



Safety Codes Council

PART 5

CODE UPDATE INFORMATION

NBC 2019 AE Div B

September 2019

Safety Codes Council

500 10405 Jasper Ave. NW Edmonton, AB T5J-3N4

780-413-0099 | 1-888-413-0099

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Red strikethrough = deleted text

Blue underline = New text

Review this document in conjunction with the National Building Code-2019 Alberta Edition.

ABC 2014	NBC(AE) 2019	Comments
<p>5.1.4.1. Structural and Environmental Loads</p> <p>1) <i>Building</i> materials, components and assemblies that separate dissimilar environments or are exposed to the exterior shall have sufficient capacity and integrity to resist or accommodate</p> <ul style="list-style-type: none"> a) all environmental loads, and effects of those loads, that may reasonably be expected having regard to <ul style="list-style-type: none"> i) the intended use of the <i>building</i>, and ii) the environment to which the materials, components and assemblies are subject, and b) all structural loads, and effects of those loads, that may reasonably be expected. <p>2) Compliance with Clause (1)(a) shall be demonstrated by design complying with Subsection 5.2.1. and construction conforming to that design.</p> <p>...</p>	<p>5.1.4.1. Structural and Environmental Loads</p> <p>1) <i>Building</i> materials, components and assemblies that separate dissimilar environments or are exposed to the exterior shall have sufficient capacity and integrity to resist or accommodate</p> <ul style="list-style-type: none"> a) all environmental loads, and effects of those loads, that may reasonably be expected having regard to <ul style="list-style-type: none"> i) the intended use of the <i>building</i>, and ii) the environment to which the materials, components and assemblies are subject, and b) all structural loads, and effects of those loads, that may reasonably be expected. <p><u>2) Where <i>building</i> materials, components or assemblies perform more than one function, they shall satisfy the requirements of all of those functions. (See Note A-5.1.4.1.(2).)</u></p> <p>23) Compliance with Clause (1)(a) shall be demonstrated by design complying with Subsection 5.2.1. and construction conforming to that design.</p> <p>***EXISTING SENTENCES RENUMBERED***</p>	<p>Inserted new Sentence (2).</p>
<p>5.2.2.2. Determination of Wind Load</p> <p>N/A</p>	<p>5.2.2.2. Determination of Wind Load</p> <p><u>4) Except as provided in Sentence (5), the wind uplift resistance of membrane roofing assemblies shall be determined in accordance with the requirements of CAN/CSA-A123.21, "Dynamic Wind Uplift Resistance of Membrane-Roofing Systems." (See Note A-5.2.2.2.(4).)</u></p> <p><u>5) Membrane roofing assemblies with proven past performance for the anticipated wind loads need not comply with Sentence (4). (See Note A-5.1.4.1.(5).)</u></p>	<p>Inserted new Sentences (4) and (5).</p>
<p>5.3.1.3. Location and Installation of Materials Providing Thermal Resistance</p> <p>3) Spray-in-place polyurethane insulation shall be installed in accordance with the requirements of CAN/ULC-S705.2, "Thermal Insulation – Spray-Applied Rigid Polyurethane Foam, Medium Density — Application."</p>	<p>5.3.1.3. Location and Installation of Materials Providing Thermal Resistance</p> <p>3) Spray-in-place polyurethane insulation shall be installed in accordance with the requirements of CAN/ULC-S705.2, "Thermal Insulation – Spray-Applied Rigid Polyurethane Foam, Medium Density — Application."</p>	<p>Deleted Sentence (3).</p>
<p>5.6.1.2. Installation of Protective Materials</p> <p>1) Where a material applied to a sloped or horizontal assembly is installed to provide required protection from precipitation and its installation is covered in the scope of</p>	<p>5.6.1.2. Installation of Protective Materials</p> <p>1) Where a material applied to a sloped or horizontal assembly is installed to provide required protection from precipitation and its installation is covered in the scope of</p>	<p>Deleted Sentences (1) and (2). Inserted new Sentence (2).</p>

