NOTE TO CONSULTANTS: Edit with Track Changes turned on, any text in this section that appears in bold and italics then turn off the bold and italics for the final approved version. (Remove this Note).

PART 1 - GENERAL

1.01 Description: Furnish all material, labor, services and related items required to complete work indicated on drawings and/or specifications. The items of work to be performed shall include but are not necessarily limited to the complete installation of tennis court surfacing and playing lines.

1.02 Related Work:

Section 32 12 16.36 - Asphalt Paving for Tennis Courts

1.03 References: This section references the latest revisions of the following documents:

American Sports Builders Association (ASBA) Tennis Court Construction Guidelines Section I - General Guidelines, and Section II - Tennis Court Guidelines, and other applicable sections including but not limited to:

C. Standard Classification for Tennis Court Surfacing Systems
I. Hot Mix Asphalt for Tennis Courts
O. Acrylic Color Finish Systems for Tennis Courts
P. Resurfacing Asphalt Tennis Courts
Q. Maintenance and Repair of Asphalt Tennis Courts

1.04 Quality Assurance:

A. Contractor Qualifications:

1. The Contractor shall be an authorized applicator of the specified system.
2. The Contractor shall provide the inspector, upon request, an estimate of the volume of each product to be used on the site.
3. The Contractor must be experienced in installation of tennis court surfacing with personnel, facilities and equipment adequate for the work specified.

B. Surface shall conform to the guidelines of the ASBA for planarity. Testing shall be done under the supervision of the Contractor and in accordance with the General and Supplementary Conditions of the Contract. Refer to paragraph 3.02 this section for water testing.

1.05 Submittals: The Contractor shall submit to the Engineer materials containing the following information:

A. Authorized Applicator certificate from the surface system manufacturer.

B. Reference list from the installer of at least five (5) projects of similar scope done in the past three (3) years. The list shall include dates, dollar value of Contractor's work, location, and project owner with current contact information.

C. Provide documentation that the system to be installed has been classified as a medium pace surface.

D. Procedures to be used in the construction of Tennis Court(s) with regard to the division of labor and responsibility of the Contractor and all sub-contractors involved.

E. Materials to be used, color chart and the proposed method of application and procedures to be followed.

1. Manufacturers Material Safety Data Sheets (MSDS) for all coatings and Paints, prior to their delivery to the site.
2. Manufacturers recommended methods of installation for all coatings and paints, for approval prior to the commencement of the work.

1.06 Extra Stock:

A. At the Project Close Out, prior to Physical Completion the Contractor shall provide the following:

1. A one (1) gallon container (unopened) of <u>each</u> color used for the Finish Coat.
2. Product information, including MSDS per requirements for the Operation and Maintenance Manual.

B. Label each container with the color, project location, and date. The container shall also display the manufacture and their contact information.

PART 2 - PRODUCTS

2.01 General: The following manufacturers offer products that conform to the intent and purposes of these specifications:

A. <u>Plexipave Color System</u> by California Products Corporation - Plexipave Sport Surfacing Division, 150 Dascomb Road, Andover, MA 01810, Tel. 1-800-225-1141 ext.2, www.plexipave.com.

B. <u>Novacrylic Color System</u> by Nova Sports U. S. A., Inc. 6 Industrial Road, building #2, Milford, MA 01757, Tel. 1-800-USA-NOVA, www.novasports.com.

C. <u>Or approved equal</u>. Provide manufacturer's written analysis for approval by the

Engineer prior to delivery. Materials manufactured by any other manufacturers shall not be considered to meet these specifications unless a sample of the product is submitted and a test application performed for and approved in writing by the Engineer prior to the opening of bids. All Material shall be delivered to the construction site in its original unopened containers clearly labeled with trade name and name of manufacturer.

2.02 Surface Coating Materials: The contractor shall furnish the following component materials depending on system applied:

A. Resurfacer coats: This is an acrylic resurfacer for pavement prior to the application of acrylic color surfacing systems. If another product is requested as an 'approved equal' and approved by the Engineer, the Engineer will determine rates of application for that specific product. For NOVA system, use one coat of NOVASURFACE (spreading rate 90-150 sq. ft. per gallon, per coat). For Plexipave system, use one coat of Acrylic Resurfacer (Spreading rate not less than 0.06 gallon per sq. yd.).

