

**SCOPE OF WORK FOR UPGRADATION OF  
FUTSAL COURT, BASKETBALL COURT & VOLLEYBALL COURT AT INHS NIVARINI**

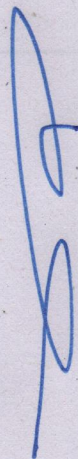
SER	SPECIFICATIONS OF ITEM-	DENO	QTY	SPECIFICATION
<b>FUTSAL COURT</b>				
1	Supply and installation of 50mm FIFA approved turf with two types of pile being monofilament and fibrillated with 100% PP primary backing and SBR Latex and secondary backing.	SQFT	8181	The monofilament pile to have fineness of 12000 dtex, width 1.0 mm, 275 um thickness. The fibrillated tape to have fineness of 5200 dtex, 5.5mm width, 110 um thickness. The turf to have pile weight of 1.384 g/sqm, stitch rate of 14 per 10 cm, 7.349 tufts/sqm, 132.282 piles/sqm, 50mm pile height, primary backing weight of 260 g/sqm, secondary backing weight of 950 g/sqm, total weight of 2.594 g/sqm, withdrawal force greater than 40N, water permeability greater than 500mm/hr and standard roll width of 4m. <b>The proposed product/Brand of FIFA licensed manufacturer to have yarn and primary backing manufacturing and assembly in its own facility. Warranty certificate for a period of minimum 07 Years.</b>
2	Construction of Granular sub-base as per FIFA guidelines	SQFT	8181	Compaction of sub-soil with 6-8 Ton Rollers, weedicide Treatment, supply and Placing of Geotextile Separation Barrier, providing and laying of perforated PVC drain pipes Heavy Duty of 6" dia with staggered perforations. Pipe would be placed on both side of Lengths. Support Curbing of Sobha or equivalent (125 mm Thick, 450 mm Height Curb Stone) towards four side. Providing and laying of average compacted upto 175mm thick with 30- 40mm gravel stone (100mm thick), 12-20mm gravel stone (50mm thick) & 6mm gravel stone + dust (25mm thick) to form a contour and elevations to the desired level as per Drawings. 4 Drain Chambers on exit ends(towards corner of Pipe or as needed).
3)	Providing & Fixing factory made safety nylon fencing with powder coated steel.	SQFT	4992	Powder coated steel special connector includes 4 Mtr High $\phi$ 88 mm (OD) 3 mm thick MS pipes, Green powder coated factory finished post vertical post fixed on foundation plates with the help of 'J' Bolts. 3.1 mtr centre to centre distance, $\phi$ 88 mm (OD) 3 mm thick MS pipe Horizontal post, Horizontal post should be factory finished Green powder coated installed at Top and Bottom location for 4 mtr Height with the help of special connectors. Garware make 2" X 2" nylon Net to be used all sides for Fencing fixed to vertical post and Three horizontal post with the help of 6 mm thick Nylon rope. 3 mm thick special Connectors made from pressed steel and powder coated finish for connecting Vertical and horizontal post by using M12 X 125 carriage bolt at every joint and corner of horizontal and vertical post without welded joints for easy installation and removable. The safety fence system should sustain impact of the ball; inner side of fence should be free from any projected parts/joints. <b>Minimum 07 years</b>

