to the joint section.
3. Any damage to the pipe shall be replaced at no extra cost to the Village.
4. The Contractor shall supply a certification indicating the corrugated polyethylene underdrain pipe meets the ASTM F 405 designation.
5. **Storage and Protection**
 - a. Polyethylene pipe may deteriorate from prolonged exposure to ultraviolet radiation. Deterioration in storage may be evident by brittleness, cracking or splitting. If this occurs,

the Village's representative can reject any section of pipe as necessary. No payment will be made for this rejected section.

- b. Polyethylene will melt and burn when exposed to flame. Flame damaged portions shall not be used.
- c. Extra care must be used in handling in cold weather. Prior to placement, the pipe shall be stored for at least 24 hours in an area having a minimum temperature of 50°F.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this Item shall be the number of linear feet of pipe installed in accordance with the contract plans and this specification or as directed by the Village's representative.

E. BASIS OF PAYMENT

The unit price bid for this Item shall include the cost of furnishing all labor, equipment, materials and incidentals necessary to complete the work, including grading, trench excavation, backfilling and compaction, fittings, gaskets and joint connections to ensure a satisfactory connection

ITEM 10 – ALTERING DRAINAGE STRUCTURES, LEACHING BASINS AND MANHOLES

A. DESCRIPTION

Under this Item the Contractor shall adjust existing manholes and/or catch basins to meet new lines and grades as shown on the Plans and/or as directed by the Village's Representative.

B. MATERIALS

All changes shall be made with the same type of material used in the original construction, unless otherwise shown on the Plans and/or specifications.

All new bricks used for collar shall be concrete brick.

C. CONSTRUCTION DETAILS

1. The Contractor shall excavate around the casting to the top slab of the structure and shall remove the existing collar. A new collar of concrete brick and mortar shall be placed on cleaned off structure deck slab to bring the manhole and/or catch basin frame and cover/grate to grade. The casting frame shall be placed in a mortar bed.
2. If the existing brick collar is in good condition, and manhole frame and cover are low, adjustment rings can be used to bring the manhole up to grade.
3. The existing roadway shall be restored under various items within this Contract.
4. The new roadway surface shall be flush with the top of the existing manhole frame and cover.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this Item shall be the number of each manhole and/or catch basin adjusted to grade in accordance with the Plans and/or as directed by the Village's Representative.

E. BASIS OF PAYMENT

The unit price bid for this Item shall include the cost of furnishing all labor, materials, equipment and incidentals necessary to satisfactorily complete the work, including adjustment of rings. Pavement removal and restoration shall be paid for under various items in this Contract.

ITEM 11 – REBUILD TOP OF EXISTING DRAINAGE STRUCTURES

A. DESCRIPTION

Under this item, the contractor shall remove, store and/or dispose of the existing top slab, provide repairs to damaged walls and construct a new top slab, where applicable

B. MATERIALS

1. **Cast-in-place concrete** – the contractor shall utilize Class A concrete for all structural components. Reinforcing bar splices shall be lapped a minimum of 30 bar diameters and tied securely.
2. **Precast concrete** – All concrete for structural precast units shall have a minimum compressive strength of 4000 psi @ 28 days. The concrete used to produce machine made units and components shall have a maximum absorption of 8.0% by weight and is not required to be air entrained. Reinforcing bar splices shall be lapped a minimum of 30 bar diameters and tied securely.

C. CONSTRUCTION DETAILS

The contractor shall excavate around the existing structure, expose, remove and dispose of the existing damaged top slab. The Contractor shall form and repair any concrete damage to the walls. With a method approved by the Village's representative, the contractor will proceed to install/construct the new top slab for the existing structure.

After the top slab has been set, the contractor shall backfill and restore around the existing basin in-kind. The contractor shall replace the curb box, frames, manholes and grates that may have been removed during this construction.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the actual number of each existing structures with wall repairs, top slabs being rebuilt, to the satisfaction of the Village's representative.

E. BASIS OF PAYMENT

The unit price bid for this item shall include the cost for all necessary labor, materials, equipment and transportation costs associated, including excavation, sawcut, backfill, podging, resetting of frames and grates. Existing curb grate, manhole frame and cover may be salvaged and reused if determined to be in 'good condition' as per the Village's representative.

ITEM 12 – CONNECTIONS TO EXISTING DRAINAGE FACILITIES

A. DESCRIPTION

Under this item the Contractor shall remove as necessary, portions of existing drainage structures or existing pipe lines and connect new drainage facilities thereto at the locations shown on the contract plans or as ordered by the Village's representative. The work provides for the connecting of existing pipe lines to new drainage structures and/or the connecting of new pipe lines to existing drainage structures.

B. MATERIALS

Cement concrete and brick masonry materials as necessary for sealing the remaining portions of the opening subsequent to the installation of the new pipe or drainage structure shall conform to the applicable requirements under their specific items.

C. METHOD

1. The Contractor shall maintain the existing pipe lines or structures in continuous service as required and/or directed by the Village's representative. All work shall be performed by competent workmen and in a manner satisfactory to the Village's standards. Unless otherwise directed the new materials used shall be of the same type as exist in the present structure.
2. The Contractor shall perform all excavation and backfill and dispose of all excess materials as required to complete the work. Backfill shall be compacted up to the required grade and shall be in accordance with Item 2, Select Fill.
3. When connection of a new pipe line is made to an existing drainage structure, the pipe shall be cut and trimmed to the interior face of the structure. When directed by the Village's representative, a length of pipe shall be furnished and installed as required to complete the basin connection.
4. When connection is made of a new pipe line to an existing drainage structure the Contractor shall cut a hole in the masonry at the proper grade and of appropriate size to receive the new connecting pipe. Reinforcing when encountered shall be cut back only as required to provide a proper bond for the new patch material. The pipe shall be set to required grade and the masonry wall shall be replaced, repaired and patched as required to provide a secure and waterproof connection. Ends of the pipe projecting into the structure shall be neatly cut off and trimmed flush with the inside face of the structure.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the number of faces made at each connection between the drainage pipe and structures. Each new connection made to an existing pipe line or to an existing drainage structure shall qualify as one connection.

E. BASIS OF PAYMENT

The unit price bid shall include the cost of all labor, materials, tools, equipment and incidentals necessary to satisfactorily complete the entire work except that new pipe furnished and installed where shown or ordered by the Village's representative, excavation for new pipe lines only and new drainage structures will be paid for under the appropriate item provided in the Contract.

ITEM 13 – FURNISH & INSTALL CATCH BASIN TYPE A - MOD

All requirements of the New York State Department of Transportation Standard Specifications as amended for Item 604.30 'Catch Basins' shall apply except as herein modified:

1. MATERIALS

Castings shall be delivered on the project unpainted, and after installation, all exposed surfaces shall receive two coats of asphaltic paint.

3. CONSTRUCTION DETAILS

The outline of the pavement area where installation is to occur shall be sawcut full depth using approved sawcutting methods, at the locations directed by the Village's Representative.

4. METHOD OF MEASUREMENT

The quantity to be paid for under this Item shall be the vertical feet of structures constructed complete, in accordance with the plans, Standard Sheets, specifications and orders of the Village's Representative. Measurement shall be taken from the bottom of the bottom slab to the top of the top slab, rounded to the nearest inch.

5. BASIS OF PAYMENT

The unit price shall include the cost of furnishing all labor, equipment and materials including but not limited to reinforcing bars, concrete or masonry, painting and step irons. All sawcutting, excavation, dewatering, removal of existing pavement and structures, trees and stumps up to 8 inches in diameter and unsuitable materials within the limits described, backfilling with existing or imported suitable granular material, compaction, temporary sheeting and bracing, if necessary, hauling and disposal of excess and unsuitable material and utility support and protection, temporary trench repair including furnishing of the dense graded material and bituminous surface, and all other incidentals necessary to satisfactorily complete the work.

Payment will be made under:

Catch Basin Type A (4'0" × 4'0") - VF

Catch Basin Type A-Mod (2'6" × 4'0") - VF

ITEM 14 – CONCRETE SIDEWALKS AND DRIVEWAYS (REINFORCED)

A. DESCRIPTION

Under this Item the Contractor shall construct reinforced cement concrete driveways and driveway aprons on a properly prepared subgrade, at the location and to the lines, grades and the details indicated on the Contract Plans, in accordance with the specifications and/or orders of the Village's Representative.

