



 <p>PARKLAND SCHOOL DIVISION</p>	<h2>Building Futures Handbook</h2>	 <p>Coventry Homes <small>Preferred Builder of the Edmonton Oilers</small></p>
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## **Safety**

Please recognize that there is inherent risk with participating in this program as students are actively working on the job site in collaboration with Coventry Homes. Safety processes for participating in this program are outlined in the [Parkland School Division Occupational Health & Safety Manual](#).

All students will complete CSTS (Construction Safety Training System) during the first week of school. WHMIS training is also contained inside of this course.

All students will complete HCS 3000 after going through CSTS as another course on safety.

Students all receive skill specific training prior to participating in different stages of the build.

Students are required to wear Personal Protective Equipment (PPE) specific to the job that they are participating in throughout the build as outlined below.

## **CTS Assessment**

As a general guideline for each construction credit, students will be expected to demonstrate:

- Adequate knowledge of theory
  - Students will be given opportunities to show their knowledge of theory through presentations, posters, slideshows, question and answer, videos, etc.
- Construction competencies while on site.
  - Students will demonstrate their knowledge individually or in small groups on site while working alongside the teacher or experienced tradespeople.
- Employability skills
  - attention to safety, dependability, quality of work, time management, problem solving, working with others (collaborating), care of tools and work space, and clean-up.

Breakdown of construction module credits will be:

- Theory: 40%
- Employability Skills: 10%
- Practical Skills: 50%

## **Projected Schedule**

<b>Month</b>	<b>Build Stages &amp; Checkpoints</b>
September	<ul style="list-style-type: none"> <li>● Staking out the site, Excavation, and Digging in the sewer line</li> <li>● Footing, Foundation Walls, Grade Beam, Weeping Tile and Backfill</li> </ul>
October	<ul style="list-style-type: none"> <li>● Framing</li> <li>● Plumbing Rough in</li> </ul>
November	<ul style="list-style-type: none"> <li>● Heating, Plumbing, Electrical Rough in</li> <li>● Concrete Garage</li> </ul>
December	<ul style="list-style-type: none"> <li>● Insulation Drywall, Paint</li> </ul>
January	<ul style="list-style-type: none"> <li>● Siding, Exterior</li> </ul>
February	<ul style="list-style-type: none"> <li>● 1st Stage finisher, Cabinets, Paint</li> </ul>
March	<ul style="list-style-type: none"> <li>● Tile, laminate, luxury vinyl plank</li> </ul>
April	<ul style="list-style-type: none"> <li>● Plumbing electrical final</li> </ul>
May	<ul style="list-style-type: none"> <li>● Cabinet Final cleanup</li> </ul>

June	Sales, Finance
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## **Trade specific safety specifications and credits possible**

### **Staking Out the Site, Excavation, and Digging in the Sewer Line**

Students will:

- identify and describe a typical building site layout and excavation processes
- complete an application for a building permit
- apply site preparation skills to assist in the location of building site lines and features

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credit earned:*

- CON 2010- Site Prep (1 credit)

### **Footing, Foundation Walls, Grade Beam, Weeping Tile, and Backfill**

Students will:

- list and describe factors that affect footing and wall design
- identify and describe common forming materials and processes
- apply concrete forming skills to assist in forming and placing a concrete foundation
- identify and describe concrete forming, placing and finishing techniques
- use the appropriate tools, materials and processes to form, reinforce, place and finish a concrete structure

**PPE- Hard hat, CSA steel toed boots, Safety Glasses, Rubber Boots**

*Credits earned:*

- CON 2020 – Concrete Forming (1 credit)
- CON 3010- Concrete Structures and Finishing (1 credit)

### **Framing - Floors, Walls, & Roof**

Students will:

- identify and describe the parts of a floor, wall, and roof framing system
- read and interpret the appropriate drawings and specifications to create a floor, wall, and roof framing and sheathing estimate
- apply framing skills to assist in the layout and construction of floor, wall, and roof components

