



Town of East Hartford

ADDENDUM N^o. 04

**East Hartford High School Tennis Court
Renovation
Bid No. 16-13**

Issued February 8, 2016

The following summarizes revisions to the Bid Documents included in Addendum N^o. 04 for the East Hartford High School Tennis Court Renovation (Bid No. 16-13):

- In order to allow bidders additional time to include all addenda in their bids, bid **proposals are now due on Tuesday, February 16, 2016 at 11:00 at the Purchasing Department.** This change is indicated in the attached *Invitation to Bid*.
- Addendum No. 2 revised the specification *Section 9.13 Chain Link Fence* regarding the size of fence mesh. The revised technical specification for *Section 9.13 Chain Link Fence* now includes that requirement.
- In addition, the revised specification *Section 9.13 Chain Link Fence* clarifies the need for a middle horizontal rail and clarifies the clearance under the chain link fabric (to match the detail on the drawings).
- Addendum No. 3 revised specification *Section 14.01 – Tennis Equipment and Surface Treatment* by adding the product information for the cushion surface. With Addendum No. 4, we are eliminating the cushion surface from the bid. The system for color coating of the tennis courts is now referenced as the “Plexipave” system.
- Drawing details *Asphalt Court Pavement System* and *Permanent Patch Repair Detail* (Drawing DN-2) are now revised to eliminate the cushioned surface. The details should read “Liquid Applied Acrylic Surface System.”

The following documents & drawings are attached and included in Addendum N^o. 04:

- Revised Invitation to Bid
- Revised *Section 9.13 Chain Link Fence* from the Technical Specifications.
- Revised *Section 14.01 – Tennis Equipment and Surface Treatment* from the Technical Specifications.

Revised Bid Documents

- Replace Page 5 of 242 of the Contract Documents, the Invitation to Bid, with the attached page.
- Replace the eight (8) pages of Sec *Section 9.13 Chain Link Fence* (Pages 140 to 147 of 242) with the eight (8) attached pages.
- Replace the seven (7) pages of Section 14.01 *Tennis Equipment and Surface Treatment* (Pages 157 to 162.1 of 242) with the six (6) attached pages (Pages 157 to 162 of 242).

End of Addendum N^o. 04

TOWN OF EAST HARTFORD, CONNECTICUT
INVITATION TO BID
BID NO. 16-13
East Hartford High School Tennis Court Renovation

Work under this contract includes renovations to the existing tennis courts located in the western portion of the East Hartford High School (EHHS) property in the Town of East Hartford. It also includes other appurtenant work such as replacement of all fence fabric & gates, new tennis court equipment, new tennis court surface/lines, installation of electrical ducts for new sports lights, bituminous concrete walks, installation of benches & trash cans and maintenance and protection of traffic.

Sealed Bids will be received at the office of the Purchasing Department, Town Hall, 740 Main Street, East Hartford, CT 06108 until **11 AM, TUESDAY, FEBRUARY 16, 2016** at which time and place said bids will be opened publicly and read.

IN ORDER TO BE CONSIDERED AN OFFICIAL PLAN HOLDER AND ELIGIBLE BIDDER FOR THE PROJECT, THE PURCHASING AGENT MUST RECEIVE AN EMAIL indicating interest in bidding, company information, and main contact information on, or before, THURSDAY, FEBRUARY 4, 2016.

The Town will conduct a NON-MANDATORY PRE-BID MEETING on WEDNESDAY, JANUARY 20, 2016 AT 10 AM AT THE TENNIS COURT COMPLEX, EAST HARTFORD HIGH SCHOOL, 869 FORBES STREET, EAST HARTFORD, CT 06108.

Requests for information (RFIs) will be accepted via email to the Purchasing Agent on or before FRIDAY, FEBRUARY 5, 2016.

Drawings and Specifications will be available for review at the office of the Purchasing Agent, East Hartford Town Hall, 740 Main Street, East Hartford, CT. (Between the hours of 8:30 am to 4:30 pm, Monday through Friday) and on the Town of East Hartford's Purchasing Website:

<http://www.easthartfordct.gov/purchasing/bids>

Bid security in the form of a 5% bid bond, payable to the Town of East Hartford, is required of all bidders and a 100% Performance Bond will be required of the awarded bidder.