B. MATERIALS

Metal reinforcement to be furnished and installed shall conform to the requirements of M17AB Wire Fabric Concrete Reinforcement. The welded steel wire reinforcement shall be fabricated from No. 3 gauge minimum cold drawn steel wire ASTM A 82. Longitudinal members shall be fabricated six inches (6") center to center and transverse members shall be spaced twelve inches (12") center to center. The fabric shall not weigh less than 51.2 pounds per one hundred square feet (100 SF). All fabric when placed in the concrete shall be clean, free of all dirt, scale and heavy rust.

Concrete shall be Class A, or with the approval of the Village's Representative, Class F High Early Strength Concrete. High early strength concrete shall conform to the requirements of Class A Concrete for Structures with a minimum compressive strength of 4,000 psi.

C. CONSTRUCTION DETAILS

- 1 Placing Concrete** – The cement concrete shall be reinforced as shown on the Plans and as hereinbefore specified. The welded wire fabric shall be installed in the upper portion of the section and to lap twelve inches (12") transversely and six inches (6") longitudinally.
- 2. Forming Joints** – Construction Joints shall be formed where directed by the Village's Representative.
- 3. Finishing Cement Concrete** – The surface of the concrete driveway or driveway apron shall be scored where and as directed.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this Item shall be the number of square feet of concrete driveways and driveway aprons measured in place, acceptable completed in accordance with the Plans and Specifications.

E. BASIS OF PAYMENT

The unit price bid per square foot for this Item shall include the cost of furnishing all labor, materials, tools, equipment and incidentals necessary to satisfactorily complete the entire work including fine grading and all grading including the removal of existing concrete walks, curbs, driveways and driveway aprons, roadway pavement, etc. unless otherwise shown on the plans or in the proposal. Reinforcement will be paid for under and in accordance with the provisions of Section 608-3.01 of the NYSDOT Standard Specifications.

ITEM 15 - EMBEDDED DETECTABLE WARNING UNITS

A. DESCRIPTION

Under this item the Contractor shall furnish and install embedded detectable warnings on sidewalk curb ramps and other locations as shown on the plans or as directed by the Village's Representative.

B. MATERIALS

The embedded detectable warning units shall conform to the dimensions shown on the current standard sheet for detectable warnings, or as ordered by the Village's Representative.

Units shall be composed of cementitious materials, steel, iron, clay, shale, plastics, polymeric materials, resins, pigments, and shall be approved and listed on the New York State Department of Transportation List of Approved Materials – Embedded Detectable Warning Units. The units shall be an approximate visual match to the color specified in the plan, or as ordered by the Village's Representative. Units shall provide the required contrast (light-on-dark or dark-on-light) with the adjacent curb ramp or other applicable walkways. The units shall be uniform in color and texture, be free of cracks or other defects, and have clean-cut and well defined edges. If no color is specified, the color shall be dark gray Federal Standard 595B #36081 or darker.

The detectable warning units shall meet the following physical properties:

- Compressive Strength, minimum 28 days, 55 MPa minimum
- Freeze-thaw Loss (25 Cycles, one per day, 10% NaCl solution), 1.0 % Maximum

Embedded detectable warning units shall be shipped and packaged in accordance with commercially accepted standards. The following information shall be marked on each package or on the shipping invoice: the name of the product, the name and address of the manufacturer, and the quantity of material.

Acceptance of this material will be based on the manufacturer's name appearing on the New York State Department of Transportation List of Approved Materials – Embedded Detectable Warning Units.

The Contractor shall submit a sample unit for approval by the Village's Representative prior to beginning work.

C. CONSTRUCTION DETAILS

Setting bed material and / or surface preparation materials for installation of detectable materials units shall be in accordance with the manufacturer's recommendations. Embedded detectable warning units may be installed in plastic concrete, installed directly on existing subbase prior to placing concrete, inlaid on prepared concrete surfaces or as otherwise directed by the manufacturer or specified in the Contract documents.

Follow all applicable manufacturers' requirements for environmental conditions, surface preparation, installation procedures, curing procedures, and materials compatibility.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item will be the number of square yards of embedded detectable warning unit installed in accordance with these specifications and as ordered by the Village's Representative.

E. BASIS OF PAYMENT

The unit price bid shall include the cost of furnishing all labor, materials and equipment to complete the work, including bedding material. No adjustment shall be made for concrete removed to accommodate embedded units.

ITEM 16 – CAST-IN-PLACE CONCRETE CURB (GRADING INCLUDED)

A. DESCRIPTION

The work shall consist of the construction of concrete curb or flush curb and necessary grading as shown on the plans or as specified by the Village's Representative.

B. MATERIALS

The requirements of Subsection 609-2 of the NYSDOT Specifications shall apply. The curb or flush curb shall conform to the dimensions shown on the standard sheets, except that the depth of the curb shall be as shown on the plans.

C. METHOD OF CONSTRUCTION

The requirements of Subsections 609-3.01 and 609-3.04 of the NYSDOT Specifications shall apply.

The location of the concrete curb or flush curb shall be properly graded to conform to the curb line and grade. The graded area shall be firm and dry before placing concrete and all organic or unstable materials, existing curbs, sidewalks, and driveways shall be removed.

D. METHOD OF MEASUREMENT

Concrete curb or curb flush curb under these specifications will be measured by the number of linear feet, measured to the nearest foot. The measurement will be taken along the top front arris line of the curb or curb gutter.

E. BASIS OF PAYMENT

The unit price bid per foot shall include all excavation, embankment, preparation of subgrade, curb anchors, and all other materials, equipment and labor necessary to complete the work as called for on the plans or as specified by the Village's Representative. The unit price bid shall also include: replacement of curb and curb flush curb that was produced out of tolerance; clearing of curb, or flush curb found to be dirty prior to final acceptance; and repair or replacement of curb and curb and flush curb by the Contractor's operations.

No separate payment will be made for excavation or embankment above, below, or within the volume of curb placement.

ITEM 17 – FURNISH AND INSTALL GROUND MOUNTED SIGN PANELS AND POST

A. DESCRIPTION

1. **General** - This work shall consist of fabricating, installing and covering traffic sign panels, sign support systems, sign posts and illuminated sign panels in accordance with the contract documents, NYSDOT standard sheets, the MUTCD and as directed by the Village's Representative.
2. **Definitions**
 - a. Sign Face - the side of a sign panel with reflective sheeting attached.
 - b. Sign Face Layout - a dimensional representation of the sheeting mounted on the sign panel.
 - c. Sign Panel - a uniform sheet of aluminum or fiberglass reinforced plastic with reflective sheeting mounted on it. It may be constructed with or without additional sheets of aluminum or fiberglass reinforced plastic attached on the larger sheet. Multiple sheets of aluminum or fiberglass reinforced plastic may be used provided the sheets are of a uniform material and thickness and not separated.
 - d. Sign Panel Assembly - a group of contiguous sign panels with a maximum separation of 6 inches.
 - e. Sign Support System/Post - the apparatus a sign panel is mounted.

B. MATERIALS

Materials shall meet the requirements of the following subsections of the NYSDOT Standard Specifications Section 700 *Materials and Manufacturing*.

Wood Preservative - Water Borne	708-31
Stress Graded Timber and Lumber	712-14
Stainless Steel Connecting Products	715-16
Rubber Impregnated Woven Cotton-Polyester Fabric	728-01
Rubber Impregnated Random Fiber Pad	728-02
Aluminum Sign Panels	730-01
Reflective Sheeting	730-05
Reflectorized Sheeting Sign Characters (Type IV)	730-12
Reflectorized Sheeting Sign Characters (Type V)	730-13
Stiffeners, Overhead Brackets, and Miscellaneous Hardware	730-22
Fiberglass Reinforced Plastic Sign Panels	730-23

Sign Panels

Fabrication of all components shall produce a finished sign panel. Holes may be punched or drilled. Edges shall be smooth and true and free from burrs or ragged breaks. Sign panels shall be fabricated as shown on the NYSDOT standard sheets. Details for signs that are not shown on the NYSDOT standard sheets shall be similar to the closest shown sign blank size. All sign panels shall be clearly

marked in the lower right corner on the back of the sign panel to show the Contract Number and the installation date (month/year). Markings shall be a minimum of 1 inch high and shall be permanently engraved, labels attached with pressure-sensitive adhesives, marked with an indelible ink or paint, or established by another method approved by the Engineer.

