

SECTION 02545

HARD COURT/RUNNING TRACK CONSTRUCTION

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes: Tennis courts, basketball/volleyball courts, and running tracks.

B. Related Sections:

1. 02200 - Earthwork.
2. 02511 - Asphaltic Concrete Paving.
3. 02865 - Running Track Surface.

1.02 REFERENCES STANDARDS

A. Miami-Dade County Public Works Manual (M-DCPW).

B. American Association of State Highway Transportation Officials (AASHTO) Standard:

1. T-180 Moisture-Density Relations of Soils Using a 10 lb. Rammer and an 18 inch drop.
2. T-181 In-Place Density of Compacted Base Course Containing Large Sizes of Coarse Aggregates.

C. Florida Department of Transportation (FDOT), latest edition, Standard Specifications for Road and Bridge Construction.

D. National Federation of State High School Associations (NFSSA).

1.03 SUBMITTALS:

A. Submit the following for review before starting work:

1. Properly identified manufacturer's product data, material specifications, with names and catalog numbers of each product, surface preparation, mixing, and application directions.
2. Manufacturer's standard color chips and net material for review and selection.

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1.04 QUALITY ASSURANCE

- A. Mixing plant shall comply with State of Florida DOT Standards.
- B. Obtain materials from the same source throughout.
- C. Tennis court and running track construction will be limited to firms regularly engaged in tennis court and running track court construction for a minimum of 5 years.
- D. Testing: The following tests shall be made by a testing laboratory contracted by the Board.
 - 1. Limerock: Provide 1 test from each source of limerock, showing compliance with Section 51 of the M-DCPW Specifications.
 - 2. Limerock Base: Provide 1 laboratory maximum density and optimum moisture test for each source of material used according to AASHTO T-180. Provide 2 field density tests per 3,500 square feet or fraction thereof on each course for each day of final compaction operation. Test according to AASHTO T-181.
- E. If the A/E suspects deficiencies in materials or construction, core samples will be cut and tested by the approved laboratory. Evidence of non-compliance will result in rejection of work. Cost of such testing will be borne by the Board only if tests indicate compliance with the specifications.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's original sealed containers with proper labels attached.
- B. Store materials according to manufacturer's instructions. Protect from extremes of weather, temperature, moisture, and other damage.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Surfacing System for Tennis Courts:

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1. Decoralt by Monsey Products Company.
 2. Laykold System by Advanced Polymer Technology, Harmony, PA.
 3. Plexipave by California Products Company, Cambridge, MA.
- B. Acrylic Line Paint:
1. California Products Corporation.
 2. Nova Acrylic.
 3. Truflex Recreational Coatings.
 4. Martin Resurfacing.
- C. Surfacing System for Running Track: See Section 02865 - Running Track Surface.

2.02 MATERIALS

- A. Sub-grade: Stabilized sub-grade according to requirements of Earthwork - Section 02200. For work on Public Right-of-Way Sections 30 and 33 of M-DCPW specifications shall apply.
- B. Base Course: 6 inch thick limerock base course according to Section 51 of M-DCPW.
- C. Prime and Tack Coats for Base Courses: RC-1, MC-0 or MC-1 according to requirements of Section 100, "Prime and Tack Coat for Base Courses", M-DCPW.
- D. Asphaltic Concrete and Leveling Course: 1-1/2" thick Type 1 asphaltic concrete design mix according to Section 133 of M-DCPW.
- E. Concrete Curbs at Track:
1. 6 inches wide x 12 inches deep.
 2. Inner Track Edge: Top of curb to equal top of asphalt.
 3. Outer Track Edge: Top of curb to equal top of safety surface.
 4. Comply with Section 02529 and NFSSA.
 5. Provide drainage from asphalt surfaces.
- F. Accessories:
1. Tennis Courts:

- a. Posts: 3 inch square steel with 3/16" wall thickness, green vinyl coated, internal cable winding mechanism with geared winding devices and removable brass handle.
 - b. Nets: Tapered braided nylon or polyethylene (48 thread) 42 feet long with nylon impregnated top binding attached with 2 double rows of stitching and maple dowels.
2. Volleyball:
- a. Posts: 1-7/8" galvanized, 1" eyehook.
 - b. Nets: 32 feet x 3 feet (6 pounds) made of No.24 thread rubber-coated, black nylon, 4 inch square mesh. Headband shall be 2 inch white vinyl-coated nylon, same as ropes and tapes. Steel top cable.
3. Basketball Standards:
- a. Wind loading design shall comply with American Society of Civil Engineers (ASCE) 7-98.
 - 1) Provide calculations and connection details, signed and sealed by a Florida registered professional engineer, establishing wind velocity pressure values for the specific project according to ASCE 7-98 based on a wind speed of 146 mph, exposure category "C", and a wind load importance factor of 1.15.
 - b. Precast Concrete: Basketball standard with epoxy coated reinforcing steel and fan cast aluminum backboard by Wausau Tile, Inc., Form Products Division, Wausau, WI.
4. Pole Safety Padding:
- a. Weather resistant reinforced vinyl padding, 6 foot length with velcro fasteners for 4 to 6 inch diameter poles:
 - 1) Model 6P-605 by AK Athletic Equipment, Inc., Columbus, Ohio.
 - 2) Model 187-000 by Porter Athletic Equipment Co., Broadview, Illinois.

