#### Washington State Register

## WSR 22-02-040 PROPOSED RULES

## BUILDING CODE COUNCIL

[Filed December 30, 2021, 10:05 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 21-07-134. Title of Rule and Other Identifying Information: Chapter 51-50 WAC, Adoption and amendment of the 2021 International Building Code (IBC).

Hearing Location(s): On February 11, 2022, at 10:00 [a.m.], and March 11, 2022, at 10:00 [a.m.] virtual meeting - Zoom. In response to the governor's emergency proclamation there will not be a physical location. Please access the meeting via Zoom or conference phone provided in the agenda.

Date of Intended Adoption: April 15, 2022.

Submit Written Comments to: State Building Code Council (SBCC), 1500 Jefferson Street S.E., Olympia, WA 98504, email sbcc@des.wa.gov, by March 4, 2022.

Assistance for Persons with Disabilities: Contact Annette Haworth, phone 360-407-3255, email sbcc@des.wa.gov, by February 4, 2022.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rule adopts the 2021 edition of IBC, published by the International Code Council (ICC), with state amendments to incorporate proposed changes as adopted by SBCC. The rules will provide increased clarity and life safety measures for building construction in Washington state.

# ATTACHMENT A: SUMMARY OF PROPOSED CHANGES 2021 IBC Amendments to Chapter 51-50 WAC

WAC	Section	Changes in 2021	Rationale/Discussion
WAC 51-50-003	003	Change 2018 to 2021.	Editorial change
WAC 51-50-005	005	Change reference from 2009 A117.1 to 2017.	ICC A117.1-2017 is the most current version.
WAC 51-50-007	007	Change 2015 to 2021.	2021 IEBC is the most current code.
WAC 51-50-008	008	Replaces February 1, 2021, with July 1, 2023.	July 1, 2023, is the effective date for all 2021 codes.
WAC 51-50-009	009	Remove existing language and reserve WAC 51-50-009.	The existing language is relocated in Chapters 2 and 4 (Section 430); there is no change in regulatory effect.
WAC 51-50-0110	110.3.5 through 110.3.12.1	Remove the state amendment and reserve WAC 51-50-0110.	The existing amendment is no longer needed; it is addressed in the model code.

WAC 51-50-0202	Definitions	AUTOMATIC LOAD MANAGEMENT SYSTEM (ALMS). New definition.	The term is used in the new proposal in Section 429.	
		COMPOST. Relocated from WAC 51-50-009.	The existing language is relocated in Chapters 2 and 4 (Section 430); there is no change in regulatory effect.	
		ELECTRIC VEHICLE (EV) CAPABLE PARKING SPACE. New definition.	The term is used in the new proposal in Section 429.	
		ELECTRIC VEHICLE (EV) CHARGER.	The term is used in the new proposal in Section 429.	
		ELECTRIC VEHICLE (EV) READY PARKING SPACE. New definition.	The term is used in the new proposal in Section 429.	
		ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). New definition.	The term is used in the new proposal in Section 429.	
		HIGH-RISE BUILDING. New definition.	Corrects a previous ambiguity by adding an occupied roof with an occupant load of 50 or more.	
		LOFT. New definition.	The term is used in the new proposal in Sections 420.14, 505.1, 907.2.11.1, 907.2.11.2, 1011.15, 1011.16, 1015.2, 1015.3.	
		MASS TIMBER. Remove existing definition.	Addressed in the model code.	
		NIGHTCLUB. Modifying the existing definition. The reference to 2006 IBC regarding Group A-2 is proposed for remove [removal].	The A-2 occupancy is addressed in the 2021 IBC (as well as in all other codes after 2006); there is no need for a reference to an old code to be maintained.	
		NONCOMBUSTABLE PROTECTION (For MASS TIMBER). Remove existing definition.	The existing definition is no longer needed; it is addressed in the model code.	
		RECYCLED MATERIALS. Relocated from WAC 51-50-009.	The existing language is relocated in Chapters 2 and 4 (Section 430); there is no change in regulatory effect.	
		WALL, LOAD BEARING. Remove existing definition.	The existing definition is no longer needed; it is addressed in the model code.	
WAC 51-50-0306	306.2	Add: Energy storage systems (ESS) in dedicated use buildings. Add: Water/sewer treatment facilities.	Incorporates changes in the model code.	
WAC 51-50-0308	308.1.1	Remove defined terms.	Intended to match the model code format.	
	308.2	Modify existing amendment.	Incorporates changes in the model code.	
WAC 51-50-0309	309.1	Modify existing amendment.	Incorporates changes in the model code.	
WAC 51-50-0310	310.3	Reformat existing language.	Intended to match the format in the model code. There is no intended change in regulatory effect.	
WAC 51-50-0403	403.3.2	Remove existing amendment.	Addressed in the model code.	
	403.5.4	Referenced sections renumbering.	Incorporates renumbering in the model code.	
WAC 51-50-0405	405.7.2	New WAC number for existing amendment.     Referenced section renumbering.	WAC number and section title were previously omitted. The proposal also incorporates renumbering in the model code.	
WAC 51-50-0407	407.4.4.3	Remove the state amendment and save WAC 51-50-0407 as reserved.	The existing amendment (deletes the exception allowing 125 feet travel distance) was intended to avoid conflicts with the federal requirements. The model code is modified to reflect recent changes in the federal rules; there is no longer need for the existing amendment.	
WAC 51-50-0412	412.7.3	Modify existing amendment.	Incorporates changes in the model code.	
WAC 51-50-0420	420	• Sections 420.11, 420.11.1, 420.11.2, 420.11.3, 420.11.4, 420.11.5, 420.11.6, and 420.12 are renumbered. • Section references in Section 420.14 (as renumbered), Item 9, are renumbered.	Modifications are intended to incorporate section renumbering in the model code.	
	420.14	Add new Section 420.14 (Lofts) with subsequent subsections (420.14.1, 420.14.2, 420.14.3, 420.14.4, 420.14.4.1, 420.14.5).	Introduces "lofts" into the IBC as WA amendment. The concept is taken from Section R327 of the IRC, as amended. Lofts have been used in jurisdictions for years to put "extra" space to use. However, there is nothing in the code that regulates them. This proposal is intended to provide a reasonable balance between flexibility and safety for lofts.	
WAC 51-50-0429	429	Replace the existing requirements for EV infrastructure with a new proposal.	Statutory mandate pursuant to HB 1287.	
New	430	Relocation.	The existing language in WAC 51-50-009 is relocated in	

## Washington State Register WSR 22-02-040

WAC 51-50-0503	503.1.4	Remove existing amendment.	Addressed in the model code.	
	503.1.4.1	New section addressing enclosures of occupied roof areas. The new amendment adds Exception 2 - addressing the high-rise buildings.	The current limit on the guard height was based on fire department access to the roof. Once the roof deck is higher than fire ladder access, there is no longer justification for this limitation. There have been concerns that higher guards are needed on higher roofs to prevent people from jumping off the roof and/or to allow for wind breaks to limit items blowing off the roof deck and falling on people below. This proposal addresses both concerns.	
	503.1.4.2	New section.	See Section 1015.2.	
WAC 51-50-0504	504.4.1	Referenced section renumbering.	Incorporates changes in the model code (renumbering).	
WAC 51-50-0505	505.1	New section.	Adds "lofts" as an exception reference section for correlation. See rationale for Section 420.14.	
WAC 51-50-0506	Table 506.2	Remove existing amendment and reserve WAC 51-50-0506.	The existing amendment is no longer needed; it is addressed in the model code.	
WAC 51-50-0508	508.4.4.1	Remove existing amendment.	Addressed in the model code.	
	508.5.1	New section. Delete Item 4 from the model code language.	Removes an unenforceable limitation. Once the building permit is issued, the code official does not have the ability to restrict the number of people in a private residential dwelling unit.	
WAC 51-50-0509	509.4.1.1	Remove existing amendment.	Addressed in the model code.	
WAC 51-50-0510	510.2	<ul> <li>Incorporates changes in the model code.</li> <li>Corrects errors in the existing amendment (Exception 4 is Item 4 in the model code).</li> <li>Amends Items 5 and 7.</li> </ul>	Eliminates the Group A 299 occupant load limitation in its entirety and let the overall provisions found in the IBC dictate the design of Group A buildings or buildings with Group A occupancy constructed over horizontal assembly.	
	510.5	Remove existing amendment.	Addressed in the model code.	
WAC 51-50-0601	Table 601	Remove existing amendment and reserve WAC 51-50-0601.	The existing amendment is no longer needed; it is addressed in the model code.	
WAC 51-50-0602	Table 602 602.4	Remove existing amendments in Table 602 and Sections 602.4, 602.4.1, 602.4.1.1, 602.4.1.2, 602.4.1.2, 602.4.1.3, 602.4.1.4, 602.4.1.5, 602.4.1.6, 602.4.2, 602.4.2.1, 602.4.2.1, 602.4.2.1, 602.4.2.1, 602.4.2.3, 602.4.2.2.4, 602.4.2.5, 602.4.2.6, 602.4.3, 602.4.3.1, 602.4.3.2, 602.4.3.3, 602.4.3.4, 602.4.3.5, 602.4.3.6, 602.4.4, 602.4.4.1, and 602.4.4.2.	The existing amendments are no longer needed; all are addressed in the model code.	
	602.4.2.2.2	Modify existing amendments. The	The RISE fire tests demonstrate that the proposed	
	602.4.2.2.4	proposed increase of allowable unprotected area on the ceiling from 20 percent to 100 percent is consistent with the recently completed research conducted at the Research Institute of Sweden (RISE).	amounts of unprotected areas on the ceiling and walls, as a function of floor area, can be safely implemented while still achieving the performance objectives specified by the ICC Tall Wood Building Ad-Hoc Committee in the development of the tall building mass timber provisions in the 2021 I-codes. (See proposal # 21-GP1-87 for detailed rationale.)	
	602.4.2.3	Modify existing amendment.	Intended to address a conflict. For Type IV-B construction, the current code requires the underside of mass timber floor assemblies to be protected in accordance with the provisions for Type IV-A construction (the last sentence in Section 602.4.2.3 points to Section 602.4.1.2). However, Section 602.4.1.2 does not permit exposed mass timber. This conflicts with Section 602.4.2.2, which allows some limited exposed mass timber. This proposal eliminates the conflict by clarifying the reference to Type IV-A construction does not apply to the unprotected portions of mass timber permitted for Type IV-B construction.	
	602.4.4.3	New section; the amendment is in Item 3.	Adequately conveys the intent of the third protection alternative. Only combustible surfaces in concealed spaces need to be protected. If a concealed space is created by furring out with steel studs, for instance, only the heavy timber surfaces would need to be sheathed with 5/8-inch Type X gypsum board, not the steel studs.	
WAC 51-50-0603	603.1	Remove existing amendment and reserve WAC 51-50-0603.	Technical advisory group (TAG) recommended remove [removal] of the existing amendment; the reference to Section 2304.10.5 is unnecessary.	
WAC 51-50-0703	703.8 703.9	Remove existing amendments and reserve WAC 51-50-0703.	The existing amendment is not needed; it is addressed in the model code.	
WAC 51-50-0704	704.6.1	Replace the existing amendment with a new amendment. The proposed amendment modifies the new model code language in Section 704.6.1.	Intended to clarify the application of the new code section that was approved for 2021 IBC. As currently written, secondary steel attachment is not a defined term in the code and may be confused with the definition of secondary structural members in IBC Chapter 2. The proposed language is consistent with FS11-21 (attached to the proposal), which was approved by the ICC Fire Safety Committee for inclusion in the 2024 IBC.	

	_			
WAC 51-50-0705	705	Modify the title by deleting "and projections."	Title is corrected to align with the model code.	
	705.1	Remove existing amendment.	Addressed in the model code.	
	705.2.4	Renumbered to 705.2.5.	Incorporates renumbering in the model code.	
	705.2.5	Remove existing amendment.	Addressed in the model code.	
WAC 51-50-0706	706.3	New section.	Type III and IV buildings are required to have fire walls made	
	706.4	New section.	of approved non-combustible materials. Limiting the make-up of fire walls to non-combustible materials can result in	
	Table 706.4	New table.	problems for taller III and IV buildings. Material shrinkage and differential vertical shrinkage between dissimilar non-combustible fire wall materials and the combustible building bearing wall, may cause long term damage to the fire wall. Testing supporting the mass timber provisions recently approved for IBC suggest a different approach to these fire walls.	
	706.6.1	Remove existing amendment.	Addressed in the model code.	
WAC 51-50-0707	707.4 707.5	Remove existing amendments and reserve WAC 51-50-0707.	The model code addresses all existing amendments.	
WAC 51-50-0713	713.13.4	Remove existing amendment.	Addressed in the model code.	
WAC 51-50-0717	717 717.5.2 717.5.4	Remove existing amendments and reserve WAC 51-50-0717.	The model code addresses all existing amendments.	
WAC 51-50-0718	718.2.1	Remove existing amendment and reserve WAC 51-50-0718.	The existing amendment is not needed; it is addressed in the model code.	
WAC 51-50-0722	722.7 722.7.1	Remove existing amendments.	The model code addresses all existing amendments.	
	Tables 722.7.1(1) 722.7.1(2)			
	722.7.2			
	722.7.2.1			
WAC 51-50-0803	803.3	Remove existing amendment and reserve WAC 51-50-0803.	The existing amendment is not needed; it is addressed in the model code.	
WAC 51-50-0902		Delete Section 902.	Editorial modification to match WAC format.	
WAC 51-50-0903	903.2.1.3	New section. Adds an exception to the model code pertaining to fixed guideway transit and passenger rail system stations.	Intended to correlate the IBC/International fire code (IFC) requirements for fire protection to NFPA 130 requirements. The primary purpose is to clarify the requirements for fire protection at open stations. (See proposal 21-GP1-67 for detailed rationale.)	
	903.2.1.6	New section.	This is an existing amendment, currently in IFC. The amendment is proposed for inclusion into IBC for consistency with IFC.	
	903.2.3	Renumbering of referenced section.	Incorporates renumbering in the model code.	
	903.2.6.1	Renumbering of referenced section.	Incorporates renumbering in the model code.	
	903.2.7	Remove existing amendment.	Addressed in the model code.	
	903.2.9.3	Remove existing amendment.	Addressed in the model code.	
	903.2.11.1.3	New section.	This is an existing amendment, currently in the IFC. The amendment is proposed for inclusion into the IBC for consistency with the IFC.	
	903.3.1.2	New section.	Undoes a change that was made to the 2021 IFC and IBC (FS117-18), returning the language in the section to the 2018 text, and aligns the code with the scoping provisions of NFPA 13R. The 2021 change limits the applicability of NFPA 13R systems for podium buildings, triggering a requirement for a full NFPA 13 system in more buildings. If adopted by SBCC, the 2021 IFC/IBC requirement would decrease affordability for residential construction, since a full NFPA 13 system would be required in shorter buildings.	
WAC 51-50-0907	907.2.3	Modify existing amendment.	Incorporates changes in the model code.	
	907.2.11.1 907.2.11.2	New sections. Modify the model code by adding a reference to Section 420.14.	See Rationale for Section 420.14.	
	907.5.2.1.2	Modify existing amendment.	Incorporates changes in the model code.	
WAC 51-50-0908		Delete Section 908.	Editorial modification to match WAC format.	
WAC 51-50-0911	911.1.2	New section. Incorporates more restrictive requirement for the fire command center separation (two-hour instead of one-hour separation).	This is an existing amendment in the IFC, which is proposed as an amendment in the IBC. The proposal provides consistency between IFC and IBC.	
WAC 51-50-0913	913.2.1	Renumbering of referenced section.	Incorporates renumbering in NFPA 20.	

WAC 51-50-0915	915.1 915.2	Remove existing amendments in Sections 915.1, 915.1.2, 915.1.3, 915.1.4, 915.1.5, 915.1.6, 915.2, 915.2.1, 915.2.2.	The model code addresses all existing amendments.	
WAC 51-50-0918	918.1	New WAC section. The modification to the model code revises the terms used in this section.	Intended to align the terminology being used by industry. This is also proposed code change F32-21 in Group A proposed changes to the 2024 IFC and 2024 IBC. It was approved as submitted by the committee.	
WAC 51-50-1003	1003.7	New WAC section. Adds Exception 2 to the model code and refers to Section 3116 for escalators used as a means of egress for fixed transit and passenger rail systems.	See rationale for Section 3116.	
	Table 1004.5	Add fixed guideway transit and passenger rail systems; platform, and concourse/ lobby.	See rationale for Section 3116.	
WAC 51-50-1005	1005.1	New section adds Exception 2 to the model code; refers to Section 3116 for escalators used as means of egress for fixed transit/passenger rail systems.	See rationale for Section 3116.	
WAC 51-50-1006	1006.2.1	Modify existing amendment. Adds Exception 4 to the model code and refers to Section 3116 for common path of travel for fixed transit and passenger rail system stations.	See rationale for Section 3116.	
	1006.2.1.1	New section. Adds an exception to the model code addressing the number of required exits for fixed transit and passenger rail systems.	See rationale for Section 3116.	
	1006.2.2.4	Remove existing amendment.	This section is no longer in the model code; there is no need for this amendment.	
	1006.2.2.7	Remove existing amendment.	The existing amendment and the new model code section 1006.2.2.4 have the same regulatory effect. New Section 1006.2.2.4 refers to NFPA 70, Articles 110.26 and 110.33 for electrical equipment rated 1,000 volts or less, and more than 1,000 volts. The existing amendment in 1006.2.2.7 provides the same requirements, but it is more specific, using language from NFPA 70, Articles 110.26 and 110.33.	
	1006.3.3	Renumbered to 1006.3.4; renumbering of referenced sections.	Incorporates renumbering in the model code.	
	Tables 1006.3.3(1) 1006.3.3(2)	Remove existing amendment.	Addressed in the model code.	
WAC 51-50-1009	1009.1	Renumber referenced section.	Incorporates renumbering in the model code.	
	1009.2.1	Remove existing amendment.	Addressed in the model code.	
	1009.8.1	Modify existing amendment.	Modified to incorporate the model code new language.	
WAC 51-50-10100	1010.1.9.4	Delete existing amendment.	Relocated to Section 1010.2.4 to align with the model code renumbering. (See rationale for Section 1010.2.4.)	
	1010.1.9.7	Delete existing amendment.	Relocated to Section 1010.2.14 to align with the model code renumbering. (See rationale for 1010.2.14.)	
	1010.1.10	Remove existing amendment.	Addressed in the model code Section 1010.2.9.	
	1010.1.10.3	Remove existing amendment.	Addressed in the new model code section 1010.2.9.2.	
	1010.2.4	Relocate existing amendment, as modified. The existing amendment is currently in Section 1010.1.9.4.	The existing amendment is formally removed. The model code is adopted without Item 2; Item 2 is replaced with the existing amendment currently in Section 1010.1.9.4, Item 7. The existing amendment in Section 1010.1.9.4, Item 8, is not needed because it is addressed by the model code.	
	1010.2.14	Relocate existing amendment, as modified. The existing amendment is currently in Section 1010.1.9.7.	The existing amendment is formally removed. The model code is adopted as amended, with the existing amendments in Item 6 and Exception 1. The existing amendments in the first paragraph and Items 1, 2, and 4 are no longer needed; addressed by the model code.	
	1010.3.4.1	Adds a new section to the model code addressing fixed transit and passenger rail systems.	See rationale for Section 3116.	
WAC 51-50-1011	1011.7	Remove existing amendment.	Addressed in the model code.	
	1011.1	New section. The amendment adds an exception to the model code addressing lofts.	See rationale for Section 420.14.	
	1011.17	Remove existing amendment.	Existing amendment is replaced with Section 1011.1. (See Rationale for Section 420.14.)	
WAC 51-50-1012	1012.1	Modify existing amendment.	Incorporates model code changes.	

WAC 51-50-1014	1014.2	New section in WAC; new section in the model code.	The code does not currently regulate the lateral distance that a handrail can be located away from the edge of the walking	
	1014.2.1	New section in WAC; renumbers Section 1014.2 to 1014.2.1.	surface of a stair, ramp or aisle. If a designer wanted to locate a handrail 24 inches away from the walking surface, there is currently no code provision to prevent that. Most building	
	1014.2.2	New section in WAC; new section in the model code.	officials would not permit that design, but there is no code to support them. The data provided as part of this proposal helps	
	1014.8	New section in WAC; modifies the model code.	justifications for limiting the lateral distance of the handrail to be not more than six inches from the edge of the walking surface. This code change is needed to ensure handrails will be located close enough to the edge of the walking surface to provide adequate support for pedestrians with limited reach capabilities.	
	1014.3	New section in WAC; new section in model code.	The same as 1014.2.2; research.	
WAC 51-50-1015	1015.2	New section. The new amendment requires guards to be provided at the perimeter of the occupied portions of an occupied roof, and provides two Exceptions (Exception 9 and exception 10). In addition, the new amendment provides a reference to Section 420.14 pertaining to lofts.	There are many cases where the design of an occupied roof includes only a portion of the entire roof area. Occupied portions of roofs are typically elevated 18 inches or less above the adjacent unoccupied areas of the roof; therefore, no guard is currently required for these areas. This issue is regularly debated due to the lack of regulatory authority to require the guard in this design scenario. This proposal will eliminate or drastically reduce the potential for kids or adults who may be inebriated, from falling over the edge of a roof even if the occupied portion of the roof is some distance away from the roof edge. (See also Rationale for Section 420.14.)	
	1015.3	New section. Adds Exception 4 to the model code pertaining to lofts.	See Rationale for Section 420.1.4.	
WAC 51-50-10170	Table 1017.2	New amendment adds Section 3116 to footnote (a).	See rationale for Section 3116.	
WAC 51-50-1019	1019.3	Modify existing amendment.	Incorporates new model code language.	
WAC 51-50-1020	1020.4	Remove existing amendment.	Addressed in the model code.	
	1020.5	Modify existing amendment.	Incorporates new model code language.	
WAC 51-50-1023	1023.2 1023.5	Remove existing amendment.	The existing amendment is not needed; it is addressed in the model code.	
	1023.12	Section 21023.11 is renumbered to 1023.12.	Incorporates changes in the model code.	
WAC 51-50-1024	1024.9	Remove existing amendment and reserve WAC 51-50-1024.	The existing amendment is not needed; it is addressed in the model code.	
WAC 51-50-1030	1030.6	Remove existing amendment and reserve WAC 51-50-1030.	The existing amendment is not needed; it is addressed in the model code.	
WAC 51-50-1101	1101.2.1	Remove existing amendment.	The requirement for clear width of accessible routes in 2009 American National Standards Institute (ANSI) A117.1 and 2010 ADA Standards is 36 inches. The existing WA amendment requires 44 inches, and it is [a] more stringent requirement for exterior routes of travel. In 2017 ANSI, the language in Section 403.5 is modified; the requirements are 3 inches for interior accessible routes and 48 inches for exterio accessible route. IBC TAG recommended remove [removal] the existing amendment.	
	1101.2.2	Modify existing amendment.	The modifications incorporate changes in 2017 ANSI. In addition, the existing exception is proposed for remove [removal]. ANSI Section 404.2 is titled "Manual doors, doorways and manual gates" and does not address automatic doors. There is no need for the existing exception because Section 404.3 is specific to automatic doors.	
	1101.2.3	Remove existing amendment.	Addressed in 2017 ANSI.	
	1101.2.4	Modify referenced section from 606.7 to 603.6.	Keep the existing amendment as modified to provide the correct reference.	
WAC 51-50-1105	1105.1.8 Table 1105.1.8	Remove existing amendment and reserve WAC 51-50-1105.	The existing amendment is not needed; it is addressed in the model code.	
WAC 51-50-1106	1106.7	Renumber Section 1106.6 to 1106.7.	Incorporates renumbering in the model code.	

WAC 51-50-1107	1107	Add new Section 1107 Motor-vehicle related facilities. The existing Section 1107 Dwelling units and sleeping units is renumbered to 1108; Sections 1107.5, 1107.5.1, 1107.5.1.1, 1107.5.1.2, 1107.5.1.3, 1107.5.2, 1107.5.2.1, 1107.5.4, 1107.6.2.2.1, 1107.6.2.3 are removed.	Incorporates new model code section.	
	1107.2	New section. Modifies the model code exception by deleting R-2 and R-4 occupancy groups.	The exception conflicts with an existing amendment in IBC Section 429.5, which requires at least one accessible parking space to be served by EV charging infrastructure if the infrastructure is required (including for R-2 occupancies). R-4 occupancy group is deleted because it is not adopted in Washington.	
	1107.2.1	Add a reference to IBC Section 429.4.	Provisions for EV charging are located in Section 429; Section 429.4 addresses accessible EV charging spaces.	
	1107.5	Remove existing amendments in Sections 1107.5, 1107.5.1, 1107.5.1.1, 1107.5.1.2, 1107.5.1.3, 1107.5.2, 1107.5.2.1, 1107.5.4.	The existing amendments are not needed; they are addressed in the model code.	
	1107.6.2.2.1	Relocated/renumbered to 1108.6.2.2.1.		
	1107.6.2.3	Remove existing amendment.	Addressed in the model code.	
WAC 51-50-1108	1108	New WAC section with existing title. Dwelling units and sleeping units are currently in Section 1107.	WAC renumbering to align with renumbering in the model code.	
	1108.6.2.2.1	Renumber existing amendment currently in Section 1107.6.2.2.1; renumber a section reference in the text.	The renumbering is necessary due to renumbering in the model code.	
WAC 51-50-1109 1109.2		Remove existing amendments and reserve WAC 51-50-1109 (1109.2.4, 1109.2.4.1, 1109.2.4.2, 1109.4.2.2.1 [1109.2.4.2.1], 1109.2.4.2.1, 1109.2.4.3, 1109.2.4.3, 1109.2.4.4, 1109.2.4.5, 1109.2.5.2, 1109.2.5.3, 1109.2.5.1, 1109.2.5.3, 1109.2.5.2, 1109.2.5.2, 1109.2.5.2, 1109.2.5.2, 1109.2.5.2, 1109.2.5.2, 1109.2.5.2, 1109.2	Section 1109.2 is renumbered to 1110.2 to align with model code renumbering.	
	1109.5.1		Section 1109.5.1 is renumbered to 1110.5.1 to align with model code renumbering.	
WAC 51-50-1110	1110.2 1110.5.1	New WAC section with existing title. "Other features and facilities" is currently in WAC 51-50-1109. Sections 1110.2 and 1110.5.1 are renumbered (currently 1109.2 and 1109.5.1). Modify the existing amendment in Item 3.	The renumbering is necessary due to renumbering in the model code.  The current amendment and the proposed modification will ensure that the number of accessible toilet or bathing fixtures is not reduced when the required toilet and bathing facilities are designed and constructed as gender-neutral.	
WAC 51-50-1202	1202.2 1202.2.1	Section 1202.2 Attic spaces is renumbered to 1202.2.1 and retitled to Ventilated attics and rafter spaces.	Incorporates changes in the model code.	
	1202.7.1	Renumber section references.	Editorial corrections due to errors.	
	1202.7.1.1			
	1202.7.1.2			
	1202.7.2.2			
	1202.7.2.3			
	1202.7.3.1			
WAC 51-50-1204	1204.1	Remove existing amendments and reserve	The existing amendments are not needed; duplicate existing	
	1204.2.1	WAC 51-50-1204.	amendments in Section 1203.	
	1204.2.2			
	1204.2.3			
WAC 51-50-1206	1206.1	Remove existing amendment and reserve WAC 51-50-1206.	The existing amendment is not needed; it is addressed in the model code.	
WAC 51-50-1207	1207.4	Remove existing amendment and reserve WAC 51-50-1207.	The existing amendment is not needed; it is addressed in the model code.	
WAC 51-50-1208	1208.3	New section; adds requirements for dwelling unit size.	The code, as currently written, can be interpreted to allow a one-bedroom unit to be smaller than an efficiency dwelling	
	1208.4	New section; modifies the requirements for room area.	unit. This change makes it clear that a dwelling unit and efficiency dwelling unit are subject to the same size limitations. It also clarifies that sleeping units are subject to the	
	1208.5	New section; modifies the requirements for efficiency dwelling units.	same minimum size requirements as habitable rooms in dwelling units.	

## Washington State Register WSR 22-02-040

			I	
WAC 51-50-1209	1209.3.1	Remove existing amendments and reserve WAC 51-50-1209.	The existing amendments are relocated to WAC 51-50-1210.	
	1209.3.2			
	1210.3.1	Relocated from WAC 51-50-1209.		
	1210.3.2			
WAC 51-50-1402	1402.2	New WAC with new section.	Relocated from WAC 51-50-1403.	
WAC 51-50-1403	1403.2	Remove existing amendments and reserve WAC 51-50-1403.	Relocated to WAC 51-50-1402.	
WAC 51-50-1405		Delete Section 1405.	Editorial to match the WAC format.	
WAC 51-50-2900		Delete "Chapter 29 Plumbing systems" and reserve WAC 51-50-2900.	Editorial; assign WAC numbers to all sections instead of one WAC number for Chapter 29.	
WAC 51-50-2901		New WAC number.		
	2901.1	Modify the existing amendment.	The existing amendment was adopted in 2012 and it was consistent with the model code at that time. The model code was modified in 2015 and 2018, but the state amendment was never modified. This modification is for consistency with the new model code.	
	2901.3	Renumber section reference.	Incorporates renumbering in the model code Chapter 31.	
WAC 51-50-2902		New WAC number.		
	2902.1.4	Remove existing amendment.	No longer needed; the model code addresses (and expands) the state language in Section 2902.1.2.	
	2902.2	Modify existing amendment.	The existing amendment is modified to align with the model code language. Exception 4 was added in 2018 IBC but was never added to the existing state amendment. This modification corrects this oversight. Exception 7, as shown, is new in 2021 IBC and is added to the existing amendment.	
	2902.2.1	Remove existing amendment.	Addressed in the model code.	
	2902.3	Modify existing amendment.	The first paragraph is language from 2015 IBC; it was never updated to align with the 2018 IBC. The modification corrects this oversight. Exception 1 is also modified for consistency with the model code.	
	2902.3.3	Modify existing amendment.	Exception 1 is an existing amendment that matches the new Exception 2. The modification incorporates the model code language.	
	2902.6	New section; the text clarifies Section 2902.6 addressing small appliances is not adopted.	To eliminate confusion between Washington State Amendment 2902.5.1 and IBC Section 2902.6. IBC Section 2902.6 requires drinking fountains for occupant loads greater than 15. It relies on IBC Table 2902.1 for the scoping of the number of required drinking fountains.	
	2902.7	Renumber to 2902.8.	Incorporates section renumbering in the model code.	
	2902.8	Renumber to 2902.9.		
WAC 51-50-3004		Delete Section 3004.	Editorial to match the WAC format.	
WAC 51-50-3101	3101.1	Modify existing amendment.	Align with the model code formatting.	
WAC 51-50-3102	3102.3 3102.6.1.1	Remove existing amendments and reserve WAC 51-50-3102.	Existing amendments are addressed in the model code.	
WAC 51-50-3103	3103.1	Modify existing amendment.	Incorporates language from the model code (adds the phrase "special event and umbrella structures"). For clarity, the existing amendment is shown with strikeout and the modified version is underlined.	
WAC 51-50-3114	3114 3114.1	Remove existing amendments and reserve WAC 51-50-3114.	Section 3114 is relocated to WAC 51-50-3116 (new WAC number); Section 3114.1 is proposed for remove [removal].	
WAC 51-50-3116	3116 3116.1 3116.2	Section 3116 is relocated from WAC 51-50-3114; the code language currently in 3114 is given a section number (3116.1) and a title (Construction). New Section 3116.2 is proposed to summarize modifications to NFPA 130. The existing Section 3114.1 is removed.	Renumbering is necessary because new sections were added to the model code. NFPA 130 is modified to align with the most current version. The new proposal in Section 3116.2 is drawn from NFPA 130 amendments by the City of Bellevue and the City of Seattle for means of egress for light rail stations. The intent is to provide clarity for more consistent application of the IBC and NFPA 130 in the future as light rail service expands and extends into new jurisdictions. Confusion on how the codes correlate can result in schedule delay and additional work for the agency and the authority having jurisdiction. (See proposal # 21-GP1-66 for rationale.)	
WAC 51-50-3304	3304.2	Remove existing amendments and reserve WAC 51-50-3304.	Relocated to WAC 51-50-3314. (New WAC number.)	
WAC 51-50-3314	3314	New WAC number; Section 3304 Site	Reorganization and retitling is necessary due to the model code changes.	
	3314.1	work is renumbered to 3314 and retitled to "Fire watch during construction."	changes.	
WAC 51-50-3401			Editorial to match WAC format.	

WAC 51-50-3410		Delete Section 3410.	Editorial to match WAC format.
WAC 51-50-3411		Delete Section 3411.	Editorial to match WAC format.
WAC 51-50-3500	Chapter 35	Delete ANSI/APA PRG-320-18. Change NFPA 130-17 to NFPA 130-20.	No longer needed; addressed in the model code. Updated to the most current standard.
WAC 51-50-4700	Appendix D	Remove existing amendments, use WAC 51-50-4700 for proposed Appendix P.	The existing amendment is no longer needed; it is addressed in the model code.
WAC 51-50-4700	Appendix P	New appendix addressing construction and demolition material management. The appendix will be effective only if adopted by a local ordinance.	The optional appendix is intended to reduce the amount of construction and demolition waste that goes to a landfill after leaving a construction site. For jurisdictions where material management is a priority, this language helps to increase the amount of material that is salvaged for reuse or recycled [recycling]. In partnership with this proposed appendix are two forms, a Salvage Assessment and Waste Diversion Report. (See proposal # 21-GP1-116 for detailed rationale.)

Note: Those not listed on the table above remain as adopted in 2018 IBC.

Reasons Supporting Proposal: RCW 19.27.031, 19.27.074, and 19.27.540.

Statutory Authority for Adoption: RCW 19.27.031, 19.27.074, and 19.27.540.

Statute Being Implemented: RCW 19.27.031, 19.27.074, and 19.27.540.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: SBCC, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Stoyan Bumbalov, 1500 Jefferson Street S.E., Olympia, WA 98504, 360-407-9277; and Enforcement: Local jurisdictions having authority.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Stoyan Bumbalov, 1500 Jefferson Street S.E., Olympia, WA 98504, phone 360-407-9277, email sbcc@des.wa.gov.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules are adopting or incorporating by reference without material change federal statutes or regulations, Washington state statutes, rules of other Washington state agencies, shoreline master programs other than those programs governing shorelines of statewide significance, or, as referenced by Washington state law, national consensus codes that generally establish industry standards, if the material adopted or incorporated regulates the same subject matter and conduct as the adopting or incorporating rule; and rule content is explicitly and specifically dictated by statute.

The proposed rule does impose more-than-minor costs on businesses. There are costs imposed by the proposed rule, but the costs do not fall disproportionately on small businesses. The rule will not affect the distribution of impacted work, whether by small businesses or not, doing the work. The rule does not affect employment, reporting or record keeping.

Small Business Economic Impact Statement

**Description:** SBCC is filing a proposed rule to adopt the 2021 edition of the International Building Code (IBC), nonstructural provisions (chapter 51-50 WAC). Since 1985, SBCC has been responsible to update to new editions of the building code per RCW 19.27.074. IBC is

updated every three years by the ICC. The code development process conducted by the model code organization is open to all interest groups within the design and construction industry and from governmental organizations. See www.iccsafe.org for more information about the model code development process.

The administrative compliance requirements are under the authority of the local governments (RCW 19.27.050). Enforcement activities, including permit issuance, plan review/approval, and inspections occur at the local level. Requirements for construction documents submittal and other reporting mandates are determined by the local jurisdiction and are consistent with previously established policies. The proposed amendments to chapter 51-50 WAC include specific technical requirements for building construction to be consistent with national standards.

Professional Services: Washington has had a statewide building code in effect since 1974. The local enforcement authority having jurisdiction administers the codes through the building and/or fire departments. Administrative procedures for state building code compliance are established and will not be changed by the adoption of the 2021 building codes. Small businesses will employ the same types of professional services for the design and construction of buildings and systems to comply with the state building code. The proposed rule updates the state building code and does not require additional equipment, supplies, labor, or other services. Services needed to comply with the building code are existing within the construction industry as required by the local authority having jurisdiction.

**Exemptions:** There are 26 significant changes to the model code with economic impact. However, the model code changes are exempt under RCW 19.85.025(3) and 34.05.310(4)(c), and are not part of this report.

Section 429 related to electric vehicle charging infrastructure is a statutory mandate pursuant to HB 1287 (2021). This section is exempt under RCW 19.85.025(3) and 34.05.310 (4)(e), and is not part of this report.

