

**SECTION 02790
ASPHALT PICKLE BALL COURT CUSHIONED SURFACE COLOR COATING SYSTEM,
FENCING, WIND SCREENS AND PICKLE BALL COURT EQUIPMENT**

PART 1 GENERAL

1.1 SUMMARY

- A. This work includes sub surface preparation, hot mix asphalt (HMA) paving, net post and fence installation, and the acrylic color system applications for new pickleball courts.

1.2 QUALITY ASSURANCE

- A. Installing firm: Installer must regularly engage in construction and color acrylic surfacing. Documentation experience in athletic surface paving and acrylic color system applications must be provided. Minimum of 10 projects similar in complexity in the last 3 years.
- B. Surfacing shall conform to the guidelines of the ASBA (American Sports Builders Association) and USAPA (U.S. Pickleball Association) respectively.

1.3 SUBMITALS

- A. Provide manufacturer specifications for all products, asphalt mix design, color chart and installation instruction.
- B. Shop drawings indicating layout and placement of asphalt, color system, lines, net systems, fence and gates.

1.4 MATERIALS, HANDLING AND STORAGE

- A. Store material in accordance with manufacturers specifications and MSDS.
- B. All surfacing material shall be non-flammable.

1.5 GUARANTEE

- A. Provide guarantee against defects in the materials and workmanship for a period of one (1) year from the date of substantial completion unless otherwise stated.

1.6 AMBIENT CONDITIONS

- A. Do not apply asphalt tennis court cushioned surface color coating system when air or surface temperatures are below 50 degrees F during application or within 24 hours after application.
- B. Do not apply asphalt pickleball court cushioned surface color coating system when rain is expected during application or within 24 hours after application.

THE CONSTRUCTION OF PICKLE BALL COURTS
AT ROCCO M. REALE MEMORIAL FIELD

ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. SportMaster Sport Surfaces, PO Box 2277, 2520 South Campbell Street, Sandusky, Ohio 44870 or approved equal. Toll Free 800-326-1994. Website www.sportmaster.net. E-mail info@sportmaster.net.
- B. Douglass Industries, Eldridge IA/Athletic Equipment.
- C. U.S. Tennis Court Construction Company, Lockport, IL/Elite Sport Coating Systems.
- D. Local Asphalt plant with qualified mix.
- E. Approved equal.

2.2 MATERIALS/PRODUCTS

- A. Asphalt Tennis Court Cushioned Surface Color Coating System: SportMaster ProCushion Economy System.
- B. Crack Sealant: SportMaster “Crack Magic”.
 - 1. 100 percent acrylic emulsion elastomeric crack sealant.
 - 2. Seals cracks up to 1/2 inch wide in asphalt pavement.
 - 3. Weight per Gallon at 77 Degrees F: 8.8 lbs., plus or minus 0.5 lbs.
 - 4. Non-Volatile Material: 61 percent, plus or minus 5 percent.
- C. Crack Filler: SportMaster “Acrylic Crack Patch”.
 - 1. 100 percent acrylic emulsion trowel-grade crack filler.
 - 2. Fills cracks in asphalt pavement up to 1 inch wide.
 - 3. Chemical Characteristics, by Weight, Minimum:
 - a. Acrylic Emulsion: 10.0 percent.
 - b. Hiding Pigment: 0.2 percent.
 - c. Mineral Inert Fillers: 78.0 percent.
 - d. Film Formers, Additives: 1.8 percent.
 - e. Water: 8.5 percent.
 - 4. Weight per Gallon at 77 Degrees F: 15.2 lbs., plus or minus 1.0 lbs.
 - 5. Non-Volatile Material: 80 percent, plus or minus 5 percent.
 - 6. Color: [Green] [Neutral] [Red].
- D. Patch Binder: SportMaster “Acrylic Patch Binder”.
 - 1. 100 percent acrylic emulsion liquid binder.
 - 2. Mix on-site with sand and cement.
 - 3. Levels and repairs low spots and depressions up to 3/4 inch deep in asphalt pavement.