ABC 2014	NBC(AE) 2019	Comments
<p>one of the standards listed below, installation shall conform to the requirements of the respective standard:</p> <ul style="list-style-type: none"> a) CAN/CGSB-37.51-M, “Application for Hot-Applied Rubberized Asphalt for Roofing and Waterproofing,” b) CGSB 37-GP-55M, “Application of Sheet Applied Flexible Polyvinyl Chloride Roofing Membrane,” c) CAN3-A123.51-M, “Asphalt Shingle Application on Roof Slopes 1:3 and Steeper,” or d) CAN3-A123.52-M, “Asphalt Shingle Application on Roof Slopes 1:6 to Less Than 1:3.” <p>2) Where masonry applied to vertical assemblies is installed to provide required protection from precipitation, installation shall conform to the requirements of CAN/CSA-A371, “Masonry Construction for Buildings.”</p> <p>3) Where protective materials are applied to assemblies to provide the required protection from precipitation, they shall be installed so as to shed precipitation or otherwise minimize its entry into the assembly and prevent its penetration through the assembly. (See Appendix A.) (See also Clause 5.3.1.2.(1)(d).)</p>	<p>one of the standards listed below, installation shall conform to the requirements of the respective standard:</p> <ul style="list-style-type: none"> a) CAN/CGSB-37.51-M, “Application for Hot-Applied Rubberized Asphalt for Roofing and Waterproofing,” b) CGSB 37-GP-55M, “Application of Sheet Applied Flexible Polyvinyl Chloride Roofing Membrane,” c) CAN3-A123.51-M, “Asphalt Shingle Application on Roof Slopes 1:3 and Steeper,” or d) CAN3-A123.52-M, “Asphalt Shingle Application on Roof Slopes 1:6 to Less Than 1:3.” <p>2) Where masonry applied to vertical assemblies is installed to provide required protection from precipitation, installation shall conform to the requirements of CAN/CSA-A371, “Masonry Construction for Buildings.”</p> <p>3) Where protective materials are applied to assemblies to provide the required protection from precipitation, they shall be installed so as to shed precipitation or otherwise minimize its entry into the assembly and prevent its penetration through the assembly. (See Appendix Note A-5.6.1.2.(1).) (See also Clause 5.3.1.2.(1)(d).)</p> <p><u>2) Where protective materials applied to assemblies to provide the required protection from precipitation are part of a vegetated roofing system, they shall be resistant to root and rhizome penetration when tested in accordance with ANSI/GRHC/SPRI VR-1, “Investigating Resistance to Root Penetration on Vegetative Roofs.” (See Note A-5.6.1.2.(2).)</u></p>	
<p>Section 5.7. Surface Water</p>	<p>Section 5.7. Surface <u>and Ground</u> Water <u>(See Note A-5.7.)</u></p>	
<p>5.7.1. Protection from Surface Water</p>	<p>5.7.1. Protection from Surface Water <u>Site Factors</u></p>	
<p>N/A</p>	<p>5.7.1.1. Application <u>1) This Subsection applies to the location of <i>buildings</i>, the grading of <i>building sites</i>, the directing of water away from <i>building assemblies</i>, and the provision of means for drainage.</u></p>	<p>Insert new Article 5.7.1.1.</p>
<p>5.7.1.1. Prevention of Accumulation and Ingress</p> <p>1) Except as provided in Sentence (3), the <i>building</i> shall be located, the <i>building site</i> shall be graded, or catch basins shall be installed so that surface water will not accumulate against the <i>building</i>.</p> <p>2) Except as provided in Sentence (3), <i>foundation</i> walls shall be constructed so that surface water will not</p> <ul style="list-style-type: none"> a) enter the <i>building</i>, or b) damage moisture-susceptible materials. 	<p>5.7.1.1.5.7.1.2. Prevention of Accumulation and Ingress Required Protection</p> <p>1) Except as provided in Sentence (3), <u>The <i>building</i> shall be located, the <i>building site</i> shall be graded, or catch basins shall be installed so that <u>water shall be directed away from <i>building assemblies</i> so as to prevent or accommodate the accumulation of surface water</u> will not accumulate <u>against the <i>building</i> or <i>adjacent buildings</i>.</u></u></p> <p>2) Except as provided in Sentence (3), <u><i>foundation</i> walls shall be constructed so that surface water will not</u></p> <ul style="list-style-type: none"> a) enter the <i>building</i>, or b) damage moisture-susceptible materials. 	<p>Renumbered Article. Deleted Sentences (2) and (3). Inserted new Sentence (2).</p>

