

## 2018 Building Science Reference Material List

*In preparation for the exams, you should have a working knowledge of the codes and standards standards. Other references are also included here to assist with your exam preparation.*

**NOTE: Any excerpts, tables or graphs from the reference material listed that are required to answer the exam questions will be provided in the form of an aid sheet.**

**References marked with an asterisk\* are available in the OBEC “Members Only” portal**

### Codes and Standards:

#### American Society of Civil Engineers

- ASCE 7: Minimum Design Loads for Buildings and Other structures (ASCE 7-02 Excerpt Section 6)

#### American Society of Heating, Refrigerating and Air-Conditioning Engineers

- ANSI/ASHRAE Standard 55: Thermal Environmental Conditions for Human Occupancy
- ANSI/ASHRAE Standard 62.1 & 62.2: The Standards for Ventilation and Indoor Air Quality

#### American Society for Testing and Materials

- ASTM Standards Summary
- ASTM C 920: Standard Specification for Elastomeric Joint Sealants
- ASTM C 1299: Standard Specification for Faced Rigid Cellular Polyisocyanurate

#### Thermal Insulation Board

- ASTM C 1382: Standard Test Method for Determining Tensile Adhesion Properties of Sealants When Used in Exterior Insulation and Finish Systems (EIFS) Joints
- ASTM C 1401: Standard Guide for Structural Sealant Glazing
- ASTM C 1472: Standard Guide for Calculating Movement and Other Effects When Establishing Sealant Joint Width
- ASTM C 1521: Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints
- ASTM E119: Standard Test Methods for Fire Tests of Building Construction and Materials
- ASTM E2270: Standard Practice for Periodic Inspection of Building Facades for Unsafe Conditions
- ASTM E2400: Standard Test Methods for Fire Tests of Building Construction and Materials

#### Canadian Standards Association

- CAN/CSA A23.1 Concrete materials and methods of concrete construction (Exposure Classes Tables and Cement Types)
- CAN/CSA A82: Fired masonry brick made from clay or shale
- CAN/CSA A179: Mortar and Grout for Unit Masonry
- CAN/CSA A370: Connectors for masonry
- CAN/CSA A371: Masonry Construction for Buildings
- CAN/CSA S304.1: Design of Masonry Structures Underwriters Laboratories of Canada
- CAN/ULC-S101: Fire Endurance Tests of Building Construction and Materials
- CAN/ULC-S107: Method of Fire Testing of Roofing Coverings
- CAN/ULC-S126: Standard Method of Test for Fire Spread Under Roof-Deck Assemblies

## FM Global Group

- FM Loss Prevention Data Sheet 1-28: Wind Design
- FM Loss prevention Data Sheet 1-28R: Roof Systems
- FM Loss Prevention Data Sheet 1-29: Roof Deck Securement and Above-Deck Roof Components
- FM Loss Prevention Data Sheet 1-31: Panel Roof Systems
- FM Loss Prevention Data Sheet 1-49: Perimeter Flashing North American Fenestration Standard
- NAFS - AAMA/WDMA/CSA 101/1.S.2/ A440: North American Fenestration Standard / Specification for Windows, Doors, and Skylights

## Underwriters Laboratories

- UL Standards Summary
- UL Guide - Bldg Materials
- UL Guide - Fire Resistance

## Reference Texts:

- Building Science for a Cold Climate, Neil B. Hutcheon, Gustav O.P. Handegord
- Building Science for Building Enclosures, John Straube, Eric Burnett

## Handbooks and other Resources

- American Concrete Institute ACI 546R-04 Concrete Repair Guide
- Bailey Roofer EMS\*
- "A Comparison of the Embodied and Operational Environmental Impacts of Insulation in Office Buildings" by Lucuik\*
- EABO Declaration\*
- "End-of-Service Life Recycling of Thermoplastic Roof Assemblies" by Graveline & Sarnafil\*
- "Structure Rehabilitation Manual" by Ministry of Transportation of Ontario
- "Sustainable Buildings - Addressing Long-Term Building Envelope Durability" by Hoff\*
- "Sustainable Roof Design More Than a Black and White Issue" on facilitymanagement.com\*
- Tapered Insulation Handbook\*

## Canadian Building Digests

- CBD-151: Drainage from Roofs\*

## Canadian Roofing Contractors' Association Advisory Bulletins

- CRCA Perimeter Edge Flashing and Wind Resistance (2007)\*
- CRCA Change to FM Global Loss Prevention Data Sheets (2007)\*