1. Ground Mounted Sign Panels

- a. Ground Mounted Sign Panels without Z-Bars** - Ground-Mounted signs without Z-bars shall be 10-gauge thick meeting the requirements of NYSDOT Standard Specification Section 730-01 *Aluminum Sign Panels*. Or 0.135-inch-thick meeting the requirements of NYSDOT Standard Specification Section 730-23 *Fiberglass Reinforced Plastic Sign Panels* for sign panels up to 4 feet x 4 feet.
- b. Ground-Mounted Sign Panels less than or equal to 30 square feet (with Z-bars)** - Ground-Mounted signs with Z-bars less than or equal to 30 square feet shall be 10-gauge thick meeting the requirements of NYSDOT Standard Specification Section 730-01 *Aluminum Sign Panels*. Or 0.135-inch-thick, meeting the requirements of NYSDOT Standard Specification Section 730-23 *Fiberglass Reinforced Plastic Sign Panels* for sign panels up to 4 feet x 4 feet.
- c. Ground-Mounted Sign Panels greater than 30 square feet (with Z-bars)** - Sign panels for Ground-Mounted Sign Panels greater than 30 square feet shall be 8-gauge thick meeting the requirements of NYSDOT Standard Specification Section 730-01 *Aluminum Sign Panels*.

2. Sign Panels with Multiple Sheeting Types - The panel thickness for sign panels with multiple types of sheeting types shall be determined using the total area of the sign panel, and meet the materials requirements above.

3. Reflective Sheeting - Reflective sheeting materials used on sign panels shall conform to the requirements of NYSDOT Standard Specification Section 730-05 *Reflective Sheeting*. Type I (Class A) sheeting may be used on tourist and motorist services signs. Type III (Class B) sheeting shall be used on regulatory, warning, route marker, and guidance signs unless specified otherwise below.

Type I (Class A) sheeting shall be used whenever brown reflective sheeting is specified, and may be processed by a sign fabricator in its shop. The legend for a sign with brown background shall be made by applying cut-out letters or symbols of Type I (Class A) yellow sheeting.

- a. High-Visibility Sheeting** - Signs with the following MUTCD codes shall be fabricated using Type IX (Class E) sheeting: R1-1, R1-2, R1-4, R1-5, R3-1, R3-2, R3-4, R3-18, R5 1, and R5-1a.
- b. High-Visibility Fluorescent Yellow Sheeting** - Signs with the following MUTCD codes shall be fabricated using Type IX (Class E) fluorescent yellow sheeting for the yellow portion of the sign face, and the appropriate nonfluorescent Type IX (Class E) color for the remainder of the sign face: E11-1, E11-1a, E11-1b, E11-1c W1-6, W1-7, and W1-8.

- c. **High-Visibility Fluorescent Yellow-Green Sheeting** - Signs with the following MUTCD codes shall also be fabricated using Type IX (Class E) fluorescent yellow-green sheeting for the yellow portion of the sign face, and the appropriate nonfluorescent Type IX (Class E) color for the remainder of the sign face: NYR2-7, NYR2-8, S1-1, S3-1, S4-3, S4-5, W11-1, W11-2, W11-9, W15-1, W16-1, and W16-7p. In addition, signs with the following MUTCD codes mounted on the same support system shall also be fabricated using Type IX (Class E) fluorescent yellow-green sheeting for the yellow portion of the sign face, and the appropriate nonfluorescent Type IX (Class E) color for the remainder of the sign face: W16-2, W16-2a, W16-3, W16-3a, W16-4, and W16-9p.
4. **Sheeting Sign Characters** - Characters include letters, numerals, route shields, symbols, and borders. Characters shall be the size, series and color specified in the MUTCD and as specified in the contract documents. Only Type IV or Type V Characters, as appropriate, shall be used. White legends and borders shall be formed with directly-applied Type IV Characters. Interstate shields for signs shall be either demountable panels or directly-applied panels with Type V reverse-screened characters. Sign face characters and background shall be reflective, but black portions of a sign face shall not be reflective.
 5. **Sign Face Layouts** - Sign face shape, color, dimensions, and characters shall be in accordance with:
 - a. Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA).
 - b. New York State Supplement to the National Manual on Uniform Traffic Control Devices for Streets and Highways
 - c. Standard Highway Signs Book – (FHWA)

After contract award, two copies of non-standard sign face layouts will be provided to the Contractor. The Contractor shall verify dimensions on the sign face layouts prior to fabrication. (Standard sign face layouts for MUTCD codes without the prefix NY are shown in the Standard Highway Signs Book written by the Federal Highway Administration.)

Type A Sign Posts

Type A sign posts shall be selected from the Department's Approved List of Type A Sign Supports. The standard strength (i.e., moment capacity) of a Type A sign post shall be 2100 ft-lbs, although weaker or stronger posts may be substituted.

1. **Type A Sign Posts with Extra Embedment** - Type A sign posts with extra embedment (more than 39 inches) shall meet the requirements of the Materials Details for Type A sign Supports.
2. **Soil Plates for Type A Sign Posts** - Type A sign posts with soil plates shall meet the requirements of the Materials Details for Type A Sign Supports.
3. **High Capacity Type A Sign Posts** - High-Capacity Type A sign posts are defined as any Type A sign post system shown in the Materials Details for Type A Sign Supports that has a total combined capacity for the entire two- or three-post system higher than 7800 ft-lbs. The Contractor shall calculate the design moment of the sign panel, and select an appropriate

High-Capacity Type A sign post system capable of resisting that moment, subject to the Engineer's approval.

C. CONSTRUCTION DETAILS

1. General

Sign panels, overhead panels, overhead vertical brackets, vertical and horizontal Z-bars, sign support systems shall be constructed in accordance with the contract documents, NYSDOT standard sheets, MUTCD and materials details. Sign locations shown in the contract documents are approximate, and the exact location for each sign will be approved by the Engineer in the field.

Sign posts shall be constructed in accordance with the contract documents, NYSDOT standard sheets, MUTCD and materials details. Sign locations shown in the contract documents are approximate, and the exact location for each sign will be approved by the Engineer in the field.

The Contractor shall erect new signs and remove existing signs in such a manner that the traveling public is provided all necessary regulatory, warning, and guidance information at all times. Certain items may be designated to be performed prior to other items of work.

An inspection of installed signs will be made in the daylight for color, reflectivity, location, vertical post alignment, visibility, and appearance. The installed signs will also be inspected at night for color, orientation and reflectivity, traits which will be more conspicuous at night.

2. Wind Loads

The wind pressures given on the NYSDOT standard sheets have been calculated according to the procedure in the *AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals (1994)*. All wind loading shall be adjusted for height, drag, and gusting in accordance with *AASHTO's Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals (1994)*. Allowable sign areas shall be reduced when the sign centroid height is at an elevated site condition (e.g., an overpass) where the influence of the ground on the wind is reduced. For example, a sign centroid between 29 feet and 49 feet above the existing ground would result in a 37.5% increase in wind pressure (refer to the section "Loads" in aforementioned AASHTO Specifications).

WIND LOAD CRITERIA				
	Region	Wind Velocity (mph)	Wind Pressure at Panel Centroid # 14.0 ft (psi)	Wind Pressure at Panel Centroid > 14.0 ft (psi)
Type A Post	1, 2, 6, 8 and 9	60	14.4	19.2
	3, 4, 5, 7 10 and 11	70	20.4	25.2

NOTE: Panel centroid height measured above the surrounding terrain.

3. Sign Panels

Sign panels shall be installed as shown on the standard sheets or as shown in the contract documents. Layout of sign panels and assemblies shall be as shown in the contract documents.

4. Sign Posts

The Contractor shall install Type A sign posts individually or in groups to provide the required moment resistance. Type A sign posts with Extra Embedment, and Soil Plates for Type A sign post, shall be installed where extra embedment depth and/or soil plates are required. High Capacity Type A sign posts shall also be installed where extra moment capacity is required.

The number of Type A sign posts indicated in the contract documents is based on the information available during design. The number and strength of Type A sign posts installed shall be based on conditions at the final sign location approved by the Engineer. The Contractor shall determine the required moment resistance for the Type A sign post(s) due to the wind loads indicated in the NYSDOT Standard Specification Section 645-3.01A.

D. METHOD OF MEASUREMENT

The quantity to be paid for shall be the number of signs and posts furnished and installed as shown on the plans and specifications, or as directed by the Village's Representative.

E. BASIS OF PAYMENT

The unit price bid for each sign and post shall include all the costs of furnishing all labor, equipment, materials, hardware, removal and disposal of any existing sign panels, panel assemblies and/or posts, and incidentals necessary to complete the work as shown on the plans and/or as directed by the Village's Representative.

ITEM 18A – FURNISH & INSTALL CURBBOX, FRAME AND GRATE

ITEM 18B – FURNISH & INSTALL FLUSH FRAME AND GRATE

ITEM 19 – FURNISH & INSTALL MANHOLE FRAME AND COVER

A. DESCRIPTION

This work shall consist of furnishing and placing frames, grates, covers and curb boxes for drainage structures as shown on the plans or as directed by the Village's Representative.

