ROCHESTER COMMUNITY SCHOOLS

August 27, 2020

Request for Proposals

Hamlin Elementary Playground Fence Replacement

Rochester Community Schools invites you to provide a proposal to provide and install a new heavy duty aluminum fence around the playground area at Hamlin Elementary School per the specifications set forth herein.

Proposal Information and Requirements for Acceptance:

All proposals, required forms, and pricing shall be submitted electronically on BidNet Direct (https://www.bidnetdirect.com) no later than 2:00 p.m., local time, September 10, 2020 (the "Due Date".) No oral, telephonic, or facsimile proposals will be considered.

RCS will not consider or accept any late Bids received after the Due Date specified within the RFP. It is the sole responsibility of the Bidder to ensure their proposal is entered completely and forms are uploaded on BidNet Direct before the closing date and hour indicated within the RFP. Bidders shall plan ample time to respond to all requirements and input all requirements. RCS is not responsible for any delivery delays.

Included in your proposal shall be one (1) of each of the following forms:

- Vendor Information Form signed
- Vendor Proposal on Bid Proposal Form including Mandatory Alternate 1 and inclusive of specifications given within RFP and Attachment A
- Iran Economic Sanctions Certification form signed
- Familial Disclosure Statement form signed and notarized
- Bid Bond Security

Designated forms above must be submitted online (print, sign, scan & attach) by due date and time to: **https://www.bidnetdirect.com**.

Bidder's Instructions:

- 1. Proposals must be accompanied by a bid bond in the amount not less than 5% of the proposal amount, made payable to Rochester Community Schools.
- 2. The price quoted must be net. Discounts, rebates, and allowances will be used as criteria of evaluation, but must be stated separately in the proposal.
- 3. The buyer has the right to cancel a purchase order if the terms and conditions set forth herein are not met.
- 4. All purchases are to be exempt from all taxes including State and Federal taxes. Exemption certificates will be furnished upon request.

- 5. The information contained in the Request for Proposal is intended solely for internal use by the Bidder in its bid preparation. All information contained herein is proprietary and shall not be distributed to any third party, except as required by law.
- 6. A recipient of the Request for Proposal is responsible for any and all costs incurred by it or others acting on its behalf in preparing or submitting a Bid Proposal, or otherwise responding to the Bid, or any negotiations incidental to its Bid or the Bid.
- 7. Bids must meet or exceed all specifications herein. Any deviations from the specifications set forth must be clearly detailed on the bid proposal form; otherwise, it will be considered that items offered are in strict compliance with the specifications, and successful bidder will be held responsible therefor. Additional Voluntary Alternates are allowed only in addition to Base Bid and only if fully equivalent to the Specifications.
- 8. The Board of Education reserves the right to accept any item in the bid; to accept or reject any or all bids, either in whole or in part; to waive any irregularity/informality herein; or if deemed to be in the best interest of the owner, to award the contract to other than the low bidder.
- 9. This bid is made without any previous understanding or agreement with any other person, firm or corporation making a bid for the same purpose, and is in all respects fair and without collusion or fraud.
- 10. From the issue date of the Bid until a decision is made, Bidders shall not communicate about the subject of the Bid or a Bidder's Proposal with the RCS Board of Education members, administrators, faculty, staff, students or employees, except for Requests for Clarification in **Specifications and Vendor Requirements** Section.
- 11. RCS intends that all Bidders have equal access to information relative to the bid, and that the bid contains adequate information. Each Bidder shall prepare its Bid based only on the information contained in the Bid. A prospective Bidder noting any inconsistency in the information contained in the Bid or in the Instructions shall request clarification, as referenced in the Bid Information and Requirements for Acceptance. No information communicated, either verbally or in writing, to or from a Bidder shall be effective unless confirmed by written communication as an addendum to the Bid, a request for clarification or written response thereto, or in the Bid.
- 12. No member of Rochester Community Schools Board of Education, City, State or any officer, employee or person whose salary is payable in whole or in part from the treasury of said Board of Education is directly or indirectly interested in this bid or in the supplies, materials, equipment, work, services or any portion of the profits thereof to which it relates.
- 13. All Bid Proposals shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner(s) or any employee of the Bidder and any member of the Board of Education of the School District or the Superintendent of the School District. Bid Proposals that do not include this sworn and notarized familial relationship disclosure statement will not be consider by the Board of Education.
- 14. All bidders must provide the Certificate of Compliance Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 and attach the signed form declaring that the bidder is not and will not become an "Iran Linked Business" at any time during the course of performing

any services under an awarded contract. The District will not accept a bid proposal that does not include this sworn and notarized disclosure statement.

