TENNIS COURT SURFACE, POSTS & NET

PART 1 GENERAL

1.1 Related Work

.1	All Division 1	Specification Sections
.2	Section 02311	Site Grading
.3	Section 02743	Asphalt Concrete Paving
.4	Section 02821	Chain Link Fences & Gates

1.2 Referenced Guidelines

.1	480	Tennis Courts (2 Court Layout & lighting)
.2	482	Tennis Courts (4 Court Layout & lighting)
.3	484	Tennis Court Fence and Gate (Elevation)
.4	485	Tennis Court Net Post and Surface (Section)

1.3 Measurement for Payment

.1 Measurement for Payment will be as stipulated in the Bid Document – Price Schedule.

PART 2 PRODUCTS

2.1 Net and Net Post Equipment

.1 Net post footings shall be not less than 450 mm in diameter and not less than 1200 mm in depth. Foundations shall be laid out so as to provide a distance between posts of 12.8 metres on double courts. This dimension shall be from centre of post to centre of post. Concrete foundations shall be 20 MPa. Foundations shall be poured and the posts set so as not to cause cracking or other damage to the finished court surface. **The City of Brampton reserves the right to reject the installation if the excavation is not inspected prior to placement.**

.2 Regal net posts with internal windings shall be galvanised steel 7.3 mm O.D. minimum, with a screw type tension system, internal worm gear tension or ratchet type tension system. Shop drawings or sample of the post to be approved before installation.

.3 Net to be Edwards 10-DS Model 1303 Regulation. A stainless steel strap anchor or tie down pin shall be positioned at the centre of the net position. Anchor or pin shall be driven into the finished surface.

2.2 Asphalt Surface

.1 Granular Material including 19mm Crusher Run shall conform in all respects with OPSS 1010.

.2 Course Aggregates shall consist of crushed rock or gravel free of clay, silt and other deleterious materials.

.3 Fine aggregates shall be composed of clean, hard, durable particles of natural sand, manufactured sand or screenings resulting from the crushing of rocks, stone or gravel and free of clay, silt or other deleterious materials. Fine aggregate for HL3 must contain a minimum of 10% passing a 10mm screen and retained on the # 4 sieve.

.4 Asphalt cement: conforming in all respects with OPSS 1150 except with respect to bitumen content which shall not exceed 5.1% for Tennis Court Paving.

.5 Mineral Filler: finely ground particles of limestone, hydrated lime or other mineral dust approved by the Owner, free of clay, silt and other deleterious materials.

.6 Joint painting material: slow setting asphalt emulsion, type SS-1 conforming to CAN2 16.2-M77.

2.3 Asphalt Mix

.1 Paving Mixture: a hot mix, hot laid, asphaltic concrete, installed to the minimum compacted thickness shown on the drawings and composed of coarse and fine aggregates, mineral filler and asphalt cement uniformly mixed. **Maximum bitumen content shall be 5.1%.**

PART 3 EXECUTION

3.1 Preparation - Existing Surface

.1 Repair the existing asphalt or bituminous surface to eliminate cracks, ridges, marks and voids. Where the existing surface varies more than 3.2 mm over a 3.05 m in any direction apply a 25 to 38mm asphalt surface course as indicated on the drawings or as directed by the Consultant. The completed repairs to the existing wearing course must be inspected by the Consultant prior to the placement of a new lift of asphalt.

3.2 Preparation - Asphalt Surfacing

.1 Fine grade subgrade eliminating uneven areas and filling low spots. Remove all debris. Excavate all soft spots and unstable areas in subgrade and backfill with 19 mm Crusher Run.

.2 Compact finished subgrade to 98% Standard Proctor Density.

.3 Ensure that the granular base extends beyond the proposed edge of the tennis court where otherwise unsupported.

.4 Remove any soil, dust, leaves, or other debris and ensure that the existing surface is free of standing water.

3.3 Installation - Asphalt Surfacing

.1 Using approved equipment lay and spread granular material in horizontal layers not exceeding 100mm in loose depth and compact to 98% Standard Proctor Dry Density. In areas where compaction by a roller is not possible compact with an approved mechanical or hand tamping device to the specified density.

.2 Correct all irregularities or depressions resulting from rolling and compacting until the granular surface is smooth, uniform, and true to line and grade. The finished course shall not vary more than 3.2 mm in 3.05 m when measured in any direction. Any ponding or “birdbaths” remaining after 45 minutes which cover a five cent coin shall be filled with Court Patch Binder as produced by California Products Corp. or approved alternate.