THE CONSTRUCTION OF PICKLE BALL COURTS
AT ROCCO M. REALE MEMORIAL FIELD

ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT

4. Weight per Gallon at 77 Degrees F: 8.8 lbs., plus or minus 0.5 lbs.
- E. Filler Course: SportMaster “Acrylic Resurfacer”.
1. 100 percent acrylic emulsion resurfacer.
 2. Mix on-site with silica sand.
 3. Apply to asphalt surfaces or previously colored acrylic surfaces in preparation of cushioned color coating system.
 4. Chemical Characteristics, by Weight, Minimum:
 - a. Acrylic Emulsion: 44.0 percent.
 - b. Hiding Pigment: 2.0 percent.
 - c. Mineral Inert Fillers: 5.0 percent.
 - d. Film Formers, Additives: 0.2 percent.
 - e. Water: 45.0 percent.
 5. Weight per Gallon at 77 Degrees F: 8.5 lbs., plus or minus 0.5 lbs.
 6. Non-Volatile Material: 27.5 percent, plus or minus 5.0 percent.
 7. Color: [Black] [Neutral].
- F. Base Cushion: CushionMaster II
1. 100 percent acrylic emulsion coating.
 2. Mix on-site with water.
 3. Coating with coarse rubber particles for higher cushion build.
 4. Weight per gallon at 77 Degrees F: 9.59 lbs., plus or minus.5 lbs.
 5. Non-Volatile Material: 55.92 percent, plus or minus 5 percent.
- G. Finish Cushion: CushionMaster I
1. 100 percent acrylic emulsion coating
 2. Mix on-site with water.
 3. Coating with fine rubber particles for smooth texturing.
 4. Weight per gallon at 77 Degrees F: 9.59 lbs., plus or minus.5 lbs.
 5. Non-Volatile Material: 55.92 percent, plus or minus 5 percent.
- H. Color Coating: SportMaster “ColorPlus System”.
1. 100 percent acrylic emulsion coating.
 2. Mix on-site with silica sand and water.
 3. Color coats tennis courts.
 4. Weight per Gallon at 77 Degrees F: 9.2 lbs., plus or minus 0.5 lbs.
 5. Color: (Forest Green, or as directed).
- I. Line Markings Primer: SportMaster “Stripe-Rite”.
1. 100 percent acrylic emulsion primer, clear drying.
 2. Primes line markings and prevents bleed-under for sharp lines.
 3. Chemical Characteristics, by Weight, Nominal:
 - a. Acrylic Emulsion: 38.0 percent.
 - b. Hiding Pigment: 0.0 percent.
 - c. Mineral Inert Fillers: 7.0 percent.
 - d. Film Formers, Additives: 1.5 percent.
 - e. Water: 50.0 percent.

THE CONSTRUCTION OF PICKLE BALL COURTS
AT ROCCO M. REALE MEMORIAL FIELD

ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT

4. Weight per Gallon at 77 Degrees F: 8.9 lbs., plus or minus 0.5 lbs.
 5. Non-Volatile Material: 29 percent, plus or minus 5 percent.
- J. Line Paint: SportMaster "Textured Line Paint".
1. Pigmented, 100 percent acrylic emulsion line paint.
 2. Line marking on asphalt tennis courts.
 3. Chemical Characteristics, by Weight, Nominal:
 - a. Acrylic Emulsion: 25.89 percent.
 - b. Pigment: 14.90 percent.
 - c. Mineral Inert Fillers: 13.12 percent.
 - d. Additives: 4.73 percent.
 - e. Water: 41.36 percent.
 4. Weight per Gallon at 77 Degrees F: 10.65 lbs., plus or minus 0.75 lbs.
 5. Non-Volatile Material: 45.17 percent, plus or minus 5 percent.
 6. Color: White.
- K. Net Poles: 3-inch round tubular steel with integral lacing bars – Polyester powder coated complete with brass winder. Poles to be as manufactured by "Edwards" 3-inch class or approved equal.
- L. Pickle Ball Court Net: (Douglas Pickleball net #20105P)- Installed in ground sleeves 2 per court.
- M. Round Steel Pipe Fence Framework (Schedule 40 standard weight)-Polymer coated galvanized pipe, fused and adhered.
1. Line Post: two and a half inch (2-1/2") Outside Diameter.
 2. Terminal Post: Three inch (3") Outside Diameter.
 3. Rails: Inch and five eighths (1-5/8") Outside Diameter
- O. Chain Link Fence Fabric: Polymer coated Fused and adhered inch and three quarter (1-3/4") 9- gauge core. Knuckled at top and bottom.
- P. Tension Wire: 7- gauge core polymer coated fused and adhered.
- Q. Fitting-Polymer coated fused and adhered.
1. Tension and Brace bands-minimum thickness 12 gauge.
 2. Terminal Post Caps, Line Post Loop Tops, Rail and Brace Ends, Boulevard Clamps, Rail Sleeves.
 3. Truss Rod Assembly.
- R. Gates: Polymer coated fused and adhered two and a half inch (2-1/2") O.D.
- S. Wind Screens: UV-resistant heavy duty HDPE material. Grommets @ 24" o.c. cable ties included, color green.

