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Reader's Response

Interesting Projects

The Waterproofing Lining at the Inspiration Lake – Hong Kong Disneyland July 2003

Disney theme park was officially opened 20 years ago. One special feature is the 13-hectare Inspiration Lake, built on reclaimed land primarily from sand deposits. The lake is an aesthetic icon, a water attenuation pond, a cooling controller, and an irrigation resource. Watertightness on the sand layer was a major consideration. We designed a 1.5 mm HDPE geomembrane (from GSE, USA, now Solmax, Canada) as the impermeable lining system. We used 600 gsm cushion geotextile (from BontexGeo, Belgium) to protect the lining from construction damage and rockfill ballast. We undertook the lining work in a breathless 9-month program. We pioneered an electronic leak-detection survey in Hong Kong to locate post-construction geomembrane damage. We identified and repaired several punctures from earthwork. Integrity stays. stanley@g-and-e.com



Artificial Lake at Disneyland



Geomembrane lining system



Black HDPE geomembrane and white protection geotextile

Silt Curtain – Turbidity Control, Environment Protection in Marine Engineering

We offer two silt curtain fabrication facilities, providing different systems to suit various environments. In Hong Kong, we locally manufacture short-term lightweight units from 100 kN/m PP woven geotextile for depths of a few meters, suitable for mild, calm coastlines or stream courses. Our associate in Korea specializes in durable and heavy-duty units that are made from 150-300 kN/m PET woven geotextile to a depth of more than 10m for open sea and harsh conditions. We can specially design and customize all silt curtains to specific requirements, including flotation, depth, and ballast. Choices include hanging, frame, standing, and sinkable types. Generally, we ship them in a 20 m span. Here are some of the work we have undertaken recently. natural@g-and-e.com



Surrounding cofferdam
(ND/2024/07)



Confining riverbank work
(ND/2024/07)



Underwater work
protection
(DC/2019/09)



GT100 Silt Curtain
(MTRC1501)



Turbidity control (DC/2022/03)



Marine piling silt curtain
(C24W08)

Encasing seawall work
(WENTX Landfill)



G and E Times

Non-woven Geotextile – Filtering, Separation, Protection, Cushioning, and More

Since geotextiles made their debut here in the mid-70s, it has been used in almost every project. We have decades of experience and a strong warehouse inventory to support the construction industry. Here are a few of our latest projects that enjoy our quick delivery. adam@g-ane-d.com.



Separation of soft ground and stabilizing fill (ND/2025/01)



Separation formation and backfilling (CV/2022/11)



Ground cover to Grasscrete (ND/2019/04)



HDPE membrane protection (NL/2020/06)



Rockfill separation (WENTX Landfill)



Rockfill filter layer (NE/2017/03)

Transforming Tung Chung Valley Area – Sustainable Engineering (ND/2020/06)

The new town extension focuses on creating sustainable land while actively protecting and restoring the surrounding natural ecosystem. A series of stormwater attenuation ponds was lined with an HDPE waterproofing membrane. Eco-hydraulic engineering revitalizes the Tung Chung Stream. Here, Geocell is used along the embankment to confine planting soil and support vegetation, rather than conventional rigid and boring structures.

Geocell is a collapsible cellular confinement system, 150 mm thick, that expands into a 5 m x 7 m panel. It is secured on sloping ground with steel pins, into which planting soil can be infilled and confined within the compartment, creating a stabilized, uniform layer of growing medium for plants. stanley@g-and-e.com.