.3 Paint the vertical surfaces of all structures in contact with the new asphalt with a thin, continuous coat of type SS-1 emulsion.

.4 Hand tamp with hot tampers in areas not accessible to rolling equipment.

.5 Hand tamp all edges adjacent to grass or planting beds to a 45 degree angle. Establish straight edge by the use of a sting line. Where edge is not straight, lay in a smooth curve to the radius indicated.

.6 If the finished edge is not satisfactory, at the discretion of the Consultant, the edge may be repaired by saw cutting to a 45 degree edge to the required line and painting the cut with liquid asphalt.

3.4 Installation - Acrylic Resurfacer Courses

.1 Prior to Acrylic Resurfacer Courses, **asphalt paving shall cure for fourteen (14) days minimum** and any depressions greater than 3.2 mm shall be filled with Court Patch Binder. The surface shall be clean, sound and free from grease, oils and foreign materials. Prior to application remove the net posts and centre strap anchor.

.2 Over properly prepared asphalt surface, apply two (2) coats of Acrylic Resurfacer by California Products or approved equivalent according to the following mixture:

Acrylic Resurfacer	200 litres
Water	75-150 litres
Sand (60-80)	2300-3400 litres
Liquid Yield	420-520 litres

.3 Mix ingredients thoroughly in a mortar box or mortar mixer and use a 70 Durometer rubber blade squeegee to apply each coat of Acrylic Resurfacer. Use clean, dry sand and clean potable water to make mixes.

.4 Allow the application of Acrylic Resurfacer to dry thoroughly. Scrape off all ridges and rough spots prior to subsequent applications.

.5 Do not apply mix when rain is imminent or when temperature is below 10 degrees Celsius or when the surface temperature is above 60 degrees Celsius.

3.5 Installation - Colour Surface Courses

.1 Over the completed Acrylic Resurfacer Course, apply two (2) coats of Dark Green (Court Area) and Light Green (Apron) Plexipave Colour in accordance with the manufacturer's directions at a rate of not less than 0.35 litres per square metre total for the two coats (225 to 300 litres for 670 square metres.) If the asphalt surface is not covered to a uniform, even texture, free of all porosity, a third filler coat shall be applied to attain uniformity. The first coat shall be applied length wise of the court and the second coat, crosswise of the court. Dilution rate shall not exceed 1 part water to 2 parts Plexipave. Prior to applying the finish coat, an inspection of the entire surface shall be performed to identify and remove any ridges, loose or foreign particles.

.2 The final finish coat of Plexichrome shall be applied as directed by the manufacturer's rate of not less than 0.17 litres per square metre. The application shall be made crosswise of the court, with a wide hair type pushbroom or rubber bladed squeegee, followed by a pushbroom, to produce a uniform colour throughout when viewed from a distance of 7.5 metres from the edge of the court at mid-day. Dilution rate shall not exceed 1 part water per 1 part Plexichrome. Do not apply when rain is imminent. Do not apply when the surface temperature is below 10 degrees Celsius or more than 60 degrees Celsius. Do not apply over tar emulsion sealers. Apply only when ambient temperature is 10 degrees Celsius and rising.

3.6 Installation - Colour Playing Lines

.1 Base lines shall not be more than 100 mm wide and playing lines shall not be more than 50mm wide.

.2 The line paint shall be Plexicolour Line Paint or approved alternate, for use over asphalt or tar emulsion surfaces including slurry coats. The paint shall be a 100% acrylic emulsion type containing no alkyds, butadiene styrene, or vinyls and shall be diluted with water only. The paint shall also be suitable for application by brush, spray, or roller.

.3 All materials used in the paint shall be of good commercial quality entirely for the purpose intended under normal use. For white colour the opaque portion of the pigment shall be rutile titanium dioxide, and the vehicle shall consist of 100% acrylic polymer dispersed in water together with the minimum amount of necessary additives, such as pigment dispersants, anti-foaming agents and preservatives, but no driers shall be used.

.4 The paint shall meet a minimum requirement of total solids (percentage by weight of paint) of 51.5% and maximum pigment content (percentage by weight of paint) of 34%. The white paint shall not be less than 1.6 kg per litre of treated rutile titanium dioxide. A minimum fineness of grind of 4 and a viscosity (Krebs Units) of 70 minimum and 85 maximum is required. The paint shall brush easily and have good flowing, levelling and spreading characteristics, and shall be suitable for application by spray equipment or rollers.

.5 This paint shall be suitable for use over all types of bitulithic surfaces and when applied over emulsified asphalt, it shall not cause lifting, crazing, peeling or other damage to the base.

END OF SECTION - 02873