- 15. Vendor shall not during contract assign, transfer or subcontract any part of agreement to any other supplier.
- 16. The proposal must be net pricing. Discounts, rebates, and allowances will be used as criteria of evaluation, but must be stated separately on the Vendor Proposal Form.
- 17. Rochester Community Schools has the right to cancel a purchase order if the terms and conditions set forth herein are not met.
- 18. Proposal submitted is to include shipment delivered to the district location as specified.
- 19. All purchases are to be exempt from all taxes including State and Federal taxes. An Exemption certificate will be furnished upon request.
- 20. Proposals must meet or exceed all specifications herein. Any deviations from the specifications set forth must be clearly detailed on the proposal form; otherwise, it will be considered that items offered are in strict compliance with the specifications, and awarded vendor will be held responsible therefor.
- 21. Manufacturers specified are the only ones to be used. Substitutions are allowed if shown as separate pricing and accepted by the District.
- 22. The vendor shall agree to a "Hold Harmless" clause concerning the process, selection criteria, award, and contract as entered into with Rochester Community Schools.

23. SOLE BIDDER:

- A. It is the District's intent that this Request for proposals, permits competition. It shall be the bidder's responsibility to advise Rochester Community Schools, in writing, if any language, requirements, scope specifications, etc., or any combinations thereof, inadvertently restricts or limits the requirements stated in this Proposal, to a single source. Rochester Community Schools shall receive such notification no later than five (5) days prior to the date set for acceptance of bids.
- B. If only one proposal is received in response to this Proposal Request, a cost/price analysis and evaluation and/or audit shall be performed of the cost proposal in order to determine if the price is fair and reasonable.
- C. Rochester Community Schools reserves the right to cancel the Request for Proposal, or reschedule the proposal opening, if there is only one bid received. The decision by Rochester Community Schools will be final.

Project Scope & Background:

Rochester Community Schools (RCS) is seeking proposals to provide a new heavy duty aluminum fence around the playground area as follows:

The scope of the project would entail a <u>complete installation</u> that includes, but is not limited to the following.

- Remove existing aluminum fence (approximately 337 L.F.).
- Provide and install approximately 557 L.F. install new heavy duty Industrial grade fencing: Manufacture: Elite Fence Products, Model EFF-20, 3 Rail. Color: Black.
- Provide and install 2 pedestrian gates fabricated with mechanical fastening with 410 stainless steel screws with optional welding available. Components, 3/4" pickets x .050", Rails 1 1/8" x 1 ³/₄" rail, Uprights are 1 1/2" x 1 ¹/₂" square. Walk gates adjustable self-closing hinges and will be self-latching. Post Gates .125
- Fence panels to be 4' high and 6' long.
- Rails 1 5/8" x 1 5/8" x
- Pickets 1" x 1" x .062 wall.
- Corner Posts: 2 ¹/₂" x 2 ¹/₂" @ .100
- Screws: 410 Stainless Steel corrosion resistant. The heads are coated with zinc and yellow chromate, then painted to match the color of the fence.
- In addition to the manufacturer's warranty, provide a 2 year labor and installation warranty.

Refer to specifications attached for exact fencing requirements.

Mandatory Alternate 1:

• In lieu of providing the aluminum fencing, provide a black vinyl coated chain-link fence. Chain link fencing and posts to be heavy duty. Refer to specifications attached for exact fencing requirements.

Proposal Response:

Please provide the following with your proposal:

1. **Proposal:** Your proposal response is to include a complete cost to remove exiting fencing, install new fencing and restore any site work affected by the demolition and installation.

Note:

• All projects are to be completed by November 1, 2020.

Specifications and Vendor Requirements

- 1. All proposals must include all forms as specified in **Proposal Information and Requirements for Acceptance** and be inclusive of all plans and specifications provided in Attachment A.
- 2. Board Approval: The Board approval date is anticipated to be September 14, 2020.
- 3. The Board of Education reserves the right to accept or reject any or all bids, to waive informalities and to accept the proposal which will best serve the interest of the school district.
- 4. **Requests for Clarification:** All requests for clarification must be submitted through BidNet Direct and all responses will be released within the online posting.
- 5. **Walk-through:** There will not be a mandatory walk through. However, contractors submitting proposals must thoroughly investigate the site to become familiar with the existing conditions and

to include those findings & costs in your proposal. Additional costs will be allowed only for unforeseen hidden conditions or added scope requested by the Rochester Community Schools.

Public Bid Reading:

A public bid reading of proposals received for this project will be conducted via live online video on **Thursday, September 10, 2020 at 2:30 pm local time**. Website location and login credentials will be provided in an addendum before that time.