THE CONSTRUCTION OF PICKLE BALL COURTS
AT ROCCO M. REALE MEMORIAL FIELD

ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT

- T. Aggregate Base Course (CA-6) graded and compacted base course.
- U. HMA Binder Course (N-50 Binder Course)-Lower course of pavement with maximum aggregate size no more than $\frac{3}{4}$ ".
- U. HMA Surface Course (N-30 Surface Course)- fine graded asphalt course with $\frac{1}{2}$ " maximum aggregate or smaller, free of reclaimed asphalt shingles (RAS) and with no more than 25% (RAP), applied over reinforcement grid.

PART 3 EXECUTION

3.1 WEATHER LIMITATIONS

- A. Do not install when raining or rain is imminent.
- B. Do not install if surface is wet or damp.
- C. Do not apply unless surface and air temperatures are 50° F and rising.
- D. Do not apply if surface temperature is more than 140° F.

3.2 SITE INSPECTION, SURFACE PREPARATION

- A. Examine soil to establish its suitability as a foundation for court construction.
- B. Remove and dispose of all trees and vegetation including root systems.
- C. Locate utilities.
- D. Protection of In-Place Conditions: Protect adjacent surfaces and landscaping from contact with asphalt pickleball court cushioned surface color coating system.
- E. Proper grade elevation shall be set on proposed court areas.
- F. All excavating, filling, compacting, grading, and leveling required shall be performed so that the finish court surface has a slope of no less than 0.83%-1% on a true plane from side to side or end to end. Net line crowning will not be acceptable.
- G. Aggregate base course shall be added as needed with a minimum thickness of eight inches (8") to obtain required elevations and compaction.
- H. Cure new asphalt surfaces a minimum of 14 to 30 days before application of asphalt pickleball court cushioned surface color coating system.
- I. Remove dirt, dust, debris, oil, grease, vegetation, loose materials, and other surface contaminants which could adversely affect application of asphalt tennis court cushioned surface color coating system. Pressure wash entire surface.

THE CONSTRUCTION OF PICKLE BALL COURTS AT ROCCO M. REALE MEMORIAL FIELD

**ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT**

- J. Repair cracks, depressions, and surface defects in accordance with manufacturer's instructions before application of filler course.
- K. Level depressions 1/8 inch and deeper with patch binder in accordance with manufacturer's instructions.
- L. Apply 1 or 2 coats of filler course as required by surface roughness and porosity to provide smooth underlayment for application of cushion layers and color coatings.
- M. Ensure surface repairs are flush and smooth to adjoining surfaces.

3.3 BASE COURSE

- A. Aggregate base course shall be placed as needed with a minimum thickness of 8 inches (8") to obtain required elevations and compaction.
- B. Elevations to be set in base course with a 0.83% - 1% pitch end to or side to side.
- C. Aggregate base course shall be spread in layers not more than 8 inches thick, compacted measure. The degree of compaction shall be based on maximum dry density of 95% as determined by ASTM Test D1557, Method C.
- D. All soft areas shall be replaced with compacted aggregate base course.