Costs of Compliance for Businesses: SBCC is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of SBCC is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. An objective of statewide adoption is to minimize state amendments to the model codes. SBCC accepts statewide code amendment proposal from stakeholders to amend IBC to meet the legislative goals. The statewide code adoption process is defined in chapter 51-04 WAC and SBCC bylaws. All proposals must be submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact, and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance.

The cost of compliance incurred by Washington businesses includes training and educational materials. The new 2021 IBC, 2021 IBC Significant changes and 2021 IBC Study pack cost \$215 + tax, shipping, and handling. 2021 IBC is also available online at https://shop.iccsafe.org.

For the 2021 code adoption cycle, SBCC received 33 proposals. IBC TAG recommended approval of 28 proposals as submitted or as modified.

Nine proposals were identified by TAG as having a cost (increase or decrease) for compliance on businesses. SBCC recommended filing the proposed rule to allow input through the public hearing process.

1. Section 903.3.1.2 (21-GP1-021): Undoes a change that was made to the 2021 IFC and IBC (FS117-18), returning the language in the section to the 2018 text, and aligns the code with the scoping provisions of NFPA 13R. The 2021 change unnecessarily limits the applicability of NFPA 13R systems, particularly for podium buildings, triggering a requirement for a full NFPA 13 system in more buildings. If adopted by SBCC, the 2021 IFC/IBC requirement would decrease affordability for residential construction, since a full NFPA 13 system would be required in shorter buildings. The new proposal will decrease construction cost.

According to a November 2020 article on the National Fire Sprinkler Association website:

- $\bullet$  The National Multifamily Housing Council members estimate a NFPA 13 system costs "an average of \$1 to \$2 more per square foot than NFPA 13R."
- "NFPA Journal notes that installing an NFPA 13 system can cost four to six times more than an NFPA 13R system and include a four to six times greater construction turnaround time."
- 2. Section 202, new definition for high-rise building (21-GP1-036): This change will address a lack of clarity in the code where it is difficult to determine if an occupied roof is considered a floor. Adding an occupied roof with an occupant load of 50 or more to the definition removes ambiguity. This definition will place some buildings into the high-rise category, which will require additional life-safety systems to be installed that otherwise would not have been required. The proponent establishes that additional costs for these systems could be anywhere between \$100,000 to \$1,000,000 per project, depending on the size of the project.

Nevertheless, SBCC staff research determined that this cost will not be applicable to all projects. Determining what qualifies as a high-rise building is a fairly unique measurement of height that is not based on the definition of "building height." The critical measurement is from the lowest ground location where a fire department will be able to set its firefighting equipment to a floor level of occupied floors. The term "occupied floor" is not defined in IBC, and as it is stated in this proposal, the requirements for high-rise buildings are enforced differently throughout the state. Some jurisdictions are considering an occupied roof equivalent to an occupied floor; others do not include it into the height measurement. Therefore, SBCC staff considers this proposal clarifies the application of the code, and is needed for consistency with enforcement. There is no statewide direct cost associated with its adoption.

3. Sections IBC 903.2.1.3, Chapter 10 (various sections) and 3116 (21-GP1-66; 21-GP1-67): The code proposals are addressing fixed guideway and passenger rail systems. Proposal #21-GP1-67 is intended to correlate IBC/IFC requirements for fire protection to NFPA 130 requirements. The primary purpose is to clarify the requirements for fire protection at open stations. IBC Chapter 9 requires fire protection in Group A3 occupancies and levels from the Group A3 occupancy to the level of exit discharge. However, for open stations, NFPA 130 only requires fire protection in areas with combustible loading. The code and standard are in conflict, but pursuant to Chapter 1 of IBC, the code language prevails. Some jurisdictions have required fire protection at the platform level and at the plaza level while others have

- not. This code clarification would bring consistency across all jurisdictions and will result in **significant decrease** in building cost. For justification, the proponent uses an estimate for elevated station in design in North Seattle, which shows a **significant decrease** in building costs of \$225,348. Proposal # 21-GP1-66 is drawn from NFPA 130 amendments by the City of Bellevue and the City of Seattle for means of egress for light rail stations. The intent is to provide clarity for more consistent application of IBC and NFPA 130 in the future as light rail service expands and extends into new jurisdictions. The proposal clarifies conflicts between IBC and NFPA 130; there is no associated cost with the adoption.
- 4. Sections 420.14 (new), 202, 505.1, 907.2.11.1, 907.2.11.2, 1011.14, 1015.2, 1015.3 (21-GP1-74): Introduces "lofts" into IBC as WA amendment. The concept is taken from Section R327 of IRC, as amended. Lofts have been proposed and used in several jurisdictions for many years in order to put "extra" space to use. However, there is nothing in the code that regulates them. This proposal is intended to provide a reasonable balance between flexibility and safety for these types of spaces. The proponent determined that there will be an increase in construction costs including the cost for one extra smoke alarm and guards for each loft. The additional costs will depend on the size and number of lofts in the dwelling unit. Smoke alarms cost less than \$20 each. Based on the price of deck guard systems, the materials for a premanufactured loft guard system will cost between \$15 and \$40 a linear foot. Installation costs will be in addition to the material costs. Nevertheless, SBCC staff research determined that there will be no additional cost for businesses if this proposal is adopted. Provisions for lofts are already adopted in IRC (Section R327) and used, on occasions, for projects constructed under IBC. Adopting the same or similar requirements in IBC will provide clarity and consistency for enforcement. The provisions originate from the IRC Appendix Q (Tiny Houses), which contains some provisions for "recreational park vehicles" governed by ANSI A119.5. The adoption of Appendix Q was intended to reduce the cost and allow construction of tiny homes, not to create more restrictive (and expensive) requirements. This includes the provisions for lofts, which lessens the incentive to misrepresent an intended use and enables building departments to regulate the health and safety of loft spaces based on their actual intended use, ensuring health and safety with minimum loft dimensions, requirements for access and egress, and proper emergency escape and rescue openings. SBCC staff considers this proposal is needed to provide more affordable housing, to clarify the application of the code, and for consistency with enforcement. There is no direct cost associated with its adoption if applied to the cost of construction as a whole, and not to the lofts only.
- 5. Section 706.3 and 703.4 (21-GP1-80): Type III and IV buildings are required to have fire walls made of approved noncombustible materials. Limiting the makeup of fire walls to noncombustible materials can result in problems for taller III and IV buildings. According to the proponent, this change would do away with differential settlement issues making damage to the noncombustible fire wall due to shrinkage of the wood bearing walls less of a factor. The costs associated with this change, as presented by the proponent, would decrease building costs depending on material prices.
- 6. Section 510.2 (21-GP1-82): This proposal eliminates the Group A 299 occupant load limitation to allow overall provisions found in IBC to dictate the design of the Group A building or building with a

Group A occupancy constructed over the horizontal assembly. If accepted, this code change will reduce the cost of construction as buildings above a podium building will have a broader choice of types of construction. The cost will depend on the size/type of projects.

- 7. Sections 1208.3 (new), 1208.4, 1208.5 (21-GP1-84): Standardizes the minimum size requirements for all dwelling units. The code, as currently written, can be interpreted to allow a one-bedroom unit to be smaller than an efficiency dwelling unit (EDU). The proposal makes it clear that a dwelling unit and efficiency dwelling unit are subject to the same size limitations. It also clarifies that sleeping units are subject to the same minimum size requirements as habitable rooms in dwelling units. This proposal, if adopted, would decrease the cost of developing a one-bedroom unit because it will not be treated differently from an EDU with respect to size. Since the cost depends on the type, size, and location of the project, no cost values are provided by the proponent.
- 8. Sections 602.4.2.2.2, 602.4.2.2.4 (21-GP1-87): The proposed increase of allowable unprotected area on the ceiling from 20 percent to 100 percent is consistent with the recently completed research conducted at RISE. These fire tests demonstrated that the proposed amounts of unprotected areas on the ceiling and walls, as a function of floor area, can be safely implemented while still achieving the performance objectives specified by ICC Tall Wood Building Ad-Hoc Committee in the development of the tall building mass timber provisions in the 2021 I-codes. The proposal, if adopted, would decrease the cost of construction because it reduces the required amount of noncombustible protection on walls and ceilings in Type IV-B Construction. Since the cost depends on the type, size, and location of the project, no
- cost values are provided by the proponent.

  9. Sections 503.1.4.2, 1015.2 (21-GP1-145): The new amendment requires guards to be provided at the perimeter of the occupied portions of an occupied roof and provides two exceptions (Exception 9 and Exception 10). In addition, the new amendment provides a reference to Section 420.14 pertaining to lofts. Pursuant to the proponent, there are many cases where the design of an occupied roof includes only a portion of the entire roof area. The occupied portions of the roof are typically elevated 18 inches or less above the adjacent unoccupied areas of the roof; therefore, no quard is currently required for these areas. This issue is regularly debated due to the lack of regulatory authority to require the guard in this design scenario. The proposed code change eliminates or drastically reduces the potential for kids and adults who may be inebriated, from falling over the edge of a roof. There will be an increase in cost because more quards will need to be installed for occupied roofs where only a portion of the roof area is occupied. The proponent estimates the cost to be approximately \$1/SF of the occupied area of the roof.

Loss of Sales or Revenue: The proposed rules make the state code for building construction consistent with national standards. Businesses with new products or updated test or design standards are recognized in the updated building code. The update will result in some cost outlay for some small businesses for specific building projects, for a transition period. Other small businesses would see an increase in revenue. The amendments to the building codes affect over 25,000 small businesses in the state, where construction activity occurs. The primary intent of the amendments is to improve the safety features in buildings and provide consistency and fairness across the state, for a predictable business environment. The amendments should result in enhanced safety and value in buildings.

Cost of Compliance for Small Businesses: (Determine whether the proposed rule will have a disproportionate cost impact on small businesses, compare the cost of compliance for small business with the cost of compliance for the 10 percent of businesses that are the largest businesses.) Most businesses affected by the updates to the building codes are small businesses; over 95 percent of those listed in the construction and related industries have under 50 employees. The costs per employee are comparable between the largest businesses and the majority of small businesses. The cost to comply with the updated codes is not a disproportionate impact on small businesses. Where SBCC found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost. The proposed rules include a definition of small business and provide exceptions for compliance with the updated rule.

Small Businesses Involved in the Development of the Rule: For IBC, SBCC conducted 23 open public meetings of the building code technical advisory group, available via telephone conference bridge and over the internet, and allowed comment on every item on every agenda. SBCC appointed over 100 representatives of all segments of the business and construction community to serve on the technical advisory groups.

List of Industries: Below is a list of industries required to comply with the building code:

2017 Industry NAICS Code	NAICS Code Title	Minor Cost Estimate	1% of Avg Annual Payroll	0.3% of Avg Annual Gross Business Income
236115	New Single-Family Housing Construction (except For-Sale Builders)	\$2,508.04	\$1,919.03 2020 Dataset pulled from USBLS	\$2,508.04 2020 Dataset pulled from DOR
236116	New Multifamily Housing Construction (except For-Sale Builders)	\$32,067.43	\$17,160.94 2020 Dataset pulled from USBLS	\$32,067.43 2020 Dataset pulled from DOR
236118	Residential Remodelers	\$1,457.74	\$1,457.74 2020 Dataset pulled from USBLS	\$901.20 2020 Dataset pulled from DOR
236210	Industrial Building Construction	\$59,169.45	\$59,169.45 2020 Dataset pulled from ESD	\$53,925.71 2020 Dataset pulled from DOR
236220	Commercial and Institutional Building Construction	\$41,552.81	\$18,126.81 2020 Dataset pulled from ESD	\$41,552.81 2020 Dataset pulled from DOR
238110	Poured Concrete Foundation and Structure Contractors	\$3,442.28	\$5,027.07 2019 Dataset pulled from CBP	\$3,442.28 2020 Dataset pulled from DOR
238120	Structural Steel and Precast Concrete Contractors	\$15,401.97	\$20,212.19 2019 Dataset pulled from CBP	\$15,401.97 2020 Dataset pulled from DOR
238130	Framing Contractors	\$2,234.30	\$3,139.71 2019 Dataset pulled from CBP	\$2,234.30 2020 Dataset pulled from DOR
238140	Masonry Contractors	\$1,900.60	\$3,582.13 2019 Dataset pulled from CBP	\$1,900.60 2020 Dataset pulled from DOR
238150	Glass and Glazing Contractors	\$5,255.36	\$9,574.95 2019 Dataset pulled from CBP	\$5,255.36 2020 Dataset pulled from DOR
238160	Roofing Contractors	\$3,589.99	\$5,007.86 2019 Dataset pulled from CBP	\$3,589.99 2020 Dataset pulled from DOR
238170	Siding Contractors	\$1,905.61	\$2,485.86 2019 Dataset pulled from CBP	\$1,905.61 2020 Dataset pulled from DOR
238190	Other Foundation; Structure; and Building Exterior Contractors	\$4,622.07	\$4,141.38 2019 Dataset pulled from CBP	\$4,622.07 2020 Dataset pulled from DOR
238210	Electrical Contractors and Other Wiring Installation Contractors	\$5,941.60	\$9,599.33 2019 Dataset pulled from CBP	\$5,941.60 2020 Dataset pulled from DOR
238220	Plumbing; Heating; and Air- Conditioning Contractors	\$5,353.76	\$11,047.00 2019 Dataset pulled from CBP	\$5,353.76 2020 Dataset pulled from DOR
238290	Other Building Equipment Contractors	\$4,335.21	\$16,142.07 2019 Dataset pulled from CBP	\$4,335.21 2020 Dataset pulled from DOR

2017 Industry NAICS Code	NAICS Code Title	Minor Cost Estimate	1% of Avg Annual Payroll	0.3% of Avg Annual Gross Business Income
238310	Drywall and Insulation Contractors	\$3,725.66	\$9,461.67 2019 Dataset pulled from CBP	\$3,725.66 2020 Dataset pulled from DOR
238990	All Other Specialty Trade Contractors	\$3,585.74	\$3,677.28 2019 Dataset pulled from CBP	\$3,585.74 2020 Dataset pulled from DOR
321213	Engineered Wood Member (except Truss) Manufacturing	\$44,480.76	\$44,480.76 2020 Dataset pulled from ESD	\$41,772.84 2020 Dataset pulled from DOR
321214	Truss Manufacturing	\$28,620.35	\$23,341.04 2020 Dataset pulled from ESD	\$28,620.35 2020 Dataset pulled from DOR
321219	Reconstituted Wood Product Manufacturing	\$30,305.17	\$10,139.90 2020 Dataset pulled from USBLS	\$30,305.17 2020 Dataset pulled from DOR
321911	Wood Window and Door Manufacturing	\$45,151.12	\$18,811.08 2020 Dataset pulled from ESD	\$45,151.12 2020 Dataset pulled from DOR
321992	Prefabricated Wood Building Manufacturing	\$5,391.09	\$5,391.09 2020 Dataset pulled from ESD	\$4,888.53 2020 Dataset pulled from DOR
327310	Cement Manufacturing	\$50,878.29	\$44,741.20 2020 Dataset pulled from ESD	\$50,878.29 2020 Dataset pulled from DOR
327320	Ready-Mix Concrete Manufacturing	\$64,317.30	\$46,126.21 2020 Dataset pulled from ESD	\$64,317.30 2020 Dataset pulled from DOR
327331	Concrete Block and Brick Manufacturing	\$15,030.60	\$15,030.60 2020 Dataset pulled from ESD	\$10,431.02 2020 Dataset pulled from DOR
332312	Fabricated Structural Metal Manufacturing	\$22,220.31	\$16,337.10 2020 Dataset pulled from USBLS	\$22,220.31 2020 Dataset pulled from DOR
332321	Metal Window and Door Manufacturing	\$26,369.28	\$14,505.40 2020 Dataset pulled from ESD	\$26,369.28 2020 Dataset pulled from DOR
332322	Sheet Metal Work Manufacturing	\$23,337.23	\$23,337.23 2020 Dataset pulled from ESD	\$16,556.52 2020 Dataset pulled from DOR
335121	Residential Electric Lighting Fixture Manufacturing	\$2,011.37	\$2,011.37 2020 Dataset pulled from USBLS	\$1,502.01 2020 Dataset pulled from DOR
335122	Commercial; Industrial; and Institutional Electric Lighting Fixture Manufacturing	\$6,357.34	Redacted 2020 Dataset pulled from USBLS	\$6,357.34 2020 Dataset pulled from DOR
335129	Other Lighting Equipment Manufacturing	\$6,281.32	\$6,281.32 2020 Dataset pulled from ESD	\$2,494.40 2020 Dataset pulled from DOR
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$24,486.53	\$16,589.10 2020 Dataset pulled from ESD	\$24,486.53 2020 Dataset pulled from DOR
541310	Architectural Services	\$9,221.65	\$9,221.65 2020 Dataset pulled from ESD	\$3,738.99 2020 Dataset pulled from DOR
541330	Engineering Services	\$14,801.92	\$14,801.92 2020 Dataset pulled from USBLS	\$7,177.43 2020 Dataset pulled from DOR
541350	Building Inspection Services	\$1,868.52	\$1,868.52 2020 Dataset pulled from ESD	\$475.93 2020 Dataset pulled from DOR
561621	Security Systems Services (except Locksmiths)	\$9,759.28	\$9,759.28 2020 Dataset pulled from ESD	\$6,117.04 2020 Dataset pulled from DOR

Estimate of the Number of Jobs That Will Be Created or Lost: The adoption of the latest code edition is not expected to significantly impact the number of jobs in the construction industry. These rules are likely to be job neutral overall; i.e., they will not result in any job gains or losses. The scheduled effective date of the new edition is July 1, 2021. Building permits issued prior to that date will be vested under the 2018 building code. Permits issued for projects under the 2021 code edition will generally start with the 2024 construction season.

A copy of the statement may be obtained by contacting Stoyan Bumbalov, 1500 Jefferson Street S.E., Olympia, WA 98504, phone 360-407-9277, email stoyan.bumbalov@des.wa.gov.

> December 30, 2021 Andrew S. Klein Council Chair

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-003 International Building Code. The ((2018)) 2021 edition of the International Building Code, including Appendix E, published by the International Code Council is hereby adopted by reference with the exceptions noted in this chapter of the Washington Administrative Code.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-003, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-003, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-003, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097,  $\S$  51-50-003, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-003, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-003, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 04-18-033, § 51-50-003, filed 8/25/04, effective 9/25/04. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-003, filed 12/17/03, effective 7/1/04.]

AMENDATORY SECTION (Amending WSR 13-04-067, filed 2/1/13, effective 7/1/13)

WAC 51-50-005 International Building Code requirements for barrier-free accessibility. Chapter 11 and other International Building Code requirements for barrier-free access, including ICC ((A117.1-2009)) A117.1-2017 and Appendix E, are adopted pursuant to chapters 70.92 and 19.27 RCW.

Pursuant to RCW 19.27.040, Chapter 11 and requirements affecting barrier-free access shall not be amended by local governments.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-005, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-005, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-005, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 04-18-033, § 51-50-005, filed 8/25/04, effective 9/25/04. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108,  $\S$  51-50-005, filed 12/17/03, effective 7/1/04.]

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

WAC 51-50-007 Exceptions. The exceptions and amendments to the International Building Code contained in the provisions of chapter 19.27 RCW shall apply in case of conflict with any of the provisions of these rules.

The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under chapter 70.114A RCW or chapter 37, Laws of 1998 (SB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW 70.54.110.

Codes referenced which are not adopted through RCW 19.27.031 or chapter 19.27A RCW shall not apply unless specifically adopted by the authority having jurisdiction. The ((2015)) 2021 International Existing Building Code is included in the adoption of this code in Section 101.4.7 and amended in WAC 51-50-480000.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-007, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-007, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097,  $\S$  51-50-007, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-007, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, \$51-50-007, filed 12/17/03, effective 7/1/04.]

AMENDATORY SECTION (Amending WSR 21-11-066, filed 5/14/21, effective 6/14/21)

WAC 51-50-008 Implementation. The International Building Code adopted under chapter 51-50 WAC shall become effective in all counties and cities of this state on ((February 1, 2021)) July 1, 2023.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 21-11-066, § 51-50-008, filed 5/14/21, effective 6/14/21; WSR 20-01-090, § 51-50-008, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-008, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-008, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097,  $\S$  51-50-008, filed 1/20/10,

effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-008, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-008, filed 12/17/03, effective 7/1/04.

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

WAC 51-50-009 ((Recyclable materials, compost, and solid waste storage.)) Reserved. ((For the purposes of this section, the following definitions shall apply:

compost means biodegradable solid wastes that are separated for composting such as food waste, food soiled paper and yard waste.

RECYCLED MATERIALS means those solid wastes that are separated for recycling or reuse, such as papers, metals and glass.

All local jurisdictions shall require that space be provided for the storage of recycled materials, compost, and solid waste for all new buildings.

EXCEPTION: Group R-3 and Group U Occupancies.

The storage area shall be designed to meet the needs of the occupancy, efficiency of pickup, and shall be available to occupants and haulers.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, \$51-50-009, filed 1/19/16, effective 7/1/16; WSR 04-01-108, \$51-50-009, filed 12/17/03, effective 7/1/04.]

<u>AMENDATORY SECTION</u> (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

## WAC 51-50-0110 ((Section inspections.)) Reserved.

- ((110.3.5 Type IV-A, IV-B, and IV-C connection protection inspection. In buildings of Type IV-A, IV-B, and IV-C construction, where connection fire-resistance ratings are provided by wood cover calculated to meet the requirements of Section 2304.10.1, inspection of the wood cover shall be made after the cover is installed, but before any other coverings or finishes are installed.
- 110.3.6 Lath, gypsum board and gypsum panel product inspection. Lath, gypsum board and gypsum panel product inspections shall be made after lathing, gypsum board and gypsum panel products, interior and exterior, are in place, but before any plastering is applied or gypsum board and gypsum panel product joints and fasteners are taped and finished.

  EXCEPTION: Gypsum board and gypsum panel products that are not part of a fire-resistance-rated assembly or a shear assembly.
- 110.3.7 Weather-exposed balcony and walking surface waterproofing. Where balconies or other elevated walking surfaces are exposed to water from direct or blowing rain, snow or irrigation, and the structural framing is protected by an impervious moisture barrier, all ele-

ments of the impervious moisture barrier system shall not be concealed until inspected and approved.

Where special inspections are provided in accordance with Section 1705.1.1, Item 3.

- 110.3.8 Fire- and smoke-resistant penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and approved.
- 110.3.9 Energy efficiency inspections. Inspections shall be made to determine compliance with Chapter 13 and shall include, but not be limited to, inspections for: Envelope insulation R- and U-values, fenestration U-value, duct system R-value, and HVAC and water-heating equipment efficiency.
- 110.3.10 Other inspections. In addition to the inspections specified in Sections 110.3.1 through 110.3.8, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the department of building safety.
- 110.3.11 Special inspections. For special inspections, see Chapter 17.
- 110.3.12 Final inspection. The final inspection shall be made after all work required by the building permit is completed.
- 110.3.12.1 Flood hazard documentation. If located in a flood hazard area, documentation of the elevation of the lowest floor as required in Section 1612.4 shall be submitted to the building official prior to the final inspection.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, § 51-50-0110, filed 10/9/20, effective 11/9/20.]

AMENDATORY SECTION (Amending WSR 21-12-103, filed 6/2/21, effective 7/3/21)

WAC 51-50-0200 Chapter 2—Definitions.

SECTION 202-DEFINITIONS.

ADULT FAMILY HOME. A dwelling, licensed by the state of Washington department of social and health services, in which a person or persons provide personal care, special care, room and board to more than one but not more than six adults who are not related by blood or marriage to the person or persons providing the services. An existing adult family home may provide services to up to eight adults upon approval from the department of social and health services in accordance with RCW 70.128.066.

ASSISTED LIVING FACILITY. A home or other institution, licensed by the state of Washington, providing housing, basic services and assuming general responsibility for the safety and well-being of residents under chapters 18.20 RCW and 388-78A WAC. These facilities may provide care to residents with symptoms consistent with dementia requiring additional security measures.

AUTOMATIC LOAD MANAGEMENT SYSTEM (ALMS). A system designed to manage electrical load across one or more EV Ready parking spaces.

BOTTLE FILLING STATION. A plumbing fixture connected to the potable water distribution system and sanitary drainage system that is designed and intended for filling personal use drinking water bottles or containers not less than 10 inches (254 mm) in height. Such fixtures can be separate from or integral to a drinking fountain and can incorporate a water filter and a cooling system for chilling the drinking water.

CHILD CARE. The care of children during any period of a 24-hour day.

CHILD CARE, FAMILY HOME. A child care facility, licensed by Washington state, located in the dwelling of the person or persons under whose direct care and supervision the child is placed, for the care of twelve or fewer children, including children who reside at the home.

CLIMATE ZONE. A geographical region that has been assigned climatic criteria as specified in the Washington State Energy Code.

CLUSTER. Clusters are multiple portable school classrooms separated by less than the requirements of the building code for separate buildings.

COMPOST. Biodegradable solid wastes that are separated for composting such as food waste, food soiled paper, and yard waste.

EFFICIENCY DWELLING UNIT. A dwelling unit where all permanent provisions for living, sleeping, eating and cooking are contained in a single room.

ELECTRIC VEHICLE (EV) CAPABLE PARKING SPACE. A parking space provided with a conduit, electrical panel and load capacity to support future installation of EV charging equipment.

ELECTRIC VEHICLE (EV) CHARGER. Off-board charging equipment used to charge electric vehicles.

ELECTRIC VEHICLE (EV) CHARGING STATION. EV Ready parking space with installed EV charger.

ELECTRIC VEHICLE (EV) READY PARKING SPACE. A parking space provided with a receptacle outlet allowing charging of electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors, and the electric vehicle connectors, attachment plugs, personnel protection system, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

HIGH-RISE BUILDING. A building with an occupied floor, located more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access. For the purposes of this definition, an occupied roof with an occupant load of 50 or more is considered to be an occupied floor.

HOSPICE CARE CENTER. A building or portion thereof used on a 24-hour basis for the provision of hospice services to terminally ill inpatients.

((mass timber. Structural elements of Type IV construction primarily of solid, built-up, panelized or engineered wood products that meet minimum cross section dimensions of Type IV construction.))

LOFT. A space on an intermediate level or levels between the floor and ceiling of a Group R occupancy dwelling or sleeping unit, open on one or more sides to the room in which the loft is located, and in accordance with Section 420.13.

NIGHTCLUB. An A-2 Occupancy ((use under the 2006 International Building Code)) in which the aggregate area of concentrated use of unfixed chairs and standing space that is specifically designated and primarily used for dancing or viewing performers exceeds three hundred fifty square feet, excluding adjacent lobby areas. "Nightclub" does not include theaters with fixed seating, banquet halls, or lodge halls.

((noncombustible protection (for mass timber). Noncombustible material, in accordance with Section 703.5, designed to increase the fire-resistance rating and delay the combustion of mass timber.))

PORTABLE SCHOOL CLASSROOM. A prefabricated structure consisting of one or more rooms with direct exterior egress from the classroom(s). The structure is transportable in one or more sections and is designed to be used as an educational space with or without a permanent foundation. The structure shall be capable of being demounted and relocated to other locations as needs arise.

RECYCLED MATERIALS. Those solid wastes that are separated for recycling or reuse, such as papers, metals, and glass.

RESIDENTIAL SLEEPING SUITES. A unit that provides multiple rooms or spaces for up to five residents, includes provisions for sleeping and can include provisions for living, eating, sanitation, and kitchen facilities.

SMALL BUSINESS. Any business entity (including a sole proprietorship, corporation, partnership or other legal entity) which is owned and operated independently from all other businesses, which has the purpose of making a profit, and which has fifty or fewer employees.

STAGED EVACUATION. A method of emergency response, that engages building components and trained staff to provide occupant safety during an emergency. Emergency response involves moving or holding certain occupants at temporary locations for a brief period of time before evacuating the building. This response is used by ambulatory surgery facility and assisted living facilities to protect the health and safety of fragile occupants and residents.

((wall, load-bearing. Any wall meeting either of the following classifications:

- 1. Any metal or wood stud wall that supports more than 100 pounds per linear foot (1459 N/m) of vertical load in addition to its own weight.
- 2. Any masonry or concrete, or mass timber wall that supports more than 200 pounds per linear foot (2919 N/m) of vertical load in addition to its own weight.)

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 21-12-103, § 51-50-0200, filed 6/2/21, effective 7/3/21; WSR 20-01-090, § 51-50-0200, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-0200, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0200, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-089, § 51-50-0200, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0200, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0200, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-0200, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and

chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0200, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-0200, filed 12/5/05, effective 7/1/06. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0200, filed 12/17/03, effective 7/1/04.]

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

## WAC 51-50-0306 Section 306—Factory Group F.

**306.2 Moderate-hazard factory industrial, Group F-1.** Factory industrial uses that are not classified as factory industrial F-2 low hazard shall be classified as F-1 moderate hazard and shall include, but not be limited to, the following:

Aircraft (manufacturing, not to include repair)

Appliances

Athletic equipment

Automobiles and other motor vehicles

Bakeries

Beverages: Over 16 percent alcohol content

Bicycles

Boats

Brooms or brushes

Business machines

Cameras and photo equipment

Canvas or similar fabric

Carpets and rugs (includes cleaning)

Clothing

Construction and agricultural machinery

Disinfectants

Dry cleaning and dyeing

Electric generation plants

Electronics

Energy storage systems (ESS) in dedicated use buildings

Engines (including rebuilding)

Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities more than 2,500 square feet  $(232m^2)$  in area

Furniture

Hemp products

Jute products

Laundries

Leather products

Machinery

Marijuana processing

Metals

Millwork (sash and door)

Motion pictures and television filming (without spectators)

Musical instruments

Optical goods

Paper mills or products

Photographic film

Plastic products

Printing or publishing
Recreational vehicles
Refuse incineration
Shoes
Soaps and detergents
Textiles
Tobacco
Trailers
Upholstering
Water/sewer treatment facilities
Wood; distillation
Woodworking (cabinet)

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, \$51-50-0306, filed 1/19/16, effective 7/1/16.]

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

WAC 51-50-0308 Section 308—Institutional Group I.

((308.1.1 Definitions. The following terms are defined in Chapter 2:

#### 24-HOUR CARE.

Custodial Care.

Detoxification Facilities.

Foster Care Facilities.

#### HOSPICE CARE CENTER.

Hospitals and psychiatric hospitals.

Incapable of self-preservation.

Medical care.

Nursing homes.))

308.2 Institutional Group I-1. Institutional Group I-1 occupancy shall include buildings, structures or portions thereof for more than sixteen persons, excluding staff, who reside on a twenty-four-hour basis in a supervised environment and receive custodial care. Buildings of Group I-1 shall be classified as one of the occupancy conditions specified in Section 308.2.1 or 308.2.2 and shall comply with Section 420. This group shall include, but not be limited to, the following: Alcohol and drug centers;

Assisted living facilities as licensed by Washington state under chapter 388-78A WAC;

Congregate care facilities;

Group homes;

Halfway houses;

Residential board and care facilities;

Social rehabilitation facilities;

Residential treatment facilities as licensed by Washington state under chapter 246-337 WAC.

**308.2.5 Adult family homes.** Adult family homes licensed by Washington state shall be classified as Group R-3 or shall comply with the *International Residential Code*.

308.2.6 Licensed care facilities. Assisted living facilities as licensed by Washington state under chapter 388-78A WAC shall be classified as Group I-1, Condition 2.

Residential treatment facilities licensed by Washington state under chapter 246-337 WAC shall be classified as one or more occupancy types in accordance with chapter 246-337 WAC.

308.3 Institutional Group I-2. Institutional Group I-2 occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation. This group shall include, but not be limited to, the following:

Foster care facilities.

Detoxification facilities.

Hospice care centers.

Hospitals.

Nursing homes.

Psychiatric hospitals.

308.5.5 Family home child care. Family home child care licensed by Washington state for the care of twelve or fewer children shall be classified as Group R-3 or shall comply with the International Residential Code.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, § 51-50-0308, filed 10/9/20, effective 11/9/20; WSR 20-01-090, § 51-50-0308, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0308, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0308, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097,  $\S$  51-50-0308, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0308, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, \$51-50-0308, filed 12/17/03, effective 7/1/04.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

#### WAC 51-50-0309 Section 309—Mercantile Group M.

- 309.1 Mercantile Group M. Mercantile Group M occupancy includes, among others, the use of a building or structure or a portion thereof for the display and sale of merchandise, and involves stocks of goods, wares or merchandise incidental to such purposes and ((accessible to)) where the public has access. Mercantile occupancies shall include, but not be limited to, the following:
  - Art galleries 3,000 square feet or less;
  - Department stores;
  - Drug stores;
  - Markets;
- · Greenhouses for display and sale of plants that provide public access;
  - Motor fuel-dispensing facilities;
  - Retail or wholesale stores;

• Sales rooms.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0309, filed 12/12/19, effective 7/1/20.

AMENDATORY SECTION (Amending WSR 21-06-035, filed 2/23/21, effective 3/26/21)

## WAC 51-50-0310 Section 310—Residential Group R.

310.3 Residential Group R-2. Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses

((Boarding houses (nontransient) with more than 16 occupants)) Congregate living facilities (nontransient) with more than 16 occupants

Boarding houses (nontransient)

Convents

Dormitories

Fraternities and sororities

Monasteries

Hotels (nontransient)

Live/work units

((Monasteries))

Motels (nontransient)

Vacation timeshare properties

- 310.4.3 Adult family homes, family home child care. Adult family homes and family home child care facilities that are within a single-family home are permitted to comply with the International Residential Code.
- 310.4.4 Foster family care homes. Foster family care homes licensed by Washington state are permitted to comply with the International Residential Code, as an accessory use to a dwelling, for six or fewer children including those of the resident family.
- 310.5 Residential Group R-4. R-4 classification is not adopted. Any reference in this code to R-4 does not apply.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 21-06-035, § 51-50-0310, filed 2/23/21, effective 3/26/21; WSR 16-03-064, § 51-50-0310, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067,  $\S$ 51-50-0310, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097,  $\S$  51-50-0310, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-0310, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0310, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108,  $\S$  51-50-0310, filed 12/17/03, effective 7/1/04.1

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

## WAC 51-50-0403 Section 403—High-rise buildings.

((403.3.2 Water supply to required fire pumps. In all buildings that are more than 420 feet (128 m) in building height, and buildings of Type IV-A and IV-B that are more than 120 feet in building height, required fire pumps shall be supplied by connections to not fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

EXCEPTION:

Two connections to the same main shall be permitted provided that the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through not fewer than one of the connections.))

- **403.5.4 Smokeproof enclosures**. Every required *interior exit stairway* serving floors more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access shall be a *smokeproof enclosure* in accordance with Sections 909.20 and ((1023.11)) 1023.12. Where interior exit stairways and ramps are pressurized in accordance with Section 909.20.5, the smoke control pressurization system shall comply with the requirements specified in Section 909.6.3.
- **403.4.8.3 Standby power loads.** The following are classified as standby power loads:
- 1. Ventilation and automatic fire detection equipment for smoke-proof enclosures.
  - 2. Elevators.
- 3. Where elevators are provided in a high-rise building for accessible means of egress, fire service access or occupant self-evacuation, the standby power system shall also comply with Sections 1009.4, 3007 or 3008, as applicable.
- 4. Sump pumps required by ASME A17.1 serving pit drains at the bottom of elevator hoistways of fire service access or occupant evacuation elevators.
- ((405.7.2 Smokeproof enclosure. Every required stairway serving floor levels more than 30 feet (9144 mm) below the finished floor of its level of exit discharge shall comply with the requirements for a smokeproof enclosure as provided in Sections 909.20 and 1023.11. Where interior exit stairways and ramps are pressurized in accordance with Section 909.20.5, the smoke control pressurization system shall comply with the requirements specified in Section 909.6.3.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0403, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-0403, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0403, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0403, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0403, filed 1/20/10, effective 7/1/10.]

#### NEW SECTION

### WAC 51-50-0405 Section 405—Underground buildings.

405.7.2 Smokeproof enclosure. Every required stairway serving floor levels more than 30 feet (9144 mm) below the finished floor of its level of exit discharge shall comply with the requirements for a smokeproof enclosure as provided in Sections 909.20 and 1023.12. Where interior exit stairways and ramps are pressurized in accordance with Section 909.20.5, the smoke control pressurization system shall comply with the requirements specified in Section 909.6.3.