Bid Evaluation Criteria:

RCS will base award of this project on the following:

- Adherence to RFP requirements & bid specifications
- Pricing
- Prior experience with similar projects

Selection Process:

Rochester Community Schools will base an award on several evaluation factors including, but not limited to: bid specifications, pricing, product availability, documentation requirements, and delivery terms. Please note that project will not necessarily be awarded to the lowest bidder or lowest price. RCS reserves to award the project to the most qualified bidder based on the criteria noted.

Award:

Project is expected to be approved by the Rochester Community Schools Board of Education on **September 14, 2020**. Work can commence upon Board approval. Please note the project will not necessarily be awarded to the lowest bidder or lowest price. Rochester Community Schools reserves to award the project to the most qualified bidder based on the criteria noted.

Vendor Information Form

Vendor Name:	Contact	Name:	
Address: Street Address			
Street Address	City	State	Zip Code
Phone Number:	Fax Number:	E-Mail	:
Website:	Paym	ent Terms:	
Product Lead-time: bu	siness days. (Maximum numbe	er of days for delivery	of an order from the day it is p
Deviations from specifications: If yes, please explain on the Vendo			
Vendor comments:			

Bidder Authorization

The undersigned certifies that the proposal submitted meets or exceeds, all specifications, which all conditions noted here are acknowledged, and the firm prices and terms specified by the bidder are true and accurate.

My signature certifies that the accompanying proposal is not the result of, or affected by an unlawful act of collusion with another person or company engaged in the same line of business or commerce or any act of fraud punishable under current Federal or Michigan law. I hereby certify that I am authorized to sign as a Representative for the Firm:

Name of Company Representative

Title

Signature

Date

Rochester Community Schools

BID PROPOSAL FORM

PROJECT: Hamlin Playground Fencing Replacement – 2020

BASE BID: Lump sum bid for all work specified in the am	iount of:	
	Dollars (\$)
Mandatory Alternate:	\$	
Project Duration:	Days	

If award is made to our firm based upon our Bid Proposal, we agree to enter into the form of Contract with the School District in accordance with this Request for Proposal, the contract and our Bid Proposal.

My signature certifies that the Bid Proposal as submitted complies with all terms and conditions as set forth in this Request for Proposal, unless specifically enumerated as an exception as part of this Bid Proposal Form.

I hereby certify that I am authorized to sign as a Representative for the Firm:

(Authorized Signature)

(Title)

Rochester Community Schools

BID PROPOSAL FORM (Cont.)

PROJECT: Hamlin Playground Fencing Replacement – 2020

<u>Voluntary Alternates</u>: List any voluntary alternates or clarifications to your proposal.

1.	
2.	
3.	

<u>Subcontractors</u>: List any subcontractors you will utilize on this project.

Name	Address	Specialty
1.		
2.		
3.		
4.		
5.		

FAMILIAL DISCLOSURE AFFIDAVIT OF BIDDER

The undersigned, the owner or authorized officer of ______ (the "Bidder"), pursuant to the familial disclosure requirement provided in the Rochester Community Schools' (the "School District") advertisement for construction bids, hereby represent and warrant, except as provided below, that no familial relationships exist between the owner(s) or any employee of _______

and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

	BIDDER:
	Ву:
	Its:
STATE OF MICHIGAN)): COUNTY OF)	
This instrument was ackno	/ledged before me on the day of, 2011, by
	, Notary Public
	County, Michigan
	My Commission Expires:
	Acting in the County of :

CERTIFICATION OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT Michigan Public Act No. 517 of 2012

The undersigned, the owner, or authorized officer of the below-named company (the "Company"), pursuant to the compliance certification requirement provided in the Rochester Community Schools' Request For Proposal (the "RFP"), hereby certifies, represents, and warrants that the Company (which includes its officers, directors and employees) is not an "Iran Linked Business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the "Act"), and that in the event the Company is awarded a contract by Rochester Community Schools as a result of the aforementioned RFP, the Company is not and will not become an "Iran Linked Business" at any time during the course of performing any services under the contract.

The Company further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or two (2) times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the Rochester Community Schools' investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date the it is determined that the person has submitted the false certification.

Name of Company

Name and Title of Authorized Representative

Signature

ROCHESTER COMMUNITY SCHOOLS August 27, 2020

Request for Proposals

Hamlin Elementary Playground Fence Replacement

Attachment A:

Specifications

SECTION 32 31 19 ORNAMENTAL FENCE SYSTEM (HEAVY INDUSTRIAL ALUMINUM Enclosed Bottom and Hidden Screw)

PART 1 - GENERAL

1.01 WORK INCLUDED

The contractor shall provide all labor, materials and accessories necessary for installation of ornamental aluminum fence system.