B. MATERIALS

1. **Castings** – All castings manufactured in conformance to the New York State Department of Transportation Standard Sheet "Telescoping Manhole Casting & Ring" shall meet the requirements of NYSDOT §715-05 Iron Castings, Class No. 30B or Class No. 35B. All other castings (gratings, covers, frames and curb boxes) shall meet the requirements of §715-02, Steel Castings, Grade N-I; or §715-07, Proof-Loaded Iron Castings; or §715-09, Malleable Iron Castings, Grade 32510, at the Contractor's option. No substitutions will be allowed.
2. **Fabricated Articles** – All frames, grates and appurtenant parts shall be fabricated from steel conforming to ASTM A36, AISI Grade 1020 Steel, AISI Grade 1025 Steel, or ASTM A 529 Grade 50, except that the longitudinal bars for Grates G1, G2, G3, 10 PCB, 11 PCB and 12 PCB shall meet the requirements of ASTM A529 Gr. 50. The Contractor shall submit mill certifications, to the Village's Representative, for ASTM A 529, Gr. 50. Welding or splicing by welding of any member of the frame or grate, other than the welds shown on the Standard Sheets, plans, approved shop drawings, approved Materials Details, or in the proposal will not be permitted. Galvanizing shall be in accordance with §719-01 Type 1, unless indicated otherwise.

Welding shall comply with the requirements specified in the New York State Steel Construction Manual, except that radiographic inspection will not be required.

C. CONSTRUCTION DETAILS

1. **Frames and Grates** – Frames, covers and grates shall be placed true to line and grade. Covers, grates and frames shall make firm, full and even bearing on their respective underlying surfaces and shall be non-rocking under the influence of traffic or other loads. On all frames, the Contractor shall have the option of drilling and tapping holes or drilling holes in and welding nuts to the bottom of the frame to facilitate the stud bolts used to hold down the grate. Alternate forms of locking will be approved by the Office of Design.

Unless otherwise specified, the hole shall be drilled and tapped or the nut welded to the frame before any galvanizing. The threads shall be tapped sufficiently oversize to conform to the dimensions for coarse thread with class 2B tolerances prescribed in the American National Standards for Unified Screw Threads, ANSI B1.1., after galvanizing.

2. **Field Repairs for Improperly Fitting Systems** – The Contractor may propose to the Village's Representative reasonable field repair procedures for improperly fitting castings. No field repairs of improperly fitting fabricated frames and grates shall be allowed. Field repairs may include grinding and/or proper welding techniques for the materials involved. Repairs that

involve welding shall be allowed only on steel castings, and not on iron, and only with prior approval of the DCES. Implemented repairs must result in systems whose constituent parts have full, uniform and even bearing contact on their respective underlying surfaces and that do not rock or move under the influence of traffic and other loads. All such repairs must be completely satisfactory to the Village's Representative or the work will be rejected. All repairs shall be done at no cost to the Village.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the number of boxes, frames, grates and covers furnished and installed in accordance with the plans, work order and specifications and/or as directed by the Village's representative.

E. BASIS OF PAYMENT

The unit price bid for each frame and grate shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work, including the cost of any field repair work for improperly fitting castings or to render the frame and grate non-rocking.

ITEM 20 – ADJUSTMENT OF UTILITY VALVE/BOX

A. DESCRIPTION

Under this Item the Contractor shall adjust municipality-owned valve boxes and meter pits, to the proposed grade, either by:

1. Cutting and/or building up the installation and resetting the castings, or
2. Furnishing and installing precast and/or pre-fabricated rings and/or sleeves; or any other method if approved by the Village's representative and the owning agency.

The Contractor shall contact the various water districts to mark out all their water valves to be adjusted and request them to loosen all valves, so that they can be adjusted prior to paving.

B. MATERIALS

All materials are subject to the approval of the individual owning agency and the Village's representative.

C. CONSTRUCTION DETAILS

Prior to the placement of the top course after the placement of the binder course if required the Contractor shall install adjustment rings, sleeves, or frames for water valve boxes. The Contractor shall be responsible for ensuring that the adjustment rings, sleeves or frames are compatible with the existing valve boxes. The adjustment rings, sleeves or frames shall be placed so the valve box cover is no more than ¼" above or below the proposed finish grade of the pavement. The Contractor, at the Contractor's option, may elect to reset the existing valve box to the finish grade.

To ensure a firm and secure fit with the adjustment rings, sleeves or frames the seat of the existing valve box shall be free of all foreign material at the time of installation. The entire assembly shall be set on the seat of the existing valve box and secured. The valve box cover shall be set upon the seat of the adjustment ring, sleeve or frame. All adjustment rings, sleeves or frames shall be protected from displacement caused by traffic or equipment used in the paving operation.

With the prior approval of the Village's representative and owning facility, where the new grade is to be lowered the existing sleeve may be cut to permit its use at proposed finish grade.

D. METHOD OF MEASUREMENT

The quantity to be measured for payment shall be the number of municipality-owned valve boxes or meter pits adjusted to finish grade no matter how often the valve box is adjusted to grade during construction.

E. BASIS OF PAYMENT

The unit price bid for this item shall include all materials, labor, tools, equipment and incidentals necessary to complete the required work.

ITEM 21 – ADJUST EXISTING HYDRANT ELEVATION

A. DESCRIPTION

Under this Item the Contractor shall change the locations of hydrants to conform with the change of locations curb lines of the highway. Any hydrant or part thereof, damaged by the Contractor during the course of construction shall be repaired by him at his own expense.

B. MATERIALS AND METHOD

All materials, equipment and incidentals required to complete the work shall conform to the specifications of the water company or water district having jurisdiction over the facilities affected and shall be subject to the approval thereof.

The work shall consist of removing existing hydrants, valves and fittings and resetting them at the new location and making all connections necessary to restore the hydrants in service.

C. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the actual number of hydrants relocated in accordance with the Plans, specifications and orders of the Village's Representative.

D. BASIS OF PAYMENT

The unit price bid for this item shall include the cost of furnishing all labor, materials, tools, equipment and incidentals, including excavation, dewatering, temporary sheeting and bracing, backfilling and compaction necessary to satisfactorily complete the work.

ITEM 22W – THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (WHITE)
ITEM 22Y – THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (YELLOW)

A. DESCRIPTION

Under this Item the Contractor shall furnish and apply thermoplastic reflectorized pavement markings at the locations and in accordance with patterns indicated on the contract plans or pavement, or as directed by the Village's Representative in conformance with the MUTCD and these specifications.

This item includes the removal of existing and/or conflicting pavement markings and layout of all markings included under this Item, as shown on the plans or as ordered by the Village's Representative. Contractor must layout traffic markings 48-hours after the roadway has been paved.

B. MATERIALS

- 1. Alkyd Thermoplastic Pavement Marking Material (White and Yellow)** – The Contractor shall have the material manufacturer submit to the Village's Representative, the formula of the Alkyd Thermoplastic material that will be applied under the Contract. Special attention shall be paid to the binder composition. The solid resin shall comprise of a minimum of eight percent (8%) by weight of the entire material formulation, which shall only consist of one hundred percent (100%) maleic-modified glycerol ester of wood rosin, with no tall oil derivatives. The physical and chemical properties contained in this specification shall apply regardless of the type of formulation used. The material upon heating to the application temperature shall not exude fumes which are toxic, or injurious to persons or property. The pigment, beads and filler shall be free from all skins, dirt, and foreign objects.

Reflectorized glass beads (Fed. Spec. TT-P-85) shall be employed in the material to the extent of not less than twenty-five percent (25%) nor more than thirty-five percent (35%) by weight of material.

Glass beads (pre-mix) shall meet the following requirements:

Refractive Index	1.50 Minimum
Spheres	75% Minimum True Round
AASHTO M247 Type I	

All the beads used in the formulation shall be smooth, clear and free from air inclusions and scratches that might affect their function as a reflecting media and shall meet ASTM D1155 specifications. Not more than one percent (1%) shall be black, amber, or milky. The beads shall not deteriorate by contact with sodium chloride, calcium chloride or other chemicals used against formation of ice on roadways or because of the oil content of pavement materials or from oil dropping from vehicular traffic.

The glass beads for both the pre-mix and drop on top dressing shall have the following grading when tested with ASTM D1214: (Note: Other gradations may be accepted; however, they must be submitted to the Village's Representative for approval.)

US Standard Sieve	% Passing
No. 20	100%
No. 30	79-95%
No. 50	15-60%
No. 80	0-15%

2. Requirements

- a. **Specific Gravity** – The specific gravity of the thermoplastic traffic line material shall not be less than 1.05 nor more than 2.15.
- b. **Composition** – The pigment, beads and filler shall be uniformly dispersed in the resin. The material shall be free from all skins, dirt and foreign objects and shall comply with the requirements according to Table 1.