[]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

#### WAC 51-50-0407 ((<del>Section 407 Group I-2.</del>)) Reserved.

((407.4.4.3 Access to corridor. Movement from habitable rooms shall not require passage through more than three doors and 100 feet (30,480 mm) distance of travel within the suite.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0407, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0407, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, \$51-50-0407, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097,  $\S$  51-50-0407, filed  $1/\overline{20}/10$ , effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0407, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-0407, filed 12/2/04, effective 7/1/05.]

AMENDATORY SECTION (Amending WSR 21-06-035, filed 2/23/21, effective 3/26/21)

#### WAC 51-50-0412 Section 412—Aircraft-related occupancies.

- 412.2.2.1 Stairways. Stairways in airport traffic control towers shall be in accordance with Section 1011. Exit stairways shall be smokeproof enclosures complying with one of the alternatives provided in Section 909.20. Where interior exit stairways and ramps are pressurized in accordance with Section 909.20.5, the smoke control pressurization system shall comply with the requirements specified in Section 909.6.3.
- [F] 412.7.3 Means of egress. The means of egress from heliports, helipads and helistops shall comply with the provisions of Chapter 10. Landing areas located on buildings or structures shall have two or more ((means of egress)) exits or access to exits. For landing areas less than 60 feet in length or less than 2,000 square feet (186  $m^2$ ) in area, the second means of egress is permitted to be a fire escape, alternating tread device or ladder leading to the floor below. On Group

I-2 roofs with heliports or helipads and helistops, rooftop structures enclosing exit stair enclosures or elevator shafts shall be enclosed with fire barriers and opening protectives that match the rating of their respective shaft enclosures below.

```
[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 21-06-035, §
51-50-0412, filed 2/23/21, effective 3/26/21; WSR 20-01-090, §
51-50-0412, filed 12/12/19, effective 7/1/20; WSR 16-03-064, §
51-50-0412, filed 1/19/16, effective 7/1/16.1
```

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

## WAC 51-50-0420 Section 420—Groups I-1, R-1, R-2, R-3.

420.2 Separation walls. Walls separating dwelling units in the same building, walls separating sleeping units in the same building and walls separating dwelling or sleeping units from other occupancies contiguous to them in the same building shall be constructed as fire partitions in accordance with Section 708. Buildings containing multiple sleeping units with common use or central kitchens shall not be classified as a single dwelling.

**EXCEPTIONS:** 

- 1. Where sleeping units include private bathrooms, walls between bedrooms and the associated private bathrooms are not required to be constructed as fire partitions.
- 2. Where sleeping units are constructed as suites, walls between bedrooms within the sleeping unit and the walls between the bedrooms
- 2. Where steeping units are constructed as stitles, walls between bedrooms within the steeping unit and the wans between the bedroom and associated living spaces are not required to be constructed as fire partitions.

  3. In Groups R-3 facilities, walls within the dwelling units or sleeping units are not required to be constructed as fire partitions.

  4. Groups R-2 and I-1 arranged into residential sleeping suites containing a maximum of five sleeping residents. Separation between bedrooms, living areas and toilet rooms within these residential sleeping suites shall not be required.

  5. Group I-1 sleeping areas arranged so that a dedicated staff member has direct observation over a multiple resident sleeping room,
- without intervening full height walls, shall not be required to provide fire partitions within the resident sleeping area.
- ((420.11)) 420.12 Adult family homes. This section shall apply to all newly constructed adult family homes and all existing single-family homes being converted to adult family homes. This section shall not apply to those adult family homes licensed by the state of Washington department of social and health services prior to July 1, 2001.
- ((420.11.1)) 420.12.1 Sleeping room classification. Each sleeping room in an adult family home shall be classified as one of the following:
- 1. Type S Where the means of egress contains stairs, elevators or platform lifts.
- 2. Type NS1 Where one means of egress is at grade level or a ramp constructed in accordance with Section ((420.7.8)) 1012 is provi-
- 3. Type NS2 Where two means of egress are at grade level or ramps constructed in accordance with Section ((420.7.8)) are pro-
- ((420.11.2)) 420.12.2 Types of locking devices and door activation. All bedrooms and bathroom doors shall be openable from the outside when locked.

Every closet door shall be readily openable from the inside. Operable parts of door handles, pulls, latches, locks and other devices installed in adult family homes shall be operable with one hand and shall not require tight grasping, pinching, or twisting of

the wrist. Pocket doors shall have graspable hardware available when in the closed or open position.

- The force required to activate operable parts shall be 5.0 pounds (22.2 N) maximum. Required exit door(s) shall have no additional locking devices. Required exit door hardware shall unlock inside and outside mechanisms when exiting the building allowing reentry into the adult family home without the use of a key, tool or special knowledge.
- ((420.11.3)) 420.12.3 Smoke and carbon monoxide alarm requirements. Alarms shall be installed in such a manner so that the detection device warning is audible from all areas of the dwelling upon activation of a single alarm.
- ((420.11.4)) 420.12.4 Escape windows and doors. Every sleeping room shall be provided with emergency escape and rescue windows as required by Section 1030. No alternatives to the sill height such as steps, raised platforms or other devices placed by the openings will be approved as meeting this requirement.
- ((420.11.5)) 420.12.5 Grab bar general requirements. Where facilities are designated for use by adult family home clients, grab bars for water closets, bathtubs and shower stalls shall be installed according to ICC A117.1.
- ((420.11.6)) 420.12.6 Shower stalls. Where provided to meet the requirements for bathing facilities, the minimum size of shower stalls for an adult family home shall be 30 inches deep by 48 inches long.
- ((420.12)) 420.13 Licensed care cooking facilities. In Group I-1, Condition 2 assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities licensed under chapter 246-337 WAC, rooms or spaces that contain a cooking facility with domestic cooking appliances shall be permitted to be open to the corridor where all of the following criteria are met:
- 1. The number of care recipients housed in the smoke compartment is not greater than 30.
- 2. The number of care recipients served by the cooking facility is not greater than 30.
- 3. Only one cooking facility area is permitted in a smoke compartment.
- 4. The types of domestic cooking appliances permitted are limited to ovens, cooktops, ranges, warmers and microwaves.
- 5. The corridor is a clearly identified space delineated by construction or floor pattern, material or color.
- 6. The space containing the domestic cooking facility shall be arranged so as not to obstruct access to the required exit.
- 7. A domestic cooking hood installed and constructed in accordance with Section 505 of the International Mechanical Code is provided over the cooktop or range.
- 8. The domestic cooking hood provided over the cooktop or range shall be equipped with an automatic fire-extinguishing system of a type recognized for protection of domestic cooking equipment. Preengineered automatic extinguishing systems shall be tested in accordance with UL 300A and listed and labeled for the intended application. The system shall be installed in accordance with this code, its listing and the manufacturer's instructions.
- 9. A manual actuation device for the hood suppression system shall be installed in accordance with Sections ((904.12.1 and 904.12.2)) 904.13.1 and 904.13.2.

- 10. An interlock device shall be provided such that upon activation of the hood suppression system, the power or fuel supply to the cooktop or range will be turned off.
- 11. A shut-off for the fuel and electrical power supply to the cooking equipment shall be provided in a location that is accessible only to staff.
- 12. A timer shall be provided that automatically deactivates the cooking appliances within a period of not more than 120 minutes.
- 13. A portable fire extinguisher shall be installed in accordance with Section 906 of the International Fire Code.
- 420.14 Lofts. Where provided in Group R occupancies, lofts shall comply with this code as modified by Sections 420.14.1 through 420.14.5. Lofts constructed in compliance with this section shall be considered a portion of the story below. Such lofts shall not contribute to either the building area or number of stories as regulated by Section 503.1. The loft floor area shall be included in determining the fire area.

EXCEPTION:

<u>Lofts</u> need not comply with Section 420.13 where they meet any of the following conditions: 1. The *loft* has a maximum depth of less than 3 feet (914 mm).

2. The *loft* has a floor area of less than 35 square feet (3.3 m<sup>2</sup>). 3. The *loft* is not provided with a permanent means of egress.

- 420.14.1 Loft limitations. Lofts shall comply with the following conditions:
- 1. The *loft* floor area shall be less than 70 square feet (6.5  $m^2$ ).
- 2. The loft ceiling height shall not exceed 7 feet (2134 mm) for more than one-half of the loft floor area.
- The provisions of Sections 420.14.2 through 420.14.5 shall not apply to lofts that do not comply with Items 1 and 2.
- 420.14.2 Loft ceiling height. The ceiling height below a loft shall not be less than 7 feet (2134 mm). The ceiling height above the finished floor of the loft shall not be less than 3 feet (914 mm). Portions of the *loft* with a sloped ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not contribute to the *loft* floor area.
- **420.14.3 Loft area.** The aggregate area of all *lofts* and *mezzanines* within a room shall comply with Section 505.2.1.
- The area of a single *loft* shall not be greater than two-thirds of the area of the room in which it is located, provided that no other *lofts* or EXCEPTION: mezzanines are open to the room in which the loft is located.
- 420.14.4 Permanent egress for lofts. Where a permanent means of egress is provided for lofts, the means of egress shall comply with Chapter 10 as modified by Section 420.14.4.1.
- 420.14.4.1 Ceiling height at loft means of egress. A minimum ceiling height of 3 feet shall be provided for the entire width of the means of egress from the loft.
- 420.14.5 Smoke alarms. Single- or multiple-station smoke alarms shall be installed in all *lofts* in accordance with Section 907.2.11.1 or 907.2.11.2.
- [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, §  $\bar{5}1-50-042\bar{0}$ , filed  $1\bar{2}/12/19$ , effective 7/1/20; WSR 16-03-064, § 51-50-0420, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, §

51-50-0420, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0420, filed 1/20/10, effective 7/1/10.

AMENDATORY SECTION (Amending WSR 21-16-063, filed 7/29/21, effective 8/29/21)

WAC 51-50-0429 Section 429—Electric vehicle charging infrastructure.

((429.1 Scope. The provisions of this section shall apply to the construction of new buildings.

**EXCEPTIONS** 

1. Occupancies classified as Group R-3 or Group U.

2. Group A, Group E, or Group M occupancies, except where employee parking spaces are designated. The provisions of Section 429 shall apply only to those designated employee parking spaces.

- 429.2 Required electric vehicle charging infrastructure. Where parking is provided, ten percent of parking spaces shall be provided with electric vehicle charging infrastructure in compliance with Sections 429.3, 429.4 and 429.5. When the calculation of percent served results in a fractional parking space, the applicant shall round up to the next whole number.
- 429.3 Electrical room(s). Electrical room(s) serving buildings with on-site parking spaces must be sized to accommodate the potential for electrical equipment and distribution required to serve a minimum of 20 percent of the total parking spaces with 208/240 V 40-amp, circuit or equivalent electric vehicle charging infrastructure.
- **429.4 Electric vehicle charging infrastructure.** Electric vehicle charging infrastructure shall meet the following requirements:
- 1. A minimum number of 208/240 V 40-amp, circuit or equivalent electric vehicle charging stations required to serve the parking spaces specified in Section 429.2. The electric vehicle charging stations shall be located to serve spaces designated for parking and charging electric vehicles.
- 2. Additional service capacity, space for future meters, panel capacity or space for additional panels, and raceways for future installation of electric vehicle charging stations. The service capacity and raceway size shall be designed to accommodate the future installation of the number of 208/240 V 40-amp, circuit or equivalent electric vehicle charging stations specified in Section 429.2. The raceway shall terminate at spaces designated for parking and charging electric vehicles in the future.

Where designated electric vehicle charging locations serve exterior on-grade parking spaces that are located more than 4 feet from a building, raceways shall be extended below grade to a pull box in the vicinity of the designated future electric vehicle charging locations or stub above grade in the vicinity of the designated future electric vehicle charging locations, protected from vehicles by a curb or other device.

**EXCEPTION:** 

In lieu of surface-mounted raceway between the electrical panel and the designated electric vehicle charging locations, it is permitted to provide permanent markings indicating the pathway for future raceway, and one-inch diameter capped sleeves through each wall and floor assembly that are penetrated along that route. This pathway and the locations of capped sleeves shall also be indicated on the electrical plans. Raceway shall be installed for any portion of the pathway located below slabs, below grade, or within floor, wall or roof assemblies.

Load management infrastructure may be used to adjust the size and capacity of the required building electric service equipment and cir-

cuits on the customer facilities, as well as electric utility owned infrastructure, as allowed by applicable local and national electric codes.

- 429.5 Electric vehicle charging infrastructure for accessible parking spaces. When electric vehicle charging infrastructure is required, ten percent of accessible parking space, rounded to the next whole number, shall be provided with electric vehicle charging infrastructure. The electric vehicle charging infrastructure may also serve adjacent parking spaces not designated as accessible parking. A maximum of ten percent rounded to the next whole number, of the accessible parking spaces are allowed to be included in the total number of electric vehicle parking spaces required under Section 429.2.))
- 429.1 General. The provisions of this section shall apply to the construction of new buildings and accessory structures, including parking lots and parking garages.

Electric vehicle supply equipment (EVSE) shall be installed in accordance with applicable requirements of chapter 19.28 RCW and the National Electrical Code, Article 625.

EXCEPTION:

Electric vehicle charging infrastructure is not required if any of the following conditions are met:

There is no public utility or commercial power supply.
 Dwelling units without garages or other on-site parking.

429.2 Electric vehicle (EV) charging infrastructure. Buildings and accessory structures shall be provided with EV charging stations, EV-Ready parking spaces, and EV-capable parking spaces in accordance with Table 429.2. Calculations shall be rounded up to the nearest whole number. Where a building contains more than one occupancy, the electric vehicle charging infrastructure percentages of Table 429.2 shall be applied to the number of spaces required for each occupancy.

EXCEPTIONS:

- 1. Except for Group A, Group E, and Group M occupancies, on-site parking with less than 10 parking spaces shall not be required to comply with Section 429.2.

- 2.1. The provisions of Section 429.2 shall apply only to designated employee parking spaces.

  2.2. One of each 200 parking spaces or fraction thereof shall be EV Ready. One of each 200 parking spaces or fraction thereof shall be an EV Charging Station.

Table 429.2 Electric Vehicle Charging Infrastructure

Occupancy	Number of EV Charging Stations	Number of EV-Ready Parking Spaces	Number of EV-Capable Parking Spaces
Group A, B, E, F, H, I, M, and S occupancies	10% of total parking spaces	10% of total parking spaces	10% of total parking spaces
Group R occupancies			
Buildings that do not contain more than two dwelling units	Not required	One for each dwelling unit	Not required
Dwelling units with private garages	Not required	One for each dwelling unit	Not required
All other Group R occupancies	10% of total parking spaces	25% of total parking spaces	10% of total parking spaces

429.2.1 EV charging stations and EV-Ready parking spaces. A minimum of 40-ampere dedicated 208/240-volt branch circuit shall be installed for each EV Ready parking space and each EV Charging Station. The branch circuits shall terminate at a receptacle outlet or EV charger in close proximity to the proposed location of the EV Ready parking space or the EV Charging Station.

- 429.2.2 EV-Capable parking spaces. A listed raceway capable of accommodating a minimum of 40-ampere dedicated 208/240-volt branch circuit shall be installed for each EV-Capable parking space. The raceway shall terminate into a cabinet, box or other enclosure in close proximity to the proposed location of the EV-Capable parking space. Raceways and related components that are planned to be installed underground, and in enclosed, inaccessible or concealed areas and spaces, shall be installed at the time of original construction.
- 429.3 Electrical room(s) and equipment. Electrical room(s) and/or dedicated electrical equipment shall be sized to accommodate the requirements of Section 429.

The electrical service and the electrical system, including any on-site distribution transformer(s), shall have sufficient capacity to simultaneously charge all EVs at all required EV Charging Stations, EV Ready parking spaces, and EV-Capable parking spaces at a minimum of 40-amperes each.

EXCEPTION:

Automatic Load Management System (ALMS) may be used to adjust the maximum electrical capacity required for the EV-Ready and EV-Capable parking spaces. The ALMS must be designed to allocate charging capacity among multiple future EV Charging Stations at a minimum of 16 amperes per EV charger.

429.4 Electric vehicle charging infrastructure for accessible parking spaces. Ten percent of the accessible parking spaces, rounded to the next whole number, shall be EV Charging Stations. Additional ten percent of the accessible parking spaces, rounded to the next whole number, shall be EV Ready.

The electric vehicle charging infrastructure may also serve adjacent parking spaces not designated as accessible parking. A maximum of ten percent of the accessible parking spaces, rounded to the next whole number, are allowed to be included in the total number of electric vehicle parking spaces required under Section 429.3.

[Statutory Authority: RCW 19.27.077, 19.27.031 and 19.27.074. WSR 21-16-063, § 51-50-0429, filed 7/29/21, effective 8/29/21.]

#### NEW SECTION

WAC 51-50-0430 Section 430—Recycled materials.

**430 Recyclable materials, compost, and solid waste storage.** Space shall be provided for the storage of recycled materials, compost, and solid waste for all new buildings.

EXCEPTION: Group R-3 and Group U Occupancies.

The storage area shall be designed to meet the needs of the occupancy, efficiency of pickup, and be available to occupants and haulers.

[]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-0503 Section 503—General building height and area limitations.

((503.1.4 Occupied roofs. A roof level or portion thereof shall be permitted to be used as an occupied roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the occupied roofs shall not be included in the building area as regulated by Section 506.

**EXCEPTIONS:** 

1. The occupancy located on an occupied roof shall not be limited to the occupancies allowed on the story immediately below the roof where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and occupant notification in accordance with Sections 907.5.2.1 and 907.5.2.3 is provided in the area of the occupied roof. Emergency voice/alarm communication system notification in accordance with Section 907.5.2.2 shall also be provided in the area of the occupied roof where such system is required elsewhere in the building.

2. Assembly occupancies shall be permitted on roofs of open parking spaces of Type I or Type II construction, in accordance with the exception to Section 903.2.1.6.))

503.1.4.1 Enclosure of occupied roof areas. Elements or structures enclosing the occupied roof areas shall not extend more than 48 inches (1220 mm) above the surface of the occupied roof.

EXCEPTIONS:

1. Penthouses constructed in accordance with Section 1511.2 and towers, domes, spires, and cupolas constructed in accordance with Section 1511.5.
2. High rise buildings.

503.1.4.2 Guards. Occupied roofs shall have quards in accordance with Section 1015.2.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0503, filed 12/12/19, effective 7/1/20; WSR 16-03-064, \$ 51-50-0503, filed 1/19/16, effective 7/1/16.]

AMENDATORY SECTION (Amending WSR 21-06-035, filed 2/23/21, effective 3/26/21)

WAC 51-50-0504 Section 504—Building height and number of stories.

Table 504.3 Allowable Building Height in Feet Above Grade Plane<sup>a</sup>

	Type of Construction													
Occupancy Classification	See	Type I		Type II		Type III			Тур	Type V				
	Footnotes	A	В	A	В	A	В	A	В	C	HT	A	В	
A, B, E, F, M, S,	NS <sup>b</sup>	UL	160	65	55	65	55	65	65	65	65	50	40	
U	S	UL	180	85	75	85	75	270	180	85	85	70	60	
H-1, H-2, H-3, H-5	NS <sup>c,d</sup>	UL	160	65	55	65	55	120	90	65	65	50	40	
	S													
H-4	NS <sup>c,d</sup>	UL	160	65	55	65	55	65	65	65	65	50	40	
	S	UL	180	85	75	85	75	140	100	85	85	70	60	
I-1 Condition 1, I-3	NS <sup>d,e</sup>	UL	160	65	55	65	55	65	65	65	65	50	40	
	S	UL	180	85	75	85	75	180	120	85	85	70	60	
I-1 Condition 2, I-2	NS <sup>d,e,f</sup>	UL	160	65	55	65	55	65	65	65	65	50	40	
	Si	UL	180	85										

Occupancy Classification	Type of Construction												
	See Footnotes	Type I		Type II		Type III			Тур	Type V			
		A	В	A	В	A	В	A	В	C	HT	A	В
I-4	NS <sup>d,g</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	180	120	85	85	70	60
R <sup>h</sup>	NS <sup>d</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S13D	60	60	60	60	60	60	60	60	60	60	50	40
	S13R	60	60	60	60	60	60	60	60	60	60	60	60
	S	UL	180	85	75	85	75	270	180	85	85	70	60

For SI: 1 foot = 304.8 mm. UL = Unlimited; NS = Buildings not equipped throughout with an automatic sprinkler system; S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

- <sup>a</sup> See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
- b See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
- c New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
- d The NS value is only for use in evaluation of existing building height in accordance with the International Existing Building Code.
- e New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies Condition 1, see Exception 1 of Section 903.2.6.
- f New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section 1103.5 of the International Fire Code.
- g For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- h New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.
- I-1, Condition 2 Assisted living facilities licensed in accordance with chapter 388-78A WAC and residential treatment facilities as licensed by Washington state under chapter 246-337 WAC shall be permitted to use the allowable height above grade plane for Group R-2 occupancies.

Table 504.4 Allowable Number of Stories Above Grade Plane<sup>a,b</sup>

	Type of Construction													
Occupancy Classification	See	Tyl	pe I	Тур	e II	Тур	e III		Тур		Тур	oe V		
Classification	Footnotes	A	В	A	В	A	В	A	В	C	HT	A	В	
A-1	NS	UL	5	3	2	3	2	3	3	3	3	2	1	
	S	UL	6	4	3	4	3	9	6	4	4	3	2	
A-2	NS	UL	11	3	2	3	2	3	3	3	3	2	1	
	S	UL	12	4	3	4	3	18	12	6	4	3	2	
A-3	NS	UL	11	3	2	3	2	3	3	3	3	2	1	
	S	UL	12	4	3	4	3	18	12	6	4	3	2	
A-4	NS	UL	11	3	2	3	2	3	3	3	3	2	1	
	S	UL	12	4	3	4	3	18	12	6	4	3	2	
A-5	NS	UL	UL	UL	UL	UL	UL	1	1	1	UL	UL	UL	
	S	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	
В	NS	UL	11	5	3	5	3	5	5	5	5	3	2	
	S	UL	12	6	4	6	4	18	12	9	6	4	3	
Е	NS	UL	5	3	2	3	2	3	3	3	3	1	1	
	S	UL	6	4	3	4	3	9	6	4	4	2	2	
F-1	NS	UL	11	4	2	3	2	3	3	3	4	2	1	
	S	UL	12	5	3	4	3	10	7	5	5	3	2	
F-2	NS	UL	11	5	3	4	3	5	5	5	5	3	2	
	S	UL	12	6	4	5	4	12	8	6	6	4	3	
H-1	NS <sup>c,d</sup>	1	1	1	1	1	1	NP	NP	NP	1	1	NP	
	S	1						1	1	1				
H-2	NS <sup>c,d</sup>	UL	3	2	1	2	1	1	1	1	2	1	1	
	S	1						2	2	2				

					Typ	oe of Co	onstruc	tion					
Occupancy Classification	See Type I		oe I	Тур	e II	Тур	e III		Тур	e IV		Тур	oe V
Classification	Footnotes	A	В	A	В	A	В	A	В	С	HT	A	В
H-3	NS <sup>c,d</sup>	UL	6	4	2	4	2	3	3	3	4	2	1
	S							4	4	4			
H-4	NS <sup>c,d</sup>	UL	7	5	3	5	3	5	5	5	5	3	2
	S	UL	8	6	4	6	4	8	7	6	6	4	3
H-5	NS <sup>c,d</sup>	4	4	3	3	3	3	2	2	2	3	3	2
	S							3	3	3			
I-1 Condition 1	NS <sup>d,e</sup>	UL	9	4	3	4	3	4	4	4	4	3	2
	S	UL	10	5	4	5	4	10	7	5	5	4	3
I-1 Condition 2	NS <sup>d,e</sup>	UL	9	4	3	4	3	3	3	3	4	3	2
	Si	UL	10	5				10	6	4			
I-2	NS <sup>d,f</sup>	UL	4	2	1	1	NP	NP	NP	NP	1	1	NP
	S	UL	5	3	-			7	5	1	-		
I-3	NS <sup>d,e</sup>	UL	4	2	1	2	1	2	2	2	2	2	1
	S	UL	5	3	2	3	2	7	5	3	3	3	2
I-4	NS <sup>d,g</sup>	UL	5	3	2	3	2	3	3	3	3	1	1
	S	UL	6	4	3	4	3	9	6	4	4	2	2
M	NS	UL	11	4	2	4	2	4	4	4	4	3	1
	S	UL	12	5	3	5	3	12	8	6	5	4	2
R-1h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	2
	S13R	4	4									4	3
	S	UL	12	5	5	5	5	18	12	8	5	4	3
R-2h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	2
	S13R	4	4	4								4	3
	S	UL	12	5	5	5	5	18	12	8	5	4	3
R-3h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	3
	S13D	4	4									3	3
	S13R	4	4									4	4
	S	UL	12	5	5	5	5	18	12	5	5	4	4
R-4h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	2
	S13D	4	4									3	2
	S13R	4	4									4	3
	S	UL	12	5	5	5	5	18	12	5	5	4	3
S-1	NS	UL	11	4	2	3	2	4	4	4	4	3	1
	S	UL	12	5	3	4	3	10	7	5	5	4	2
S-2	NS	UL	11	5	3	4	3	4	4	4	4	4	2
	S	UL	12	6	4	5	4	12	8	5	5	5	3
U	NS	UL	5	4	2	3	2	4	4	4	4	2	1
	S	UL	6	5	3	4	3	9	6	5	5	3	2

UL = Unlimited; NP = Not permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

a See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.

b See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.

c New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.

- d The NS value is only for use in evaluation of existing building height in accordance with the International Existing Building Code.
- New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies Condition 1, see Exception 1 of Section 903.2.6.
   New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section
- 1103.5 of the *International Fire Code*.
- g For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- h New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.
- i Group I-1, Condition 2 Assisted living facilities licensed in accordance with chapter 388-78A WAC and residential treatment facilities as licensed by Washington state under chapter 246-337 WAC shall be permitted to use the allowable number of stories for Group R-2 occupancies.

504.4.1 Stair enclosure pressurization increase. For Group R-1, R-2, and I-1 Condition 2 Assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities as licensed by Washington state under chapter 246-337 WAC located in buildings of Type VA construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the maximum number of stories permitted in Section 504.4 may be increased by one provided the interior exit stairways and ramps are pressurized in accordance with Sections 909.6.3 and 909.20. Legally required standby power shall be provided in accordance with Sections 909.11 and ((2702.2.16))2702.17 for buildings constructed in compliance with this section and be connected to stairway shaft pressurization equipment, elevators and lifts used for accessible means of egress (if provided), elevator hoistway pressurization equipment (if provided) and other life safety equipment as determined by the authority having jurisdiction. For the purposes of this section, legally required standby power shall comply with 2020 NEC Section 701.12, options (C), (D), (E), (F), (H) or (J) or subsequent revised section number(s).

```
[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 21-06-035, §
51-50-0504, filed 2/23/21, effective 3/26/21; WSR 20-21-021, §
51-50-0504, filed 10/9/20, effective 11/9/20; WSR 20-01-090, §
51-50-0504, filed 12/12/19, effective 7/1/20; WSR 19-02-038, §
51-50-0504, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0504, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW
19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, §
51-50-0504, filed 2/1/13, effective 7/1/13. Statutory Authority: Chap-
ter 19.27 RCW. WSR 10-24-059, § 51-50-0504, filed 11/29/10, effective
7/1/11.]
```

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20

WAC 51-50-0505 ((Reserved.)) Section 0505—Mezzanines and equipment platforms.

505.1 General. Mezzanines shall comply with Section 505.2. Equipment platforms shall comply with Section 505.3.

Lofts in Group R occupancy dwelling units and sleeping units shall be permitted to comply with Section 420.13, subject to the limitations in Section 420.13.1.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0505, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0505, filed 1/19/16, effective 7/1/16.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-0506 ((Section 506 Building area.)) Reserved. ((**Table 506.2** Allowable Area Factor (At = NS, S1, S13R, S13D or SM, as applicable) In Square Feet<sup>a,b</sup>

						-	Type of Co	onstruction	1				
Occupancy Classification	See	Tyl	<del>pe I</del>	Typ	<del>e II</del>	Typ	e III		Typ	e IV		Typ	e V
Cinssification	Footnotes	A	В	A	В	A	В	A	В	e	HŦ	A	В
A-1	NS	<del>UL</del>	<del>UL</del>	15,500	8,500	14,000	8,500	45,000	30,000	18,750	15,000	11,500	5,500
	<del>S1</del>	<del>UL</del>	<del>UL</del>	62,000	34,000	56,000	34,000	180,000	120,000	75,000	60,000	46,000	22,000
	SM	₩	<del>UL</del>	46,500	25,500	42,000	25,500	135,000	90,000	56,250	45,000	34,500	16,500
A-2	NS	₩	<del>UL</del>	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	<del>S1</del>	<del>UL</del>	<del>UL</del>	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM	₩	₩	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
A-3	NS	<del>UL</del>	<del>UL</del>	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	<del>S1</del>	₩	₩	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM	<del>UL</del>	₩	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
A-4	NS	<del>UL</del>	₩	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	<del>S1</del>	<del>UL</del>	<del>UL</del>	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM	₩	₩	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
A-5	NS	<del>UL</del>	₩	₩	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>	₩	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>
	<del>S1</del>												
	SM												
B	NS	<del>UL</del>	<del>UL</del>	37,500	23,000	28,500	19,000	108,000	72,000	45,000	36,000	18,000	9,000
	<del>S1</del>	₩	₩	150,000	92,000	114,000	76,000	432,000	288,000	180,000	144,000	72,000	36,000
	SM	<del>UL</del>	₩	112,500	69,000	85,500	57,000	324,000	216,000	135,000	108,000	54,000	27,000
E	NS	<del>UL</del>	₩	26,500	14,500	23,500	14,500	76,500	51,000	31,875	25,500	18,500	9,500
	<del>S1</del>	₩	₩	106,000	58,000	94,000	58,000	306,000	204,000	127,500	102,000	74,000	38,000
	SM	<del>UL</del>	₩	79,500	43,500	70,500	43,500	229,500	153,000	95,625	76,500	55,500	28,500
F-1	NS	<del>UL</del>	₩	25,000	15,500	19,000	12,000	100,500	67,000	41,875	33,500	14,000	8,500
	<del>S1</del>	<del>UL</del>	₩	100,000	62,000	76,000	48,000	402,000	268,000	167,500	134,000	56,000	34,000
	SM	UL	<del>UL</del>	75,000	46,500	57,000	36,000	301,500	201,000	125,625	100,500	42,000	25,500
F-2	NS	<del>UL</del>	<del>UL</del>	37,500	23,000	28,500	18,000	151,500	101,000	63,125	50,500	21,000	13,000
	<del>S1</del>	<del>UL</del>	<del>UL</del>	150,000	92,000	114,000	72,000	606,000	404,000	252,500	202,000	84,000	52,000
	SM	UL	<del>UL</del>	112,500	69,000	85,500	54,000	454,500	303,000	189,375	151,500	63,000	39,000
H-1	NSC	21,000	16,500	11,000	7,000	9.500	7,000	10,500	10,500	10,000	10,500	7,500	NP
	S1												
H-2	NSc	21,000	16,500	11,000	7,000	9.500	7,000	10,500	10,500	10,000	10,500	7,500	3,000
	<del>S1</del>												
	SM												
H-3	NSc	<del>UL</del>	60,000	26,500	14,000	17,500	13,000	25,500	25,500	25,500	25,500	10,000	5,000
	<del>S1</del>												
	SM												
H-4	NSc,d	<del>UL</del>	<del>UL</del>	37,500	17,500	28,500	17,500	72,000	54,000	40,500	36,000	18,000	6,500
	S1	<del>UL</del>	<del>UL</del>	150,000	70,000	114,000	70,000	288,000	216,000	162,000	144,000	72,000	26,000
	SM	- UL	<del>UL</del>	112,500	52,500	85,500	52,500	216,000	162,000	121,500	108,000	54,000	19,500
H-5	NSc,d	<del>UL</del>	<del>UL</del>	37,500	23,000	28,500	19,000	72,000	54,000	40,500	36,000	18,000	9,000
0	S1		<del>UL</del>	150,000	92,000	114,000	76,000	288,000	216,000	162,000	144,000	72,000	36,000
	SM	UL UL	<del>UL</del>	112,500	69,000	85,500	57,000	216,000	162,000	121,500	108,000	54,000	27,000
	DIVI	<del>ob</del>	l or	112,300	07,000	05,500	37,000	210,000	102,000	121,300	100,000	<del>57,000</del>	27,000

0							Fype of Co	onstruction	ì				
Occupancy Classification	See	Ty	<del>pe I</del>	Typ	<del>e II</del>	Typ	e-III		Typ	e-IV		Typ	e V
	Footnotes	A	В	A	В	A	В	A	В	e	HŦ	A	В
<del>I-1</del>	NS <sup>d, e</sup>	<del>UL</del>	55,000	19,000	10,000	16,500	10,000	54,000	36,000	18,000	18,000	10,500	4,500
	<del>S1</del>	<del>UL</del>	220,000	76,000	40,000	66,000	40,000	216,000	144,000	72,000	72,000	42,000	18,000
	SM	UL	165,000	57,000	30,000	49,500	30,000	162,000	108,000	54,000	54,000	31,500	13,500
<del>I-2</del>	NSd, f	<del>UL</del>	<del>UL</del>	15,000	11,000	12,000	NP	36,000	24,000	12,000	12,000	9,500	NP
	<del>S1</del>	<del>UL</del>	<del>UL</del>	60,000	44,000	48,000	NP	144,000	96,000	48,000	48,000	38,000	NP
	SM	<del>UL</del>	<del>UL</del>	45,000	33,000	36,000	NP	108,000	72,000	36,000	36,000	28,500	NP
I-3	NSd, e	₩	<del>UL</del>	15,000	10,000	10,500	7,500	36,000	24,000	12,000	12,000	7,500	5,000
	<del>S1</del>	<del>UL</del>	<del>UL</del>	45,000	40,000	42,000	30,000	144,000	96,000	48,000	48,000	30,000	20,000
	SM	<del>UL</del>	<del>UL</del>	45,000	30,000	31,500	22,500	108,000	72,000	36,000	36,000	22,500	15,000
I-4	NSd, g	<del>UL</del>	60.500	26,500	13,000	23,500	13,000	76,500	51,000	25,500	25,500	18,500	9,000
	<del>S1</del>	UL	121,000	106,000	52,000	94,000	52,000	306,000	204,000	102,000	102,000	74,000	36,000
	SM	<del>UL</del>	181,500	79,500	39,000	70,500	39,000	229,500	153,000	76,500	76,500	55,500	27,000
М	NS	<del>UL</del>	<del>UL</del>	21,500	12,500	18,500	12,500	61,500	41,000	25,625	20,500	14,000	9,000
	<del>S1</del>	UL	<del>UL</del>	86,000	50,000	74,000	50,000	246,000	164,000	102,500	82,000	56,000	36,000
	SM	<del>UL</del>	<del>UL</del>	64,500	37,500	55,500	37,500	184,500	123,000	76,875	61,500	42,000	27,000
R-1h	NS <sup>d</sup>	<del>UL</del>	<del>UL</del>	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
	S13R												
	<del>S1</del>	<del>UL</del>	<del>UL</del>	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
	SM	<del>UL</del>	<del>UL</del>	72,000	48,000	72,000	48,000	184,500	123,000	76,875	61,500	36,000	21,000
R-2h	NSd	<del>UL</del>	<del>UL</del>	24,000	16,000	24,000	16,000	61,500	41,000	25.625	20,500	12,000	7,000
	S13R												
	<del>S1</del>	<del>UL</del>	<del>UL</del>	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
	SM	<del>UL</del>	<del>UL</del>	72,000	48,000	72,000	48,000	184,500	123,000	76,875	61,500	36,000	21,000
R-3h	NSd	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>	<del>UL</del>	UL
	S13D												
	S13R												
	<del>S1</del>												
	SM												
R-4h	NS <sup>d</sup>	<del>UL</del>	<del>UL</del>	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
	S13D												
	S13R												
	<del>S1</del>	<del>UL</del>	<del>UL</del>	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
	SM	UL	<del>UL</del>	72,000	48,000	72,000	48,000	184,500	123,000	76,875	61,500	36,000	21,000
S-1	NS	<del>UL</del>	48,000	26,000	17,500	26,000	17,500	76,500	51,000	31,875	25,500	14,000	9,000
	<del>S1</del>	<del>UL</del>	192,000	104,000	70,000	104,000	70,000	306,000	204,000	127,500	102,000	56,000	36,000
	SM	UL	144,000	78,000	52,500	78,000	52,500	229,500	153,000	95,625	76,500	42,000	27,000
<del>S-2</del>	NS	<del>UL</del>	79,000	39,000	26,000	39,000	26,000	115,500	77,000	48,125	38,500	21,000	13,500
	<del>S1</del>	<del>UL</del>	316,000	156,000	104,000	156,000	104,000	462,000	308,000	192,500	154,000	84,000	54,000
	SM	<del>UL</del>	237,000	117,000	78,000	117,000	78,000	346,500	231,000	144,375	115,500	63,000	40,500
¥	<del>NS<sup>i</sup></del>	<del>UL</del>	35,500	19,000	8,500	14,000	8,500	54,000	36,000	22,500	18,000	9,000	5,500
	<del>S1</del>	<del>UL</del>	142,000	76,000	34,000	56,000	34,000	216,000	144,000	90,000	72,000	36,000	22,000
	SM	<del>UL</del>	106,500	57,000	25,500	42,000	25,500	162,000	108,000	67,500	54,000	27,000	16,500

For SI: 1 square foot = 0.0929 m<sup>2</sup>.