1.02 RELATED WORK

- A. Section 32 13 00 Paving and Surfacing
- B. Section 03 06 30 Cast-In-Place Concrete
- C. Section 04 20 00 Unit Masonry

1.03 SYSTEM DESCRIPTION

The manufacturer shall supply a total ornamental aluminum fence system manufactured by Elite Fence Products Inc. (specify EFS-10, EFS-15, EFF-20, EFF-25, EFS-50, EFS-55, EFS-66) design. The system shall include all components (i.e., pickets, rails, posts, gates and hardware) required.

1.04 QUALITY ASSURANCE

The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.05 REFERCENCES

A. AAMA 2604- Performance Requirements and Test Procedures for coating on aluminum extrusions.

B. AAMA 2603- Performance Requirements and Test Procedures for coating on aluminum extrusions.

C. ASTM B85- Specification for Aluminum Die Castings.

1.06 SPECIAL WARRANTY

 Provide manufacturer's standard lifetime limited warranty electro statically applied SUPER DURABLE polyester powder coated fence for a lifetime from date of purchase. We guarantee the finish will not crack, chip, or peel. (lose adhesion)

1.07 DELIVERY AND STORAGE

- A. All materials should be checked for any damage that may have occurred during shipping.
- B. Products must be stored in manufacturers packaging.
- C. Materials should be stored in a dry secure area to protect against weather, damage, vandalism or theft.
- D. All materials should be handled with care when transporting before installation.

1.08 SUBMITTAL

Product data: Manufacturer's catalog indicating materials and all conditions of the specifications have been met.

PART 2 – PRODUCTS

2.01 MANUFACTURER

- A. Obtain fencing and gates, including accessories, fittings, and fastenings, from a single source.
- B. Products from other qualified manufacturers having a minimum of 5 years experience manufacturing aluminum ornamental picket fencing will be acceptable by the architect as equal, if approved ten days prior to bidding, and if they meet the following specifications for design, size, gauge of metal parts and fabrication.
- C. The ornamental aluminum fence system shall conform to Elite Fence Products Inc.[™] (specify EFS-10, EFS-15, EFF-20, EFF-25, EFS-50, EFS-55, EFS-66) style.
- D. Standard Panel Width- Center to Center posts spacing

Industrial Grade	2 1/2" Post	3" Post	4" Post	6" Post
6' 5" long section	6' 5 ½"	6' 6"	6' 7"	6' 9"
8' long section	8' 1⁄2"	8' 1"	8' 2"	8' 4"

E. Approved Supplier:

Elite Fence Products Inc. Phone: 1-(800) 783-1331 Fax: (586) 468-4884

Specification Department Phone: 1-(800) 783-1331Fax: (586) 468-4884 info@elitefence.com

2.02 MATERIAL

- A. Aluminum material for fence framework (i.e., tubular pickets, rails and posts) shall conform to the requirements of ASTM B221.The aluminum extrusions for posts, pickets, and rails Alloy and Temper Designation 35,000-psi strength aluminum alloy 6063-T5 and 6005-T5.
- B. Coating: The fence system shall have an electro statically applied SUPER DURABLE Polyester powder coat finish that exceeds AAMA 2604. Factory applied and baked at a temperature of 400°F to 425°F.

Colors: White, Black, Quaker Bronze, Walnut Brown, Beige, Hartford Green and Sandstone. 2" square .060 wall post not available in **Walnut Brown, Beige, Sandstone or Hartford Green.**

AAMA 2604 Performance Results vs. Competition available on website www.elitefence.com, located under Advantages tab.

- C. <u>PICKETS</u> 1" square x 0.062" or wall thickness extruded tubing and fastened to rail by 410 stainless steel corrosion resistant screws See available colors.
 a. Picket Spacing- 3 ³/₄" or 1 3/8"
- D. <u>RAIL</u> Horizontal rail is 1-5/8" x 1 5/8" (.070 top wall and .100 side wall). Rail is then wrapped over exposed screw to create hidden screw profile with enclosed bottom.
- E. <u>POSTS</u> Form fitting to rail profile, pre-punched aluminum posts:

2" x 2"	2 ½" x 2 ½" x	3" x 3" x .125	4" x 4" x .125 or	6" x 6" x .125 or
NA	.075 or .100 wall	wall	.250 wall	.250 wall

- F. Aluminum castings shall be used for all rings, post caps, finials, and miscellaneous adornments.
- G. Other Size pickets available: NA

2.03 FABRICATION

- A. Pickets, rails and posts pre-cut to specified lengths. Rails pre-punched to accept pickets.
- B. Gates: Fabricated with mechanical fastening with 410 stainless steel screws with optional welding available components, 1" pickets x .062", Rails 1 5/8" x 1 5/8" rail, Uprights are 1 1/2" x 1 ½" square. Walk gates adjustable self-closing hinges and will be self-latching.

