



2023 Provincial Skills Canada Competition



Contest Description

Edmonton Expo Centre, Edmonton

May 3 & May 4, 2023

EVENT: Architectural Technology and Design	LEVEL: Post-Secondary
WORLDSKILLS TRADE #: 52	LOCATION: HALL B, Edmonton Expo Centre, Edmonton
DURATION: 14.00 hours (two days, including breaks) 6.50 working hours on day 1 4.50 working hours on day 2	EQUIPMENT DROP OFF MAY 2: 5:00PM – 6:00PM EQUIPMENT SET UP AND TESTING MAY 2: 7:30PM – 8:30PM
COMPETITION SCHEDULE:	
Day 1 - May 3:	Day 2 - May 4:
ORIENTATION	7:45 AM – 8:00 AM
CONTEST REVIEW, Q&A	8:00 AM – 8:30 AM
COMPETITION BEGINS	8:30 AM
LUNCH	11:30 AM - 12:30 PM
COMPETITION ADJOURNS	4:00 PM
ORIENTATION	7:45 AM – 8:00 AM
COMPETITION RESUMES	8:00 AM
LUNCH	11:30 AM - 12:30 PM
COMPETITION ENDS	1:30 PM
CLOSING CEREMONY	6:30 PM – 8:00PM





CONTEST INTRODUCTION

Purpose of the Challenge

This challenge assesses technical knowledge of commercial building, industry standard construction practices, and the skills necessary to produce and print construction drawings using computer-aided design software. The competition will also gauge competitors' abilities to solve technical and functional problems to produce a building design. Competitors should be able to produce a relatively complete design and working drawing sets for a light commercial building.

PROJECT DESCRIPTION

Day 1. Competitors will be challenged with interpreting given information to develop a constructible architectural design solution for a light commercial building and surrounding site.

Day 2. Competitors will complete their drawings.

SKILLS AND KNOWLEDGE TO BE TESTED

Architecture – envelope design, space planning, materials selection, an awareness of environmental sustainability concepts and the application of barrier free design standards.

Engineering – structural determination (e.g. identify columns, beams and load bearing elements); building mechanical and electrical systems integration.

Construction – regulatory standards, assembly, maintainability, environmental considerations and sustainability.

Core Competencies

Competitors will be required to demonstrate knowledge and skills in the following areas:

- CADD application including (but not limited to) practical knowledge of building modeling, drawing setup, printing, dimensioning, and annotation.
- Architectural detailing skills in 2D and 3D.
- Planning design concepts, architectural space layout and relationships.
- Fundamentals of building structural systems and incorporate it with the building envelopes.
- Basic building M&E systems and their integration in the building.
- Presentation skills, including sheet layout, use of standard scale, illustration and graphical communication.
- Creation of digital drawings in PDF form to scale.



Equipment and Materials:

Competitors are required to bring their own device that is installed with licensed CADD application software necessary for the competition without requiring internet access. Each competitor can choose their own device and software so their workflow and process is what they are familiar with.

If competitors are bringing a computer or laptop from their school (instead of their personal computer), please ensure that the computer is unlocked (including available administrator access) 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.

Additionally, competitors are required to bring their own supplies required for the competition. These supplies are outlined below. Software manuals, textbooks, external hardware, or electronic data (e.g. CD or photocopied material) will NOT be permitted. During the competition, competitors may not access the internet or reference material (digital or hardcopy).

Equipment and Materials Competitors Must Supply:

Computer / Monitor(s) / Mouse / Keyboard	Empty USB memory stick – Min. 4 GB	Paper (for notes and sketching)	Calculator / Convertor
Scales (metric and imperial)	Pencils/pens	Extension Cord (as needed)	Computer locking device (optional)
Power Bar (as needed)	PDF Creation tool (Adobe, Bullzip, etc.)	ARCH D or ISO A1 title block for your selected software	

Bring Your Own Device (BYOD) Information

IMPORTANT: Competitors are required to bring their own device and software for their competition. Each competitor can choose their own device and software so their workflow and process is what they are familiar with.

Note, computers must remain inside the competition area for the duration of the competition from the time of equipment set-up and testing on Tuesday May 2nd, 2023 at 7:30pm to when the competition ends on Day 2 (including overnight), Thursday May 4th, 2023 at 1:30pm. Competitors may supply their own locking cables if they wish.

Equipment Set-Up and Testing for all event areas that are Bring Your Own Device will be held on Tuesday May 2, 2023 at 7:30pm (following opening ceremonies/registration).



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Equipment Set-up and Testing (for BYOD events)

Immediately following the Opening Ceremonies and registration, students who are competing in technology-based events that are a BYOD event will be given an opportunity to set up and test their equipment to ensure their equipment is fully functional and networked (where required) prior to the start of the competition. If preferred, this equipment can be dropped off to the contest site area no earlier than one hour prior to the start of the Opening Ceremonies. Only accredited students and educators will be permitted into the competition site for equipment drop off and testing. Students who miss the equipment and setup testing opportunity will need to set up their equipment AFTER the mandatory COMPETITOR ORIENTATION time on the day of competition. Any time that is required to set up and test their equipment on the competition day will be part of their overall competition time. The competition time for these competitors will NOT be extended.