UL = Unlimited; NP = Not permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S1 = Buildings a maximum of one story above grade plane equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; SM = Buildings two or more stories above grade plane equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.3.

- a See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
- b See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
- <sup>2</sup> New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
- d The NS value is only for use in evaluation of existing building area in accordance with the International Existing Building Code:
- New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies Condition 1, see Exception 1 of Section 903.2.6.

- f New and existing Group 1-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section 1103.5 of the *International Fire Code*.
- g For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- h New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.
- <sup>1</sup> The maximum allowable area for a single-story nonsprinklered Group U greenhouse is permitted to be 9,000 square feet, or the allowable area shall be permitted to comply with Table C102.1 of Appendix C.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0506, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-0506, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0506, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0506, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0506, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0506, filed 12/19/06, effective 7/1/07.]

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 19-02-038, filed 12/26/18, effective 7/1/19)

# WAC 51-50-0508 Section 508—Mixed use and occupancy.

((508.4.4.1 Construction. Required separations shall be fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both, so as to completely separate adjacent occupancies. Mass timber elements serving as fire barriers or horizontal assemblies to separate occupancies in Type IV-B or IV-C construction shall be separated from the interior of the building with an approved thermal barrier consisting of a minimum of 1/2 inch (12.7 mm) gypsum board or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275.))

- 508.5.1 Limitations. The following shall apply to live/work areas:
- 1. The live/work unit is permitted to be not greater than 3,000 square feet (279 m) in area.
- 2. The nonresidential area is permitted to be not more than 50 percent of the area of each live/work unit.
- 3. The nonresidential area function shall be limited to the first or main floor only of the live/work unit.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, \$51-50-0508, filed 12/26/18, effective 7/1/19.]

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 19-02-038, filed 12/26/18, effective 7/1/19)

WAC 51-50-0509 Section 509—Incidental uses. ((509.4.1.1 Type IV-B and IV-C construction. Where Table 509 specifies a fire-resistance-rated separation, mass timber elements serving as fire barriers or a horizontal assembly in Type IV-B or IV-C construction shall be separated from the interior of the incidental use with an approved thermal barrier consisting of a minimum of 1/2 inch (12.7 mm) gypsum board or a material that is tested in accordance with and

meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275.))

# Table 509 Incidental Uses

Room or Area	Separation and/or Protection
Dry type transformers over 112.5 kVA and required to be in a fire resistant room per NEC (NFPA 70) Section 450.21 (B) <sup>1</sup>	1 hour or provide automatic sprinkler system

<sup>1</sup> Dry type transformers rated over 35,000 volts and oil-insulated transformers shall be installed in a transformer vault complying with NFPA 70.

(Remainder of table unchanged)

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0509, filed 12/26/18, effective 7/1/19. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, \$51-50-0509, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097,  $\S$  51-50-0509, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0509, filed 12/19/06, effective 7/1/07.]

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

## WAC 51-50-0510 Section 510—Special provisions.

- 510.2 Horizontal building separation allowance. A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of fire walls, limitation of number of stories and type of construction where ((all of)) the following conditions are met:
- 1. The buildings are separated with a horizontal assembly having a fire-resistance rating of not less than 3 hours. Where vertical offsets are provided as part of a horizontal assembly, the vertical offset and the structure supporting the vertical offset shall have a fire-resistance rating of not less than 3 hours.
- 2. The building below, including the horizontal assembly, is of Type IA construction.
- 3. Shaft, stairway, ramp and escalator enclosures through the horizontal assembly shall have not less than a 2-hour fire-resistance rating with opening protective in accordance with Section 716.

EXCEPTION:

Where the enclosure walls below the horizontal assembly have not less than a 3-hour fire-resistance rating with opening protectives in accordance with Section 716, the enclosure walls extending above the horizontal assembly shall be permitted to have a 1-hour fireresistance rating provided that the following conditions are met:

1. The building above the *horizontal assembly* is not required to be of Type I construction.

- 2. The enclosure connects fewer than four *stories*; and
- 3. The enclosure opening protective above the horizontal assembly have a fire protection rating of not less than 1 hour. ((4. Interior exit stairways located within the Type IA building are permitted to be of combustible materials where both of the following requirements are met:
- 4.1. The building above the Type IA building is of Type III, IV, or V construction.
  4.2. The stairway located in the Type IA building is enclosed by 3-hour *fire-resistance-rated* construction with opening protectives in accordance with Section 716.))

- 4. <u>Interior exit stairways located within the Type IA building are permitted to be of combustible materials where both of the following requirements are met:</u>
- 4.1. The building above the Type IA building is of Type III, IV, or V construction.
- 4.2. The stairway located in the Type IA building is enclosed by 3-hour fire-resistance-rated construction with opening protectives in accordance with Section 716.
- 5. The building or buildings above the horizontal assembly shall be permitted to have ((multiple)) Group A ((occupancy uses, each with an occupant load of less than 300, or Group B, Group I-1, Condition 2 licensed care facilities)), B, M, R, or S occupancies.
- ((5.)) <u>6.</u> The building below the horizontal assembly shall be protected throughout by an approved automatic sprinkler system in accordance with Section 903.3.1.1, and shall be permitted to be any occupancy allowed by this code except Group H.
- ((6.)) 7. The maximum building height in feet (mm) shall not exceed the limits set forth in Section 504.3 for the building having the smaller allowable height as measured from the grade plane. ((Group I-1, Condition 2 licensed care facilities shall be permitted to use the values for maximum height in feet for Group R-2 occupancies.
- 510.5 Group R-1 and R-2 buildings of Type IIIA construction. For buildings of Type IIIA construction in Groups R-1 and R-2, the maximum allowable height in Table 504.3 shall be increased by 10 feet and the maximum allowable number of stories in Table 504.4 shall be increased by one foot where the first floor assembly above the basement has a fire-resistance rating of not less than 3 hours and the floor area is subdivided by 2-hour fire-resistance-rated fire walls into areas of not more than 3,000 square feet (279 m²).))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, § 51-50-0510, filed 10/9/20, effective 11/9/20; WSR 20-01-090, § 51-50-0510, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0510, filed 1/19/16, effective 7/1/16.]

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 19-02-038, filed 12/26/18, effective 7/1/19)

WAC 51-50-0601 ((Section 601 General.)) Reserved.

((Table 601
Fire-resistance Rating Requirements for Building Elements (hours)

Building Element	Tyl	<del>se I</del>	Typ	e II	<del>Typ</del>	<del>e III</del>		Ŧy	<del>pe IV</del>		Typ	e V
Dunuing Element	A	В	A	B	A	B	A	В	E	HT	A	B
Primary structural frame <sup>f</sup> (see Section 202)	3ª	<del>2</del> a	1	θ	<del>1</del> b	θ	3ª	<del>2</del> a	<del>2</del> a	HT	1	θ
Bearing walls												
Exterior <sup>e, f</sup>	3	2	1	0	2	2	3	2	2	2	1	θ
Interior	3ª	<del>2</del> a	1	0	1	0	3	2	2	<del>1/HT</del>	1	0
Nonbearing walls and partitions exterior						See To	able 602					

<b>Building Element</b>	Tyl	<del>oe I</del>	Typ	e-H	Typ	e III		Ty	<del>pe IV</del>		Typ	e-V
Dunuing Element	A	В	A	В	A	B	A	В	€	HŦ	A	B
Nonbearing walls and partitions interior <sup>d</sup>	θ	θ	θ	θ	θ	θ	θ	θ	θ	See Section 602.4.4.6	θ	θ
Floor construction and associated secondary members (see Section 202)	2	2	1	θ	1	0	2	2	2	HT	1	θ
Roof construction and associated secondary members (see Section 202)	1-1/2 <sup>b</sup>	1p'c	1b,c	Ос	1b,c	θ	1-1/2	1	4	HT	1b,c	θ

## For SI: 1 foot = 304.8 mm.

- a Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b Except in Groups F-1, H, M and S-1 occupancies, fire protection of structural members in roof construction shall not be required, including protection of primary structural frame members, roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- 4 In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d Not less than the fire-resistance rating required by other sections of this code.
- e Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f Not less than the fire-resistance rating as referenced in Section 704.10.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038,  $\S$  51-50-0601, filed 12/26/18, effective 7/1/19.]

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

WAC 51-50-0602 Section 602—Construction classification.

((<del>Table 602</del>

# Fire-resistance Rating Requirements for Exterior Walls Based on Fire Separation Distance<sup>a,d,g</sup>

Fire Separation Distance = X (feet)	Type of Construction	Occupancy Group H <sup>c</sup>	Occupancy Group F-1, M, S-1 <sup>f</sup>	Occupancy Group A, B, E, F-2, I, R <sup>i</sup> , S-2, U <sup>h</sup>
X < 5 <sup>b</sup>	All	3	2	1
5 ≤ X < 10	IA, IVA	3	2	1
	Others	₹	4	
$10 \le X \le 30$	IA, IB, IVA, IVB	2	1	<del>1</del> c
	<del>-IIB, VB</del>	1	θ	θ
	Others	1	1	<del>1°</del>
X ≥ 30	All	θ	θ	θ

### For SI: 1 foot = 304.8 mm.

- a Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
- b See Section 706.1.1 for party walls.
- c Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
- d The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.
- <sup>c</sup> For special requirements for Group H occupancies, see Section 415.6.
- f For special requirements for Group S aircraft hangars, see Section 412.3.1.
- g Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.
- h For a building containing only a Group U occupancy private garage or carport, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater.

<sup>1</sup> For a Group R-3 building of Type II-B or Type V-B construction, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater.

602.4 Type IV. Type IV construction is that type of construction in which the building elements are mass timber or noncombustible materials and have fire-resistance ratings in accordance with Table 601.

Mass timber elements shall meet the fire-resistance rating requirements of this section based on either the fire-resistance rating of the noncombustible protection, the mass timber, or a combination of both and shall be determined in accordance with Section 703.2 or 703.3. The minimum dimensions and permitted materials for building elements shall comply with the provisions of this section including Section 2304.11. Mass timber elements of Types IV-A, IV-B and IV-C construction shall be protected with noncombustible protection applied directly to the mass timber in accordance with Sections 602.4.1 through 602.4.3. The time assigned to the noncombustible protection shall be determined in accordance with Section 703.8 and comply with 722.7.

Cross-laminated timber shall be labeled as conforming to ANSI/APA PRG 320 as referenced in Section 2303.1.4.

Exterior load-bearing walls and nonload-bearing walls shall be mass timber construction, or shall be of noncombustible construction.

EXCEPTION: Exterior load-bearing walls and nonload-bearing walls of Type IV-HT Construction in accordance with Section 602.4.4.

The interior building elements, including nonload-bearing walls and partitions, shall be of mass timber construction or of noncombustible construction.

EXCEPTION: Interior building elements and nonload-bearing walls and partitions of Type IV-HT Construction in accordance with Section 602.4.4.

Combustible concealed spaces are not permitted except as otherwise indicated in Sections 602.4.1 through 602.4.4. Combustible stud spaces within light frame walls of Type IV-HT construction shall not be considered concealed spaces, but shall comply with Section 718.

In buildings of Type IV-A, IV-B, and IV-C, construction with an occupied floor located more than 75 feet above the lowest level of fire department access, up to and including 12 stories or 180 feet above grade plane, mass timber interior exit and elevator hoistway enclosures shall be protected in accordance with Section 602.4.1.2. In buildings greater than 12 stories or 180 feet above grade plane, interior exit and elevator hoistway enclosures shall be constructed of noncombustible materials.

- 602.4.1 Type IV-A. Building elements in Type IV-A construction shall be protected in accordance with Sections 602.4.1.1 through 602.4.1.6. The required fire-resistance rating of noncombustible elements and protected mass timber elements shall be determined in accordance with Section 703.2 or Section 703.3.
- **602.4.1.1 Exterior protection.** The outside face of exterior walls of mass timber construction shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1. All components of the exterior wall covering, shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than  $150~\rm kW/m^2$ , a total heat release of less than  $20~\rm MJ/m^2$  and an effective heat of combustion of less than  $18~\rm MJ/kg$  as determined in accordance with ASTM E1354 and having a flame spread index of  $25~\rm or$  less and a smoke-developed index of  $450~\rm or$  less

- as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of  $50 \text{ kW/m}^2$ .
- 602.4.1.2 Interior protection. Interior faces of all mass timber elements, including the inside faces of exterior mass timber walls and mass timber roofs, shall be protected with materials complying with Section 703.5.
- 602.4.1.2.1 Protection time. Noncombustible protection shall contribute a time equal to or greater than times assigned in Table 722.7.1(1), but not less than 80 minutes. The use of materials and their respective protection contributions listed in Table 722.7.1(2), shall be permitted to be used for compliance with Section 722.7.1.
- 602.4.1.3 Floors. The floor assembly shall contain a noncombustible material not less than 1 inch in thickness above the mass timber. Floor finishes in accordance with Section 804 shall be permitted on top of the noncombustible material. The underside of floor assemblies shall be protected in accordance with 602.4.1.2.
- **602.4.1.4 Roofs.** The interior surfaces of roof assemblies shall be protected in accordance with Section 602.4.1.2. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.
- 602.4.1.5 Concealed spaces. Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *International Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected in accordance with Section 602.4.1.2.
- 602.4.1.6 Shafts. Shafts shall be permitted in accordance with Sections 713 and 718. Both the shaft side and room side of mass timber elements shall be protected in accordance with Section 602.4.1.2.
- 602.4.2 Type IV-B. Building elements in Type IV-B construction shall be protected in accordance with Sections 602.4.2.1 through 602.4.2.6. The required fire-resistance rating of noncombustible elements or mass timber elements shall be determined in accordance with Section 703.2 or 703.3.
- **602.4.2.1 Exterior protection.** The outside face of exterior walls of mass timber construction shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1. All components of the exterior wall covering shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than  $150~\rm kW/m^2$ , a total heat release of less than  $20~\rm MJ/m^2$  and an effective heat of combustion of less than  $18~\rm MJ/kg$  as determined in accordance with ASTM E1354, and having a flame spread index of  $25~\rm or$  less and a smoke-developed index of  $450~\rm or$  less as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of  $50~\rm kW/m^2$ .

- 602.4.2.2 Interior protection. Interior faces of all mass timber elements, including the inside face of exterior mass timber walls and mass timber roofs, shall be protected, as required by this section, with materials complying with Section 703.5.
- 602.4.2.2.1 Protection time. Noncombustible protection shall contribute a time equal to or greater than times assigned in Table 722.7.1(1), but not less than 80 minutes. The use of materials and their respective protection contributions listed in Table 722.7.1(2), shall be permitted to be used for compliance with Section 722.7.1.))
- **602.4.2.2.2 Protected area.** ((All)) Interior faces of ((all)) mass timber elements, including the inside face of exterior mass timber walls and mass timber roofs, shall be protected in accordance with Section 602.4.2.2.1((, including the inside face of exterior mass timber walls and mass timber roofs)).

EXCEPTION:

Unprotected portions of mass timber ceilings and walls complying with Section 602.4.2.2.4 and the following: 1. Unprotected portions of mass timber ceilings((, including attached beams, shall be permitted and shall be limited to an area equal to <del>20% of the floor area in any dwelling unit or fire area; or</del>)) and walls complying with one of the following:

1.1. Unprotected portions of mass timber ceilings, including attached beams, shall be permitted and shall be limited to an area less than or equal to 100 percent of the floor area in any dwelling unit or fire area.

((2-)) 1.2. Unprotected portions of mass timber walls, including attached columns, shall be permitted and shall be limited to an area less

than or equal to ((40%)) 40 percent of the floor area in any dwelling unit or fire area((; or)).

 $\overline{((3-))}$  1.3. Unprotected portions of both walls and ceilings of mass timber, including attached columns and beams, in any dwelling unit or fire area shall be permitted in accordance with Section 602.4.2.2.3.

((4+)) 2. Mass timber columns and beams ((which)) that are not an integral portion of walls or ceilings, respectively, shall be permitted to be unprotected without restriction of either aggregate area or separation from one another.

((602.4.2.2.3 Mixed unprotected areas. In each dwelling unit or fire area, where both portions of ceilings and portions of walls are unprotected, the total allowable unprotected area shall be determined in accordance with Equation 6-1.

where:

Ute Total unprotected mass timber ceiling

Uac Allowable unprotected mass timber ceiling area conforming to Section 602.4.2.2.2, Exception 1;

<del>Utw</del> Total unprotected mass timber wall areas; <del>Uaw</del> Allowable unprotected mass timber wall area conforming to Section 602.4.2.2.2, Exception 2.))

- 602.4.2.2.4 Separation distance between unprotected mass timber elements. In each dwelling unit or fire area, unprotected portions of mass timber walls and ceilings shall be not less than 15 feet from unprotected portions of other walls ((and ceilings, measured horizontally along the ceiling and from other unprotected portions of walls)) measured horizontally along the floor.
- 602.4.2.3 Floors. The floor assembly shall contain a noncombustible material not less than 1 inch in thickness above the mass timber. Floor finishes in accordance with Section 804 shall be permitted on top of the noncombustible material. Except where unprotected mass timber ceilings are permitted in Section 602.4.2.2.2, the underside of floor assemblies shall be protected in accordance with Section 602.4.1.2.

- ((602.4.2.4 Roofs. The interior surfaces of roof assemblies shall be protected in accordance with Section 602.4.2.2 except, in nonoccupiable spaces, they shall be treated as a concealed space with no portion left unprotected. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.
- 602.4.2.5 Concealed spaces. Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *International Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected in accordance with Section 602.4.1.2.
- 602.4.2.6 Shafts. Shafts shall be permitted in accordance with Sections 713 and 718. Both the shaft side and room side of mass timber elements shall be protected in accordance with Section 602.4.1.2.
- 602.4.3 Type IV-C. Building elements in Type IV-C construction shall be protected in accordance with Sections 602.4.3.1 through 602.4.3.6. The required fire-resistance rating of building elements shall be determined in accordance with Sections 703.2 or 703.3.
- **602.4.3.1 Exterior protection.** The exterior side of walls of combustible construction shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1. All components of the exterior wall covering, shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than  $150~\rm kW/m^2$ , a total heat release of less than  $20~\rm MJ/m^2$  and an effective heat of combustion of less than  $18~\rm MJ/kg$  as determined in accordance with ASTM E1354 and having a flame spread index of  $25~\rm or$  less and a smoke-developed index of  $450~\rm or$  less as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of  $50~\rm kW/m^2$ .
- 602.4.3.2 Interior protection. Mass timber elements are permitted to be unprotected.
- 602.4.3.3 Floors. Floor finishes in accordance with Section 804 shall be permitted on top of the floor construction.
- 602.4.3.4 Roofs. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.
- 602.4.3.5 Concealed spaces. Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *International Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1.
- 602.4.3.6 Shafts. Shafts shall be permitted in accordance with Sections 713 and 718. Shafts and elevator hoistway and interior exit stairway enclosures shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1, on both the inside of the shaft and the outside of the shaft.

- 602.4.4 Type IV-HT. Type IV-HT construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid wood, laminated heavy timber or structural composite lumber (SCL), without concealed spaces. The minimum dimensions for permitted materials including solid timber, glued-laminated timber, structural composite lumber (SCL) and cross-laminated timber (CLT) and details of Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying with Section 602.4.4.1 or 602.4.4.2 shall be permitted. Interior walls and partitions not less than 1 hour fire-resistance rating or heavy timber conforming with Section 2304.11.2.2 shall be permitted.
- 602.4.4.1 Fire-retardant-treated wood in exterior walls. Fire-retard-ant-treated wood framing and sheathing complying with Section 2303.2 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less.
- 602.4.4.2 Cross-laminated timber in exterior walls. Cross-laminated timber complying with Section 2303.1.4 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one of the following:
- 1. Fire-retardant-treated wood sheathing complying with Section 2303.2 and not less than 15/32 inch (12 mm) thick;
  - 2. Gypsum board not less than 1/2 inch (12.7 mm) thick; or
  - 3. A noncombustible material.))
- 602.4.4.3 Concealed spaces. Concealed spaces shall not contain combustible materials other than building elements and electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the International Mechanical Code. Concealed spaces shall comply with applicable provisions of Section 718. Concealed spaces shall be protected in accordance with one or more of the following:
- 1. The building shall be sprinklered throughout in accordance with Section 903.3.1.1 and automatic sprinklers shall also be provided in the concealed space.
- 2. The concealed space shall be completely filled with noncombustible insulation.
- 3. Combustible surfaces within the concealed space shall be fully sheathed with not less than 5/8-inch Type X gypsum board.

EXCEPTION: Concealed spaces within interior walls and partitions with a 1-hour or greater fire-resistance rating complying with Section 2304.11.2.2 shall not require additional protection.

```
[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, \S 51-50-0602, filed 10/9/20, effective 11/9/20; WSR 20-01-090, \S 51-50-0602, filed 12/12/19, effective 7/1/20; WSR 19-02-038, \S 51-50-0602, filed 12/26/18, effective 7/1/19.]
```

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

WAC 51-50-0603 ((Section 603 Combustible material in Types I and II construction.)) Reserved.

```
((603.1 Allowable materials. Combustible materials shall be permitted
in buildings of Type I or II construction in the following applica-
tions and in accordance with Sections 603.1.1 through 603.1.3:
```

1. Fire-retardant-treated wood shall be permitted in:

- 1.1. Nonbearing partitions where the required fire-resistance rating is 2 hours or less.
- 1.2. Nonbearing exterior walls where fire-resistance-rated construction is not required.
- 1.3. Roof construction, including girders, trusses, framing and decking.

#### **EXCEPTION:**

In buildings of Type I-A construction exceeding two stories above grade plane, fire-retardant-treated wood is not permitted in roof eonstruction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).

- 1.4. Balconies, porches, decks and exterior stairways not used as required exits on buildings three stories or less above grade plane. Approved connector shall be in accordance with Section 2304.10.5.
- 2. Thermal and acoustical insulation, other than foam plastics, having a flame spread index of not more than 25.

#### **EXCEPTIONS:**

- 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a flame spread index of not more than 100.

  2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a flame spread
- index of not more than 200.
- 3. Foam plastics in accordance with Chapter 26.
- 4. Roof coverings that have an A, B or C classification.
- 5. Interior floor finish and floor covering materials installed in accordance with Section 804.
- 6. Millwork such as doors, door frames, window sashes and frames.
- 7. Interior wall and ceiling finishes installed in accordance with Section 803.
- 8. Trim installed in accordance with Section 806.
- 9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
- 10. Finish flooring installed in accordance with Section 805.
- 11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a corridor serving an occupant load of 30 or more shall be permitted to be constructed of fire-retardant-treated wood, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
- 12. Stages and platforms constructed in accordance with Sections 410.2 and 410.3, respectively.
- 13. Combustible exterior wall coverings, balconies and similar projections and bay or oriel windows in accordance with Chapter 14 and Section 705.2.3.1.
- 14. Blocking such as for handrails, millwork, cabinets, and window and door frames.
  15. Light-transmitting plastics as permitted by Chapter 26.
- 16. Mastics and caulking materials applied to provide flexible seals between components of exterior wall construction.
- 17. Exterior plastic veneer installed in accordance with Section 2605.2.
- 18. Nailing or furring strips as permitted by Section 803.15.

  19. Heavy timber as permitted by Note c to Table 601 and Sections 602.4.3 and 705.2.3.1.
- 20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
- 21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of fire-resistance tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively
- 22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
- 23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
- 24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
- 25. Materials exposed within plenums complying with Section 602 of the International Mechanical Code.
- 26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m<sup>2</sup>), in size, lined on both sides with noncombustible materials and the building is protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.))

```
[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, §
51-50-0603, filed 10/9/20, effective 11/9/20; WSR 20-01-090, §
51-50-0603, filed 12/12/19, effective 7/1/20; WSR 19-02-038, §
51-50-0603, filed 12/26/18, effective 7/1/19.]
```

AMENDATORY SECTION (Amending WSR 19-02-038, filed 12/26/18, effective 7/1/19)

WAC 51-50-0703 ((Section 703—Fire-resistance ratings and fire tests.)) Reserved.

((703.8 Determination of noncombustible protection time contribution. The time, in minutes, contributed to the fire-resistance rating by the noncombustible protection of mass timber building elements, components, or assemblies, shall be established through a comparison of assemblies tested using procedures set forth in ASTM E119 or UL 263. The test assemblies shall be identical in construction, loading, and materials, other than the noncombustible protection. The two test assemblies shall be tested to the same criteria of structural failure.

- 1. Test Assembly 1 shall be without protection.
- 2. Test Assembly 2 shall include the representative noncombustible protection. The protection shall be fully defined in terms of configuration details, attachment details, joint sealing details, accessories and all other relevant details.

The noncombustible protection time contribution shall be determined by subtracting the fire resistance time, in minutes, of Test Assembly 1 from the fire resistance time, in minutes, of Test Assembly 2.

- 703.9 Sealing of adjacent mass timber elements. In buildings of Type IV-A, IV-B, and IV-C construction, sealant or adhesive shall be provided to resist the passage of air in the following locations:
- 1. At abutting edges and intersections of mass timber building elements required to be fire-resistance-rated.
- 2. At abutting intersections of mass timber building elements and building elements of other materials where both are required to be fire-resistance-rated.

Sealants shall meet the requirements of ASTM C920. Adhesives shall meet the requirements of ASTM D3498.

EXCEPTION: Sealants or adhesives need not be provided where a fire-resistance-rated assembly does not include them as a required component.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0703, filed 12/26/18, effective 7/1/19.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-0704 Section 704—Fire-resistance rating of structural members.

704.6.1 Secondary (nonstructural) attachments to structural members. Where primary and secondary structural steel members require fire protection, ((secondary (nonstructural) tubular steel attachments to those structural members shall be protected with the same fire resistive rating as required for the structural member. The protection shall extend from the structural member a distance of not less than 12 inches. An open tubular attachment shall be filled with an equivalent fire protection method for a distance of 12-inch length from the structural member, or the entire length of the open tube, whichever is less)) any additional structural steel members having direct connection to the primary structural frame or secondary structural members shall be protected with the same fire-resistive material and thickness as required for the structural member. The protection shall extend away from the structural member a distance of not less than 12 inches (305 mm), or shall be applied to the entire length where the attachment is less than 12 inches (305 mm) long. Where an attachment is hollow and the ends are open, the fire-resistive material and thickness

shall be applied to both exterior and interior of the hollow steel attachment.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0704, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

WAC 51-50-0705 Section 705—Exterior walls ((and projections)).

((705.1 General. Exterior walls and projections shall comply with this section.))

705.2 Projections. Cornices, roof and eave overhangs, projecting floors above, exterior balconies and similar projections extending beyond the exterior wall shall conform to the requirements of this section and Section 1405. Exterior egress balconies and exterior exit stairways and ramps shall comply with Sections 1021 and 1027, respectively. Projections shall not extend any closer to the line used to determine the fire separation distance than shown in Table 705.2.

- 1. Buildings on the same lot and considered as portions of one building in accordance with Section 705.3 are not required to comply with this section for projections between the buildings.

  2. Projecting floors complying with Section 705.2.4 are not required to comply with the projection limitations of Table 705.2.

((705.2.4)) 705.2.5 Projecting floors. Where the fire separation distance on a lower floor is greater than the fire separation distance on the floor immediately above, the projecting floor shall have not less than the fire-resistance rating as the exterior wall above based on Table 602. The fire-resistant rating of the horizontal portion shall be continuous to the lower vertical wall.

((705.2.5 Bay and oriel windows. Bay and oriel windows constructed of combustible materials shall conform to the type of construction required for the building to which they are attached.

Fire-retardant-treated wood shall be permitted on buildings three stories or less above grade plane of Type I, II, III or IV construction.))

Table 705.5 Fire-Resistance Rating Requirements for Exterior Walls Based on Fire Separation Distance<sup>a,d,g,j</sup>

Fire Separation Distance = X (feet)	<u>Type of</u> <u>Construction</u>	Occupancy Group He	Occupancy Group F-1, M, S-1 <sup>f</sup>	Occupancy Group A, B, E, F-2, I, R <sup>i</sup> , S-2, U <sup>h</sup>
$\underline{X} < 5^{b}$	<u>All</u>	<u>3</u>	<u>2</u>	<u>1</u>
$\underline{5 \le X < 10}$	<u>IA, IVA</u>	3	2	1
	<u>Others</u>	<u>2</u>	<u>1</u>	
$\underline{10 \le X < 30}$	<u>IA, IB, IVA, IVB</u>	<u>2</u>	<u>1</u>	<u>1°</u>
	<u>IIB, VB</u>	<u>1</u>	<u>0</u>	<u>0</u>
	<u>Others</u>	<u>1</u>	<u>1</u>	<u>1°</u>
<u>X ≥ 30</u>	All	<u>0</u>	0	<u>0</u>

For SI: 1 foot = 304.8 mm.

- Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
- b See Section 706.1.1 for party walls.
- <sup>c</sup> Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
- The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which

the wall is located.

- For special requirements for Group H occupancies, see Section 415.6.
- For special requirements for Group S aircraft hangars, see Section 412.3.1.
- Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.
- For a building containing only a Group U occupancy private garage or carport, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater.

  For a Group R-3 building of Type II-B or Type V-B construction, the exterior wall shall not be required to have a fire-resistance rating where
- the fire separation distance is 5 feet (1523 mm) or greater.

  In a mixed occupancy building containing Group R-3 and Group U private garage, the exterior wall fire-resistance rating shall be as required for Group R-3.

# Table 705.8 Maximum Area of Exterior Wall Openings Based on Fire Separation Distance and Degree of Opening Protection

Fire Separation Distance (feet)	Degree of Opening Protection	Allowable Area <sup>a</sup>
	Unprotected, Nonsprinklered (UP, NS)	Not Permitted <sup>k</sup>
0 to less than 3 <sup>b,c,k</sup>	Unprotected, Sprinklered (UP, S) <sup>i</sup>	Not Permitted <sup>k</sup>
	Protected (P)	Not Permitted <sup>k</sup>
	Unprotected, Nonsprinklered (UP, NS)	Not Permitted <sup>k</sup>
3 to less than 5 <sup>d,e</sup>	Unprotected, Sprinklered (UP, S) <sup>i</sup>	<u>15%</u>
	Protected (P)	<u>15%</u>
	Unprotected, Nonsprinklered (UP, NS)	<u>10%</u> h
5 to less than 10 <sup>e,f,j</sup>	Unprotected, Sprinklered (UP, S) <sup>i</sup>	<u>25%</u>
	Protected (P)	<u>25%</u>
	Unprotected, Nonsprinklered (UP, NS)	<u>15%<sup>h</sup></u>
10 to less than 15 <sup>e,f,g,j</sup>	Unprotected, Sprinklered (UP, S) <sup>i</sup>	<u>45%</u>
	Protected (P)	<u>45%</u>
	Unprotected, Nonsprinklered (UP, NS)	<u>25%</u>
15 to less than 20 <sup>f,g,j</sup>	<u>Unprotected</u> , Sprinklered (UP, S) <sup>i</sup>	<u>75%</u>
	Protected (P)	<u>75%</u>
	Unprotected, Nonsprinklered (UP, NS)	<u>45%</u>
20 to less than 25 <sup>f,g,j</sup>	<u>Unprotected</u> , <u>Sprinklered</u> (UP, S) <sup>i</sup>	<u>No Limit</u>
	Protected (P)	<u>No Limit</u>
	Unprotected, Nonsprinklered (UP, NS)	<u>70%</u>
25 to less than $30^{f,g,j}$	Unprotected, Sprinklered (UP, S) <sup>i</sup>	<u>No Limit</u>
	Protected (P)	<u>No Limit</u>
	<u>Unprotected</u> , Nonsprinklered (UP, NS)	<u>No Limit</u>
30 or greater	Unprotected, Sprinklered (UP, S) <sup>i</sup>	<u>No Limit</u>
	Protected (P)	No Limit

- For SI: 1 foot = 304.8 mm.

  UP, NS = Unprotected openings in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
  - UP, S = Unprotected openings in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
  - P = Openings protected with an opening protective assembly in accordance with Section 705.8.2.
  - Values indicated are the percentage of the area of the exterior wall, per story.
  - For the requirements for fire walls of buildings with differing heights, see Section 706.6.1.
  - For openings in a fire wall for buildings on the same lot, see Section 706.8.
  - The maximum percentage of unprotected and protected openings shall be 25 percent for Group R-3 occupancies.
  - Unprotected openings shall not be permitted for openings with a fire separation distance of less than 15 feet for Group H-2 and H-3 occupancies.
  - The area of unprotected and protected openings shall not be limited for Group R-3 occupancies, with a fire separation distance of 5 feet or greater.
  - The area of openings in an open parking structure with a fire separation distance of 10 feet or greater shall not be limited.
  - Includes buildings accessory to Group R-3.
  - Not applicable to Group H-1, H-2, and H-3 occupancies.
  - The area of openings in a building containing only a Group U occupancy private garage or carport with a fire separation distance of 5 feet or greater shall not be limited.
  - For openings between S-2 parking garage and Group R-2 building, see Section 705.3, Exception 2.
  - In a mixed occupancy building containing Group R-3 and Group U private garage, the maximum area of exterior openings shall be as required for

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, § 51-50-0705, filed 10/9/20, effective 11/9/20; WSR 20-01-090, § 51-50-0705, filed 12/12/19, effective 7/1/20.]

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

#### WAC 51-50-0706 Section 706—Fire walls.

((706.6.1 Stepped buildings. Where a fire wall also serves as an exterior wall for a building and separates buildings having different roof levels, such wall shall terminate at a point not less than 30 inches (762 mm) above the lower roof level. Exterior walls above the fire wall extending more than 30 inches above the lower roof shall be of not less than 1-hour fire-resistance-rated construction from both sides with openings protected by fire assemblies having a fire protection rating of not less than 3/4 hour. Portions of the exterior walls exceeding 15 feet above the lower roof shall be permitted to be of nonfire-resistance-rated construction unless otherwise required by other provisions of this code.

EXEMPTION:

A fire wall serving as part of an exterior wall that separates buildings having different roof levels shall be permitted to terminate at the underside of the roof sheathing, deck or slab of the lower roof, provided items 1, 2, and 3 below are met. The exterior wall above the fire wall is not required to be of *fire-resistance-rated* construction, unless required by other provisions of this code.

- 1. The lower roof assembly within 10 feet (3048 mm) of the fire wall has not less than a 1-hour fire-resistance rating.
- 2. The entire length and span of supporting elements for the rated roof assembly has a *fire-resistance rating* of not less than 1 hour.
- 3. Openings in the lower roof are not located within 10 feet (3048 mm) of the fire wall.))
- 706.3 Materials. Fire walls that separate a building of Type I or II construction from a building of any construction type shall be of any approved noncombustible materials. Other fire walls shall be built of materials consistent with the types permitted for the type of construction of the building.
- 706.4 Fire-resistance rating. Fire walls shall have a fire-resistance rating of not less than that required by Table 706.4.

<u>Table 706.4</u>
<u>Fire Wall Fire-resistance Ratings</u>

<u>GROUP</u>	FIRE-RESISTANCE RATING (hours)
<u>A, B, E, H-4, I, R-1, R-2,</u> <u>U</u>	<u>3</u> <sup>a</sup>
F-1, H-3 <sup>b</sup> , H-5, M, S-1	<u>3</u>
<u>H-1, H-2</u>	<u>4</u> <sup>b</sup>
<u>F-2, S-2, R-3</u>	<u>2</u>

- a In Type II, III, IV, or V construction, walls shall be permitted to have a
- 2-hour fire-resistance rating.
- b For Group H-1, H-2, or H-3 buildings, also see Sections 415.7 and
- 415.8.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0706, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0706, filed 1/19/16, effective 7/1/16.]