Gate Posts:

4" sq. for gate leaf sizes 4'-1" (1244 mm) to 8'-0" (2438 mm) 6" sq. for gate leaf sizes 8'-1" (2463mm) to 12'-0" (3657mm)

PART 3 - EXECUTION

3.01 PREPARATION

All new installation shall be laid out by the contractor in accordance with the construction plans.

3.02 INSTALLATION

Fence posts set at O.C. spacing of 77" or 96", depending on the nominal span specified. Gate posts spaced according to the gate openings specified in the construction plans. Elite Fence Products Inc. panels attached to pre-punched posts using mechanically fastened 410 stainless steel corrosion resistant screws supplied by the manufacturer.

3.03 GATE INSTALLATION

- A. Set gate posts plumb and level for gate openings specified in construction drawings.
- B. Install gates to allow full opening without interference after concrete has hardened around gate posts.

Adjust hardware for smooth operation. Install one drop rod for double gates.

3.04 CLEANING

- A. The contractor shall clean the jobsite of excess materials; post-hole excavations shall be scattered uniformly away from posts.
- B. When cleaning fence system use mild household detergent and clean water. Remove all excess concrete around posts before material hardens.

Elite Fence Products Inc. Phone: (800) 783-1331 Fax: (586) 468-4884

Specification Department Phone: (800) 783-1331 Fax: (586) 468-4884 info@elitefence.com

SECTION 32 3130 - CHAINLINK FENCE - VINYL

PART 1 - GENERAL

- 1.1 SUMMARY
 - A. This Section is a part of the entire set of Contract Documents and shall be coordinated with the applicable provisions of the other parts.
 - B. Related Sections:
 - 1. Section 03 3010 Portland Cement Concrete

1.2 SCOPE

- A. The work under this section of the specifications shall consist of furnishing all labor, materials and equipment necessary for a new black vinyl chain-link fence system as indicated herein and on the Contract Documents. Work shall include but not limited to footings, posts, fabric, rails, gates and all related hardware.
- B. Furnishing and installation of black vinyl fencing is to the 4' and 12' fencing at the tennis courts.

1.3 QUALITY ASSURANCE AND WARRANTY GUARANTEE

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM A53 Standard Specification for Pip, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
 - 2. ASTM A90 Standard Test Method for Weight (Mass) of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
 - 3. ASTM C94 Standard Specification for Ready-Mixed Concrete
 - 4. ASTM A153 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
 - 5. ASTM F626 Standard Specification for Fence Fittings
 - 6. ASTM F668 Standard Specification for Polymer Coated Chain-link Fence Fabric
 - 7. ASTM F900 Standard Specification for Industrial and Commercial Swing Gates
 - 8. ASTM F934 Standard Practice for Standard Colors for Polymer Coated Chain-link
 - 9. ASTM F1043 Standard Specification for Strength and Protective Coatings on Steel Industrial Chainlink Fence Framework
 - 10. ASTM F1083 Standard Specification for Pipe, Hot-Dipped Zinc-Coted (Galvanized) Welded, for Fence Structures
- B. Weights and tolerances to conform to Federal Specification RR-F-191G dated January 25, 1974.
- C. The Contractor and any Sub-Contractor hereunder guarantee their respective work against defective materials or workmanship for a period of one (1) year from the date of filing Certificate of Substantial Completion and as accepted by the Owner.
- D. All material installed under this specification shall be subject to testing by the Owner. Any material so inspected and found to be not in strict conformance with this specification shall be promptly removed and replaced by the Contractor at his expense.

1.4 SUBMITTALS

- A. Shop drawings showing plan layout, spacing of components, post foundation dimensions, hardware, gates and schedule of components.
- B. Product Data: Submit product data on fabric pattern, posts, accessories, fittings and hardware.
- C. Samples: Color selection for vinyl finishes. If requested, samples of materials (e.g., fabric, wires, and accessories).
- D. Mill Certificates conforming to ASTM F1043 (06), Part 8.1.4 Adhesion Testing
 - 1. Test Results shall be provided before material is shipped to site.
 - 2. Minimum (3) random tests for each post size specified.