Note

- Digital music players & cell phones (for listening to music only) are permitted with headphones during the competition provided the volume is not disruptive to other competitors. Cell phones must be set to airplane mode, and placed face-down on the table in clear sight of competition invigilators.
- Internet is not available.
- Internet access is not permitted during the competition.

JUDGING CRITERIA

Presentation

Showcasing creative design with respect Canadian construction standards, demonstrate architectural solutions and problem solving, and effective operation of CADD applications.

Accuracy of Drawing

Technical design and presentation including (but not limited to); architectural drafting standards, dimensioning, line type, line weight, annotation, hatch/fill patterns, standard symbols, etc.

Work Organization

- Graphic layout and presentation of architectural drawings, designs, and technical solutions.
- Demonstrate ability to follow conceptual design intent and specifications through to solutions of design and technical problems.
- Referencing of drawings and technical resources.
- Compliance with standards such as building codes and municipal guidance.
- Integration of Structural, Electrical and Mechanical systems.



Solutions and Assessment

Competitors will demonstrate technical competence in:

- resolving building construction and design problems;
- the application of architectural design and drafting standards; and
- the operation of industry standard CADD application(s).

Solutions shall be original, innovative, sustainable, energy efficient, complete, simple, functional, and durable for Alberta’s climate.

Weighting of Drawings and Solutions

POINT BREAKDOWN Day 1	
Cover Sheet	3%
Plans	25%
Exterior Elevation(s)	10%
Building Section(s)	10%
Wall Section(s)	8%
Elevator & Stair Plan and Section	14%
Total	70%

POINT BREAKDOWN Day 2	
Plan & Section Details	20%
Interior Plan Layout(s)	10%
Total	30%

Tie Breaking Process

Ties will be broken by the judges’ re-evaluation of the relevant documents for the tied competitors. Electronic file(s) may also be evaluated for the level of mastery of the software.

CLOTHING REQUIREMENT

It is important that competitors present a professional image and appearance. Appropriate work clothing must be worn to compete. Shoes must be closed toed. All clothing must be clean and free of rips and tears.

SAFETY

The health, safety and welfare of all individuals involved with Skills Canada Alberta are of vital importance. Safety is a condition of participation with Skills Canada Alberta and shall not be sacrificed for the sake of



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expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

ADDITIONAL INFORMATION

Skills Canada Alberta Regional and Provincial Rules and Regulations

[Regional and Provincial Rules and Regulations](#)

Lunch

Lunch for competitors will be provided by Skills Canada Alberta.

Parking & Venue Maps

<http://edmontonexpocentre.com/attend/parking/>

Opening Ceremonies / On-site Provincial Competitor Registration

Opening Ceremonies for the PSCC will take place on Tuesday May 2, 2023 at 6:00 pm in Hall D of the Edmonton EXPO Centre. Admission is free, and everyone is welcome to attend. It is important to note that competitor registration will open immediately following the Opening Ceremony.

Awards Ceremony

The Awards Ceremony will take place on Thursday May 4, 2023 at 6:30 pm in Hall D of the Edmonton EXPO Centre. Admission is free and everyone is welcome to attend. The Awards Ceremony will be shown live at <http://skillsalberta.com/>

Team Alberta Information

Team Alberta will be selected at the PSCC Awards Ceremony. Gold medalists will then be eligible to participate at the Skills Canada National Competition (SCNC) on May 24- 27, 2023 in Winnipeg MB. It is recommended that competitors review the SCNC contest description to be familiar with the national contest description and project at <http://www.skillscanada.com/>.

During the PSCC Awards Ceremony on Thursday May 4, 2023 gold medalists will be given their Team Alberta information package and will confirm their participation in the SCNC. Students must be present at the Awards Ceremony to claim their position on Team Alberta. If the Gold medalist is not able to attend SCNC, the next top ranking individuals will be asked to participate. If a student is not able to attend the Awards Ceremony a letter confirming the student's interest in Team Alberta participation must be emailed to javierad@skillsalberta.com prior to the start of competition on May 3, 2023.





Please prepare your students in advance to accept a position on Team Alberta and outline how your school will support their participation.

Test Project change at the Competition

Where the Test Project has been circulated to Competitors in advance, PTC can change a maximum of 30% of the work content.

Questions?

Please contact Kennedy Mayer at kennedym@skillsalberta.com if you have any questions regarding the Contest Description.

COMMITTEE MEMBERS

Jacob Waldbillig – Arcadis IBI Group
Peter Kelly – Medicine Hat College
William Thompson – SAIT

