TABLE OF CONTENTS

Part I—Administrative **1**

CHAPTER 1 ADMINISTRATION **1**

Section

R101 Title, Scope and Purpose 1

R102 Unsafe Buildings, Structures or Premises 2

R103 Enforcement, Violations and Penalties 2

R104 Organization and Duties 5

R105 Building Permits 6

R106 Inspections 13

R107 Existing Structures and Equipment 15

R108 Fees 17

R109 Interpretation 17

Part II—Definitions ***19***

CHAPTER 2 DEFINITIONS **19**

Section

R201 General 19

R202 Definitions 19

Part III—Building Planning and Construction ***43***

CHAPTER 3 BUILDING PLANNING **43**

Section

R301 Design Criteria 43

R302 Fire-Resistant Construction 75

R303 Light, Ventilation and Heating 83

R304 Minimum Room Areas 85

R305 Ceiling Height 85

R306 Sanitation 86

R307 Toilet, Bath and Shower Spaces 86

R308 Glazing 88

R309 Garages and Carports 91

R310 Emergency Escape and Rescue Openings 92

R311 Means of Egress 93

R312 Guards and Window Fall Protection 97

R313 Automatic Fire Sprinkler Systems 98

R314 Smoke Alarms 98

R315 Carbon Monoxide Alarms 99

R316 Foam Plastic 100

R317 Protection of Wood and Wood-Based Products Against Decay 102

R318 Protection Against Subterranean Termites . . . 104
R319 Site Address . . . 105
R320 Accessibility . . . 105
R321 Elevators and Platform Lifts . . . 105
R322 Flood-Resistant Construction . . . 106
R323 Storm Shelters . . . 110
R324 Solar Energy Systems . . . 110
R325 Mezzanines . . . 111
R326 Habitable Attic . . . 114
R327 Sleeping Lofts . . . 114
R328 Swimming Pools, Spas and Hot Tubs . . . 115
R329 Energy Storage Systems . . . 115
R330 Adult Family Homes . . . 116
R331 Family Home Child Care . . . 118
R332 Floating Homes . . . 118
R333 Security from Criminal Activity . . . 120
R334 Sound Transmission Control . . . 120

CHAPTER 4 FOUNDATIONS . . . 123

Section

R401 General . . . 123
R402 Materials . . . 124
R403 Footings . . . 125
R404 Foundation and Retaining Walls . . . 148
R405 Foundation Drainage . . . 167
R406 Foundation Waterproofing and Dampproofing . . . 168
R407 Columns . . . 170
R408 Under-Floor Space . . . 170

CHAPTER 5 FLOORS . . . 173

Section

R501 General . . . 173
R502 Wood Floor Framing . . . 173
R503 Floor Sheathing . . . 184
R504 Pressure Preservative-Treated Wood Floors (On Ground) . . . 185
R505 Cold-Formed Steel Floor Framing . . . 186
R506 Concrete Floors (On Ground) . . . 206
R507 Exterior Decks . . . 206

CHAPTER 6 WALL CONSTRUCTION . . . 223

Section

R601 General . . . 223
R602 Wood Wall Framing . . . 223
R603 Cold-Formed Steel Wall Framing . . . 279
R604 Wood Structural Panels . . . 323

R605 Particleboard . . . 323
R606 General Masonry Construction . . . 323
R607 Glass Unit Masonry . . . 338
R608 Exterior Concrete Wall Construction. . . . 340
R609 Exterior Windows and Doors. . . . 418
R610 Structural Insulated Panel Wall Construction . . . 423

CHAPTER 7 WALL COVERING . . . 433
Section
R701 General. . . . 433
R702 Interior Covering . . . 433
R703 Exterior Covering. . . . 439

CHAPTER 8 ROOF-CEILING CONSTRUCTION . . . 463
Section
R801 General. . . . 463
R802 Wood Roof Framing . . . 463
R803 Roof Sheathing. . . . 494
R804 Cold-Formed Steel Roof Framing . . . 494
R805 Ceiling Finishes . . . 511
R806 Roof Ventilation. . . . 511
R807 Attic Access . . . 513

CHAPTER 9 ROOF ASSEMBLIES . . . 515
Section
R901 General. . . . 515
R902 Fire Classification . . . 515
R903 Weather Protection. . . . 515
R904 Materials . . . 516
R905 Requirements for Roof Coverings . . . 516
R906 Roof Insulation. . . . 530
R907 Rooftop-Mounted Photovoltaic Panel Systems . . . 531
R908 Reroofing . . . 531

CHAPTER 10 CHIMNEYS AND FIREPLACES . . . 533
Section
R1001 Masonry Fireplaces . . . 533
R1002 Masonry Heaters . . . 537
R1003 Masonry Chimneys . . . 537
R1004 Factory-Built Fireplaces. . . . 543
R1005 Factory-Built Chimneys. . . . 543
R1006 Exterior Air Supply . . . 544

