

TECHNICAL SPECIFICATION FOR ATHLETIC TRACK

Name of the work: Construction of 400 Meters 8 lane synthetic athletic track and allied works.

- [1] The scope of work comprises construction, Supplying, Laying, Installation, Testing & Certification of 8 lane 400M synthetic athletic track with track/ field facilities and allied civil work as per world athletic federation.
- [2] The contractor shall detailed design/ working drawings of said project after wetting from the project consultant to the M.P. Police Housing and Infrastructure Development Corporation Division in 5 sets. The drawings of the track shall includes synthetic surface, embedded arts, sub base and asphalt work and start work, dimensional layout of inner football field and markings of sleeves for all track and field events, throwing events as per world athletic federation guidelines.
- [3] The synthetic Athletic Track surface shall be “Sandwich system with SBR rubbers and EPDM rubbers including markings on the surface” type 14mm minimum thickness, 400m, 8 lane, including inner metallic curbs all requisite sockets for Track and field facilities for holding competition of international level. The synthetic track will be of standard class-I, world athletic federation certification. The synthetic surface will be extended to all the Existing Surface Dismantled and One meter inner edge and one meter outer edge of the track, long jump and triple jump area and also javelin throw area. All the material of synthetic surface including base must be world athletic federation approved. Standard aluminium burb shall be provided on inner side of the track as per standards with distance marking plates.
- [4] Drainage system around the track should be checked and Maintained as per the requirement.
- [5] The contractor shall submit Operation and maintenance manual of equipments.
- [6] All civil work, survey work as regards to embedded parts / sleeves of Track and field, throwing events etc in the synthetic track shall be done by the contractor and the material of sleeves, aluminium curb angles etc and other accessories required for complete track to hold competition as per world athletic federation shall be a part of sport equipment supply.
- [7] Provision of sleeves and builders work of following throwing events.
 - (a) Discuss cum Hammer (One circle with cage and net as per world athletic federation approved makes or one circle each).
 - (b) Javelin one run way

- (c) Shot put circle 2 No.
 - (d) Discuss circle 2 No.
 - (e) Sockets for discus cum Hammer and discus cages as per world athletic federation drawings.
 - (f) Pole vault Boxes with lid 5 No (4+1 extra).
 - (g) Long and Triple jump socket for takeoff board- 16 boxes (14+2 extra).
 - (h) Reversible for takeoff board with metal frame for long jump and triple jumpsocket with one side synthetic covering with spare 2 nos.
 - (i) world athletic federation certified curb (Aluminium with specific marking curb for all events)
 - (j) Steeple chase water pit to be constructed with synthetic surface layer as necessary with drainage facility and water supply pipe from under ground
 - (k) Socket for steeple chase water jump hurdle.
 - (l) conduits for water and cables
- [8] The performance specification of synthetic track surface should be according to world athletic federation specifications (out-door). However the following important parameters should be mandatory.
- (a) For high stress areas like javelin, combined pole vault and triple jump the thickness of the synthetic surface shall be according to world athletic federation specification with minimum 20mm thickness and in javelin and steeplechase water pit the minimum 25mm thickness.
 - (b) The frictional and tensile properties and color must be within the range accepted by world athletic federation specification.
 - (c) Prepared **Brick Red Colour** of the should be blue.
 - (d) Pole vault turfs should be of good standard and should be of world athletic federation standards as approved by the Engineer in charge.
 - (e) All the specifications must be within the tolerance range approved by the world athletic federation due to proprietary nature of the work.
 - (f) All material of synthetic surface of the track shall be got tested from world athletic federation approved accredited laboratories.