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credits earned:*

- *Con 2035 - Framing Systems - Floor (1 credit)*
- *Con 2045 - Framing Systems - Wall 2045 (1 credit)*
- *Con 2050 - Roof Structures 1 (1 credit)*

**Plumbing Rough In & Ground Works**

Students will:

- identify and describe the parts of a residential plumbing system
- create a drawing of a water supply system and a DWV system for a typical plumbing fixture
- apply plumbing skills to assist in the installation of a water supply system and a DWV system

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credit earned:*

- *Con 2080 - Plumbing Systems (1 Credit)*

**Heating Rough In**

Students will:

- list and describe the major components of a typical HVAC system
- prepare a preventive maintenance schedule for an HVAC system
- service or install an HVAC system

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credit earned:*

- *Con 2090 - Climate Control Systems (1 Credit)*

**Electrical Rough In**

Students will:

- list and describe the electrical systems and components associated with residential wiring
- apply wiring principles and code requirements to create a wiring diagram
- apply wiring skills to assist in the installation of a residential wiring system

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credit earned:*

- *Con 2070 - Electrical Systems (1 Credit)*

### **Concrete Floor - Basement & Garage**

Students will:

- identify and describe concrete forming, placing and finishing techniques
- use the appropriate tools, materials and processes to form, reinforce, place and finish a concrete structure

**PPE- Hard hat, CSA steel toed boots, Safety Glasses, Rubber Boots**

*Credits earned:*

- *CON 2020 – Concrete Forming (1 credit)*
- *CON 3010- Concrete Structures and Finishing (1 credit)*

### **Insulation, Drywall, Taping & Mudding, Priming & Texturing**

Students will:

- describe the procedures related to the installation of insulation and vapour barrier to an exterior wall and ceiling
- identify and describe the health hazards and safety precautions associated with the use of insulating, drywalling and finishing materials
- prepare, apply and finish a wall and ceiling surface

**PPE- Hard hat, CSA steel toed boots, Safety Glasses, Mask, Students may want a change of clothes**

*Credits earned:*

- *CON 3030 - Wall and ceiling finish (1 credit)*

### **1st Stage Finisher**

Students will:

- identify common types of doors, hardware and trim products
- install doors, mouldings and other trim products

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credits earned:*

- *CON 3060 - Doors and Trim (1 credit)*

## **Cabinets**

Students will:

- design a room layout and prepare a cabinet schedule
- lay out and install a set of cabinets and countertops

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credits earned:*

- *CON 3170 - Cabinetmaking - Layout and Installation (1 Credit)*

## **Stair & Railing Finish**

Students will:

- identify and describe different stair types, component parts and construction techniques
- interpret building code regulations pertaining to residential stair design
- design, lay out and construct a straight flight of stairs

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credit earned:*

- *CON 3040 - Stair Construction (1 credit)*

## **Paint**

Students will:

- prepare, apply and finish a wall and ceiling surface

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credit Earned:*

- *Enhance requirements for CON 3030 - Wall and ceiling finish*

## **Tile, Laminate Floor or Luxury Vinyl Plank**

Students will:

- identify and describe common types of residential, institutional and commercial floorcoverings
- apply flooring skills to assist in the installation of a floorcovering

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credit earned:*

- *CON 3070- Floor covering (1 credit)*

**Plumbing & Electrical Final**

Students will:

- Enhance CON 2070 and 2080

**PPE- Hard hat, CSA steel toed boots, Safety Glasses**

*Credit Earned:*

- *Enhance requirements for CON 2080 Plumbing Systems (1 credit)*
- *CON 2070 Electrical Systems (1 credit)*

**Cabinet Final, 2nd Stage Finisher, Construction Clean, Window Lockout, Shelves/Mirrors, Furnace Vacuum, House Prep & Final Inspections**

Students will:

- identify and describe the key elements of project management related to commercial and residential construction
- outline the roles and responsibilities of the principal players on a construction project
- apply site management theories and practices to create a management plan for a construction project

**PPE - safety glasses**

*Credit earned:*

- *CON 3110 - Site Management (1 credit)*