Part IV—Energy Conservation *547*

CHAPTER 11 [RE] ENERGY EFFICIENCY
Not adopted in Seattle

Part V—Mechanical *549*

CHAPTER 12 MECHANICAL ADMINISTRATION **549**
Section
M1201 General 549
M1202 Existing Mechanical Systems 549

CHAPTER 13 GENERAL MECHANICAL SYSTEM REQUIREMENTS **551**
Section
M1301 General 551
M1302 Approval 551
M1303 Labeling of Appliances 551
M1304 Type of Fuel 552
M1305 Appliance Access 552
M1306 Clearances from Combustible Construction 553
M1307 Appliance Installation 556
M1308 Mechanical Systems Installation 557

CHAPTER 14 HEATING AND COOLING EQUIPMENT AND APPLIANCES **559**
Section
M1401 General 559
M1402 Central Furnaces 559
M1403 Heat Pump Equipment 559
M1404 Refrigeration Cooling Equipment 560
M1405 Baseboard Convectors 560
M1406 Radiant Heating Systems 560
M1407 Duct Heaters 560
M1408 Vented Floor Furnaces 561
M1409 Vented Wall Furnaces 561
M1410 Vented Room Heaters 562
M1411 Heating and Cooling Equipment 562
M1412 Absorption Cooling Equipment 563
M1413 Evaporative Cooling Equipment 563
M1414 Fireplace Stoves 564
M1415 Masonry Heaters 564

CHAPTER 15 EXHAUST SYSTEMS **565**
Section
M1501 General 565
M1502 Clothes Dryer Exhaust 565
M1503 Domestic Cooking Exhaust Equipment 566

M1504 Exhaust Ducts and Exhaust Openings 567
M1505 Mechanical Ventilation 568

CHAPTER 16 DUCT SYSTEMS. 573
Section
M1601 Duct Construction 573
M1602 Return Air 576

CHAPTER 17 COMBUSTION AIR 577
Section
M1701 General. 577

CHAPTER 18 CHIMNEYS AND VENTS 579
Section
M1801 General. 579
M1802 Vent Components. 580
M1803 Chimney and Vent Connectors 580
M1804 Vents 581
M1805 Masonry and Factory-Built Chimneys. 582

CHAPTER 19 SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS 583
Section
M1901 Ranges and Ovens 583
M1902 Sauna Heaters. 583
M1903 Stationary Fuel Cell Power Plants 583
M1904 Gaseous Hydrogen Systems. 583

CHAPTER 20 BOILERS AND WATER HEATERS 585
Section
M2001 Boilers 585
M2002 Operating and Safety Controls. 585
M2003 Expansion Tanks 586
M2004 Water Heaters Used for Space Heating 586
M2005 Water Heaters. 586
M2006 Pool Heaters. 587

CHAPTER 21 HYDRONIC PIPING 589
Section
M2101 Hydronic Piping Systems Installation 589
M2102 Baseboard Convectors 592
M2103 Floor Heating Systems. 592
M2104 Low Temperature Piping 592
M2105 Ground-Source Heat-Pump System Loop Piping 593

CHAPTER 22 SPECIAL PIPING AND STORAGE SYSTEMS 597
Section
M2201 Oil Tanks 597
M2202 Oil Piping, Fitting and Connections. 597
M2203 Installation 598
M2204 Oil Pumps and Valves 598

CHAPTER 23 SOLAR THERMAL ENERGY SYSTEMS 599
Section
M2301 Solar Thermal Energy Systems 599

Part VI—Fuel Gas*. *603

CHAPTER 24 FUEL GAS 603
Section
G2401 General. 603
G2402 General. 603
G2403 General Definitions 604
G2404 General. 610
G2405 Structural Safety. 611
G2406 Appliance Location 611
G2407 Combustion, Ventilation and Dilution Air. 612
G2408 Installation 617
G2409 Clearance Reduction 618
G2410 Electrical 622
G2411 Electrical Bonding 622
G2412 General. 622
G2413 Pipe Sizing 623
G2414 Piping Materials 646
G2415 Piping System Installation 648
G2416 Piping Bends and Changes in Direction 651
G2417 Inspection, Testing and Purging 651
G2418 Piping Support 654
G2419 Drips and Sloped Piping 654
G2420 Shutoff Valves 655
G2421 Flow Controls. 655
G2422 Appliance Connections 656
G2423 Compressed Natural Gas Motor Vehicle Fuel-Dispensing Facilities 657
G2424 Piping Support Intervals 657
G2425 General. 658
G2426 Vents 659
G2427 Venting of Appliances 660
G2428 Sizing of Category I Appliance Venting Systems 670
G2429 Direct-Vent, Integral Vent, Mechanical Vent and Ventilation/Exhaust Hood Venting 684
G2430 Factory-Built Chimneys. 684

