# **Strongwell News & Applications**

#### **Newsmaker: STRONGRAIL®**

## Fiberglass Handrail & Fencing Offers Low-Maintenance, High Strength and Long-Term Aesthetic Qualities

Rupe Building Company, LLC prides itself on the company's multi-family construction experience. In 2009, the builder was in need of a low-maintenance, high-strength handrail and fencing solution that would meet local building codes and blend aesthetically with a new luxury apartment project in Tulsa, Oklahoma.

Rupe found exactly what they were seeking with STRONGRAIL<sup>®</sup>, Strongwell's architectural handrail and fencing system. Strongwell designed the system for use in architectural applications that require high-strength, low-maintenance and longterm aesthetic appeal. The standard systems are fabricated from pultruded fiberglass components produced by Strongwell and molded thermoplastic connectors. STRONGRAIL<sup>®</sup> systems can be made to meet ADA requirements, adding safety and beauty to any property. Rupe installed STRONGRAIL<sup>®</sup> handrail onto the apartment's balconies and stairways. Rupe also used a STRONGRAIL<sup>®</sup> fencing system to line the apartment complex's pool area.

Rupe reports that the STRONGRAIL<sup>®</sup>

installation was quickly installed and that after one year, the handrail remains in excellent condition. One look at the project will confirm STRONGRAIL<sup>®</sup>'s aesthetic qualities and resilience. For more information about STRONGRAIL<sup>®</sup> and Strongwell's other architectural products, visit Strongwell.com.



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# **Case Study: EXTREN® and Custom**

#### FRP Architectural Trim and Flashing

With over ten years exposure to the elements, the fiberglass architectural trim

and flashing on the Oakwood Commons buildings in Southfield, Michigan looks as good as the day installed. This is no surprise because the trim and flashing were constructed using Strongwell's EXTREN<sup>®</sup> structural shapes.

Mullen Equipment, of Troy, Michigan, provided EXTREN<sup>®</sup> for architectural

use because of the product's similar aesthetic qualities to that of steel, as well as lightweight and corrosion resistant properties. Strongwell's EXTREN® plate, channel and modified "I" beam were covered with a Tnemec series paint for added protection. The fiberglass structural shapes were then assembled for use as architectural trim and flashing. With reduced maintenance and no need for annual repainting, the FRP solution results in continual cost savings to the customer over the lifetime of the product.



Strongwell manufactures EXTREN<sup>®</sup> in more than 100 standard shapes. EXTREN<sup>®</sup> shapes have a surface veil to protect against glass fibers penetrating the resin surface in service and to increase corrosion and UV resistance. EXTREN<sup>®</sup> is the ideal replacement for steel, aluminum, and wood in a wide variety of structural and architectural applications. For more information about EXTREN<sup>®</sup> or FRP's architectural solutions, visit Strongwell.com.

# Newsmaker: GRIDFORM™ Design Guide



To help structural engineers determine if the GRIDFORM<sup>™</sup> Stay-In-Place FRP Bridge Deck System is the answer for a reinforced concrete bridge project, Strongwell has developed a GRIDFORM<sup>™</sup> Design Guide.

The GRIDFORM<sup>™</sup> Design Guide is provided as a service to determine if GRIDFORM<sup>™</sup> can be used as an alternative to steel rebar as the internal reinforcement system for concrete bridge decks. To download the GRIDFORM<sup>™</sup> Design Guide visit Strongwell.com and click on the link found under the "Design Tools" button. ●

## **Case Study: SAFPLANK®**

#### Fiberglass Decking a Problem Solver for Football Fan Party Deck

Philadelphia Eagles fans now have an excellent location to watch the game and be front and center for the live halftime performances.

This new destination for fans is known as the Miller Lite Phlite Deck and is located on the south corner of Philadelphia's Lincoln Financial Field. While enjoying the game from the deck, fans may not know that supporting the Phlite Deck is high performance SAFPLANK<sup>®</sup> decking.



The SAFPLANK<sup>®</sup> decking system consists of 12 inch wide fiberglass panels that interlock to form a continuous solid surface. Twenty-four inch wide panels are also available. Drainage slots were drilled into a portion of the panels to allow for drainage. To finish the flooring, an artificial turf grass was glued over top of the SAFPLANK<sup>®</sup> decking.

The materials were distributed by Harrington Industrial Plastics and

installed by Widener Construction of Fairless Hills, Pennsylvania. SAFPLANK<sup>®</sup> was selected because the customer required a product that could be easily fabricated two weeks prior to the first pre-season Eagle's game.

Strongwell's SAFPLANK<sup>®</sup> scored big with the customer because of the fiberglass decking's light weight, durability and resistance to inclement weather.



the contractor reported the fiberglass panels were easy to cut and install.





