

# Case Study Mud Management





# PROBLEM: Homeowner's messy, unsafe mud



# PROBLEM: Messy mud



This area is approximately 12 feet wide x 40 feet long. This area is traveled many times a day, in all weather. The ground is red clay which turns to a slippery, muddy mess when it is wet. In an effort to eliminate the mud, I covered the area with pine mulch and wood chips. This method helped in the short term, but, eventually, the constant use churned the mulch and chips into the clay. I entered a cycle of trying to remove as much wet footing as possible and replacing it periodically with yet more wood chips and mulch. Finally, after a particularly wet winter, I ended up with about 6 inches of muddy muck.

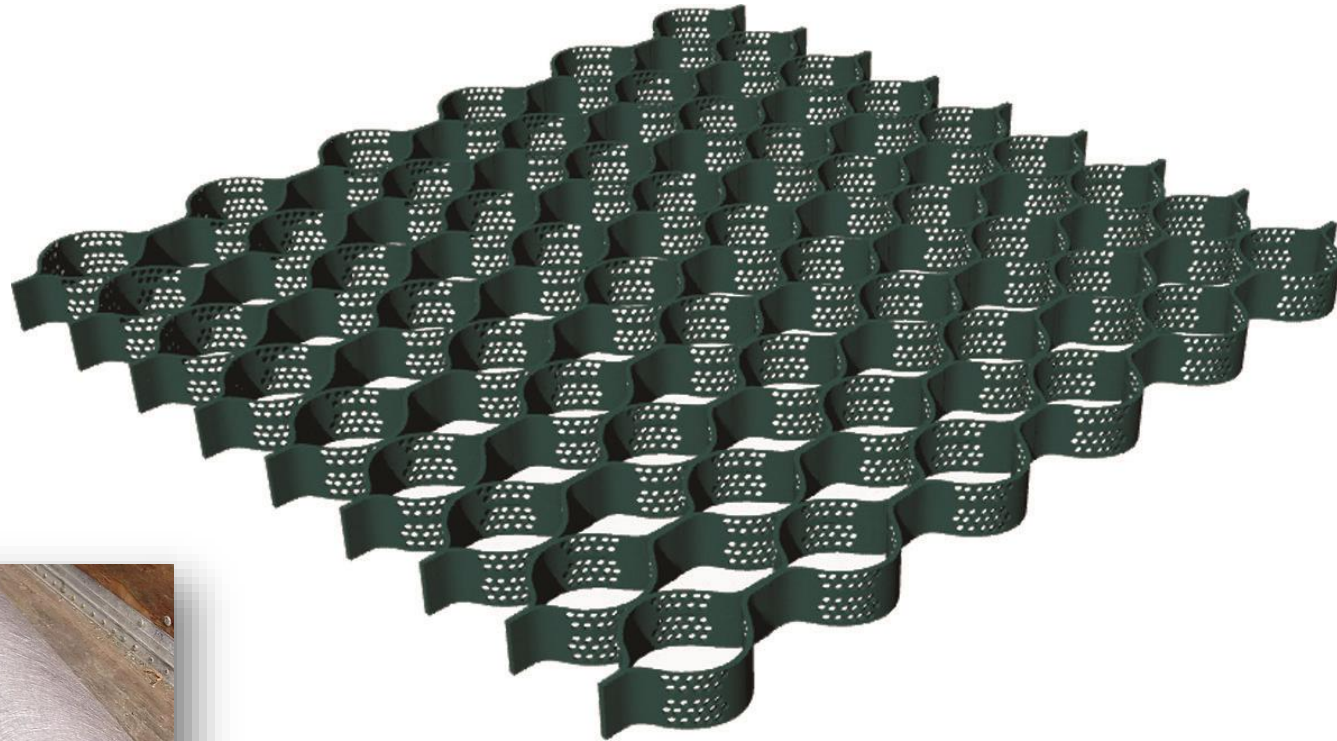
I received a flyer in the mail regarding a grid product that promised to take care of my mud problem! I began researching this geo-grid application and believed that it could really help my situation.



# SOLUTION: Cell-Tek's LSG Series® Load Support Grid

I began researching and found the Cell-Tek Geosynthetics website. I contact Julie at Cell-Tek to learn if their product would work for my application

I ordered three LSG-3 panels, the landscape fabric, and the j-hooks for \$800.00 including shipping. I purchased the correct stapler to connect the grid panels. I had a 4x6 post that would serve as the border on the end of the area. I hired a local landscape / gravel guy to do the installation for me for \$600 including the gravel. I used excess sand as footing on top of the grid. Total cost was under \$1500.