ABC 2014	NBC(AE) 2019	Comments
<p>3) <i>Buildings</i> specifically designed to accommodate the accumulation of water at the <i>building</i> or the ingress of water need not comply with Sentence (1) or Clause (2)(a).</p>	<p>3) <i>Buildings</i> specifically designed to accommodate the accumulation of water at the <i>building</i> or the ingress of water need not comply with Sentence (1) or Clause (2)(a).</p> <p><u>2) Drainage shall be provided to direct water away from assemblies separating interior space from the ground, except</u></p> <ul style="list-style-type: none"> <u>a) where the assembly is designed in accordance with Subsection 5.7.2. to withstand continuous hydrostatic pressure, or</u> <u>b) where it can be shown that the lack of drainage will not adversely affect</u> <ul style="list-style-type: none"> <u>i) the health or safety of <i>building</i> users,</u> <u>ii) the intended use of the <i>building</i>, or</u> <u>iii) the operation of <i>building</i> services.</u> <p><u>(See Note A-5.7.1.2.(2).)</u></p>	
N/A	<p><u>5.7.2. Protection against Hydrostatic Pressure</u></p> <p><u>5.7.2.1. Application</u></p> <p><u>1) This Subsection applies to waterproofing materials, components, assemblies and systems applied to <i>building</i> assemblies that separate dissimilar environments and are subjected to hydrostatic pressure.</u></p> <p><u>5.7.2.2. Design of Building Elements Under Hydrostatic Loads</u></p> <p><u>1) Waterproofing materials, components, assemblies and systems described in Article 5.7.2.1. shall be designed in accordance with Subsection 5.1.4.</u></p> <p><u>2) Hydrostatic design loads shall be determined in accordance with Subsection 5.2.2.</u></p> <p><u>5.7.2.3. Required Protection</u></p> <p><u>1) Waterproofing materials, components, assemblies and systems described in Article 5.7.2.1. shall comply with Article 5.7.3.2.</u></p>	Inserted new Subsection.
N/A	<p><u>5.7.3. Protection against Ground Water</u></p> <p><u>5.7.3.1. Application</u></p> <p><u>1) This Subsection applies to the protection of <i>building</i> assemblies that separate interior space from the ground.</u></p> <p><u>5.7.3.2. Required Protection</u></p> <p><u>1) Except as provided in Sentence (2) and Article 5.7.3.4., <i>building</i> assemblies described in Article 5.7.3.1. shall be protected by waterproofing in accordance with Article 5.7.3.3. so as to prevent the ingress of water into the <i>building</i> or the accumulation of water against the <i>building</i>.</u></p> <p><u>2) Waterproofing is not required where it can be shown that</u></p> <ul style="list-style-type: none"> <u>a) a <i>building</i> is designed to accommodate the ingress or accumulation of water,</u> <u>or</u> <u>b) the ingress or accumulation of water will not negatively affect</u> 	Inserted new Subsection.

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	<p>i) the health or safety of building users, ii) the intended use of the building, or iii) the operation of building services.</p> <p>5.7.3.3. Waterproofing 1) Waterproofing materials, components, assemblies, or systems installed to provide the required protection shall form a continuous and impervious barrier to the ingress of water and be capable of accommodating a) imperfections, construction joints, control joints and expansion joints (see Note A-5.7.3.3.(1)(a)), b) junctions between different building assemblies, and c) elements penetrating building assemblies.</p> <p>5.7.3.4. Where Dampproofing is Permitted 1) Vertical building assemblies that separate interior space from the ground are permitted to be dampproofed where a) such assemblies are not subjected to hydrostatic pressure, b) the substrate is cast-in-place concrete, and c) a drainage layer is installed between the building assembly and the soil. (See Note A-5.7.3.4.(1).) 2) Joints, junctions and penetrations shall be designed and constructed to maintain the continuity of the dampproofing.</p>	
Section 5.8. Moisture in the Ground	N/A	Deleted entire Section. Note: Bits and pieces of the requirements in Section 5.8 were included in the new content in Subsections 5.7.2 and 5.7.3.
Section 5.9. Sound Transmission	Section 5.9.5.8. Sound Transmission	Renumbered Section.
5.9.1. Protection from Noise	5.9.1.5.8.1. Protection from Airborne Noise	Renumbered Subsection.
<p>5.9.1.1. Sound Transmission Class 1) Sound transmission class ratings shall be determined in accordance with ASTM E 413, "Classification for Rating Sound Insulation," using the results from measurements carried out in accordance with a) ASTM E 90, "Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements," or b) ASTM E 336, "Measurement of Airborne Sound Attenuation between Rooms in Buildings." (See Appendix A.)</p>	<p>5.9.1.1.5.8.1.2. Determination of Sound Transmission Class Ratings (See Note A-5.8.1.2.)</p> <p>1) Sound transmission classThe <i>STC</i> ratings of separating assemblies shall be determined in accordance with ASTM E 413, "Classification for Rating Sound Insulation," using the results from measurements carried out in accordance with a) ASTM E 90, "Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements," or 2) <u>The <i>ASTC</i> ratings of separating assemblies and adjoining constructions shall be</u></p>	Renumbered Article.