This contract is subject to state set-aside and contract compliance requirements.

The Town reserves the right to reject any or all bids, or any part of all bids, to waive any informality, and reserves all other rights as detailed in the Contract Documents when such action is in the best interest of the Town. The Town is an equal opportunity employer. Contractor must comply with all Federal, State and Local requirements under this contract.

All bidders are requested to note that the award of this Contract is subject to the following conditions and contingencies:

1. The approval of such governmental agencies as may be required by law.
2. The appropriation of adequate funds by the proper agencies.

Michelle Enman
Purchasing Agent
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SECTION 9.13 CHAIN LINK FENCE

Replace Section 9.13 with the following:

09.13.01 General

01.01 Summary

Section Includes:

Chain-link fences.

Gates: swing.

Related Sections:

Section "Concrete" for cast-in-place concrete post footings.

01.02 Performance Requirements

Delegated Design: Design chain-link fences and gates, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

Structural Performance: Chain-link fence and gate framework shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to ASCE/SEI 7:

Minimum Post Size: Determine according to ASTM F 1043 for framework up to 12 feet high, and post spacing not to exceed 10 feet.

01.03 Submittals

Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for chain-link fences and gates.

Fence and gate posts, rails, and fittings.

Chain-link fabric, reinforcements, and attachments.

Gates and hardware.

Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Show accessories, hardware, gate operation, and operational clearances.

Samples for Initial Selection: For components with factory-applied color finishes.

Samples for Verification: Prepared on Samples of size indicated below:

Polymer-Coated Components: In 6-inch lengths for components and on full-sized units for accessories.

Delegated-Design Submittal: For chain-link fences and gate framework indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

Qualification Data: For qualified professional engineer.

Product Certificates: For each type of chain-link fence, operator, and gate, from manufacturer.

Product Test Reports: For framing strength according to ASTM F 1043.

Field quality-control reports.

Operation and Maintenance Data: For the following to include in emergency, operation, and maintenance manuals:

Polymer finishes.

Gate hardware.

Warranty: Sample of special warranty.

01.04 Quality Assurance

Testing Agency Qualifications: For testing fence grounding. Member company of NETA or an NRTL.

Testing Agency's Field Supervisor: Currently certified by NETA to supervise on-site testing.

Mockups: Build mockups to set quality standards for fabrication and installation.

Include 10-foot length of fence and gate.

Preinstallation Conference: Conduct conference at Project site.

01.05 Project Conditions

Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

01.06 Warranty

Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period.

Failures include, but are not limited to, the following:

Faulty operation of gate operators and controls.

Deterioration of metals, metal finishes, and other materials beyond normal weathering.

Warranty Period: Five (5) years from date of Substantial Completion.

09.13.02 Products

02.01 Chain-Link Fence Fabric

General: Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist. Comply with CLFMI Product Manual and with requirements indicated below:

Fabric Height: As indicated on Drawings.

Steel Wire Fabric: Wire with a diameter of No. 9 gague, 0.148" or as indicated on Drawings.

Mesh Size: 1.75 inches or as indicated on the plans.

Polymer-Coated Fabric: ASTM F 668, Class 1 over zinc coated steel wire.

Color: Black, complying with ASTM F 934.

Coat selvage ends of fabric that is metallic coated before the weaving process with manufacturer's standard clear protective coating.

Selvage: Knuckled at both selvages.

02.03 Fence Framing

Posts and Rails: Comply with ASTM F 1043 for framing, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F 1043 based on the following:

Fence Height: As indicated on Drawings.

Heavy Industrial Strength: Material Group IC, round steel pipe, electric-resistance-welded pipe.

Line Post: 2.875 inches or as indicated on Drawings.

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End, Corner and Pull Post: 4.0 inches or as indicated on Drawings.

Horizontal Framework Members: Top, intermediate and bottom rails complying with ASTM F 1043.

Top and Bottom Rail: 1-5/8 inches in diameter or as indicated on Drawings.

Polymer coating over metallic coating.

Color: Match chain-link fabric, complying with ASTM F 934.

