



CONTEST DESCRIPTION

# Architectural Technology and Design

VIRTUAL SECONDARY

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## 1 THE SKILLS FOR SUCCESS FOR CAREERS IN THE SKILLED TRADES AND TECHNOLOGY

In response to the evolving labour market and changing skill needs, the Government of Canada has launched the new Skills for Success (*former Essential Skills*) model defining nine key skills needed by Canadians to participate in work, in education and training, and in modern society more broadly. SCC is currently working with Employment and Social Development Canada (ESDC) to bring awareness of the importance of these skills that are absolutely crucial for success in Trade and Technology careers. Part of this ongoing initiative requires the integration and identification of the Skills for Success in contest descriptions, projects, and project documents. The next phase and very important aspect of our Skills for Success (SfS) initiative is to provide a *Skills Report Card* to each competitor at the Skills Canada National Competition. The purpose of the report card is to inform the competitor about their current level of nine identified Skills for Success based on their competition scores. With this knowledge, the competitor will be made aware which skill may require improvement. Full implementation is expected in the next Skills Canada National Competition.

The following 9 skills have been identified and validated as key skills for success for the workplace in the legend below:

<sup>1</sup>Numeracy, <sup>2</sup>Communication, <sup>3</sup>Collaboration, <sup>4</sup>Adaptability, <sup>5</sup>Reading, <sup>6</sup>Writing, <sup>7</sup>Problem Solving, <sup>8</sup>Creativity and Innovation, <sup>9</sup>Digital

These Skills for Success have been identified in section 2.3 and/or 3.2 of your Contest Description and if applicable, in your Project and supporting documents.

## 2 CONTEST INTRODUCTION

### 2.1 Description of the associated work role(s) or occupation(s)

[https://www.skillscompetencescanada.com/en/skill\\_area/architectural-technology-and-design/](https://www.skillscompetencescanada.com/en/skill_area/architectural-technology-and-design/)

### 2.2 Purpose of the Challenge

To assess the competitor's skills in performing architectural design and drawing tasks.

To assess the competitor's abilities to apply the following key themes:

- Architecture - envelope design, space planning, materials selection
- Knowledge of Canadian Wood-Frame House Construction, CMHC
- Engineering - structural systems and spans
- Construction - regulatory building codes and knowledge of construction assemblies

### 2.3 Duration of contest

During the SCNC 2022, the secondary category will be hosted virtually. The competition for your skill will consist of a total of 12 hours. A detailed schedule will be posted on our website.

### 2.4 Skills and Knowledge to be tested.

Prior to the arriving at the competition, each competitor shall create a imperial 11x17 size template with the title block containing the information provided in the example posted on the Skills/Compétences Canada website, and have this template accessible on their computer for use during the competition.

## 3 CONTEST DESCRIPTION

### 3.1 List of documents produced and timeline for when competitors have access to the documents on the Skills/Compétences Canada website

DOCUMENT	DATE OF DISTRIBUTION
Project	January 2021
Sample Title Block	February 2022
Competition Drawing Standards	February 2022

### 3.2 Tasks that may be performed during the contest

- Preparation of Working/Construction Drawings and Presentation Drawings<sup>8</sup>
- BIM / CADD<sup>9</sup>
- Planning and design concepts<sup>7</sup>
- Measuring/scaling, detailing and sketching skill<sup>1</sup>
- Exporting drawings as a PDF<sup>9</sup>
- Test knowledge of Wood frame construction
- Open Book Quiz based on Canadian Wood-Frame House Construction, CMHC.<sup>7</sup>
- Evaluation of spatial perception

**Note:** Competition project may include presentation and working drawings of floor plans, elevations, section(s) and construction detail(s).

*Essential Skills – <sup>1</sup>Numeracy, <sup>7</sup>Thinking (Critical, Significant Use of Memory), <sup>8</sup>Document Use, <sup>9</sup>Digital*

## 4 EQUIPMENT, MATERIAL, CLOTHING

### 4.1 Equipment and material provided by the competitor and/or host facility

- Laser printer (11x17) and/or plotter
- Table and chair

- 120VAC power supply
- Pre-made title block (Refer to Section 2.4 above for requirements)
- Windows compatible hardware
- Autodesk Products (AutoCAD, AutoCAD Architecture, Revit) (Current Year or Most Recent Version)
- No internet access during competition
- Other than operating software, no files are permitted on the desktop or laptop.
- PDF creation software (ie. Adobe Acrobat Writer) Competitors are to ensure PDF creation software is installed and tested prior to competition time. Refer below to contest specific rules.
- If competitors are bringing a computer or laptop from their school (instead of their personal computer), please ensure that the computer is unlocked so documents and possibly software can be saved/installed to the hard drive and technology support can be provided onsite. This may require access to CMOS settings.
- Canadian Wood-Frame House Construction, published by CMHC will be permitted. (Digital or Hardcopy)
- Scales (metric and imperial)
- Calculator
- Pencil
- Paper
- Empty USB Drive
- Software reference manuals, Textbooks and Electronic data (e.g., CD or diskette) will **not** be permitted

#### 4.2 Required clothing provided by the competitor

- N/A

## 5 HEALTH AND SAFETY

### 5.1 Safety program

SCC has implemented a comprehensive safety program as health and safety is an integral part of our competitions. Our safety program includes guidelines and procedures to make the work environment in each skill area safer.