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	<p>a) determined in accordance with ASTM E 413, “Classification for Rating Sound Insulation,” using the results from measurements carried out in accordance with b) ASTM E 336, “Measurement of Airborne Sound Attenuation between Rooms in Buildings,” or</p> <p>b) calculated in accordance with</p> <p>i) the detailed method described in Article 5.8.1.4., or</p> <p>ii) the simplified method described in Article 5.8.1.5.</p> <p>(See Appendix A.)</p>	
<p>5.9.1.2. Required Protection from Noise</p> <p>1) Except as provided in Sentence (2), a <i>dwelling unit</i> shall be separated from every other space in a <i>building</i> in which noise may be generated by construction providing a sound transmission class rating not less than 50, measured in accordance with the standards referenced in Sentence 5.9.1.1.(1). (See A-9.11.1.1.(1) in Appendix A.)</p> <p>2) Construction separating a <i>dwelling unit</i> from an elevator hoistway or a refuse chute shall have a sound transmission class rating not less than 55, measured in accordance with the standards referenced in Sentence 5.9.1.1.(1).</p>	<p>5.9.1.2.5.8.1.1. Required Protection from Noise</p> <p>1) Except as provided in Sentence (2), a <i>dwelling unit</i> shall be separated from every other space in a <i>building</i> in which noise may be generated by construction providing a sound transmission class rating not less than 50, measured in accordance with the standards referenced in Sentence 5.9.1.1.(1). (See A-9.11.1.1.(1) in Appendix A.)</p> <p>a) a separating assembly and adjoining constructions, which, together, provide an apparent sound transmission class (ASTC) rating not less than 47, or</p> <p>b) a separating assembly that provides a sound transmission class (STC) rating of not less than 50 and adjoining constructions that conform to Article 9.11.1.4.</p> <p>2) Construction separating a <i>dwelling unit</i> from an elevator hoistway shaft or a refuse chute shall have a sound transmission class an STC rating not less than 55, measured in accordance with the standards referenced in Sentence 5.9.1.1.(1).</p>	Renumbered Article.
N/A	<p>5.8.1.3. Compliance with Required Ratings</p> <p>1) Compliance with the required STC ratings shall be demonstrated through</p> <p>a) measurements carried out in accordance with Sentence 5.8.1.2.(1), or</p> <p>b) the construction of separating assemblies conforming to those presented in Table 9.10.3.1.-A or 9.10.3.1.-B, as applicable.</p> <p>2) Compliance with the required ASTC ratings shall be demonstrated through</p> <p>a) measurements or calculations carried out in accordance with Sentence 5.8.1.2.(2), or</p> <p>b) the construction of separating assemblies conforming to those presented in Table 9.10.3.1.-A or 9.10.3.1.-B, as applicable, that have an STC rating of not less than 50 in conjunction with flanking assemblies constructed in accordance with Article 9.11.1.4.</p>	Inserted new Article.
N/A	<p>5.8.1.4. Detailed Method for Calculating ASTC</p> <p>(See Note A-5.8.1.4.)</p> <p>1) The sound transmission loss measured in accordance with ASTM E 90, “Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements,” shall be used in lieu of the sound reduction index required in ISO 15712-1,</p>	Inserted new Article.

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	<p><u>“Building Acoustics - Estimation of Acoustic Performance of Buildings From the Performance of Elements - Part 1: Airborne Sound Insulation Between Rooms.”</u></p> <p><u>2) The vibration reduction index for the junctions between separating assemblies shall be</u></p> <p><u>a) determined using the equations presented in Annex E of ISO 15712-1, “Building Acoustics - Estimation of Acoustic Performance of Buildings From the Performance of Elements - Part 1: Airborne Sound Insulation Between Rooms,” or</u></p> <p><u>b) measured in accordance with Parts 1 to 4 of ISO 10848, “Acoustics - Laboratory Measurement of the Flanking Transmission of Airborne and Impact Sound Between Adjoining Rooms.”</u></p> <p><u>3) The normalized flanking level difference shall be measured in accordance with Parts 1 to 4 of ISO 10848, “Acoustics - Laboratory Measurement of the Flanking Transmission of Airborne and Impact Sound Between Adjoining Rooms.”</u></p> <p><u>4) The direct sound reduction index for the separating assembly in situ shall be determined using Clause (a) or (b), depending on the type of construction:</u></p> <p><u>a) for a lightweight separating wall or floor assembly with wood or steel framing, the index shall be taken as equal to the sound transmission loss, without correction;</u></p> <p><u>b) for a heavyweight separating wall or floor assembly of concrete or masonry, the index shall be determined in accordance with the detailed method for structure-borne transmission presented in ISO 15712-1, “Building Acoustics - Estimation of Acoustic Performance of Buildings From the Performance of Elements - Part 1: Airborne Sound Insulation Between Rooms.”</u></p> <p><u>5) The flanking sound reduction index for each flanking path at each edge of the separating assembly shall be determined using Clause (a), (b) or (c), depending on the type of construction:</u></p> <p><u>a) for a lightweight separating wall or floor assembly with wood or steel framing and connected lightweight flanking assemblies with wood or steel framing, the index shall be taken as equal to the normalized flanking level difference re-normalized for the ASTC field situation in accordance with Annex F of ISO 15712-1, “Building Acoustics - Estimation of Acoustic Performance of Buildings From the Performance of Elements - Part 1: Airborne Sound Insulation Between Rooms”;</u></p> <p><u>b) for a heavyweight separating wall or floor assembly of concrete or masonry and connected flanking assemblies of concrete or masonry, the index shall be determined in accordance with the detailed method for structure-borne transmission presented in ISO 15712-1, “Building Acoustics - Estimation of Acoustic Performance of Buildings From the Performance of Elements – Part 1: Airborne Sound Insulation Between Rooms”;</u></p> <p><u>c) for a mixture of lightweight framed assemblies and heavyweight concrete or masonry assemblies, the index shall be determined in accordance with Clause (a) or (b).</u></p>	

