



CONTEST DESCRIPTION / DESCRIPTION DE CONCOURS

# **BRICK MASONRY**

# **BRIQUETAGE-MAÇONNERIE**

POST-SECONDARY /  
NIVEAU POSTSECONDAIRE

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## **1 THE ESSENTIAL SKILLS FOR CAREERS IN THE SKILLED TRADES AND TECHNOLOGY**

SCC is currently working with Employment and Social Development Canada (ESDC) in order to bring awareness to the importance of Essential Skills that are absolutely crucial for success in the workforce. Part of this ongoing initiative requires the integration and identification of Essential Skills in contest descriptions, projects, and project documents. The next phase and very important aspect of our Essential Skills (ES) initiative is to provide an ES report card to each competitor at the Skills Canada National Competition. The purpose of the ES report card is to inform the competitor about their current level of essential skills based on their competition scores. With this knowledge, the competitor will be made aware which essential skill may require improvement. Full implementation is expected in the 2017 Skills Canada National Competition.

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

*<sup>1</sup>Numeracy, <sup>2</sup>Oral Communication, <sup>3</sup>Working with Others, <sup>4</sup>Continuous Learning, <sup>5</sup>Reading Text, <sup>6</sup>Writing, <sup>7</sup>Thinking, <sup>8</sup>Document Use, <sup>9</sup>Digital*

These essential skills have been identified with in section 2.4 and/or 3.2 of your Contest Description. The top three Essential Skills for your area of competition have been identified on your Project and all other supporting project documents.

## **2 CONTEST INTRODUCTION**

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

<http://skillscompetencescanada.com/en/careers/construction/brick-masonry/>

**2.2** Purpose of the Challenge.

Bricklaying covers the construction of buildings and parts of buildings, brick, and/or block, artificial and natural stone walls.

**2.3** Duration of contest.

12 hours

## 2.4 Skills and Knowledge to be tested.

The test project consists of practical work including bricks, glass block, block and/or stone laying by respecting the indications on the plan/design (for cutting and detail). The theoretical knowledge is limited to that which is necessary to carry out the practical work. Knowledge on rules, regulations and standards is not tested. The test project includes the construction of brick and block walls, or surfaces of with brick facing. For example, decorative brickwork with projections and recesses in all possible bonds, sections of walls with segmental, semi-circular, triangular, flat, gothic arches; curved walls and cavity walls.

## 3 CONTEST DESCRIPTION

### 3.1 List of documents produced and timeline for when competitors have access to the documents.

DOCUMENT	DATE OF DISTRIBUTION VIA WEBSITE
Test Project	January, 2017

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

- Practical work
- Only the metric system will be used
- The competition may be designed from the following
  - 80 to 85% brickwork (clay brick and/or concrete brick)
  - 10 to 25% block, stone work and /or glass block
  - 15 to 30% Arch set out other detail
- The appropriate technical skills are:
  - Measuring lengths<sup>1</sup>
  - Calculating and marking of angles<sup>1</sup>
  - Determining the layout<sup>7</sup>
  - Determining the gauge<sup>7</sup>
  - Cutting brickwork
  - Levelling and plumbing
  - Making corners
  - Building walls with brick, block or stone in different bonds: using stretcher or header, brick on end, brick on edge, raking; corbels, decorative bond, practical and/or aesthetics details<sup>7</sup>
  - Sloping or battering walls according to the drawing and using material indicated 2.1<sup>8</sup>
  - Compliance with the plans<sup>8</sup>
  - Jointing pointing according to required profile<sup>8</sup>
  - Cleaning

- Material
  - Bricks, face bricks, backing bricks, uniformly baked or formed, dimensionally accurate and sharp-edge, blocks or stone maximum 15 kg (30 lbs.)<sup>1</sup>
  - Bounding agent: lime and cement or masonry cement (Type N)
  - Aggregate: sand grain size 0 to 3 mm max.
  - Mortar additive may be used to make mortar softer (workable)
  - The use of brick cleaning fluids or oil is not allowed
  - Brick cutting not including 90 degree to be limited do a maximum of 25% of the total numbers of bricks.<sup>1</sup>
  