02.04 Tension Wire

Polymer-Coated Steel Wire: No. 7 gauge, tension wire complying with ASTM F 1664, Class 1 over zinc-coated steel wire.

Color: Match chain-link fabric, complying with ASTM F 934.

02.05 Swing Gates

General: Comply with ASTM F 900 for gate posts and single and double swing gate types.

Gate Leaf Width: As indicated.

Gate Fabric Height: As indicated.

Pipe and Tubing:

Zinc-Coated Steel: Comply with ASTM F 1043 and ASTM F 1083; protective coating and finish to match fence framing.

Gate Posts: Round tubular steel.

Gate Frames and Bracing: Round tubular steel.

Frame Corner Construction: Welded.

Hardware:

Hinges: 360-degree inward and outward swing.

Latches permitting operation from both sides of gate with provision for padlocking accessible from both sides of gate and ADA U-shaped.

02.06 Fittings

General: Comply with ASTM F 626.

Post Caps: Provide for each post.

Provide line post caps with loop to receive top rail.

Rail and Brace Ends: For each gate, corner, pull, and end post.

Rail Fittings: Provide the following:

Top Rail Sleeves: Pressed-steel not less than 6 inches long.

Rail Clamps: Line and corner boulevard clamps for connecting bottom rails in the fence line-to-line posts.

Tension and Brace Bands: Pressed steel.

Tension Bars: Steel, length not less than 2 inches shorter than full height of chain-link fabric. Provide one bar for each gate and end post, and two for each corner and pull post, unless fabric is integrally woven into post.

Truss Rod Assemblies: Steel, hot-dip galvanized after threading rod and turnbuckle or other means of adjustment.

Tie Wires, Clips, and Fasteners: According to ASTM F 626.

Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, complying with the following:

Hot-Dip Galvanized Steel: 0.148-inch diameter wire; galvanized coating thickness matching coating thickness of chain-link fence fabric.

Finish:

Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. zinc.

Polymer coating over metallic coating.

02.07 Grout and Anchoring Cement

Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.

Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer, for exterior applications.

09.13.03 Execution

03.01 Examination

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.

Do not begin installation before final grading is completed unless otherwise permitted by Engineer.

Proceed with installation only after unsatisfactory conditions have been corrected.

03.02 Preparation

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.

03.03 Installation, General

Install chain-link fencing to comply with ASTM F 567 and more stringent requirements indicated.

Install fencing on established boundary lines inside property line.

03.04 Chain-Link Fence Installation

Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.

Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.

Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.

Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.

Concealed Concrete: Top 2 inches below grade to allow covering with surface material.

Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of 15 degrees or more.

Line Posts: Space line posts uniformly at 10 feet o.c.

Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Diagonally brace terminal posts to adjacent line posts with truss rods and turnbuckles. Install braces at end and gate posts and at both sides of corner and pull posts.

Locate horizontal braces and intermediate rails at 72 inches. Install so posts are plumb when diagonal rod is under proper tension.

Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.

Bottom and Intermediate Rails: Install and secure to posts with fittings.

Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 3/4 inch between finish grade or surface and bottom selvage unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.

Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches o.c.

Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.

Maximum Spacing: Tie fabric to line posts at 12 inches o.c. and to braces at 24 inches o.c.

Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

03.05 Gate Installation

Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

03.06 Adjusting

Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

Lubricate hardware and other moving parts.

03.07 Demonstration

Engage a factory-authorized service representative to train Owner's personnel to adjust, operate, and maintain chain-link fences and gates.

SECTION 14.01 - TENNIS EQUIPMENT AND SURFACE TREATMENT

PART 1 - GENERAL

1.1 DESCRIPTION

A. SCOPE OF WORK

This Section includes the following: Furnish all labor, materials, equipment and services for completion of the following:

1. Tennis Court Surface Treatment
2. Tennis Equipment
3. Crack Repair

1.2 QUALITY ASSURANCE

A. **Installer Qualifications:** Engage experienced Installer(s) who has/have successfully completed installations of site furnishings similar in material, design and extent to that indicated for Project.

1. Contractor to provide the Engineer with a list of and the location of the five-warrantied systems for review before the start of construction on the entire project.
2. The installation of the bituminous concrete paving base shall be completed on a laser graded/compacted base as well as the bituminous concrete paving as per Standard Specifications for Roads, Bridges and Incidental Construction Form 816.