Table 1 Composition	
Composition	By Weight
Binder	20.0% Min.
Glass Beads	25.0% Min.
Titanium Dioxide	10.0% Min.
Yellow (for yellow only)	2.5% Min., 4.0% Max.
Calcium Carbonate & Inert Fill (See Note)	

Note: Amount of calcium carbonate and inert fillers shall be at the option of the manufacturer, providing all other requirements of the specifications are met. The binder shall consist of a mixture of synthetic resins, at least one of which is solid at room temperature, and high boiling point plasticizers. At least one-third of the binder composition shall be the solid maleic-modified glycerol ester of wood rosin and shall be no less than 8% by weight of the entire material formulation. The binder shall not contain petroleum based hydrocarbon resins, tall oil resins, blends of tall oil resin and wood rosin or similar derivatives.

The other ingredients shall meet the following specifications:

Titanium Dioxide ASTM D 476-Type 2

c. Physical Characteristics

Color: The thermoplastic material after heating for four hours at 218°C (425°F) and cooled to 25°C (77°F) shall meet the following:

- White: Daylight reflectance at 45 deg – 0 deg; 75% Min.
- Yellow: Daylight reflectance at 45 deg. – 0 deg.; 45% Min.
- Federal Test Standard Number 595 – matching color 13538

Drying Time – When applied at a temperature range of 211°±C 70°C (412°± 12.5°F) and thickness of 3.2 mm (0.125 in.) the material shall set to bear traffic in not more than 2 minutes when the air temperature is 50°F and not more than 15 minutes when the air temperature is 90°F.

Bond Strength – After heating the thermoplastic material for four hours at 218°C (425°F) the bond strength to Portland Cement concrete shall exceed 1.24 MPa (180 psi) (ASTM C-321).

Impact Resistance – After heating the thermoplastic material for four hours at 218°C (425°F) and tested, the impact resistance shall be a minimum of 10-inch pounds (ASTM D-256).

Softening Point – After heating the thermoplastic material for four hours at 218°C (425°F) and tested in accordance with ASTM-E-28, the materials shall have a softening point of not less than 90°C (194°F).

Yellowness Index – The white thermoplastic material shall not exceed a yellowness index of 0.15.

Storage Life – The material shall meet the requirements of this specification for a period of one year. The thermoplastic must also melt uniformly with no evidence of skins or unmelted particles for this one-year time period. Any material not meeting the above requirements shall be replaced by the manufacturer.

3. Application Properties

The thermoplastic material shall readily be applicable at temperatures between 204.4° - 226.6°C (400°-440°F) from the approved equipment, to produce a cross section of line not less than 1/8-inch nor more than 3/16-inch.

The material shall not exude fumes which are toxic, obnoxious or injurious to persons or property when it is heated during application.

The application of additional glass beads by drop-on method shall be at a rate of a minimum of 1 pound per 16 square feet of applied material.

The temperature-viscosity characteristics shall remain constant up to 4 hours when heated to the application temperature and shall show like characteristics from batch to batch. The color shall not exceed the reflectance limitations of the specifications after 4 hours at 218.3°C (425°F), nor shall it change from batch to batch.

4. Packing and Marking

The thermoplastic traffic material shall be block or granular packaged in either suitable corrugated containers or thermal degradable plastic bags to which it will not adhere to during shipment or storage. The packages shall weigh approximately 23 kg (50 lbs.). Each container shall designate the color, manufacturer's name, batch number and date of manufacture. Each

batch manufactured shall have its own separate number. The label shall warn the user that the material shall be heated in the range of 204°-226°C (400°-440°F) during application.

The vendor shall assume all costs arising from the use of the patented materials, equipment, devices, or processes used on or incorporated in the work, agrees to indemnify and save harmless the Village and its duly authorized representative from all suits at law or action of every nature for, or on account of, the use of any patented materials, equipment, devices or processes.

5. Method of Sampling, Testing and Certification

The material shall be tested in accordance with the appropriate method in Federal Test Method Standard No. 141 appropriate ASTM or AASHTO designation.

The material manufacturer shall provide a verifiable certified test report showing the acceptability of the binder system as specified; an infra-red spectra of the extracted binder shall be compared to the characteristic absorption bands of maleic-modified glycerol ester of wood rosin. Batch numbers shall be provided for verification of material being installed.

Properly formulated maleic-modified glycerol ester of wood rosin alkyd thermoplastic will, when 100 grams of the sample is pre-heated to 300-330°F on a hot plate, or in an oven and 10 grams of 30 weight non-detergent Quaker State motor oil is added immediately and then heated to 425°F under vigorous constant agitation on a hot plate set at approximately 750°F, remains hard after cooling and shows a definite thin green to greenish amber oil film or layer on top of the thermoplastic. A patty may be poured into a shallow lid or on a piece of tin to more easily observe the reaction.

Topdressing Beads – Beads with a refractive index of 1.50 and the same specifications as above will be made available for use as top dressing. Payment for these beads shall be included in the cost of thermoplastic material.

Guarantee – The night-time visibility and reflectivity of the white and yellow thermoplastic lines shall be at least equivalent to reflectorized painted traffic lines having six pounds per gallon drop on beads of 1.5 index of refraction after each has been applied side by side on heavily traveled Village roads for one month.

C. CONSTRUCTION DETAILS

1. Removal

The Contractor shall remove, by process of grinding, dry sandblasting or other approved methods ensuring that no damage occurs to the finished pavement. Black-out paint will not be acceptable. See Section 635 of the NYSDOT Specifications for additional detail and procedures.

2. Layout

The Contractor shall be responsible for supplying the equipment and personnel necessary for marking the pavement to correctly position the thermoplastic according to the Plans. An acceptable method of layout is to deploy a sash chain on the pavement, and using a paint spray can, spray a dashed line over the chain. Preliminary marks should be established from the Plans by spraying dots at points on the road surface as determined by measuring with a tape. These marks shall be no more than 25 feet apart on curves or 200 feet apart on tangent lines. A SASH CHAIN AT LEAST 300 FEET LONG SHALL BE AVAILABLE FOR USE. Other methods of layout that furnish smooth curves and straight tangent lines shall be submitted to the Village's Representative for approval if they are to be used.

Lane widths shall be maintained within plus or minus 0.4 feet when compared to the plans and the double yellow centerline shall be within 0.2 feet of the actual center of the travel way, unless shown otherwise on the Plans or ordered by the Village's Representative.

Thermoplastic Markings shall not be installed between December 1st and April 1st unless directed by the Village's Representative. In the event resurfacing is completed during these months, the contractor will be responsible to install temporary painted lines. The Contractor shall install required thermoplastic lines in the spring. The Contractor in submitting his bid hereby agrees that he shall have no claim against the Village for any damages due to such delay, other than extended time to complete the work. Application for extension of time shall be filed by the Contractor with the Village Superintendent at least 15 days prior to the contract date of completion.

3. Installation Procedures for Thermoplastic Materials

- a. Before any work is begun, a schedule of operations shall be submitted for the approval of the Village's Representative.
- b. Material shall be applied to the pavement at material temperatures no lower than 400°F nor higher than 460°F. Installation shall be done only in seasonable weather in accordance with good practice and in accordance with the manufacturer's recommendations. Immediately after application of the thermoplastic drop on glass spheres (topdressing beads) shall be mechanically applied while the thermoplastic is still sufficiently molten, such that the spheres will be held by and mechanically imbedded in the surface of the material, in order to provide immediate night reflectivity.
- c. **Cleaning Equipment** – Equipment must be provided to insure removal of dust debris, and other foreign matter from the road surface immediately prior to the installation of the thermoplastic.
- d. **Condition of Pavement** – The pavement shall be dry and free of oil, dirt, grease, or other foreign contaminants at the time of installation and the environmental temperature shall be above 40°F, unless directed by the Village's Representative. All temporary markings will be removed by the Contractor prior to thermoplastic installation.