B. Filler coats: This is a sand filled acrylic textured coat. If another product is requested as an 'approved equal' and approved by the Engineer, the Engineer will determine rates of application for that specific product. For NOVA system, use two coats of NOVAFIL (spreading rate 120-260 sq. ft. per gallon, per coat). For Plexipave system Use Fortified Plexipave. The Fortified Plexipave can be job mixed as follows:

Plexipave Color Base	30 gallons
Plexichrome	20 gallons
Water	20 gallons

C. Finish Coats: This is the finish coat for the color surface system. If another product is requested as an 'approved equal' and approved by the Engineer, the Engineer will determine rates of application for that specific product. For NOVA system, use one coat of NOVA COMBINATION SURFACE (Spreading rate 160-190 sq. ft. per gallon, per coat). For Plexipave system use one coat of Fortified Plexipave. The spreading rate for three (3) coats of Fortified Plexipave shall not be less than 0.15 gal. per sq. yard.

D. Color(s) shall be chosen by the Engineer. Use **blue** color inside tennis court and **green** color outside of tennis court for this project.

E. No asphalt emulsion coats will be accepted.

2.03 Playing Lines: White Paint Material: Use line paint NOVATEX for NOVA system (spreading rate 1 gallon per court). Use Plexicolor Line Paint for Plexipave system (spreading rate ¾ gal. per court). Use line primer "Line Right" for Plexipave system. Use line primer SEAL-A-LINE for NOVA system to seal the masking tape. The use of traffic, oil, alkyd or solvent-vehicle type paints is absolutely prohibited.

2.04 Sand: Sand material and gradation specification shall be in accordance with manufacturer's recommendation.

PART 3 - EXECUTION

3.01 Barriers: The Contractor shall erect and maintain barricades, canopies, guards, lights and warning signs to the extent required by law and as is prudent for the protection of the public and protection of the work.

3.02 Surface Preparation:

A. Asphalt shall be cured for a minimum of 14 days and concrete for a minimum of 28 days prior to application of any surfacing materials. Do not allow use of curing agents or concrete hardeners.

B. Contractors must notify the Engineer of all applications, 48 hours prior to installation. The surface to be coated shall be inspected and made sure to be sound, smooth, and free of grease, oil, dust, dirt and other foreign matter before starting work.

C. Water Test: Prior to the application of surfacing materials, the entire surface shall be flooded with water, and checked for minor depressions or irregularities. Any puddle holding water deeper than a five cent piece should be outlined with chalk and repaired in accordance with Section 32 12 16.36 - Asphalt Paving for Tennis Courts.

D. After patching, the surface shall not vary more than 1/8 inch in ten feet straight edge measured in any direction. Allow application to dry thoroughly.

E. Application shall proceed only if the surface is dry and clean and the temperature is at least fifty degrees (50°F) and rising, and the surface temperature is not in excess of one hundred forty degrees (140°F). Do not apply coatings when rain is imminent.

F. Each coat in this system must dry completely before next application. Between each coat, inspect entire surface. Any defects should be repaired. Scrape surface to remove any lumps, and broom or blow off all loose matter.

G. Edges adjacent to building, curbing, fencing and landscaping not to be coated with this Color Finish System shall be adequately masked with tape or otherwise protected during these applications.

3.03 Resurfacer Coat:

A. Use a rubber bladed squeegee; apply one (1) coat of acrylic resurfacer per manufacturer's recommendations over properly prepared asphalt or concrete pavement. Allow application to dry thoroughly.