1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in the manufacturing of products specified in this section with a minimum of ten (10) years' experience
- B. Installer: Company specializing in performing work of this section with a minimum of five (5) years experienced. Must have a minimum of two in-house fence installation crews.
- 1.6 PROJECT CONDITIONS
 - A. Field Measurements: Verify layout information for chain-link fences and gates. Verify dimensions by field measurements.
- 1.7 DELIVERY, STORAGE AND HANDLING
 - A. Deliver fence fabric and accessories in packed cartons or firmly tied rolls.
 - B. Identify each package with manufacturer's name.
 - C. Store fence fabric and accessories in a secure and dry place.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which Installer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: 15 years from date of SubstantialCompletion

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Framework, posts, rails, fabric and fittings for chain-link fence system shall be manufactured and supplied by:
 - 1. Merchants Metals Color Bond Product: Phone: (888) 260-1600

2.2 VINYL CLAD CHAINLINK FENCE

- A. This specification covers chain link fabric made from galvanized steel wire which has been coated with polyvinyl chloride compound hereinafter designated as "vinyl." The base metal shall be steel of such quality and purity that, when drawn to the size of wire specified and coated with vinyl, the finished fencing shall be of uniform quality and have the properties and characteristics as prescribed in the specification. Wire used for the manufacture of this fabric shall be capable of being woven into fabric without the vinyl coating voiding, cracking or peeling. Vinyl shall be plasticized and thoroughly compounded.
- B. Thermal Fused Vinyl: The thermally fused vinyl coated wire shall consist of vinyl thermally fused to primed zinc coated wire. The zinc coating shall be in accordance with ASTM A641, .30 oz. per square foot. The vinyl adhesion shall be greater than the cohesive strength of the vinyl material itself.
- C. Physical Properties of Coating
 - 1. Accelerated Aging: PVC coated wire from which the fabric is woven shall withstand exposure for 1000 hours without failure at a black panel temperature of 145°F, Type BH apparatus described in ASTM G155 shall be used for the test. The product shall be construed to have failed the test if:
 - a. The wire fails to withstand the Mandrel Bend Test described below.
 - b. Shrinkage of the PVC coating is greater than 1/16" per foot of wire.

- c. There is a significant change in color or gloss of the PVC surface as determined by visual inspection.
- 2. Mandrel Bend Test: PVC coated wire when subjected to a single bend at -20°F around a mandrel no larger than ten times the diameter of the wire shall not exhibit breaks or cracks in the PVC coating. The Mandrel Bend Test shall be performed on an individual piece of wire removed from the fabric. This specimen may be any length of wire over 12"and shall include both bends and straight sections, but shall not include either twists or knuckles.
- 3. Color of Coatings:

Hue	Віаск
<u>Tolerance</u>	2.0 G
<u>Value</u>	3.02
<u>Chroma</u>	2.35

- D. Workmanship: Vinyl coated chain link fabric shall be produced by methods recognized as good commercial practices. Careful inspection shall be made to determine the quality of vinyl coating. Coatings not free from pinholes, bubbles or voids, rough or blistered surfaces shall provide a basis for rejection. An apparent mismatch of color readily discernible by visual inspection shall be cause for rejection.
- E. Weight of Zinc Coating: The weight of coating shall be determined on individual pieces of wire removed from the fabric. The specimens may be of any continuous length of 12 inches, but preferably about 24 inches long. The weight of coating shall be determined in accordance with tests for weight of coating described in ASTM A90. The weight of zinc coating shall be determined after removing the vinyl coating from the fabric.

