

- roofs. *See also* specific roof type
 - configuration of snow drifts on lower, 41f
 - curved, balanced/unbalanced loads for, 37f, 431
 - existing, and snow loads, 33
 - flat roof snow loads, 29, 31
 - hip and gable, with balanced/unbalanced loads, 39f, 431
 - ponding instability, 43, 447–448, 450f–451f, 452t
 - projections and parapets, 33
 - reduction in roof live loads, 411
 - roof overhangs, 262, 264, 309, 321, 333, 350f, 355f, 555, 572
 - sawtooth, balanced/unbalanced loads for, 40f, 431
 - sloped roof snow loads, 31
 - snow drifts on lower, 32–33
 - snow loads, 32, 431, 433
 - special purpose, 411
 - wind loads on buildings MWFRS, 272t–282t, 283f–292f
- rooftop equipment, 308–309, 308t, 312f
- Ryerson, C., 455
- Saathoff, P., 571
- sabotage, 378
- Sack, R.L., 429, 430
- Saffir-Simpson Hurricane Scale, 511, 536t
- Sakamoto, Y., 458
- Salama, A.E., 447
- Sataka, N., 521, 522, 523
- sawtooth roofs, 343f, 430
- Sawyer, D.A., 447
- Scanlan, R.H., 456, 461, 513
- Schriever, W.R., 427
- Schultz, A.E., 490
- Schultz, D.M., 379
- Scope and Format Subcommittee of ASCE, 45
- scour effects, 21, 416
- scragging, 165
- screen enclosure, 13
- secondary containment systems, 149
- seismically isolated structures, 165–177
 - analysis procedure selection, 169–170
 - definitions, 165
 - design review, 175
 - dynamic analysis procedures, 172–175
 - equivalent lateral force procedure, 170–172, 170t
 - general design requirements, 167–169
 - ground motion for, 169
 - notation, 165–167
 - testing, 175–177
- seismic design
 - category, 60, 67–68, 67t, 87–88
 - reference documents, 233–236
 - site classification procedure, 203–205
 - site-specific ground motion procedures, 207–209
 - soil-structure interaction, 199–202
- seismic design criteria, 57–69, 467–477. *See also*
 - specific material
 - definitions, 57–62, 471–474, 476
 - design requirements for category A, 477
 - geologic hazards and geotechnical investigation, 68–69
 - importance factor and risk category, 67
 - material-specific, 127–137, 489–491
 - for nonbuilding structures, 139–160
 - seismic ground motion values, 65–67, 476–477
 - site coefficients, 66t, 68t
 - symbols, 62–65
- seismic design requirements
 - for seismically isolated structures, 165–177
 - structures with damping systems, 179–197
- seismic force-resisting system, 61, 187
- seismic forces, 61, 201
- seismic ground motion long-period transition and risk
 - coefficient maps, 211–231, 503
 - MCE_G for conterminous U.S., 220–221
 - MCE_G for Guam and American Samoa, 223
 - MCE_G for Hawaii, 222
 - for Puerto Rico and U.S. Virgin Islands, 219
 - risk-adjusted MCE_R for Alaska, 216–217
 - risk-adjusted MCE_R for conterminous U.S., 212–215
 - risk-adjusted MCE_R for Hawaii, 218
 - risk coefficient at 0.2s spectral response period, 228–229
 - risk coefficient at 1.0s spectral response period, 230–231
 - $TL(s)$ for conterminous U.S., 224–225
 - $TL(s)$ for Hawaii, 226
 - $TL(s)$ for Puerto Rico and American Samoa, 227
- seismic load combination, 86
- seismic load conditions and acceptance criteria, 192–195
 - design review, 195
 - nonlinear procedures, 192–195, 194t, 195t
- seismic load effect and overstrength factor, 86–87, 479–480
- seismic response history procedures
 - linear, 161–162
 - nonlinear, 162–163
- Seismic Task Committee of ASCE, 45
- self-anchored tanks or vessels, 61
- self-straining loads, 8, 9, 389–390