G2431 General . . . 684
G2432 Decorative Appliances for Installation in Fireplaces . . . 684
G2433 Log Lighters . . . 684
G2434 Vented Gas Fireplaces (Decorative Appliances) . . . 684
G2435 Vented Gas Fireplace Heaters . . . 685
G2436 Vented Wall Furnaces . . . 685
G2437 Floor Furnaces . . . 685
G2438 Clothes Dryers . . . 686
G2439 Clothes Dryer Exhaust . . . 686
G2440 Sauna Heaters . . . 687
G2441 Pool and Spa Heaters . . . 688
G2442 Forced-Air Warm-Air Furnaces . . . 688
G2443 Conversion Burners . . . 689
G2444 Unit Heaters . . . 689
G2445 Unvented Room Heaters . . . 689
G2446 Vented Room Heaters . . . 690
G2447 Cooking Appliances . . . 690
G2448 Water Heaters . . . 690
G2449 Air-Conditioning Appliances . . . 691
G2450 Illuminating Appliances . . . 691
G2451 Infrared Radiant Heaters . . . 691
G2452 Boilers . . . 691
G2453 Chimney Damper Opening Area . . . 692
G2454 Outdoor Decorative Appliances . . . 692

Part VII—Plumbing* . . . *693

CHAPTER 25 PLUMBING ADMINISTRATION
Not adopted in Seattle

CHAPTER 26 GENERAL PLUMBING REQUIREMENTS
Not adopted in Seattle

CHAPTER 27 PLUMBING FIXTURES
Not adopted in Seattle

CHAPTER 28 WATER HEATERS
Not adopted in Seattle

CHAPTER 29 WATER SUPPLY AND DISTRIBUTION . . . 695

Section

P2904 Dwelling Unit Fire Sprinkler Systems . . . 695

CHAPTER 30 SANITARY DRAINAGE
Not adopted in Seattle

CHAPTER 31 VENTS
Not adopted in Seattle

CHAPTER 32 TRAPS
Not adopted in Seattle

CHAPTER 33 STORM DRAINAGE
Not adopted in Seattle

Part VIII—Electrical

CHAPTER 34 GENERAL REQUIREMENTS
Not adopted in Seattle

CHAPTER 35 ELECTRICAL DEFINITIONS
Not adopted in Seattle

CHAPTER 36 SERVICES
Not adopted in Seattle

CHAPTER 37 BRANCH CIRCUIT AND FEEDER REQUIREMENTS
Not adopted in Seattle

CHAPTER 38 WIRING METHODS
Not adopted in Seattle

CHAPTER 39 POWER AND LIGHTING DISTRIBUTION
Not adopted in Seattle

CHAPTER 40 DEVICES AND LUMINAIRES
Not adopted in Seattle

CHAPTER 41 APPLIANCE INSTALLATION
Not adopted in Seattle

CHAPTER 42 SWIMMING POOLS
Not adopted in Seattle

CHAPTER 43 CLASS 2 REMOTE-CONTROL, SIGNALING AND POWER-LIMITED CIRCUITS
Not adopted in Seattle

Part IX—Referenced Standards ***783***

CHAPTER 44 REFERENCED STANDARDS. **713**

APPENDIX A SIZING AND CAPACITIES OF GAS PIPING
Not adopted in Seattle

APPENDIX B SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS
Not adopted in Seattle

APPENDIX C EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS
Not adopted in Seattle

APPENDIX D RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE INSTALLATION
Not adopted in Seattle

APPENDIX E MANUFACTURED HOUSING USED AS DWELLINGS
Not adopted in Seattle

APPENDIX F RADON CONTROL METHODS 753

Section

AF101 Scope 753
AF102 Definitions 753
AF103 Requirements 753

APPENDIX G PIPING STANDARDS FOR VARIOUS APPLICATIONS
Not adopted in Seattle

APPENDIX H PATIO COVERS
Not adopted in Seattle

APPENDIX I PRIVATE SEWAGE DISPOSAL
Not adopted in Seattle

APPENDIX J EXISTING BUILDINGS AND STRUCTURES
Not adopted in Seattle

APPENDIX K SOUND TRANSMISSION
Not adopted in Seattle

APPENDIX L PERMIT FEES
Not adopted in Seattle

APPENDIX M HOME DAY CARE—R-3 OCCUPANCY
Not adopted in Seattle

APPENDIX N VENTING METHODS
Not adopted in Seattle

APPENDIX O AUTOMATIC VEHICULAR GATES
Not adopted in Seattle

APPENDIX P SIZING OF WATER PIPING SYSTEM
Not adopted in Seattle

APPENDIX Q TINY HOUSES 763

Section

AQ101 General 763

AQ102 Definitions 763

AQ103 Ceiling Height 763

AQ104 Energy Conservation 763

APPENDIX R LIGHT STRAW-CLAY CONSTRUCTION
Not adopted in Seattle

APPENDIX S STRAWBALE CONSTRUCTION
Not adopted in Seattle

APPENDIX T [RE] SOLAR-READY PROVISIONS—DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES). 769

Section

T101 Scope 769

T102 General Definition 769

T103 Solar-Ready Zone 769

INDEX 771