150 mm layer of planting soil



Geocell panel secured on slope

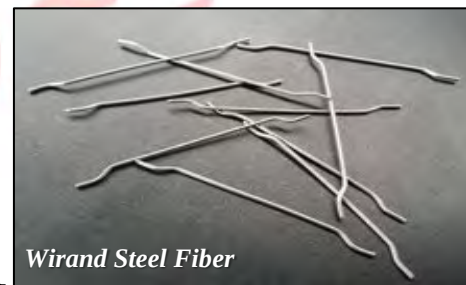


Soiling and planting work

New Product / Application

Steel Fiber-Reinforced Concrete (SFRC)

SFRC is a high-performance composite material made by adding short, discrete, randomly distributed steel fibers to a standard concrete mix. While standard concrete is very strong in compression, it is inherently brittle and weak in tension. SFRC overcomes these flaws by using internal steel fiber to bridge macro-cracks, preventing them from opening wider and dramatically increasing the concrete's post-cracking toughness. Steel fiber is being looked upon as a replacement for conventional rebar. The technology has been applied in industrial flooring, shotcrete, and tunnel segmental lining.



Wirand Steel Fiber



Shotcrete and final lining reinforcement

Maccaferri is returning to the Hong Kong market with the high-performance Wirand series of steel fiber, manufactured at its factory in China. The company offers full technical support, including steel fiber selection, design submission, performance testing, fiber supply, engineering advice at the casting yard, dosage & application equipment, and on-site assistance. ivan@g-and-e.com.



Maccaferri manufacturing facility, Tianjin

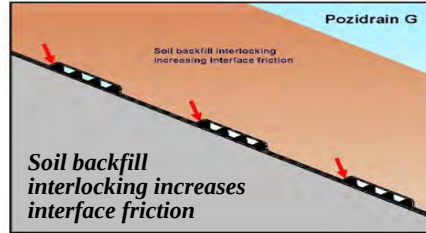
Pozidrain G – Customized Geocomposite, ABG, UK

Pozidrain is a geocomposite drainage layer comprising a patented high-flow-capacity, single-cusped HDPE core sandwiched between a filter non-woven geotextile and a protection geotextile, both thermally bonded to each side of the core. The geotextiles prevent soil migration into the flow path and cushion the substrate. The studs are densely extruded to prevent geotextile intrusion into the flow cavity.

New Pozidrain G has a lattice structure in which the core is configured to provide superior interface frictional shear strength. Pozidrain G can transmit drainage through cross-directional flow within the same core. Other advantages are resin savings, more flexibility in profiling, and lighter installation. The new geocomposite is ideal for replacing granular drainage on filled slopes. We offer various transmissivity characteristics and roll sizes. ivan@g-and-e.com.



Pozidrain G flow path



Soil backfill interlocking increases interface friction



Enhanced interface friction for steep slope construction

Technical Note

Mechanically Stabilized Block Wall (MSEW) – G Block Wall, a Vertical Reinforced Fill Structure Alternative

Reinforced fill walls with plain concrete block as a facing element have been common worldwide for decades. Conventional concrete panel facing requires a large casting yard, sophisticated molds, reinforcing steel bars, and multiple handling operations, while small concrete blocks are much simpler to produce, deliver, and install. Heavy equipment, panel-sizing coordination, precision placement, and reinforcement connections are costly installation issues that do not occur in MSEW construction, not to mention replenishment of damaged panels.

Block units can also be precast with different architectural finishes, including split face, rough surface, wash grano, stone pattern, and various colors and shades, creating a variety of aesthetic appearances. Structural stability, testing, and construction follow the same approved reinforced fill design, Geoguide 6. MSEW offers cost savings, an efficient program, and much lower carbon emissions. For an alternative retaining wall proposal, please contact ivan@g-and-e.com.



Standard G Block Wall schematic



G Block Wall



Concesio Block



Tensar TW1 Block



Keystone Block



Geoblock

Opinion Column

Safety in Construction – Headline News: 15 Fatal Accidents as of August 2026

Although construction safety has abundant rules and regulations, prosecutions and convictions are uncommon; penalties are largely symbolic. As a result, tender safety provisions are often cut to win bids. Liabilities are usually passed on to lower-tier subcontractors or even to workers. Tight programs and limited budgets blind enforcement of safety plans. Subcontractors and workers are put at risk when milestones must be met, or early completion is pushed; should subbies be penalized while laborers have no right to stop dangerous operations?