- (g) For purpose of testing material, contractor shall prepare controlled samples on site as per requirements of world athletic federation norms. All the samples shall be stamped and sealed jointly world athletic federation approved specification.
 - (h) The marking and measurements of the track and field facilities shall be got done by world athletic federation approved specification.
 - (i) The contractor shall give written undertaking that no substandard material has been used in the work and that synthetic track surface and field of play sleeves, embedded parts of track and field fully comply with all the all the requirement of world athletic federation both in terms of quality of material and its laying. Pole vault turfs, long jump take off boards should be of world athletic federation standards.
 - (j) The contractor shall guarantee to replace at his own cost any part or whole of said surface if found defective or contrary to world athletic federation specification during under the defect liability period.
 - (k) The responsibility for taking the custom duty exemption certificate, if applicable for the project shall be the sole responsibility of the contractor. M.P. Police Housing and Infrastructure Development Corporation Division does not provide any guarantee to provide any certificate for any exemptions. M.P. Police Housing and Infrastructure Development Corporation Division shall not accept any delay in the execution schedule of the project on this account.
 - (l) The world athletic federation requirements, world athletic federation specifications, world athletic federation norms shall mean relevant provisions as laid down in latest version of performance specifications of synthetic surface Athletic tracks (outdoor) and also latest edition of track and field facilities manual published by world athletic federation.
- [10] The contractor has to submit detailed programme for schedule of delivery of working drawings/Execution activities/Materials/Machinery and equipments/ Milestone and Programme for testing and commissioning material/equipments and programme for installation of sleeves and embedded parts in synthetic surfaces.
- (a) The cement concrete work shall comprise mainly for drainage covers, channels, and circular cement concrete slabs for discuss, hammer, shot put throw as per world athletic federation specification 150mm thick be considered. The wooden trowel finish is required and surface should not be slippery.
 - (b) The throwing circle rings should have drainage pipe for proper drainage and sleeves of metal (Brass) for centering holes according to World Athletic Certified Synthetic Athletic Track/IAAF specifications and fixity with concrete slabs.

- (c) The bitumen work shall be required for dense bitumen concrete work with longitudinal and cross slope as per world athletic federation specification. The level should be adjusted according to level for high stress areas.
- (d) The laser sensor pavers shall be deployed for this work.
- (e) The grades of bitumen for asphalt work shall be according to manufacturer's specifications and standard international specifications
- (f) The contractor shall protect and indemnify the client all existing drains, pipes electrical cable, sewer lines, waterlines etc and other utilities. The operation of all utilities as above shall not be subject to hindrance by construction activities. The contractor to deploy his own security on site.
- (g) Synthetic material: **Brick Red Colour**, world athletic federation approved, sandwich system. The material should be tested from world athletic federation accredited laboratories. The material should be heat resistant to withstand the summer Heat in this region.
- (h) Area of track, One meter inside the inner edge and 50 centimeters outside the outer edge. (Minimum of 13mm thickness)
- (i) Both D areas (13mm thickness) on either side of curves.
- (j) Long jump, triple jump run ways (Two)
- (k) High stress areas in javelin, Pole vault, triple jump, Long jump and high jump (20mm)
- (l) Steeple chase pit (25mm thickness synthetic layer)
- (m) Pole vault run way
- (n) Sleeves (pipes for taking waterlines wires, data cables, TV cables etc)
- (o) Drainage: Inside edge of the track and outer drainage
- (p) Metallic curb inside the track (Aluminium) as per world athletic federation approved equipment supplier.
- (q) Power lines inside the track
- (r) Two shot put rings as per world athletic federation approved equipment supplier.
- (s) Two discus rings (Discus rims should be of world athletic federation approved equipment supplier.
- (t) Hammer cum discus cage- 1 of world athletic federation approved equipment supplier.

- (u) Sockets for cage with caps
- (v) Javelin runway-1+1=2
- (w) Pole vault boxes with lid 5 No (4+1 extra) as per World Athletic Certified Synthetic Athletic Track/IAAF approved equipment supplier.
- (x) Long and triple jump socket for takeoff board-16 boxes (14+2 extra) as per world athletic federation standards.
- (y) Reversible takeoff board with metal frame for long jump and triple jump socked with one side synthetic covering (14+2 extra) (1.22m X 30cm) Long jump
- (z) Steeple chase water pit to be constructed with synthetic surface layer as necessary with drainage facility and water supply pipe from under ground
- (aa) Socket for steeple chase water jump hurdle.
- (bb) Conduits for water and cables
- (cc) Sprinkler system with necessary water sump, motors and accessories, water juns, pop up sprinklers etc.
- (dd) Slopes and gradations for football field with grader (Both strights side)
- (ee) The sub base and the asphalt layers should be as per the specifications required after soil test and should be as per international standards
- (ff) Slopes on the track should be as per the international specifications. i.e., world athletic federation.
- (gg) The sand in the jump pit should be very fine quality with fine grains with no dust.