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	<p>6) Once the pertinent indices and measurements referred to in Sentences (1) to (5) have been determined based on the type of construction, the apparent sound reduction index shall then be determined in accordance with ISO 15712-1, “Building Acoustics - Estimation of Acoustic Performance of Buildings From the Performance of Elements - Part 1: Airborne Sound Insulation Between Rooms.”</p> <p>7) The ASTC shall be calculated in accordance with ASTM E 413, “Classification for Rating Sound Insulation,” using the apparent sound reduction index determined in Sentence (6), which shall be treated as equivalent to the values of apparent sound transmission loss measured in accordance with ASTM E 336, “Measurement of Airborne Sound Attenuation between Rooms in Buildings.”</p>	
N/A	<p>5.8.1.5. Simplified Method for Calculating ASTC (See Note A-5.8.1.4.)</p> <p>1) The STC rating shall be used in lieu of the weighted sound reduction index required in ISO 15712-1, “Building Acoustics - Estimation of Acoustic Performance of Buildings From the Performance of Elements - Part 1: Airborne Sound Insulation Between Rooms.”</p> <p>2) The vibration reduction index for the junctions between separating assemblies shall be</p> <ul style="list-style-type: none"> a) determined using the equations presented in Annex E of ISO 15712-1, “Building Acoustics - Estimation of Acoustic Performance of Buildings From the Performance of Elements - Part 1: Airborne Sound Insulation Between Rooms,” or b) measured in accordance with Parts 1 to 4 of ISO 10848, “Acoustics - Laboratory Measurement of the Flanking Transmission of Airborne and Impact Sound Between Adjoining Rooms.” <p>3) The weighted normalized flanking level difference shall be determined in accordance with ASTM E 413, “Classification for Rating Sound Insulation,” using the results from measurements carried out in accordance with Parts 1 to 4 of ISO 10848, “Acoustics - Laboratory Measurement of the Flanking Transmission of Airborne and Impact Sound Between Adjoining Rooms.”</p> <p>4) The direct weighted sound reduction index for the separating assembly shall be taken as equal to the STC, without correction.</p> <p>5) The weighted flanking sound reduction index for each flanking path at each edge of the separating assembly shall be determined using Clause (a) or (b), depending on the type of construction:</p> <ul style="list-style-type: none"> a) for a lightweight separating wall or floor assembly with wood or steel framing and connected lightweight flanking assemblies with wood or steel framing, the index shall be taken as equal to the weighted normalized flanking level difference re-normalized for the ASTC field situation in accordance with Annex F of ISO 15712-1, “Building Acoustics – Estimation of 	Inserted new Article.

