

Project Details

The site is located on the Southern side of King's Road, Spalding. The postcode for the site is PE11 1DA and the approximate centre of the site at National Grid Reference TF 24678 22985
The site size is more than a hectare (1.710 ha) and is located within Flood Zone 3. The site is currently an existing Football Pitch classified as Greenfield Land. The proposed development includes proposals for the retrospective application for a new 3G Artificial Football Pitch.

- 3G Pitch : 7700m²
- Total Impermeable area: 7700m² (Approx 45% of the Site)

Ground Investigation was undertaken and the following results were recorded:

- 0.00m - 0.60m = Turf over MADE GROUND
- 0.60m - 3.00m = Soft to Firm, Mid Brown, SANDY CLAY
- Water Struck at 1.90m

An infiltration test was conducted in accordance with BRE 365, however, the test failed due to no water movement across a 3-hour period.

Drainage and SUDS Strategy

As stated in CIRIA SuDS Manual 2015 the objective of sustainable drainage systems is to maximize the benefits and minimize the negative impacts of surface water runoff from developed areas. By applying SuDS methodology, storm runoff from the Site is controlled to ensure that flow rates in downstream watercourses are not increased and the water is appropriately treated to remove any contaminants, thus ensuring the quality of the water in the natural environment downstream.

Drainage Hierarchy

Drainage Hierarchy	Y/N	Comment
1 Infiltration to maximum extent	N	Soakaways are deemed Unsuitable due to poor ground conditions
2 Discharge to Surface Waters	N	None available
3 Discharge to Surface Water Sewer	Y	An Existing Anglian Water sewer beneath King's Road will be utilised.
4 Discharge to Combined Sewer	N	None available

Summary of Drainage Strategy

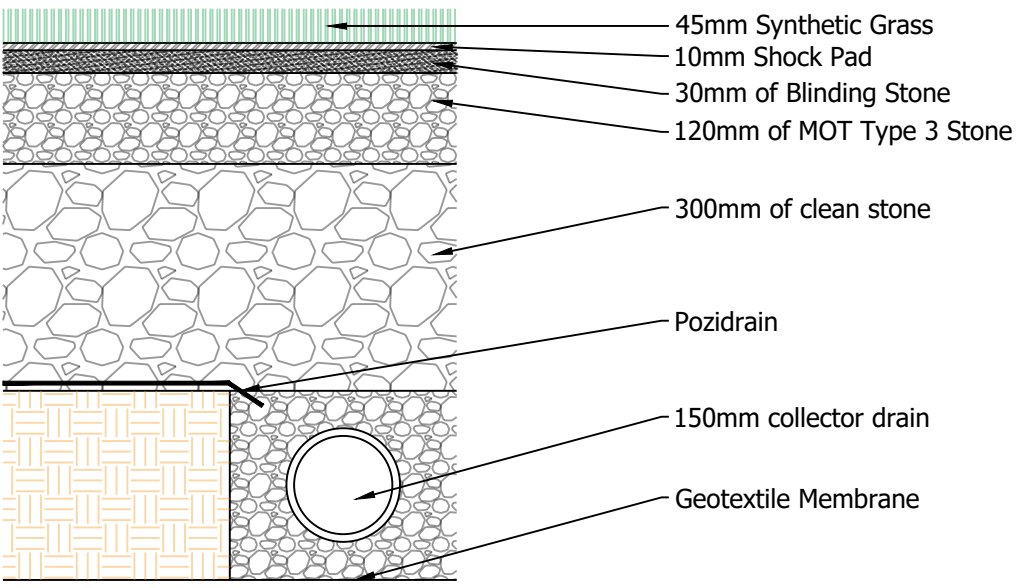
Drainage and SUDS Strategy

- Key aspects proposed:
- Land Drains will be utilised for filtration and drainage underneath the proposed 3G Football Pitch.
 - A new manhole will be constructed on an existing outfall pipe.
 - A Hydro-Brake will be installed limiting discharge to as close to Greenfield Runoff Rates as possible, without creating the risk of blocked outfalls. The Orifice within the Hydro-Brake will be a minimum of 65mm to avoid blockages, thus limiting the discharge to 2.0-L/s.
 - Attenuated water shall be stored in an underground Attenuation Tank as well as Type 3 Sub-base situated beneath the 3G Football Pitch.

