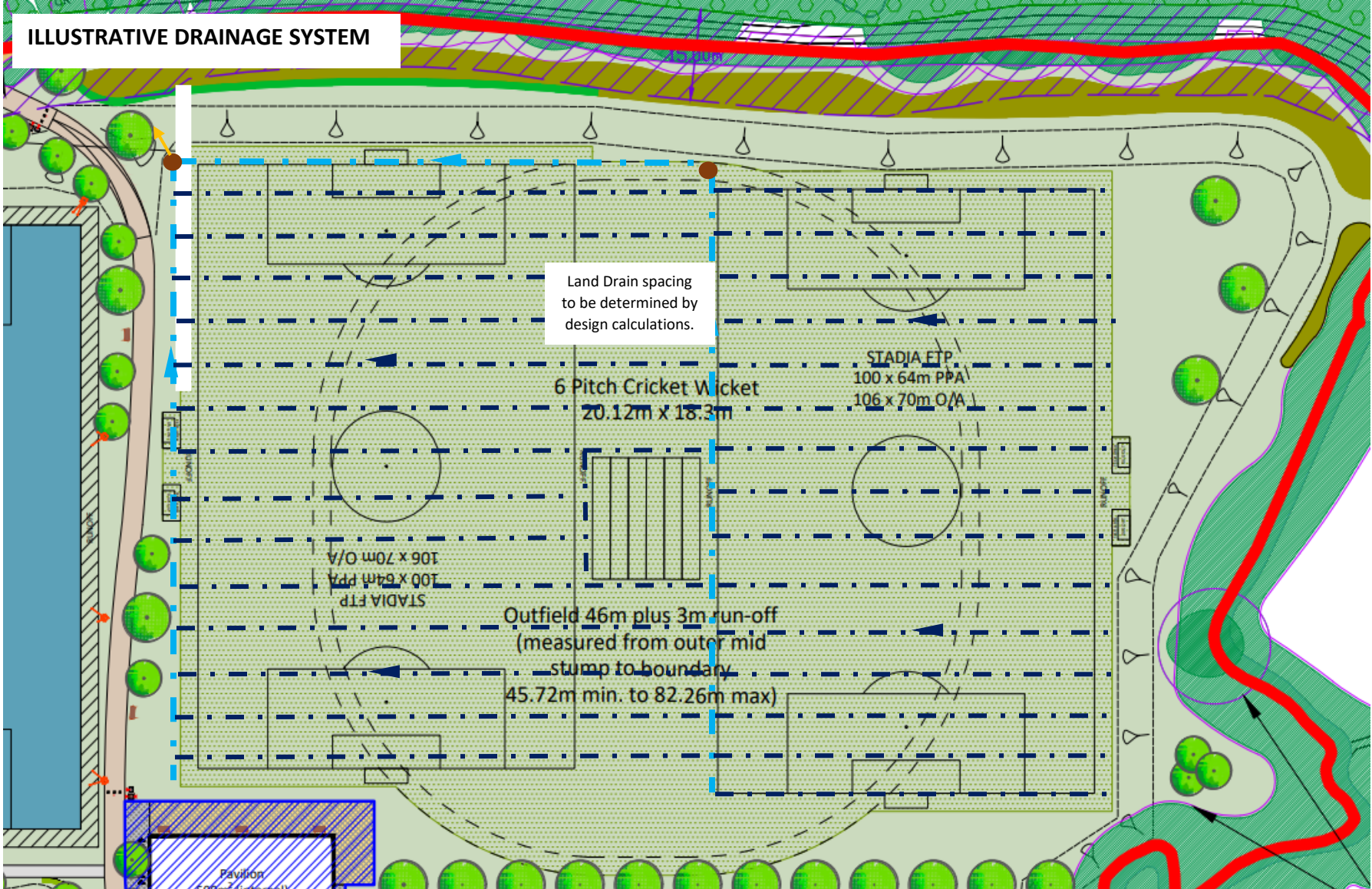
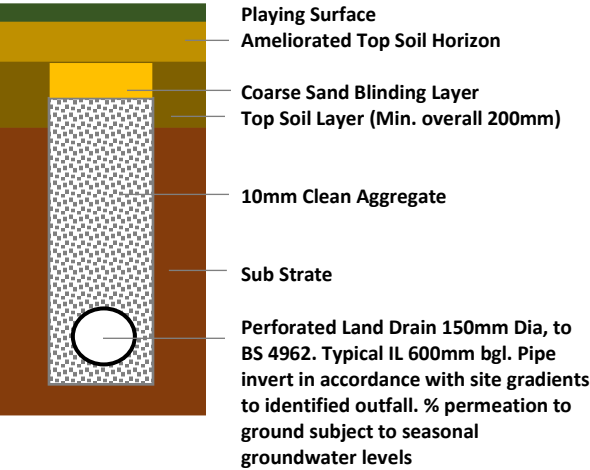