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	<p>Acoustic Performance of Buildings From the Performance of Elements - Part 1: Airborne Sound Insulation Between Rooms”;</p> <p>b) for a heavyweight separating wall or floor assembly of concrete or masonry and connected flanking assemblies of concrete or masonry, the index shall be determined in accordance with the simplified method for structure-borne transmission presented in ISO 15712-1, “Building Acoustics - Estimation of Acoustic Performance of Buildings From the Performance of Elements – Part 1: Airborne Sound Insulation Between Rooms.”</p> <p>6) Once the pertinent indices and measurements referred to in Sentences (1) to (5) have been determined based on the type of construction, the ASTC shall then be calculated in accordance with ISO 15712-1, “Building Acoustics – Estimation of Acoustic Performance of Buildings From the Performance of Elements - Part 1: Airborne Sound Insulation Between Rooms.”</p>																												
Section 5.10. Standards	Section 5.10.5.9. Standards	Renumbered Section.																											
5.10.1. Applicable Standards	5.10.1.5.9.1. Applicable Standards	Renumbered Subsection.																											
<p>5.10.1.1. Compliance with Applicable Standards</p> <p>...</p> <p style="text-align: center;">Table 5.10.1.1. Standards Applicable to Environmental Separators and Assemblies Exposed to the Exterior Forming Part of Sentence 5.10.1.1.(1)</p> <p>...</p>	<p>5.10.1.1.5.9.1.1. Compliance with Applicable Standards</p> <p>...</p> <p style="text-align: center;">Table 5.10.1.1.5.9.1.1. Standards Applicable to Environmental Separators and Assemblies Exposed to the Exterior Forming Part of Sentence 5.10.1.1.(1)5.9.1.1.(1)</p> <table border="1" data-bbox="1069 998 2002 1521"> <thead> <tr> <th data-bbox="1069 998 1163 1076">Issuing Agency</th> <th data-bbox="1163 998 1384 1076">Document Number</th> <th data-bbox="1384 998 2002 1076">Title of Document</th> </tr> </thead> <tbody> <tr> <td data-bbox="1069 1076 1163 1122">ANSI</td> <td data-bbox="1163 1076 1384 1122">A208.1</td> <td data-bbox="1384 1076 2002 1122">Particleboard</td> </tr> <tr> <td data-bbox="1069 1122 1163 1167">ASTM</td> <td data-bbox="1163 1122 1384 1167">C726</td> <td data-bbox="1384 1122 2002 1167">Mineral Wool Roof Insulation Board</td> </tr> <tr> <td data-bbox="1069 1167 1163 1213">ASTM</td> <td data-bbox="1163 1167 1384 1213">C1658/C1658M⁽³⁾</td> <td data-bbox="1384 1167 2002 1213">Glass Mat Gypsum Panels</td> </tr> <tr> <td data-bbox="1069 1213 1163 1291">ASTM</td> <td data-bbox="1163 1213 1384 1291">D 1227</td> <td data-bbox="1384 1213 2002 1291">Emulsified Asphalt Used as a Protective Coating for Roofing</td> </tr> <tr> <td data-bbox="1069 1291 1163 1369">ASTM</td> <td data-bbox="1163 1291 1384 1369">D 3019⁽⁴⁾</td> <td data-bbox="1384 1291 2002 1369">Lap Cement Used with Asphalt Roll Roofing, Non-Fibered, Asbestos-Fibered, and Non-Asbestos-Fibered</td> </tr> <tr> <td data-bbox="1069 1369 1163 1414">ASTM</td> <td data-bbox="1163 1369 1384 1414">D 4479/D 4479M</td> <td data-bbox="1384 1369 2002 1414">Asphalt Roof Coatings – Asbestos-Free</td> </tr> <tr> <td data-bbox="1069 1414 1163 1459">ASTM</td> <td data-bbox="1163 1414 1384 1459">D 4637/D 4637M</td> <td data-bbox="1384 1414 2002 1459">EPDM Sheet Used In Single-Ply Roof Membrane</td> </tr> <tr> <td data-bbox="1069 1459 1163 1521">ASTM</td> <td data-bbox="1163 1459 1384 1521">D 4811/D 4811M</td> <td data-bbox="1384 1459 2002 1521">Nonvulcanized (Uncured) Rubber Sheet Used as Roof Flashing</td> </tr> </tbody> </table>	Issuing Agency	Document Number	Title of Document	ANSI	A208.1	Particleboard	ASTM	C726	Mineral Wool Roof Insulation Board	ASTM	C1658/C1658M⁽³⁾	Glass Mat Gypsum Panels	ASTM	D 1227	Emulsified Asphalt Used as a Protective Coating for Roofing	ASTM	D 3019⁽⁴⁾	Lap Cement Used with Asphalt Roll Roofing, Non-Fibered, Asbestos-Fibered, and Non-Asbestos-Fibered	ASTM	D 4479/D 4479M	Asphalt Roof Coatings – Asbestos-Free	ASTM	D 4637/D 4637M	EPDM Sheet Used In Single-Ply Roof Membrane	ASTM	D 4811/D 4811M	Nonvulcanized (Uncured) Rubber Sheet Used as Roof Flashing	Renumbered Article. Only standards that were added or deleted are shown. Please see Table for complete list of standards.
Issuing Agency	Document Number	Title of Document																											
ANSI	A208.1	Particleboard																											
ASTM	C726	Mineral Wool Roof Insulation Board																											
ASTM	C1658/C1658M⁽³⁾	Glass Mat Gypsum Panels																											
ASTM	D 1227	Emulsified Asphalt Used as a Protective Coating for Roofing																											
ASTM	D 3019⁽⁴⁾	Lap Cement Used with Asphalt Roll Roofing, Non-Fibered, Asbestos-Fibered, and Non-Asbestos-Fibered																											
ASTM	D 4479/D 4479M	Asphalt Roof Coatings – Asbestos-Free																											
ASTM	D 4637/D 4637M	EPDM Sheet Used In Single-Ply Roof Membrane																											
ASTM	D 4811/D 4811M	Nonvulcanized (Uncured) Rubber Sheet Used as Roof Flashing																											