5. Infield Track:

- a. Jump boards at runways according to NFSSA.
- b. Two pole vault pits.

PART 3 EXECUTION

3.01 INSPECTION

- A. Do not proceed with the work of this section until conditions detrimental to the proper and timely completion of the work have been corrected in an acceptable manner.

3.02 ENVIRONMENTAL CONDITIONS

- A. Temperature: A minimum of 50 degrees F. and rising.
- B. Weather: Clear with no precipitation during application.

3.03 INSTALLATION

- A. Perform work under provisions of State of Florida Department of Transportation - Standard Specifications for Road and Bridge Construction.
- B. Subgrade: 12 inch stabilized sub-grade according to Section 02220 of M-DCPW with slopes as specified.
- C. Base Course: 6 inch thick limerock base course shall not vary more than 1/4" in 10 feet when measured in any direction as indicated on Construction Documents.
- D. Prime Coat:
 - 1. After base course has completely cured and is dry, remove loose material, dust, dirt, and foreign material capable of preventing bonding of prime coat.
 - 2. Prime Coat: Apply prime coat at rate of not less than 0.10 gallons per square yard.

E. Tack Coat:

- 1. If the primed base has become dirty and cannot be cleaned, or in areas where prime coat has cured and lost bonding ability, or if required by A/E apply a tack coat at rate of 0.05 to 0.15 gallons per square

- yard if at no additional cost to the Board.
2. When weather conditions delay installation of wearing surface, seal the surface with emulsified asphalt at the rate of two (2) gallons per 10 square yards.

F. Asphaltic Concrete:

1. According to final required slope, pitch and grade with no variations greater than 1/8" in 10 feet in any direction. Roll surface free of any roller marks, ridges, and repair voids.
2. After final rolling, protect newly placed material from traffic by barricades or other suitable methods until it has hardened, and in no case less than 6 hours.
3. Allow 30 day curing period for new asphalt before applying any coatings.
4. Flood courts with water and allow to drain. Mark "bird bath" areas holding water with chalk. Broom water from these areas and allow to dry before patching. Patch with Asphalt Resurfacer by Laykold, or accepted equivalent, according to manufacturer's directions.
5. After completion of patching, carefully inspect filler coating for ridges, holes, loose or foreign particles, and correct defects before applying 1 coat of Asphalt Resurfacer to entire surface.

G. Running Tracks:

1. Lay asphaltic concrete pavement with 12 inch stabilized subgrade, base course, and asphaltic concrete surface course in the running track according to NFSSA standards and as specified, with 1 percent slope down to inside and with concrete curbs. Slope in running direction shall not exceed 1/10 of 1 percent.
2. Verify accuracy of the following with laser leveling or other system accepted by the Board:
 - a. Limerock base before asphalt is applied.
 - b. Asphalt base.
 - c. Concrete curbs.
3. Surface inspection:
 - a. Asphalt base shall be inspected for conformity to slopes as indicated on construction drawings.
 - b. The surface shall not deviate more than 1/4" in 10

feet when checked with a straight edge in all directions.

4. Running Track Surface: See Section 02865.

H. Hardcourts:

1. Lay asphaltic concrete pavement with 12 inch stabilized subgrade, base course, and asphaltic concrete surface course as specified and slope at 1 inch in 10 feet in one plane from side to side, end to end, or corner to corner. Slope, as indicated on Construction Documents, shall not vary more than 1/2" in 10 feet.

2. Basketball/Volleyball Paint Lines:

a. Over Asphalt Resurfacer, lay out yellow basketball lines over white volleyball lines as indicated on Construction Documents.

b. Apply 2 coats of specified paint lines 2 inches wide by brush using templates or masking tape, without splatters and irregularities.

3. Tennis Courts:

a. Over Asphalt Resurfacer, apply 2 coats minimum of Colorcoat Concentrate by Laykold or accepted equivalent according to manufacturer's directions with a rubber squeegee to achieve a uniform appearance free of ridges and tool marks.

b. After color coating is cured, lay out white lines complying with U.S. Tennis Association specifications and apply 2 coats of specified paint lines 2 inches wide by brush using templates, without splatters.

4. Allow curing for a minimum of 72 hours, after line painting, before use.

3.04 CLEANING

A. Upon completion of the work remove all containers, surplus materials, and debris and dispose off site.

B. Clean spills and overruns.

C. Leave site in a clean and orderly condition acceptable to the Board.

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