# **Subject Index**

## A

ACNA Organic Chemical Plant, Italy, 181 Arching, 309 Attapulgite, 69

### В

Backhoe, 225 Baltimore, MD, Harborplace, foundation wall, 151 Baltimore, MD, underground transit system, 403 Barrettes, 207 Beam, driven, method, 324 Bentonite, 3, 26, 69, 78, 86, 194 Biopolymers, 69, 333 Boston, MA, 194, 207, 347, 361 Bracing system, cross-lot, 347 Building protection, during construction, 103, 117, 128, 140, 151, 164, 194, 361 construction using slurry walls, 194, 403

## C

Calcium bentonite, 172 Cement, 172 Cement-bentonite, 42, 140, 225 Charles Center Station, Baltimore, MD, 403 Church of the Epiphany, Washington, DC, 164 Clamshell, 3, 271 Clay, 69, 103, 225, 251 Cofferdam, 391 Collector wells, 333 Colloids, 86 Composites, 78, 103, 181 Concrete, 26, 151, 207, 235, 309, Conductivity, 172 Construction, thin slurry walls, 324 Contaminants, 69, 78, 103, 172, 181, 333

Copper mine, cutoff walls, 271 Cutoff walls, 3, 42, 69, 140, 181 Island Copper Mine, 271 Mud Mountain Dam, 309 plastic concrete, 271 Sacramento River, 225 soil-bentonite, 289 Wister Dam, 251 CWS system, 16

## D

Dams
cutoff walls for, 289, 309
slurry walls for, 235, 251
Dewatering, 391
Diaphragm walls, 128
concrete, 151, 361
internally braced, 347
joints, 16, 377
pump station, 391
specifications for, 42
trenching method, 86
Wells Dam, 235
Drainage, 181
Drains, french, 333
Driven beam method, 324

# E

Earth pressures, 403 lateral, 151, 347 Embankments, 225, 289 dam, 235, 251 Erosion, 140, 235 Excavation, 26, 86, 207, 271, 377, 391 support, 117, 164, 347, 361, 403

### F

Filter, sand, 251 Filtrate, 86 Finite element analyses, 361 Fluids, supporting, 324 Fly ash, 172

# 424 SLURRY WALLS: DESIGN, CONSTRUCTION, AND QC

Foundations, 117, 151, 347 selecting, 207 shaft, underreamed drilled, 194 French drain, 333

G

Garage, underground parking, 117, 151, 361 Geomembrane, 78 Geotextile selection, 103 Glacial till, 271 Grain size distribution, 103 Ground anchors, 117 Grout columns, 403 Guar gum, 333

## Н

Hammer, vibratory, 324
Hydraulic conductivity, 69, 172,
225
Hydraulic fracturing, 251, 289, 309
Hydroelectric plant, cutoff wall
for, 140
Hydrofracturing, 251, 289, 309
Hydrofraise, 309
Hydromill, 3

## I

Inclinometers, 117, 164, 347, 361 Internal bracing, 347 Ion diffusion, barrier, 69

J

Joints, diaphragm wall, 16, 377

L

Lateral displacements, 347 Lateral earth pressures, 151 Leachate collection, 86 Liquid slurry materials, 324 Load bearing elements, 207

#### M

Manasquan dam and dike, NJ, 289

Masonry building, diaphragm wall near, 128 Mine, open pit copper, cutoff wall, 271 Modulus of elasticity, 140 Monitoring program, 403 Mud Mountain Dam, 309

### N

New York, Richmond Avenue Pump Station, 391

P

Parking, underground, slurry walls for, 117, 151, 361 Percussion, 3 Permeability, 42, 69, 78, 140, 181 Permeameter, flexible wall, 172 Piezometers, 117, 235 Pit slope, 271 Pittsburgh, PA, Soldiers' and Sailors' Building, 117 Plastic concrete, 42, 251, 271 Polymers, 86 biopolymers, 69, 333 Pore water, 103 Porosity, geotextile, 103 Post Office Square garage, Boston, MA, 361 Poteau River, OK, 251 Pump station, 391

### Q

Quality control, 194, 225 construction, 26 diaphragm wall joints, 377

R

Raffles Hotel, Singapore, 128

S

Sacramento River, cutoff wall for, 225 Sands, water-bearing, 391 Seepage, 140, 151, 225, 271, 289 dam, 235, 309

Settlement, building, during construction, 103, 128, 151, 347 Shafts, drilled, 194 Singapore, Raffles Hotel, 128 Sinkhole, 235 Slag, 172 Sodium-bentonite, 172 Soil-bentonite, 42, 289 Soil volume change, 103 Soldiers' and Sailors' Memorial Building, Pittsburgh, PA, 117 Specifications (see also Standards) slurry wall, 26, 42 Stability, slope, 271 Standards, 42 lack of, 26 Strain gages, 347 Structural walls, 3, 26, 42 Supporting liquid slurries, 324

#### T

Tiebacks, 151
Transit station, slurry walls for, 403
Trencher, 225
Trenches, 3, 69, 86, 151
collection, 333

U

Underground buildings parking garages, 117, 151, 361 transit station, 403 Up/down method, 207

 $\mathbf{V}$ 

Vibrated beam, 225 Vibrating hammer, 324

W

Wall movements, 164
Washington, DC, Church of the
Epiphany, 164
Water stop blades, 16
Watertightness, 377
Wells Dam, diaphragm walls, 235
White River, WA, 309
Wister Dam, 251