2.3 VINYL CLAD FRAMEWORK

- A. <u>General:</u> The framework consists of all line, corner, terminal posts, horizontal rails and gate frame materials which shall be coated with a polyvinyl chloride coating 10 to 12 mils in thickness over galvanized steel or aluminum. These surfaces shall be thermally fused to the metal surface with an appropriate sured primer. The PVC shall be plasticized and thoroughly compounded so that all pigments, stabilizers and other ingredients are fully dispersed.
- B. <u>Color of Framework:</u> The color of framework shall match the fabric.
- F. <u>Fabric:</u> The wire used in the vinyl coated fences shall possess a minimum breakload of 850 pounds. The coated size of the thermally fused vinyl fence wire shall be 9 gauge core, 8 gauge finish (Class 2B). For general chain-link fencing, vinyl coated fabric shall be woven to form a 2" mesh. For tennis court fencing, vinyl coated fabric shall be woven to form a 1-3/4" mesh. The size of mesh shall be determined by measuring the minimum clear distance between the wires forming the parallel sides of the mesh, measured in either direction. The tolerance in the size of mesh shall be +/- 1/8" inch. The thickness of the vinyl coating shall be 0.007".
- C. <u>Framework Materials:</u> Framework materials shall be, before coating with PVC, either Type I Schedule 40 pipe with 1.8 ounce per square foot zinc coating before resin coating, or Type II pipe manufactured from steel conforming to the Standard Specification for Black and Hot-Dipped Zinc Coated (Galvanized) Welded and Seamless Steel Pipe for Ordinary Uses, ASTM A53; or TYPE II pipe manufactured from steel conforming to ASTM A1011, Cold-Rolled, Electric welded and Triple Coated with 1.0 ounce, +/- 0.1 ounce zinc per square foot. The internal surface shall have corrosion protection by a zinc-rich based organic coating with 87% minimum zinc powder loading, with the capability of withstanding 350 hours when subjected to Salt Spray Test ASTM B117, with a 5% minimum Red Rust.
- D. <u>Line Posts:</u> Shall be one of the following vinyl coated materials: Type I, 2.375" O.D. round steel posts weighing 3.65 lbs. per lineal foot; or, alternately, Type II 2.375" O.D. round steel pipe weighing 2.78 lbs. per foot or roll-formed "c" section posts measuring 2.25 inches by 1.70" weighing 2.73 lb. per lineal foot. Posts shall not be splice welded in such a manner that the weld appears above the grade line. The chain link fabric shall be tied to the line posts with vinyl coated clips or tie wires with a minimum steel diameter of 0.132" and spaced on 15" maximum centers.
- E. <u>Terminal and Gate Posts:</u> Terminal and gate posts shall be one of the following vinyl coated materials: two and one-half inch (2 1/2") square tubing weighing 5.10 lbs per lineal foot, or alternately, Type I, 2.875" OD steel round posts weighing 3.66 lbs. per lineal foot, or Type II 2.875" OD steel round posts weighing 4.64 lbs per lineal foot. Posts shall not be splice welded in such a manner that the weld appears above the grade line.

- F. <u>Terminal and Gate Post Fittings:</u> Terminal and gate post fittings, including tension bands, brace connections and top rail connections, shall be 14 gauge, hot-dipped galvanized, cold-rolled, carbon steel. Top rail, brace and truss bands shall not be less than ³/₄" wide, secured by 5/16" diameter carriage bolts. Tension bars shall not be less than 2" shorter than the nominal height of the fabric with which they are to be used. One tension bar shall be provided for each end and gate post, and two for each corner and pull post.
- G. All fixed component parts such as post tops, bands, connectors, and rail ends shall be vinyl coated on visible surfaces of a color to match the fabric and framework. Non-visible portions of parts may be uncoated in the case of aluminum components. Non-visible portions of steel or iron components not vinyl coated must be coated with zinc as per ASTM A153. All hardware shall come vinyl coated or shall be coated in the field with a vinyl base compound after installation. Aerosol spray paint to match the color of vinyl fencing will not be accepted.
- H. <u>Top, Brace and Bottom Rail:</u> Top, brace, and bottom rails (where applicable) shall be vinyl coated Type I, 1.660" O.D. round steel pipe weighing 2.27 lbs. per lineal foot, or Type II, 1.660" O.D. round steel pipe weighing 1.59 lbs. per lineal foot. An outside sleeve type coupling measuring not less than 6" in length shall be provided at each interval of twenty-one feet. The chain link fabric shall be tied to the rails at intervals of 24" with vinyl clad tie wires, 13 gauge for double wrap ties or 9 gauge for single wrap ties. Intermediate rails shall be fastened between posts with vinyl clad boulevard type connectors or bands and rail end caps. The terminal ends of all top, bottom, mid and bracing rails shall utilize boulevard hardware that prevents insects from gaining access into top rails.
- I. <u>Bottom Tension Wire:</u> Bottom tension wire shall be No. 6 gauge galvanized steel coil, vinyl coated tension wire, high carbon or hard drawn, Class II, Aluminum Coated, fastened to the chain link fabric at intervals of twenty-four inches (24") with No. 11 gauge galvanized steel hog rings.
- J. <u>Brace Rail for Terminal and Gate Posts:</u> Vinyl coated terminal and gate posts shall be strengthened and reinforced by vinyl coated braces meeting the same specifications as above. Braces shall be installed midway between top rail and court surface and extend from each terminal post to the first adjacent line post. Braces shall be securely fastened to posts by vinyl coated heavy pressed steel connections and also be trussed from line post back to terminal post with a 5/16" vinyl coated round truss rod complete with tightening turnbuckle.
- K. <u>Posts Spacing and Settings:</u> Line and terminal posts shall be set in concrete foundations not less than 12" in diameter and not less than 42" in depth. The concrete shall have a design mix of 3500 PSI. For general chain-link fencing, spacing of posts in the line of fence shall be uniform and no more than ten-feet (10') apart. For tennis court chain-link fencing, spacing of posts in the line of fence shall be uniform and no more than eight-feet (8') apart. The smaller side of a "C" post shall be touching the chain link fabric and all open slots shall be facing in the same direction.
- L. <u>Post Tops:</u> Tops of line posts shall be of a vinyl coated steel or aluminum casting capable of providing a through passage for top rail. Terminal post tops shall be of a vinyl coated steel or aluminum casting and be designed so as to exclude all moisture from the terminal post. Post caps at terminal posts shall be securely fastened to prevent removal.
- M. <u>Gates:</u> Gate openings shall not be less than 4 feet wide and constructed and hung as detailed on drawings. Frame shall be assembled from vinyl coated 2" square aluminum, alloy 6063-T6 or 6061-T6, weighing 0.940 lbs. per foot, Type I pipe weighing 2.72 lbs. per foot, or Type II, 1.90" O.D. round steel pip weighing 2.28 lbs. per foot. Gate frames shall be welded or alternately shall utilize corner fittings of compressed or riveted type. A diagonal truss rod not less than 5/16" diameter shall be used on frames utilizing corner fittings. Color or the gate frame materials shall match the fence framework and component parts.