warranty certificate of the items	
4)	<p>Supply and installation of futsal goal post made of aluminum</p> <p>Uprights &amp; Crossbars made from 80mm x 80 mm x 3mm thick aluminum profile. The profile to be equipped with an integrated net suspension system. Fully welded corner joints provide superior strength and added safety. The back frame to be made from a 50x50x3mm square hollow with integrated net suspension. The goal measures 3.00 mtr in width and 2.00 mtr in height. The projection is 0.80 mtr at the top and 1.00 mtr at the bottom as per standard. The projection can be folded inwards and upwards to minimize the storage space for this goal post.</p> <p><b>Minimum 07 years warranty certificate of the items.</b></p>
5)	<p>Supply and erection of light poles</p> <p>light poles with dia 114mm x 8m H having Lamp bracket for fixing for 4 LED lights each with 150W power as per the sports Lux level standards.</p> <p><b>Minimum 07 years warranty certificate of the items.</b></p>
<b>BASKETBALL COURT</b>	
6)	<p>Repair of existing basketball court and refilling of crack and pores with chemical.</p> <p>Application of special chemical (FOSROC GP2) into the grouts for filling of porous surface, minor cracks and levelling of existing floor for PP tiles sports flooring readiness.</p>
7)	<p>Supply and Installation of Sport Court Power Game+ (Make in USA) High-Impact Polypropylene Modular Sports Floor System approved by FIBA, FIVB, IHF and ITF. Top Grid Open Diamond pattern for a better traction homogeneity and water drainage Robust Interlocking System with mechanical Lateral Forgiveness.</p> <p>Product: - Interlocking Tile  Dimensions: - 305 x 305 mm  Thickness: - 19 mm  Weight: - 355 g  Type of Installation Loose Lay / Possible anchoring Compatible  Products Method Unit Requirements Results  Friction EN 13036-4-80-110  Shock Absorption EN 14808 ≥ 11  Vertical Rebound EN 12235 % ≥ 85 100 Permeability EN 12616 mm/h ≥ 150 &gt;360  Lock Strength - N 1050  Heat Deflection @ 66 psi (ASTM D 648): 82°C Tensile Yield Strength (ASTM D 638): 2900psi.  Critical Fall height- 36 inches (minimum) as per ASTM F1292  Lateral forgiveness - + 0.006"/0" (1.66 mm/0mm) (maximum)  Skin Absorption Index- 27 % (minimum) as per ASTM F1015  Resistance to wear- 0.14g/ 1000 cycles (maximum)  SC Weathering (UV Resistance)&gt; 9900 hours at least as per SC-012  Water Retention- 1.2ml/100ml (maximum)  Flooring Recyclability- 100%</p> <p><b>Minimum 15 years warranty certificate to be produced for the items.</b></p>

8)	Basketball post with net outdoor	Pair.	1	<p>Supplying of Fixed Basketball post with net outdoor model Made of 150 mm x 150 mm Sq, tube with boom extension of 3.2 m. Board Frame: 40 mm x 40mm square tube structure with transparent Toughen Glass 1800X1050X (12 mm) mounted with the help of cross support. Dunking ring: dunking rim with three spring mechanism. as per international standard and approved design. <b>Minimum 07 years warranty certificate of the items.</b></p> <p>Supply of one Row Aluminium Bleacher with deck for 9 Persons Seating capacity. The under structure is made by welded aluminium Square pipe 50 x 50mm and 50x 50mm angle with Powder Coating. The tread is made of extruded aluminium and anodized. Height 400 mm, Length 3m, and seating deck width 250 mm.</p> <p>Product features: Suitable for indoor or outdoor use. Wheel Assembly - Mild steel flange frame, zinc plated with a Nylon wheel will be used for easy movement. Being Aluminium structure, it will be anti-rust and light weight for Easy movement. Sun protection sheet to be installed. <b>Minimum 07 years warranty certificate of the items.</b></p> <p>light poles with dia 114mm x 8m H having Lamp bracket for fixing for 4 LED lights each with 150W power as per the sports Lux level standards. <b>Minimum 07 years warranty certificate of the items</b></p>
09)	Dugout: Aluminium Bleacher with deck for 9 Persons Seating capacity	Nos.	4	
10)	Supply and erection of light poles	Nos.	4	
<b>VOLLEYBALL COURT</b>				
11)	Supply and installation of 50mm FIFA approved turf	SQFT	4198	<p>The monofilament pile to have fineness of 12000 dtex, width 1.0 mm, 275 um thickness. The fibrillated tape to have fineness of 5200 dtex, 5.5mm width, 110 um thickness. The turf to have pile weight of 1.384 g/sqm, stitch rate of 14 per 10 cm, 7.349 tufts/sqm, 132.282 piles/sqm, 50mm pile height, primary backing weight of 260 g/sqm, secondary backing weight of 950 g/sqm, total weight of 2.594 g/sqm, withdrawal force greater than 40N, water permeability greater than 500mm/hr and standard roll width of 4m. <b>The proposed product/Brand of FIFA licensed manufacturer to have yarn and primary backing manufacturing and assembly in its own facility.</b> <b>Warranty certificate for a period of minimum 07 Years.</b></p>
12)	Construction of Granular sub-base as per FIVB guidelines	SQFT	4198	<p>Compaction of sub-soil with 6-8 Ton Rollers, weedicide Treatment, supply and Placing of Geotextile Separation Barrier, providing and laying of perforated PVC drain pipes Heavy Duty of 6" dia with staggered perforations. Pipe would be placed on both side of Lengths. Support Curbing of Sobha or equivalent (125 mm Thick, 450 mm Height Curb Stone) towards four side. Providing and laying of average compacted upto 175mm thick with 30- 40mm gravel stone (100mm thick), 12-20mm gravel stone (50mm thick) &amp; 6mm gravel stone + dust (25mm thick) to form a contour and elevations to the desired level as per Drawings. 4 Drain Chambers on exit ends(towards corner of Pipe or as needed)</p>