1. For Nova system, apply one (1) coat of Novasurface acrylic resurfacer, diluted with one (1) part clean water to two (2) parts Novasurface. Clean, bagged sand shall be incorporated into the diluted Novasurface at the rate of five (5) to ten (10) lbs. per gallon. Sand gradation shall be 50 to 60-mesh.
2. For Plexipave system, over a properly repaired surface of asphalt on existing courts, apply one (1) coat of Acrylic Resurfacer according to the following mix:

Acrylic Resurfacer	55 gallons
Water	20-40 gallons
Sand	600-800 pounds / 60-80 mesh
Liquid Yield	112-138 gallons

On new asphalt, two coats of Acrylic Resurfacer shall be used to properly fill all voids in the asphalt surface. Use clean, dry 50-60 mesh sand and clean, potable water to make mixes. The quantity of sand and water in the above mix may be adjusted within above limits to complement the roughness and temperature of the surface.

3.04 Filler Coats:

A. Use a rubber bladed squeegee; apply two (2) coats of filler coats per manufacturer’s recommendations. Both coats are to contain aggregate as required to obtain medium playing "speed" as agreed upon between Engineer and Contractor.

1. For Nova system, apply two (2) coats of Novafill, diluted two (2) parts concentrated material to one (1) part clean water (color to be designated by owner). Allow each application to dry thoroughly. The quantity of water used in diluting these coatings may exceed the quantity specified by only a small amount and only if coatings are drying too rapidly. Permission of the owner shall be obtained before adding additional water.
2. For Plexipave system, apply two (2) coats of Fortified Plexipave.

B. Mixing with clean fresh water shall follow manufacturer’s specification and only be done at the job site. Permission from the Engineer shall be obtained before adding additional water.

C. Allow each application to dry thoroughly. After each coat has dried, the surface shall be inspected and all ridges removed, and the entire surface shall be cleaned with a blower prior to application of the next coat. The cleaner (blower) must be electric powered to prevent oil contamination of surface.

3.05 Finish Coats:

A. Use a rubber bladed squeegee; apply one (1) coat of finish coat per manufacturer's specifications. The aggregate content shall be agreed upon between Engineer and

Contractor to obtain medium playing "speed".

1. For Nova system, apply one (1) coat of Nova Combination Surface, diluted minimum of 15-Gal water up to 21-Gal water to 30-Gal of Combination Coating.
2. For Plexipave system, apply one (1) coat of Fortified Plexipave.

B. Mixing with clean fresh water shall follow manufacturer's specification and only be done at the job site. Permission from the Engineer shall be obtained before adding additional water.

C. A uniform color throughout the surface shall be obtained by proper application.

D. Allow application to dry thoroughly. Upon completion, obtain the acceptance of the tennis surface from the Engineer prior to proceed with playing lines.

3.06 Playing Lines: Base lines shall be three inches (3") wide, and playing lines two inches (2") wide. Lines shall be accurately located and marked in accordance with the rules of the United States Tennis Association and ASBA guidelines. All lines shall be painted with textured white line paint per manufacturer's specification. Playing lines shall be taped, and the tape sealed and then painted to provide straight lines with sharp edges. All court measurements shall be made to the outside of the lines.

3.07 Guarantees:

A. The manufacturer shall guarantee the material in writing for a period of two (2) years from date of Physical Completion against chalking, checking, fading discoloration, rust spots, blisters, bubbles, or other adverse effects from ultraviolet rays of the sun, from weather moisture, or from weather temperatures.

B. The Contractor shall further guarantee that all work performed under this section shall be free from defects in material and workmanship. Upon notice in writing from the Owner to the Contractor within two (2) years of Physical Completion of the project, the Contractor shall, at no expense to the Owner, make necessary repairs or replacements of the defective work in question. During this period of guarantee, the Owner shall perform normal maintenance, repairing tennis racquet damage and cleaning.

3.08 Close Out:

A. Cleaning: Upon completion, the Contractor shall remove all containers, surplus materials and debris, and leave the site in a clean and orderly condition acceptable to the Engineer and Consultant.

B. Maintenance: The installer shall make recommendations to the Contractor in writing of the procedures to follow in protecting and maintaining the Tennis Courts until

Physical Completion. The Contractor shall provide the Engineer with a complete typewritten set of maintenance and repair procedures on 8-1/2" x 11" heavy weight plastic coated sheets. Furnish minimum of three (3) copies.

END OF SECTION