1. Fabric matching the fence fabric shall be installed in the frame by means of tension bars and hook bolts or bands. Galvanized gate frame and gate post hinges shall be furnished of adequate strength for the gate size specified and to allow for a 180° swing. Gates shall be equipped with a positive strong arm latching device that will accommodate padlocking. A plunger rod, catch and semi-automatic outer catch shall be installed on drive gates so as to secure gates in an open position. Hinges, latches and catches shall be approved by the Landscape Architect.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for a verified survey of property lines and legal boundaries, site clearing, earthwork, pavement work, and other conditions affecting performance of the Work.
 - 1. Do not begin installation before final grading is completed unless permitted by Architect.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Stake locations of fence lines, gates and terminal posts. Do not exceed intervals of 500 feet or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks and property monuments.

3.2 INSTALLATION

A. All posts shall be set plumb and in accordance with the following table (unless specified otherwise):

1. Corner/Terminal and Bracing Post - General F	ence
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Fabric	Post	Diameter of	Foundation	Maximum
Height	Depth	Foundation	Depth	Spacing
0' - 6'-0"	36"	12" min	42"	10'-0"
6'-1" - 12'-0"	36"	12" min	42"	10'-0"

2. Corner/Terminal and Bracing Post – Tennis Court

Fabric	Post	Diameter of	Foundation	Maximum
Height	Depth	Foundation	Depth	Spacing
0' - 6'-0"	36"	12" min	42"	8'-0"
6'-1" - 12'-0"	36"	12" min	42"	8'-0"

3. Line posts shall be pneumatically driven into the ground using the following chart*: Fabric Pipe Below Total Length

Height 4'	Grade 4'	of Post 8'
 6'	- 5'	11'
8'	6'	14'
10'	7'	17'
12'	8'	20'

B. Post Excavation: Core drill asphalt to expose subgrade. Auger or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.

- C. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.
 - 1. Verify that posts are set plumb, aligned and at correct height and spacing, and hold position during setting with concrete or mechanical devices.
 - 2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.
- D. Fence posts shall be installed with maximum 6 inches clear opening from end posts to buildings, fences, property lines or other structures.
- E. Install gates level, plum and secure for full opening without interference. Attach hardware using tamper-resistant or concealed means. Adjust hardware for smooth operation and lubricate where necessary.
- F. The fabric shall be installed on the court/playing side of posts. Bottom of fence fabric shall be 3/4" (+/-1/4") above the finished court surface. Fabric shall be furnished with selvage knuckled on both ends.
- G. Top of concrete footing shall be left down and topped with surrounding pavings as detailed. Cold patch is not acceptable.
- 3.3 CLEAN UP AND DISPOSAL
 - A. Remove from the site all equipment, materials, and debris resulting from construction work including this section. Leave work area neat and clean and in a condition acceptable by the Landscape Architect, Owner. All work shall be complete, ready for use, at the time of final acceptance.

END OF SECTION 32 3130

ROCHESTER COMMUNITY SCHOOLS HAMLIN ELEMENTARY PLAYGOROUND

ROCHESTER COMMUNITY SCHOOLS August 27, 2020

Request for Proposals

Hamlin Elementary Playground Fence Replacement

Attachment B:

Site Location



