

CASE HISTORY

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TECHDRAIN DRAINAGE COMPOSITE FOR SUBSURFACE DRAINAGE OF CRICKET STADIUM, SAYALI, SILVASSA, GUJARAT

DADRA & NAGAR HAVELI, GUJARAT, INDIA



Drainage Works

Client:	Products used:
PLANNING & DEVELOPMENT AUTHORITY, SILVASSA	TECHDRAIN DRAINAGE COMPOSITE TDC 55130
Main contractor:	Quantity supplied:
ANS CONSTRUCTIONS PVT LTD.	2000 SQM
Manufacturer & Supplier:	Year of construction:
TECHFAB (INDIA) INDUSTRIES LTD.	JUNE 2020

Problem:

A New Cricket Stadium at Sayali, Silvassa is under construction, And Planning and Development Authority is trying to provide their best possible advance system to prepare a good Cricket Ground with proper surface and subsurface drainage arrangement. As we all know that unpredictable weather patterns, mostly unpredictable rainfall over cricket ground may create the problem of deposition of unwanted water and moisture over the ground., and which will create long interruption or cancellation of running tournaments, in such sports fields.

Poor drainage is one of the most common problems of high use sports fields. Poor drainage and wet weather increase the susceptibility to damage affecting the quality of the natural or artificial turf pitch and will generally cause the grounds to be closed rather than the risk of widespread damage that cannot be easily repaired.

When water remains on the field surface and does not drain many problems occur including slippery and unsafe conditions. Games are canceled and maintenance practices are delayed. Many famous venues have adopted an efficient underground drainage system to combat waterlogged outfields.

Although the cricket stadium at Sayali, Silvassa is medium-sized, Planning and development authority wanted to build a world-class standard cricket stadium. They wanted an advanced drainage and irrigation system was put in place at the stadium to avoid prolonged delays in matches.



Excavation in progress for radial pipe drain

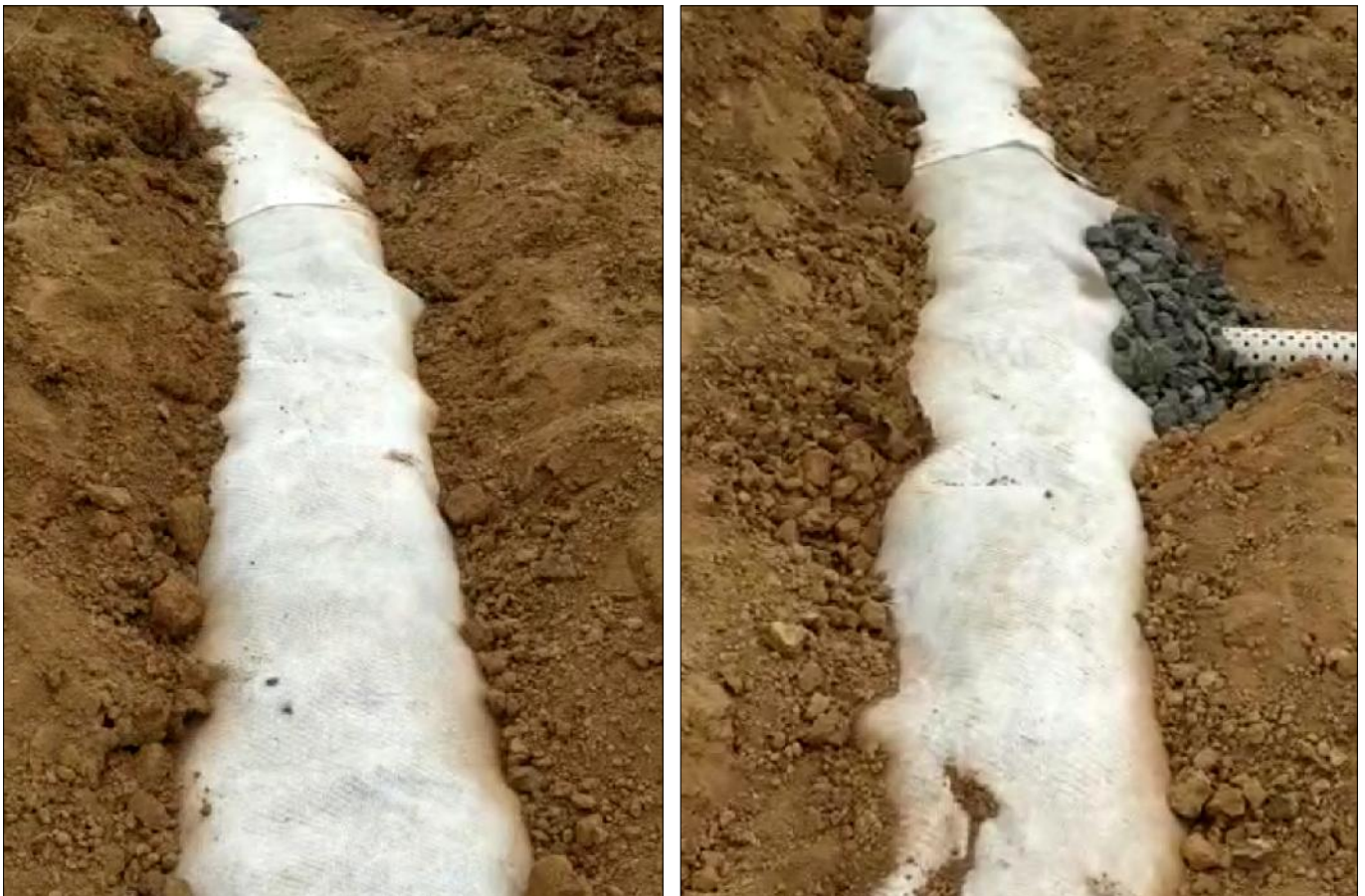
Solution:

Planning and development authority approached a consultant to design this stadium. The consultant suggested the following ways to ensure good drainage in the cricket stadium :

- Level adjustment - Many sites require major re-grading of levels. Levels are adjusted in the subsoil, using the surplus 'cut' from high parts to fill lower areas.
- Improving Surface Drainage - The raised portion of a sports field that provides a slope to promote runoff of surface water is called the field "crown". Crowns are the most effective way to remove surface water because they move water the shortest distance possible.
- Improving Sub-surface Drainage - Sub-surface drainage can be effective at removing excess water from the root zone during high rainfall events and for reducing the water table. These systems assist in moving water out of the soil profile by providing a pathway for "excessive" water to leave the soil.

There are a few commonly used systems to help improve sub-surface drainage including pipe drains, interceptor drains (also known as French drains), trackside drains, strip drains and sand-slit drains.

All three methods were adopted to ensure good drainage ground during heavy rainfalls. For subsurface drainage, it was recommended to use Pipe-drains in the radial patterns were proposed. Conventionally, filter media with pipe drain is provided but due to assured performance of drainage composite, it was suggested to use the drainage composite and the required specification as mentioned in the tender. The PVC perforated pipes were wrapped with a drainage composite to prevent soil particle migration with water so only water will pass and soil loss can be prevented.



Drainage composite installation and Pipe drain laid



Drainage composite installation and Pipe drain laid

Conclusion:

The client was really happy with the quality of the material and the timely supply of material. The client appreciated the technical support they got from TechFab India especially during installation of drainage composite. The project is under construction and soon to be completed.

For further details kindly contact :

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