<u>AMENDATORY SECTION</u> (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

# WAC 51-50-07070 ((Section 707—Fire barriers.)) Reserved.

((707.4 Exterior walls. Where exterior walls serve as a part of a required fire-resistance-rated shaft or separation or enclosure for a stairway, ramp or exit passageway, such walls shall comply with the requirements of Section 705 for exterior walls and the fire-resist-ance-rated enclosure or separation requirements shall not apply.

EXCEPTION: Exterior walls required to be *fire-resistance-rated* in accordance with Section 1021 for exterior egress balconies, Section 1023.7 for interior exit stairways and ramps, Section 1024.8 for exit passageways and Section 1027.6 for exterior exit stairways and ramps.

707.5 Continuity. Fire barriers shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above and shall be securely attached thereto. Such fire barriers shall be continuous through concealed space, such as the space above a suspended ceiling. Joints and voids at intersections shall comply with Sections 707.8 and 707.9.

EXCEPTIONS

Shaft enclosures shall be permitted to terminate at a top enclosure complying with Section 713.12.
 Interior exit stairway and ramp enclosures required by Section 1023 and exit access stairway and ramp enclosures required by Section 1019 shall be permitted to terminate at a top enclosure complying with Section 713.12.
 An exit passageway enclosure required by Section 1024.3 that does not extend to the underside of the roof sheathing, slab or deck

3. An exit passageway enclosure required by Section 1024.3 that does not extend to the underside of the roof sheathing, slab or deck above shall be enclosed at the top with construction of the same *fire-resistance rating* as required for the exit passageway.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-07070, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

# WAC 51-50-0713 Section 713—Shaft enclosures.

((713.13.4 Chute discharge room. Waste or linen chutes shall discharge into an enclosed room separated by fire barriers with a fire-resist-ance rating not less than the required fire rating of the shaft enclosure and constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. Openings into the discharge room from the remainder of the building shall be protected by opening protectives having a fire-protection rating equal to the protection required for the shaft enclosure. Through penetrations of piping and conduit not necessary for the purpose of the chute discharge room are permitted as long as they are protected in accordance with Section 714 and do not impact the operation of the trash collection system. Doors shall be self- or automatic-closing upon the detection of smoke in accordance with Section 716.2.6.6. Waste chutes shall not terminate in an incinerator room. Waste and linen rooms that are not provided with chutes need only comply with Table 509.))

713.13.7 Chute venting and roof termination. The full diameter of waste and linen chutes shall extend a minimum of 3 feet (0.92 m) above the building roof and be gravity vented in accordance with *International Mechanical Code* Section 515.

**EXCEPTIONS:** 

1. Where mechanically ventilated in accordance with *International Mechanical Code* Section 515 the full diameter of the chute shall extend through the roof a minimum of 3 feet (0.92 m) and terminate at a blast cap. The mechanical exhaust connection shall tap into the side of the blast cap extension above the roof.

2. Where the trash chute does not extend to the upper floor of the building below the roof the trash chute shall be permitted to gravity vent to a sidewall louver termination. The horizontal extension of the trash chute shall be the full diameter of the chute and shall be enclosed in rated construction equal to the rating of the shaft enclosure. Where the chute is mechanically ventilated in accordance with International Mechanical Code Section 515 the blast cap shall terminate behind the louver and the exhaust fan and duct connection will be enclosed in the rated shaft.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, §  $51-50-071\overline{3}$ , filed  $1\overline{2}/12/19$ , effective 7/1/20.

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-0717 ((Section 717—Ducts and air transfer openings.)) Reserved.

((717.5.2 Fire barriers. Ducts and air transfer openings of fire barriers shall be protected with listed fire dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate enclosures for interior exit stairways and ramps and exit passageways, except as permitted by Sections 1023.5 and 1024.6, respectively.

EXCEPTION:

Fire dampers are not required at penetrations of fire barriers where any of the following apply:

- 1. Penetrations are tested in accordance with ASTM E119 or UL 263 as part of the fire-resistance-rated assembly.
- 2. Duets are used as part of an approved smoke control system in accordance with Section 909 and where the use of a fire damper would interfere with the operation of a smoke control system.
- 3. Such walls shall have a required fire-resistance rating of 1 hour or less, penetrated by ducted HVAC systems, in areas of other than Group H and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than No. 26 gage thickness and shall be continuous without openings from the air-handling appliance or equipment to the air outlet and inlet terminals, located on the opposite side of the wall assembly.

717.5.4 Fire partitions. Ducts and air transfer openings that penetrate fire partitions shall be protected with listed fire dampers installed in accordance with their listing.

**EXCEPTION:** 

In occupancies other than Group H, fire dampers are not required where any of the following apply:

- 1. Corridor walls in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the duct is protected as a through penetration in accordance with Section 714.
- 2. Tenant partitions in covered and open mall buildings where the walls are not required by provisions elsewhere in the code to extend to the underside of the floor or roof sheathing, slab or deck above.
- 3. The duct system is constructed of approved materials in accordance with the International Mechanical Code and the duct penetrating the wall complies with all of the following requirements:
- 3.1. The duct shall not exceed 100 square inches (0.06 m<sup>2</sup>).
- 3.2. The duct shall be constructed of steel not less than 0.0217-inch (0.55 mm) in thickness.
- 3.3. The duct shall not have openings that communicate the corridor with adjacent spaces or rooms.
- 3.4. The duct shall be installed above a ceiling.
- 3.5. The duct shall not terminate at a wall register in the fire-resistance-rated wall.
- 3.6. A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening. The sleeve shall be secured to both sides of the wall and all four sides of the sleeve with minimum 1.5 inch by 1.5 inch by 0.060-inch (38 mm by 38 mm by 1.52 mm) steel retaining angles. The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws. The annular space between the steel sleeve and the wall opening shall be filled with mineral wool batting on all sides.
- 4. Such walls shall have a required *fire-resistance rating* of 1 hour or less, penetrated by dueted HVAC systems in areas of other than Group H and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a dueted HVAC system shall be a duet system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duet system shall be constructed of sheet steel not less than No. 26 gage thickness and shall be continuous without openings from the air-handling appliance or equipment to the air outlet and inlet terminals located on the opposite side of the wall assembly.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0717, filed 12/12/19, effective 7/1/20.1

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 19-02-038, filed 12/26/18, effective 7/1/19)

# WAC 51-50-0718 ((Section 718 Concealed spaces.)) Reserved.

- ((718.2.1 Fireblocking materials. Fireblocking shall consist of the following materials:
  - 1. Two inch (51 mm) nominal lumber.
- 2. Two thicknesses of 1 inch (25 mm) nominal lumber with broken lap joints.
- 3. One thickness of 0.719 inch (18.3 mm) wood structural panels with joints backed by 0.719 inch (18.3 mm) wood structural panels.
- 4. One thickness of 0.75 inch (19.1 mm) particleboard with joints backed by 0.75 inch (19 mm) particleboard.
  - 5. One half inch (12.7 mm) gypsum board.
  - 6. One fourth inch (6.4 mm) cement-based millboard.
- 7. Batts or blankets of mineral wool, mineral fiber or other approved materials installed in such a manner as to be securely retained in place.
- 8. Cellulose insulation installed as tested for the specific application.
  - 9. Mass timber complying with Section 2304.11.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, \$51-50-0718, filed 12/26/18, effective 7/1/19.]

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 19-02-038, filed 12/26/18, effective 7/1/19)

# WAC 51-50-0722 Section 722—Calculated fire resistance.

- ((722.7 Fire-resistance rating of mass timber. The required fire resistance of mass timber elements in Section 602.4 shall be determined in accordance with Section 703.2 or 703.3. The fire-resistance rating of building elements shall be as required in Tables 601 and 602 and as specified elsewhere in this code. The fire-resistance rating of the mass timber elements shall consist of the fire resistance of the unprotected element added to the protection time of the noncombustible protection.
- 722.7.1 Minimum required protection. When required by Sections 602.4.1 through 602.4.3, noncombustible protection shall be provided for mass timber building elements in accordance with Table 722.7.1(1). The rating, in minutes, contributed by the noncombustible protection of mass timber building elements, components, or assemblies, shall be established in accordance with Section 703.8. The protection contributions indicated in Table 722.7.1(2) shall be deemed to comply with this requirement when installed and fastened in accordance with Section 722.7.2.

# Table 722.7.1(1) Protection Required from Noncombustible Covering Material

# Washington State Register

Required Fire-Resistance Rating of Building Element per Tables 601 and 602 (hours)	Minimum Protection Required from Noncombustible Protection (minutes)
1	40
2	80
3 or more	120

# Table 722.7.1(2) Protection Provided by Noncombustible Covering Material

Noncombustible Protection	Protection Contribution (minutes)
1/2 inch Type X Gypsum board	<del>25</del>
5/8 inch Type X Gypsum board	40

722.7.2 Installation of gypsum board noncombustible protection. Gypsum board complying with Table 722.7.1(2) shall be installed in accordance with this section.

722.7.2.1 Interior surfaces. Layers of Type X gypsum board serving as noncombustible protection for interior surfaces of wall and ceiling assemblies determined in accordance with Table 722.7.1(1) shall be installed in accordance with the following:

1. Each layer shall be attached with Type S drywall screws of sufficient length to penetrate the mass timber at least 1 inch when driven flush with the paper surface of the gypsum board.

EXCEPTION: The third layer, where determined necessary by Section 722.7, shall be permitted to be attached with 1 inch #6 Type S drywall screws to furring channels in accordance with ASTM C645.

2. Screws for attaching the base layer shall be 12 inches on center in both directions.

3. Screws for each layer after the base layer shall be 12 inches on center in both directions and offset from the screws of the previous layers by 4 inches in both directions.

4. All panel edges of any layer shall be offset 18 inches from those of the previous layer.

5. All panel edges shall be attached with screws sized and offset as in items 1 through 4 above and placed at least 1 inch but not more than 2 inches from the panel edge.

6. All panels installed at wall-to-ceiling intersections shall be installed such that the ceiling panel(s) is installed first and the wall panel(s) is installed after the ceiling panel has been installed and is fitted tight to the ceiling panel. Where multiple layers are required, each layer shall repeat this process.

7. All panels installed at a wall-to-wall intersection shall be installed such that the panel(s) covering an exterior wall or a wall with a greater fire-resistance rating shall be installed first and the panel(s) covering the other wall shall be fitted tight to the panel covering the first wall. Where multiple layers are required, each layer shall repeat this process.

8. Panel edges of the face layer shall be taped and finished with joint compound. Fastener heads shall be covered with joint compound.

9. Panel edges protecting mass timber elements adjacent to unprotected mass timber elements in accordance with Section 602.4.2.2 shall

be covered with 1 1/4 inch metal corner bead and finished with joint compound.))

- 722.7.2.2 Exterior surfaces. Layers of Type X gypsum board serving as noncombustible protection for the outside of the exterior heavy timber walls determined in accordance with Table 722.7.1(a) shall be fastened 12 inches on center each way and 6 inches on center at all joints or ends. All panel edges shall be attached with fasteners located at least 1 inch but not more than 2 inches from the panel edge. Fasteners shall comply with one of the following:
- 1. Galvanized nails of minimum 12 gage with a 7/16 inch head of sufficient length to penetrate the mass timber a minimum of 1 inch.
- 2. Screws that comply with ASTM C1002 (Type S, Type W, or Type G) of sufficient length to penetrate the mass timber a minimum of 1 inch.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0722, filed 12/26/18, effective 7/1/19.]

AMENDATORY SECTION (Amending WSR 19-02-038, filed 12/26/18, effective 7/1/19)

WAC 51-50-0803 ((Section 803 Wall and ceiling finishes.)) Reserved.

((803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of Type IV construction in Section 602.4 shall not be subject to interior finish requirements except in interior exit stairways, interior exit ramps, and exit passageways.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0803, filed 12/26/18, effective 7/1/19.]

AMENDATORY SECTION (Amending WSR 13-04-067, filed 2/1/13, effective 7/1/13)

WAC 51-50-0902 ((Section 902-))Reserved.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0902, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0902, filed 12/17/03, effective 7/1/04.]

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

WAC 51-50-0903 Section 903—Automatic sprinkler systems.

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided throughout stories containing Group A-3 occupancies and throughout all stories from the Group A-3 occupancy to and including the levels of

exit discharge serving that occupancy where one of the following conditions exists:

- 1. The fire area exceeds 12,000 square feet (1115 m<sup>2</sup>).
- 2. The fire area has an occupant load of 300 or more.
- 3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

EXCEPTION: For fixed guideway transit and passenger rail system stations, an automatic sprinkler system shall be provided in accordance with Section 3114.

903.2.1.6 Assembly occupancies on roofs. Where an occupied roof has an assembly occupancy with an occupant load exceeding 100 for Group A-2, and 300 for other Group A occupancies, the building shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

EXCEPTION: Open parking garages of Type I or Type II construction.

- 903.2.1.8 Nightclub. An automatic sprinkler system shall be provided throughout Group A-2 nightclubs as defined in this code.
- **903.2.3 Group E.** An automatic sprinkler system shall be provided for fire areas containing Group E occupancies where the fire area has an occupant load of 51 or more, calculated in accordance with Table  $((\frac{1004.1.2}{1.2}))$  1004.5.

EXCEPTIONS:

- 1. Portable school classrooms with an occupant load of 50 or less calculated in accordance with Table ((1004.1.2)) 1004.5, provided that the aggregate area of any cluster of portable school classrooms does not exceed 6,000 square feet (557 m²); and clusters of portable school classrooms shall be separated as required by the building code; or
- school classrooms shall be separated as required by the building code; or 2. Portable school classrooms with an occupant load from 51 through 98, calculated in accordance with Table ((1004.1.2)) 1004.5, and provided with two means of direct independent exterior egress from each classroom in accordance with Chapter 10, and one exit from each class room shall be accessible, provided that the aggregate area of any cluster of portable classrooms does not exceed 6,000 square feet (557 m²); and clusters of portable school classrooms shall be separated as required by the building code; or
- 3. Fire areas containing day care and preschool facilities with a total occupant load of 100 or less located at the level of exit discharge where every room in which care is provided has not fewer than one exit discharge door.
- 903.2.6 Group I. An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

EXCEPTIONS:

- 1. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 Condition 1 facilities. 2. Where new construction house sixteen persons receiving care, an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted for Group I-1, Condition 2, assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities licensed under chapter 246-337 WAC.
- 3. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in additions to existing buildings where both of the following situations are true:
- 3.1. The addition is made to a building previously approved as Group LC or Group R-2 that houses either an assisted living facility licensed under chapter 388-78A WAC or residential treatment facility licensed under chapter 246-337 WAC.
- 3.2. The addition contains spaces for sixteen or fewer persons receiving care.
- **903.2.6.1 Group I-4.** An automatic sprinkler system shall be provided in fire areas containing Group I-4 occupancies where the *fire area* has an occupant load of 51 or more, calculated in accordance with Table ((1004.1.2)) 1004.5.

EXCEPTIONS:

- 1. An automatic sprinkler system is not required for Group I-4 day care facilities with a total occupant load of 100 or less, and located at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door.

  2. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge and all floors below the level of exit discharge other than areas classified as an open parking garage.
- ((903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy, where one of the following conditions exists:
  - 1. A Group M fire area exceeds 12,000 square feet (1115 m<sup>2</sup>).
- 2. A Group M fire area is located more than three stories above grade plane.
- 3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m<sup>2</sup>).

- Where a Group M occupancy that is used for the display and sale of upholstered furniture or mattresses exceeds 5000 square feet  $\frac{(464 \text{ m}^2)}{(464 \text{ m}^2)}$
- 903.2.8 Group R. An automatic fire sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

EXCEPTION: Group R-1 if all of the following conditions apply:

1. The Group R fire area is no more than 500 square feet and is used for recreational use only.

2. The Group R fire area is only one story.

- 3. The Group R fire area does not include a basement.
- 4. The Group R fire area is no closer than 30 feet from another structure.

5. Cooking is not allowed within the Group R fire area.

- 6. The Group R fire area has an occupant load of no more than 8.
- 7. A hand held (portable) fire extinguisher is in every Group R fire area.
- ((903.2.9.3 Group S-1 upholstered furniture and mattresses. An automatic sprinkler system shall be provided throughout a Group 5-1 fire area where the area used for storage of upholstered furniture exceeds 2,500 square feet  $(232 \text{ m}^2)$ .

**EXCEPTION:** Self-service storage facilities no greater than one story above grade plane where all storage spaces can be accessed directly from the

- 903.2.11 Specific building areas and hazards. In all occupancies other than Group U, an automatic sprinkler system shall be installed for building design or hazards in the locations set forth in Sections 903.2.11.1 through 903.2.11.7.
- 903.2.11.1.3 Basements. Where any portion of a basement is located more than 75 feet (22,860 mm) from openings required by Section 903.2.11.1, or where new walls, partitions or other similar obstructions are installed that increase the exit access travel distance to more than 75 feet, the basement shall be equipped throughout with an approved automatic sprinkler system.
- 903.2.11.7 Relocatable buildings within buildings. Relocatable buildings or structures located within a building with an approved fire sprinkler system shall be provided with fire sprinkler protection within the occupiable space of the building and the space underneath the relocatable building.

- 1. Sprinkler protection is not required underneath the building when the space is separated from the adjacent space by construction resisting the passage of smoke and heat and combustible storage will not be located there.

  2. If the building or structure does not have a roof or ceiling obstructing the overhead sprinklers.
- 3. Construction trailers and temporary offices used during new building construction prior to occupancy.

  4. Movable shopping mall kiosks with a roof or canopy dimension of less than 4 feet on the smallest side.
- 903.3.1.2 NFPA 13R sprinkler systems. Automatic sprinkler systems in Group R occupancies up to and including four stories in height in buildings not exceeding 60 feet (18,288 mm) in height above grade plane shall be permitted to be installed throughout in accordance with NFPA 13R.

The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 shall be measured from the horizontal assembly creating separate buildings.

903.3.5.3 Underground portions of fire protection system water supply piping. The installation or modification of an underground water main, public or private, supplying a water-based fire protection system shall be in accordance with NFPA 24 and chapter 18.160 RCW. Piping and appurtenances downstream of the first control valve on the lateral or service line from the distribution main to one-foot above finished floor shall be approved by the fire code official. Such underground piping shall be installed by a fire sprinkler system contractor licensed in accordance with chapter 18.160 RCW and holding either a Level U or a Level 3 license. For underground piping supplying systems installed in accordance with Section 903.3.1.2, a Level 2, 3, or U licensed contractor is acceptable.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, § 51-50-0903, filed 10/9/20, effective 11/9/20; WSR 20-01-090, § 51-50-0903, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0903, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-089, § 51-50-0903, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27.031and chapters 19.27 and 34.05 RCW. WSR 13- $\overline{04}$ -067, §  $\overline{51}$ -50-0903, filed 2/1/13, effective 7/1/13. Statutory Authority: Chapter 19.27 RCW. WSR 10-24-059, § 51-50-0903, filed 11/29/10, effective 7/1/11. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0903, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-0903, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0903, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-0903, filed 12/5/05, effective 7/1/06. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, §  $51-\bar{5}0-0903$ , filed 12/17/03, effective 7/1/04.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

# WAC 51-50-0907 Section 907—Fire alarm and detection systems.

- [F] 907.2.3 Group E. Group E occupancies shall be provided with a manual fire alarm system that initiates the occupant notification signal utilizing one of the following:
- 1. An emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6; or
- 2. A system developed as part of a safe school plan adopted in accordance with RCW 28A.320.125 or developed as part of an emergency response system consistent with the provisions of RCW 28A.320.126. The system must achieve all of the following performance standards:
- 2.1 The ability to broadcast voice messages or customized announcements;
- 2.2 Includes a feature for multiple sounds, including sounds to initiate a lock down;
- 2.3 The ability to deliver messages to the interior of a building, areas outside of a building as designated pursuant to the safe school plan, and to personnel;
  - 2.4 The ability for two-way communications;
  - 2.5 The ability for individual room calling;
  - 2.6 The ability for a manual override;
  - 2.7 Installation in accordance with NFPA 72;
- 2.8 Provide 15 minutes of battery backup for alarm and 24 hours of battery backup for standby; and
- 2.9 Includes a program for annual inspection and maintenance in accordance with NFPA 72.

#### **EXCEPTIONS:**

- 1. A manual fire alarm system ((is)) shall not be required in Group E occupancies with an occupant load of 50 or less.

  2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, such as individual portable school classroom buildings; provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.
- 3. Where an existing approved alarm system is in place, an emergency voice/alarm system is not required in any portion of an existing Group E building undergoing any one of the following repairs, alteration or addition:
- 3.1 Alteration or repair to an existing building including, without limitation, alterations to rooms and systems, and/or corridor configurations, not exceeding 35 percent of the fire area of the building (or the fire area undergoing the alteration or repair if the building is comprised of two or more fire areas); or
- 3.2 An addition to an existing building, not exceeding 35 percent of the fire area of the building (or the fire area to which the addition is made if the building is comprised of two or more fire areas).

- made it the building is comprised of two or more thre areas).

  4. Manual fire alarm boxes ((are)) shall not be required in Group E occupancies where all of the following apply:
  4.1 Interior corridors are protected by smoke detectors.
  4.2 Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
  4.3 Shops and laboratories involving dust or vapors are protected by heat detectors or other approved detection devices.
  4.4 Manual activation is provided from a normally occupied location.
  5. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:
  5. The building is equipped throughout with a conveyad automatic sprinkles system installed in accordance with Section 2021.

- 5.1 The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
  5.2 The emergency voice/alarm communication system will activate on sprinkler waterflow.
  5.3 Manual activation is provided from a normally occupied location.

- [F] 907.2.3.1 Sprinkler systems or detection. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.
- [F] 907.2.6.4 Group I-4 occupancies. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group I-4 occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

EXCEPTIONS:

- 1. A manual fire alarm system is not required in Group I-4 occupancies with an occupant load of 50 or less.
- 2. Emergency voice alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group I-4 occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.
- 907.2.11.1 Group R-1. Single- or multiple-station smoke alarms shall be installed in all of the following locations in Group R-1:
  - 1. In sleeping areas.
  - 2. In each loft constructed in accordance with Section 420.14.
- 3. In every room in the path of the means of egress from the sleeping area to the door leading from the sleeping unit.
- 4. In each story within the sleeping unit, including basements. For sleeping units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
- 907.2.11.2 Groups R-2, R-3, R-4, and I-1. Single- or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4, and I-1 regardless of occupant load at all of the following locations:
- 1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
  - 2. In each room used for sleeping purposes.
  - In each loft constructed in accordance with Section 420.14.
- In each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

[F] 907.5.2.1.2 Maximum sound pressure. The ((maximum)) total sound pressure level ((for)) produced by combining the ambient sound pressure level with all audible ((alarm)) notification appliances operating shall ((be)) not exceed 110 dBA at the minimum hearing distance from the audible appliance. For systems operating in public mode, the maximum sound pressure level shall not exceed 30 dBA over the average ambient sound level. Where the average ambient noise is greater than 95 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audible alarm notification appliances shall not be required.

# [F] 907.10 NICET: National Institute for Certification in Engineering Technologies.

- 907.10.1 Scope. This section shall apply to new and existing fire alarm systems.
- 907.10.2 Design review. All construction documents shall be reviewed by a NICET III in fire alarms or a licensed professional engineer (PE) in Washington prior to being submitted for permitting. The reviewing professional shall submit a stamped, signed, and dated letter; or a verification method approved by the local authority having jurisdiction indicating the system has been reviewed and meets or exceeds the design requirements of the state of Washington and the local jurisdiction. (Effective July 1, 2018.)
- 907.10.3 Testing/maintenance. All inspection, testing, maintenance and programing not defined as "electrical construction trade" by chapter 19.28 RCW shall be completed by a NICET II in fire alarms. (Effective July 1, 2018.)

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0907, filed 12/12/19, effective 7/1/20. Statutory Authority: RCW 19.27.074 and 19.27.550. WSR 18-01-104, § 51-50-0907, filed 12/19/17, effective 7/1/18. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0907, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074 and 19.27.530. WSR 12-01-099, § 51-50-0907, filed 12/20/11, effective 4/1/12. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0907, filed 1/20/10, effective 7/1/10.1

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

# WAC 51-50-0908 ((Section 908—))Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0908, filed 1/19/16, effective 7/1/16. Statutory Authority: Chapters 19.27A, 19.27, and 34.05 RCW. WSR 13-23-087, § 51-50-0908, filed 11/19/13, effective 4/1/14. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0908, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074 and 19.27.530. WSR 12-01-099, § 51-50-0908, filed 12/20/11, effective 4/1/12.1

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

# WAC 51-50-0911 Section 911—((Reserved.)) Fire command center.

911.1.2 Separation. The fire command center shall be separated from the remainder of the building by not less than a one 2-hour fire barrier constructed in accordance with Section 707 or horizontal assembly constructed in accordance with Section 711, or both.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0911, filed 1/19/16, effective 7/1/16; WSR 10-03-097, § 51-50-0911, filed 1/20/10, effective 7/1/10.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

# WAC 51-50-0913 Section 913—Fire pumps.

913.2.1 Protection of fire pump rooms and access. Fire pumps shall be located in rooms that are separated from all other areas of the building by 2-hour fire barriers constructed in accordance with Section 707 or 2-hour horizontal assemblies constructed in accordance with Section 711, or both. Fire pump rooms not directly accessible from the outside shall be accessible through an enclosed passageway from an interior exit stairway or exterior exit. The enclosed passageway shall have a fire-resistance rating not less than the fire-resistance rating of the fire pump room (see NFPA 20 Section ((4.12.2.1.2)) 4.14.2.1.2).

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0913, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

#### WAC 51-50-0915 Section 915—Carbon monoxide detection.

- ((915.1 General. Carbon monoxide detection shall be installed in new buildings in accordance with Sections 915.1.1 through 915.6. Carbon monoxide detection shall be installed in existing buildings in accordance with Chapter 11 of the International Fire Code.))
- 915.1.1 Where required. Carbon monoxide detection shall be provided in Group I and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 915.2 where any of the conditions in Sections 915.1.2 through 915.1.6 exist.

1. R-2 occupancies, with the exception of R-2 college dormitories, are required to install carbon monoxide detectors without exception.

2. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, DOC prisons and work releases and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, EXCEPTIONS: a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that they comply with the exceptions of 915.1.4.

((915.1.2 Fuel-burning appliances and fuel-burning fireplaces. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

915.1.3 Forced-air furnaces. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms served by a fuelburning, forced-air furnace.

**EXCEPTION:** 

Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where earbon monoxide detection is provided in the first room or area served by each main duct leaving the furnace, and the earbon monoxide alarm signals are automatically transmitted to an approved location.

915.1.4 Fuel-burning appliances outside of dwelling units, sleeping units and classrooms. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms located in buildings that contain fuel-burning appliances or fuel-burning fireplaces.

**EXCEPTIONS:** 

1. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where there are no communicating openings between the fuel-burning appliance or fuel-burning fireplace and the dwelling unit, sleeping unit or classroom.

2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where carbon monoxide detection is provided in one of the following locations:

2.1. In an approved location between the fuel-burning appliance or fuel-burning fireplace and the dwelling unit, sleeping unit or classroom

2.2. On the ceiling of the room containing the fuel-burning appliance or fuel-burning fireplace.

915.1.5 Private garages. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms in buildings with attached private garages.

**EXCEPTIONS:** 

- 1. Carbon monoxide detection shall not be required where there are no communicating openings between the private garage and the dwelling unit, sleeping unit or classroom.
- 2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms located more than one story above or below a private garage.
- 3. Carbon monoxide detection shall not be required where the private garage connects to the building through an open-ended corridor.

  4. Where carbon monoxide detection is provided in an approved location between openings to a private garage and dwelling units, sleeping units or classrooms, carbon monoxide detection shall not be required in the dwelling units, sleeping units or classrooms.
- 915.1.6 Exempt garages. For determining compliance with Section 915.1.5, an open parking garage complying with Section 406.5 of the International Building Code or an enclosed parking garage complying with Section 406.6 of the International Building Code shall not be considered a private garage.
- **915.2 Locations.** Where required by Section 915.1.1, carbon monoxide detection shall be installed in the locations specified in Sections 915.2.1 through 915.2.3.
- 915.2.1 Dwelling units. Carbon monoxide detection shall be installed in dwelling units outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each level of the dwelling. Where a fuel-burning appliance or fuel-burning fireplace is located within a bedroom or its attached bathroom, carbon monoxide detection shall be installed within the bedroom.
- 915.2.2 Sleeping units. Carbon monoxide detection shall be installed in sleeping units.

**EXCEPTION:** 

Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom does not contain a fuel-burning appliance or fuel-burning fireplace and is not served by a forced air furnace.))

915.2.3 Group E occupancies. When required by Section 915.1 in new buildings, or by Chapter 11 of the *International Fire Code*, carbon monoxide detection shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed by school personnel.

EXCEPTIONS:

1. Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an occupant load of 50 or less.

2. Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies where an exception contained in Section 915.1 applies, or in Group E occupancies where signals are transmitted to an off-site service monitored by a third party, such as a service that monitors fire protection systems in the building.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064,  $\S$  51-50-0915, filed 1/19/16, effective 7/1/16.]

## NEW SECTION

WAC 51-50-0918 Section 918—Emergency responder communication coverage enhancement.

918.1 General. In-building emergency responder communication enhancement system shall be provided in all new buildings in accordance with Section 510 of the International Fire Code.

[ ]

# NEW SECTION

WAC 51-50-1003 Section 1003—General means of egress.

1003.7 Elevators, escalators and moving walks. Elevators, escalators and moving walks shall not be used as a component of a required means of egress from any other part of the building.

- Elevators used as an accessible means of egress in accordance with Section 1009.4.
   Escalators used as a means of egress for fixed transit and passenger rail system accordance with Section 3116.

[]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-1004 Section 1004—Occupant load.

((Table 1004.5, Maximum Floor Area Allowances Per Occupant))

Table 1004.5 Maximum Floor Area Allowance Per Occupant

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR <sup>a</sup>
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Exhibit gallery and museum	30 net
Billiard table/game table area	50 gross
Assembly with fixed seats	See Section 1004.6
Assembly without fixed seats	

# Washington State Register

	OCCUPANT LOAD
FUNCTION OF SPACE	FACTOR <sup>a</sup>
Concentrated (chairs only - not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	
Concentrated business use areas	150 gross (See Section 1004.8)
Courtrooms - Other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
Fixed guideway transit and passenger rail systems Platform Concourse/lobby	100 gross (See Section 3114)
Group H-5 fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mall buildings - Covered and open	See Section 402.8.2
Mercantile	60 gross
Storage, stock, shipping areas	300 gross
((Group M art gallery	<del>30 gross</del> ))
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross
	200 51035

((For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m<sup>2</sup>.)) a Floor area in square feet per occupant.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1004, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-1004, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-1004, filed 1/19/16, effective 7/1/16.]

AMENDATORY SECTION (Amending WSR 13-04-067, filed 2/1/13, effective 7/1/13)

WAC 51-50-1005 Section 1005—((Reserved.)) Means of egress sizing.

1005.1 General. All portions of the means of egress system shall be sized in accordance with this section.

**EXCEPTIONS:** 

Aisles and aisle accessways in rooms or spaces used for assembly purposes complying with Section 1029.
 The capacity in inches, of means of egress components for fixed guideway transit and passenger rail stations, shall meet the requirements of Section 3114.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1005, filed 2/1/13, effective 7/1/13. Statutory Authority: Chapter 19.27 RCW. WSR 10-24-059, § 51-50-1005, filed 11/29/10, effective 7/1/11.]

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

WAC 51-50-1006 Section 1006—Number of exits and exit access doorways.

Table 1006.2.1

Spaces with One Exit or Exit Access Doorway

		MAXIMUM COMMO	ON PATH OF EGRESS TRA	VEL DISTANCE (feet)
		Without Sprinkler System (feet) Occupant Load		With Sprinkler
	MAVIMUM OCCUDANT			
OCCUPANCY	MAXIMUM OCCUPANT LOAD OF SPACE	OL ≤ 30	OL ≥ 30	System (feet)
A <sup>c</sup> , E <sup>h</sup> , M	49	75	75	75 <sup>a</sup>
В	49	100	75	100 <sup>a</sup>
F	49	75	75	100 <sup>a</sup>
H-1, H-2, H-3	3	NP	NP	25 <sup>b</sup>
H-4, H-5	10	NP	NP	75 <sup>b</sup>
I-1, I-2 <sup>d</sup> , I-4	10	NP	NP	75 <sup>b</sup>
I-3	10	NP	NP	100 <sup>a</sup>
R-1	10	NP	NP	75 <sup>a</sup>
R-2	20	NP	NP	125 <sup>a</sup>
R-3 <sup>e</sup>	20	NP	NP	125 <sup>a,g</sup>
R-4 <sup>e</sup>	20	NP	NP	125 <sup>a,g</sup>
Sf	29	100	75	100 <sup>a</sup>

			MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)		
			Without Sprinkler System (feet)		
		MAXIMUM OCCUPANT	Occupant Load		With Sprinkler
OCCUPA	ANCY	LOAD OF SPACE	OL ≤ 30	OL ≥ 30	System (feet)
U		49	100	75	75 <sup>a</sup>

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

- <sup>a</sup> Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.
- b Group H occupancies equipped throughout with an automatic sprinkler system in accordance with Section 903.2.5.
- c For a room or space used for assembly purposes having fixed seating, see Section 1029.8.
- d For the travel distance limitations in Group I-2, see Section 407.4.
- e The common path of egress travel distance shall only apply in a Group R-3 occupancy located in a mixed occupancy building.
- f The length of common path of egress travel distance in a Group S-2 open parking garage shall be not more than 100 feet.
- g For the travel distance limitations in Groups R-3 and R-4 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.3, see Section 1006.2.2.6.
- h Day care facilities, rooms or spaces where care is provided for more than 10 children that are 2 1/2 years of age or less, shall have access to not less than two exits or exit access doorways.
- 1006.2.1 Egress based on occupant load and common path of egress travel distance. Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. The cumulative occupant load from adjacent rooms, areas or spaces shall be determined in accordance with Section 1004.2.

EXCEPTIONS:

- 1. The number of exits from foyers, lobbies, vestibules or similar spaces need not be based on cumulative occupant loads for areas discharging through such spaces, but the capacity of the exits from such spaces shall be based on applicable cumulative occupant loads. 2. Care suites in Group I-2 occupancies complying with Section 407.4.
- 3. Unoccupied mechanical rooms and penthouses are not required to comply with the common path of egress travel distance measurement.
- 4. The common path of travel for fixed transit and passenger rail system stations shall be in accordance with Section 3116.
- ((1006.2.2.4 Group I-4 means of egress. This section is not adopted.
- 1006.2.2.7 Electrical equipment rooms. Rooms containing electrical equipment shall be provided with a second exit or exit access doorways as required by NFPA 70 Article 110 where all of the following apply:
  - 1. The electrical equipment is rated at 1,200 amperes or more.
  - 2. The electrical equipment is over 6 feet (1829 mm) wide.
- 3. The electrical equipment contains overcurrent devices, switching devices or control devices.
- 1006.3.3) 1006.2.1.1 Three or more exits or exit access doorways. Three exits or exit access doorways shall be provided from any space with an occupant load of 501 to 1,000. Four exits or exit access doorways shall be provided from any space with an occupant load greater than 1,000.

EXCEPTION: The number of required exits for fixed transit and passenger rail systems may be reduced by one at open stations.

- 1006.3.4 Single exits. A single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exists:
- 1. The occupant load, number of dwelling units and exit access travel distance within the portion of the building served by the single exit do not exceed the values in Table ((1006.3.3(1) or  $\frac{1006.3.3(2)}{1006.3.4(1)}$  or 1006.3.4(2).
- 2. Rooms, areas and spaces complying with Section 1006.2.1 with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit or access to a single exit.
- 3. Parking garages where vehicles are mechanically parked shall be permitted to have one exit or access to a single exit.

- 4. Groups R-3 and R-4 occupancies shall be permitted to have one exit or access to a single exit.
- 5. Individual single-story or multistory dwelling units shall be permitted to have a single exit or access to a single exit from the dwelling unit provided that both of the following criteria are met:
- 5.1. The dwelling unit complies with Section 1006.2.1 as a space with one means of egress.
- 5.2. Either the exit from the dwelling unit discharges directly to the exterior at the level of exit discharge, or the exit access outside the dwelling unit's entrance door provides access to not less than two approved independent exits.