B. **Layout and Placement:** Prior to installation of furnishings, locate in field and review with Engineer/Landscape Engineer for siting, alignment and grade relationships prior to placement. Subbase grading and compactions of pavement bases shall be laser graded and verified by a Connecticut Registered Professional Surveyor. Final bituminous concrete paving shall be installed and laser set grades shall also be certified by a Connecticut Registered Professional Surveyor as meeting the grades required before the start of the installation of fencing and the synthetic court surfaces.

C. **Warranty:** Installer shall provide, protect and install furnishings in a manner, which does not void any manufacturer's warranties for construction or safety.

1. The finished tennis surface shall have a written warranty covering the labor and materials from the contractor and the manufacturer respectively. The surfacing contractor shall provide the Engineer with an "authorized applicators certificate" from the manufacturer before the start of construction on the entire project.

- D. All manufacturers shall have a minimum of 5 years experience in producing site amenities.
- E. Manufacturers shall submit a list of at least 5 sites where their product is located.
- F. All metals and woods specified shall conform to standards defined by societies and associations normally associated with technical requirements of materials and their performance standards.
- G. All products shall be free of cracks, and any other defect at the time of delivery. All units are to be placed in a storage area, protected from damage prior to and during transit to the Owner's or Contractor's site within the limits of the project area until which time the Contractor is ready to install the units.
- H. In the event any of the site improvements or any component are deemed defective and unacceptable, the product(s) shall be replaced at no additional cost to the Owner.
- I. The Contractor shall be, at a minimum, be responsible for all quality assurance/quality control of horizontal and vertical alignments (direction and grading) and provide all necessary requirements.
- J. The Plexipave System material requirements are the standard specification to which other surfaces must conform. Any products to be approved as an equal to the specified product must conform to the materials and application requirements of this specification. Any binders, to be considered equal, must have written confirmation by the manufacturer that they have been produced specifically for use in court surfacing construction. Systems to be considered equivalent must be accompanied by stamped certification from a licensed testing laboratory that the substitute products have passed the appropriate tests to determine equality. The results of that testing shall be submitted to the Engineer for review prior to the start of construction.

1.3 SUBMITTALS

- A. Provide product information for the following products:
 - 1. Tennis Court Surface Treatment
 - 2. Armor Crack Repair System

1.4 DELIVERY, STORAGE AND HANDLING

- A. Protect furnishings against soilage and damage during storage and construction by use of padding or barriers as required to maintain furnishings in undamaged condition.

- B. Review finishes and structures of furnishings prior to, during and after installation for blemishes, defects or inconsistencies that may be subject to rejection by the Landscape Engineer. Remove from the site unsatisfactory furnishings and replace at no additional cost to the Owner.

PART 2 - PRODUCTS

2.1 TENNIS COURT SURFACE

- A. Plexipave Court Patch Binder - shall comply with Specification 10.14 of California Products Corporation or approved equal.
- B. Acrylic Resurfacer - shall comply with Specification 10.8 of California Products Corporation or approved equal.
- C. Fortified Plexipave - shall comply with Specification 10.12 of California Products Corporation or approved equal.
- D. Plexichrome - shall comply to Specification 10.1 of California Products Corporation or approved equal.
- E. Pexicolor Line Paint - shall comply with Specification 10.4 of California Products Corporation or approved equal.
- F. Water - water used in all mixtures shall be fresh and potable.
- G. Finish color of the Plexipave System or equal shall be a stock color as selected by the Owner.
- H. Tennis court crack seal system shall be ARMOR Crack by ARMOR Crack Repair System, Farmingdale, NJ (www.armorcrackrepair.com) or approved equal.

2.2 CENTER STRAP ANCHORS

- A. Provide standard aluminum center strap anchors with stainless steel pins.
- B. Owner to provide center straps.

2.3 TENNIS NETS

- A. Owner to provide tennis nets (doubles size) and singles sticks.

2.4 WIND SCREENS

- A. Owner to provide wind screens.

2.5 TENNIS COURT NET POSTS

- A. Tennis court net posts shall be Douglas Premier XS Black with Stainless Steel Gears (Model 63032SS) or equal with the corresponding 24" steel ground sleeve.