## SOLUTION: Cell-Tek's LSG Load Support Grid was installed to stabilize the muddy area leaving a firm foundation without rutting.

Since the area was deep mud, it had to be excavated and the mud hauled away. The area was then scraped clean and gently sloped to allow for proper drainage. The 4 x 6 was installed on the end that required a border and was secured by 2' rebar hammered through the lumber. The rebar had washers welded to the end of it to make a smooth edge for safety and to secure the lumber in place. The landscape material was placed in overlapping layers to cover the entire area. The grid was stretched and secured with the j-hook rebar. Additional grids and pieces were stapled to the first until the entire area was covered. I ended up with several pieces of left over grid that may be usable for smaller projects. My gravel man decided on a mix of washed screenings and #8 gravel, which he delivered to the site and missed with his loader. The gravel mix was placed in the grid with the loader and then raked out so that it was about an inch above the top of the 3" grid. It was then tamped down using a walk-behind plate compactor. The area was watered and then compacted again. After a thorough tamping, two inches of sand was placed on top and watered in to settle it.



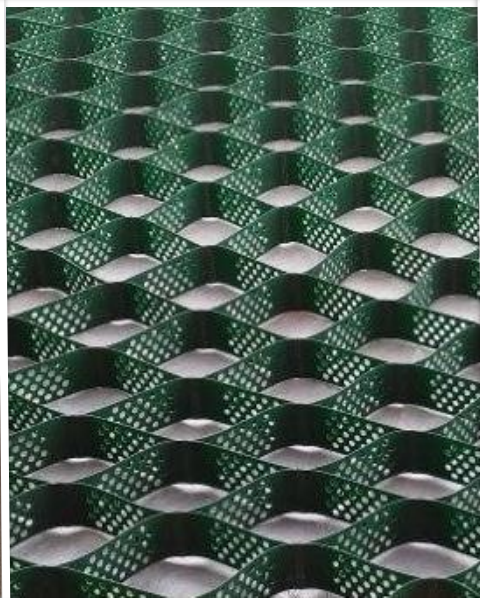


# PROBLEM & SOLUTION

**Before:**  
**Muddy mess**



**LSG-3 expanded in area**



**Infill mix**

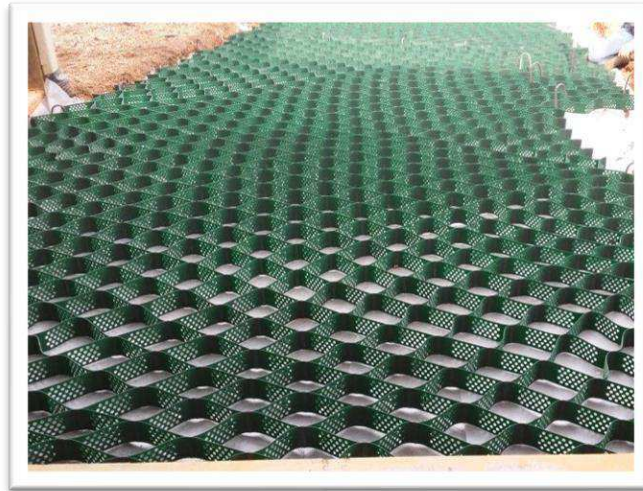


**After:**  
**Solid and firm walking area**



# Actual testimonial from homeowner, Cheryl W.:

“LSG-3 was installed per Cell-Tek's instructions. I filled it with a mix of washed screenings and #8 gravel, overfilled with the same. We tamped it down, watered, and tamped again. Then, we covered it with a 2" layer of sand and watered it.”



“The area looks beautiful, and works perfectly. We have had a record wet spring and early summer and the entire area remains dry. Heavy rains penetrate the sand surface and percolate through the grid. Any excess water seeps out at the bottom of the lower corner that was designed for drainage. The top surface of the area resembles a sand beach right at the water line, with nice firm sand that is easy to walk on.”

- Cheryl W.





# 6 months AFTER installation of LSG Load Support Grid and after a period of heavy rains:



## We followed up with Cheryl 6 months later:

"Both installations are working fabulous! I have not had mud - at all - at either location, even after very heavy rains, and 10" of snowfall! The surfaces stay hard and any rain water - or snow melt - it just drains right through. I am very pleased!"  
- Cheryl W.





*See more information about LSG Load Support Grid at  
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