# ((Table 1006.3.3(1)

# Stories with One Exit or Access to One Exit for R-2 Occupancies

Story	Occupancy	Maximum Number of Dwelling Units	Maximum Exit Access Travel Distance
Basement, first, second, or third story above grade plane	<del>R-2</del> a,b	4 dwelling units	125 feet
Fourth story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

NA = Not Applicable.

- a Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1030.
- b This table is used for R-2 occupancies consisting of dwelling units. For R-2 occupancies consisting of sleeping units, use Table 1006.3.3(2).

#### Table 1006.3.3(2)

# Stories with One Exit or Access to One Exit for Other Occupancies

Story	<del>Occupancy</del>	Maximum Occupant Load per Story	Maximum Exit Access Travel Distance (feet)
First story above or below grade plane	$\begin{array}{c} A,B^b,E,F^b,\\ M,U \end{array}$	49	<del>75</del>
	H-2, H-3	3	<del>25</del>
	H-4, H-5, I, R-1, R-2 <sup>a,c</sup>	10	<del>75</del>
	Sp'q	<del>29</del>	<del>75</del>
Second story above grade plane	B, F, M, S <sup>d</sup>	<del>29</del>	<del>75</del>
Third story above grade plane and higher	N₽	NA	NA

For SI: 1 foot = 304.8 mm.

NP - Not Permitted.

NA = Not Applicable.

a Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1030.

#### Washington State Register

- b Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum exit access travel distance of 100 feet.
- This table is used for R-2 occupancies consisting of sleeping units. For R-2 occupancies consisting of dwelling units, use Table 1006.3.3(1).
- d The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet.))

```
[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, §
51-50-1006, filed 10/9/20, effective 11/9/20; WSR 20-01-090, §
51-50-1006, filed 12/12/19, effective 7/1/20; WSR 16-03-064, §
51-50-1006, filed 1/19/16, effective 7/1/16.]
```

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

# WAC 51-50-1009 Section 1009—Accessible means of egress.

1009.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by Section 1006.2 or 1006.3 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

EXCEPTIONS:

- 1. Accessible means of egress are not required to be provided in existing buildings.
  2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1009.3, 1009.4 or 1009.5.
- 3. In assembly areas with ramped *aisles* or stepped *aisles*, one accessible *means of egress* is permitted where the *common path of egress travel* is *accessible* and meets the requirements in Section ((1029.8)) 1030.8.
- 4. In parking garages, accessible means of egress are not required to serve parking areas that do not contain accessible parking spaces.
- ((1009.2.1 Elevators required. In buildings where a required accessible floor or accessible occupied roof is four or more stories above or below a level of exit discharge, not less than one required accessible means of egress shall be an elevator complying with Section 1009.4.

**EXCEPTIONS:** 

- 1. In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a horizontal exit and located at or above the levels of exit discharge. 2. In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a ramp conforming to the provisions of Section 1012.))
- 1009.8 Two-way communication. A two-way communication system complying with Sections 1009.8.1 and 1009.8.2 shall be provided at the landing serving each elevator or bank of elevators on each accessible floor that is one or more stories above or below the level of exit discharge.

**EXCEPTIONS:** 

- 1. Two-way communication systems are not required at the landing serving each elevator or bank of elevators where the two-way communication system is provided within areas of refuge in accordance with Section 1009.6.5.
- 2. Two-way communication systems are not required on floors provided with ramps that provide a direct path of egress travel to grade or the level of exit discharge conforming to the provisions of Section 1012.
- 3. Two-way communication systems are not required at the landings serving only service elevators that are not designated as part of the accessible *means of egress* or serve as part of the required *accessible route* into a facility.

  4. Two-way communication systems are not required at the landings serving only freight elevators.
- 5. Two-way communication systems are not required at the landing serving a private residence elevator.

  6. Two-way communication systems are not required at the landing serving a private residence elevator.

  6. Two-way communication systems are not required in Group I-2 or I-3 facilities.
- 1009.8.1 System requirements. Two-way communication systems shall provide communication between each required location and the fire command center or a central control point location approved by the fire department. Where the central control point is not a constantly attended location, a two-way communication system shall have a timed automatic telephone dial-out capability ((to a monitoring location)) that provides two-way communication with an approved supervising station. The two-way communication system shall include both audible and visible signals. The two-way communication system shall have a battery backup

or an approved alternate source of power that is capable of 90 minutes use upon failure of the normal power source.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, § 51-50-1009, filed 10/9/20, effective 11/9/20; WSR 20-01-090, § 51-50-1009, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1009, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1009, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1009, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1009, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1009, filed 12/17/03, effective 7/1/04.1

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

# WAC 51-50-10100 Section 1010—Doors, gates, and turnstiles.

- ((1010.1.9.4 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:
  - 1. Places of detention or restraint.
- 2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main door or doors are permitted to be equipped with key-operated locking devices from the egress side, provided:
  - 2.1. The locking device is readily distinguishable as locked;
- 2.2. A readily visible and durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and
- 2.3. The use of the key-operated locking device is revocable by the building official for due cause.
- 3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
- 4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt, or security chain, provided such devices are openable from the inside without the use of a key or a tool.
- 5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.
- 6. Doors serving roofs not intended to be occupied shall be permitted to be locked preventing entry to the building from the roof.
- 7. Approved, listed locks without delayed egress shall be permitted in Group I-1 condition 2 assisted living facilities licensed by the state of Washington, provided that:
- 7.1. The clinical needs of one or more patients require specialized security measures for their safety.

- 7.2. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
- 7.3. The doors unlock upon loss of electrical power controlling the lock or lock mechanism.
- 7.4. The lock shall be capable of being deactivated by a signal from a switch located in an approved location.
- 7.5. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.
- 8. Other than egress courts, where occupants must egress from an exterior space through the building for means of egress, exit access doors shall be permitted to be equipped with an approved locking device where installed and operated in accordance with all of the following:
- 8.1. The occupant load of the occupied exterior area shall not exceed 300 as determined by IBC Section 1004.
- 8.2. The maximum occupant load shall be posted where required by Section 1004.9. Such sign shall be permanently affixed inside the building and shall be posted in a conspicuous space near all the exit access doorways.
- 8.3. A weatherproof telephone or two-way communication system installed in accordance with Sections 1009.8.1 and 1009.8.2 shall be located adjacent to not less than one required exit access door on the exterior side.
- 8.4. The egress door locking device is readily distinguishable as locked and shall be a key-operated locking device.
- 8.5. A clear window or glazed door opening, not less than 5 square feet  $(0.46 \text{ m}^2)$  sq. ft. in area, shall be provided at each exit access door to determine if there are occupants using the outdoor area.
- 8.6. A readily visible durable sign shall be posted on the interior side on or adjacent to each locked required exit access door serving the exterior area stating: This DOOR TO REMAIN UNLOCKED WHEN THE OUTDOOR AREA IS OCCUPTED. The letters on the sign shall be not less than 1 inch high on a contrasting background.
- 9. Locking devices are permitted on doors to balconies, decks or other exterior spaces serving individual dwelling or sleeping units.
- 10. Locking devices are permitted on doors to balconies, decks or other exterior spaces of 250 square feet or less, serving a private office space.
- 1010.1.9.7 Controlled egress doors in Groups I-1 and I-2. Electric locking systems, including electromechanical locking systems and electromagnetic locking systems, shall be permitted to be locked in the means of egress in Group I-1 or I-2 occupancies where the clinical needs of persons receiving care require their containment. Controlled egress doors shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with all of the following:
- 1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.

- 3. The door locking system shall be installed to have the capability of being unlocked by a switch located at the fire command center, a nursing station or other approved location. The switch shall directly break power to the lock.
- 4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an exit.
- 5. The procedures for unlocking the doors shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the *International Fire Code*.
- 6. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door. All clinical staff shall have the keys, codes or other means necessary to operate the locking systems.
  - 7. Emergency lighting shall be provided at the door.
- 8. The door locking system units shall be listed in accordance with UL 294.
- **EXCEPTION:**
- 1. Items 1 through 4 and 6 shall not apply to doors to areas where persons, which because of clinical needs, require restraint or containment as part of the function of a psychiatric treatment area provided that all clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
- 2. Items 1 through 4 and 6 shall not apply to doors to areas where a listed egress control system is utilized to reduce the risk of child abduction from nursery and obstetric areas of a Group I-2 hospital.
- 1010.1.10 Panic and fire exit hardware. Swinging doors serving a Group H occupancy and swinging doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than panic hardware or fire exit hardware.
- **EXCEPTIONS:**
- 1. A main exit of a Group A occupancy shall be permitted to have locking devices in accordance with Section 1010.1.9.4, Item 2.

  2. Doors provided with panic hardware or fire exit hardware and serving a Group A or E occupancy shall be permitted to be electromagnetically locked in accordance with Section 1010.1.9.9 or 1010.1.9.10.
- 3. Exit access doors serving occupied exterior areas shall be permitted to be locked in accordance with Section 1010.1.9.4, Item 7.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide, and that contain overcurrent devices, switching devices or control devices with exit or exit access doors, shall be equipped with panic hardware or fire exit hardware. The doors shall swing in the direction of egress travel.

- 1010.1.10.3 Electrical rooms and working clearances. Exit and exit access doors serving electrical rooms and working spaces shall swing in the direction of egress travel and shall be equipped with panic hardware or fire exit hardware where such rooms or working spaces contain one or more of the following:
  - 1. Equipment operating at more than 600 volts, nominal.
- 2. Equipment operating at 600 volts or less, nominal and rated at 800 amperes or more, and where the equipment contains overcurrent devices, switching devices or control devices.
- EXCEPTION: Panie and fire exit hardware is not required on exit and exit access doors serving electrical equipment rooms and working spaces where such doors are not less than twenty-five feet (7.6 m) from the nearest edge of the electrical equipment.))
- 1010.2.4 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:
  - 1. Places of detention or restraint.
- 2. Approved, listed locks without delayed egress shall be permitted in Group I-1 condition 2 assisted living facilities licensed by the state of Washington, provided that:
- 2.1. The clinical needs of one or more patients require specialized security measures for their safety.

- 2.2. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
- 2.3. The doors unlock upon loss of electrical power controlling the lock or lock mechanism.
- 2.4. The lock shall be capable of being deactivated by a signal from a switch located in an approved location.
- 2.5. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.
- 3. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main door or doors are permitted to be equipped with key-operated locking devices from the egress side, provided:
  - 3.1. The locking device is readily distinguishable as locked.
- 3.2. A readily visible and durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.
- 3.3. The use of the key-operated locking device is revocable by the building official for due cause.
- 4. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
- 5. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt, or security chain, provided such devices are openable from the inside without the use of a key or a tool.
- 6. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.
- 7. Doors serving roofs not intended to be occupied shall be permitted to be locked preventing entry to the building from the roof.
- 8. Other than egress courts, where occupants must egress from an exterior space through the building for means of egress, exit access doors shall be permitted to be equipped with an approved locking device where installed and operated in accordance with all of the following:
- 8.1. The maximum occupant load shall be posted where required by Section 1004.9. Such signage shall be permanently affixed inside the building and shall be posted in a conspicuous space near all the exit access doorways.
- 8.2. A weatherproof telephone or two-way communication system installed in accordance with Sections 1009.8.1 and 1009.8.2 shall be located adjacent to not less than one required exit access door on the exterior side.
- 8.3. The egress door locking device is readily distinguishable as locked and shall be a key-operated locking device.
- 8.4. A clear window or glazed door opening, not less than 5 square feet (0.46 m<sup>2</sup>) in area, shall be provided at each exit access door to determine if there are occupants using the outdoor area.
- 8.5. A readily visible durable sign shall be posted on the interior side on or adjacent to each locked required exit access door serving the exterior area stating: This door to remain unlocked when the outdoor area is

- OCCUPIED. The letters on the sign shall be not less than 1 inch high on a contrasting background.
- 8.6. The occupant load of the occupied exterior area shall not exceed 300 occupants in accordance with Section 1004.
- 9. Locking devices are permitted on doors to balconies, decks or other exterior spaces serving individual dwelling or sleeping units.
- 10. Locking devices are permitted on doors to balconies, decks or other exterior spaces of 250 square feet or less, serving a private office space.
- 1010.2.14 Controlled egress doors in Groups I-1 and I-2. Electric locking systems, including electromechanical locking systems and electromagnetic locking systems, shall be permitted to be locked in the means of egress in Group I-1 or I-2 occupancies where the clinical needs of persons receiving care require their containment. Controlled egress doors shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with all of the following:
- 1. The door locks shall unlock on actuation of the automatic sprinkler system or automatic smoke detection system.
- 2. The doors locks shall unlock on loss of power controlling the lock or lock mechanism.
- 3. The door locking system shall be installed to have the capability of being unlocked by a switch located at the fire command center, a nursing station or other approved location. The switch shall directly break power to the lock.
- 4. A building occupant shall not be required to pass through more than one door equipped with a controlled egress locking system before entering an exit.
- 5. The procedures for unlocking the doors shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the *International Fire Code*.
- 6. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door. All clinical staff shall have the keys, codes or other means necessary to operate the locking systems.
  - 7. Emergency lighting shall be provided at the door.
- 8. The door locking system units shall be listed in accordance with UL 294.

# **EXCEPTIONS:**

1. Items 1 through 4, and 6, shall not apply to doors to areas occupied by persons who, because of clinical needs, require restraint or containment as part of the function of a psychiatric or cognitive treatment area, provided that all clinical staff shall have the keys, codes or other means necessary to operate the locking devices.

2. Items 1 through 4, and 6, shall not apply to doors to areas where a listed egress control system is utilized to reduce the risk of child

abduction from nursery and obstetric areas of a Group I-2 hospital.

1010.3.4.1 Fixed transit and passenger rail systems. In fixed transit and passenger rail system stations, horizontal and vertical security grilles are permitted at station entrances as a component in the means of egress when the station is under constant supervision by on-site security personnel and an exit door with panic hardware that swings in the direction of egress, with a minimum clear width of 32 inches, provided within 10 feet of the gate. The security grilles shall remain secured in the full-open position during the period of occupancy by the general public.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-10100, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-10100, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-10100, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-10100, filed 1/20/10, effective 7/1/10.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

# WAC 51-50-1011 Section 1011—Stairways.

((1011.7 Stairway construction. Stairways shall be built of materials consistent with the types permitted for the type of construction of the building.

EXCEPTIONS:

- 1. Wood handrails shall be permitted in all types of construction.
- 2. Interior exit stairway in accordance with Section 510.2.
- 1011.17 Stairways in individual dwelling units. Stairs or ladders within an individual dwelling unit used for access to areas of 200 square feet (18.6 m<sup>2</sup>) or less, and not containing the primary bathroom or kitchen, are exempt from the requirements of Section 1011.))
- 1011.1 General. Stairways serving occupied portions of a building shall comply with the requirements of Sections 1011.2 through 1011.13. Alternating tread devices shall comply with Section 1011.14. Ship's ladders shall comply with Section 1011.15. Ladders shall comply with Section 1011.16.

EXCEPTIONS:

1. Within rooms or spaces used for assembly purposes, stepped aisles shall comply with Section 1029.

2. Stairways, alternating tread devices, ship's ladders, or ladders within an individual dwelling unit or sleeping unit used for egress from areas of 200 square feet (18.6 m<sup>2</sup>) or less, and not containing the primary bathroom or kitchen, are exempt from the requirements of Section 1011. Such areas shall not be located more than 10 feet (3048 mm) above the finished floor of the space below.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1011, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1011, filed 1/19/16, effective 7/1/16.

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

# WAC 51-50-1012 Section 1012—Ramps.

1012.1 Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

EXCEPTIONS:

- 1. Ramped *aisles* within assembly rooms or spaces shall ((eonform)) comply with the provisions in Section ((1029.13)) 1030.13.

  2. Curb ramps shall comply with ICC A117.1.

  3. Vehicle ramps in parking garages for pedestrian *exit access* shall not be required to comply with Sections 1012.3 through 1012.10
- where they are not an accessible route serving accessible parking spaces, other required accessible elements, or part of an accessible
- 4. In a parking garage where one accessible means of egress serving accessible parking spaces or other accessible elements is provided, a second accessible means of egress serving that area may include a vehicle ramp that does not comply with Sections 1012.5, 1012.6, and 1012.9. A landing complying with Sections 1012.6.1 and 1012.6.4 shall be provided at any change of direction in the accessible means of egress.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1012, filed 1/19/16, effective 7/1/16.]

AMENDATORY SECTION (Amending WSR 13-04-067, filed 2/1/13, effective 7/1/13)

# WAC 51-50-1014 ((Reserved.)) Section 1014—Location.

- 1014.2 Location. Handrails serving flights of stairways, ramps, stepped aisles, and ramped aisles shall comply with the provisions of Sections 1014.2.1 and 1014.2.2.
- 1014.2.1 Height. Handrail height, measured above stair tread nosings, or finish surface of ramp slope, shall be uniform, not less than 34 inches (864 mm) and not more than 38 inches (965 mm). Handrail height of alternating tread devices and ships ladders, measured above tread nosings, shall be uniform, not less than 30 inches (762 mm) and not more than 34 inches (864 mm).
- EXCEPTIONS:
- 1. Where handrail fittings or bendings are used to provide continuous transition between flights, the fittings or bendings shall be permitted to exceed the maximum height.

  2. In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are associated with a Group R-3 occupancy or associated with individual dwelling units in Group R-2 occupancies; where handrail fittings or bendings are used to provide continuous transition between flights, transition at winder treads, transition from handrail to guard, or where used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.

  3. Handrails on top of a guard where permitted along stepped aisles and ramped aisles in accordance with Section 1030.16.
- 1014.2.2 Lateral location. Handrails located outward from the edge of the walking surface of flights of stairways, ramps, stepped aisles, and ramped aisles shall be located within 6 inches (152.4 mm) measured horizontally from the edge of the walking surface. Handrails projecting into the width of the walking surface shall comply with Section 1014.8.
- 1014.3 Lateral location. Handrails located outward from the edge of the walking surface of flights of stairways, ramps, stepped aisles, and ramped aisles shall be located within 6 inches (152.4 mm) measured horizontally from the edge of the walking surface. Handrails projecting into the width of the walking surface shall comply with Section 1014.8.
- 1014.8 Projections. On ramps and on ramped aisles that are part of an accessible route, the clear width between handrails shall be 36 inches (914 mm) minimum. Projections into the required width of stepped and ramped aisles, flights of stairways and ramps at each side shall not exceed 4.5 inches (114 mm) at or below the handrail height. Projections into the required width shall not be limited above the minimum headroom height required in Section 1011.3. Projections due to intermediate handrails shall not constitute a reduction in the egress width. Where a pair of intermediate handrails are provided within the stairway width without a walking surface between the pair of intermediate handrails is greater than 6 inches (152 mm), the available egress width shall be reduced by the distance between the closest edges of each such intermediate pair of handrails that is greater than 6 inches (152 mm).

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067,  $\S$  51-50-1014, filed 2/1/13, effective 7/1/13. Statutory

Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1014, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1014, filed 12/19/06, effective 7/1/07.1

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

#### WAC 51-50-1015 ((Reserved.)) Section 1015—Guards.

1015.2 Where required. Guards shall be located along open-sided walking surfaces, including mezzanines, equipment platforms, lofts in accordance with Section 420.14, aisles, stairs, ramps and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Guards shall be provided at the perimeter of the occupied portions of an occupied roof. Guards shall be adequate in strength and attachment in accordance with Section 1607.9.

# EXCEPTION:

Guards are not required for the following locations:

1. On the loading side of loading docks or piers.
2. On the audience side of stages and raised platforms, including stairs leading up to the stage and raised platforms.

3. On raised stage and platform floor areas, such as runways, ramps and side stages used for entertainment or presentations.

4. At vertical openings in the performance area of stages and platforms.

5. At elevated walking surfaces appurtenant to stages and platforms for access to and utilization of special lighting or equipment.

6. Along vehicle service pits not accessible to the public.

9. An assembly seating areas at cross aisles in accordance with Section 1030.17.2.

8. On the loading side of station platforms on fixed guideway transit or passenger rail stations.

9. Portions of an occupied roof located less than 30 inches measured vertically to adjacent unoccupied roof areas when approved guards

are present at the perimeter of the roof.

10. At an occupied portion of an occupied roof where a barrier approved by the building official is provided.

- 1015.3 Height. Required quards shall be not less than 42 inches (1067 mm) high, measured vertically as follows:
  - 1. From the adjacent walking surfaces.
- 2. On stairways and stepped aisles, from the line connecting the leading edges of the tread nosings.
- 3. On ramps and ramped aisles, from the ramp surface at the quard.

### EXCEPTIONS:

1. For occupancies in Group R-3 not more than three stories above grade in height and within individual *dwelling units* in occupancies in Group R-2 not more than three stories above grade in height with separate *means of egress*, required *guards* shall be not less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces.

2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.

3. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the guard serves as a handrail on the open sides of stairs, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

4. In areas with ceiling heights of 7 feet (2134 mm) or less in lofts constructed in accordance with Section 420.14, guards shall not be less than 36 inches (914 mm) in height or one-half of the clear height from the *loft* floor to the *loft* ceiling, whichever is less. 5. The *guard* height in assembly seating areas shall comply with Section 1030.17 as applicable.

6. Along alternating tread devices and ships ladders, guards where the top rail serves as a handrail shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread nosing. 7. In Group F occupancies where exit access stairways serve fewer than three stories and such stairways are not open to the public, and where the top of the guard also serves as a handrail, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1015, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1015, filed 12/19/06, effective 7/1/07.]

# WAC 51-50-10170 Section 1017—Exit access travel distance.

# Table 1017.2 Exit Access Travel Distancea

Occupancy	Without Sprinkler System (feet)	With Sprinkler System (feet)
A, E, F-1, M, R, S-1	200e	250 <sup>b</sup>
I-1	Not Permitted	250 <sup>b</sup>
В	200	300°
F-Z, S-Z, U	300	400°
H-1	Not Permitted	75 <sup>d</sup>
H-Z	Not Permitted	100 <sup>d</sup>
H-3	Not Permitted	150 <sup>d</sup>
H-4	Not Permitted	175 <sup>d</sup>
H-5	Not Permitted	200°
1-Z, 1-3	Not Permitted	200°
1-4	150	200°

For SI: 1 foot = 304.8 mm.

- See the following sections for modifications to exit access travel distance requirements:
  - Section 402.8: For the distance limitation in malls.
  - Section 407.4: For the distance limitation in Group I-2.
  - Sections 408.6.1 and 408.8.1: For the distance limitations in Group I-3.
  - Section 411.2: For the distance limitation in special amusement buildings
  - Section 412.6: For the distance limitations in aircraft manufacturing facilities.
  - Section 1006.2.2.2: For the distance limitation in refrigeration machinery rooms.
  - Section 1006.2.2.3: For the distance limitation in refrigerated rooms and spaces.
  - Section 1006.3.4: For buildings with one exit.
  - Section 1017.2.2: For increased distance limitation in Groups F-1 and S-1.
  - Section 1030.7: For increased limitation in assembly seating.
  - Section 3103.4: For temporary structures.
  - Section 3104.9: For pedestrian walkways.
  - Section 3114: For fixed guideway and passenger rail stations.
- b Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.
- <sup>c</sup> Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
- d Group H occupancies equipped throughout with an automatic sprinkler system in accordance with Section 903.2.5.1.

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

# WAC 51-50-1019 Section 1019—Exit access stairways and ramps.

1019.3 Occupancies other than Groups I-2 and I-3. In other than Groups I-2 and I-3 occupancies, floor openings containing exit access stairways or ramps shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

EXCEPTIONS:

- 1. Exit access stairways and ramps that serve or atmospherically communicate between only two adjacent stories. Such interconnected stories shall not be open to other stories.
- 2. In Group R-1, R-2 or R-3 occupancies, exit access stairways and ramps connecting four stories or less serving and contained within an individual dwelling unit or sleeping unit or live/work unit.

  3. Exit access stairways serving and contained within a Group R-3 congregate residence are not required to be enclosed.
- 4. Exit access stairways and ramps in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, where the area of the vertical opening between stories does not exceed twice the horizontal projected area of the stairway or ramp and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Group B and M occupancies, this provision is limited to openings that do not connect more than four stories.
- 5. Exit access stairways and ramps within an atrium complying with the provisions of Section 404.

- 6. Exit access stairways and ramps in open parking garages that serve only the parking garage.
- 7. Exit access stairways and ramps serving smoke-protected or open-air assembly seating complying with the exit access travel distance requirements of Section ((1029.7)) 1030.7
- 8. Exit access stairways and ramps between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, places of religious worship, auditoriums, and sports facilities.
- 9. Exterior exit access stairways or ramps between occupied roofs.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, § 51-50-1019, filed 10/9/20, effective 11/9/20; WSR 20-01-090, § 51-50-1019, filed 12/12/19, effective 7/1/20; WSR 10-03-097, § 51-50-1019, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1019, filed 12/19/06, effective 7/1/07.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

#### Section 1020—Corridors. WAC 51-50-1020

((1020.4 Dead ends. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that dead-end corridors do not exceed 20 feet (6096 mm) in length.

## **EXCEPTIONS:**

- 1. In Group I-3, Condition 2, 3 or 4, occupancies, the dead end in a corridor shall not exceed 50 feet (15,240 mm).
- 2. In occupancies in Groups B, E, F, I-1, M, R-1, R-2, S and U, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the length of the dead-end corridors shall not exceed 50 feet (15,240 mm).

  3. A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.
- 4. In Group I-2, Condition 2 occupancies, the length of dead end corridors that do not serve patient rooms or patient treatment spaces shall not exceed 30 feet (9144 mm).

1020.5)) 1020.6 Air movement in corridors. Corridors shall not serve as supply, return, exhaust, relief, or ventilation air ducts.

### EXCEPTIONS:

- 1. Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.
- 2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.
- 3. Where located within tenant spaces of one thousand square feet (93 m<sup>2</sup>) or less in area, utilization of corridors for conveying return
- 4. ((Incidental air movement from pressurized rooms within health care facilities, provided that a corridor is not the primary source of supply or return to the room.)) Transfer air movement required to maintain the pressurization difference within health care facilities in accordance with ASHRAE 170.
- accordance with ASHKAE 170.

  5. Where such air is part of an engineered smoke control system.

  6. Air supplied to corridors serving residential occupancies shall not be considered as providing ventilation air to the dwelling units and sleeping units subject to the following:

  6.1 The air supplied to the corridor is one hundred percent outside air; and

  6. The units corridor by the corridor have conforming ventilation air independent of the air supplied to the corridor; and

- 6.2 The units served by the corridor have conforming ventilation air independent of the air supplied to the corridor; and 6.3 For other than high-rise buildings, the supply fan will automatically shut off upon activation of corridor smoke detectors which shall be spaced at no more than thirty feet (9,144 mm) on center along the corridor; or
- 6.4 For high-rise buildings, corridor smoke detector activation will close required smoke/fire dampers at the supply inlet to the corridor at the floor receiving the alarm.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1020, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1020, filed 1/19/16, effective 7/1/16.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-1023 Section 1023—Interior exit stairways and ramps. ((1023.2 Construction. Enclosures for interior exit stairways and ramps shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. Interior exit stairway and ramp enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the interior exit stairways or ramps shall include any basements, but not any mezzanines. Interior exit stairways and ramps shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.

**EXCEPTIONS:** 

- 1. Interior exit stairways and ramps in Group I-3 occupancies in accordance with the provisions of Section 408.3.8.
- 2. Interior exit stairways within an atrium enclosed in accordance with Section 404.6.
- 3. Interior exit stairway in accordance with Section 510.2.
- 1023.5 Penetrations. Penetrations into or through interior exit stairways and ramps are prohibited except for the following:
- 1. Equipment and ductwork necessary for independent ventilation or pressurization;
  - 2. Fire protection systems;
  - 3. Security systems;
  - 4. Two-way communication systems;
  - 5. Electrical raceway for fire department communication systems;
- 6. Electrical raceway serving the interior exit stairway and ramp and terminating at a steel box not exceeding 16 square inches (0.010 m);
- 7. Structural elements supporting the interior exit stairway or ramp or enclosure, such as beams or joists.
- 1023.11)) 1023.12 Smokeproof enclosures. Where required by Section 403.5.4, 405.7.2 or 412.2.2.1, interior exit stairways and ramps shall be smokeproof enclosures in accordance with Section 909.20. Where interior exit stairways and ramps are pressurized in accordance with Section 909.20.5, the smoke control pressurization system shall comply with the requirements specified in Section 909.6.3.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, \$51-50-1023, filed 12/12/19, effective 7/1/20.]

<u>AMENDATORY SECTION</u> (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

# WAC 51-50-10240 ((Section 1024 Exit passageways.)) Reserved.

((1024.9 Exit passageway exterior walls. Exterior walls of the exit passageway shall comply with Section 705. Where nonrated walls or unprotected openings enclose the exterior of the exit passageway and the walls or openings are exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the building exterior walls within 10 feet (3048 mm) horizontally of a nonrated wall or unprotected opening shall have a fire-resistance rating of not less than 1 hour. Openings within such exterior walls shall be protected by opening protectives having a fire-protection rating of not less than 3/4 hour. This construction shall extend vertically from the ground to a point 10 feet (3048 mm) above the floor of the exit passageway, or to the roof line, whichever is lower.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, \$51-50-10240, filed 10/9/20, effective 11/9/20; WSR 20-01-090, \$51-50-10240, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-10300 ((Section 1030—Emergency escape and rescue.)) Reserved.

((1030.6 Drainage. Window wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section 1805.4.2 or by an approved alternative method.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, \$51-50-10300, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 17-23-182, filed 11/21/17, effective 7/1/18)

# WAC 51-50-1101 Section 1101—General.

- 1101.2 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1, except those portions of ICC A117.1 amended by this section.
- ((1101.2.1 (ICC Al17.1 Section 403.5) Clear width of accessible route. Clear width of an accessible route shall comply with ICC Al17.1 Section 403.5. For exterior routes of travel, the minimum clear width shall be 44 inches (1118 mm).))
- 1101.2.2 (ICC A117.1 Section 404.2.8) Door-opening force. ((Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors other than fire doors shall be as follows:)) Fire doors and doors or gates required to be equipped with panic hardware, break away features or other factors requiring higher opening force for safety reasons shall have the minimum opening force allowable in scoping provisions adopted by the appropriate administrative authority. For other doors or gates, the force for pushing or pulling open doors or gates shall be as follows:
  - 1. Interior hinged door: 5.0 pounds (22.2 N) maximum
  - 2. Interior sliding or folding doors: 5.0 pounds (22.2 N) maximum
- 3. Exterior hinged, sliding or folding door: 10 pounds (44.4 N) maximum.

((EXCEPTION: Interior or exterior automatic doors complying with Section 404.3 of ICC ANSI A117.1.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.

1101.2.3 (ICC A117.1 Section 407.4.6.2.2) Arrangement of elevator car buttons. Buttons shall be arranged with numbers in ascending order. When two or more columns of buttons are provided they shall read from left to right.))

EXCEPTION:

The force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position shall not apply to panic hardware, delayed egress devices or fire-rated hardware.

- 1101.2.4 (ICC ANSI A117.1 ((606.7)) 603.6) Operable parts. Operable parts on drying equipment, towel or cleansing product dispensers, and disposal fixtures shall comply with Table 603.6.
- 1101.2.5 (ICC A117.1 Section 604.6) Flush controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with Section 309, except the maximum height above the floor shall be 44 inches. Flush controls shall be located on the open side of the water closet.

EXCEPTION: In ambulatory accessible compartments complying with Section 604.10, flush controls shall be permitted to be located on either side of

- 1101.2.6 (ICC A117.1 Section 703.6.3.1) International Symbol of Accessibility. Where the International Symbol of Accessibility is required, it shall be proportioned complying with ICC A117.1 Figure 703.6.3.1. All interior and exterior signs depicting the International Symbol of Accessibility shall be white on a blue background.
- 1101.2.7 (ICC A117.1 Section 502.2) Vehicle space size. Car and van parking spaces shall be 96 inches (2440 mm) minimum in width.
- 1101.2.8 (ICC A117.1 Section 502.4.2) Access aisle width. Access aisles serving car parking spaces shall be 60 inches (1525 mm) minimum in width. Access aisles serving van parking spaces shall be 96 inches (2440 mm) minimum in width.
- 1101.2.9 (ICC A117.1 Section 502.7) Identification. Accessible parking spaces shall be indicated by a vertical sign. The signs shall include the International Symbol of Accessibility complying with section 703.6.3.1. Such symbol shall be white on a blue background. Signs identifying van parking spaces shall contain the designation "van accessible." The sign may include additional language such as, but not limited to, an indication of the amount of the monetary penalty defined in RCW 46.19.050 for parking in the space without a valid permit. A vertical "no parking" sign shall be erected at the head of each access aisle located adjacent to an accessible parking space. The sign may include additional language such as, but not limited to, an indication of any penalty for parking in an access aisle. Such signs shall be 60 inches (1525 mm) minimum above the floor of the parking space, measured to the bottom of the sign.

[Statutory Authority: RCW 19.27.074 and 19.27.550. WSR 17-23-182, § 51-50-1101, filed 11/21/17, effective 7/1/18. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064,  $\S$  51-50-1101, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR  $1\bar{3}$ -04-067, § 51-50-1101, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1101, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, \$ 51-50-1101, filed 12/5/05, effective 7/1/06; WSR 05-01-014, \$ 51-50-1101, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1101, filed 12/17/03, effective 7/1/04.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-11050 ((Section 1105—Accessible entrances.)) Reserved.

((1105.1.8 Automatic doors. In facilities with the occupancies and building occupant loads indicated in Table 1105.1.8, all public entrances that are required to be accessible shall have one door be either a full power-operated door or a low-energy power-operated door. Where the public entrance includes a vestibule, at least one door into and one door out of the vestibule shall meet the requirements of this section.

Table 1105.1.8<sup>a</sup>
PUBLIC ENTRANCE WITH POWER-OPERATED DOORS<sup>a</sup>

Occupancy	Building Occupant Load Greater Than
A-1, A-2, A-3, A-4	<del>300</del>
B, M, R-1	<del>500</del>

a In mixed-use facilities containing occupancies listed, when the total sum of the occupant load is greater than those listed, the most restrictive building occupant load shall apply.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090,  $\S$  51-50-11050, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 13-04-067, filed 2/1/13, effective 7/1/13)

WAC 51-50-1106 Section 1106—Parking and passenger loading facilities.

((1106.6)) 1106.7 Location. Accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance. In parking facilities that do not serve a particular building, accessible parking spaces shall be located on the shortest route to an accessible pedestrian entrance to the parking facility. Where buildings have multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entrances. Wherever practical, the accessible route shall not cross lanes of vehicular traffic. Where crossing traffic lanes is necessary, the route shall be designated and marked as a crosswalk.

EXCEPTION:

In multilevel parking structures, van accessible parking spaces are permitted on one level.
 Accessible parking spaces shall be permitted to be located in different parking facilities if substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance or entrances, parking fee and user convenience.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1106, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1106, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1106, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW

19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1106, filed 12/17/03, effective 7/1/04.1

AMENDATORY SECTION (Amending WSR 21-06-035, filed 2/23/21, effective 3/26/21)

WAC 51-50-1107 Section 1107—((Dwelling units and sleeping units)) Motor vehicle related facilities.

((1107.5 Group I. Accessible units and Type B units shall be provided in Group I occupancies in accordance with Sections 1107.5.1.1 through 1107.5.1.3.

1107.5.1.1 Accessible units in Group I-1, Condition 1. In Group I-1, Condition 1, at least 4 percent, but not less than one, of the dwelling units and sleeping units shall be accessible units.

EXCEPTIONS:

1. In not more than 50 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.4.

2. In not more than 50 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where rollin-type showers comply with Section 1109.2.5.

1107.5.1.2 Accessible units in Group I-1, Condition 2. In Group I-1, Condition 2, at least 10 percent, but not less than one, of the dwelling units and sleeping units shall be accessible units.

**EXCEPTIONS:** 

1. In not more than 90 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.4.

2. In not more than 90 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where rollin-type showers comply with Section 1109.2.5.

1107.5.4 Group I-2 rehabilitation facilities. In hospitals and rehabilitation facilities of Group I-2 occupancies that specialize in treating conditions that affect mobility, or units within either that specialize in treating conditions that affect mobility, 100 percent of the dwelling units and sleeping units shall be accessible units.

**EXCEPTIONS:** 

1. In not more than 50 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.4.

2. In not more than 50 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where rollin-type showers comply with Section 1109.2.5.