3.4 ASPHALT PAVING

A. BINDER COURSE

- 1. Machine apply and compact HMA Surface course to a compacted thickness of no less than two inches (2") over prepared stone base.
- 2. HMA shall be free of marks, segregation and be placed to required uniform elevation with a smooth texture not showing tearing, shoving, or gouging.
- 3. Paving equipment shall be equipped with auger extensions, and be self-propelled.
- 4. Hand work shall be minimized to ensure the best possible finished surface.
- 5. Rolling shall start as soon as the HMA can be compacted without displacement. Rolling shall continue until HMA is thoroughly compacted and all roller marks have disappeared. Compact the HMA to a minimum in-place density of 94% of the Theoretical Maximum Specific Gravity.
- 6. Binder course longitudinal joints shall be smooth and true; no deviation from level and true.
- 7. Smoothness shall meet the requirements of no greater than one eighth inch (1/8") in ten feet.
- 8. Binder course asphalt must be placed in one day, special care shall be taken to avoid cold seams.

B. SURFACE COURSE

THE CONSTRUCTION OF PICKLE BALL COURTS
AT ROCCO M. REALE MEMORIAL FIELD

ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT

1. Machine apply and compact HMA Surface course to a compacted thickness of no less than one and one half inches (1.5") over HMA binder course.
2. HMA shall be free of marks, segregation and be placed to required uniform elevation with a smooth texture not showing tearing, shoving, or gouging.
3. Paving equipment shall be equipped with auger extensions and be self-propelled.
4. Hand work shall be minimized to ensure the best possible finished surface.
5. Rolling shall start as soon as HMA is thoroughly compacted and all roller marks have disappeared. Compact the HMA to a minimum in-place density of 94% of the Theoretical Maximum Specific Gravity.
6. Surface course longitudinal joints shall be smooth and true, no deviation from level and true.
7. Smoothness shall meet the requirements of no greater than one eighth inch (1/8") in ten feet (10').
8. Surface course asphalt must be placed in one day, special care shall be taken to avoid cold seams.

3.5 PICKLEBALL COURT POST SLEEVES, POSTS, AND NETS

- A. Pickleball post foundations shall be situated to provide a clear distance between posts of twenty-two feet (22') apart.
- B. Net post sleeves shall be installed with foundation of no less than twenty-four inches (24") in diameter at the top, no less than thirty inches (30") in diameter at the base, and no less than forty-eight inches (48") in depth.
- C. Center strap anchor foundations shall be no less than twelve inches (12") in diameter at the top, no less than sixteen inches (16") at the base, and no less than twelve inches (12") in depth.
- D. Install pickleball posts in sleeves, follow manufactures installation guidelines.
- E. Install pickleball nets, follow manufacturers installation guidelines.
- F. Install center straps, follow manufacturers installation guidelines.

3.6 FENCING

- A. FRAMEWORK INSTALLATION
 1. Posts: Posts shall be set plumb in concrete footings. Minimum depth of forty-eight inches (48"). Minimum footing diameter four times the largest cross section of the post up to four inches (4") dimension and three times the largest cross section of post greater than four inches (4") dimension. Top of concrete footing to be at grade crowned to shed water away from the post. Line posts installed at intervals not exceeding ten feet (10') on center.
 2. Top rail: Install twenty-on foot (21') lengths of rail continuous thru the line post or barb arm loop top. Splice rail using top rail sleeves minimum six inches (6") long.

**THE CONSTRUCTION OF PICKLE BALL COURTS
AT ROCCO M. REALE MEMORIAL FIELD**

**ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT**

Rail shall be secured to the terminal post by a brace band and rail end. Bottom rail or intermediate rail shall be field cut and secured to the line posts using boulevard clamps or brace band with rail end.

- 3. Terminal posts: Install posts, End, corner, pull and gate posts shall be braced and trussed. The horizontal brace rail and diagonal truss rod shall be installed in accordance with ASTM F567.

B . CHAIN LINK FABRIC INSTALLATION

- 1. Chain Link Fabric: Install fabric to inside of the framework maintaining a ground clearance of no more than two inches (2"). Attach fabric to the terminal post by threading the tension bar through the fabric; secure the tension bar to the terminal post with tension bands and 5/16 in. carriage bolts spaced no greater than twelve inches (12") on center. Chain link fabric to be stretched taut free of sag. Fabric to be secured to the line post with tie wires spaced no greater than twelve inches (12") on center and to horizontal rail spaced no greater than eighteen inches (18") on center. Wrap the tie around the post or rail and attach to a fabric wire picket on each side of the post or rail by twisting the tie wire around the fabric wire picket tow full turns, cut off excess wire and bend over to prevent injury. Secure the fabric to the tension wire by crimping hogs rail rings around a fabric wire picket and tension wire.

