PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Supply and installation of MFMA Maple Wood Flooring System
- B. Application of the game lines
- C. References for the correct construction and preparation of concrete slabs to receive flooring.

1.2 SUBMITTALS

A. Product Data:

Manufacturer's promotional brochures, specifications and installation instructions

B. Samples:

- 1. Submit for selection and approval three (3) sets of brochures, samples or sample boards.
- 2. Submit color samples of all the available game line paint colors for selection and approval.

C. Closeout Submittals:

- 1. Submit three (3) copies of manufacturer's maintenance instructions.
- 2. Submit three (3) copies of the material and installation warranties as specified.

1.3 *QUALITY ASSURANCE*

A. Qualifications:

- 1. The indoor surfacing shall have been actively marketed for a minimum of five (5) years.
- 2. The MFMA Maple shall be produced by an FSC Certified Mill.
- 3. The MFMA Maple shall be produced by a US manufacturer.
- 4. The surfacing supplier shall be an established firm experienced in the field and appointed as a distributor by the manufacturer.

B. Certifications:

1. Installer to submit manufacturer's or distributor's certification attesting that they are an approved installer.

C. Testing:

Tests shall be relative for athletic use with certificates from independent testing resources to be made available upon request. Test results shall be no more than 5 years old and performed according to ASTM and/or EN standard testing procedures.

1.4 DELIVERY, STORAGE AND HANDLING

A. Delivery:

Material shall not be delivered until all related work is in place and finished and/or proper storage facilities and conditions can be provided and guaranteed stable according to FieldTurf USA, Inc. recommendations.

B. Storage:

Store the material in a secure, clean and dry location. A temperature range of 55° to 78° and a relative humidity of between 35% to 50% should be maintained.

1.5 PROJECT/SITE CONDITIONS

- A. It is the responsibility of the general contractor/construction manager to maintain project/site conditions acceptable for the installation.
- B. The area in which the surfacing will be installed shall be dry and weather tight. Permanent heat, light and ventilation shall be installed and operable. All other trades shall have completed their work prior to installation. All overhead work which includes the installation of mechanical work, lighting, backstops, scoreboards, etc., are installed. The general contractor or Construction Manager shall maintain a secure and clean working environment before, during and after the installation.
- C. An effective low-permeance vapor barrier is placed directly beneath the concrete subfloor. For "on" or "below grade" installations, it is recommended to provide a permanent vapor barrier resistant to long term hydrostatic pressure/moisture emissions. Protrusions should be sealed to prevent moisture migration into the slab. Moisture should not be allowed to enter the slab after the completed construction.
- D. Concrete substrate to be constructed and finished in accordance with MFMA recommendations. Slab's finish shall be no more than 1/8" deflection within a 10ft radius.
- E. Concrete subfloor must be clean and free of all foreign materials or objects.
- F. Concrete slab shall be fortified with continual steel reinforcement. Fiber reinforcement alone shall not be considered adequate fortification.

1.6 WARRANTY

A. Materials:

The maple flooring shall be covered by the manufacturer against product defects for 10 years.

B. Installation:

The installation shall be covered against poor workmanship and faulty installation by a two (2) year written, limited warranty provided by the contractor performing/overseeing the installation.

1.7 ADDITIONAL MATERIALS

Furnish to the owner additional materials containing a total of at least 1%.

PART 2 - PRODUCTS

2.1 *MANUFACTURERS*

The basis of the design for the surfacing is Clutch Court-TRAINER VERT as supplied by FieldTurf USA, Inc. All other installation accessories and related components must be either made or approved by the supplier. Other products may be approved as equal if deemed qualified and submitted in accordance with the General Conditions. Test reports confirming compliance from an Independent Sports Laboratory must be provided along with samples, technical data, installation, maintenance, and warranty prior to acceptance as an alternative product.

2.2 *MATERIALS*

Clutch Court-Trainer VERT

1. Physical properties of the flooring system shall conform to the following minimums:

MFMA Maple Width	 2-1/4"
MFMA Maple Length	 Random
Maple Thickness	 25/32"
Total Thickness	3" with 1/4" VERT PAD
Subfloor Construction	 Engineered 1" x 3" Sleeper/ 15/32"
	Plywood Decking
Force Reduction Shock Pad	 1/2" VERT Non-Newtonian Cushion
MFMA Maple Grade	 2 nd or Better Northern Hard Maple
Vapor Barrier	 Minimum 6 mil-overlapped 6"-12" and
	taped depending upon conditions
ASTM F2772 Classification	 Anticipated Class 3 Minimum

2. Game Line Paint:

As approved by the finish manufacturer. Colors are to be selected from the manufacturer's standard range.

PART 3 - EXECUTION

3.1 *EXAMINATION*

- A. It is the responsibility of the general contractor/construction manager to ensure that project/site conditions are acceptable for the installation.
- B. Verify that the area is dry and weather tight. Verify that permanent heat, light, and ventilation are installed and operable.
- C. Verify that all other work that could cause damage, dirt and dust, or interrupt the normal pace of the indoor resilient athletic flooring installation is completed.
- D. Verify that temperature and humidity are within tolerances.
- E. Verify that there are no foreign materials or objects on the subfloor and that the subfloor is clean and ready for installation.
- F. Document the results indicating the slab is within manufacturer's tolerances for slab deviations and moisture emissions.
- G. Slab deviation must be 1/8" within 10ft. When applying a 6-mil vapor retarder, relative humidity should not exceed 85% per ASTM F2170.

3.2 PREPARATION OF SURFACES

- A. Sweep the concrete slab so as to remove all dirt and dust.
- B. Remove debris or other contaminants that may affect installation.

3.3 INSTALLATION

- A. The installation area shall be closed to all traffic and activity for a period to be set by the installer. The installation shall not begin until the installer is familiar with the existing conditions.
- B. All necessary precautions should be taken to minimize noise, smell, dust, the use of hazardous materials and any other items that may inconvenience others.
- C. Install in strict accordance with the manufacturer's written instructions.
- D. Paint game lines using approved game line paint in strict accordance with the game line paint manufacturer's instructions.
- E. Apply seal and finish coats according to manufacturer's instructions. Use only MFMA approved sealers and finishes.
- F. Install appropriate threshold plates or transition strips where necessary.
- G. Vented base is required. Install molded vented cove base along all vertical abutments. Pre-molded or field mitered outside corners are acceptable. Inside corners are to be field mitered. Corners and seams are to be installed flush with no gaps. Treat door casings or other vertical abutments not to receive vented cove according to manufacturer's recommendations.
- H. Slab deviation must not exceed 1/8" within 10ft. When applying a 6-mil vapor retarder, relative humidity should not exceed 85% per ASTM F2170.

3.4 *CLEANING*

A. Remove all unused materials, tools, and equipment and dispose of any debris properly.

3.5 PROTECTION

If required, protect the indoor resilient athletic surfacing from damage using coverings approved by the manufacturer until acceptance of work by the customer or their authorized representative.

3.5 RELATED STANDARDS AND GUIDELINES

- A. ASTM F2170 "Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes"
- B. ACI 302.2R-06 "Guideline for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials"
- C. MFMA Maple Flooring Manufacturer's Association

END OF SECTION