- e. **Equipment for Melting and Heating Thermoplastic Material** – A special kettle mounted on a mobile unit is required for melting and heating the material. Such equipment shall incorporate the following features:
- i. The kettle shall be of sufficient capacity to satisfy the minimum installation requirements of the material as specified hereafter.
 - ii. The kettle shall provide means of heating the material by means of thermostatically controlled heat transfer liquid rather than by direct flame, so as to provide positive temperature control and prevent overheating of the material.
 - iii. Suitable temperature gauges to indicate liquid and material temperatures at all times shall be provided in the kettle.
 - iv. The kettle shall provide means of continually agitating the material while the material is being heated.
 - v. The kettle shall have means of rapidly and efficiently discharging the liquid material into appropriate application equipment.
 - vi. The kettle shall be equipped and constructed in such a manner so as satisfy the requirements of the National Board of Fire Underwriters and the appropriate agencies of the State of New York.
- f. **Application Equipment** – Equipment shall be provided to place the material on the pavement as a finished line, and shall include the following features:
- i. The applicator shall provide agitation for the material prior to its actual installation.
 - ii. The applicator shall provide means of maintaining the material at its proper application temperature (not lower than 400°F nor above 460°F).
 - iii. The applicator shall maintain uniformity of specified width, and thickness of not less than 1/8-inch nor more than 3/16-inch of generally uniform cross-section. The thickness of the installed lines as produced by the applicator shall be verified at the beginning of each work day, by the Contractor, prior to the start of work.
 - iv. The applicator shall be capable of providing lines of variable widths from four-inches (4") to twelve-inches (12") by use of interchangeable parts.
 - v. The applicator shall provide a means of cleanly cutting off the ends of each length of line.
 - vi. The applicator shall be easily maneuverable and so constructed as to permit application of curved lines.
 - vii. The applicator shall be provided with a bead dispenser capable of uniformly dispensing reflective glass spheres (top dressing) at controlled rates of flow. The

bead dispenser shall be automatically operated in such a manner that it will only dispense beads while the material is being applied. The beads shall be dispensed at a rate of not less than one pound per 16 square feet of material. Equivalent to 1 pound per 48 LF of 4" line.

- viii.* The applicators shall be equipped and constructed in such a manner so as to satisfy the requirements of the National Board of Fire Underwriters and the appropriate agencies of the State of New York.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item will be the actual number of linear feet of four-inch (4") wide pavement marking material measured along the center of the surface stripe. No payment will be made for the number of linear feet of space in the dashed line. Payment for markings wider than four-inches will be made at contract price per foot of the four-inch line multiplied by the actual width in inches divided by four. Payment for arrows and/or letters shall be made as equivalent to 50-feet of four-inch line per arrow and letters.

E. BASIS OF PAYMENT

The unit price bid shall include full compensation for furnishing all material, equipment, labor, and incidentals necessary to satisfactorily complete the work. All material includes top dressing beads. No payment shall be made for any installed material that does not meet the minimum thickness requirement. No additional payment will be made for the pavement marking removals; cost is to be included in the placement of new markings.

ITEM 23 – FURNISH AND INSTALL SOLAR POWERED RAPID FLASHING BEACON W/ SIGNS

A. DESCRIPTION

This work shall consist of furnishing and installing a Solar Powered Rectangular Rapid Flashing Beacon (RRFB) assembly in accordance with the contract documents or as directed by the Village's Representative. All materials and labor required to provide a complete functioning system are to be included.

1. General Requirements

- a. Each RRFB shall be a complete assembly consisting of supporting structure (pole, breakaway transformer base, sign, cabinet, and solar panel supports), indications, signage, cabinet, solar panel, and electrical components (wiring, solid-state circuit boards, etc.).
- b. Each RRFB shall be supplied with all required hardware to install assembly.
- c. Each RRFB shall be ADA Compliant.
- d. Each RRFB shall be rated for 90 mph wind conditions.
- e. All components shall be designed to operate under ambient temperature conditions from -30° to 165°F.

2. Functional Requirements:

- a. The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation after a predetermined period of operation. The predetermined period of operation shall be based on the procedures provided in Section 4E.06 of the current MUTCD for the timing of pedestrian clearance times for pedestrian signals.
- b. When actuated, all RRFB units associated with a given crosswalk shall simultaneously commence operation of their rapid-flashing indications within 120 milliseconds. All RRFB units associated with a given crosswalk shall simultaneously cease operation of their rapid-flashing indications within 120 milliseconds.
- c. During activation, a small light, directed at and visible to pedestrians in the crosswalk shall be installed integral to the RRFB to give confirmation that the RRFB is in operation. The pedestrian activation shall flash concurrently with one of the vehicle indications to give confirmation that the RRFB is in operation.
- d. Upon actuation, the two or four yellow indications in each RRFB unit shall flash in a sequence of 75 cycles per minute. The left and right RRFB indications shall operate using the following sequence during each 800-millisecond cycle:
 - i. The RRFB indication on the left-hand side shall be illuminated for approximately
 - ii. 50 milliseconds.

- iii.* Both RRFB indications shall be dark for approximately 50 milliseconds.
The RRFB indication on the right-hand side shall be illuminated for
- iv.* approximately 50 milliseconds.
- v.* Both RRFB indications shall be dark for approximately 50 milliseconds.
- vi.* The RRFB indication on the left-hand side shall be illuminated for approximately
- vii.* 50 milliseconds.
- viii.* Both RRFB indications shall be dark for approximately 50 milliseconds.
The RRFB indication on the right-hand side shall be illuminated for
- ix.* approximately 50 milliseconds.
- x.* Both RRFB indications shall be dark for approximately 50 milliseconds.
- xi.* Both RRFB indications shall be illuminated for approximately 50 milliseconds.
Both RRFB indications shall be dark for approximately 50 milliseconds.
- xii.* Both RRFB indications shall be illuminated for approximately 50 milliseconds.
Both RRFB indications shall be dark for approximately 250 milliseconds.
- e.** The flash rate of each individual RRFB indication, as applied over the full flashing sequence, shall not be between 5 and 30 flashes per second to avoid frequencies that might cause seizures in anyone viewing the activated RRFB.
- f.** The light intensity of the yellow indications during daytime conditions shall meet the minimum specifications for Class 1 yellow peak luminous intensity in the current Society of Automotive Engineers (SAE) Standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles).
- g.** To minimize excessive glare, an automatic signal dimming device shall be used to reduce the brilliance of the RRFB indications during nighttime conditions.

B. MATERIALS

The solar paneled RRFB equipment shall be included on the NYSDOT's Qualified Products List (QPL) and/or Approved Products List (APL) or approved equal. NYSOT APL Equipment Manufacturers include Carmanah Technologies Corp., Tapco, Trafficalm Systems, or approved equal. See NYSDOT APL for equipment specifications.

All provisions of NYSDOT Specifications §709-01, §715, §723, §724 and §730 shall apply except as detailed below:

1. Indicators

- a.** Each RRFB facing shall consist of two rectangular-shaped yellow indications each with an LED-array-based light source. The size of each RRFB indication shall be at least 5 inches wide by at least 2 inches high and shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of at least 7 inches, measured from the nearest edge of one indication to the nearest edge of the other indication.
- b.** The outside edges of the RRFB indications, including any housings, shall not project beyond the outside edges of the signage of the RRFB.

- c. Indicators shall be mounted in a housing constructed of durable, corrosion resistant, powder-coated aluminum with stainless steel fasteners.
- d. Mounting hardware shall be stainless steel.
- e. The indicator housing shall be located between and immediately adjacent to the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque (or, in the case of a supplemental advance sign, the AHEAD or distance plaque).
- f. All RRFB light bars shall be field adjustable to maximize the field of view on each vehicle approach.
- g. Shall be rated for a minimum 15-year life span.

2. Radio Network Controller and Cabinet

- a. The local equipment controlling the components of the beacon assembly shall be housed in a lockable, weatherproof, vandal and tamper resistant NEMA 3R rated aluminum enclosure, intended for outdoor use, primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose- directed water, and damage from ice formation.
- b. The cabinet shall be mounted on the pole and a work pad shall be provided, in accordance with signal system details. Cabinet shall not intrude into sidewalk or obstruct the pedestrian push button.
- c. The cabinet shall be mounted on the side of the pole away from approaching traffic at a height between 3.5 – 4.5 feet from the bottom of the cabinet to the ground. In unpaved areas a concrete work pad shall be installed in front of the cabinet door not to exceed 5 feet by 5 feet by 4 inches deep and shall abut the pole foundation.
- d. The cabinet shall be of sufficient size to house all required equipment.
- e. Cabinet locking mechanisms shall meet NYSDOT standards currently used by the regional traffic signal groups. All keys to installed locking mechanisms shall be supplied to the Village's Representative upon acceptance of the work. The cabinet shall be secured with a Corbin lock and keyed as directed by the Regional Traffic Engineer for securing the cabinet door.
- f. The controller shall be replaceable independently of other components.

