

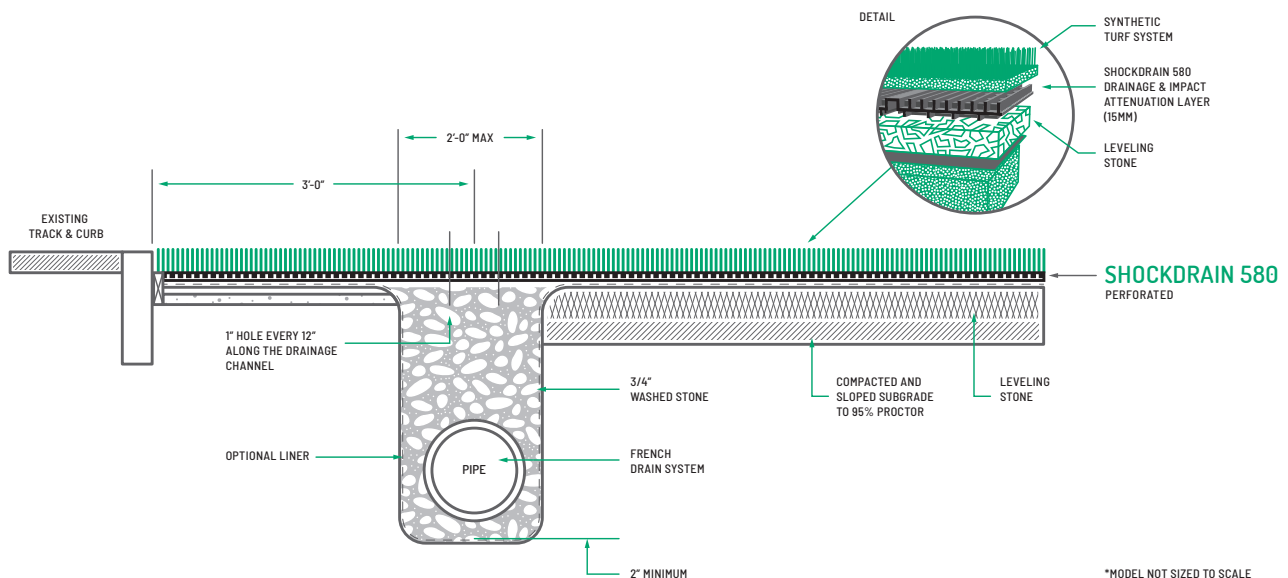
SHOCKDRAIN 580

Project Objectives:

- 1) Employ a drainage solution, without major changes to existing sub-grade elevations while integrating infield area artificial turf surface with outfield natural grass surface.
- 2) Replace several inches of drainage stone by deploying a highly efficient drainage solution.
- 3) Reduce excavated materials yielding savings in cost, time, and space.
- 4) Complete the project in an environmentally friendly manner.
- 5) Create surface playing conditions which mimic a traditional baseball infield with dirt and grass to ensure proper ball reaction, with a low-maintenance and highly durable system.

Summary of Case Study Findings:

ShockDrain 580's highly stable, yet low profile characteristics and drainage capabilities reduced the aggregate required for the project by 75%. By installing ShockDrain directly above a compacted sub base, the pad also significantly reduced the amount of excavation and hauling by 1500 tons over a 120,000 sq./ft area, yielding substantial savings in both time and cost. Additionally, the reduction in spoiled material haul off reduced the carbon footprint of the project.



CUSTOMER NAME: UDC SPORTS
REFERENCE EMAIL: patu@udcsports.com
PROJECT NAME: Bob Lewis Sports Complex Project (Asheville, NC)
PROJECT SIZE: Approximately 130,000 square feet



Q. Why did you choose ShockDrain 580?

- A.** ShockDrain’s ability to replace stone, as a drainage and stability layer, as well as its highly competitive price.
- Comparative cost of ShockDrain to replacement of drainage stone for a 6”-7” drainage profile, was equal. The pad, however, offered enhanced performance versus a stone layer.
 - Reduction in cost of excavating materials (and hauling of spoils).
 - Higher rate of field drainage versus stone - This is important because Bob Lewis is a tournament facility, and the ‘time-to-drain’ is critical to getting teams back on fields after rain events.
 - The impact-reducing characteristics will greatly lower the likelihood of the fields hardening as they age, and from what we have seen in our experience with turf field removals, pads reduce the rate of degradation of artificial turf surfaces.

Q. How was the ShockDrain installed?

A. A liner was laid over a compacted subgrade, leveled with washed fines. A perimeter drain was installed at the edge of the turf surface, beneath the turf pad, and over the liner. The ShockDrain was placed over the liner and drain trench, and turf system over the ShockDrain.

Q. What are the benefits of ShockDrain?

- A.** In an area of NC where stone is readily available at low cost, we were able to deploy the En-Plast product for below the cost we would incur deploying an aggregate base as the pad deployment did not require an experienced foreman as a stone layer would. With the ShockDrain product, we also do away with the challenges of having to haul off the dirt spoils. We simply compacted the base, leveled with screenings, compacted again, and deployed ShockDrain over a liner.

Q. What stands out with ShockDrain Performance?

- A.** When installing a synthetic field, there were always going to be some inevitable challenges with drainage. We created a perimeter drainage-collection trench to catch the water. Because of ShockDrain transmissivity, the time required to drain the field is vastly improved - allowing play to resume on the fields quicker after a major rain event versus a stone base, which requires a much lengthier period of time.

Q. Would you use the Product again?

A. Absolutely. ShockDrain 580 increased overall field performance at a lower construction cost compared to what is considered industry standard/ (6-7” stone profile and replacement of soil). ShockDrain improved the system of the turf and the playability of the surface long term with higher marks in the safety factor tests as well.

ABOUT EN-PLAST

En-Plast is a Houston, Texas based technology business that manufactures engineered pads which utilize post-consumer recycled material and other plastics for a variety of in-ground and above ground applications.

Our products are unique and used for innovative purposes including, but not limited to: impact absorption, water conservation, noise pollution, reinforcement, and foundations. En-Plast sources raw materials that are under-utilized or wasted, exemplifying our mission to deliver products that are environmentally friendly. Our facility is strategically located to ensure the quick distribution and installation of our products through direct sale and strategic partnerships.

For more details on how you can save money with En-Plast, please email: info@en-plast.us

Performance Chart

	Units	Shockdrain 580	FIFA /IRB/STC Recommendation	580 Performance Evaluation*
Material	Type	TEPC		Thermoset Elastomeric Polyolefin Composite
Format	Form	Rolls		Faster to install and less truckloads than panels
Mass Per Unit Area /Ballast	Lbs/ft ²	.94		Heavier than panels
Force Reduction	%	66	57-68	Meet standards recommendations
Vertical Deformation	mm	9.3	4-11	Meet standards recommendations
Energy Restitution	%	40	22-48	Meet standards recommendations
Critical Fall High	m	1.3	1.3	Meet standards recommendations
GMAX	G's	90	<160	Meet standards recommendations
Transmissivity - Water Planar Flow	m ² /s	4.2 E-02		Best in the market
Warranty	Years	25		Competitive
Recyclable	%	100		Uses 100% of the product to re-manufacture a new pad