13)	Providing & Fixing factory made safety nylon fencing with powder coated steel.	SQFT	5296	<p>Factory finished safety sports fence system 6MT High with back Support. Providing &amp; Fixing factory made safety chain link fencing with powder coated steel special connector, it includes 6 Mtr High <math>\phi</math> 88 mm (OD) 3 mm thick MS pipes, Green powder coated factory finished post vertical post fixed on existing 400 x400 mm reinforced concrete foundation. Fastening with anchor fastener on reinforced concrete wall at 3.1 mtr. center to center distance, <math>\phi</math> 88 mm (OD) 3 mm thick MS pipe HORIZONTAL post, Horizontal post should be factory finished Green powder coated installed at Top middle and Bottom location for 6 mtr Height with the help of special connectors. 4 mm thick PVC coated galvanized steel chain link fence fabric mesh of size 50 mm X 50 mm x 6 mtr, fixed to vertical post and Three horizontal post with the help of 3 mm thick extruded aluminium flat with green powder coated finish with the help of self-tapping screw. 3 mm thick special Connectors made from pressed steel and powder coated finish for connecting Vertical and horizontal post by using M12 X 125 carriage bolt at every joint and corner of horizontal and vertical post without welded joints for easy installation and removable. The safety fence system should sustain impact of the ball, inner side of fence should be free from any projected parts/joints. <b>Warranty certificate for a period of minimum 07 Years</b></p>
14)	Supply of Movable Volleyball post	Pair	1	<p>Movable Volleyball post comes with dia 76 mm outer pole with red powder coating and dia 60 mm adjustable upright with zinc plating. Height can adjust 2M to 2.5m by manual pin locking system. <b>Nylon wheels are provided for smooth movement and Dead weight box for better Stability.</b> Manual winch is provided for tightening the net. <b>Warranty certificate for a period of minimum 07 Years</b></p>
15)	Supply and erection of light poles	Nos.	4	<p>light poles with dia 114mm x 8m H having Lamp bracket for fixing for 4 LED lights each with 150W power as per the sports Lux level standards. <b>Warranty certificate to be produced for the items.</b></p>
16)	Maintenance of courts	Job	01	<p>a) <b>Maintenance of basketball court is to be carried out during the warranty period of 15 years.</b> b) <b>Maintenance of the Futsal &amp; Volleyball courts are to be carried out during the warranty period of 07 years.</b></p> <p><b>*(Once in every 02 years compulsory)</b></p>

**Note- \* Joint Ventures not allowed for this work.**



(Saurav Tiwari)  
Lieutenant Commander  
Sports Officer  
for Commanding Officer