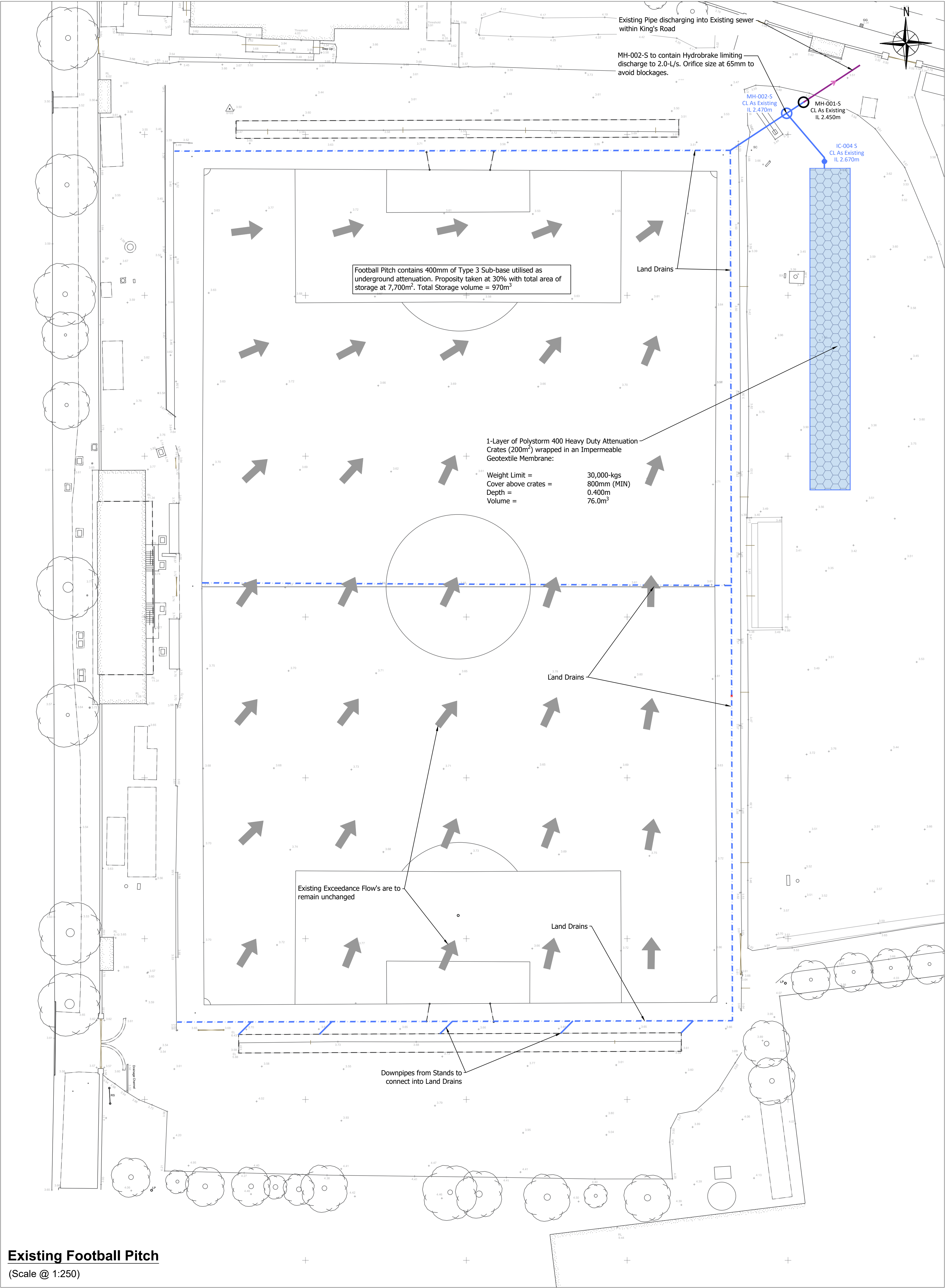
For the Private System

- Attenuation Volume Provided: 76m³ (Attenuation Crates) & 971m³ (Type 3 Sub-base)
- Attenuation Volume used in 1 in 30 yrs storm event: 42%
- Attenuation Volume used in 1 in 100 yrs storm event: 59%
- Attenuation Volume used in 1 in 100 yrs storm event + 40% Climate Change : 88%

The Four Pillars of SuDS	Water Quality Runoff from the proposed pitch will be filtered via a filter media beneath the surface of the Pitch. Land Drains will then convey the water into a collective Outfall.	Water Quantity Greenfield Runoff Rates have been calculated using the HR Wallingford on-line tool, and flows discharged to Existing sewer are to be controlled using a Hydrobrake.
	Bio-diversity Existing Landscaping and environments are to remain undisturbed, thus allowing existing Bio-diversity areas to remain.	Amenity Pitch will provide an appealing setting and reduces the amount of 'dirt' produced from the development into neighbouring areas.



Land Drain Typical Detail
(Scale @ 1:10)



Key

- Attenuation Crates (Polystorm 400 Heavy Duty)
- 4500 - 6000 Surface Water PPIC
- 1200 Private Storm Water Manhole
- PVC Existing Pipeline
- PVC Surface Water Pipeline (All pipework to be a minimum of 1000)
- PVC Surface Water Perforated Pipeline
- Existing Exceedance Flow Arrows

CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015
THE CONTRACTORS ATTENTION IS DRAWN TO THE ABNORMAL RISKS IDENTIFIED BELOW, ANNOTATED ON THE DRAWING AND EXPLAINED IN THE ASSOCIATED DESIGN RISK REGISTERS

LEGEND

- YOU MUST NOT DO
- HAZARD OR DANGER
- YOU MUST DO
- CAUTION

ABNORMAL RISKS IDENTIFIED:

Rev	Amendments	Rev'd by	Date
Client			
Spalding Football Club			
Project			
Spalding FC 3G Pitch and Terraces			
Title			
Drinage Design + Exceedance Flows			
Job No			
26256			
Drawing No			
26256-1000			
Rev			
P01			
Status			
Preliminary			
Scale			
1:250@A1			
Date			
09-2026			
Project Engineer			
AJP			
Drawn By			
AJP			
Checked By			
TBP			
Approved By			



26, Fenlake Business Centre
Fengate, Peterborough, PE1 5BQ
01733 202605
www.parsonsengineers.co.uk

Existing Football Pitch

(Scale @ 1:250)