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	ASTM	D 6878/D 6878M	Thermoplastic Polyolefin Based Sheet Roofing	
	AWPA	M4	Care of Preservative-Treated Wood Products	
	CGSB	CAN/CGSB-34.22	Asbestos-Cement Drain Pipe	
	CGSB	CAN/CGSB-37.1-M	Chemical Emulsifier Type, Emulsified Asphalt for Dampproofing	
	CGSB	CAN/CGSB-37.2-M	Emulsified Asphalt, Mineral Colloid Type, Unfilled, for Dampproofing and Waterproofing and for Roof Coatings	
	CGSB	CAN/CGSB-37.3-M	Application of Emulsified Asphalts for Dampproofing or Waterproofing	
	CGSB	CAN/CGSB-37.4-M	Fibrated, Cutback Asphalt, Lap Cement for Asphalt Roofing	
	CGSB	CAN/CGSB-37.5-M	Cutback Asphalt Plastic, Cement	
	CGSB	37-GP-6Ma	Asphalt, Cutback, Unfilled, for Dampproofing	
	CGSB	CAN/CGSB-37.8-M	Asphalt, Cutback, Filled, for Roof Coating	
	CGSB	37-GP-12Ma	Application of Unfilled Cutback Asphalt for Dampproofing	
	CGSB	CAN/CGSB-37.16-M	Filled, Cutback Asphalt for Dampproofing and Waterproofing	
	CGSB	37-GP-18Ma	Tar, Cutback, Unfilled, for Dampproofing	
	CGSB	37-GP-21M	Tar, Cutback, Fibrated, for Roof Coating	
	CGSB	CAN/CGSB-37.22-M	Application of Unfilled, Cutback Tar Foundation Coating for Dampproofing	
	CGSB	37-GP-36M	Application of Filled Cutback Asphalts for Dampproofing and Waterproofing	
	CGSB	37-GP-37M	Application of Hot Asphalt for Dampproofing or Waterproofing	
	CGSB	CAN/CGSB-37.51-M	Application for Hot Applied Rubberized Asphalt for Roofing and Waterproofing	
	CGSB	37-GP-52M	Roofing and Waterproofing Membrane, Sheet Applied, Elastomeric	
	CGSB	37-GP-55M	Application of Sheet Applied Flexible Polyvinyl Chloride Roofing Membrane	
	CGSB	37-GP-64M	Mat Reinforcing, Fibrous Glass, for Membrane Waterproofing Systems and Built-Up Roofing	
	CGSB	41-GP-6M	Sheets, Thermosetting Polyester Plastics, Glass Fiber	

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	CGSB	CAN/CGSB-37.58-M	Reinforced Membrane, Elastomeric, Cold-Applied Liquid, for Non-Exposed Use in Roofing and Waterproofing	
	CSA	CAN/CSA-A82	Fired Masonry Brick Made from Clay or Shale	
	CSA	CAN/CSA-A82.1-M	Burned Clay Brick (Solid Masonry Units Made from Clay or Shale)	
	CSA	A82.4-M	Structural Clay Load-Bearing Wall Tile	
	CSA	A82.5-M	Structural Clay Non-Load-Bearing Tile	
	CSA	CAN3-A82.8-M	Hollow Clay Brick	
	CSA	CAN/CSA-A82.27-M	Gypsum Board	
	CSA	A82.30-M	Interior Furring, Lathing and Gypsum Plastering	
	CSA	A82.31-M	Gypsum Board Application	
	CSA	CAN3-A165.4-M	Autoclaved Cellular Units	
	CSA	O115-M	Hardwood and Decorative Plywood	
	HPVA	ANSI/HPVA HP-1	Hardwood and Decorative Plywood	
	ULC	CAN/ULC-S710.1	Thermal Insulation – Bead-Applied One Component Polyurethane Air Sealant Foam, Part 1: Material Specification	
	ULC	CAN/ULC-S711.1	Thermal Insulation – Bead-Applied Two Component Polyurethane Air Sealant Foam, Part 1: Material Specification	
	<p>Notes to Table 5.10.1.1 5.9.1.1.:</p> <p>(1) See Appendix Note A-Table 5.9.1.1.</p> <p>(2) The flame-spread rating of gypsum board shall be determined in accordance with CAN/ULC-S102 in lieu of ASTM E 84 as indicated in ASTM C 1396/C 1396M.</p> <p>(3) The flame-spread rating of glass mat gypsum panels shall be determined in accordance with CAN/ULC-S102 in lieu of ASTM E 84 as indicated in ASTM C 1658/C 1658M.</p> <p>(4) For the purpose of compliance with Part 5, ASTM D 3019 shall only apply to the non-fibered and non-asbestos-fibered types of asphalt roll roofing.</p>			
5.10.2. Windows, Doors and Skylights	5.10.2 5.9.2. Windows, Doors and Skylights			Renumbered Subsection.
5.10.2.1. General	5.10.2.1 5.9.2.1. General			Renumbered Article.