3. Controls

- a. Controls shall include integrated constant current LED drivers with a minimum of two output channels for driving one or two assemblies.
- b. Controls shall be completely programmable:

- i. To run for a user specified time period when activated via switch, button contact closure, or when triggered from an external sensor such as a wireless transmitter, radar detector, presence detector, or wireless walk through bollard with a compatible sensor output.
- c. Controls shall be capable of being programmed for alternate flash rates and patterns with a minimum resolution of 0.25s per trigger action.
- d. Controls shall seamlessly integrate with the wireless transceiver to form a network of connected devices.
- e. Controls shall allow adjustable and programmable light intensity levels for the beacons. Intensity level programming shall allow for manual and automatic modes. Manual mode shall allow the light intensity to be configured for a constant output on every available intensity level. Automatic mode shall allow for automatic intensity adjustment based upon assembly's ambient light conditions. Assemblies shall have a minimum of two brightness intensities available, exclusive of any unlit condition.
- f. Controls shall include data-logging capabilities with selectable interval from one minute to one day with at least a 60-day logging period.
- g. Controls shall include an RS232 serial interface and ethernet interface for local programming. Controls may include USB cable interfaces for supplemental data connections.
- h. Controls shall be locally programmable using software for Microsoft Windows 2007 or later or web-based program.
- i. The controller software shall allow programmable operation of the Assembly. Direct control of functions such as lighting controls shall be possible.

4. Transceiver

- a. Shall provide wireless communications between the assemblies to integrate the pushbutton activation of indications.
- b. Shall seamlessly integrate with the controller to ensure sequential activation of other radio-equipped devices in the system.
- c. Shall synchronize the system components to activate the indications within 120 ms of one another and remain synchronized throughout the duration of the flash (timeout) cycle.
- d. Shall include network-wide modification of sign controller settings and output durations using programmability from any networked transceiver without the use of additional equipment or software.
- e. Shall be capable of operating as a parent (gateway) or child (node or repeater).

- f. Shall be capable of providing site-survey data for verification of signal strength between network devices.
- g. Shall operate on the license-free ISM band.
- h. Radio control shall operate on an FCC approved 900 MHz frequency, hopping spread spectrum network with a normal operating range of ~1000 feet.
- i. Shall operate from 3.3 to 15 VDC input.
- j. Shall comply with 47 CFR Part 15.
- k. Shall be replaceable independently of other components.
- l. The product must be FCC certified to comply with all 47 CFR Part 15 Subpart B Emission requirements.

5. Emergency Shutoff

- a. One toggle-type power switch for either the AC or solar power source, shall be provided for emergency shutoff at the local cabinet on the pole.

6. Power Supply

- a. The power supply shall be either solar or 120 VAC and meet all applicable codes.
- b. Autonomy with a fully charged battery shall be at least 30 days of continuous operation without charging at an ambient temperature of 70 °F with at least ten actuations per hour.
- c. Battery:
 - i. Shall have a nominal output voltage of 12 VDC and a capacity of 48 Ah at a C100 discharge rate.
 - ii. Shall be sealed and spill proof.
 - iii. Shall have terminals that accept screws or bolts for secure wiring connections.
 - iv. Shall be replaceable independently of other components.
 - v. Shall be fused for short circuit protection.

7. Solar Power

- a. One solar array with a bracket for mounting to the top of the pole.
- b. Flexible, liquid tight conduit shall be used from the solar panel to the weather head/pole cap or as instructed by the solar panel manufacturer's instructions.
- c. The solar panel shall be affixed to an aluminum plate and bracket, adjustable at an angle of 45 – 60 degrees to facilitate adjustment for maximum solar collection and optimal battery strength.

- d. The solar panel assembly (panel, plate and bracket) shall be secured to a pole cap mount, capable of 360-degree rotation, to facilitate adjustment for maximum solar collection and optimal battery strength.
- e. The solar panel shall be capable of withstanding operating temperatures of -30 to 165 °F.
- f. If an Accessible Pedestrian Signal (APS) system is called for in the contract documents, all provisions for the continuous operation of the APS will be accounted for in the solar power system.
- g. Solar Charge Controller:
 - i. Shall automatically provide Low Voltage Disconnect (LVD) to protect diminished power batteries.
 - ii. Shall automatically provide Load-Reconnection once battery levels have been restored to an acceptable power level.
 - iii. Shall protect against and automatically recover from short circuits, overloads, reverse polarities, high temperatures, lightning and transient surges, and voltage spikes.
 - iv. Shall be independently replaceable of other control panel components.

8. Pole Shaft

- a. Shall be a steel pole as shown on the contract documents.
- b. Shall meet MUTCD height Requirements.

9. Pole Pedestal Base

- a. Shall conform to §723-15 and mount on a concrete foundation attached by four anchor 'J' bolts that are to be imbedded in a concrete foundation.
- b. Shall meet or exceed AASHTO break-away requirements for traffic signal supports.

10. Pedestrian Push Buttons

- a. A Polara Bulldog style pushbutton (Bulldog III BDSP.010) shall be ADA compliant, and shall operate as normally open (n/o) circuit.
- b. The contractor shall provide a supplemental Polara In-Exhtred pushbutton plate external for offset and height reductions application when necessary.

11. Static Signs

- a. All signs shall conform to the MUTCD and the NYS Supplement to the MUTCD.
- b. All sign panels and plaques shall conform to the requirements of §645-2.02 of the NYS Standard Specifications.

- c. Sign sheeting shall conform to the requirements in §645-2.02.
- d. All sign assemblies shall use anti-vandal fasteners and tools to mount components to sign and sign to fixture.
- e. Crossing sign assemblies shall consist of one of the following with the appropriate plaque: Pedestrian Crossing (W11-2), School Crossing (S1-1), or Trail Crossing (W11-15).
- f. R10-25 shall be furnished, at least a size of 9 by 12 inches, to be mounted adjacent to and above each pedestrian pushbutton.

C. CONSTRUCTION DETAILS

- 1. All provisions of §645 and §680 shall apply except for all electrical wiring and as modified below.
- 2. Electrical and communication wires shall be run in separate conduits.
- 3. Prior to any fabrication or installation of any of the components of the Flashing Beacon Assembly, the Contractor shall submit detailed specifications, parts lists, manufacturer's cut sheets, instruction sheets, and wiring diagrams to the Village's Representative for approval at least 14 calendar days before installation.
- 4. The Contractor shall install and position the beacon assembly in such a manner as to optimize visibility for roadway traffic, and optimize incident light for the solar assembly, using the manufacturer's recommendations and instructions for installation.
- 5. If the Village's Representative determines that the unit is not functioning properly, the Contractor shall secure the services of the manufacturer's representative for installation and testing.
- 6. Where new work is to meet existing infrastructure, the Contractor's methods shall provide for neat lines to achieve satisfactory installation.

D. METHOD OF MEASUREMENT

This work will be measured as the number of RRFB complete assemblies furnished and installed in accordance with the Contract documents, or as directed by the Village's Representative.

E. BASIS OF PAYMENT

The unit price bid shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work, including signs, foundation, decorative poles, rain cap, solar equipment, battery, mounting hardware, fitting (where applicable), excavation, equipment tools and labor and any incidentals necessary to complete the work.

ITEM 24- MOBILIZATION

A. DESCRIPTION

Under this item the Contractor shall set up his necessary general plant, including shops, storage areas, office and such sanitary and other facilities as are required and bonds and/or any other similar significant initial expense required for the initiation of the contract work that may be included in this Item. The determination of the adequacy of contractor's facilities except as noted above shall be made by the Contractor.

B. MATERIALS

Those materials that are required for mobilization which are not to be part of the completed contract shall be as determined by the Contractor, except that they shall conform to any pertinent local or state law, regulations, or codes.

C. CONSTRUCTION DETAILS

Such work as is done in providing the facilities and services under this Item shall be done in a safe and workmanlike manner and shall conform to any pertinent local or state law, regulation or code. Good housekeeping consistent with safety shall be maintained.

D. METHOD OF MEASUREMENT

Payment for mobilization will be made on a lump sum basis for work satisfactorily completed.

E. BASIS OF PAYMENT

The amount bid shall include the furnishing and maintaining of any plant, services or other facilities noted under "Description" to the extent and at the time the Contractor deems them necessary for his operations, consistent with the requirements of this item and this contract. The amount bid for this lump sum item shall be payable to the Contractor based on percent completion with an allowable 25% payment included on the first invoice. For the purposes of this Item, twenty-five percent (25%) of the work shall be considered completed when the total of payments earned, as reflected by estimates of work done, not including the amount bid for this Item, shall exceed 25% of the total amount of the Contractor's bid for this contract.