## **Case Study: EXTREN®**

## **EXTREN®** Structure Shapes Transparent to Radio Waves

ASTRON, the Netherlands's Institute for Radio Astronomy, is attempting to develop the world's largest radio telescope by 2020. The Institute's Electronic Multi-Beam Radio Astronomy ConcEpt (EMBRACE) design is one step towards this goal. In 2009, ASTRON awarded a contract to NIJL Composites, a distributor and fabricator of Strongwell products located in the Netherlands, to build the EMBRACE antennae's support structure.

NIJL had two primary conditions to contend with when building the supports. First, the structure could not interfere with the antennae's radio waves. Second, the structure had to be light in weight because the Westerbork construction site was difficult to reach. NIJL chose EXTREN<sup>®</sup> structural shapes to complete the task. EXTREN<sup>®</sup> is transparent to radio waves, microwaves a n d other electromagnetic frequencies. EXTREN<sup>®</sup> is also strong, but very lightweight, weighing 80% less than steel, in equal volume, and 30% less than aluminum.



NIJL successfully managed to supply and install the structure within 2 days using only wrenches. After installation ASTRON was still able to adjust the position of the lightweight structure in order to align the very sensitive antennae. Because of the project's success, NIJL reports a follow up order was placed for a similar structure in France.

#### Case Study: HS ARMOR

## Armor Panels Benefit More Than Military Applications

Thousands of Strongwell's HS Armor Panels have been purchased by the U.S. Military, but now the fiberglass armor panels are extending into non-military markets. A recent application of HS Armor was installed at a Georgia public defender's office. Flint River Materials, provider of the Strongwell HS Armor, reported that contractors easily installed the panels to create a smooth wall surface, mimicking dry wall, but providing the security desired.

Strongwell's HS Armor Panels have been independently tested to UL752 Levels 1 through 3 and the National Institute of Justice levels 1, 2A, 2 and 3A. Learn more at Strongwell.com.



Case Study: SAFRAIL<sup>™</sup>, DURADEK<sup>®</sup> & EXTREN<sup>®</sup>

Fiberglass Proves Durable Solution in Shark Tank's Corrosive Saltwater Environment



In 1999, an Ohio zoo installed a 100,000 gallon saltwater tank that was filled with colored fish and sharks. The tank required a corrosion-resistant crossing platform in order to view and feed the animals.

Project engineers understood that metal materials would deteriorate quickly in the saltwater environment. However, fiberglass structural shapes and grating are ideal in such conditions.

Strongwell's pultruded fiberglass products were selected to complete the project. The aquarium platform was built using Strongwell's SAFRAIL<sup>TM</sup> Fiberglass Handrail System, DURADEK<sup>®</sup> grating and EXTREN<sup>®</sup> structural shapes. With over ten years use, the Strongwell platform and grating continue to perform without corrosion damage. The zoo has not had maintenance or repair related problems since the product was installed in 1999.



### **Profile Newsletter Update:**

# Strongwell's Profile Newsletter Now Available via Email

Strongwell is pleased to announce the creation of the Profile E-Newsletter. Now, in addition to the printed version of the Profile Newsletter, the E-Newsletter will also be available. The Profile E-Newsletter will be emailed to all subscribers that register online.



To register for the Profile

E-Newsletter or to manage your current subscription preferences, visit Strongwell.com/Profile. There you will also find copies of every Profile, including past printed editions.

## **Newsmaker:**

# Strongwell.com Debuts Architectural Solutions Video

You may not know that Strongwell.com features videos ranging from how pultruded grating is made, to the pultrusion process itself. The videos are available at Strongwell.com/Videos. These videos are also found on related product and market pages. From the Videos page, visitors can choose to use the "Email Video" feature, making it easy to send others a link to the videos.

Architectural Solutions is the latest video to be added. This video showcases markets where Strongwell's fiberglass

structural materials are incorporated into architectural designs by architects and structural engineers, because of the material's significant benefits.



# **STRONGWELL PEOPLE**

Chris Lancaster Manufacturing Manager, **Bristol Operations** 

Chris Lancaster has been promoted to Manufacturing Manager, Bristol Operations. Chris has over twelve years of experience at Strongwell, holding several positions of increasing responsibility during that time. Initially, Chris successfully implemented and



managed Molded Grating department, and most recently he was Fabrication Manager at Bristol. In his new position, Chris will be responsible for all manufacturing operations at the Bristol site.

#### **Melissa Harrison** Estimator - Bristol Division

Strongwell is pleased to announce the promotion of Melissa Harrison to the position of Estimator in the Bristol Division's Fabrication Sales Department. With 19 years of experience, Melissa has served at Strongwell in various areas of responsibility including Customer



Service Manager, Production Control Facilitator and Engineering Materials Project Manager.

### **Jeff Cosner Business Process Analyst**

Jeff Cosner has been promoted to the newly created position of Business Process Analyst. Jeff has over fifteen years of experience at Strongwell where he has served as an information technology integrator. The BPA position will expand his current responsibilities



to include analysis and solution definition of business process improvements, technical improvement recommendations and project management of the process improvements. Jeff's initial focus will be business process improvements within the manufacturing areas of the Bristol division.

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