PART 3 - EXECUTION

3.1 GENERAL

- A. Execution and installation shall meet or exceed the minimum requirements as depicted on the Contract Documents.
- B. Meet or exceed all requirements as outlined by the manufacturer.
- C. The Contractor shall be, at a minimum, responsible for all quality assurance/quality control of horizontal and vertical alignments (direction and grading) and provide all necessary requirements.

3.2 TENNIS COURT SURFACE

- A. Tennis court surface shall be the "Plexipave" system by Plexipave (a division of California Products), or equivalent:
 - 1. Following bituminous surface preparation, apply one (1) coat of Acrylic Resurfacer
 - 2. Apply three (3) coats of Fortified Plexipave color surfacing
 - 3. Apply Plexicolor Line Paint
- B. Bituminous Surface Preparation
 - 1. New asphalt surfaces shall be allowed to cure a minimum of 14 days before application of the "Plexipave" system.
 - 2. The surface to be coated shall be sound, smooth of uniform texture, and free from dust, dirt, grease, or oils and any other deleterious materials. Prior to the application of surfacing materials, the entire surface should be flooded and checked for minor depressions or irregularities. Any puddle area covering a nickel shall be marked and repaired with Court Patch Binder after all cracks are treated with Armor Crack or approved equal system, using the following mix:
 - a. 100 lbs. 60 - 80 mesh silica sand (dry).
 - b. 3 gallons Plexipave Court Patch Binder.
 - c. 1 to 2 gallons Portland Cement (dry), (depending on humidity and temperature).

3. Tack coat consisting of 1 part Court Patch Binder and 2 parts water shall be applied to the patch areas and allowed to dry thoroughly prior to patching. See California Products Specifications 10.14 and 10.21.
 - a. Repair cracks with Armor Crack or equivalent repair system.
 - b. After patching and crack repair, the surface shall not vary more than 1/8" inch in ten feet measured in any direction.

C. Surface Course Preparation

1. In order to provide a summary dense underlayment for the Plexipave system, contractor shall include one application of California Products Acrylic Resurfacer applied to the surface to obtain a coverage of 15 - 20 sq. yds. per gallon, (.07 - .05 gallons per square yard). No application shall be covered by a succeeding application until thoroughly cured. Dilution with water and sand is required utilizing the following mix:
 - a. Acrylic Resurfacer 55 gallons
 - b. Water (clean & potable) 20 - 40 gallons
 - c. Sand (60 - 80 Mesh) 600 - 900 lbs.
 - d. Liquid Yield 112 - 138 Gallons

D. Fortified Plexipave

1. Allow the Acrylic Resurfacer to thoroughly dry for at least 6 hours in good weather conditions before applying Fortified Plexipave.
2. Fortified Plexipave shall be applied by rubber bladed squeegee on the clean dry surface to obtain a total quantity of not less than .15 nor more than .23 gallons per sq. yd. of area, based on material prior to any dilution. No application shall be covered by a succeeding application until thoroughly cured.
3. Fortified Plexipave can be job mixed as follows:
 - a. Plexipave Color Base 30 gallons
 - b. Plexichrome 20 gallons
 - c. Water (clean & potable) 20 gallons
4. The diluted material shall be homogeneous. Segregation before or during application shall not be permitted.

5. The finished surface shall have a uniform appearance and be free from ridges and tool marks.
- E. Plexicolor Line Paint
1. Four hours minimum after completion of the color resurfacing, playing lines of the width shown on the Drawings shall be accurately located, marked, and painted with white Plexicolor Line Paint as specified by the U.S. Tennis Association.
- F. Limitations
1. No parts of the construction involving the Plexipave System shall be conducted during rainfall or when rainfall is imminent. The air temperature must be at least 50 degrees F and rising. Do not apply system when surface temperature is above 140 degrees F.

3.3 CLEAN UP AND MAINTENANCE

- A. Upon completion of all work, the Contractor shall remove all containers, surplus materials, and debris; the site will be left in a clean orderly manner acceptable to the Engineer and Owner.
- B. The Contractor shall provide the Owner written maintenance requirements and review those requirements with the Owner at the completion of the project.