



## SARASOTA BRADENTON INTERNATIONAL AIRPORT SARASOTA, FLORIDA

**Application:** The Sarasota Manatee Airport Authority operates Sarasota Bradenton International Airport to serve commercial and general aviation aircraft flying into south Florida. In 1995, the Airport Authority investigated options for rehabilitating the facility's secondary runway.



*The Sarasota Bradenton Airport chose the GlasGrid System to rehabilitate its secondary runway.*

**The Challenge:** Although Runway 4-22 was in overall good condition, the region's hot, humid weather was degrading the asphalt surface. With the average high temperature of 91°F in July, and the average low of 72°F in January, the Airport Authority was concerned about the defects caused by constant thermal stresses. The ideal solution would restore the runway to optimal condition while having a minimal impact on scheduled flights.

**Site Conditions:** The original construction from the 1940s consisted of 4 to 6 inches of flexible pavement on a granular base. The concrete wearing course installed in 1969 was in relatively good shape but had well-developed transverse cracks in the existing surface with signs of material oxidation.

**Alternative Solution:** The Airport Authority considered adding a thicker overlay to the runway, however, this approach would not have addressed the need for a long-term solution.

**The Solution:** The GlasGrid® Pavement Reinforcement System was recommended as a longer lasting alternative. The GlasGrid 8501 Complete Road System was chosen for its high tensile strength (100 by 100 Kilonewtons) and high modulus, which ensures runway performance even under extreme temperature and loading conditions. The project team decided to place the GlasGrid 8501 reinforcement in a 60-foot-wide strip centered on the runway's midpoint. This strategic placement provided a strong interlayer solution in the area of highest aircraft load while minimizing the overall project life cycle costs.

The crew installed a 0.75-inch asphalt leveling course over the existing surface. Next the crew placed the GlasGrid 8501 product using a specialized mechanical installer. Once the self-adhesive grid adhered to the leveling course,

### PROJECT HIGHLIGHTS

**Project:**  
Sarasota Bradenton International Airport

**Location:**  
Sarasota, Florida

**Installation:**  
March 1995

**Product/System:**  
GlasGrid® 8501, Complete Road System

**Quantity:**  
33,000 sq yds

**Owner:**  
Sarasota Manatee Airport Authority

**Design Engineer:**  
PBS & J

**General Contractor:**  
Gator Asphalt Company

**Materials Supplier:**  
Saint-Gobain Technical Fabrics



they were able to install the final two lifts of asphalt concrete, totaling about 2.25 inches.

Follow-up reports indicate the GlasGrid System is delivering very good performance after 12 years of service with only minor cracking in the high wheel loading areas. The airport completed its most recent Federal Aviation Administration (FAA) annual safety certification inspection with no recorded discrepancies.



*The GlasGrid System is the most expedient installed interlayer system available.*

**System Advantage:** Introduced in 1989, the GlasGrid Pavement Reinforcement System consists of stiff environmentally friendly fiberglass material coated with an elastomeric polymer. The grid is rolled out over a thin leveling course placed before the main asphalt overlay. With its pressure-sensitive adhesive backing, installation of the GlasGrid product for reinforcement is easy and generally considered the most expedient installed interlayer system available. The GlasGrid System has been successfully used within asphalt

overlays throughout the world to combat reflective cracking initiated by one or more of the following:

- Concrete pavement longitudinal and transverse joints
- Thermal loading
- Lane widening
- Cement treated or stabilized layer shrinkage cracks
- Block cracks
- Asphalt construction joints

### Additional Information and Services:

Tensar International Corporation, the leader in geosynthetic soil reinforcement, offers systems for improving structures such as roadways, railroads, construction platforms and parking lots. Our products and technologies, backed by the most thorough quality assurance practices, are at the forefront of the industry. Highly adaptable, cost-effective and installation-friendly, they provide exceptional, long-term performance under the most demanding conditions. Our support services include site evaluation, design consulting and site construction assistance.

For innovative solutions to your engineering challenges, rely on the experience, resources and expertise that have set the industry standard for more than two decades.

For more information on the GlasGrid System or other Tensar Systems, call **800-TENSAR-1**, e-mail [info@tensarcorp.com](mailto:info@tensarcorp.com) or visit [www.tensar-international.com](http://www.tensar-international.com).

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