C. GATE INSTALLATION

- 1. Swing Gates: Installation of swing gates and gateposts. Gates shall be plumb in the closed position having a bottom clearance two inches (2"). Hinge and latch offset opening space shall be no greater than three inches (3") in the closed position.

D. NUTS AND BOLTS

- 1. Bolts: Carriage bolts used for fittings shall be installed with the head on the secure side of the fence. All bolts shall be peened over to prevent removal of the nut.

3.7 COURT DEPRESSIONS "BIRDBATHS"

- A. Testing: Surface shall be flooded with water by rain or manually with clean water. Surface shall be allowed to drain for 45-60 minutes in sunlight at 70° F. Remaining depressions holding enough water to cover a five cent piece (American Nickel) shall be marked.
- B. Apply acrylic patch binder mix to depressions and strike off with a straight edge. Before the product begins to dry, feather edges using a trowel, putty knife, or similar method.
- C. Repeat testing and acrylic patch binder applications as needed to eliminate or reduce depressions to within tolerance.

**THE CONSTRUCTION OF PICKLE BALL COURTS
AT ROCCO M. REALE MEMORIAL FIELD**

**ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT**

- D. Sand and pre-coat as needed to assure repairs are not visible following acrylic surface applications.
- E. Strictly follow manufacturers mixture guidelines and weather limitations.

3.8 ACRYLIC FILLER COAT (RESURFACER)

- A. Two (2) coats of properly textured acrylic resurfacer shall be applied to entire surface. Special care shall be taken to keep a wet edge and remain consistent.
- B. When surface is completely dry, surface shall be inspected for, ridges, bumps, and debris. Any inconsistencies shall be corrected prior to color coat applications.
- C. Strictly follow manufacturers moisture guidelines and weather conditions.

3.9 ACRYLIC FILLER COAT PLAYING SURFACE

- A. Complete a thorough inspection, remove any bumps or ridges in resurfacer coats, and clean surface of all loose dirt, leaves, or other debris.
- B. If the surface is to receive multiple colors, apply chalk lines to distinguish the court area from the perimeter area. Follow USTA & USAPA guidelines for court dimensions.
- C. Colors and their placement shall be determined by the owner. Colors and the placement of the colors shall be verified by the owner prior to color applications.
- D. Textured acrylic color surface shall be applied in two (2) applications with a 50 durometer rubber squeegee. No application should be made until the previous application is thoroughly dry.
- E. Strictly follow manufacturers guidelines and weather limitations.

3.10 LINE PAINTING

- A. Lines shall be carefully laid out in accordance with the ASBA or USAPA guidelines.
- B. Masking tape shall be applied and rolled to result in a two inch (2") wide width unless otherwise stated.
- C. Masked lines shall be primed with acrylic line primer to seal the void between the textured surface and masking tape edge.
- D. One (1) coat of textured white line paint shall be applied by brush or roller. NO SPRAY APPLICATIONS PERMITTED.

THE CONSTRUCTION OF PICKLE BALL COURTS
AT ROCCO M. REALE MEMORIAL FIELD

ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT

3.11 PROTECTION

- A. Erect temporary barriers to protect coatings during drying and curing.
- B. Lock gates to prevent use until acceptance by owner.

3.12 CLEAN UP

- A. Site shall be cleared of all construction debris, all waste shall be disposed of offsite in accordance with local, state and federal regulations.
- B. Remove all barriers and locks.

END OF SECTION

THE CONSTRUCTION OF PICKLE BALL COURTS
AT ROCCO M. REALE MEMORIAL FIELD

ASPHALT PICKLE BALL COURT
CUSHIONED SURFACE COLOR COATING
SYSTEM, FENCING, WINDSCREENS AND
PICKLE BALL COURT EQUIPMENT