- Technical assessment. This may include:
  - Problem solving<sup>7</sup>
  - Knowledge of bonding
  - Calculations<sup>1</sup>
  - Drawing interpretation<sup>8</sup>
  - General work health and safety

*Essential Skills – <sup>1</sup>Numeracy, <sup>7</sup>Thinking (Problem Solving, Job Task Planning and Organizing),  
<sup>8</sup>Document Use*

## **4 EQUIPMENT, MATERIAL, CLOTHING**

### **4.1 Equipment and material provided by Skills/Compétences Canada**

- Each competitor will have a working area of least 9 m<sup>2</sup>. The floor surface will be even ( $\pm 5$  mm and 2 m long), horizontal and have an adequate loading capacity. There will be sufficient space for delivery and storage of material.
- There will be a space of 1 m between public barrier and the competitor materials.
- Each workstation floor area will be covered by a material that is suitable to set out and construct masonry
- Water supply
- Electric power
- Mortar board
- Water bucket
- Block (support for mortar board)
- Straight edges 2 m
- Static electric brick cutting machines (one machine for 2 competitors, if necessary)
- Wood for template if necessary
- 4 Husqvarna table saws with 14" diamond blades – Husqvarna model: MS 360
- Metric Square 24" – Steel - Stanley/Dewalt model: 45-910
- Tape rules 8m 26' - Stanley/Dewalt model: 33-726

**COMPETITORS WILL BE REQUIRED TO USE THE MATERIAL AND EQUIPMENT PROVIDED BY SCC. ALL OTHER MATERIAL AND EQUIPMENT WILL BE REMOVED FROM THE SKILL AREA.**

#### 4.2 Equipment and material provided by the competitor

- Line blocks
- Levels
- Steel jointers
- Trowel
- Slicker
- Hammer
- Square
- Chalk line
- Measuring tapes
- Brush
- Line
- Joint raker

#### 4.3 Required clothing (Provided by competitor)

- Appropriate clothing

### 5 SAFETY REQUIREMENTS

#### 5.1 Safety workshop

Upon arrival at the Skill area, 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 environment rules, may be required to undertake a second safety workshop, this will not affect the Competitor's competition time.

#### 5.2 List of required personal protective equipment (PPE) provided by competitors

- Safety Glasses
- Hard Hat
- Hearing protection
- CSA approved Safety shoes

### 6 ASSESSMENT

#### 6.1 Point breakdown

POINT BREAKDOWN		/100
Objective	Dimensions	20
	Levelling	12
	Plumb	17
	Alignment	10
	Angles	05
	Detail	16
Subjective	Health and Safety	05
	Joint Uniformity and finishing	10
	Overall appearance and cleanliness	05

## 7 ADDITIONAL INFORMATION

### 7.1 Consecutive translation

If consecutive translation is required on site, 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 might not be guaranteed.

### 7.2 Tie (No ties are allowed)

In the event of a tie, the competitor with the highest score for Plumb (vertical alignment) criteria will be declared the winner.

### 7.3 Test Project change at the Competition

Where the Test Project has been circulated to Competitors in advance, NTC shall change a maximum of 30% of the work content. Please refer to the Competition Rules.

### 7.4 Competition rules

Please refer to the competition rules of the Skills Canada National Competition.

## 8 NATIONAL TECHNICAL COMMITTEE MEMBERS

Member Organization	Name	Email address
Alberta	Richard Kokotilo	
Manitoba - Chair	Brian Gebhardt	bgebhardt@rrc.ca
Ontario	Tim Maxson	
Québec	Danny Groleau	
New Brunswick	Dwayne Giberson	
Saskatchewan	Brian Adams	