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5.10.2.2. Applicable Standards	5.10.2.2. 5.9.2.2. Applicable Standards	Renumbered Article.
5.10.2.3. Structural Loads, Air Leakage and Water Penetration	5.10.2.3. 5.9.2.3. Structural <u>and Environmental</u> Loads, Air Leakage and Water Penetration	Renumbered Article.
5.10.2.4. Heat Transfer	5.10.2.4. 5.9.2.4. Heat Transfer	Renumbered Article.
N/A	<p>5.9.3. Other Fenestration Assemblies (See Note A-5.9.3.)</p> <p>5.9.3.1. General 1) For the purpose of this Subsection, the term “other fenestration assemblies” refers to curtain walls, window walls, storefronts and glazed architectural structures. (See Note A-5.9.3.1.(1).)</p> <p>5.9.3.2. Structural and Environmental Loads 1) Other fenestration assemblies and their components shall be designed and constructed in accordance with Article 5.1.4.1. (See Note A-5.9.3.2.(1).)</p> <p>5.9.3.3. Heat Transfer 1) Other fenestration assemblies and their components shall meet the heat transfer performance requirements stated in Section 5.3. (See Note A-5.9.3.3.(1).) 2) Other fenestration assemblies using metal framing that separate interior <i>conditioned space</i> from interior unconditioned space or exterior space shall incorporate a thermal break to minimize condensation.</p> <p>5.9.3.4. Air Leakage 1) Other fenestration assemblies and their components shall be designed and constructed in accordance with Section 5.4. 2) Except as provided in Sentence (3), other fenestration assemblies and their components shall have an air leakage characteristic, measured at an air pressure difference of 75 Pa, when tested in accordance with ASTM E 283, “Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen,” that is not greater than a) 0.2 L/(s·m²) for fixed portions, including any opaque portions, and b) 1.5 L/(s·m²) for operable portions. (See Note A-5.9.3.4.(2).) 3) The following systems need not comply with Sentence (2): a) interior windows and interior doors that do not serve as environmental separators, b) vehicular access doors (garage doors),</p>	Inserted new Subsection.

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	<p> c) storm windows and storm doors, d) commercial entrance systems, e) revolving doors, f) smoke and relief air vents, g) site-built door systems, and h) commercial steel doors. (See Note A-5.9.3.4.(3).) </p> <p> <u>5.9.3.5. Water Penetration</u> 1) Other fenestration assemblies and their components shall be designed and constructed in accordance with Section 5.6. 2) Except as provided in Sentence (4), other fenestration assemblies and their components not covered in Article 5.9.2.2. shall resist water penetration when tested in accordance with a) ASTM E 331, “Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference,” or b) ASTM E 547, “Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.” (See Note A-5.9.3.5.(2).) 3) Tests referred to in Sentence (2) shall be carried out at the driving rain wind pressure as calculated in accordance with CSA A440S1, “Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-11, NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights.” (See Note A-5.9.3.5.(3).) 4) The following systems need not comply with Sentence (2): a) interior windows and interior doors, b) vehicular access doors (garage doors), c) storm windows and storm doors, d) commercial entrance systems, e) revolving doors, f) smoke and relief air vents, g) site-built door systems, and h) commercial steel doors. (See Note A-5.9.3.5.(4).) </p>	
N/A	<p> <u>5.9.4. Exterior Insulation Finish Systems</u> <u>5.9.4.1. Structural Loads, Heat Transfer, Air Leakage, Vapour Diffusion and Water Penetration</u> 1) Exterior insulation finish systems and their components shall comply with a) Subsection 5.1.4. and Sections 5.3. to 5.6., and b) CAN/ULC-S716.1, “Exterior Insulation and Finish Systems (EIFS) –Materials and Systems,” where covered in the scope of that standard. (See Note A-5.9.4.1.(1).) </p>	Inserted new Subsection.

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Section 5.11. Objectives and Functional Statements	Section 5.11.5.10. Objectives and Functional Statements	Renumbered Section.
5.11.1. Objectives and Functional Statements	5.11.1.5.10.1. Objectives and Functional Statements	Renumbered Subsection.
5.11.1.1. Attributions to Acceptable Solutions	5.11.1.1.5.10.1.1. Attributions to Acceptable Solutions	Renumbered Article.