



CONTEST DESCRIPTION

Bricklaying

POST-SECONDARY

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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 next Skills Canada National Competition.

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

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

These essential skills have been identified in section 3.2 of your Contest Description and if applicable, in 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/skills/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 | November 2020 |

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, stonework and /or glass block
 - 15 to 30% Arch set out other detail
- The appropriate technical skills are
 - Measuring lengths¹
 - Calculating and marking of angles¹
 - Determining the layout⁷
 - Determining the gauge⁷
 - 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
 - Sloping or battering walls according to the drawing and using material indicated in 2.1 ⁸
 - Compliance with the plans⁸
 - Jointing pointing according to required profile⁸
 - Cleaning
- Material
 - Bricks, face bricks, backing bricks, uniformly baked or formed, dimensionally accurate and sharp-edge, blocks or stone maximum 15 kg (30 lbs.)¹
 - 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 degrees to be limited do a maximum of 25% of the total numbers of bricks.¹
- Technical assessment. This may include:
 - Problem solving⁷
 - Knowledge of bonding⁷
 - Calculations¹

- Drawing interpretation⁸
- General work health and safety

Essential Skills – ¹Numeracy, ⁷Thinking (Problem Solving, Job Task Planning and Organizing, Significant use of Memory), ⁸Document 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 m². The floor surface will be even (± 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 table saws with 14" diamond blades
- Metric Square 24"
- Tape rules 8m 26'

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

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.

4.2.1 Toolboxes Guidelines

One of the objectives of SCC is the sustainability of the Competition. As a result, the toolboxes brought by Competitors will be restricted to the following maximum specifications.

The Competitor toolbox must not exceed 1 meter³ in volume. It can be multiple toolbox but the total of all toolbox, must not exceed the maximum volume indicated. There is no exception to this rule. If the Competitor toolbox is larger than what is indicated, the Competitor with the guidance of the NTC, will need to remove items from the toolbox and those items will not be used during the competition. All tools must fit inside one or more toolboxes. Tools outside of a toolbox will not be permitted.

4.3 Required clothing provided by the 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 environmental rules, may be required to undertake a second safety workshop, this will not affect the Competitor's competition time.

5.2 Personal protective equipment (PPE) provided by Skills/Compétences Canada

- N/A

5.3 Personal protective equipment (PPE) provided by the competitor.

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

Note: Contestants who do not have the required protective gear will not be allowed to participate in the contest

6 ASSESSMENT

6.1 Point breakdown

| POINT BREAKDOWN | | /100 |
|-----------------|------------------------------------|------|
| Measurement | Dimensions | 20 |
| | Levelling | 12 |
| | Plumb | 16 |
| | Alignment | 15 |
| | Angles | 05 |
| | Detail | 14 |
| Judgement | Health and safety | 05 |
| | Joint uniformity and finishing | 08 |
| | Overall appearance and cleanliness | 05 |

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 competitor orientation.

| TOPIC/TASK | CONTEST SPECIFIC RULE |
|----------------------|---|
| Project distribution | Competitors will be receiving their final test project during competitor orientation. |

8 ADDITIONAL INFORMATION

8.1 Interpreter

If a competitor requires the help of an interpreter once onsite 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 might not be guaranteed.

8.2 Ties

- Tiebreaker #1: In the event of a tie, the competitor with the highest score for Plumb (vertical alignment) criteria will be declared the winner.
- Tiebreaker #2: If a second tie occurs, the competitor with the highest score in the Joint uniformity and finishing criteria will be declared the winner.
- Tiebreaker #3: If a third tie occurs the competitor with the highest score in the Detail criteria will be declared the winner.

8.3 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.

8.4 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 |
|---------------------|------------------|
| Alberta – Co-Chair | Richard Kokotilo |
| Manitoba – Chair | Brian Gebhardt |
| Ontario | Rene Letoile |
| Québec | TBD |
| New Brunswick | Ashley Ritchie |
| Saskatchewan | Brendon Lemon |
| British Columbia | Geoff Higginson |
| Nova Scotia | John Clark |

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