



Solar Farms: Save on Construction and Future Maintenance Costs with Tensor® InterAx® Geogrid

Solar has become one of the most competitive energy sources with growth poised to accelerate rapidly in the next few years. New sites are often located in remote or protected areas or in prime farmland. In many cases, the underlying soil conditions are unfavorable, characterized by soft, expansive, high-plasticity clays, silts or peats and with high water tables. This creates a massive and expensive challenge for solar farm developers and contractors who build access roads, laydown yards or platforms that must support heavy loads and construction vehicles.

Tensor InterAx® geogrid is the proven answer for building high-performance, long-lasting access roads and platforms in solar farm developments. Incorporating Tensor geogrids creates a mechanically stabilized layer that keeps the aggregate confined and strong. This results in less haul-off of excavated material and reduces the required aggregate to be imported, placed, and compacted.

THE TENSAR ADVANTAGE

There are many benefits of using Tensor InterAx geogrid on solar farm sites:

USE LESS AGGREGATE: Accepted design methodologies have demonstrated that the required aggregate thickness can be reduced by up to 70%.

SPEED CONSTRUCTION TIME: The use of less aggregate leads to a faster installation compared to other solutions using conventional soil stabilization methods.

AVOID EXTENSIVE OVER-EXCAVATION: With Tensor geogrid, there is little to no undercut and it's possible to build these structures at grade.

AVOID COLD AND RAIN-RELATED DIFFICULTIES: Strengthens bearing capacities of the subgrade soils so access roads stay firm in wet conditions. This keeps construction on track and roads remain functional for future operations.



ELIMINATE UNCERTAINTIES ASSOCIATED WITH CHEMICAL STABILIZATION: Chemical treatment of the subgrade requires optimum temperatures and dry weather conditions. This can lead to delays in the construction.

REDUCE FUTURE MAINTENANCE COSTS: Tensor geogrid is proven to maintain its capabilities over time. This means less money is spent on the repair and maintenance of critical solar farm components like access roads and platforms.



HEAVILY LOADED AREAS

Locations where project equipment is unloaded and hoisted often present the greatest challenge in preventing subgrade failure. In these areas, multiple layers of Tensar geogrid can be used to strengthen the aggregate section. The rigid aggregate results in improved stress distribution under the static and dynamic loads transferred by the lifting equipment. This increases the factor of safety against bearing capacity failure of the subgrade.

MAXIMIZE TIME AND COST SAVINGS WITH TENSAR+ DESIGN SOFTWARE

Tensar+ design software incorporates the benefits of Tensar geogrids into industry-accepted design methodologies. Based on rigorous full-scale testing, it provides specification generation along with educational resources to help users make more informed decisions. You can easily compare design alternatives, automatically generate a performance specification. The software also calculates time, cost, carbon savings, and other sustainability metrics.



Tensar+ software helps solar farm developers remove uncertainties about the cost and reliability of building access roads. This is especially important when dealing with heavy loads and weak soils. The software also helps minimize the cost of these components.

Put Tensar+ to work on your next project.
Access this free, cloud-based software by
visiting [TensarPlus.com](https://www.tensar.com/TensarPlus.com)



SOLAR FARM, WEBBERVILLE, WEBBERVILLE, TX

THE CHALLENGE: The project required more than 50,000 square yards of subgrade stabilization, internal roads, maintenance facilities, and foundations for the construction of the solar farm's main structures. These structures required adequate bearing capacity. Clayey soils of high plasticity present in the area prevented the access of heavy equipment to the area to carry out the removal of the site material and the proper stabilization of the subgrade.

THE SOLUTION: Our dealer used Tensar's software to find a cost-effective solution for clay soil problems at the job site. By using Tensar geogrid, we were able to access the site without excavation and optimize the structure with thinner aggregate base. This saved on material and transport costs, increased the bearing capacity of the subgrade, and reduced the need for maintenance on the project's internal roads.



For more information on Tensar solutions for solar farms, please call 800-TENSAR-1, e-mail info@TensarCorp.com, or visit us online at www.TensarCorp.com.



Tensar[®]
A Division of CMC

Tensar, a Division of CMC
2500 Northwinds Parkway
Suite 500
Alpharetta, GA 30009

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