### Subject Index

#### A
- Acrylic polymer-based coating, 268
- Adhesion, 261
- Air barrier, 101, 175
- Air Barrier Association of America, 175
- Air leakage, 101, 175
- Air permeance, 175
- Air properties, 189
- American Architectural Manufacturers Association, 10
- American Society of Civil Engineers (ASCE), 10, 17, 42
  - Standard 7, 17, 42
- Anchored brick veneer walls, 115
- Architect, project role, 3
- Architectural glass, seismic design provisions, 242
- Asphalt-saturated felt, 214
- ASTM Committee C16 on Thermal Insulation, 189
- ASTM Committee E06 on Performance of Buildings, 189
- ASTM MNL 18, 189
- ASTM MNL 40, 189
- ASTM standards (See also Standards), 175
  - E 283: 69
  - E 330: 69
  - E 331: 69
  - E 547: 69
  - E 1233: 69
  - E 2099: 69

#### B
- Brick Industry Association, 10
- Brick veneer, 115, 231
- Brown coat, 214
- Building Envelope Research Laboratory, 242
- Building Industry Authority, New Zealand, 203

#### C
- Cladding, 17, 54, 203, 214, 261
- Cladding design, 42
- Cladding Systems, 17
- Cladding wind load, determining, 42
- Codes, building, 10, 214
- International Building Code, 17
- New Zealand, 203
  - performance-based, 203
- Coefficient of Variance, 160
- Communication, process of, 3
- Compressive stresses, 115
- Condensation, 101, 189
  - index, 160
- Connectivity, 101
- Construction details, 84
- Construction, laboratory mockups, 69
- Construction sequence, 101
- Contractor, project role, 3
- Control joint, 214
- Cracking, 115, 214
- Curing, 214
- Curtain wall, 17, 69, 231, 242

#### D
- Diamond mesh, 214
- Design
  - architectural glass, 242
  - building, 84
  - codes, 10, 17
  - joint, 261
  - panelized curtain wall system, 231
  - panelized wall construction, 231
  - pre-construction mockups, 69
  - process for cladding materials, 17
  - sealant joint, 261
  - stucco, 214
  - tools, 189
  - two-dimensional graphics, 84
- Dew point temperature, 160
- Dimension stone, 54
- Drainage plane, 268
- Drift, interstory, 242

#### E
- Earthquake, 115, 242
- Earthquake-Isolated Curtain Wall System (EICWS), 242
- Elastomeric sealants, 261
- Elastomers, 132
- Emissions, 175
- Energy codes, 175
- Evaluating a leak condition, 145
- Expanded metal lath, 214
- Expansion joint, 214
- Exposure category, 42
Exterior insulation finish system (EIFS),
231, 268
basic barrier, 268
with drainage, 268

Façade, 3, 54
Failure envelope, 261
Federal Emergency Management Agency (FEMA)
FEMA 302: 242
FEMA 368: 242
Fenestration thermal performance rating (U-factor), 160
Finish coat, 214
Finite-element analysis, 132
Flash, 84, 214
Flexible weather resistive barrier, 268
Forensic evaluation, 145
Friction forces, 115
Fully engineered buildings, 17

Greenhouse gas, 175
Green strength, 268

Heat loss, 101

Impact resistance, 17
Infiltration resistance, 10
Information exchange recommendations for, 69
In-plane lateral load resistance, 115
Inspection, air barrier system, 175
Insulation board, 268
Interface, 261
International Building Code, 17
Interstory displacement, 242
Interstory drift, 242

Joints
control, 214
design, 261
failure, 261
movement, 115

Kraft paper, 214

Laboratory mockups, exterior wall systems, 69
Lath, 214
Leakage, air, 101, 175
Leakage prevention, 84
Leakage, water, 10, 101, 145, 203, 214, 261
Legal proceedings, leak condition, 145
Legal theories (of leakage), 145
Linear elasticity, 132
Load, wind, 17
Longitudinal ultrasound velocities, 132

Measurements
tensile, 132
ultrasonic, 132
Metal diverter, 214
Metal edge fastening, 17
Mildew, 189
Missile impact, 17
Model building codes, 17
Modeling, 189
MOIST, 189
Moisture analysis, 189
control, 189
management, 101
penetration, 10, 101, 203
Mold, 189, 214
Movement joints, 115

National Air Barrier Association, 175
National Earthquake Hazards Reduction Program (NEHRP), 242
National Fenestration Rating Council (NFRC)
NFRC 100: 160
NFRC 500: 160
National Roofing Contractors Association, 10
New Zealand Building Code, 203

Owner, project role, 3
Index 287

P
Panelized curtain wall system, 231
Paper-backed lath, 214
Particulate fillers, 132
Partnership, owner, architect, and contractor, 3
Peel-and-stick membrane, 214
Plaster, 214
Poisson's ratio, 132
Portland cement, 214
Precipitation control, 101
Pre-construction evaluation, 69
Prefabricated wall panels, 231
Premature building failure, 175
Pressure measurements, 42
Project definition, 3
scope, 3
specification and selection process, 3
Proving a leak condition, 145

Q
Quality assurance, 101
air barrier system testing, 175

R
Rain penetration, 101
Rake flashing, 214
Relationship between owner, architect and contractor, 3
Rigid board sheathing, 231
RTV silicone sealants, 132
Rubberized asphalt, 214

S
Scratch coat, 214
Sealant joint design, 261
Sealant joint failure, 261
Sealants, 261
silicone, 132
Secondary defense method, 203
Seismic decoupling, 242
design, 242
life safety issues, 115, 242
performance, 115
Self-furring lath, 214
Sequence (Step-by-step) views, 84
Shear cracking, 115
Sheathing, 214, 231
Shelf angles, 115
Shielding, 42
Shutters, 17
Silicone sealant, 132
Standards (See also ASTM Standards), 42, 214
standard practice for pre-construction mockups of exterior wall systems, 69
wall performance criteria, 10
Steel studs, 231
Stone, façades, 54
Structural capacity, 17
Stucco, 214

T
Thermal transmittance, 160
Topographic effects, 17
Two-dimensional (2-D) graphic representations of components, 84

U
U-factor, 160
Ultrasound velocity, 132

V
Veneer, 115, 214, 231
Vertical differential movement, 115

W
Water infiltration resistance, 10
Water management, 231
Waterproofing membrane, 214
Weather barrier, 84, 268
Weatherproofing, 84
Weather resistive coating, 268
Weep screed, 214
Wind-borne debris, 17
Wind climate, 42
Wind load, 17, 42
factors, 42
Window, 214
Windows and doors, 17
Wind performance of exterior walls, 17
Wind tunnels, 42
WUFI ORNL/IBP, 189

Y
Young's modulus, 132