#### 5.1.1 Safety manual

As part of our program a safety manual has been created to monitor and document health and safety within each skill area. It includes a definite plan of action designed to prevent accidents. The safety manual will be provided for every skill and these instructions must be followed and respected by all participants and officials at the SCNC.

### 5.1.2 Safety workshop

During orientation, Competitors will participate in a Safety workshop and they will be expected to work and maintain a safe working area during the competition. Any Competitor breaking any health, safety, and environmental rules, may be required to undertake a second safety workshop, this will not affect the Competitor's competition time.

### 5.2 COVID-19 Protocol

The COVID guidelines already in place within the participants' jurisdiction would need to be followed during the SCNC. It is the responsibility of the participants (Competitor, Proctors, NTC members, and anyone onsite during the competition) to ensure that the COVID guidelines are respected.

### 5.3 List of required personal protective equipment (PPE) provided by the competitor and/or host facility

- No PPE required

**Note:** Competitors who do not have the required protective equipment will not be allowed to participate in the competition

## 6 ASSESSMENT

### 6.1 Point breakdown

**Note:** This list is subject to change.

TASKS	/100
Day 1 - Working/Presentation Drawing(s)	50
Day 2 - Working/Presentation Drawing(s)	50

## 7 CONTEST SPECIFIC RULES

Contest specific rules cannot contradict or take priority over the Competition Rules. They do provide specific details and clarity in areas that may vary from contest to contest. Any additional contest rules will be reviewed during the competitor orientation.

TOPIC/TASK	CONTEST SPECIFIC RULE
Use of Resource Materials	<ul style="list-style-type: none"> <li>• The only resource permitted is the CMHC Wood Frame Handbook. Failure to comply with this rule will result in disqualification.</li> </ul>
Use of technology - <b>Internet</b>	<ul style="list-style-type: none"> <li>• There will be no access to the Internet during the competition. Failure to comply with this rule will result in disqualification.</li> </ul>

<p>Use of technology – Mobile phones and music</p>	<ul style="list-style-type: none"> <li>• MP3 players or cell phones on airplane mode are permitted during the competition to listen to music provided the competitor wears headphones or earbuds.</li> <li>• During the competition, competitors are <b>not</b> permitted to use their cell phones for calling, texting or accessing the internet. <b><u>Failure to comply with this rule will result in disqualification.</u></b></li> </ul>
<p>Hardware &amp; Software</p>	<ul style="list-style-type: none"> <li>• Computers must remain onsite from Orientation to the conclusion of the competition.</li> <li>• No electronic drawing files are permitted to be brought into the competition. The competitor is required to ensure that their computer only contains software application files. Failure to comply with this rule will result in disqualification.</li> <li>• Only default software libraries, families, blocks, and components are permitted to use during the competition.</li> <li>• NTC Members will verify compliance during Orientation.</li> <li>• All software must be installed and operational prior to the beginning of competition. Failure to comply with this rule will result in disqualification.</li> </ul>
<p>Malfunction of Software/Hardware</p>	<ul style="list-style-type: none"> <li>• Technical support for software will <b>not</b> be provided during the competition. Competitors are assumed to be knowledgeable in their chosen software and should have full working knowledge of its capabilities.</li> <li>• If your hardware/software malfunctions you will be provided the equivalent down time to complete the competition up to a maximum of 60 minutes per day. Subject to NTC discretion</li> </ul>

## 8 ADDITIONAL INFORMATION

### 8.1 Interpreter

If a competitor requires the help of an interpreter during the competition, the Skills/Compétences Canada Provincial/Territorial offices must advise

Skills/Compétences Canada National Secretariat a minimum of 1 month prior to the competition or this service may not be guaranteed.

## 8.2 Ties

- Tiebreaker #1: The competitor with the highest score in the Working/Construction Drawings of the Floor Plan Component of the test will be declared the winner.
- Tiebreaker #2: The competitor with the highest score in the Elevation(s) Component of the test will be declared the winner.
- Tiebreaker #3: The competitor with the highest score in the Wall Section(s) Component of the test will be declared a winner.

## 8.3 Competition rules

Refer to the competition rules of the Skills Canada National Competition which can be found on our website.

## 9 NATIONAL TECHNICAL COMMITTEE MEMBERS

MEMBER ORGANIZATION	NAME
Newfoundland and Labrador	Mike Foley – Co-Chair
Prince Edward Island	Bruceyene Collins
Quebec	Sylvie Faber
Ontario	Joel Foster – Chair
Manitoba	Ralph Lata
Saskatchewan	Andrea Clayton
Alberta	Peter Kelly
British Columbia	Wes Macaulay

Contact the Skills/Compétences Canada national secretariat for any questions or concerns: Nathalie Maisonneuve ([nathaliem@skillscanada.com](mailto:nathaliem@skillscanada.com)).