
ELASTIZELL EF (Engineered Fill)

RESEARCH REPORT

Lightweight Levee for Flood Protection

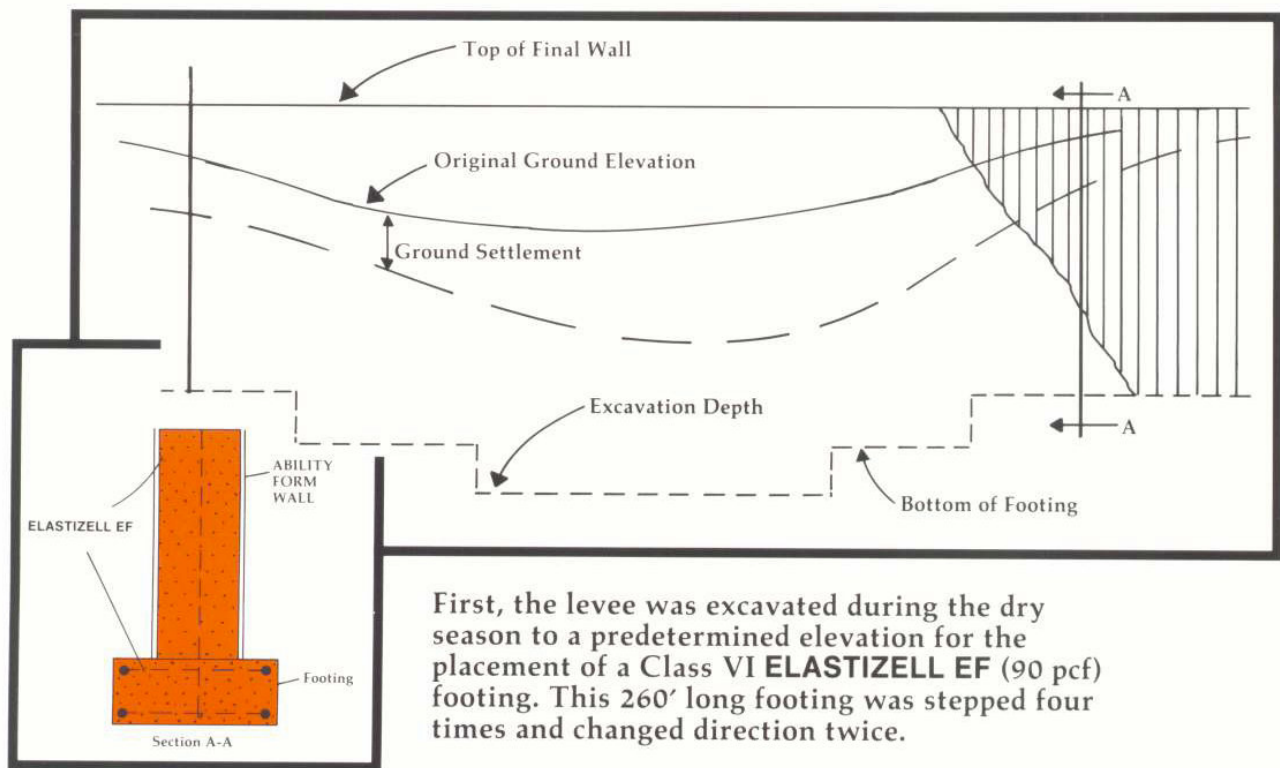


Elastizell Corporation of America

CASE HISTORY

An earth levee protecting a residential subdivision from a flood-prone river is underlain by poor compressible soils. Over time, the levee settled and significantly increased the potential for flood damage. This area was flooded seven years prior.

A temporary solution of sandbags and earth fill resulted in further settlement. An innovative solution was devised—load balancing with a combination of **ELASTIZELL EF** and the **ABILITY WALL SYSTEM**.



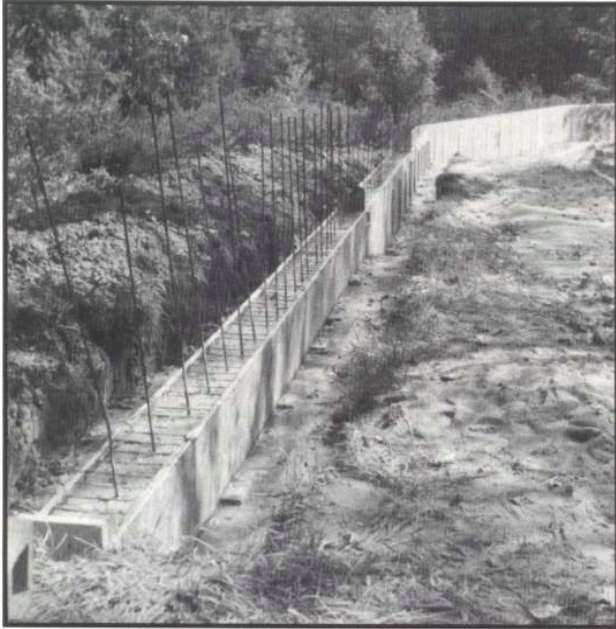
First, the levee was excavated during the dry season to a predetermined elevation for the placement of a Class VI **ELASTIZELL EF** (90 pcf) footing. This 260' long footing was stepped four times and changed direction twice.

