

Alchatek

CASE STUDY
SEAWALL REPAIR

1,250-FOOT SEAWALL

Rum Cove Marina *Seawall Repair*

Rum Cove Marina contacted contractor Stable Soils around 2017 after severe soil erosion behind their 1,250-foot seawall threatened boat slip pedestals and marina infrastructure.

SEAWALL LENGTH
1,250 *ft*

PRODUCT
AP Fill 720

01 What made this job *difficult.*

Rum Cove Marina first contacted Stable Soils around 2017, experiencing severe soil erosion behind their 1,250-foot seawall. The primary issue was water concentration from the parking lot creating a "pressure washer" effect that was washing away soil behind the seawall. This erosion threatened the stability of boat slip pedestals and the marina's infrastructure.

KEY CONDITION

The seawall showed no significant lean, but the soil loss was critical. The marina's pedestals were falling over, and the concentrated water flow was causing extensive washout. The site required immediate stabilization to prevent further damage and prepare for new infrastructure installation.

THE CONSTRAINT

1,250 *ft*

SEAWALL LENGTH

Parking lot runoff hit the back of the wall like a pressure washer, scouring out soil and toppling slip pedestals. The wall itself had not leaned, so the soil had to be rebuilt without moving the wall.

AT A GLANCE

3 ft
GRID SPACING
Injection point spacing underneath the walkway.

6 ft
INJECTION INTERVAL
Spacing of injection points along the seawall.

5.5 ft
DEPTH BELOW CAP
Injection points positioned below the mud line.

1 gal/vertical ft
INJECTION VOLUME
Amount injected at every injection point.

02 What was specified, *and how it went in.*

AP FILL 720

AP Fill 720 was injected behind the seawall to stabilize the soil and stop it from washing away, the primary scope of the job. AP Lift 475 was used in a supplemental role to fill voids beneath the walkway, chosen for its high compressive strength.

THE MATERIAL

AP Fill 720

SOIL STABILIZATION BEHIND THE SEAWALL

AP Fill 720 stabilizes the soil behind the seawall and stops the washout. AP Lift 475 was used as a supplemental void fill beneath the walkway.

THE METHOD

01
Establish
Injection points spaced 3 feet apart beneath the walkway.

02
Inject
AP Lift 475 two-part polyurethane injected at controlled volume, with dial indicators confirming no unwanted movement of the walkway or seawall.

03
Position
Points set 12 inches behind the seawall and 12 inches below the mud line, 5.5 feet below the cap, every 6 feet, with 1/2-inch jet filters between points.

04
Monitor
One gallon per vertical foot injected at each point, watching for air bubbles and mud displacement as indicators of success.

03 What the result was, *and what confirmed it.*

THE OUTCOME
SEPTEMBER 2020

Stable Soils completed the project in September 2020. Since implementation, no further issues have been reported with the seawall. The marina owners were satisfied and subsequently contracted additional sectional seawall repairs.

THE OUTCOME

No further seawall issues reported since completion, and the marina came back for additional sectional repairs.

START THE CONVERSATION

Send us the job.
We will send back an approach.

Contact Us Today

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Alchatek

Alchatek manufactures polyurethane resins, chemical grouts, and injection equipment for infrastructure repair: leak sealing, soil stabilization, concrete lifting, and seawall repair. Headquarters in Tucker, Georgia, with a bonded warehouse in Reno, Nevada.

Information in this document is believed accurate at the date of publication. Product performance depends on site conditions and application; consult the current Technical Data Sheet, which is the controlling document.