

REINSTATEMENT OF LAKE SHORE EVANSVILLE, INDIANA, USA

SHORELINE PROTECTION

Product: Green Terramesh™

Problem

The City of Evansville, IN, has a number of picturesque lakes which had experienced bank erosion. The erosion had undermined footpaths and damaged other infrastructure. In places up to 18 feet of land had been lost due to gradual erosion. An aesthetically pleasing solution was required to reclaim the lost land and provide future erosion protection.

Solution

Maccaferri and its distributor, ERS Inc (formerly Nutec South), offered the Green Terramesh™ mechanically stabilized earth (MSE) system with a vegetating face. Green Terramesh™ consists of a one piece fascia and geogrid reinforcement tail, manufactured from Maccaferri PVC coated galvanized steel double twist mesh.

The erosion problems in two parks were addressed;

- **Diamond Park:** 1750' long, 2.5' high structure, 60° front face. Installed 7/21 - 8/12, 2003
- **Garvin Park:** 170' long, 2' high structure, 60° front face. Installed 6/17 - 6/20, 2003

Where necessary, pumps were used to drain the lakes by 18" to facilitate construction 'in the dry'. Following erection of the Green Terramesh™ units, free draining structural backfill was compacted onto the geogrid tails locking them into place. A MacMat N10 man-made erosion control blanket was installed behind the 60° front face to limit the backfill from washing out. This was chosen over a biodegradable coir blanket as it offered a longer design life. Lightly compacted topsoil was then placed immediately behind the erosion control blanket to provide the vegetation medium. To stop the MSE structure being undermined, it was constructed upon a Reno Mattress scour protection apron.

Following completion of the Green Terramesh™ structure, it was hydroseeded to promote revegetation.

Green Terramesh™ offered a cost effective and rapid to install solution to meet the clients' requirements and budget.

Client:

CITY OF EVANSVILLE, IN. PARKS & RECREATION DEPT.

Garvin Park Contractor:

PARKS & RECREATION DEPARTMENT LABOR

Diamond Park Contractor:

NATURAL CONSTRUCTION RESOURCES INC. IN.

Product used:

GREEN TERRAMESH™, MACMAT® N10, RENO MATTRESS

Date of Construction:

SUMMER 2003



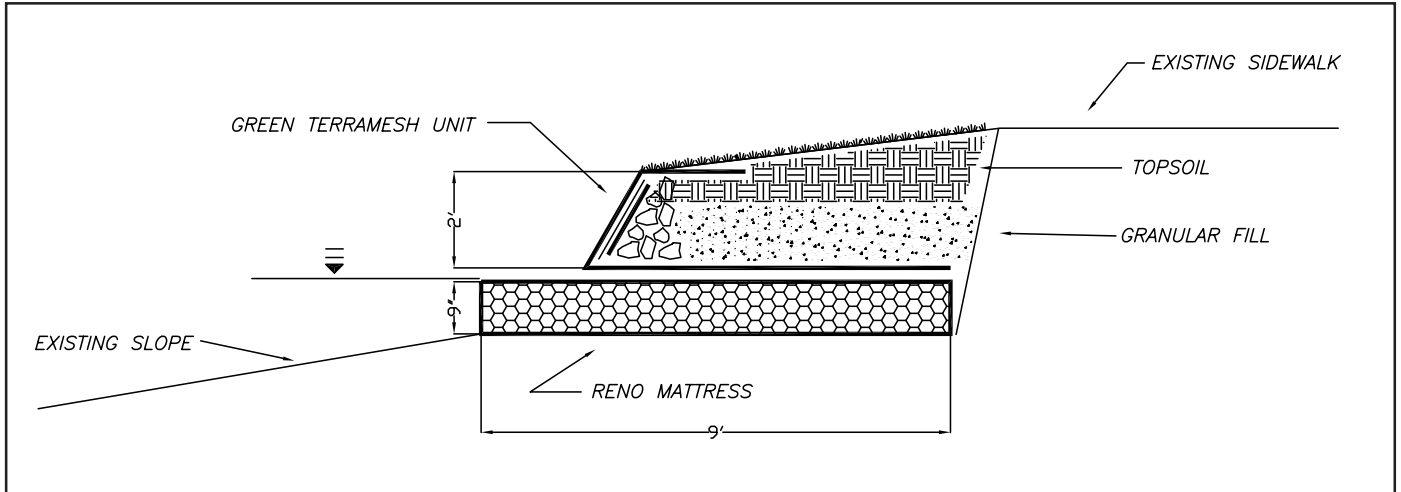
Footpath undermined by erosion



Erosion around pipework and wingwalls



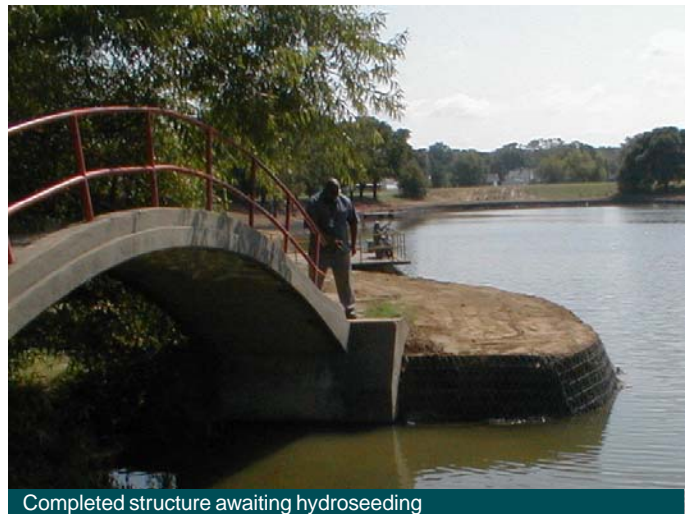
Reno mattress scour protection placed upon geotextile



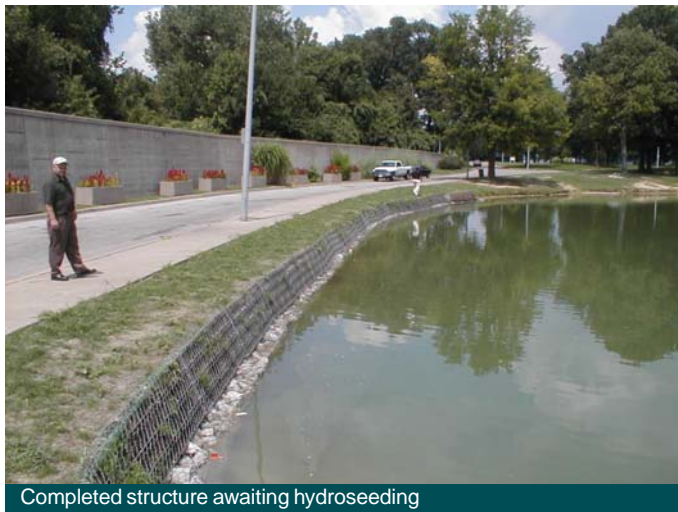
Typical cross section



Compacting structural backfill onto Green Terramesh™ units



Completed structure awaiting hydroseeding



Completed structure awaiting hydroseeding



Completed structure awaiting hydroseeding

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