ITEM 25 – WORK ZONE TRAFFIC CONTROL

A. DESCRIPTION

Work zone traffic control shall consist of all work to provide for the safe and efficient movement of traffic through or around work zones, and to protect workers and the public from damage to person and property which may result, directly or indirectly, from any construction operations, as shown in the contract documents, the MUTCD, and as directed by the Village's representative. The duration of this work shall be from the date any work is started on the contract site, including mobilization of equipment, signs, offices, and shops until the date of contract final acceptance. Temporary materials and components that are furnished by the Contractor shall remain property of the Contractor.

B. MATERIALS

All materials used shall comply with the Section 700 Materials and Manufacturing of the New York State Department of Transportation Standards and Specifications, or as established by this section, the applicable NYSDOT Standard Sheets, and the contract documents.

C. CONSTRUCTION DETAILS

1. The Contractor must provide for the adequate diversion of traffic, furnish, and maintain adequate warning, danger and direction signs and lights in order to properly protect and direct public travel by day and by night. Suitable barricades shall also be erected and maintained at the ends of such closed section of highways and large signs displayed indicating such closure. All signs, barricades and other traffic control devices shall conform to the latest edition of the New York State Manual of Uniform Traffic Control Devices (MUTCD).
2. When directed by the Village, the Contractor shall submit to the Village's representative for approval, prior to the start of actual construction, his/her plans for the maintenance of traffic. No work shall commence until the traffic maintenance plan has been approved by the Village's representative.
3. The Contractor will not be permitted to detour traffic from major roadways through adjacent side streets without prior written approval of the Village's representative.
4. The Contractor shall furnish, erect and maintain as required and as directed by the Village's representative, reflectorized signs, and flashing beacons for the information of the motorist and to adequately and legally post the roads under construction to their status. Such signs and beacons shall conform to the latest edition of the New York State MUTCD. All flashing beacons shall be equipped with a double face yellow lens, six-inches (6") in diameter, and

shall be energized by a 12-volt source. Flashing frequency shall be 50 to 60 flashed per minute. "On time" shall be one-quarter of the total.

5. The Contractor shall adequately protect and warn the public and others of all open trenches, stored materials, elevated manhole frames and covers and other hazards which the public may encounter in using the roadways under construction.
6. The Contractor shall provide flagmen as required by traffic conditions, roadway conditions, or where directed by the Village's representative to protect and maintain traffic. The cost of providing flagmen shall be included in the price bid for this Item.
7. The Contractor shall place temporary pavements as required for the maintenance of traffic.
8. The Contractor shall furnish Flashing Arrow Boards for any traffic lane closure and/or restriction. The arrow panel shall consist of 4' × 8' rectangular solid panel and shall be mounted so that the bottom of the panel is a minimum of seven feet (7') above the roadway. Lamps shall be arranged and controlled to provide the following mode selections: Left Arrow; Right Arrow; Left and Right Arrow; and Caution.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be a lump sum in accordance with the plans, specifications and/or as directed by the Village's Representative.

E. BASIS OF PAYMENT

The unit price bid for this item shall include the cost of furnishing all labor, materials, equipment and incidentals necessary to complete the work. The amount bid for this lump sum item shall be payable to the Contractor based on the percentage of work completed during the billing period.

ITEM 26 – SURVEY AND STAKEOUT

A. DESCRIPTION

Under this item the Contractor shall do all necessary surveying required to construct all elements of the project as shown on the plans and specified in the proposal and specifications. This shall include but shall not be limited to stake-out, layout and elevations for the highway, structures, forms, pile layouts and appurtenances as shown and required consistent with the current practices of the Village, and shall be performed by competently qualified personnel acceptable to the Superintendent. The stake-out survey shall proceed immediately following the award of the contract and shall be expeditiously progressed to completion in a manner and at a rate satisfactory to the Village's representative. The Contractor shall keep the Village's representative fully informed as to the progress of the stake-out survey.

B. MATERIALS

All instruments, equipment, stakes and any other material necessary to perform the work satisfactorily, shall be provided by the Contractor. All stakes used shall be of a type approved by the Village's representative. It shall be the Contractor's responsibility to maintain these stakes in their proper position and location at all times.

C. CONSTRUCTION DETAILS

1. The Contractor shall trim trees, brush and other interfering objects, not inconsistent with the plans, from survey lines in advance of all survey work to permit accurate and unimpeded work by his stake-out survey crews and the Village's cross-section survey crews. The location and length shown on the plans for pipe and structural plate culverts shall be considered to be approximate. The ordered length of culverts will be determined by the Village's representative after the Contractor accurately stakes the proposed culvert in the planned location as approved by the Village's representative and after appropriate and necessary engineering study. The exact position of all work shall be established from control points, base line transit points or other points of similar nature and/or modified by the Village's representative. Any error, apparent discrepancy or absence in or of data shown or required for accurately accomplishing the stake-out survey shall be referred to the Village's representative for interpretation or furnishing when such is observed or required.
2. The Contractor shall place two offset stakes or references at each center line station, or as ordered by the Village's representative and at such intermediate locations as the Village's representative may direct. From computations and measurements made by the Contractor, these stakes shall be clearly and legibly marked with the correct center line, station number, offset and cut or fill so as to permit the establishment of the exact center line location and elevation during construction. If markings become faded or blurred for any reason the markings shall be restored by the Contractor at the request of the Village's representative. He shall locate and place all cut, fill, slope, fine grade or other stakes and points, as the Village's representative may direct for the proper progress of the work. All control points shall be properly guarded and flagged for easy identification.

3. Drainage structures shall be staked out by the Contractor at the locations and elevations shown on the plans or ordered by the Village's representative. The Contractor shall also accurately establish the center line of bearings for bridge abutments and piers, by setting special hubs or reference points as directed by the Village's representative, so located and protected to insure their remaining undisturbed until such time as they are no longer needed. The Contractor shall accurately mark the location of anchor bolts to be installed, establish the elevations of bearing surfaces and check bearing plates to insure installation at their exact elevation. Before the erection of structural steel is started the Contractor shall verify by accurate field measurements the locations, both vertically and horizontally, of all bearings and shall assume full responsibility for the fabricated structural steel fitting the substructure as constructed.
4. All required Rights-Of-Way (ROW) and easement limits shall be established, staked and referenced by the Contractor concurrent with the construction stake-out survey.
5. Reference points, base lines, stakes and bench marks for borrow pits shall be established by the Contractors.
6. Permanent Survey Marker locations shall be established and referenced by the Contractor.
7. The Contractor shall be responsible for the accuracy of his work and shall maintain all reference points, stakes, etc. throughout the life of the contract. Damaged or destroyed points, benchmarks or stakes, or any reference points made inaccessible by the progress of the construction shall be replaced or transferred by the Contractor before they are damaged or destroyed. All control points shall be referenced by ties to acceptable objects and recorded. Any alterations or revisions in the ties shall be so noted and the information furnished to the Village's representative immediately. All stake-out survey work shall be referenced to the center line shown on the plans. All computations necessary to establish the exact position of the work from control points, shall be made and preserved by the Contractor. All computations, survey notes and other records necessary to accomplish the work shall be neatly made. Such computations, survey notes and other records shall be made available to the Village's representative upon request and shall become the property of the Village and delivered to the Village's representative not later than the date of the acceptance of the Contract.
8. The Village's representative may check all or any portion of the stake-out survey work or notes made by the Contractor. Any necessary correction to the work shall be made immediately by the Contractor. Such checking by the Village's representative shall not relieve the Contractor of any responsibilities for the accuracy or completeness of his work.
9. Prior to the final cross-section survey of the project by the Village's representative, the Contractor shall re-establish base line points and stationing, as well as any necessary bench marks as required by the Village's representative.
10. The Contractor will not be required or permitted to take the preconstruction or final cross-sections that are used for payment purposes.

11. During the progress of the construction work, the Contractor will be required to furnish all of the surveying and stake-out incidental to the proper location by line and grade for each phase of the work. For paving and any other operation requiring extreme accuracy, the Contractor will re-stake with pins or other acceptable hubs located directly adjacent to the work at a spacing directed by the Village's representative.
12. Any existing stakes, iron pins, survey monuments or other markers defining property lines which may be disturbed during construction, shall be properly tied in to fixed reference points before being disturbed and accurately reset in their proper position upon completion of the work.
13. Just prior to completion of the contract, the Contractor shall re-establish if necessary and retie all control points as permanently as possible and to the satisfaction of the Village's representative.

D. METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be on a lump sum basis, in accordance with the plans, specifications and as directed by the Village's representative.

E. BASIS OF PAYMENT

The unit price bid shall include the cost of furnishing all labor, materials, equipment, and incidentals to satisfactorily complete the work.