1107.6.2.2.1 Type A units. In Group R-2 Occupancies containing more than 10 dwelling units or sleeping units, at least 5 percent, but not less than one, of the units shall be a Type A unit. All units on a site shall be considered to determine the total number of units and the required number of Type A units. Type A units shall be dispersed among the various classes of units, as described in Section 1107.6. Bedrooms in monasteries and convents shall be counted as sleeping units for the purpose of determining the number of units. Where the sleeping units are grouped into suites, only one sleeping unit in each suite shall count towards the number of required Type A units.

EXCEPTIONS:

1. The number of Type A units is permitted to be reduced in accordance with Section 1107.7. 2. Existing structures on a site shall not contribute to the total number of units on a site.

1107.5.1 Group I-1. Accessible units and Type B units shall be provided in Group I-1 occupancies in accordance with Sections 1107.5.1.1 through 1107.5.1.3.

1107.5.1.1 Accessible units in Group I-1, Condition 1. In Group I-1, Condition 1, at least 4 percent, but not less than one, of the dwelling units and sleeping units shall be accessible units.

**EXCEPTIONS:** 

1. In not more than 50 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.2.

2. In not more than 50 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

1107.5.1.2 Accessible units in Group I-1, Condition 2. In Group I-1, Condition 2, at least 10 percent, but not less than one, of the dwell-ing units and sleeping units shall be accessible units.

**EXCEPTIONS:** 

1. In not more than 50 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.2.

2. In not more than 50 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

1107.5.1.3 Type B units. In structures with four or more dwelling units or sleeping units intended to be occupied as a residence, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

EXCEPTION: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.5.2 Group I-2 nursing homes. Accessible units and Type B units shall be provided in nursing homes of Group I-2, Condition 1 occupancies in accordance with Sections 1107.5.2.1 and 1107.5.2.2.

1107.5.2.1 Accessible units. At least 50 percent but not less than one of each type of the dwelling units and sleeping units shall be accessible units.

**EXCEPTIONS:** 

1. In not more than 90 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.2.

2. In not more than 90 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

1107.5.4 Group I-2 rehabilitation facilities. In hospitals and rehabilitation facilities of Group I-2 occupancies that specialize in treating conditions that affect mobility, or units within either that specialize in treating conditions that affect mobility, 100 percent of the dwelling units and sleeping units shall be accessible units.

**EXCEPTIONS:** 

1. In not more than 50 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.2.

2. In not more than 50 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

1107.6.2.3 Group R-2 other than live/work units, apartment houses, monasteries and convents. In Group R-2 Occupancies, other than live/work units, apartment houses, monasteries and convents falling within the scope of Sections 1107.6.2.1 and 1107.6.2.2, accessible units and Type B units shall be provided in accordance with Sections 1107.6.2.3.1 and 1107.6.2.3.2. Bedrooms within congregate living facilities shall be counted as sleeping units for the purpose of determining the number of units. Where the sleeping units are grouped into suites, only one sleeping unit in each suite shall be permitted to count towards the number of required accessible units. Accessible units shall be dispersed among the various classes of units, as described in Section 1107.6.))

1107.2 Electrical vehicle charging stations. Electrical vehicle charging stations shall comply with Sections 1107.2.1 and 1107.2.2.

EXCEPTION: Electrical vehicle charging stations provided to serve Group R-3 occupancies are not required to comply with this section.

1107.2.1 Number of accessible vehicle spaces. See Section 429.4.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 21-06-035, \$51-50-1107, filed 2/23/21, effective 3/26/21; WSR 20-21-021, \$51-50-1107, filed 10/9/20, effective 11/9/20; WSR 20-01-090, \$

51-50-1107, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1107, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1107, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1107, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1107, filed 12/17/03, effective 7/1/04.]

# NEW SECTION

# WAC 51-50-1108 Section 1108—Dwelling units and sleeping units.

1108.6.2.2.1 Type A units. In Group R-2 Occupancies containing more than 10 dwelling units or sleeping units, at least 5 percent, but not less than one, of the units shall be a Type A unit. All units on a site shall be considered to determine the total number of units and the required number of Type A units. Type A units shall be dispersed among the various classes of units, as described in Section 1108.6. Bedrooms in monasteries and convents shall be counted as sleeping units for the purpose of determining the number of units. Where the sleeping units are grouped into suites, only one sleeping unit in each suite shall count towards the number of required Type A units.

EXCEPTIONS:

- 1. The number of Type A units is permitted to be reduced in accordance with Section 1107.7.
- 2. Existing structures on a site shall not contribute to the total number of units on a site.

[]

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

# WAC 51-50-11090 ((Section 1109 Other features and facilities.)) Reserved.

((1109.2 Toilet and bathing facilities. Each toilet room and bathing room shall be accessible. Where a floor level is not required to be connected by an accessible route, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. Except as provided for in Sections 1109.2 and 1109.2.3 at least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing room shall be accessible.

### **EXCEPTIONS:**

- 1. Toilet rooms or bathing rooms accessed only through a private office, not for common or public use and intended for use by a single occupant, shall be permitted to comply with the specific exceptions in ICC A117.1.
- 2. This section is not applicable to toilet and bathing rooms that serve dwelling units or sleeping units that are not required to be accessible by Section 1107.
- 3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be accessible. Where these rooms are designated as gender-neutral, the total number of accessible toilet or bathing rooms shall not be less than the sum of required accessible separate male plus female rooms.
- 4. Where no more than one urinal is provided in a toilet room or bathing room, the urinal is not required to be accessible.
- 5. Toilet rooms or bathing rooms that are part of critical care or intensive care patient sleeping rooms serving accessible units are not required to be accessible.
- 6. Toilet rooms or bathing rooms designed for bariatries patients are not required to comply with the toilet room and bathing room requirement in ICC A117.1. The sleeping units served by bariatries toilet or bathing rooms shall not count toward the required number of accessible sleeping units.
- 7. Where permitted in Section 1107, in toilet rooms or bathrooms serving accessible units, water closets designed for assisted toileting shall be permitted to comply with Section 1109.2.4.
- 8. Where permitted in Section 1107, in bathrooms serving accessible units, showers designed for assisted toileting shall be permitted to comply with Section 1109.2.5.

- 9. Where toilet facilities are primarily for children's use, required accessible water closets, toilet compartments and lavatories shall be permitted to comply with children's provision of ICC A117.1.
- 1109.2.4 Water closets designed for assisted toileting. Water closets designed for assisted toileting shall comply with Sections 1109.2.4.1 through 1109.2.4.6.
- 1109.2.4.1 Location. The centerline of the water closet shall be 24 inches (610 mm) minimum and 26 inches (660 mm) maximum from one side of the required clearance.
- 1109.2.4.2 Clearance around the water closet shall comply with Sections 1109.2.4.2.1 through 1109.2.4.2.3.
- 1109.2.4.2.1 Clearance width. Clearance around a water closet shall be 66 inches (1675 mm) minimum in width, measured perpendicular from the side of the clearance that is 24 inches (610 mm) minimum and 26 inches (660 mm) maximum from the water closet centerline.
- 1109.2.4.2.2 Clearance depth. Clearance around the water closet shall be 78 inches (1980 mm) minimum in depth, measured perpendicular from the rear wall.
- 1109.2.4.2.3 Clearance overlap. The required clearance around the water closet shall be permitted overlaps in accordance with ICC A117.1 Section 604.3.3.
- 1109.2.4.3 Height. The height of the water closet seats shall comply with ICC A117.1 Section 604.4.
- 1109.2.4.4 Swing-up grab bars. The swing-up grab bars shall comply with ICC All7.1 Sections 609.2 and 609.8. Swing-up grab bars shall be provided on both sides of the water closet and shall comply with all of the following:
- 1. The centerline of the grab bar shall be 14 inches minimum to 16 inches (356 mm to 405 mm) maximum from the centerline of the water closet.
- 2. The length of the grab bar is 36 inches (915 mm) minimum in length, measured from the rear wall to the end of the grab bar.
- 3. The top of the grab bar in the down position is 30 inches (760 mm) minimum and 34 inches (865 mm) maximum above the floor.
- 1109.2.4.5 Flush controls. Flush controls shall comply with ICC A117.1 Section 604.6.
- 1109.2.4.6 Dispensers. Toilet paper dispensers shall be mounted on at least one of the swing-up grab bars and the outlet of the dispenser shall be located at 24 inches (610 mm) minimum to 36 inches (915 mm) maximum from the rear wall.
- 1109.2.5 Standard roll-in-type shower compartment designed for assisted bathing. Standard roll-in-type shower compartments designed for assisted bathing shall comply with Sections 1109.2.5.1 through 1109.2.5.8.
- 1109.2.5.1 Size. Standard roll-in-type shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width and 30 inches (760 mm) minimum in depth, measured at the center point of opposing sides. An entry 60 inches (1525 mm) minimum in width shall be provided.
- 1109.2.5.2 Clearance. A clearance of 60 inches (1525 mm) minimum in length adjacent to the 60 inch (1525 mm) width of the open face of the

# Washington State Register

shower compartment, and 30 inches (760 mm) minimum in depth, shall be provided.

EXCEPTIONS:

- 1. A lavatory complying with Section 606 shall be permitted at one end of the clearance.
- 2. Where the shower compartment exceeds minimum sizes, the clear floor space shall be placed adjacent to the grab bars and 30 inches minimum from the back wall.
- 1109.2.5.3 Grab bars. Grab bars shall comply with ICC A117.1 Section 609 and shall be provided in accordance with Sections 1109.2.5.3.1 and 1109.2.5.3.2. In standard roll-in-type shower compartments, grab bars shall be provided on three walls. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the floor. Grab bars can be separate bars or one continuous bar.
- 1109.2.5.3.1 Back-wall grab bar. The back-wall grab bar shall extend the length of the back wall and extend within 6 inches (150 mm) maximum from the two adjacent side walls.

The back wall grab bar shall not be required to exceed 48 inches (1220 mm) in length. The rear grab bar shall be located with one end **EXCEPTION:** within 6 inches maximum of a side wall with a grab bar complying with Section 1109.2.5.3.2.

1109.2.5.3.2 Side-wall grab bars. The side-wall grab bars shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent back wall.

**EXCEPTIONS:** 

- 1. The side-wall grab bar shall not be required to exceed 30 inches (760 mm) in length. The side grab bar shall be located with one end within 6 inches maximum of the back wall with a grab bar complying with Section 1109.2.5.3.1.

  2. Where the side walls are located 72 inches (1830 mm) or greater apart, a grab bar is not required on one of the side walls.
- 1109.2.5.4 Seats. Wall-mounted folding seats shall not be installed.
- 1109.2.5.5 Controls and hand showers. In standard roll-in-type showers, the controls and hand shower shall be located 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor. Controls shall be located to facilitate caregiver access.
- 1109.2.5.6 Hand showers. Hand showers shall comply with ICC A117.1 Section 608.5.
- 1109.2.5.7 Thresholds. Thresholds shall comply with ICC A117.1 Section 608.6.
- 1109.2.5.8 Shower enclosures. Shower compartment enclosures for shower compartments shall comply with ICC A117.1 Section 608.7.
- 1109.2.5.9 Water temperature. Water temperature shall comply with ICC A117.1 Section 608.8.
- 1109.5.1 Minimum number. Not fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.

EXCEPTIONS:

- 1. A single drinking fountain with two separate spouts that complies with the requirements for people who use a wheelchair and
- 2. Where drinking fountains are primarily for children's use, drinking fountains.

  2. Where drinking fountains are primarily for children's use, drinking fountains for people using wheelchairs shall be permitted to comply with the children's provisions in ICC A117.1 and drinking fountains for standing children shall be permitted to provide the spout at 30 inches (762 mm) minimum above the floor.
- 3. In all occupancies that require more than two drinking fountains per floor or secured area, bottle filling stations shall be allowed to be substituted in accordance with Section 2902.5.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, § 51-50-11090, filed 10/9/20, effective 11/9/20; WSR 20-01-090, § 51-50-11090, filed 12/12/19, effective 7/1/20.]

# NEW SECTION

# WAC 51-50-1110 Section 1110—Other features and facilities.

1110.2 Toilet and bathing facilities. Each toilet room and bathing room shall be accessible. Where a floor level is not required to be connected by an accessible route, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. Except as provided for in Sections 1110.2.4 and 1110.2.5 at least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing room shall be accessible.

#### EXCEPTIONS:

- 1. Toilet rooms or bathing rooms accessed only through a private office, not for common or public use and intended for use by a single occupant, shall be permitted to comply with the specific exceptions in ICC A117.1.
- 2. This section is not applicable to toilet and bathing rooms that serve dwelling units or sleeping units that are not required to be accessible by Section 1108.
- 3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be accessible. Where rooms are designated as all-gender, the total number of accessible toilet or bathing rooms shall be at least 50 percent, but not less than two rooms.

  4. Where no more than one urinal is provided in a toilet room or bathing room, the urinal is not required to be accessible.
- 5. Toilet rooms or bathing rooms that are part of critical care or intensive care patient sleeping rooms serving accessible units are not required to be accessible.
- 6. Toilet rooms or bathing rooms designed for bariatrics patients are not required to comply with the toilet room and bathing room requirement in ICC A117.1. The sleeping units served by bariatrics toilet or bathing rooms shall not count toward the required number
- 7.1. The steeping units served by bariantes tone of bathing rooms shall not count toward the required number of accessible sleeping units.

  7. Where permitted in Section 1107, in toilet rooms or bathrooms serving accessible units, water closets designed for assisted toileting shall be permitted to comply with Section 1109.2.4.

  8. Where permitted in Section 1107, in bathrooms serving accessible units, showers designed for assisted toileting shall be permitted to
- comply with Section 1109.2.5.
- 9. Where toilet facilities are primarily for children's use, required accessible water closets, toilet compartments and lavatories shall be permitted to comply with children's provision of ICC A117.1.
- 1110.5.1 Minimum number. Not fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.

## EXCEPTIONS:

- 1. A single drinking fountain with two separate spouts that complies with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.
- 2. Where drinking fountains are primarily for children's use, drinking fountains for people using wheelchairs shall be permitted to comply with the children's provisions in ICC A117.1 and drinking fountains for standing children shall be permitted to provide the spout at 30 inches (762 mm) minimum above the floor.
- 3. In all occupancies that require more than two drinking fountains per floor or secured area, bottle filling stations shall be allowed to be substituted in accordance with Section 2902.5.

[]

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

# WAC 51-50-1202 Section 1202—Ventilation.

- 1202.1 General. Buildings shall be provided with natural ventilation in accordance with Section  $((\frac{1203.5}{}))$   $\underline{1202.5}$ , or mechanical ventilation in accordance with the International Mechanical Code. Ambulatory care facilities and Group I-2 occupancies shall be ventilated by mechanical means in accordance with Section 407 of the International Mechanical Code.
- ((1202.2 Attic spaces.)) 1202.2.1 Ventilated attics and rafter spaces. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilation openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. An

airspace of not less than 1 inch (25 mm) shall be provided between the insulation and the roof sheathing. The net free ventilating area shall not be less than 1/150th of the area of the space ventilated. Ventilators shall be installed in accordance with the manufacturer's installation instructions.

EXCEPTION:

The net free cross-ventilation area shall be permitted to be reduced to 1/300 provided both of the following conditions are met:

1. A Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.

2. At least 40 percent and not more than 50 percent of the required venting area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located not more than 3 feet (914 mm) below the ridge or highest point of the space, measured vertically, with the balance of the ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts with the installation of upper ventilators, installation more than 3 feet (914 mm) below the ridge or highest point of the space shall be permitted.

1202.4 Under-floor ventilation. The space between the bottom of the floor joists and the earth under any building except spaces occupied by basements or cellars shall be provided with ventilation openings through foundation walls or exterior walls. Such openings shall be placed so as to provide cross ventilation of the under-floor space. A ground cover of six mil (0.006 inch thick) black polyethylene or approved equal shall be laid over the ground within crawl spaces. The ground cover shall be overlapped six inches minimum at the joints and shall extend to the foundation wall.

EXCEPTION: The ground cover may be omitted in crawl spaces if the crawl space has a concrete slab floor with a minimum thickness of two inches.

- 1202.5 Natural ventilation. For other than Group R Occupancies, natural ventilation of an occupied space shall be through windows, doors, louvers or other openings to the outdoors. The operating mechanism for such openings shall be provided with ready access so that the openings are readily controllable by the building occupants. Group R Occupancies shall comply with the *International Mechanical Code*.
- 1202.7 Radon resistive construction standards. The criteria of this section establishes minimum radon resistive construction requirements for Group R Occupancies.
- **1202.7.1 Application.** The requirements of Section  $((\frac{1202.6}{2.6}))$   $\underline{1202.7}$  shall be adopted and enforced by all jurisdictions of the state according to the following subsections.
- **1202.7.1.1** All jurisdictions of the state shall comply with Section  $((\frac{1202.6.2}{)})$  <u>1202.7.2</u>.
- 1202.7.1.2 Clark, Ferry, Okanogan, Pend Oreille, Skamania, Spokane, and Stevens counties shall also comply with Section ((1203.6.3)) 1202.7.3.
- 1202.7.2 State wide radon requirements.
- 1202.7.2.1 Crawlspaces. All crawlspaces shall comply with the requirements of this section.
- **1202.7.2.2 Ventilation.** All crawlspaces shall be ventilated as specified in Section  $((\frac{1203.3}{202.4}))$
- If the installed ventilation in a crawlspace is less than one square foot for each 300 square feet of crawlspace area, or if the crawlspace vents are equipped with operable louvers, a radon vent shall be installed to originate from a point between the ground cover and soil. The radon vent shall be installed in accordance with Sections ((1203.6.3.2.6 and 1203.6.3.2.7)) 1202.7.3.2.6 and 1202.7.3.2.7.
- 1202.7.2.3 Crawlspace plenum systems. In crawlspace plenum systems used for providing supply air for an HVAC system, aggregate, a permanently sealed soil gas retarder membrane and a radon vent pipe shall

be installed in accordance with Section  $((\frac{1203.6.3.2}{}))$  1202.7.3.2. Crawlspaces shall not be used for return air plenums.

In addition, an operable radon vent fan shall be installed and activated. The fan shall be located as specified in Section  $((\frac{1203.6.3.2.7}{1202.7.3.2.7}))$  1202.7.3.2.7. The fan shall be capable of providing at least 100 cfm at 1-inch water column static pressure. The fan shall be controlled by a readily accessible manual switch. The switch shall be labeled "RADON VENT FAN."

# 1202.7.3 Radon prescriptive requirements.

1202.7.3.1 Scope. This section applies to those counties specified in Section  $((\frac{1203.6.1.2}{1202.7.1.2}))$  1202.7.1.2. This section establishes prescriptive construction requirements for reducing the potential for radon entry into all Group R Occupancies, and for preparing the building for future mitigation if desired.

In all crawlspaces, except crawlspace plenums used for providing supply air for an HVAC system, a continuous air barrier shall be installed between the crawlspace area and the occupied area to limit air transport between the areas. If a wood sheet subfloor or other material is utilized as an air barrier, in addition to the requirements of Section 502.1.6.2 of the Washington State Energy Code, all joints between sheets shall be sealed.

# 1202.7.3.2 Floors in contact with the earth.

1202.7.3.2.1 General. Concrete slabs that are in direct contact with the building envelope shall comply with the requirements of this section.

EXCEPTION: Concrete slabs located under garages or other than Group R Occupancies need not comply with this chapter.

1202.7.3.2.2 Aggregate. A layer of aggregate of 4-inch minimum thickness shall be placed beneath concrete slabs. The aggregate shall be continuous to the extent practical.

# 1202.7.3.2.3 Gradation. Aggregate shall:

- 1. Comply with ASTM Standard C-33 Standard Specification for Concrete Aggregate and shall be size No. 8 or larger size aggregate as listed in Table 2, Grading Requirements for Course Aggregate; or
- 2. Meet the 1988 Washington State Department of Transportation Specification 9-03.1 (3) "Coarse Aggregate for Portland Cement Concrete," or any equivalent successor standards. Aggregate size shall be of Grade 8 or larger as listed in Section 9-03.1 (3) C, "Grading"; or
- 3. Be screened, washed pea gravel free of deleterious substances in a manner consistent with ASTM Standard C-33 with 100 percent passing a 1/2-inch sieve and less than 5 percent passing a No. 16 sieve. Sieve characteristics shall conform to those acceptable under ASTM Standard C-33.

Aggregate shall not be required if a substitute material or system, with sufficient load bearing characteristics, and having approved capability to provide equal or superior air flow, is installed. EXCEPTION:

1202.7.3.2.4 Soil-gas retarder membrane. A soil-gas retarder membrane, consisting of at least one layer of virgin polyethylene with a thickness of at least 6 mil, or equivalent flexible sheet material, shall be either placed directly under all concrete slabs so that the slab is in direct contact with the membrane, or on top of the aggregate with 2 inches minimum of fine sand or pea gravel installed between the concrete slab and membrane. The flexible sheet shall extend to the foundation wall or to the outside edge of the monolithic slab. Seams shall overlap at least 12 inches. The membrane shall also be fitted tightly

to all pipes, wires, and other penetrations of the membrane and sealed with an approved sealant or tape. All punctures or tears shall be repaired with the same or approved material and similarly lapped and sealed.

1202.7.3.2.5 Sealing of penetrations and joints. All penetrations and joints in concrete slabs or other floor systems and walls below grade shall be sealed by an approved sealant to create an air barrier to limit the movement of soil-gas into the indoor air.

Sealants shall be approved by the manufacturer for the intended purpose. Sealant joints shall conform to manufacturer's specifications. The sealant shall be placed and tooled in accordance with manufacturer's specifications. There shall be no gaps or voids after the sealant has cured.

1202.7.3.2.6 Radon vent. One continuous sealed pipe shall run from a point within the aggregate under each concrete slab to a point outside the building. Joints and connections shall be permanently gas tight. The continuous sealed pipe shall interface with the aggregate in the following manner, or by other approved equal method. The pipe shall be permanently connected to a "T" within the aggregate area so that the two end openings of the "T" lie within the aggregate area. A minimum of 5 feet of perforated drain pipe of 3 inches minimum diameter shall join to and extend from the "T." The perforated pipe shall remain in the aggregate area and shall not be capped at the ends. The "T" and its perforated pipe extensions shall be located at least 5 feet horizontally from the exterior perimeter of the aggregate area.

The continuous sealed pipe shall terminate no less than 12 inches above the eave, and more than 10 horizontal feet from a woodstove or fireplace chimney, or operable window. The continuous sealed pipe shall be labeled "radon vent." The label shall be placed so as to remain visible to an occupant.

The minimum pipe diameter shall be 3 inches unless otherwise approved. Acceptable sealed plastic pipe shall be smooth walled, and may include either PVC schedule 40 or ABS schedule of equivalent wall thickness.

The entire sealed pipe system shall be sloped to drain to the subslab aggregate.

The sealed pipe system may pass through an unconditioned attic before exiting the building; but to the extent practicable, the sealed pipe shall be located inside the thermal envelope of the building in order to enhance passive stack venting.

EXCEPTION:

- A fan for subslab depressurization system includes the following:

  1. Soil-gas retarder membrane as specified in Section ((1203.6.3.2.4)) 1202.7.3.2.4;

  2. Sealing of penetrations and joints as specified in Section ((1203.6.3.2.5)) 1202.7.3.2.5;

  3. A 3-inch continuous sealed radon pipe shall run from a point within the aggregate under each concrete slab to a point outside the
- ounding,
  4. Joints and connections shall be gas tight, and may be of either PVC schedule 40 or ABS schedule of equivalent in wall thickness;
  5. A label of "radon vent" shall be placed on the pipe so as to remain visible to an occupant;
  6. Fan circuit and wiring as specified in Section ((1203.6.3.2.7)) 1202.7.3.2.7 and a fan.

If the subslab depressurization system is exhausted through the concrete foundation wall or rim joist, the exhaust terminus shall be a minimum of 6 feet from operable windows or outdoor air intake vents and shall be directed away from operable windows and outdoor air intake vents to prevent radon reentrainment.

1202.7.3.2.7 Fan circuit and wiring and location. An area for location of an in-line fan shall be provided. The location shall be as close as practicable to the radon vent pipe's point of exit from the building,

or shall be outside the building shell; and shall be located so that the fan and all downstream piping is isolated from the indoor air.

Provisions shall be made to allow future activation of an in-line fan on the radon vent pipe without the need to place new wiring. A 110 volt power supply shall be provided at a junction box near the fan lo-

1202.7.3.2.8 Separate aggregate areas. If the 4-inch aggregate area underneath the concrete slab is not continuous, but is separated into distinct isolated aggregate areas by a footing or other barrier, a minimum of one radon vent pipe shall be installed into each separate aggregate area.

EXCEPTION:

Separate aggregate areas may be considered a single area if a minimum 3-inch diameter connection joining the separate areas is provided for every 30 feet of barrier separating those areas.

1202.7.3.2.9 Concrete block walls. Concrete block walls connected to below grade areas shall be considered unsealed surfaces. All openings in concrete block walls that will not remain accessible upon completion of the building shall be sealed at both vertical and horizontal surfaces, in order to create a continuous air barrier to limit the transport of soil-gas into the indoor air.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021, § 51-50-1202, filed 10/9/20, effective 11/9/20; WSR 20-01-090, § 51-50-1202, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

WAC 51-50-1204 ((Section 1204—Temperature control.)) Reserved.

((1204.1 Equipment and systems. Interior spaces intended for human occupancy shall be provided with active or passive space-heating systems capable of maintaining an indoor temperature of not less than 68°F (20°C) at a point 3 feet (914 mm) above the floor on the design heating day.

EXCEPTION:

1. Interior spaces where the primary purpose of the space is not associated with human comfort.

Group F, H, S, or U occupancies.

3. Group R-1 Occupancies not more than 500 square feet.

1204.2.1 Definitions. For the purposes of this section only, the following definitions apply.

DESIGNATED AREAS are those areas designated by a county to be an urban growth area in chapter 36.70A RCW and those areas designated by the U.S. Environmental Protection Agency as being in nonattainment for particulate matter.

substantially remodeled means any alteration or restoration of a building exceeding 60 percent of the appraised value of such building within a 12-month period. For the purpose of this section, the appraised value is the estimated cost to replace the building and structure in-kind, based on current replacement costs.

1204.2.2 Primary heating source. Primary heating sources in all new and substantially remodeled buildings in designated areas shall not be dependent upon wood stoves.

1204.2.3 Solid fuel burning devices. No new or used solid fuel burning device shall be installed in new or existing buildings unless such device is United States Environmental Protection Agency certified or exempt from certification by the United States Environmental Protection Agency and conforms with RCW 70.94.011, 70.94.450, 70.94.453 and 70.94.457.

EXCEPTION:

1. Wood cook stoves.
2. Antique wood heaters manufactured prior to 1940.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1204, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1204, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1204, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1204, filed 12/17/03, effective 7/1/04.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-1206 ((Section 1206—Sound transmission.)) Reserved.

((1206.1 Scope. This section shall apply to common interior walls, partitions and floor/ceiling assemblies between adjacent dwelling units and sleeping units or between dwelling units and sleeping units and adjacent public areas.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, \$51-50-1206, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-1207 ((Section 1207 Interior space dimensions.)) Reserved.

((1207.4 Efficiency dwelling units. Efficiency dwelling units shall conform to the requirements of the code except as modified herein:

1. The unit shall have a living room of not less than 190 square feet (17.7 m) of floor area.

2. The unit shall be provided with a separate closet.

3. The unit shall be provided with a kitchen sink, cooking appliance and refrigeration facilities, each having a clear working space of not less than 30 inches (762 mm) in front. Light and ventilation conforming to this code shall be provided.

4. The unit shall be provided with a separate bathroom containing a water closet, lavatory and bathtub or shower.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, \$51-50-1207, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

- WAC 51-50-1208 ((Reserved.)) Section 1208—Dwelling unit size.
- 1208.3 Dwelling unit size. Dwelling units shall have a minimum of 190 square feet  $(17.7 \text{ m}^2)$  of habitable space.
- 1208.4 Room area. Every dwelling unit shall have not less than one room that shall have not less than 120 square feet (11.2 m<sup>2</sup>) of net floor area. Sleeping units and other habitable rooms of a dwelling unit shall have a net floor area of not less than 70 square feet (6.5  $m^2$ ).

EXCEPTION: Kitchens are not required to be of a minimum floor area.

- 1208.5 Efficiency dwelling units. Efficiency dwelling units shall conform to the requirements of the code except as modified herein:
- 1. The unit's habitable space shall comply with Sections 1208.1 through 1208.4.
  - 2. The unit shall be provided with a separate closet.
- 3. For other than accessible, Type A and Type B dwelling units, the unit shall be provided with a kitchen sink, cooking appliance and refrigerator, each having a clear working space of not less than 30 inches (762 mm) in front. Light and ventilation conforming to this code shall be provided.
- 4. The unit shall be provided with a separate bathroom containing a water closet, lavatory, and bathtub or shower.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1208, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1208, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1208, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097,  $\S$  51-50-1208, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014,  $\S$ 51-50-1208, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108,  $\S$  51-50-1208, filed  $12/\overline{17/03}$ , effective 7/1/04.1

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

#### WAC 51-50-1209 ((Section 1209—Toilet and bathroom requirements.)) Reserved.

((1209.3.1 Water closet compartment. Each water closet utilized by the public or employees shall occupy a separate compartment with walls or partitions and a door enclosing the fixtures to ensure privacy. Gender-neutral toilet room water closet compartments shall be in accordance with Section 2902.2.2.

**EXCEPTIONS:** 

- 1. Water closet compartments shall not be required in a single-occupant toilet room with a lockable door.
- 2. Toilet rooms located in child day care facilities and containing two or more water closets shall be permitted to have one water closet without an enclosing compartment.
- 3. This provision is not applicable to toilet areas located within Group I-3 occupancy housing areas.

1209.3.2 Urinal partitions. Each urinal utilized by the public or employees shall occupy a separate area with walls or partitions to provide privacy. The walls or partitions shall begin at a height not more than 12 inches (305 mm) from and extend not less than 60 inches (1524 mm) above the finished floor surface. The walls or partitions shall extend from the wall surface at each side of the urinal not less than 18 inches (457 mm) or to a point not less than 6 inches (152 mm) beyond the outermost front lip of the urinal measured from the finished back wall surface, whichever is greater.

EXCEPTIONS:

1. Urinal partitions shall not be required in a single occupant or family or assisted-use toilet room with a lockable door. 2. Toilet rooms located in child day care facilities and containing two or more urinals shall be permitted to have one urinal without

partitions.
3. Urinals located in gender-neutral toilet facilities shall be in accordance with Section 2902.2.2.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1209, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

# WAC 51-50-1210 Section 1210—((Reserved)) Toilet and bathroom requirements.

1210.3.1 Water closet compartment. Each water closet utilized by the public or employees shall occupy a separate compartment with walls or partitions and a door enclosing the fixtures to ensure privacy. Gender-neutral toilet room water closet compartments shall be in accordance with Section 2902.2.2.

EXCEPTIONS:

1. Water closet compartments shall not be required in a single-occupant toilet room with a lockable door.

2. Toilet rooms located in child day care facilities and containing two or more water closets shall be permitted to have one water closet without an enclosing compartment.
3. This provision is not applicable to toilet areas located within Group I-3 occupancy housing areas.

1210.3.2 Urinal partitions. Each urinal utilized by the public or employees shall occupy a separate area with walls or partitions to provide privacy. The walls or partitions shall begin at a height not more than 12 inches (305 mm) from and extend not less than 60 inches (1524 mm) above the finished floor surface. The walls or partitions shall extend from the wall surface at each side of the urinal not less than 18 inches (457 mm) or to a point not less than 6 inches (152 mm) yond the outermost front lip of the urinal measured from the finished back wall surface, whichever is greater.

**EXCEPTIONS:** 

1. Urinal partitions shall not be required in a single occupant or family or assisted-use toilet room with a lockable door.

2. Toilet rooms located in child day care facilities and containing two or more urinals shall be permitted to have one urinal without

3. Urinals located in gender-neutral toilet facilities shall be in accordance with Section 2902.2.2.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1210, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1210, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-1210, filed 12/2/04, effective 7/1/05.]

# WAC 51-50-1402 Section 1402—Performance requirements.

1402.2 Weather protection. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section 1404.4. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer, as described in Section 1403.2, and a means for draining water that enters the assembly to the exterior. An air space cavity is not required under the exterior cladding for an exterior wall clad with lapped or panel siding made of plywood, engineered wood, hardboard, or fiber cement. Protection against condensation in the exterior wall assembly shall be provided in accordance with Section 1404.3.

#### EXCEPTIONS:

- 1. A weather-resistant exterior wall envelope shall not be required over concrete or masonry walls designed in accordance with Chapters 19 and 21, respectively.
- 2. Compliance with the requirements for a means of drainage, and the requirements of Sections 1403.2 and 1404.4, shall not be required for an exterior wall envelope that has been demonstrated through testing to resist wind-driven rain, including joints, penetrations and intersections with dissimilar materials, in accordance with ASTM E 331 under the following conditions: 2.1 Exterior wall envelope test assemblies shall include not fewer than one opening, one control joint, one wall/eave interface and one wall sill. All tested openings and penetrations shall be representative of the intended end-use configuration.
- and one wall sill. All tested openings and penetrations shall be representative of the intended end-use configuration.

  2.2 Exterior wall envelope test assemblies shall be not less than 4 feet by 8 feet (1219 mm by 2438 mm) in size.

  2.3 Exterior wall envelope assemblies shall be tested at a minimum differential pressure of 6.24 pounds per square foot (psf)
- 2.3 Exterior wall envelope assemblies shall be tested at a minimum differential pressure of 6.24 pounds per square foot (pst (0.297 kN/m<sup>2</sup>).
- 2.4 Exterior wall envelope assemblies shall be subjected to a minimum test exposure duration of 2 hours. The exterior wall envelope design shall be considered to resist wind-driven rain where the results of testing indicate that water did not penetrate control joints in the exterior wall envelope, joints at the perimeter of openings or intersections of terminations with dissimilar materials.
- 3. Exterior insulation and finish systems (EIFS) complying with Section 1407.4.1.

[]

AMENDATORY SECTION (Amending WSR 21-06-035, filed 2/23/21, effective 3/26/21)

# WAC 51-50-1403 ((Section 1403 Performance requirements.)) Reserved.

((1402.2 Weather protection. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section 1404.4. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer, as described in Section 1403.2, and a means for draining water that enters the assembly to the exterior. An air space cavity is not required under the exterior cladding for an exterior wall clad with lapped or panel siding made of plywood, engineered wood, hardboard, or fiber cement. Protection against condensation in the exterior wall assembly shall be provided in accordance with Section 1404.3.

## **EXCEPTIONS:**

- 1. A weather-resistant exterior wall envelope shall not be required over concrete or masonry walls designed in accordance with Chapters 19 and 21, respectively.
- 2. Compliance with the requirements for a means of drainage, and the requirements of Sections 1404.2 and 1405.4, shall not be required for an exterior wall envelope that has been demonstrated through testing to resist wind-driven rain, including joints, penetrations and intersections with dissimilar materials, in accordance with ASTM E 331 under the following conditions: 2.1 Exterior wall envelope test assemblies shall include at least one opening, one control joint, one wall/eave interface and one
- wall sill. All tested openings and penetrations shall be representative of the intended end-use configuration.

  2.2 Exterior wall envelope test assemblies shall be at least 4 feet by 8 feet (1219 mm by 2438 mm) in size.
- 2.3 Exterior wall envelope assemblies shall be tested at a minimum differential pressure of 6.24 pounds per square foot (psf) (0.297 kN/m²).
- 2.4 Exterior wall envelope assemblies shall be subjected to a minimum test exposure duration of 2 hours.

The exterior wall envelope design shall be considered to resist wind-driven rain where the results of testing indicate that water did not penetrate control joints in the exterior wall envelope, joints at the perimeter of openings or intersections of terminations with discimilar materials.

3. Exterior insulation and finish systems (EIFS) complying with Section 1408.4.1.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 21-06-035, § 51-50-1403, filed 2/23/21, effective 3/26/21; WSR 16-03-064, § 51-50-1403, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1403, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1403, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-1403, filed 12/18/07, effective 4/1/08.]

AMENDATORY SECTION (Amending WSR 13-04-067, filed 2/1/13, effective 7/1/13)

# WAC 51-50-1405 ((Section 1405—)) Reserved.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1405, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1405, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1405, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-1405, filed 12/2/04, effective 7/1/05.]

<u>AMENDATORY SECTION</u> (Amending WSR 21-06-035, filed 2/23/21, effective 3/26/21)

# WAC 51-50-2900 ((Chapter 29 Plumbing systems.)) Reserved.

((SECTION 2901—GENERAL.