Next, to maintain the levee elevation for flood protection, a 12" wide **ABILITY FORM WALL** was anchored to the footing with reinforcing steel. The **ABILITY FORM WALL** cavity was filled with Class IV **ELASTIZELL EF** (42 pcf) providing an impermeable barrier against high water.

Finally, the wall was waterproofed with an asphaltic coating, covered with wood siding, and the site was landscaped. The pleasant appearance of the levee wall blends into its residential setting.

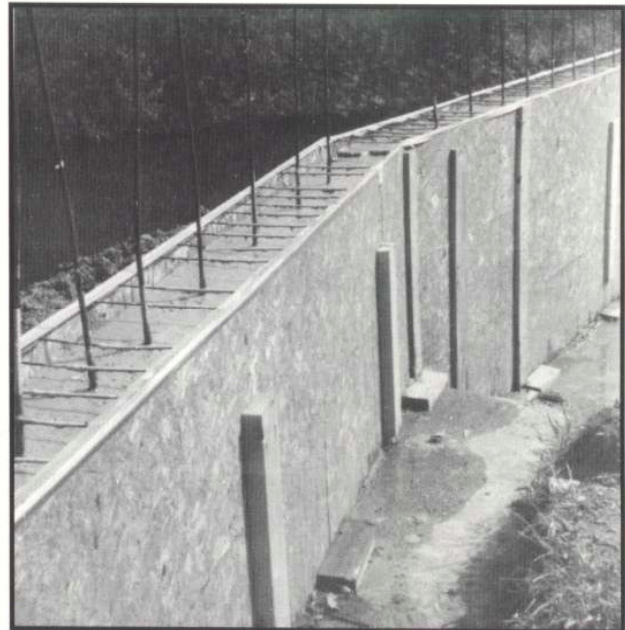
With the **ABILITY FORM/ELASTIZELL EF** solution, the dead load on the supporting soil is lower than that of an earthen levee. This minimizes future settlements.

INSTALLATION PROCEDURES:



The ABILITY FORM WALL is erected quickly and filled with Class IV ELASTIZELL EF.

The ABILITY FORM/ELASTIZELL EF Wall is anchored with reinforcing steel to the Class VI ELASTIZELL EF footing. This reduces the uplift potential as well as lessens future settlements over the poor subsoils at this site.

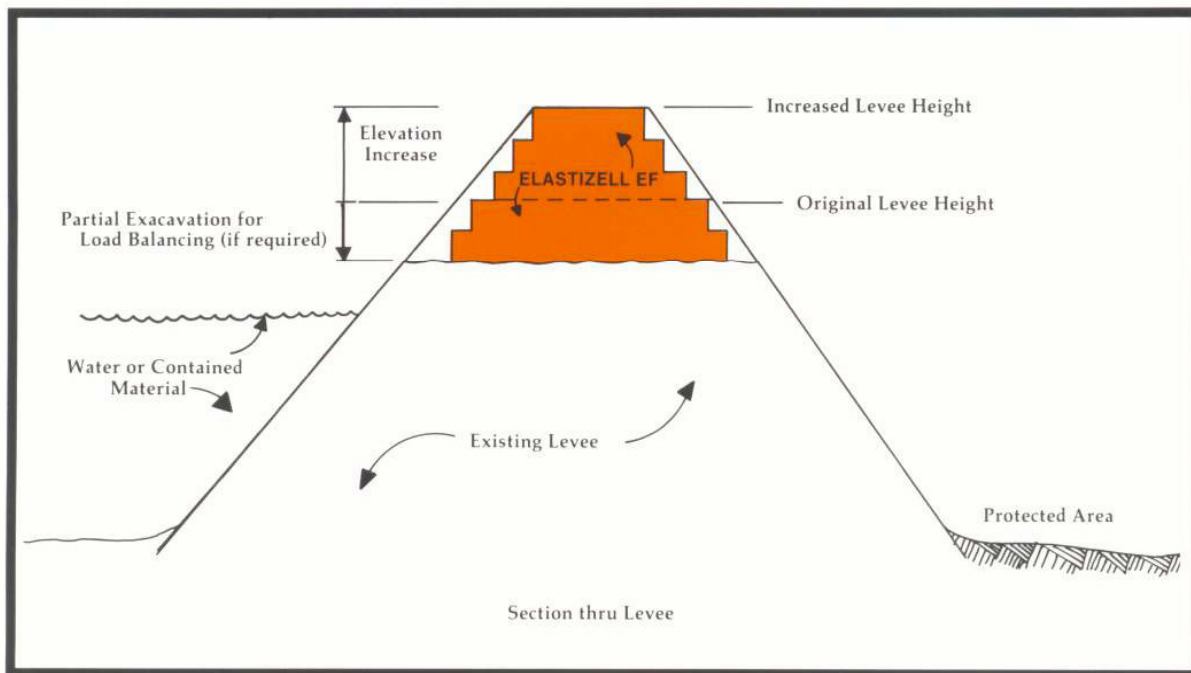


After waterproofing, the levee wall is finished with a wood siding treatment for a pleasing residential appearance which blends well with the surrounding neighborhood—a neighborhood now protected from damaging floods.

Increasing Heights and Upgrading Existing Levees

Advantages:

- Easily Applied
- Light Weight Reduces Settlements
- Resists Overtopping by Raising Elevation
- Increases Containment Capacity
- Protects Existing Property



Please contact the ELASTIZELL CORPORATION OF AMERICA for additional specific design values and more detailed specifications.

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