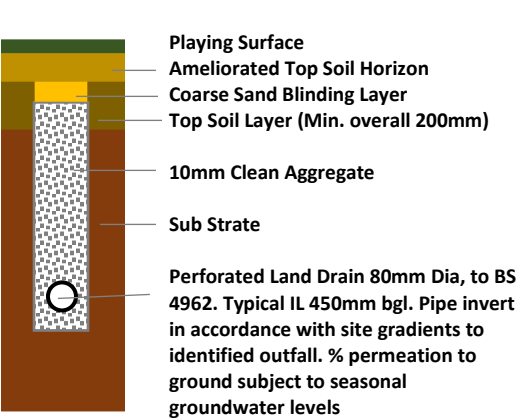


EXTRACT: David Jarvis Associates Drawing Ref: 2898-5-2-10 DR-2001 SO-P1

MAIN LAND DRAIN (Indicative Profile)



Lateral Land Drain (Indicative Profile)



DESIGN STRATEGY

The natural turf pitches will be constructed by reference to the Performance Quality Standard (PQS) developed by the relevant National Governing Bodies (NGB's) and Sport England and the Football Association to identify the basic physical characteristics for natural turf pitches to be safe, sustainable and provide suitable conditions for play. The Performance Quality Standard (PQS) provides a recommended minimum quality standard for the maintenance and construction of pitches. Specifically it sets the basic standard recommended for natural grass pitches, which may be located at a variety of locations including parks or recreation grounds. Principally, the PQS recommends that a natural grass pitch must:-

- Have adequate grass cover
- Low level of weed coverage
- Be flat
- Have the ability to drain water
- Carrying capacity – pitches should be capable of sustaining demand for identified use.

The construction of the pitches will be based upon relevant guidance, specifically the following publications:-

- *Sport England Design Guidance Note – Natural Turf for Sport*
- *Football Association – Natural Grass Pitches Performance Quality Standard (PQS)*
- *ECB Performance Standards for Non-Turf Cricket Pitches Intended for Outdoor Use*

The assessment of the level of play and competition envisaged for each pitch will have some influence upon the requirement to provide a playing surface of a certain quality standard; however each pitch should be managed to provide the maximum quality standard achievable within the definition of the usage profile. Subject to detailed consideration of the site soil characteristics, the design proposal on the football pitches to sustain the envisaged intensity of use would be to install a Primary System of piped drains together with an ameliorated top soil horizon in order to create a homogenous soil profile and an effective link between the playing surface turf and pipework. The may be a requirement to provide increased attenuation within the system through the incorporation of a stone layer beneath the perforated land drainage pipe which will allow some permeation to the substrate subject to seasonal groundwater variations. Outflow from the system will need to be designed on the basis of the compatibility with the overall site drainage strategy and may include SUDs attenuation.

Indicative Flow Rates

The assumption based upon the PQS, is made that the objective is to be able to clear up to 5mm/hr through the installed drainage network. Given that the system effectively comprises topsoil, gravel fill within trenches and pipework, it is recognised that temporary storage space for the attenuation of groundwater within the system exists, provided a suitable outlet is available to permit a free flow/discharge, and that the topsoil layer is regularly ameliorated and aerated to maintain the integrity of the system. Performance is obviously related to soil type, hydraulic conductivity values, drainage spacing and substrate permeability etc. Based upon the foregoing the following volumes are possible:-

PER DAY/ HECTARE (10,000 m²)
140,000 – 160,000 Litres/day (Approx. 31,100 – 35,000 gallons)
Volume 140 – 160 m³ / day (Flow Rate: 1.62 l/sec – 1.85 l/sec)

CRICKET SQUARE

The cricket square will be constructed utilising an artificial turf surface in accordance with ECB Performance Standards for Non-Turf Cricket Pitches Intended for Outdoor Use.



LAND DRAINAGE INSTALLATION AND SOIL AMELIORATION PROCESS

PROJECT
Legal and General (Strategic Land North Horsham) Sports Hub

DRAWING TITLE
Proposed Natural Turf Pitches General Site Design Features

NOTES
THIS DRAWING IS PROVIDED FOR DISCUSSION PURPOSES ONLY
All works will be undertaken in accordance with agreed specification and applicable NGB guidance and British Standards.
REFER TO David Jarvis Associates Drawing Ref: 2898-5-2-10 DR-2001 SO-P1 Sports Hub – Landscape General Arrangement for details of surrounding features to the identified pitches.