When accidents happen, excuses and scapegoats surface, but we should not point fingers at subbies or blame careless workers. Treating every incident as an extraordinary case is irresponsible. It is heartbreaking that proper provisions and resources for mandatory safety were often compromised. Indeed, the CIC director refers sarcastically to safety as only a “slogan”, not a “responsibility”.

We extend a helping hand with donations to 13 unfortunate families this year; it may be too late to offer our condolences. gary@g-and-e.com



The classic Empire State Building, 1930



For Your Information

13th International Geosynthetic Conference, 13 – 17 September 2026, Montreal, Canada

Since 1977, geosynthetic practitioners have gathered every 4 years to appreciate technological advances, research, and innovation in the industry. This year in Montreal, IGS and its members also celebrate 50 years of progress and evolution. At the conference, 6 plenaries, 250 papers, and 90 exhibitors' activities were shared among 800+ delegates from over 40 countries.

Centered on the theme "Legacy, Evolution & Revolution in Geosynthetics", the conference recapped experience and introduced new ideas, 3D printing reinforcement, repairs that keep essential infrastructure operational, reuse of reclaimed materials, and the suitability of using poor soil. Again, the focus is on educating the young and understanding sustainable solutions. New products include wicking geotextiles and the next generation of geocells, which were tabled.

Four years from now, in 2030, IGS will join fellow organizations, the International Society of Rock Mechanics and Rock Engineering, the International Society of Soil Mechanics and Geotechnical Engineering, and the International Association of Engineering Geology to bring forward a new conference, GeoEng 2030. IGS will show geosynthetic versatility to a much wider engineering community. Watch for updates. gary@g-and-e.com.



Gary & George Koerner at the Reception



Corporate member meeting



Opening lecture by Dr Jie Han



The Exhibition Hall



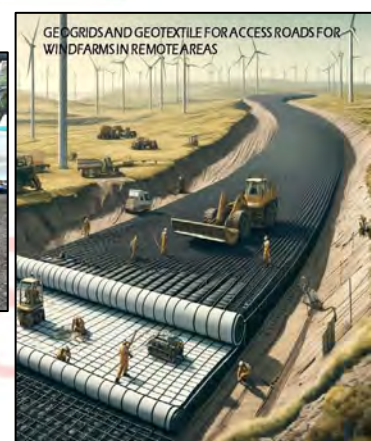
Our warehouse

Expanding New Warehouse Facility at Tai Tong, Yuen Long

We are re-establishing a larger storage compound to accommodate a more comprehensive inventory of geotextiles, geocomposites, geomembranes, erosion mats, and landscape products. Our clients can access a wider range of materials, faster delivery, and temporary impoundment to meet their project needs and program requirements. We also offer a workshop to customize the fabrication of silt curtains, geobags, geotextile panels, smaller-roll geomembranes, etc. There will also be a sample archive from every shipment for quality control. stanley@g-and-e.com.



Inaugurating ceremony



GEOTEXTILES AND GEOTEXTILE FOR ACCESS ROADS FOR WIND FARMS IN REMOTE AREAS

Future Image of Geosynthetics

Artists have envisioned futuristic applications of geosynthetics: biaxial and triaxial geogrid for road foundation stability and land formation over soft soil, reinforcing basal bearing capacity for heavy equipment and saving delivery of valuable granular material. Courtesy of Dr. John Scheirs, Geosynthetic News Alert, Australia.

Reader's Response

Let us hear from you. Write to us at newsletter@g-and-e.com. For back issues, please write to newsletter@g-and-e.com or visit our website at www.g-and-e.com. Refer a Colleague? Click [here](#)



G and E Company Limited

14th Floor, Kiu Yin Commercial Building, 361-363 Lockhart Road, Wanchai, Hong Kong
Tel: 2570 0103 Fax: 2570 0089 e-mail: info@g-and-e.com <http://www.g-and-e.com>



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