2901.1 Scope. The provisions of this chapter and the state plumbing code shall govern the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing equipment and systems. Toilet and bathing rooms shall be constructed in accordance with Section 1210. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the state plumbing code.

2901.2 Health codes. In food preparation, serving and related storage areas, additional fixture requirements may be dictated by health codes.

2901.3 Fixed guideway transit and passenger rail systems. In construction of a fixed guideway and passenger rail system, subject to Section 3114, public plumbing fixtures are not required.

SECTION 2902-MINIMUM PLUMBING FACILITIES.

2902.1 Minimum number of fixtures. Plumbing fixtures shall be provided in the minimum number shown in Table 2902.1. Uses not shown in Table

2902.1 shall be determined individually by the building official based on the occupancy which most nearly resembles the proposed occupancy. The number of occupants shall be determined by this code. Plumbing fixtures need not be provided for unoccupied buildings or facilities.

2902.1.1 Fixture calculations. To determine the occupant load of each sex, the total occupant load shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the occupant load of each sex in accordance with Table 2902.1. Fractional numbers resulting from applying the fixture ratios of Table 2902.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

The total occupant load shall not be required to be divided in half where approved statistical data indicate a distribution of the sexes of other than 50 percent of each sex. EXCEPTION:

- 2902.1.1.1 Private offices. Fixtures only accessible to private offices shall not be counted to determine compliance with this section.
- 2902.1.1.2 Urinals in men's facilities. Where urinals in men's facilities are provided, one water closet less than the number specified may be provided for each urinal installed, except the number of water closets in such cases shall not be reduced to less than one quarter (25%) of the minimum specified. For men's facilities serving 26 or more persons, not less than one urinal shall be provided.
- 2902.1.1.3 Urinals. Where urinals are provided in gender-neutral facilities, one water closet less than the number specified may be provided for each urinal installed, except the number of water closets in such cases shall not be reduced less than one quarter (25 percent) of the minimum specified. Facilities serving 26 or more persons, not less than one urinal shall be provided.
- 2902.1.4 Family or assisted-use toilet and bath fixtures. Fixtures located within family or assisted-use toilet and bathing rooms required by Section 1109.2.1 are permitted to be included in the number of required fixtures for either the male or female occupants in assembly and mercantile occupancies.
- 2902.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

**EXCEPTIONS:** 

- Separate facilities shall not be required for dwelling units and sleeping units.
   Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or less.
- 3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or less.
- Separate facilities shall not be required in spaces primarily used for drinking or dining with a total occupant load, including both employees and customers, of 30 or fewer.
   Separate facilities shall not be required when gender-neutral facilities are provided in accordance with Section 2902.2.2.
- 2902.2.1 Family or assisted-use toilet facilities serving as separate facilities. Where a building or tenant space requires a separate toilet facility for each sex and each toilet facility is required to have only one water closet, two family or assisted-use toilet facilities shall be permitted to serve as the required separate facilities. Family or assisted-use toilet facilities shall not be required to be identified for exclusive use by either sex as required by Section 2902.4.
- 2902.2.2 Gender-neutral facilities. Gender-neutral toilet facilities, when provided, shall be in accordance with the following:
- 1. There is no reduction in the number of fixtures required to be provided for male and female in the type of occupancy and in the minimum number shown in Table 2902.1.

- 2. Gender-neutral multiuser toilet rooms shall have water closets and urinals located in toilet compartments in accordance with ICC A117.1.
- Gender-neutral multiuser toilet room water closet and urinal compartments shall have full-height walls and a door enclosing the fixture to ensure privacy.
- 4. Gender-neutral toilet room water closet and urinal compartment doors shall be securable from within the compartment.
- 5. Gender-neutral toilet rooms provided for the use of multiple occupants, the egress door from the room shall not be lockable from the inside of the room.
- 6. Compartments shall not be required in a single-occupant toilet room with a lockable door.
- 2902.3 Employee and public toilet facilities. Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. The number of plumbing fixtures located within the required toilet facilities shall be provided in accordance with Section 2902.1 for all users. Employees shall be provided with toilet facilities in all occupancies. Employee toilet facilities shall either be separate or combined employee and public toilet facilities.

EXCEPTION:

Public toilet facilities shall not be required in:

- 1. Open or enclosed parking garages where there are no parking attendants.
  2. Structures and tenant spaces intended for quick transactions, including takeout, pickup and drop-off, having a public access area less than or equal to 300 square feet (28 m<sup>2</sup>).
- 3. Fixed guideway transit and passenger rail systems constructed in accordance with Section 3112.
- 2902.3.3 Location of toilet facilities in occupancies other than malls. In occupancies other than covered and open mall buildings, the required public and employee toilet facilities shall be located in each building not more than one story above or below the space required to be provided with toilet facilities, or conveniently in a building adjacent thereto on the same property, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m). The location and maximum distances of travel to required employee facilities in factory and industrial occupancies are permitted to exceed that required by this section, provided that the location and maximum distance of travel are approved. EXCEPTION:
- 2902.5 Drinking fountain location. Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located within a distance of travel of 500 feet of the most remote location in the tenant space and not more than one story above or below the tenant space. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet. Drinking fountains shall be located on an accessible route. Drinking fountains shall not be located in toilet rooms.
- 2902.5.1 Drinking fountain number. Occupant loads over 30 shall have one drinking fountain for the first 150 occupants, then one per each additional 500 occupants.
- 1. Sporting facilities with concessions serving drinks shall have one drinking fountain for each 1000 occupants.

  2. A drinking fountain need not be provided in a drinking or dining establishment. EXCEPTIONS:
- 2902.5.2 Multistory buildings. Drinking fountains shall be provided on each floor having more than 30 occupants in schools, dormitories, auditoriums, theaters, offices and public buildings.
- 2902.5.3 Penal institutions. Penal institutions shall have one drinking fountain on each cell block floor and one on each exercise floor.

- 2902.5.4 Bottle filling stations. Bottle filling stations shall be provided in accordance with Sections 2902.5.4.1 through 2902.5.4.3.
- 2902.5.4.1 Group E occupancies. In Group E occupancies with an occupant load over 30, a minimum of one bottle filling station shall be provided on each floor. This bottle filling station may be integral to a drinking fountain.
- 2902.5.4.2 Substitution. In all occupancies that require more than two drinking fountains per floor or secured area, bottle filling stations shall be permitted to be substituted for up to 50 percent of the required number of drinking fountains.
- 2902.5.4.3 Accessibility. At least one of the required bottle filling stations shall be located in accordance with Section 309 ICC A117.1.
- 2902.7 Dwelling units. Dwelling units shall be provided with a kitchen
- 2902.8 Water. Each required sink, lavatory, bathtub and shower stall shall be equipped with hot and cold running water necessary for its normal operation.

SECTION 2903-RESERVED.

SECTION 2904—RESERVED.

# Table 2902.1 Minimum Number of Required Plumbing Fixturesa

(See Sections 2902.2 and 2902.3)

		Water Closets		Lavatories		Bathtubs/		
No.	Classification	Occupancy	Description	Male	Female	Male	Female	Showers
1	Assembly	A-1 <sup>d</sup>	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		_
		A-2 <sup>d</sup>	Nightclubs, bars, taverns, dance halls and buildings for similar purposes	1 per 40	1 per 40	1 per 75		_
			Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200		_
		A-3d	Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	1 per 125	1 per 65	1 per 200		_
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750		_
			Places of worship and other religious services	1 per 150	1 per 75	1 per 200		_
		A-4	Coliseums, arenas, skating rinks, pools, and tennis courts for indoor sporting events and activities	1 per 75 for first 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for first 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200	1 per 150	_
		A-5	Stadiums amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for first 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for first 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200	1 per 150	_

# Washington State Register

				Water Closets		Lavatories		Bathtubs/
No.	Classification	Occupancy	Description	Male	Female	Male	Female	Showers
2	Business	В	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 for first 50 and 1 per 50 for the remainder exceeding 50		1 per 40 for first 80 and 1 per 80 for remainder exceeding 80		_
3	Educational	Ee	Educational facilities	1 per 35	1 per 25	1 per 85	1 per 50	_
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials	1 per 100		<del>1 per 100</del>		Check State (UPC)
5	Institutional	I-1	Residential care	1 per 10		1 per 10		1 per 8
	I-2		Hospitals, ambulatory nursing home care recipienth	1 per room <sup>c</sup>		1 per room	2	1 per 15
			Employees, other than residential careb	1 per 25		1 per 35		_
			Visitors other than residential care	1 per 75		1 per 100		_
		I-3	<del>Prisons</del> b	1 per cell		1 per cell		1 per 15
			Reformatories, detention centers and correctional centers <sup>b</sup>	tional 1 per 25		<del>1 per 15</del>		1 per 15
			Employees <sup>b</sup>			1 per 35		_
		I-4	Adult day care and child day care			<del>1 per 15</del>		1
6	Mercantile	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		_
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per sleeping unit		1 per sleeping unit 1 per sleeping unit		1 per sleeping unit
		R-2 Dormitories, fraternities, sororities and boarding houses (not transient)			1 per 10		1 per 8	
			Apartment house	1 per dwelling unit		1 per dwell	ing unit	1 per dwelling unit
		R-3  One- and two-family dwelling unit  Congregate living facilities with 16 or fewer persons  1 per dwelling unit  1 per dwelling unit		unit	1 per 10		1 per dwelling unit	
					1 per 10		1 per 8	
		R-4	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8
8	Storage	S-1 S-2	Structures for the storage of goods, warehouses, storehouses and freight depots, low and moderate hazard	1 per 100		1 per 100		Cheek State (UPC)

a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code, except with respect to Group E occupancies the provisions of note "e" shall apply.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 21-06-035, \$51-50-2900, filed 2/23/21, effective 3/26/21; WSR 20-21-021, \$

b. Toilet facilities for employees shall be separate from facilities for inmates or care recipients.

e. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted where such room is provided with direct access from each patient sleeping unit and with provisions for privacy.

d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required:

e: For Group E occupancies: The number of occupants shall be determined by using a calculation of 100 square feet gross building area per student for the minimum number of plumbing fixtures.))

51-50-2900, filed 10/9/20, effective 11/9/20; WSR 20-01-090, § 51-50-2900, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-2900, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-2900, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-087, § 51-50-2900, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13- $\overline{04}$ -067, §  $\overline{51}$ -50-2900, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, \$51-50-2900, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-2900, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-2900, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-2900, filed 12/17/03, effective 7/1/04.]

## NEW SECTION

# WAC 51-50-2901 Section 2901—General.

- 2901.1 Scope. The provisions of this chapter and the state plumbing code shall govern the design, construction, erection, and installation of plumbing components, appliances, equipment and systems used in buildings and structures covered by this code. Toilet and bathing rooms shall be constructed in accordance with Section 1210. The International Fire Code and the state plumbing code shall govern the use and maintenance of plumbing components, appliances, equipment and systems. The International Existing Building Code and the state plumbing code shall govern the alteration, repair, relocation, replacement and addition of plumbing components, appliances, equipment and systems.
- **2901.2 Health codes.** In food preparation, serving and related storage areas, additional fixture requirements may be dictated by health codes.
- 2901.3 Fixed guideway transit and passenger rail systems. In construction of a fixed guideway and passenger rail system, subject to Section 3116, public plumbing fixtures are not required.

[]

# NEW SECTION

# WAC 51-50-2902 Section 2902—Minimum plumbing facilities.

- 2902.1 Minimum number of fixtures. Plumbing fixtures shall be provided in the minimum number shown in Table 2902.1. Uses not shown in Table 2902.1 shall be determined individually by the building official based on the occupancy which most nearly resembles the proposed occupancy. The number of occupants shall be determined by this code. Plumbing fixtures need not be provided for unoccupied buildings or facilities.
- 2902.1.1 Fixture calculations. To determine the occupant load of each sex, the total occupant load shall be divided in half. To determine

the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the occupant load of each sex in accordance with Table 2902.1. Fractional numbers resulting from applying the fixture ratios of Table 2902.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

The total occupant load shall not be required to be divided in half where approved statistical data indicate a distribution of the sexes of other than 50 percent of each sex.

- 2902.1.1.1 Private offices. Fixtures only accessible to private offices shall not be counted to determine compliance with this section.
- 2902.1.1.2 Urinals in men's facilities. Where urinals in men's facilities are provided, one water closet less than the number specified may be provided for each urinal installed, except the number of water closets in such cases shall not be reduced to less than one quarter (25 percent) of the minimum specified. For men's facilities serving 26 or more persons, not less than one urinal shall be provided.
- 2902.1.1.3 Urinals. Where urinals are provided in gender-neutral facilities, one water closet less than the number specified may be provided for each urinal installed, except the number of water closets in such cases shall not be reduced less than one quarter (25 percent) of the minimum specified. Facilities serving 26 or more persons, not less than one urinal shall be provided.
- 2902.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

EXCEPTIONS:

- 1. Separate facilities shall not be required for dwelling units and sleeping units.
- 2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and
- 3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.
- 4. Separate facilities shall not be required in business occupancies in which the maximum occupant load is 25 or fewer.

  5. Separate facilities shall not be required in spaces primarily used for drinking or dining with a total occupant load, including both employees and customers, of 30 or fewer.
- 6. Separate facilities shall not be required when gender-neutral facilities are provided in accordance with Section 2902.2.2.
- 7. Separate facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for use by both sexes and privacy for water closets are installed in accordance with Section 405.3.4 of the International Plumbing Code. Urinals shall be located in an area visually separated from the remainder of the facility or each urinal that is provided shall be located in a stall.
- 2902.2.2 Gender-neutral facilities. Gender-neutral toilet facilities, when provided, shall be in accordance with the following:
- 1. There is no reduction in the number of fixtures required to be provided for male and female in the type of occupancy and in the minimum number shown in Table 2902.1.
- 2. Gender-neutral multiuser toilet rooms shall have water closets and urinals located in toilet compartments in accordance with ICC A117.1.
- 3. Gender-neutral multiuser toilet room water closet and urinal compartments shall have full-height walls and a door enclosing the fixture to ensure privacy.
- 4. Gender-neutral toilet room water closet and urinal compartment doors shall be securable from within the compartment.
- 5. Gender-neutral toilet rooms provided for the use of multiple occupants, the egress door from the room shall not be lockable from the inside of the room.
- 6. Compartments shall not be required in a single-occupant toilet room with a lockable door.
- 2902.3 Employee and public toilet facilities. For structures and tenant spaces intended for public utilization, customers, patrons and visitors shall be provided with public toilet facilities. Employees

associated with structures and tenant spaces shall be provided with toilet facilities. The number of plumbing fixtures located within the required toilet facilities shall be provided in accordance with Section 2902 for all users. Employee toilet facilities shall be either separate or combined employee and public toilet facilities.

EXCEPTION: Public toilet facilities shall not be required for:

1. Parking garages where operated without parking attendants.

2. Structures and tenant spaces intended for quick transactions, including takeout, pickup and drop-off, having a public access area less than or equal to 300 square feet (28 m<sup>2</sup>).

3. Fixed guideway transit and passenger rail systems constructed in accordance with Section 3112.

2902.3.3 Location of toilet facilities in occupancies other than malls. In occupancies other than covered and open mall buildings, the required public and employee toilet facilities shall be located in each building not more than one story above or below the space required to be provided with toilet facilities, or conveniently in a building adjacent thereto on the same property, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

**EXCEPTIONS:** 

1. The location and maximum distances of travel to required employee facilities in factory and industrial occupancies shall be permitted to exceed that required by this section, provided that the location and maximum distance of travel are *approved*.

2. The location and maximum distances of travel to required public and employee facilities in Group S occupancies shall be permitted to exceed that required by this section, provided that the location and maximum distances of travel are approved.

- 2902.5 Drinking fountain location. Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located within a distance of travel of 500 feet of the most remote location in the tenant space and not more than one story above or below the tenant space. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet. Drinking fountains shall be located on an accessible route. Drinking fountains shall not be located in toilet rooms.
- 2902.5.1 Drinking fountain number. Occupant loads over 30 shall have one drinking fountain for the first 150 occupants, then one per each additional 500 occupants.

EXCEPTIONS: 1. Sporting facilities with concessions serving drinks shall have one drinking fountain for each 1000 occupants. 2. A drinking fountain need not be provided in a drinking or dining establishment.

- 2902.5.2 Multistory buildings. Drinking fountains shall be provided on each floor having more than 30 occupants in schools, dormitories, auditoriums, theaters, offices and public buildings.
- 2902.5.3 Penal institutions. Penal institutions shall have one drinking fountain on each cell block floor and one on each exercise floor.
- 2902.5.4 Bottle filling stations. Bottle filling stations shall be provided in accordance with Sections 2902.5.4.1 through 2902.5.4.3.
- 2902.5.4.1 Group E occupancies. In Group E occupancies with an occupant load over 30, a minimum of one bottle filling station shall be provided on each floor. This bottle filling station may be integral to a drinking fountain.
- 2902.5.4.2 Substitution. In all occupancies that require more than two drinking fountains per floor or secured area, bottle filling stations shall be permitted to be substituted for up to 50 percent of the required number of drinking fountains.
- 2902.5.4.3 Accessibility. At least one of the required bottle filling stations shall be located in accordance with Section 309 ICC A117.1.
- 2902.6 Small occupancies. This section is not adopted.

2902.8 Dwelling units. Dwelling units shall be provided with a kitchen sink.

2902.9 Water. Each required sink, lavatory, bathtub and shower stall shall be equipped with hot and cold running water necessary for its normal operation.

SECTION 2903—RESERVED.

SECTION 2904-RESERVED.

Table 2902.1 Minimum Number of Required Plumbing Fixtures<sup>a</sup>

(See Sections 2902.2 and 2902.3)

				Water Closets		Lavatories		Bathtubs/
No.	Classification	Occupancy	Description	Male	Female	Male	Female	Showers
1	Assembly	A-1 <sup>d</sup>	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		_
		A-2 <sup>d</sup>	Nightclubs, bars, taverns, dance halls and buildings for similar purposes	1 per 40	1 per 40	1 per 75		_
			Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200		_
		A-3 <sup>d</sup>	Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	1 per 125	1 per 65	1 per 200		_
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750		_
			Places of worship and other religious services	1 per 150	1 per 75	1 per 200		_
		A-4	Coliseums, arenas, skating rinks, pools, and tennis courts for indoor sporting events and activities	1 per 75 for first 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for first 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200	1 per 150	_
		A-5	Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for first 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for first 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200	1 per 150	_
2	Business	В	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 for fir 50 for the rems exceeding 50	st 50 and 1 per ainder	1 per 40 for first 80 and 1 per 80 for remainder exceeding 80		_
3	Educational	Ee	Educational facilities	1 per 35	1 per 25	1 per 85	1 per 50	_
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembling or processing of products or materials	1 per 100	•	1 per 100		Check State (UPC)
5	Institutional	I-1	Residential care	1 per 10		1 per 10		1 per 8
		I-2	Hospitals, ambulatory nursing home care recipient <sup>b</sup>	1 per room <sup>c</sup>		1 per room <sup>c</sup>	:	1 per 15
			Employees, other than residential care <sup>b</sup>	1 per 25		1 per 35		

## Washington State Register

				Water Closets		Lavatories		Bathtubs/		
No.	Classification	Occupancy	Description	Male	Female	Male	Female	Showers		
			Visitors other than residential care	1 per 75		1 per 100		_		
		I-3	Prisons <sup>b</sup>	1 per cell		1 per cell		1 per 15		
			Reformatories, detention centers and correctional centers <sup>b</sup>	1 per 15	1 per 15			1 per 15		
			Employees <sup>b</sup>	1 per 25		1 per 35		_		
		I-4	Adult day care and child day care	1 per 15		1 per 15		1		
6	Mercantile	М	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 500		1 per 750		_
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per sleeping	unit	1 per sleepii	ng unit	1 per sleeping unit		
		R-2	Dormitories, fraternities, sororities and boarding houses (not transient)	1 per 10		1 per 10		1 per 8		
			Apartment house	1 per dwelling unit		1 per dwelli	ng unit	1 per dwelling unit		
		R-3	One- and two-family dwellings	1 per dwelling	unit	1 per 10		1 per dwelling unit		
		Congregate living facilities with 16 or fe persons	facilities with 16 or fewer	1 per 10		1 per 10		1 per 8		
		R-4	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8		
8	Storage	S-1 S-2	Structures for the storage of goods, warehouses, storehouses and freight depots, low and moderate hazard	1 per 100		1 per 100		Check State (UPC)		

The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code, except with respect to Group E occupancies the provisions of note "e" shall apply.

[]

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

#### WAC 51-50-3004 ((Section 3004—))Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3004, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3004, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3004, filed 12/17/03, effective 7/1/04.]

b. Toilet facilities for employees shall be separate from facilities for inmates or care recipients.

A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted where such room is provided with direct access from each patient sleeping unit and with provisions for privacy.

The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities d.

For Group E occupancies: The number of occupants shall be determined by using a calculation of 100 square feet gross building area per student for the minimum number of plumbing fixtures.

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

## WAC 51-50-3101 Section 3101—General.

3101.1 Scope. The provisions of this chapter shall govern special building construction including membrane structures, temporary structures, pedestrian walkways and tunnels, automatic vehicular gates, awnings and canopies, marquees, signs, towers ((and)), antennas, relocatable buildings, swimming pool enclosures and safety devices, ((and)) solar energy systems and fixed guideway transit and passenger rail systems, public use restroom buildings on publicly owned lands in flood hazard areas, intermodal shipping containers.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-3101, filed 12/12/19, effective 7/1/20.]

AMENDATORY SECTION (Amending WSR 19-02-038, filed 12/26/18, effective 7/1/19)

# WAC 51-50-3102 ((Section 3102 Membrane structures.)) Reserved.

((3102.3 Type of construction. Noncombustible membrane structures shall be classified as Type II-B construction. Noncombustible frame or cable-supported structures covered by an approved membrane in accordance with Section 3102.3.1 shall be classified as Type II-B construction. Heavy timber frame-supported structures covered by an approved membrane in accordance with Section 3102.3.1 shall be classified as Type IV-HT construction. Other membrane structures shall be classified as Type V construction.

EXCEPTION:

Plastic less than 30 feet (9144 mm) above any floor used in greenhouses, where occupancy by the general public is not authorized, and for aquaculture pond covers is not required to meet the fire propagation performance criteria of Test Method 1 or 2, as appropriate, of

3102.6.1.1 Membrane. A membrane meeting the fire propagation performance criteria of Test Method 1 or 2, as appropriate, of NFPA 701 shall be permitted to be used as the roof or as a skylight on buildings of Type II-B, III, IV-HT and V construction, provided that the membrane is not less than 20 feet (6096 mm) above any floor, balcony or gal-<del>lery.</del>))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-3102, filed 12/26/18, effective 7/1/19.]

AMENDATORY SECTION (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

# WAC 51-50-3103 Temporary structures.

3103.1 General. The provisions of this section shall apply to structures erected for a period of less than ((one hundred eighty)) 180 days. ((<del>Tents</del>)) <u>Special event structures, tents, umbrella structures</u> and other membrane structures erected for a period of less than ((one hundred eighty)) 180 days shall also comply with the International

Fire Code. Those erected for a longer period of time shall comply with applicable sections of this code.

EXCEPTION: The building official may authorize unheated tents and yurts under five hundred square feet accommodating an R-1 Occupancy for recreational use as a temporary structure and allow them to be used indefinitely.

[Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, \$ 51-50-3103, filed 12/19/06, effective 7/1/07.]

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-3114 ((Section 3114 Fixed guideway transit and passenger rail systems.)) Reserved. ((Construction of fixed guideway transit and passenger rail systems shall be in accordance with NFPA 130, standard for fixed guideway transit and passenger rail systems.

3114.1 Means of egress. The means of egress for fixed guideway transit and passenger rail systems shall be in accordance with NFPA 130-17.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090,  $\S$  51-50-3114, filed 12/12/19, effective 7/1/20.]

# NEW SECTION

WAC 51-50-3116 Section 3116—Fixed guideway transit and passenger rail systems.

- **3116.1 Construction**. Construction of fixed guideway transit and passenger rail systems shall be in accordance with NFPA 130-2020, standard for fixed guideway transit and passenger rail systems, as modified in Section 3116.2.
- 3116.2 Modifications to NFPA 130.
- **5.2.2.1** Building construction for stations shall be in accordance with Table 5.2.2.1 based upon station configuration.
- **5.2.2.2** Construction types shall conform to the requirements in IBC Chapter 6, unless otherwise exempted in this section.

Table 5.2.2.1
Minimum Construction Requirements
for New Station Structures

Station Configuration	Construction Type†
Stations erected entirely above grade and in a separate building:	
Open stations	Type IIB
Enclosed stations	Type IIA
Stations erected entirely or partially below grade:	
Open above grade portions of below grade structures*	Type IIA

## Washington State Register

Station Configuration	Construction Type†
Below grade portions of structures	Type IB
Below grade structures with occupant loads exceeding 1000	Type IA

- Roofs not supporting an occupancy above are not required to have a fire resistance rating.
- Construction types are in accordance with the IBC.
- 5.2.4.3 Ancillary spaces. Fire resistance ratings of separations between ancillary occupancies shall be established as required for accessory occupancies and incidental uses by the IBC and in accordance with ASTM E119 and ANSI/UL 263.
- 5.2.5.4 Materials used as interior finish in open stations shall comply with the requirements of IBC, Chapter 8.

## 5.3.1\* General.

5.3.1.1 The provisions for means of egress for a station shall comply with IBC, Chapter 10, except as herein modified.

# 5.3.2 Occupant load.

- 5.3.2.1 The occupant load for a station shall be based on the train load of trains simultaneously entering the station on all tracks in normal traffic direction plus the simultaneous entraining load awaiting trains.
- 1. The train load shall consider only one train at any one track, inside a station.
- 2. The basis for calculating train and entraining loads shall be the peak period ridership figures as projected for design of a new system or as updated for an operating system.
- 5.3.2.2\* For station(s) servicing areas such as civic centers, sports complexes, and convention centers, the peak ridership figures shall consider events that establish occupant loads not included in normal passenger loads.
- **5.3.2.2.1** Where station occupancy is anticipated to be greater than design capacity during a major event the operating agency shall initiate approved measures to restrict access to the station, when required by the fire code official, to ensure existing means of egress are adequate as an alternate to account for peak ridership associated with major events.
- 5.3.2.3 At multilevel, multiline, or multiplatform stations, occupant loads shall be determined as follows:
- 1. The maximum occupant load for each platform shall be considered separately for the purpose of sizing the means of egress from that platform.
- 2.\* Simultaneous loads shall be considered for all egress routes passing through each level of that station.
- 5.3.2.4 Where an area within a station is intended for use by other than passengers or employees, the following parameters shall apply:

  1. The occupant load for that area shall be determined in accord-
- ance with the provisions of the IBC NFPA 101 as appropriate for the use.
- 2. The additional occupant load shall be included in determining the required egress from that area.

- 3. The additional occupant load shall be permitted to be omitted from the station occupant load where the area has independent means of egress of sufficient number and capacity.
- 5.3.3.4 Travel distance. For open stations the maximum travel distance on the platform to a point at which a means of egress route leaves the platform shall not exceed 100 m (325 ft). For enclosed stations the travel distance to an exit shall not exceed 76 m (250 ft).

# 5.3.5 Stairs and escalators.

- 5.3.5.1 Stairs and escalators permitted by Section 5.2.4.1 to be unenclosed shall be permitted to be counted as contributing to the egress capacity in stations as detailed in Sections 5.2.2 and 5.3.3.
- 5.3.5.2 Stairs in the means of egress shall be a minimum of 1120 mm (44 in.) wide.
- 5.3.5.3\* Capacity and travel speed for stairs and escalators shall be computed as follows:
  - 1. Capacity 0.0555 p/mm-min (1.41 p/in.-min)
- 2.\* Travel speed 14.6 m/min (48 ft/min) (indicates vertical component of travel speed)
- 5.3.5.4 Escalators shall not account for more than one-half of the egress capacity at any one level.
- 5.3.5.6\* In calculating the egress capacity of escalators, the following criteria shall be met:
- 1. One escalator at each level shall be considered as being out of service.
- 2. The escalator chosen shall be the one having the most adverse effect upon egress capacity.
- 5.3.5.7 Where escalators are permitted as a means of egress in stations, the following criteria shall be met:
- 1.\* The escalators shall be constructed of noncombustible materials.
- 2.\* Escalators running in the direction of egress shall be permitted to remain operating.
- 3. Escalators running reverse to the direction of egress shall be capable of being stopped locally and remotely as follows:
  - a. Locally by a manual stopping device at the escalator.
  - b. Remotely by one of the following:
  - i. A manual stopping device at a remote location.
  - ii. As part of a preplanned evacuation response.
- 4.\* Where provision is made for remote stopping of escalators counted as means of egress, one of the following shall apply:
- a. The stop shall be delayed until it is preceded by a minimum 15-second audible signal or warning message sounded at the escalator.
- b. Where escalators are equipped with the necessary controls to decelerate in a controlled manner under the full rated load, the stop shall be delayed for at least 5 seconds before beginning deceleration, and the deceleration rate shall be no greater than  $0.052 \text{ m/sec}^2$  (0.17)  $ft/sec^2$ ).
- 5. Where an audible signal or warning message is used, the following shall apply:
- a. The signal or message shall have a sound intensity that is at least 15 dBA above the average ambient sound level for the entire length of the escalator.

- b. The signal shall be distinct from the fire alarm signal.
- c. The warning message shall meet audibility and intelligibility requirements.
- 5.3.7\* Doors, gates, security grilles, and exit hatches.
- 5.3.7.1 The egress capacity for doors and gates in a means of egress serving public areas shall be computed as follows:
- 1. Sixty people per minute (p/min) for single leaf doors and gates.
- 2.\* 0.0819 p/mm-min (2.08 p/in.-min) for bi-parting multileaf doors and gates measured for the clear width dimension.
- 5.3.7.2 Gates in a means of egress shall be designed in accordance with the requirements for doors serving as a means of egress.
- 5.3.7.2.1 Security grilles are allowed when designed and operated in accordance with the IBC.
- 5.3.7.3 Where used, exit hatches shall comply with the requirements of Sections 6.3.3.15 through 6.3.3.17.
- 5.3.9\* Horizontal exits. Horizontal exits shall comply with IBC Section 1026.
- 5.3.11 Means of egress lighting.
- 5.3.11.1 Illumination of the means of egress in stations, including escalators that are considered a means of egress, shall be in accordance with IBC Section 1008.
- 5.3.11.2 Means of egress, including escalators considered as means of egress, shall be provided with a system of emergency lighting in accordance with IBC Section 1008
- 5.3.11.3 In addition to the requirements of Sections 5.3.11.1 and 5.3.11.2:
- 1. Lighting for stairs and escalators shall be designed to emphasize illumination on the top and bottom steps and landings.
- 2. Where newel- and comb-lighting is provided for escalator steps, such lighting shall be on emergency power circuits.

[]

AMENDATORY SECTION (Amending WSR 21-06-035, filed 2/23/21, effective 3/26/21)

#### WAC 51-50-3304 ((Section 3304—Site work.)) Reserved.

((3304.2 Fire watch during construction. Where required by the fire code official, a fire watch shall be provided during nonworking hours for new construction that exceeds 40 feet (12,192 mm) in height above the lowest adjacent grade.

EXCEPTIONS: 1. New construction that is built under the IRC. 2. New construction less than 5 stories and 50,000 square feet per story.))

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 21-06-035, § 51-50-3304, filed 2/23/21, effective 3/26/21; WSR 20-01-090, § 51-50-3304, filed 12/12/19, effective 7/1/20.]

# NEW SECTION

# WAC 51-50-3314 Section 3314—Fire watch during construction.

**3314.1 Fire watch during construction.** Where required by the fire code official, a fire watch shall be provided during nonworking hours for new construction that exceeds 40 feet (12,192 mm) in height above the lowest adjacent grade.

EXCEPTIONS:

- 1. New construction that is built under the IRC.
- 2. New construction less than 5 stories and 50,000 square feet per story.

[]

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

WAC 51-50-3401 ((Section 3401—)) Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3401, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-3401, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-3401, filed 1/20/10, effective 7/1/10.]

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

WAC 51-50-3404 ((Section 3404—)) Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, \$51-50-3404, filed 1/19/16, effective 7/1/16; WSR 10-03-097, \$51-50-3404, filed 1/20/10, effective 7/1/10.]

AMENDATORY SECTION (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

WAC 51-50-3410 ((Section 3410—)) Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, \$ 51-50-3410, filed 1/19/16, effective 7/1/16; WSR 10-03-097, amended and recodified as \$ 51-50-3410, filed 1/20/10, effective 7/1/10; WSR 04-01-108, \$ 51-50-3408, filed 12/17/03, effective 7/1/04.]

 $\underline{\text{AMENDATORY SECTION}}$  (Amending WSR 16-03-064, filed 1/19/16, effective 7/1/16)

WAC 51-50-3411 ((Section 3411—)) Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3411, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-3411, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, amended and recodified as § 51-50-3411, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3409, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3409, filed 12/17/03, effective 7/1/04.1

AMENDATORY SECTION (Amending WSR 20-21-021, filed 10/9/20, effective 11/9/20)

WAC 51-50-3500 Chapter 35—Referenced standards. Add the reference standards as follows:

Standard reference number	Title	Referenced in code section number
((ANSI/APA PRG-320-18	Standard for Performance-Rated Cross-Laminated Timber (revised 2018)	602.4, 2303.1.4))
NFPA (( <del>130-17</del> )) 130-20	Standard for Fixed Guideway Transit and Passenger Rail Systems	3101.1, (( <del>3114</del> )) 3116

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-21-021,  $\S$  51-50-3500, filed 10/9/20, effective 11/9/20; WSR 20-01-090,  $\S$  51-50-3500, filed 12/12/19, effective 7/1/20; WSR 19-02-038,  $\S$  51-50-3500, filed 12/26/18, effective 7/1/19; WSR 16-03-064,  $\S$  51-50-3500, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067,  $\S$  51-50-3500, filed 2/1/13, effective 7/1/13.]

AMENDATORY SECTION (Amending WSR 20-01-090, filed 12/12/19, effective 7/1/20)

WAC 51-50-4700 ((Appendix D Fire districts.)) Appendix P—Construction and demolition material management.

((D102.2.5 Structural fire rating. Walls, floors, roofs and their supporting structural members shall be not less than 1 hour fire-resistance-rated construction.

**EXCEPTIONS:** 

- 1. Buildings of Type IV-HT construction.
- 2. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
- 3. Automobile parking structures.
- 4. Buildings surrounded on all sides by a permanently open space of not less than 30 feet (9144 mm).
- 5. Partitions complying with Section 603.1, Item 11.))

# P101 General

P101.1 Purpose. The purpose of this code is to increase the reuse and recycling of construction and demolition materials.

P101.2 Scope. This code applies to new building construction, alterations to existing buildings and the demolition of existing buildings having a work area greater than 750 square feet or a project value greater than \$75,000, whichever is more restrictive.

EXCEPTION: Projects determined to be unsafe pursuant to Section 116.

# P102 General definitions.

Demolition. The process of razing, relocating, or removing an existing building or structure, or a portion thereof.

Divert, diverted, or diversion. The reuse, recycling, or beneficial use of construction and demolition materials.

Recycling. The process of transforming or remanufacturing waste materials into useable or marketable materials for use other than landfill disposal, combustion, or incineration.

Reuse. The return of a material into the economic stream for use.

Salvage. The recovery of construction and demolition building material and components from a building or site in order to increase the reuse or repurpose potential of these materials and decrease the amount of material being sent to the landfill. Salvaged material may be sold, donated, or reused on site.

- P103 Construction and demolition material management.
- P103.1 Collection containers. All sites where recyclable construction and demolition materials are generated and transported for recycling must provide a separate container for nonrecyclable materials pursuant to WAC 173-345-040.
- P103.2 Salvage assessment. A salvage assessment shall be submitted prior to permit issuance. The salvage assessment shall identify the building components of an existing building that, if removed, have the potential to be reused. This assessment shall be signed by the owner and serve as an affidavit stating that the project shall be executed in compliance with the requirements of this code.

Projects that include only new construction.

- P103.3 Waste diversion report. A waste diversion report shall be submitted prior to issuance of the Certificate of Occupancy. The waste diversion report shall identify the following:
- 1. Weight or volume of project-generated construction and demolition material;
  - 2. Whether the material was disposed in a landfill or diverted;
  - 3. The hauler of the material;
  - 4. The receiving facility or location; and
- 5. The date materials were accepted by the receiving facility or location.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-4700, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-4700, filed 12/26/18, effective 7/1/19.]